



Full wwPDB X-ray Structure Validation Report

Jun 16, 2014 – 07:10 PM BST

PDB ID : 4V5J
Title : Structure of the 70S ribosome bound to Release factor 2 and a substrate analog provides insights into catalysis of peptide release
Authors : Jin, H.; Kelley, A.C.; Loakes, D.; Ramakrishnan, V.
Deposited on : 2010-03-24
Resolution : 3.10 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>

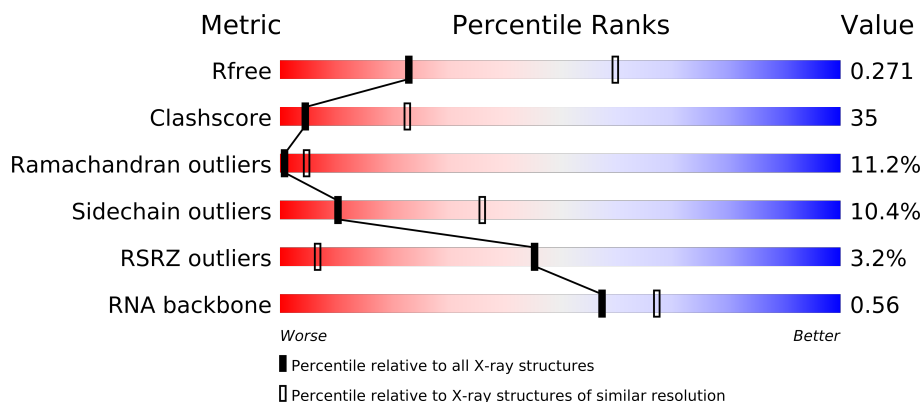
The following versions of software and data (see [references](#)) were used in the production of this report:

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 3.10 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	1007 (3.18-3.02)
Clashscore	79885	1078 (3.16-3.04)
Ramachandran outliers	78287	1044 (3.16-3.04)
Sidechain outliers	78261	1044 (3.16-3.04)
RSRZ outliers	66119	1008 (3.18-3.02)
RNA backbone	1838	1047 (3.60-2.60)

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	1522	
1	CA	1522	
2	AB	256	
2	CB	256	
3	AC	239	
3	CC	239	
4	AD	209	
4	CD	209	
5	AE	162	
5	CE	162	
6	AF	101	
6	CF	101	

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Mol	Chain	Length	Quality of chain
7	AG	156	
7	CG	156	
8	AH	138	
8	CH	138	
9	AI	128	
9	CI	128	
10	AJ	105	
10	CJ	105	
11	AK	129	
11	CK	129	
12	AL	132	
12	CL	132	
13	AM	126	
13	CM	126	
14	AN	61	
14	CN	61	
15	AO	89	
15	CO	89	
16	AP	88	
16	CP	88	
17	AQ	105	
17	CQ	105	
18	AR	88	
18	CR	88	
19	AS	93	
19	CS	93	
20	AT	106	
20	CT	106	
21	AU	27	
21	CU	27	
22	AV	77	
22	AW	77	
22	CV	77	
22	CW	77	
23	AX	8	
23	CX	8	
24	AY	351	
24	CY	351	
25	B0	85	
25	D0	85	
26	B1	98	
26	D1	98	

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Mol	Chain	Length	Quality of chain
27	B2	72	
27	D2	72	
28	B3	60	
28	D3	60	
29	B4	71	
29	D4	71	
30	B5	60	
30	D5	60	
31	B6	54	
31	D6	54	
32	B7	49	
32	D7	49	
33	B8	65	
33	D8	65	
34	B9	37	
34	D9	37	
35	BA	2915	
35	DA	2915	
36	BB	122	
36	DB	122	
37	BC	229	
37	DC	229	
38	BD	276	
38	DD	276	
39	BE	206	
39	DE	206	
40	BF	210	
40	DF	210	
41	BG	182	
41	DG	182	
42	BH	180	
42	DH	180	
43	BI	148	
43	DI	148	
44	BJ	130	
44	DJ	130	
45	BK	147	
45	DK	147	
46	BN	140	
46	DN	140	
47	BO	122	
47	DO	122	

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Mol	Chain	Length	Quality of chain
48	BP	150	
48	DP	150	
49	BQ	141	
49	DQ	141	
50	BR	118	
50	DR	118	
51	BS	112	
51	DS	112	
52	BT	146	
52	DT	146	
53	BU	118	
53	DU	118	
54	BV	101	
54	DV	101	
55	BW	113	
55	DW	113	
56	BX	96	
56	DX	96	
57	BY	110	
57	DY	110	
58	BZ	206	
58	DZ	206	

2 Entry composition

There are 61 unique types of molecules in this entry. The entry contains 305067 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.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	1504	Total	C	N	O	P	0	0	0
			32329	14390	5992	10444	1503			
1	CA	1504	Total	C	N	O	P	0	0	0
			32329	14390	5992	10444	1503			

- Molecule 2 is a protein called 30S RIBOSOMAL PROTEIN S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AB	235	Total	C	N	O	S	0	0	1
			1901	1213	342	341	5			
2	CB	235	Total	C	N	O	S	0	0	1
			1901	1213	342	341	5			

- Molecule 3 is a protein called 30S RIBOSOMAL PROTEIN S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AC	207	Total	C	N	O	S	0	0	1
			1613	1016	315	281	1			
3	CC	207	Total	C	N	O	S	0	0	1
			1613	1016	315	281	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	CD	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	1
			1147	724	218	201	4			
5	CE	151	Total	C	N	O	S	0	0	1
			1147	724	218	201	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	CF	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	CG	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	CH	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	CI	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	99	Total	C	N	O	S	0	0	1
			795	499	157	138	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	CJ	99	Total	C	N	O	S	0	0	1
			795	499	157	138	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	CK	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	125	Total	C	N	O	S	0	0	1
			971	611	196	163	1			
12	CL	125	Total	C	N	O	S	0	0	1
			971	611	196	163	1			

- Molecule 13 is a protein called 30S RIBOSOMAL PROTEIN S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	AM	125	Total	C	N	O	S	0	0	1
			988	611	206	169	2			
13	CM	125	Total	C	N	O	S	0	0	1
			988	611	206	169	2			

- Molecule 14 is a protein called 30S RIBOSOMAL PROTEIN S14 TYPE Z.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	AN	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			
14	CN	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	CO	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	84	Total	C	N	O	S	0	0	1
			701	443	140	117	1			
16	CP	84	Total	C	N	O	S	0	0	1
			701	443	140	117	1			

- Molecule 17 is a protein called 30S RIBOSOMAL PROTEIN S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	AQ	100	Total	C	N	O	S	0	0	1
			824	528	152	142	2			
17	CQ	100	Total	C	N	O	S	0	0	1
			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	CR	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	79	Total	C	N	O	S	0	0	1
			630	403	115	110	2			
19	CS	79	Total	C	N	O	S	0	0	1
			630	403	115	110	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
			763	470	162	129	2			
20	CT	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			

- Molecule 21 is a protein called 30S RIBOSOMAL PROTEIN THX.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	AU	25	Total	C	N	O	0	0	1
			209	128	51	30			
21	CU	25	Total	C	N	O	0	0	1
			209	128	51	30			

- Molecule 22 is a RNA chain called E-SITE TRNA PHE OR P-SITE TRNA PHE (UNMODIFIED BASES).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AV	77	Total	C	N	O	P	0	0	0
			1630	732	292	531	75			
22	AW	77	Total	C	N	O	P	0	0	0
			1630	732	292	531	75			
22	CV	77	Total	C	N	O	P	0	0	0
			1630	732	292	531	75			
22	CW	77	Total	C	N	O	P	0	0	0
			1630	732	292	531	75			

- Molecule 23 is a RNA chain called MRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	AX	8	Total	C	N	O	P	0	0	0
			165	76	29	53	7			
23	CX	8	Total	C	N	O	P	0	0	0
			165	76	29	53	7			

- Molecule 24 is a protein called PEPTIDE CHAIN RELEASE FACTOR 2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	AY	351	Total	C	N	O	S	0	0	0
			2801	1752	506	535	8			
24	CY	351	Total	C	N	O	S	0	0	0
			2801	1752	506	535	8			

- Molecule 25 is a protein called 50S RIBOSOMAL PROTEIN L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	B0	83	Total	C	N	O	S	0	0	0
			657	407	139	110	1			
25	D0	83	Total	C	N	O	S	0	0	0
			657	407	139	110	1			

- Molecule 26 is a protein called 50S RIBOSOMAL PROTEIN L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	B1	94	Total	C	N	O	S	0	0	1
			732	460	146	125	1			
26	D1	94	Total	C	N	O	S	0	0	1
			732	460	146	125	1			

- Molecule 27 is a protein called 50S RIBOSOMAL PROTEIN L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	B2	71	Total	C	N	O	S	0	0	0
			598	370	121	106	1			
27	D2	71	Total	C	N	O	S	0	0	0
			598	370	121	106	1			

- Molecule 28 is a protein called 50S RIBOSOMAL PROTEIN L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	B3	60	Total	C	N	O	S	0	0	1
			468	298	91	78	1			
28	D3	60	Total	C	N	O	S	0	0	1
			468	298	91	78	1			

- Molecule 29 is a protein called 50S RIBOSOMAL PROTEIN L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	B4	31	Total	C	N	O	S	0	0	1
			226	142	37	43	4			
29	D4	31	Total	C	N	O	S	0	0	1
			226	142	37	43	4			

- Molecule 30 is a protein called 50S RIBOSOMAL PROTEIN L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	B5	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			
30	D5	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			

- Molecule 31 is a protein called 50S RIBOSOMAL PROTEIN L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	B6	45	Total	C	N	O	S	0	0	1
			381	235	78	64	4			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	D6	45	Total	C	N	O	S	0	0	1
			381	235	78	64	4			

- Molecule 32 is a protein called 50S RIBOSOMAL PROTEIN L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	B7	49	Total	C	N	O	S	0	0	1
			419	257	105	55	2			
32	D7	49	Total	C	N	O	S	0	0	1
			419	257	105	55	2			

- Molecule 33 is a protein called 50S RIBOSOMAL PROTEIN L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	B8	64	Total	C	N	O	S	0	0	1
			508	326	102	78	2			
33	D8	64	Total	C	N	O	S	0	0	1
			508	326	102	78	2			

- Molecule 34 is a protein called 50S RIBOSOMAL PROTEIN L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	B9	36	Total	C	N	O	S	0	0	0
			299	183	67	46	3			
34	D9	36	Total	C	N	O	S	0	0	0
			299	183	67	46	3			

- Molecule 35 is a RNA chain called 23S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	BA	2901	Total	C	N	O	P	0	0	0
			62474	27806	11681	20087	2900			
35	DA	2901	Total	C	N	O	P	0	0	0
			62474	27806	11681	20087	2900			

- Molecule 36 is a RNA chain called 5S RIBOSOMAL RNA.

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

- Molecule 37 is a protein called 50S RIBOSOMAL PROTEIN L1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	BC	120	Total	C	N	O	S	0	0	0
			937	590	174	172	1			
37	DC	120	Total	C	N	O	S	0	0	0
			937	590	174	172	1			

- Molecule 38 is a protein called 50S RIBOSOMAL PROTEIN L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	BD	272	Total	C	N	O	S	0	0	1
			2105	1329	417	356	3			
38	DD	272	Total	C	N	O	S	0	0	1
			2105	1329	417	356	3			

- Molecule 39 is a protein called 50S RIBOSOMAL PROTEIN L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	BE	205	Total	C	N	O	S	0	0	1
			1564	988	300	270	6			
39	DE	205	Total	C	N	O	S	0	0	1
			1564	988	300	270	6			

- Molecule 40 is a protein called 50S RIBOSOMAL PROTEIN L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	BF	208	Total	C	N	O	S	0	0	1
			1624	1035	304	282	3			
40	DF	208	Total	C	N	O	S	0	0	1
			1624	1035	304	282	3			

- Molecule 41 is a protein called 50S RIBOSOMAL PROTEIN L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	BG	181	Total	C	N	O	S	0	0	0
			1474	942	268	260	4			
41	DG	181	Total	C	N	O	S	0	0	0
			1474	942	268	260	4			

- Molecule 42 is a protein called 50S RIBOSOMAL PROTEIN L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	BH	160	Total	C	N	O	S	0	0	1
			1223	773	229	220	1			
42	DH	160	Total	C	N	O	S	0	0	1
			1223	773	229	220	1			

- Molecule 43 is a protein called 50S RIBOSOMAL PROTEIN L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BI	146	Total	C	N	O	S	0	0	1
			1132	723	201	207	1			
43	DI	146	Total	C	N	O	S	0	0	1
			1132	723	201	207	1			

- Molecule 44 is a protein called 50S RIBOSOMAL PROTEIN L10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	BJ	130	Total	C	N	O		0	0	0
			651	390	130	131				
44	DJ	130	Total	C	N	O		0	0	0
			651	390	130	131				

- Molecule 45 is a protein called 50S RIBOSOMAL PROTEIN L11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	BK	141	Total	C	N	O	S	0	0	1
			1038	661	184	187	6			
45	DK	141	Total	C	N	O	S	0	0	1
			1038	661	184	187	6			

- Molecule 46 is a protein called 50S RIBOSOMAL PROTEIN L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	BN	139	Total	C	N	O	S	0	0	1
			1105	712	207	182	4			
46	DN	139	Total	C	N	O	S	0	0	1
			1105	712	207	182	4			

- Molecule 47 is a protein called 50S RIBOSOMAL PROTEIN L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	BO	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	DO	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

- Molecule 48 is a protein called 50S RIBOSOMAL PROTEIN L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	BP	146	Total	C	N	O	S	0	0	0
			1114	692	227	193	2			
48	DP	146	Total	C	N	O	S	0	0	0
			1114	692	227	193	2			

- Molecule 49 is a protein called 50S RIBOSOMAL PROTEIN L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	BQ	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			
49	DQ	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			

- Molecule 50 is a protein called 50S RIBOSOMAL PROTEIN L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	BR	117	Total	C	N	O		0	0	0
			960	599	202	159				
50	DR	117	Total	C	N	O		0	0	0
			960	599	202	159				

- Molecule 51 is a protein called 50S RIBOSOMAL PROTEIN L18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	BS	99	Total	C	N	O		0	0	1
			771	486	155	130				
51	DS	99	Total	C	N	O		0	0	1
			771	486	155	130				

- Molecule 52 is a protein called 50S RIBOSOMAL PROTEIN L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	BT	138	Total	C	N	O	S	0	0	1
			1142	710	235	196	1			
52	DT	138	Total	C	N	O	S	0	0	1
			1142	710	235	196	1			

- Molecule 53 is a protein called 50S RIBOSOMAL PROTEIN L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	BU	117	Total	C	N	O	S	0	0	0
			958	604	202	151	1			
53	DU	117	Total	C	N	O	S	0	0	0
			958	604	202	151	1			

- Molecule 54 is a protein called 50S RIBOSOMAL PROTEIN L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	BV	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			
54	DV	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			

- Molecule 55 is a protein called 50S RIBOSOMAL PROTEIN L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	BW	113	Total	C	N	O	S	0	0	0
			896	563	176	155	2			
55	DW	113	Total	C	N	O	S	0	0	0
			896	563	176	155	2			

- Molecule 56 is a protein called 50S RIBOSOMAL PROTEIN L23.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
56	BX	93	Total	C	N	O	0	0	1
			726	471	132	123			
56	DX	93	Total	C	N	O	0	0	1
			726	471	132	123			

- Molecule 57 is a protein called 50S RIBOSOMAL PROTEIN L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
57	BY	101	Total	C	N	O	S	0	0	1
			776	500	149	123	4			
57	DY	101	Total	C	N	O	S	0	0	1
			776	500	149	123	4			

- Molecule 58 is a protein called 50S RIBOSOMAL PROTEIN L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
58	BZ	185	Total	C	N	O	S	0	0	1
			1468	936	262	268	2			
58	DZ	185	Total	C	N	O	S	0	0	1
			1468	936	262	268	2			

- Molecule 59 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	BA	357	Total	Mg	0	0
			357	357		
59	CA	155	Total	Mg	0	0
			155	155		
59	DF	1	Total	Mg	0	0
			1	1		
59	CV	7	Total	Mg	0	0
			7	7		
59	AW	4	Total	Mg	0	0
			4	4		
59	B1	1	Total	Mg	0	0
			1	1		
59	CD	1	Total	Mg	0	0
			1	1		
59	AX	1	Total	Mg	0	0
			1	1		
59	AS	1	Total	Mg	0	0
			1	1		
59	B5	2	Total	Mg	0	0
			2	2		
59	BB	4	Total	Mg	0	0
			4	4		
59	BT	1	Total	Mg	0	0
			1	1		
59	DG	1	Total	Mg	0	0
			1	1		
59	BF	2	Total	Mg	0	0
			2	2		
59	AV	7	Total	Mg	0	0
			7	7		
59	BX	1	Total	Mg	0	0
			1	1		
59	AA	161	Total	Mg	0	0
			161	161		
59	CX	1	Total	Mg	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	CN	1	Total 1	Mg 1	0	0
59	DD	1	Total 1	Mg 1	0	0
59	DH	1	Total 1	Mg 1	0	0
59	DS	1	Total 1	Mg 1	0	0
59	BG	1	Total 1	Mg 1	0	0
59	BY	1	Total 1	Mg 1	0	0
59	DX	1	Total 1	Mg 1	0	0
59	DA	359	Total 359	Mg 359	0	0
59	AL	1	Total 1	Mg 1	0	0
59	DE	1	Total 1	Mg 1	0	0
59	AY	1	Total 1	Mg 1	0	0
59	D1	1	Total 1	Mg 1	0	0
59	DP	1	Total 1	Mg 1	0	0
59	CW	4	Total 4	Mg 4	0	0
59	D5	2	Total 2	Mg 2	0	0
59	BD	2	Total 2	Mg 2	0	0
59	CS	1	Total 1	Mg 1	0	0
59	CL	2	Total 2	Mg 2	0	0
59	DB	4	Total 4	Mg 4	0	0

- Molecule 60 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	CN	1	Total 1	Zn 1	0	0
60	AN	1	Total 1	Zn 1	0	0
60	B9	1	Total 1	Zn 1	0	0
60	D9	1	Total 1	Zn 1	0	0
60	CD	1	Total 1	Zn 1	0	0
60	AD	1	Total 1	Zn 1	0	0

- Molecule 61 is water.

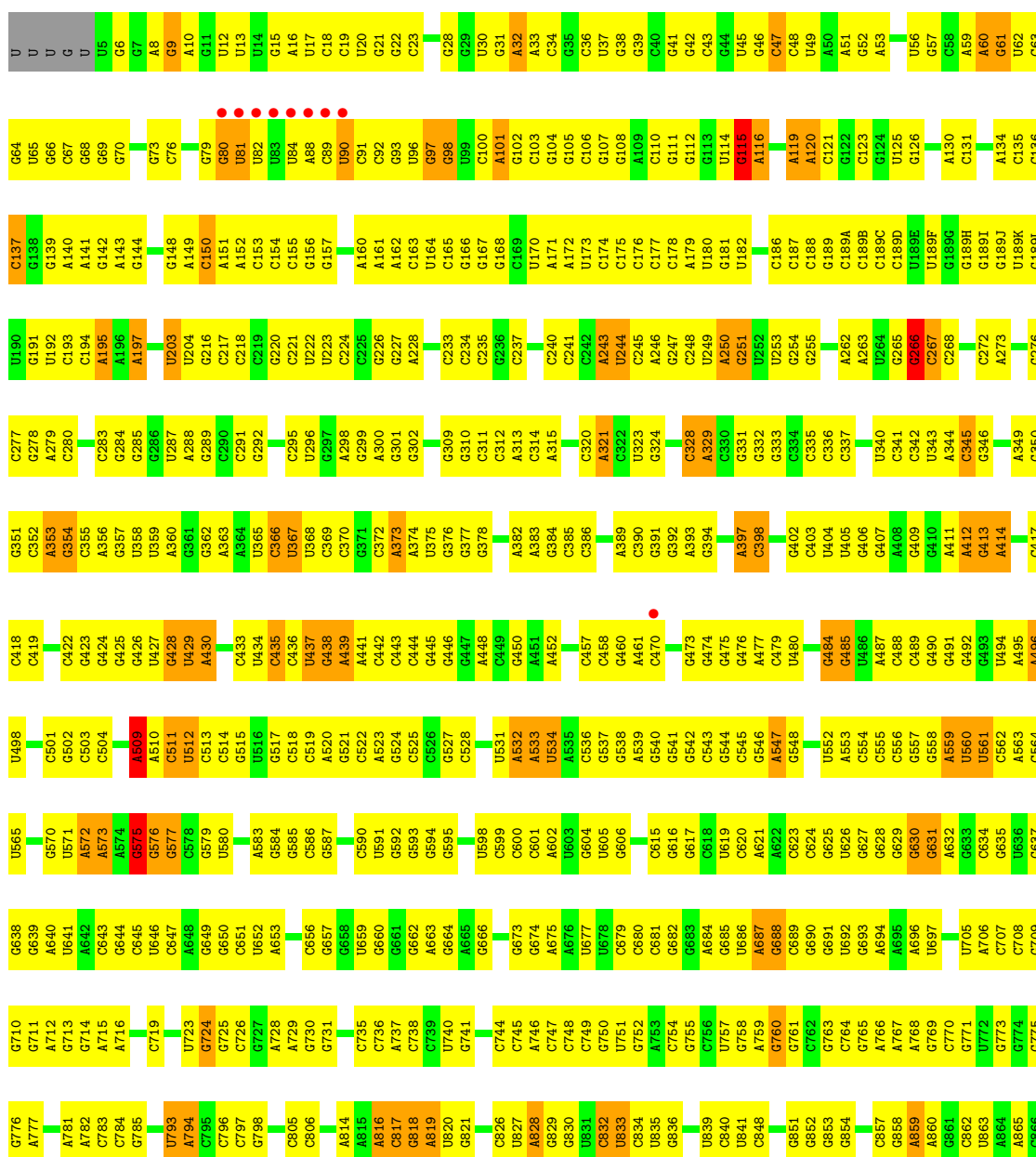
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	AV	1	Total 1	O 1	0	0
61	AY	1	Total 1	O 1	0	0
61	BA	1	Total 1	O 1	0	0

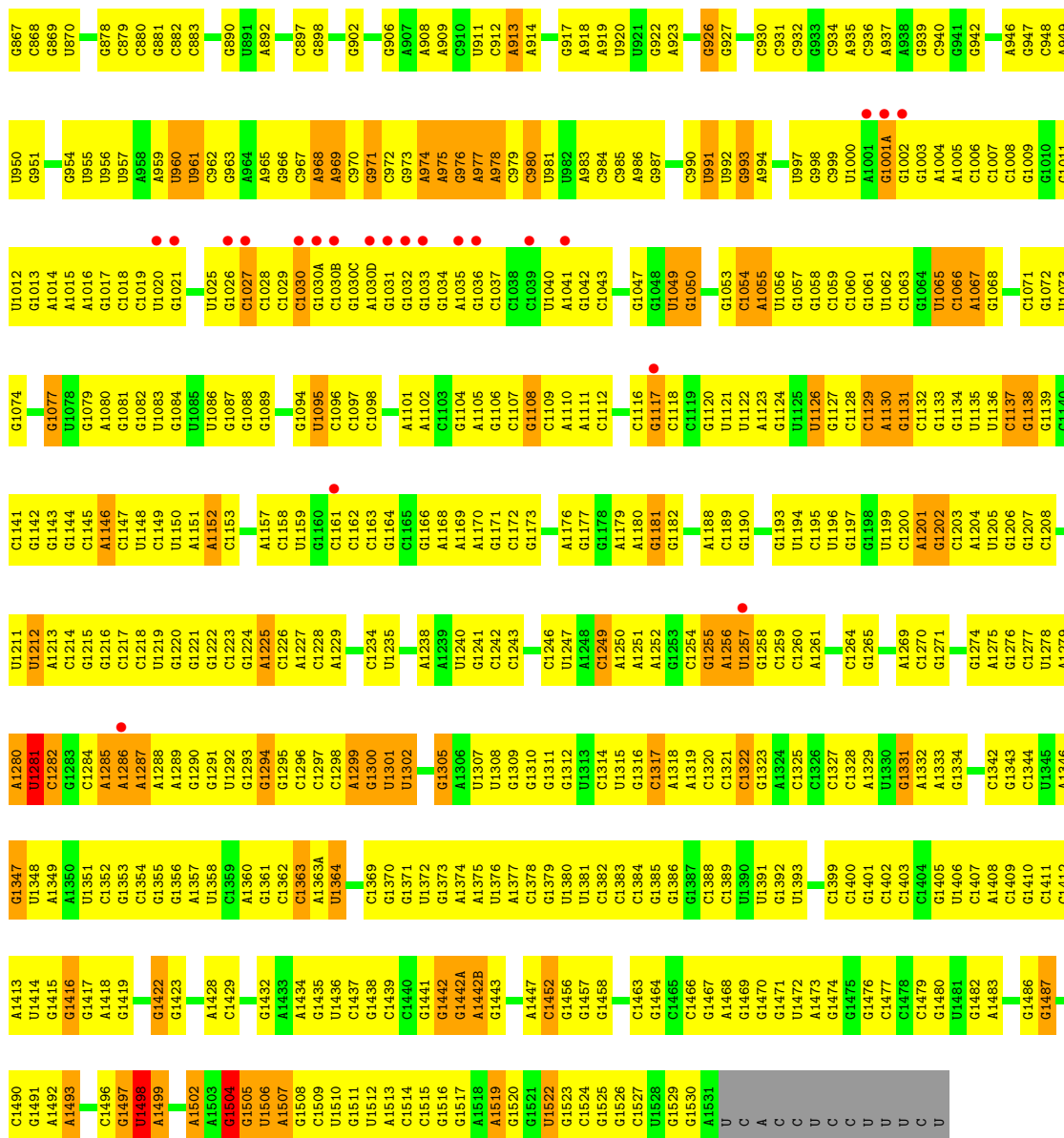
3 Residue-property plots

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

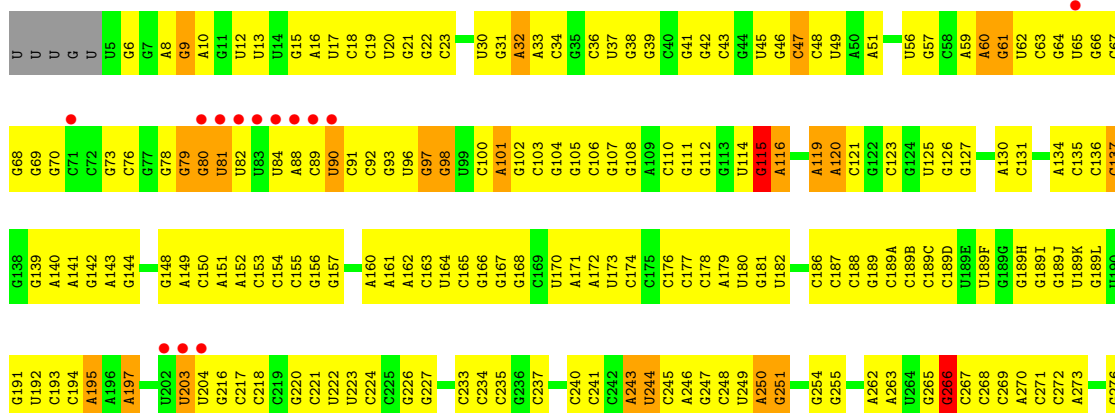
Chain AA: 



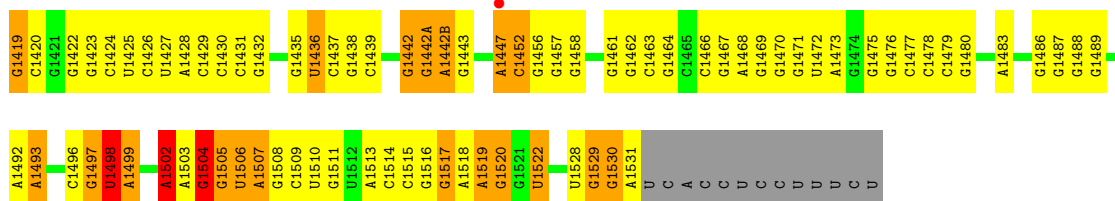


• Molecule 1: 16S rRNA

Chain CA:

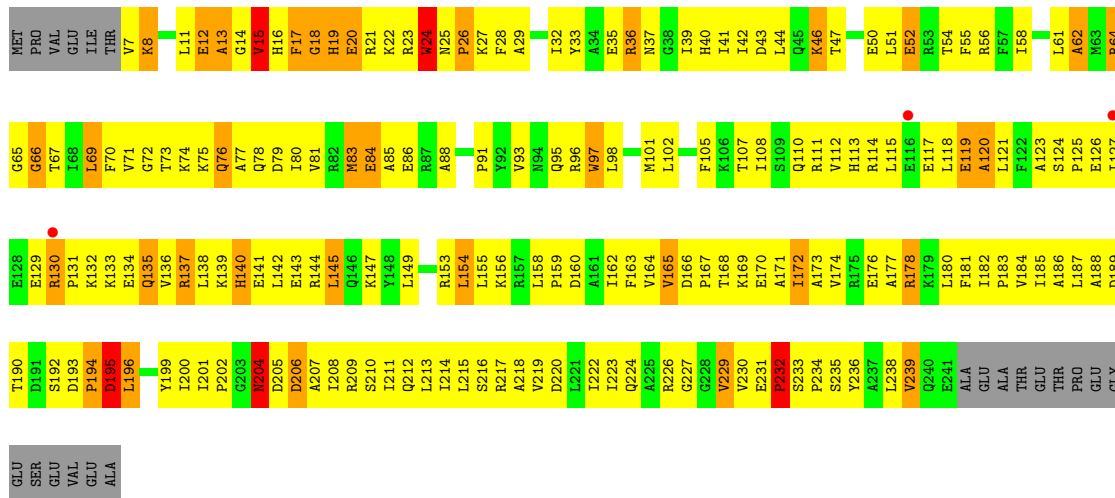


A1350	G1283	G1144	G1077	A1015	U952	G869	G785	A715	G643	G570	C501	U420	G354	C277
U1351	C1284	C1145	U1078	A1016	G953	U870	A790	A716	G644	U571	C502	U421	C355	G278
A1285	A1285	A1146	G1079	G1017	G954	G878			G645	A572	G503	C422	A356	A279
G1353	C1217	A1080	A1080	C1018	U955	C879	U793	C719	U646	A573	C504	C423	G357	C280
C1354	C1218	U1148	G1081	C1019	U956	C880	U794	U723	G647	A574		G424	U358	
G1355	U1219	U1149	G1082	U1020	U957	G881	C795	G724	G648	G575	A509	G425	U359	C283
G1356	G1220	U1150	U1083	G1021	A958	C882	C796	G725	G649	G576	A510	U426	A360	G284
A1357	G1221	A1151	U1084	U1025	A959	C883	C797	G726	G650	G577	A511	U427	G361	G285
U1358	G1222	A1152	U1085	G1026	U960	G884	C798	G727	G651	G578	A512	U428	G362	
C1359	G1223	C1153	U1086	C1027	U961	G885	G798	G728	U652	C579	U513	U429	A363	C289
G1360	G1224		G1087	C1028	G962	G886		G729	A653	A583	C513	A430	A364	C290
G1361	A1225	A1157	G1088	C1029	G963	G888	A802	G730	G656	G584	C514		U365	C291
G1362	C1226	U1158	G1089	C1030	A964		U894	G731	G657	G585	C515		C366	G292
C1363	A1227	U1159		G1030A	A965	G888			G658	G587	U516		U367	
A1363A	C1228	G1160	G1094	G1030B	G966	C897	C805	C735	G659		G517	C435	U368	C295
U1364	A1229	C1161	U1095	G1030C	C967	C898	C806	C736	G660		C518	C436	C369	U296
C1369	A1230	C1162	C1096	G1030D	A968			C737	G661	C590	C519	U437	C370	G297
G1370	C1234	C1163	C1097	G1031	A969	G902	A814	A737	G662	U591	A520	G438	G371	A298
G1371	U1235	G1164	C1098	G1032	C970		A815	C738	G663	G592	G521	A439	C372	G299
G1372	A1238	G1165		G1033	G971	A908	A816	C739	G664	G593	C522	A441	A373	A300
A1373	U1239	C1166	A1101	G1034	C972	A909	C817	U740	G665	G594	A523	C442	A374	G301
A1374	A1240	A1168	C1102	A1035	A973	C910	G818	G741	G666	G595	C524	C443	U375	G302
A1375	G1307	A1169	C1103	G1036	A974	C911	G819	G742	G667		G525	C444	U376	
U1376	C1241	G1170	G1104	G1037	A975	C912	G820	U743	G668	U598	G527	C445	G377	G309
U1377	C1242	G1171	A1105	C1037	G976	A913	G821	C744	G673	C599	C528	G446	G378	G310
G1378	C1243	C1172	G1106		A977	A914		C745	G674	C600		G447		G311
G1379	C1246	G1173	C1107	U1040	A978		C826	A746	A675	C601	U531	G448	A382	C312
G1380	U1247	A1176	G1108	A1041	A979	G917	U827	C747	A676	C602	A532	C449	A383	A313
U1381	A1248	G1177	C1109	G1042	C980	A918	A828	C748	U677	G603	U533	C450	G384	C314
C1382	C1249	G1178	A1110	C1043	U981	A919	G829	C749	U678	U604	U534	C451	G385	A315
C1383	A1250	A1179	C1112	G1047	C984	U921	U831	G750	C680	G605	C536	A452	C386	
C1384	A1251	A1180	C1116	G1048	C985	U922	C832	G751	C681	C615	G537	C457	U387	A321
G1385	A1252	G1181	C1117	U1049	A986	G923	C833	A753	G682	G616	U538	C458	G388	C322
G1386	G1253	G1182	C1118	G1050	G987	C924	U835	G755	U683	G617	G540	G460	U323	U323
G1387	C1254			U1051	C988	G925	G836	C756	G684		G541	A461	G390	G324
C1388	G1255	A1188	U1121	C1052	C990	G926			G685	C620	G542	C470	G392	C328
C1389	A1256	C1189	U1122	G1053	U991	G927	U837	U757	U686	A621	C543		A393	A329
U1390	U1257	G1190	A1123	C1054	U992	G928	C840	G758	A687	G622	C544	G473	G394	C330
G1391	C1258		U1124	U1055	G993	G929	U841	A759	G688	C623	C545	G474		G331
U1392	C1259	G1193	U1125	G1056	A994	C930	C848	G760	C689	C624	G546	G475	A397	G332
C1393	A1261	U1194	U1126	G1057	U997	C931		G761	G690	G625	A547	G476	C398	G333
		C1195	C1127	G1058	C998	G932	G851	G764	G691	U626	U552	C477	G402	C334
		U1196	C1128	C1059	C999	G933	G852	G765	G692	G627	A553	U480	C403	C335
		G1197	C1129	C1060	C999	C934	G853	G766	G693	G628			U404	C336
		U1199	A1130	U1061	U1000	A935	G854	A766	A694	G629	C556	G484	U405	A338
		C1200	G1131	C1063	A1001	C936		A767	A695	G630	G557	U486	G406	C339
		U1199	U1126	G1064	G1001A	A937	C857	G769	U697	G631	G558	A487	G407	U340
		A1201	C1132	G1065	G1002	G938	G858	C770	U705	A632	A559	C488	A408	C341
		G1202	G1133	C1066	G1003	C940	A889	G771	A706	G633	U560	C489	G409	C342
		C1203	G1134	U1067	A1004	G941	A890	G775	C707	C634	U561	C490	U410	U343
		U1204	U1135	G1068	A1005	G942	G861	G776	C708	G635	C562	G491	A411	A344
		U1205	C1137		C1006		U862	G777	G709	U636	A563	G492	A412	C345
		G1206	G1138	G1071	C1007	A946	U863	A777	G710	G638	C564	G493	G413	
		G1207	G1139	G1072	G1008	G947	A864		G711	G639	U565	C494	A414	A349
		C1208	G1140	U1073	G1009	C948	A865	A781	A712	G640	G566	U495		G350
			C1141	G1074	U1012	A949	C866	A782	A713	A640	G567	A496	C417	G351
		U1211	C1142	C1075	G1013	U950	G867	C783	G714	U641	G568	A497	C418	C352
		A1212	G1143	C1076	A1014	G951	C868	C784			C569	U498	C419	A353



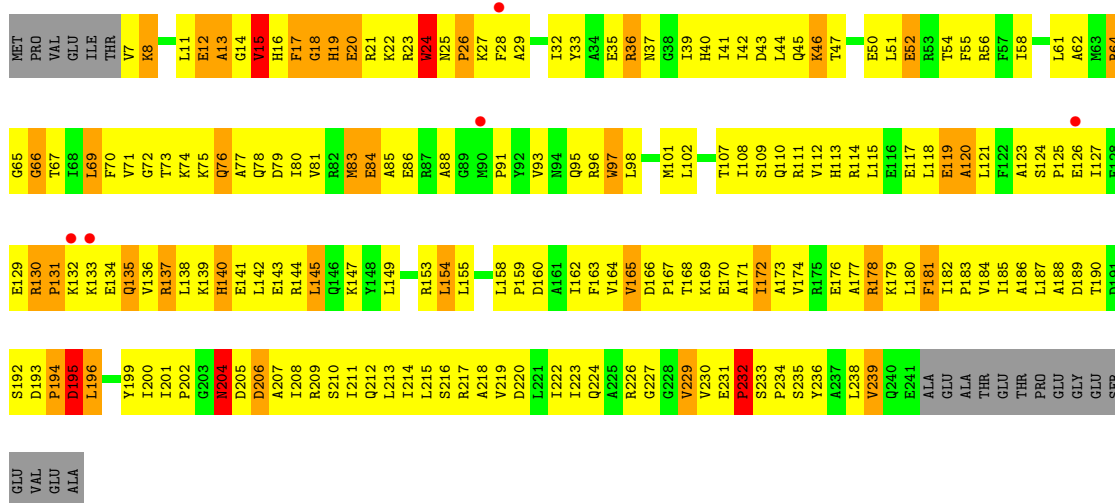
• Molecule 2: 30S RIBOSOMAL PROTEIN S2

Chain AB:



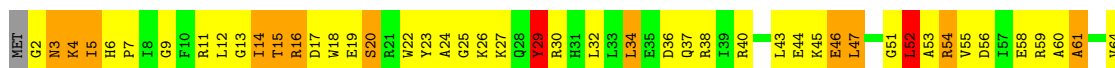
• Molecule 2: 30S RIBOSOMAL PROTEIN S2

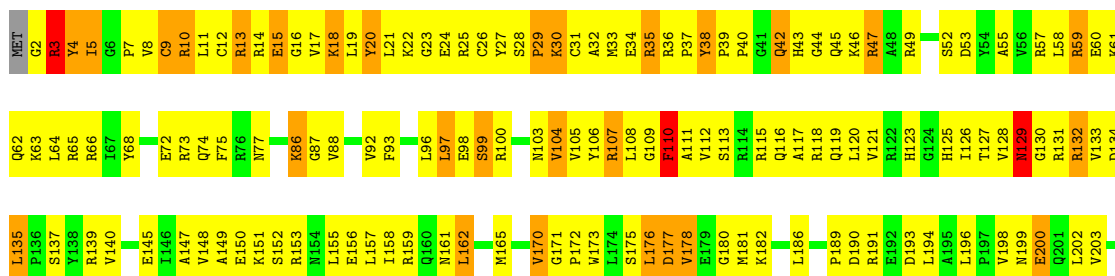
Chain CB:



• Molecule 3: 30S RIBOSOMAL PROTEIN S3

Chain AC:

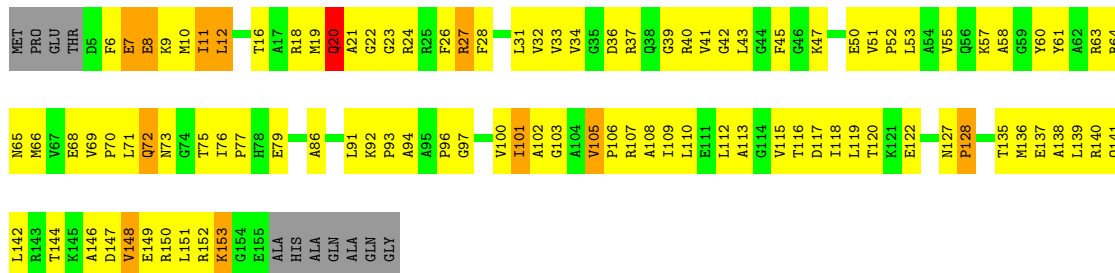


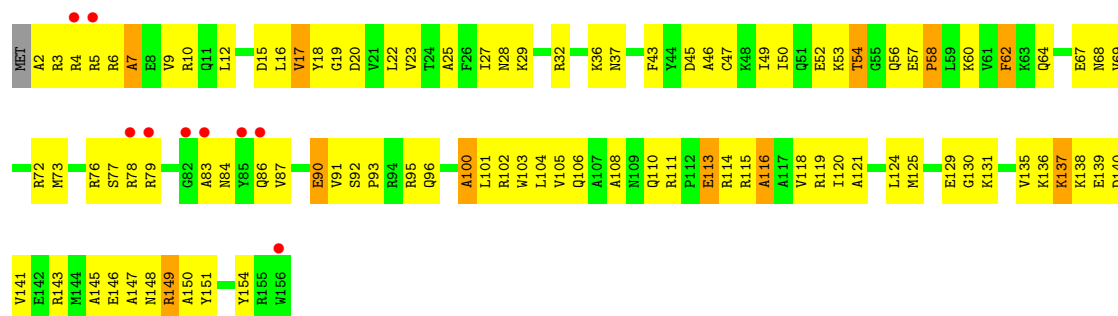


F206
Y207
S208
R209

• Molecule 5: 30S RIBOSOMAL PROTEIN S5

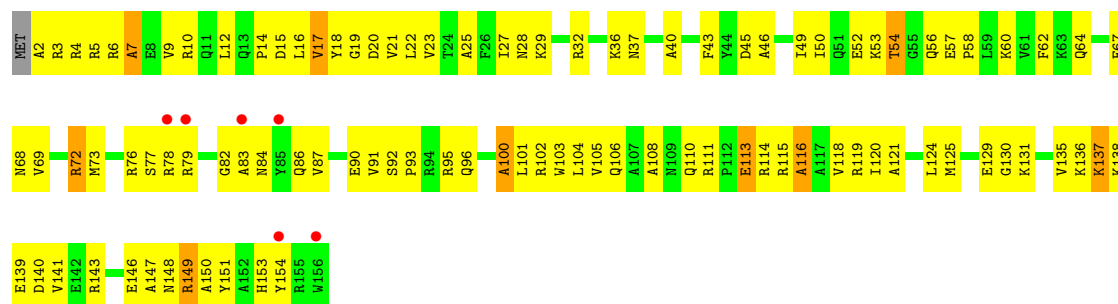
Chain AE:





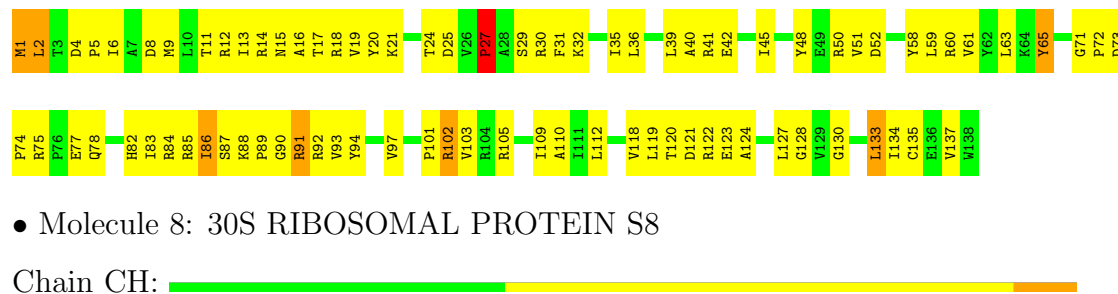
• Molecule 7: 30S RIBOSOMAL PROTEIN S7

Chain CG:



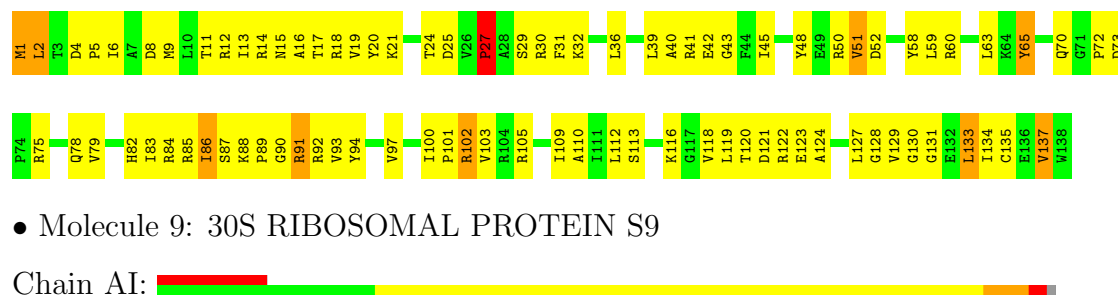
• Molecule 8: 30S RIBOSOMAL PROTEIN S8

Chain AH:



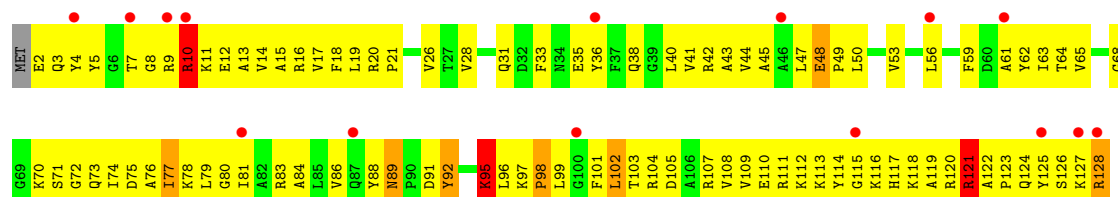
• Molecule 8: 30S RIBOSOMAL PROTEIN S8

Chain CH:



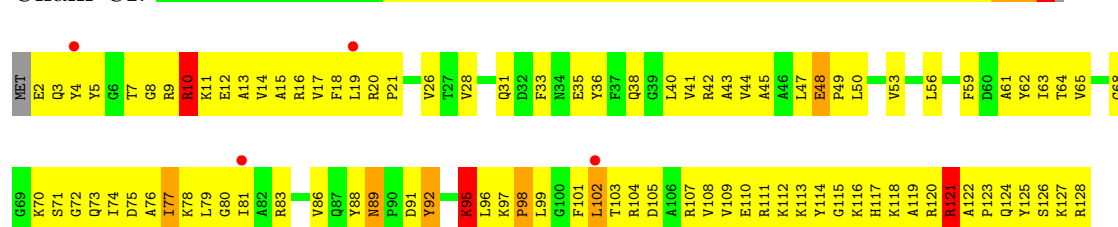
• Molecule 9: 30S RIBOSOMAL PROTEIN S9

Chain AI:



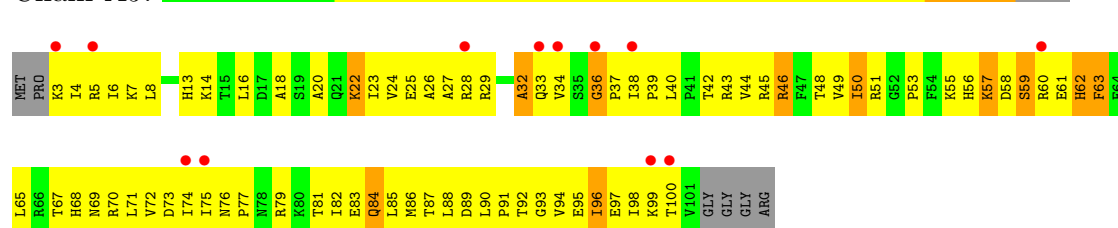
- Molecule 9: 30S RIBOSOMAL PROTEIN S9

Chain CI:



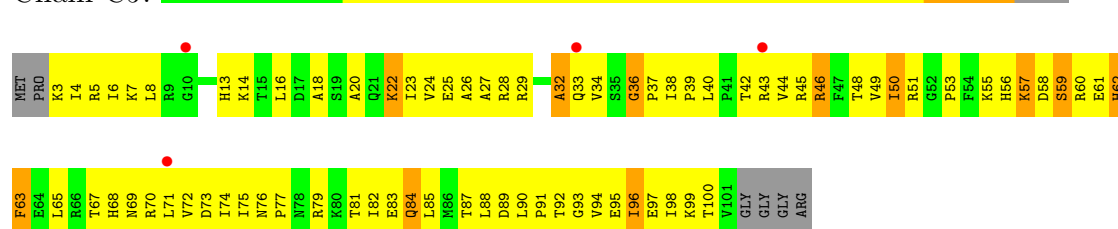
- Molecule 10: 30S RIBOSOMAL PROTEIN S10

Chain AJ:



- Molecule 10: 30S RIBOSOMAL PROTEIN S10

Chain CJ:



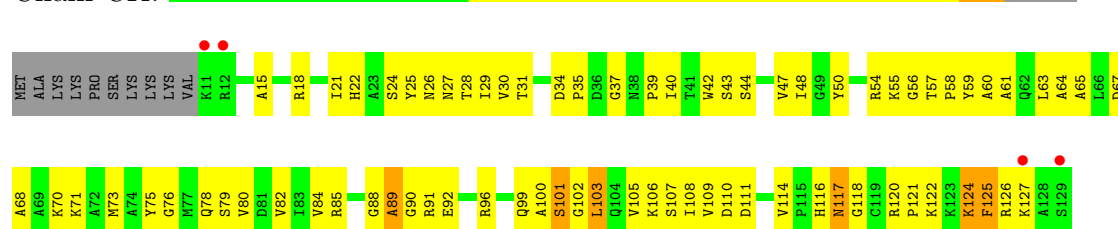
- Molecule 11: 30S RIBOSOMAL PROTEIN S11

Chain AK:



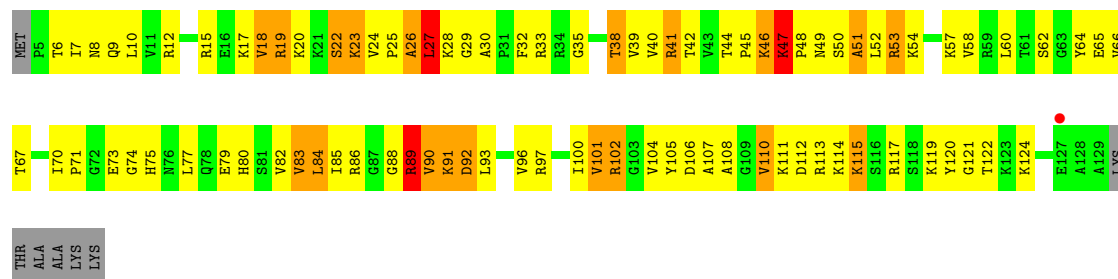
- Molecule 11: 30S RIBOSOMAL PROTEIN S11

Chain CK:



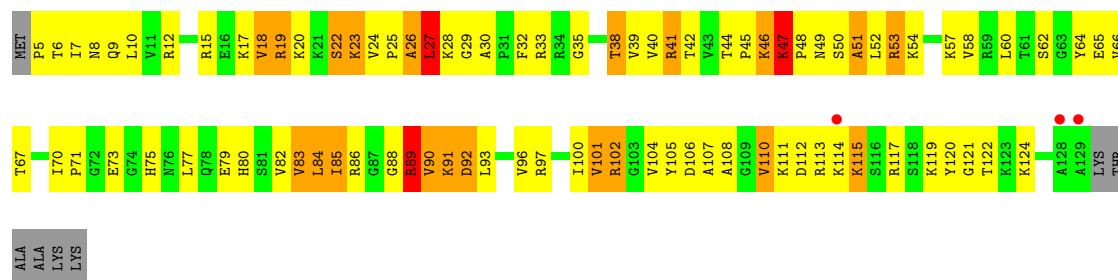
- Molecule 12: 30S RIBOSOMAL PROTEIN S12

Chain AL:



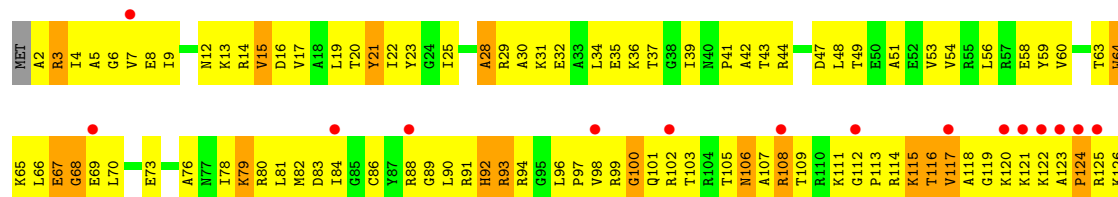
- Molecule 12: 30S RIBOSOMAL PROTEIN S12

Chain CL:



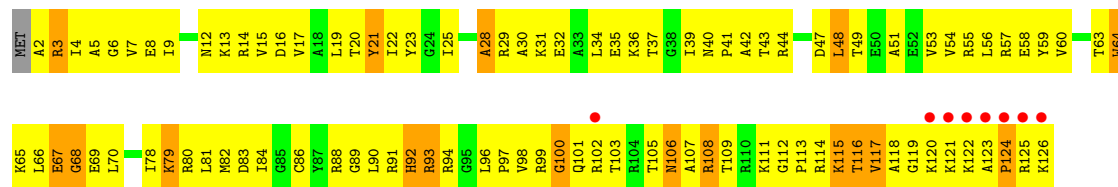
- Molecule 13: 30S RIBOSOMAL PROTEIN S13

Chain AM:



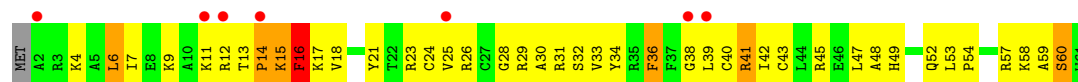
- Molecule 13: 30S RIBOSOMAL PROTEIN S13

Chain CM:



- Molecule 14: 30S RIBOSOMAL PROTEIN S14 TYPE Z

Chain AN:



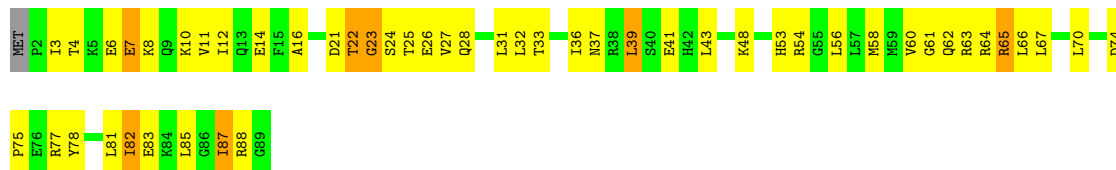
- Molecule 14: 30S RIBOSOMAL PROTEIN S14 TYPE Z

Chain CN:



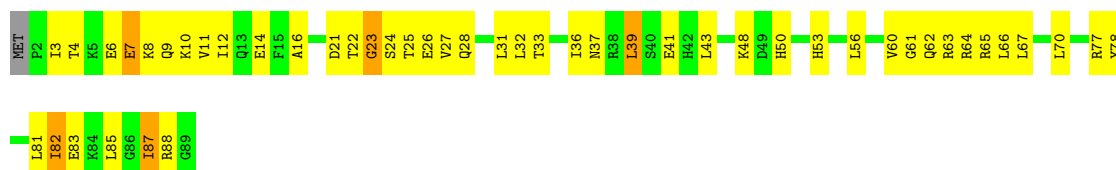
- Molecule 15: 30S RIBOSOMAL PROTEIN S15

Chain AO:



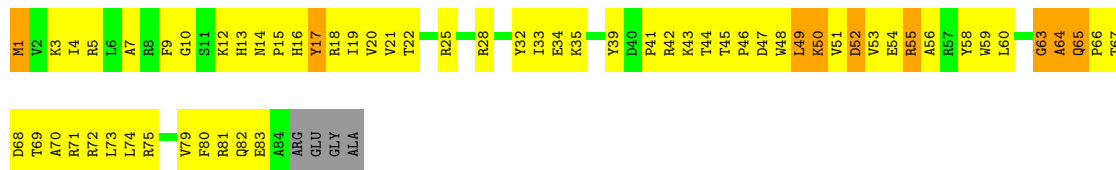
• Molecule 15: 30S RIBOSOMAL PROTEIN S15

Chain CO:



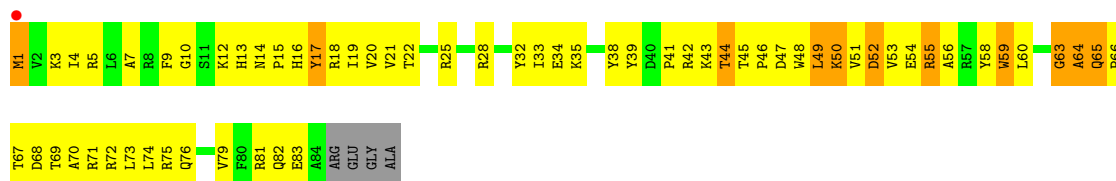
• Molecule 16: 30S RIBOSOMAL PROTEIN S16

Chain AP:



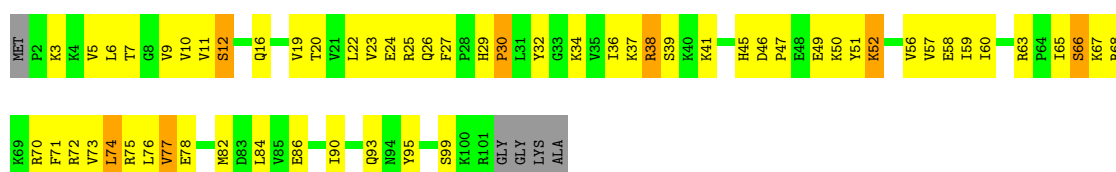
● Molecule 16: 30S RIBOSOMAL PROTEIN S16

Chain CP:



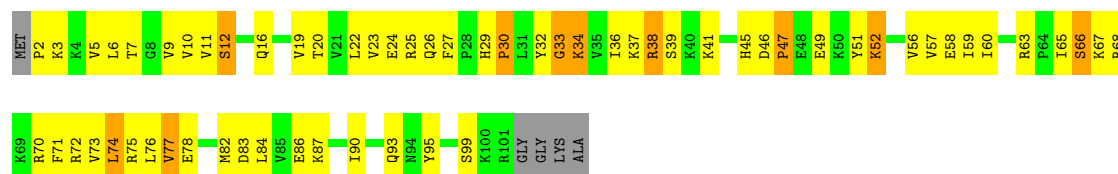
● Molecule 17: 30S RIBOSOMAL PROTEIN S17

Chain AQ:



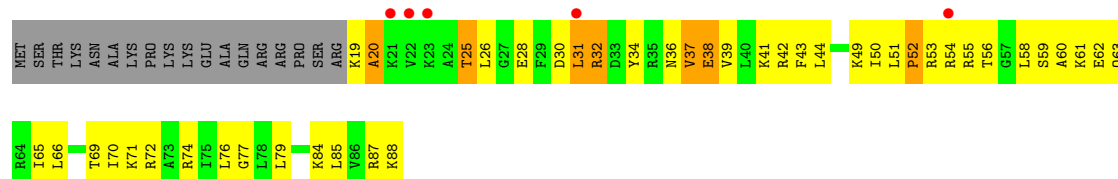
- Molecule 17: 30S RIBOSOMAL PROTEIN S17

Chain CQ:



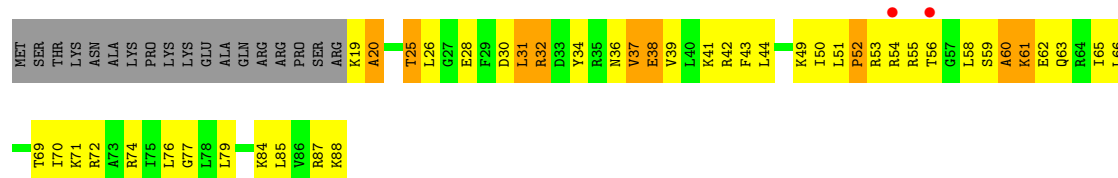
- Molecule 18: 30S RIBOSOMAL PROTEIN S18

Chain AR:



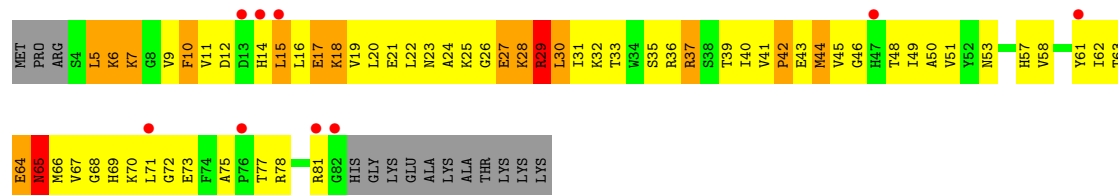
- Molecule 18: 30S RIBOSOMAL PROTEIN S18

Chain CR:



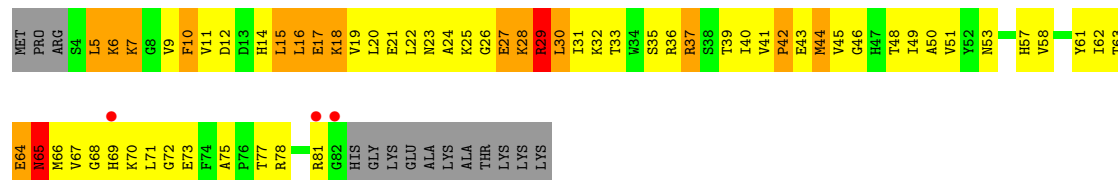
- Molecule 19: 30S RIBOSOMAL PROTEIN S19

Chain AS:



- Molecule 19: 30S RIBOSOMAL PROTEIN S19

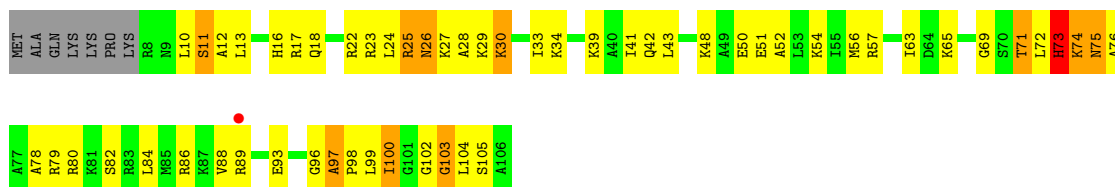
Chain CS:



- Molecule 20: 30S RIBOSOMAL PROTEIN S20

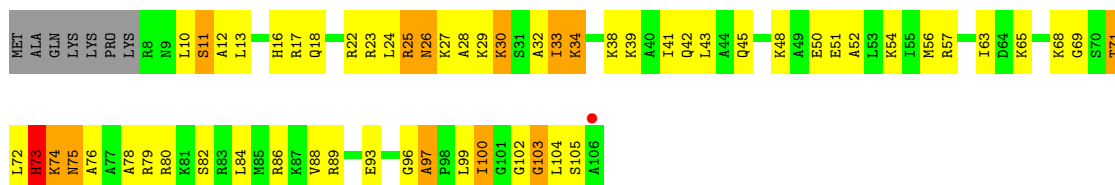
Chain AT:





• Molecule 20: 30S RIBOSOMAL PROTEIN S20

Chain CT:



• Molecule 21: 30S RIBOSOMAL PROTEIN THX

Chain AU:



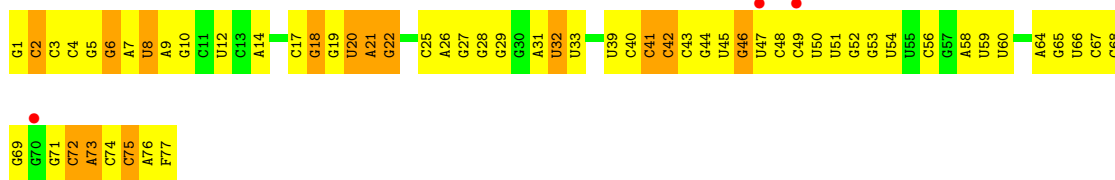
• Molecule 21: 30S RIBOSOMAL PROTEIN THX

Chain CU:



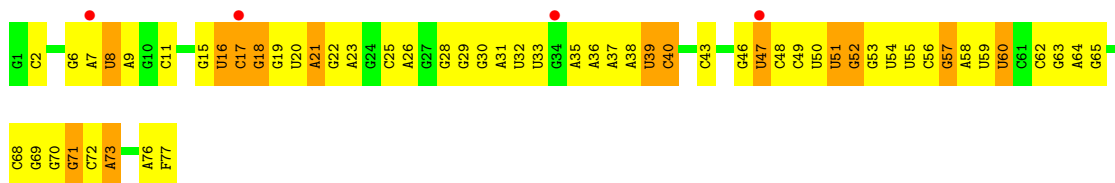
• Molecule 22: E-SITE TRNA PHE OR P-SITE TRNA PHE (UNMODIFIED BASES)

Chain AV:



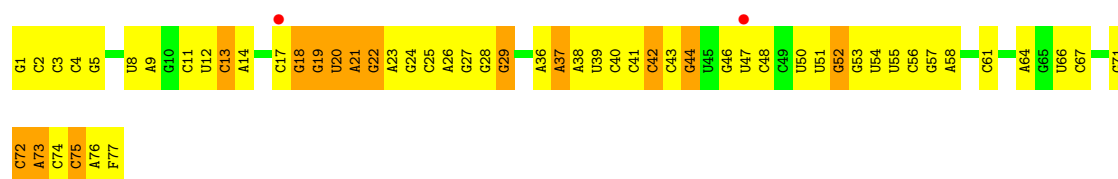
• Molecule 22: E-SITE TRNA PHE OR P-SITE TRNA PHE (UNMODIFIED BASES)

Chain AW:



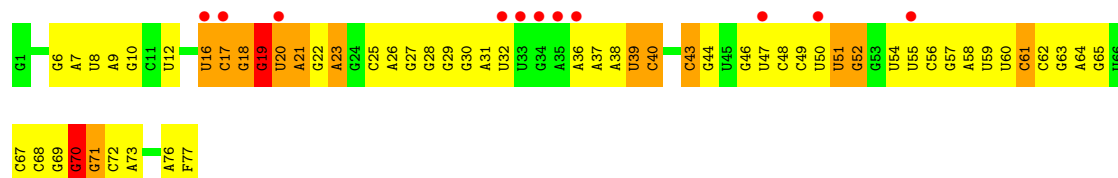
• Molecule 22: E-SITE TRNA PHE OR P-SITE TRNA PHE (UNMODIFIED BASES)

Chain CV:



- Molecule 22: E-SITE TRNA PHE OR P-SITE TRNA PHE (UNMODIFIED BASES)

Chain CW:



- Molecule 23: MRNA

Chain AX:



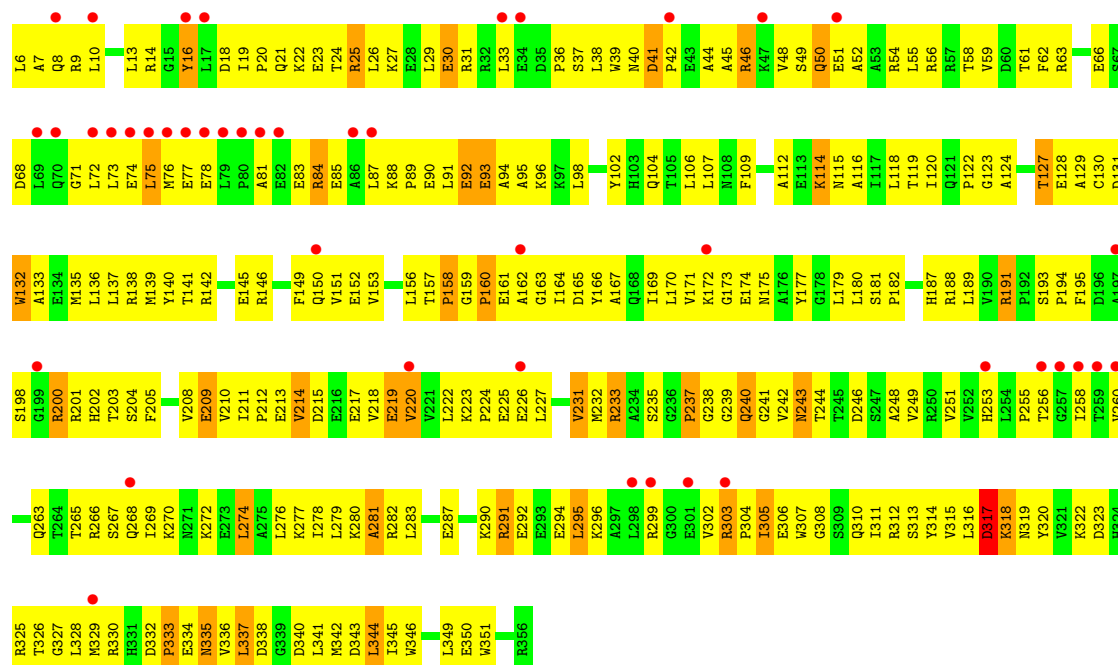
- Molecule 23: MRNA

Chain CX:



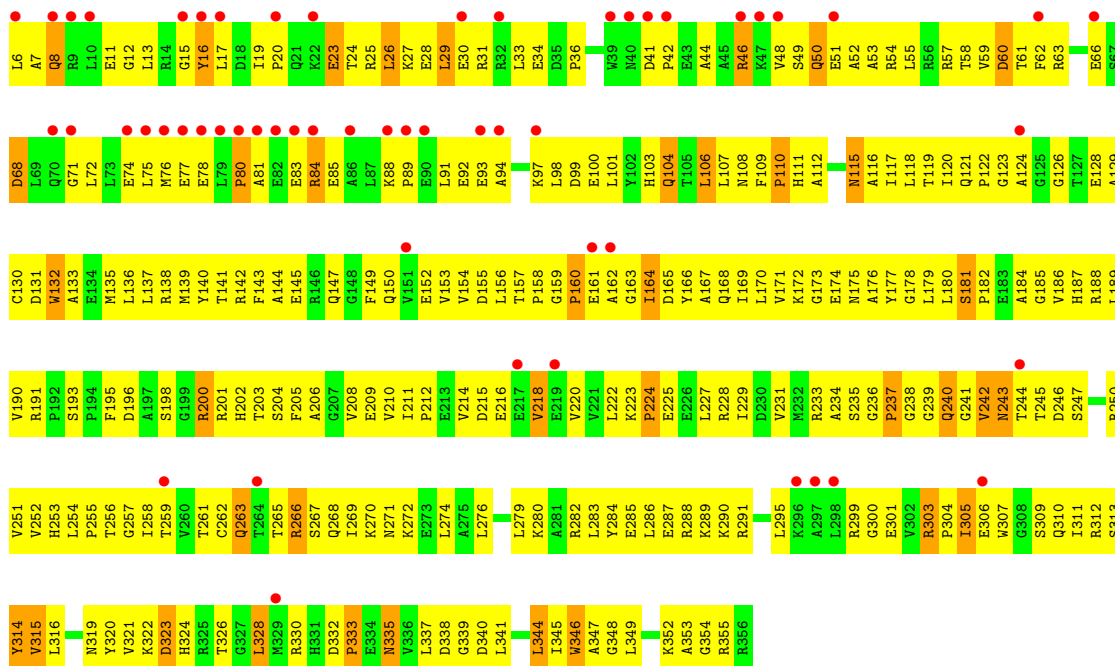
- Molecule 24: PEPTIDE CHAIN RELEASE FACTOR 2

Chain AY:



• Molecule 24: PEPTIDE CHAIN RELEASE FACTOR 2

Chain CY:



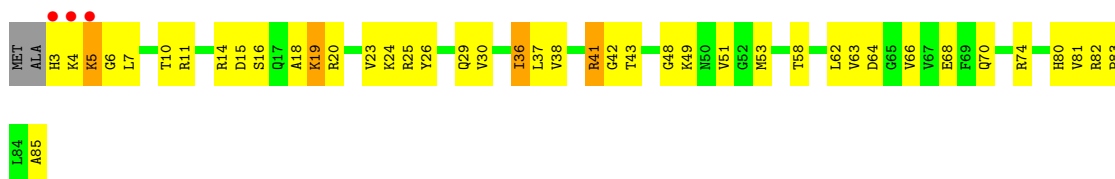
• Molecule 25: 50S RIBOSOMAL PROTEIN L27

Chain B0:



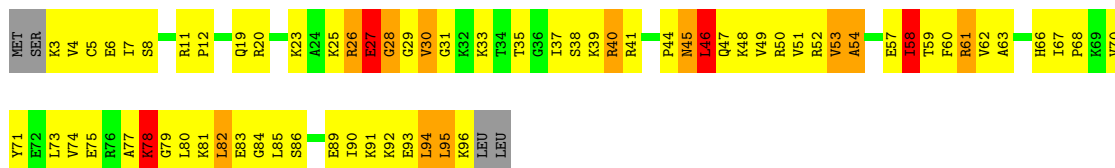
• Molecule 25: 50S RIBOSOMAL PROTEIN L27

Chain D0:



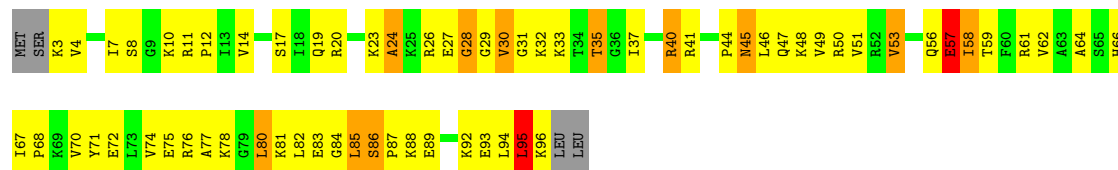
• Molecule 26: 50S RIBOSOMAL PROTEIN L28

Chain B1:



- Molecule 26: 50S RIBOSOMAL PROTEIN L28

Chain D1:



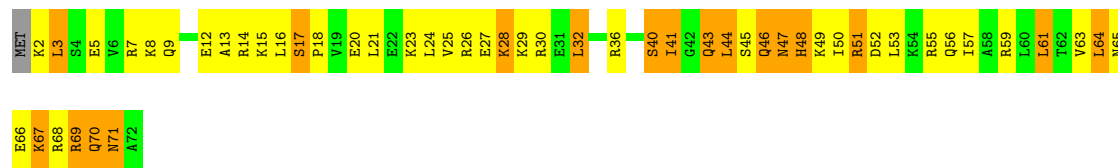
- Molecule 27: 50S RIBOSOMAL PROTEIN L29

Chain B2:



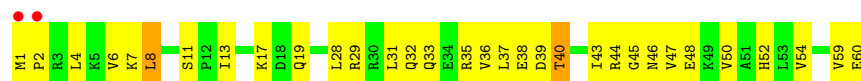
- Molecule 27: 50S RIBOSOMAL PROTEIN L29

Chain D2:



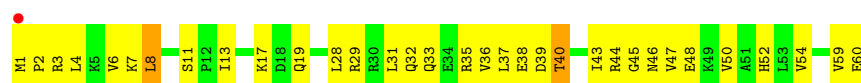
- Molecule 28: 50S RIBOSOMAL PROTEIN L30

Chain B3:



- Molecule 28: 50S RIBOSOMAL PROTEIN L30

Chain D3:



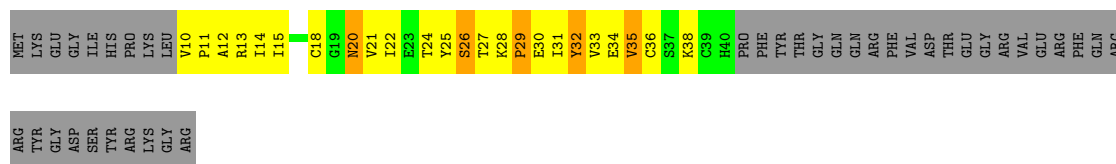
- Molecule 29: 50S RIBOSOMAL PROTEIN L31

Chain B4:



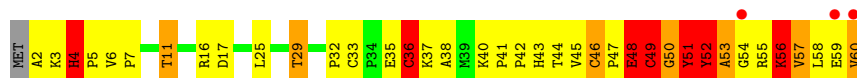
- Molecule 29: 50S RIBOSOMAL PROTEIN L31

Chain D4:



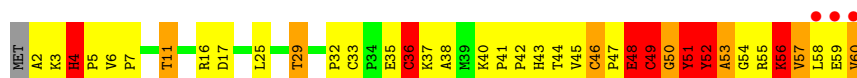
- Molecule 30: 50S RIBOSOMAL PROTEIN L32

Chain B5:



- Molecule 30: 50S RIBOSOMAL PROTEIN L32

Chain D5:



- Molecule 31: 50S RIBOSOMAL PROTEIN L33

Chain B6:



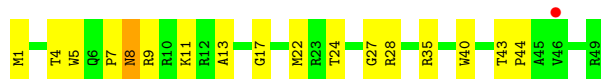
- Molecule 31: 50S RIBOSOMAL PROTEIN L33

Chain D6:



- Molecule 32: 50S RIBOSOMAL PROTEIN L34

Chain B7:



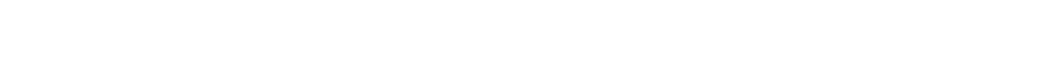
- Molecule 32: 50S RIBOSOMAL PROTEIN L34

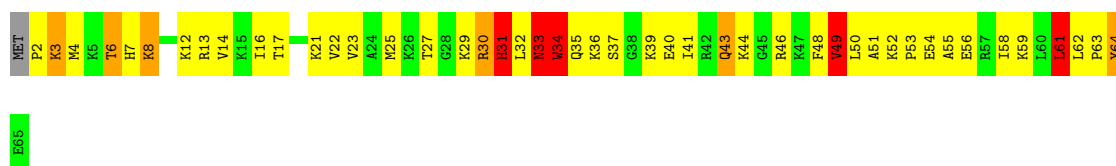
Chain D7:



- Molecule 33: 50S RIBOSOMAL PROTEIN L35

Chain B8:





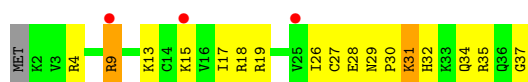
- Molecule 33: 50S RIBOSOMAL PROTEIN L35

Chain D8:



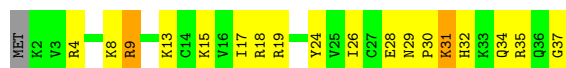
- Molecule 34: 50S RIBOSOMAL PROTEIN L36

Chain B9:



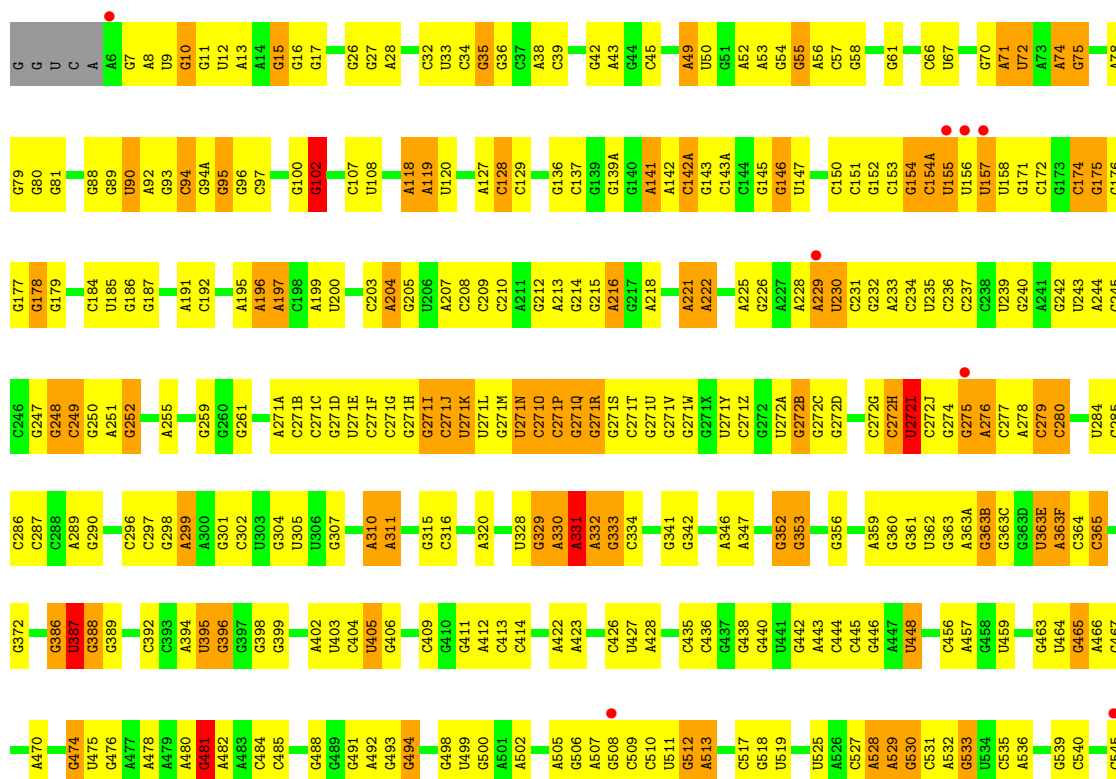
- Molecule 34: 50S RIBOSOMAL PROTEIN L36

Chain D9:



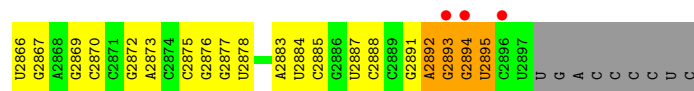
- Molecule 35: 23S RIBOSOMAL RNA

Chain BA:



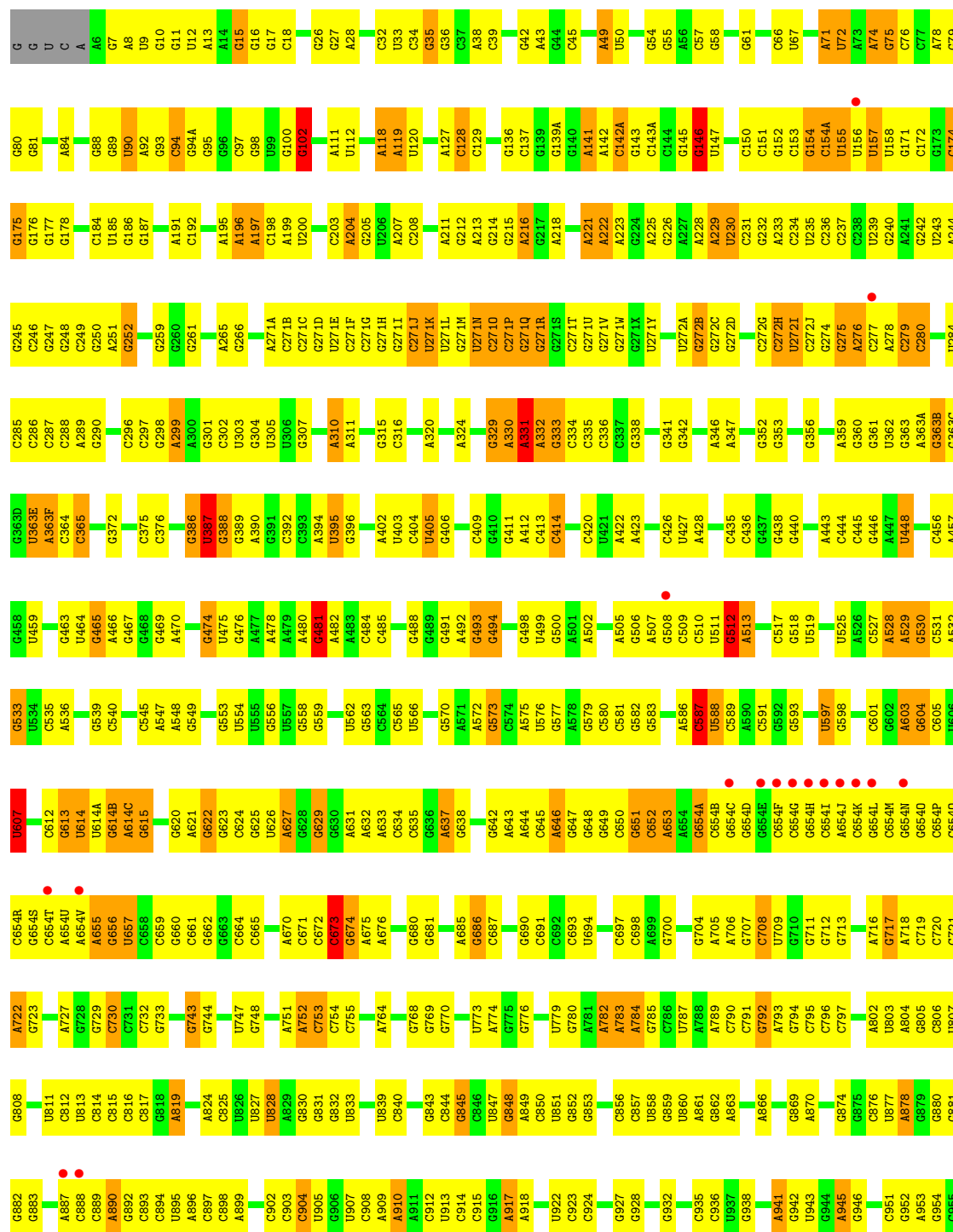




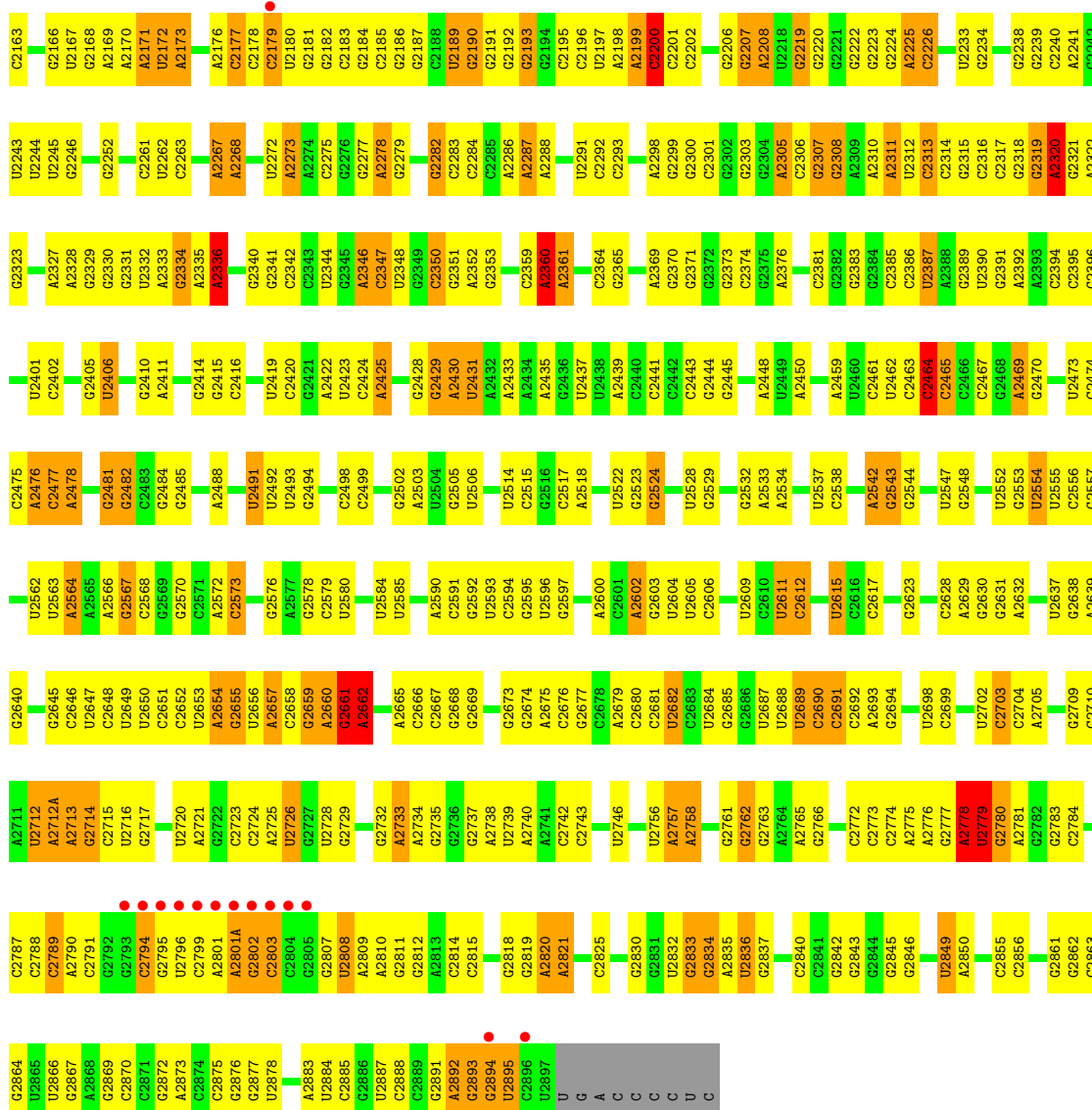


Molecule 35: 23S RIBOSOMAL RNA

Chain DA:

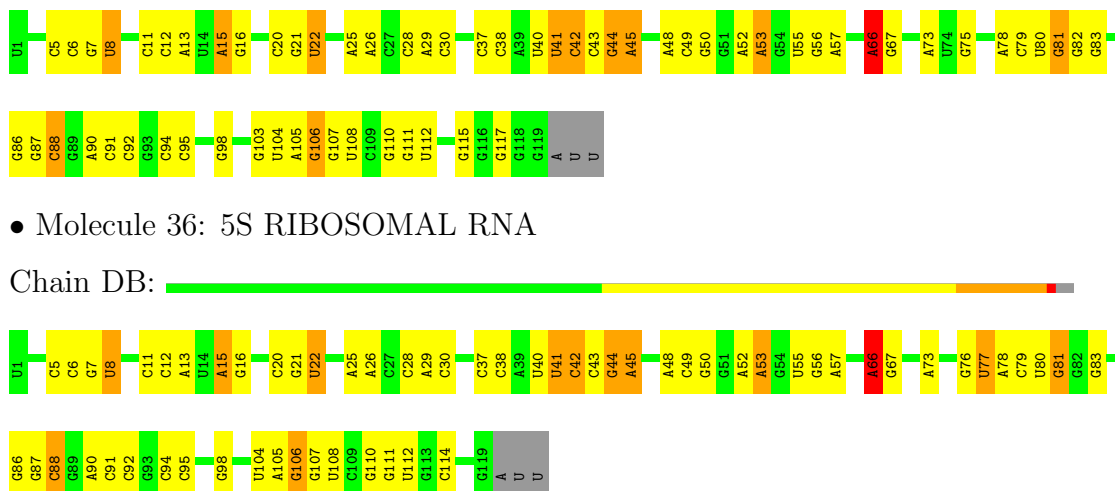


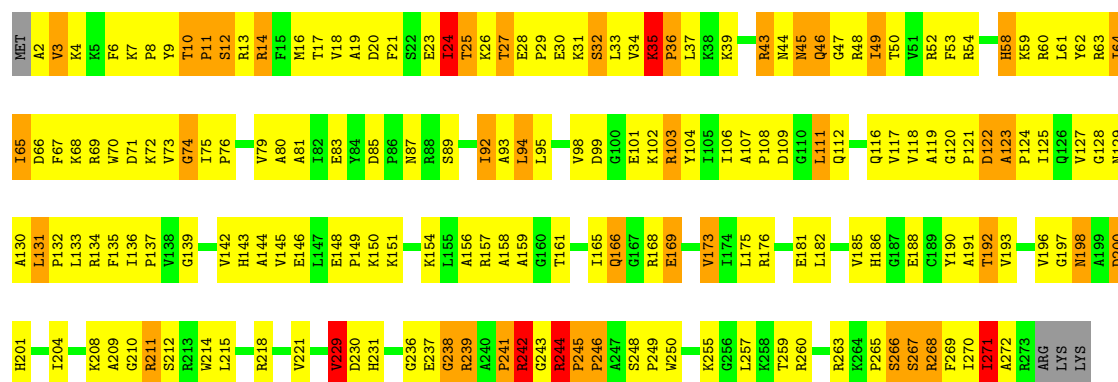




• Molecule 36: 5S RIBOSOMAL RNA

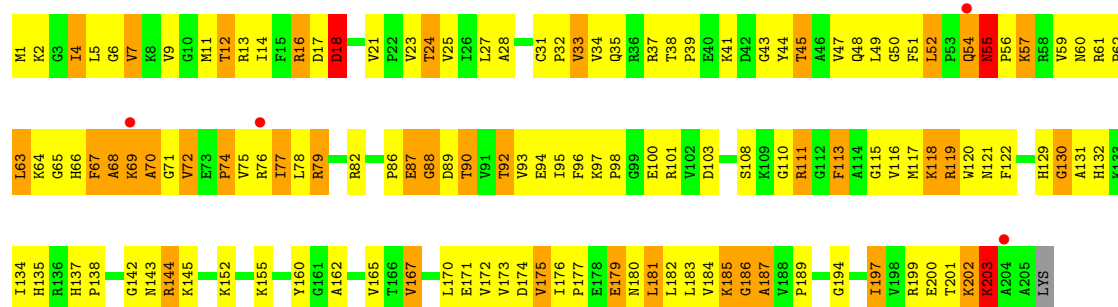
Chain DB:





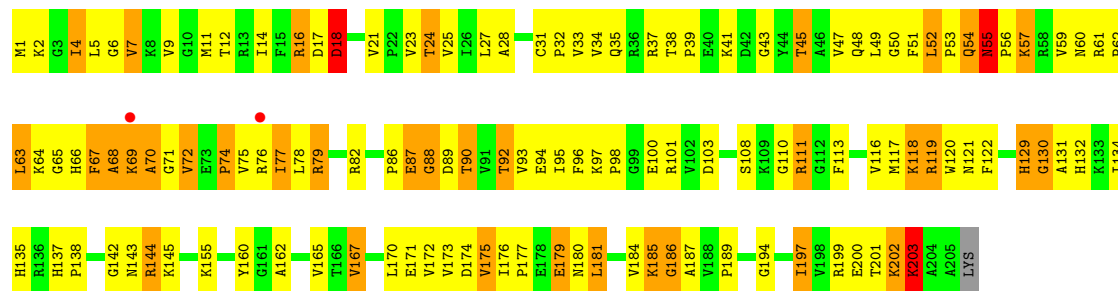
• Molecule 39: 50S RIBOSOMAL PROTEIN L3

Chain BE:



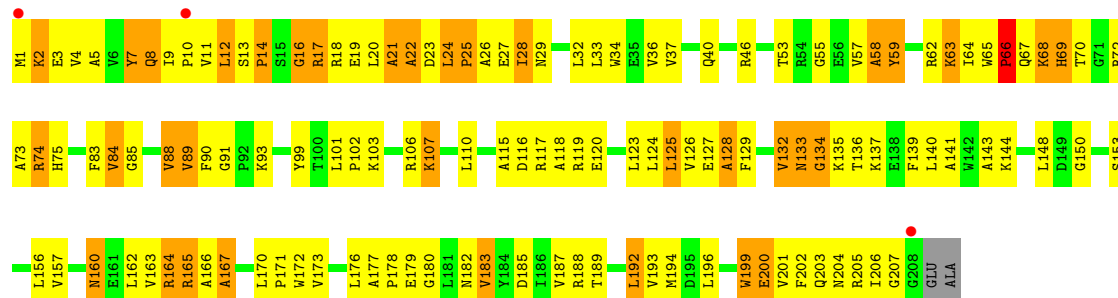
• Molecule 39: 50S RIBOSOMAL PROTEIN L3

Chain DE:



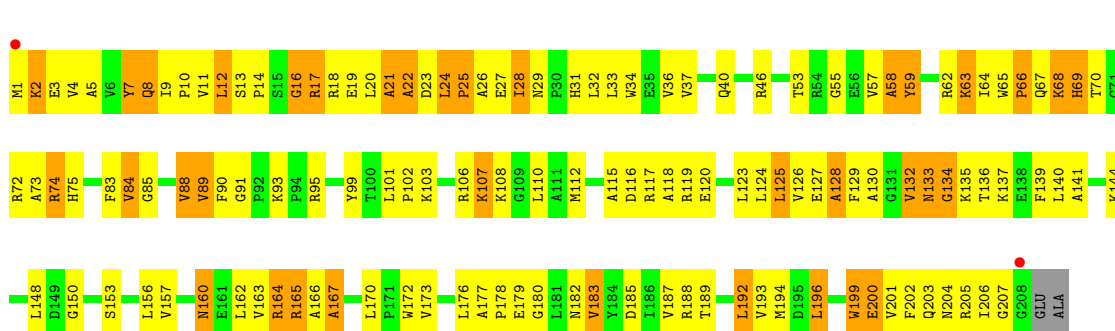
• Molecule 40: 50S RIBOSOMAL PROTEIN L4

Chain BF:



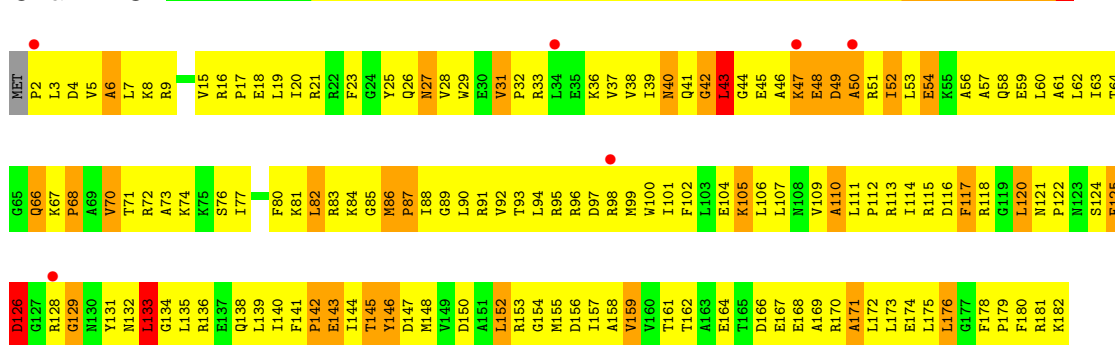
● Molecule 40: 50S RIBOSOMAL PROTEIN L4

Chain DF:



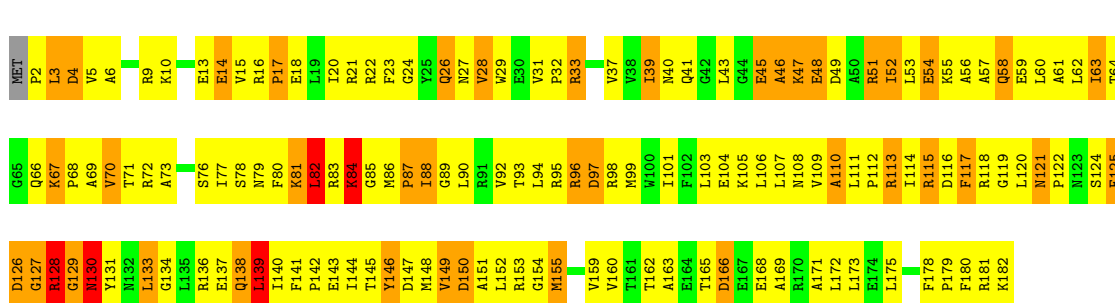
● Molecule 41: 50S RIBOSOMAL PROTEIN L5

Chain BG:



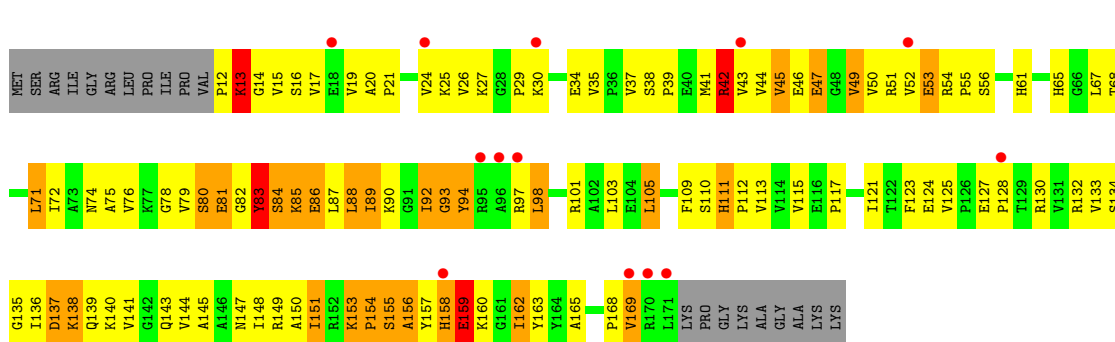
● Molecule 41: 50S RIBOSOMAL PROTEIN L5

Chain DG:



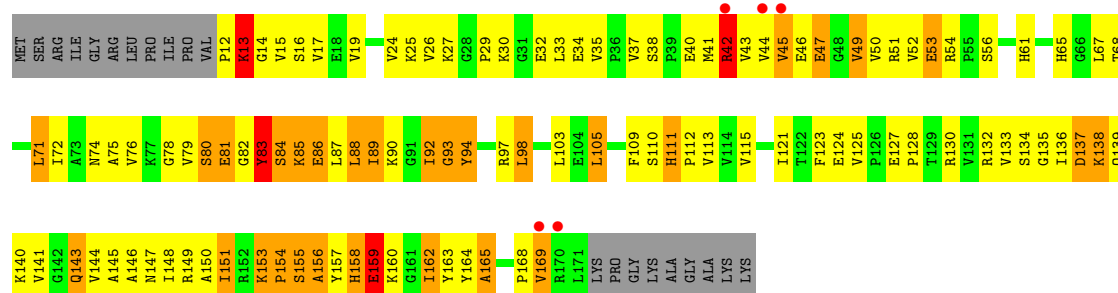
● Molecule 42: 50S RIBOSOMAL PROTEIN L6

Chain BH:



• Molecule 42: 50S RIBOSOMAL PROTEIN L6

Chain DH:



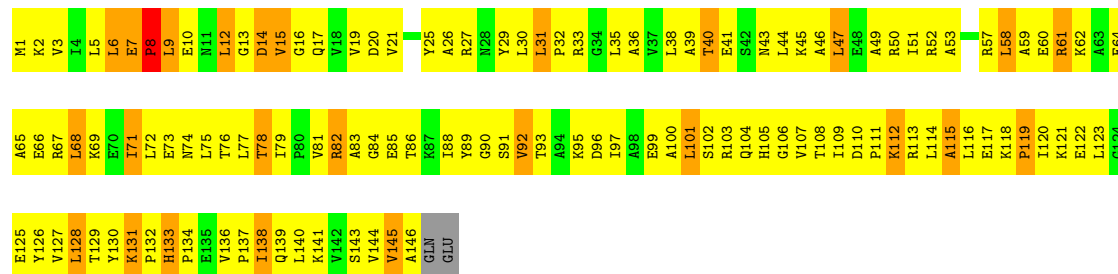
• Molecule 43: 50S RIBOSOMAL PROTEIN L9

Chain BI:



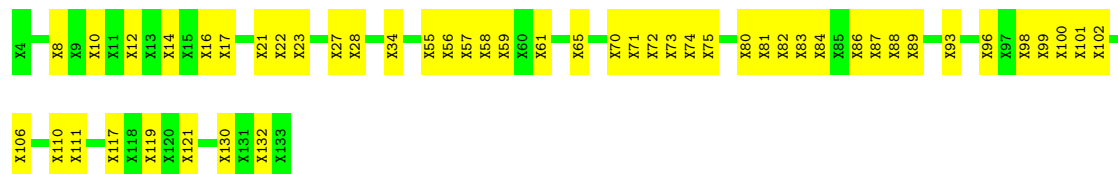
• Molecule 43: 50S RIBOSOMAL PROTEIN L9

Chain DI:



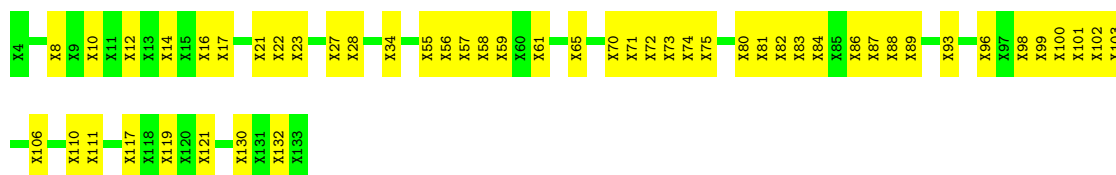
• Molecule 44: 50S RIBOSOMAL PROTEIN L10

Chain BJ:



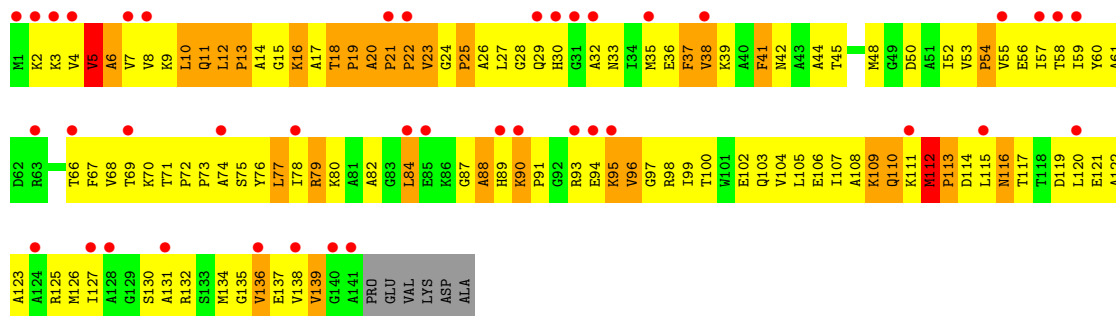
• Molecule 44: 50S RIBOSOMAL PROTEIN L10

Chain DJ:



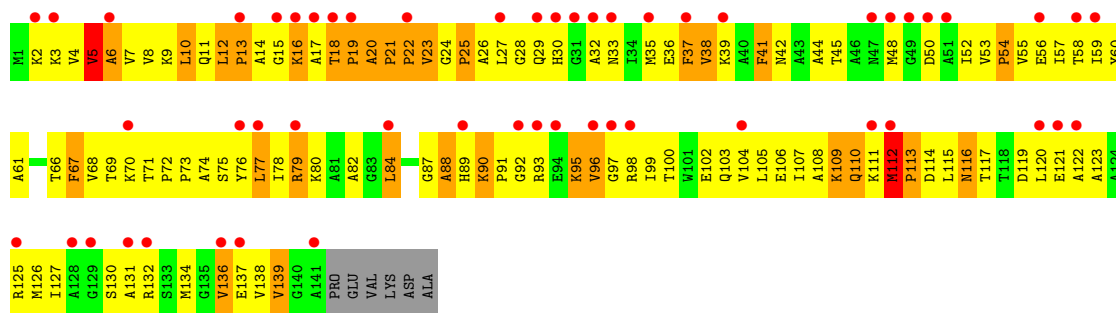
• Molecule 45: 50S RIBOSOMAL PROTEIN L11

Chain BK:



• Molecule 45: 50S RIBOSOMAL PROTEIN L11

Chain DK:



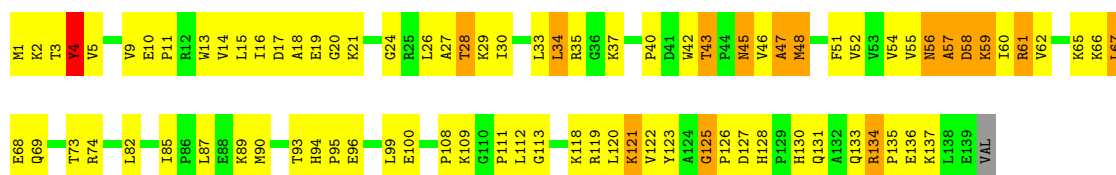
• Molecule 46: 50S RIBOSOMAL PROTEIN L13

Chain BN:



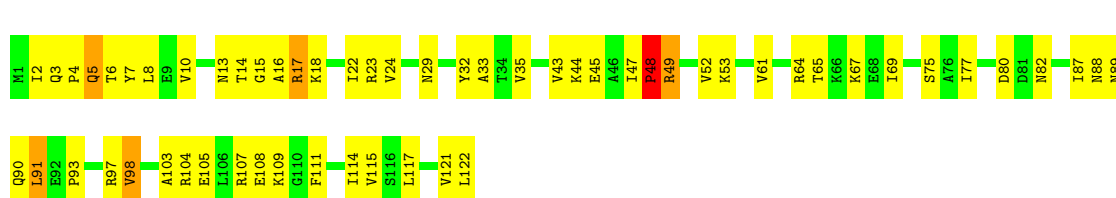
• Molecule 46: 50S RIBOSOMAL PROTEIN L13

Chain DN:



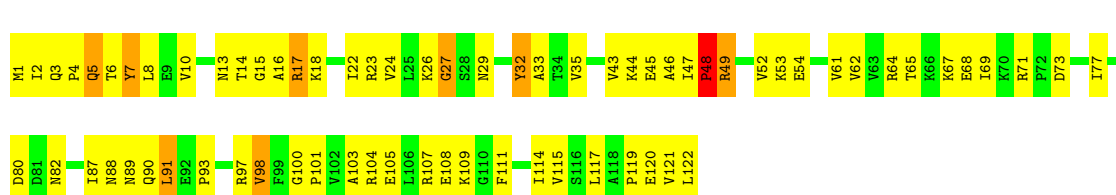
- Molecule 47: 50S RIBOSOMAL PROTEIN L14

Chain BO:



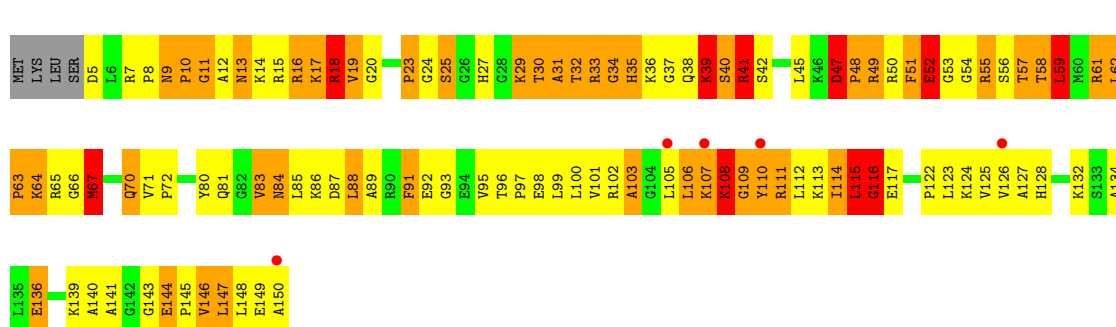
- Molecule 47: 50S RIBOSOMAL PROTEIN L14

Chain DO:



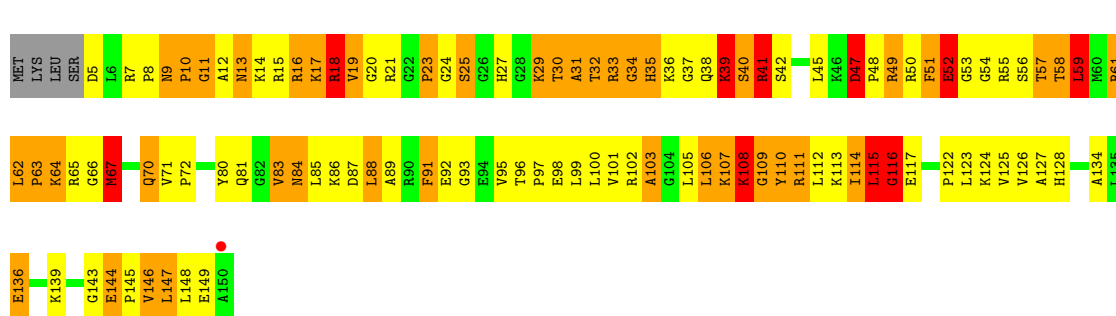
- Molecule 48: 50S RIBOSOMAL PROTEIN L15

Chain BP:



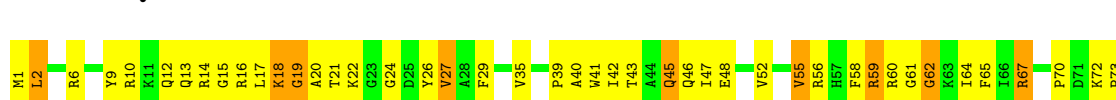
- Molecule 48: 50S RIBOSOMAL PROTEIN L15

Chain DP:



- Molecule 49: 50S RIBOSOMAL PROTEIN L16

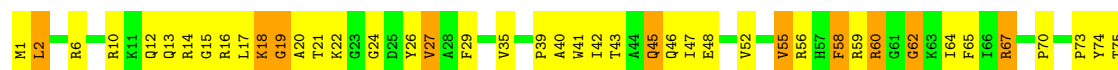
Chain BQ:





• Molecule 49: 50S RIBOSOMAL PROTEIN L16

Chain DQ:



• Molecule 50: 50S RIBOSOMAL PROTEIN L17

Chain BR:



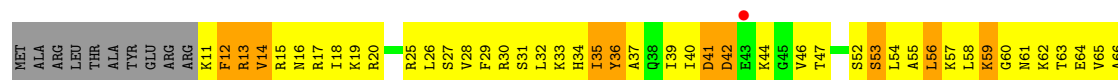
• Molecule 50: 50S RIBOSOMAL PROTEIN L17

Chain DR:



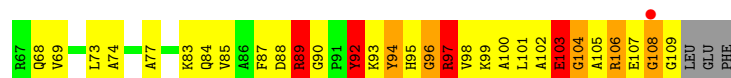
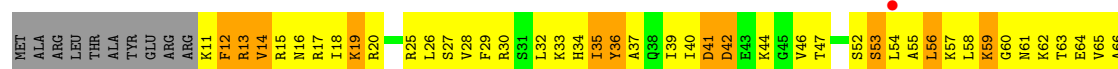
• Molecule 51: 50S RIBOSOMAL PROTEIN L18

Chain BS:



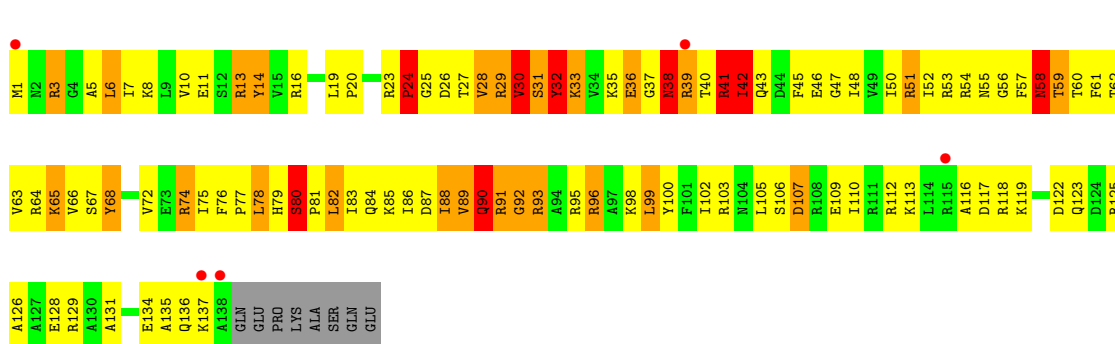
• Molecule 51: 50S RIBOSOMAL PROTEIN L18

Chain DS:



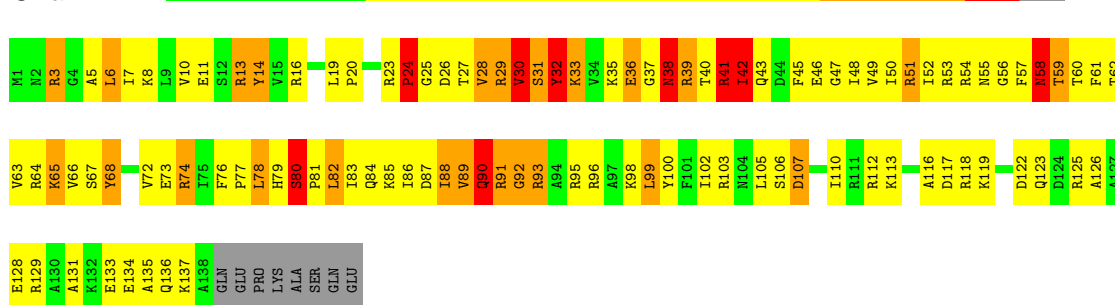
- Molecule 52: 50S RIBOSOMAL PROTEIN L19

Chain BT:



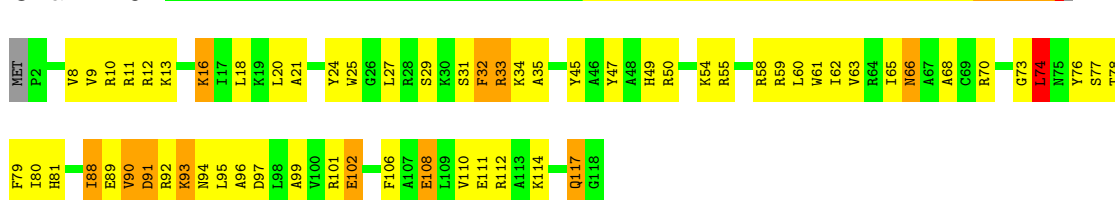
- Molecule 52: 50S RIBOSOMAL PROTEIN L19

Chain DT:



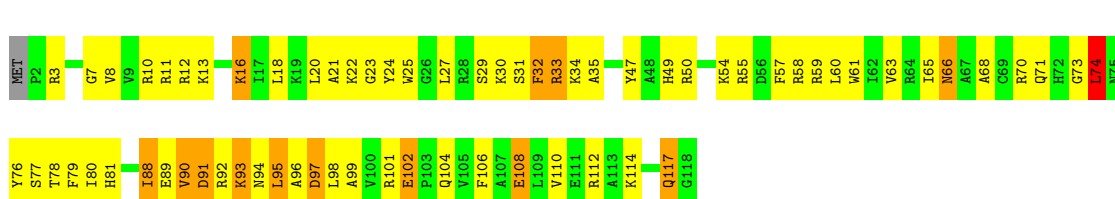
- Molecule 53: 50S RIBOSOMAL PROTEIN L20

Chain BU:



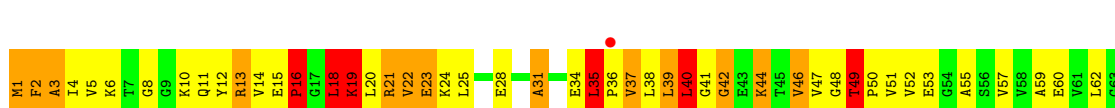
- Molecule 53: 50S RIBOSOMAL PROTEIN L20

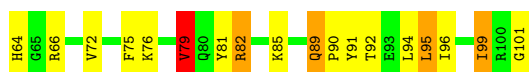
Chain DU:



- Molecule 54: 50S RIBOSOMAL PROTEIN L21

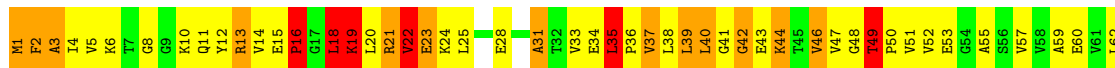
Chain BV:





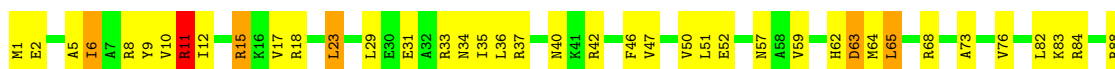
• Molecule 54: 50S RIBOSOMAL PROTEIN L21

Chain DV:



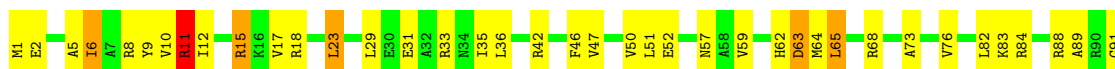
• Molecule 55: 50S RIBOSOMAL PROTEIN L22

Chain BW:



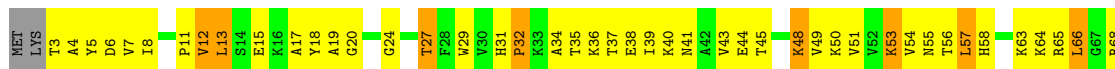
• Molecule 56: 50S RIBOSOMAL PROTEIN L23

Chain DW:



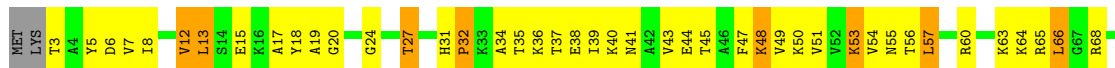
• Molecule 57: 50S RIBOSOMAL PROTEIN L24

Chain BX:



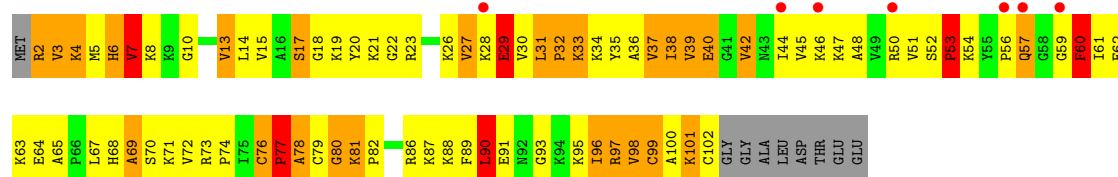
• Molecule 58: 50S RIBOSOMAL PROTEIN L25

Chain DX:



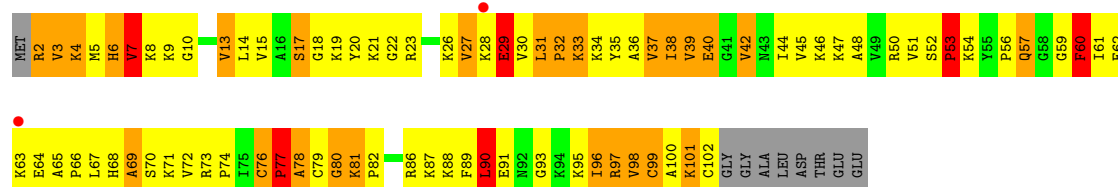
• Molecule 59: 50S RIBOSOMAL PROTEIN L26

Chain BY:



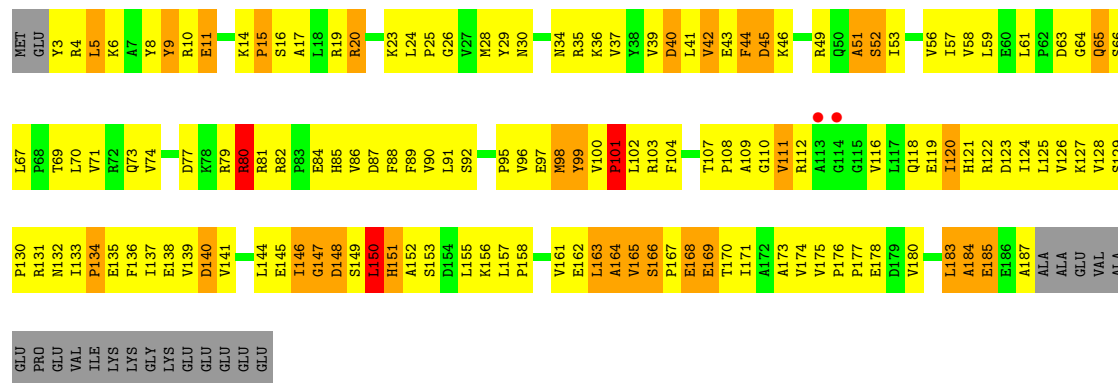
- Molecule 57: 50S RIBOSOMAL PROTEIN L24

Chain DY:



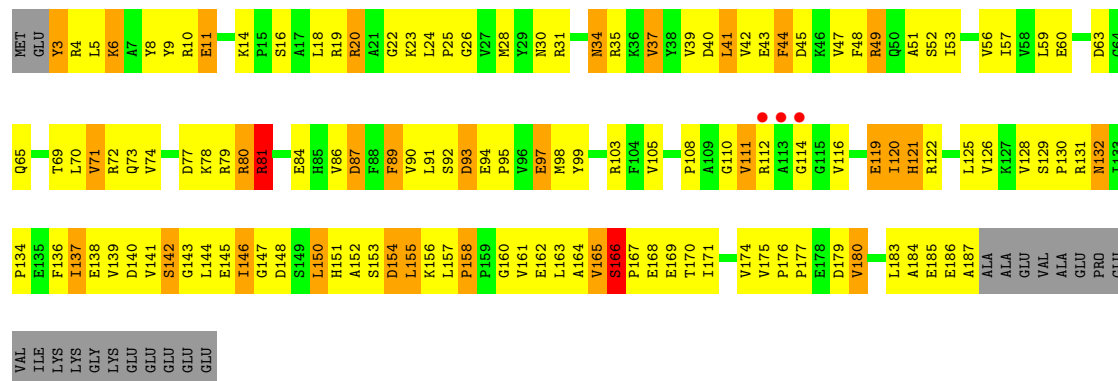
- Molecule 58: 50S RIBOSOMAL PROTEIN L25

Chain BZ:



- Molecule 58: 50S RIBOSOMAL PROTEIN L25

Chain DZ:



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	211.42Å 452.50Å 625.44Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	47.86 – 3.10 49.71 – 3.00	Depositor EDS
% Data completeness (in resolution range)	100.0 (47.86-3.10) 99.6 (49.71-3.00)	Depositor EDS
R_{merge}	0.16	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.59 (at 3.01Å)	Xtriage
Refinement program	CNS 1.2	Depositor
R, R_{free}	0.223 , 0.264 0.232 , 0.271	Depositor DCC
R_{free} test set	52374 reflections (4.65%)	DCC
Wilson B-factor (Å ²)	55.0	Xtriage
Anisotropy	0.035	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.28 , 45.4	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning	$\langle L \rangle = 0.40$, $\langle L^2 \rangle = 0.22$	Xtriage
Outliers	0 of 1179114 reflections	Xtriage
F_o, F_c correlation	0.90	EDS
Total number of atoms	305067	wwPDB-VP
Average B, all atoms (Å ²)	89.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.49% 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: MG, ZN, 8AN, PHA

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	0.37	0/36190	0.69	14/56486 (0.0%)
1	CA	0.39	0/36190	0.69	11/56486 (0.0%)
2	AB	0.31	0/1936	0.58	0/2611
2	CB	0.33	0/1936	0.58	0/2611
3	AC	0.32	0/1637	0.54	0/2207
3	CC	0.32	0/1637	0.54	0/2207
4	AD	0.33	0/1733	0.63	0/2318
4	CD	0.33	0/1733	0.62	0/2318
5	AE	0.34	0/1163	0.61	0/1566
5	CE	0.35	0/1163	0.62	0/1566
6	AF	0.32	0/856	0.63	0/1154
6	CF	0.34	0/856	0.64	0/1154
7	AG	0.30	0/1276	0.56	0/1709
7	CG	0.31	0/1276	0.56	0/1709
8	AH	0.32	0/1136	0.61	0/1527
8	CH	0.32	0/1136	0.62	0/1527
9	AI	0.31	0/1027	0.58	0/1372
9	CI	0.32	0/1027	0.58	0/1372
10	AJ	0.32	0/808	0.56	0/1087
10	CJ	0.33	0/808	0.56	0/1087
11	AK	0.32	0/900	0.58	0/1213
11	CK	0.36	0/900	0.59	0/1213
12	AL	0.36	0/987	0.67	0/1322
12	CL	0.36	0/987	0.67	0/1322
13	AM	0.30	0/994	0.56	0/1322
13	CM	0.32	0/994	0.56	0/1322
14	AN	0.31	0/501	0.53	0/664
14	CN	0.33	0/501	0.55	0/664
15	AO	0.32	0/745	0.57	0/992
15	CO	0.33	0/745	0.58	0/992
16	AP	0.36	0/717	0.58	0/965
16	CP	0.34	0/717	0.58	0/965

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	AQ	0.33	0/837	0.61	0/1119
17	CQ	0.35	0/837	0.61	0/1119
18	AR	0.33	0/579	0.60	0/768
18	CR	0.34	0/579	0.60	0/768
19	AS	0.34	0/643	0.56	0/867
19	CS	0.34	0/643	0.57	0/867
20	AT	0.29	0/765	0.58	0/1007
20	CT	0.29	0/765	0.58	0/1007
21	AU	0.41	0/213	0.49	0/279
21	CU	0.42	0/213	0.50	0/279
22	AV	0.38	0/1784	0.70	0/2780
22	AW	0.35	0/1784	0.71	0/2780
22	CV	0.44	0/1784	0.69	0/2780
22	CW	0.36	0/1784	0.70	0/2780
23	AX	0.39	0/184	0.74	0/284
23	CX	0.45	0/184	0.76	0/284
24	AY	0.31	0/2849	0.60	0/3848
24	CY	0.33	0/2849	0.66	0/3848
25	B0	0.36	0/666	0.63	0/885
25	D0	0.42	0/666	0.67	0/885
26	B1	0.41	0/739	0.73	1/983 (0.1%)
26	D1	0.50	0/739	0.79	0/983
27	B2	0.36	0/600	0.60	0/793
27	D2	0.46	0/600	0.79	0/793
28	B3	0.34	0/473	0.61	0/636
28	D3	0.43	0/473	0.65	0/636
29	B4	0.38	0/229	0.61	0/311
29	D4	0.40	0/229	0.62	0/311
30	B5	0.49	0/473	0.94	2/639 (0.3%)
30	D5	0.71	2/473 (0.4%)	1.01	2/639 (0.3%)
31	B6	0.48	0/387	0.79	0/517
31	D6	0.54	0/388	0.77	0/520
32	B7	0.46	0/427	0.67	0/563
32	D7	0.53	0/427	0.70	0/563
33	B8	0.50	0/516	0.78	0/681
33	D8	0.59	0/516	0.81	0/681
34	B9	0.33	0/302	0.63	0/397
34	D9	0.44	0/302	0.68	0/397
35	BA	0.46	1/69972 (0.0%)	0.74	51/109237 (0.0%)
35	DA	0.60	1/69972 (0.0%)	0.76	63/109237 (0.1%)
36	BB	0.37	0/2853	0.73	0/4451
36	DB	0.50	0/2853	0.74	0/4451
37	BC	0.27	0/956	0.51	0/1288

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
37	DC	0.27	0/956	0.51	0/1288
38	BD	0.42	0/2155	0.77	1/2907 (0.0%)
38	DD	0.49	0/2155	0.80	2/2907 (0.1%)
39	BE	0.42	0/1597	0.77	0/2155
39	DE	0.52	0/1597	0.80	0/2155
40	BF	0.41	0/1659	0.72	1/2246 (0.0%)
40	DF	0.49	0/1659	0.76	1/2246 (0.0%)
41	BG	0.32	0/1498	0.62	0/2013
41	DG	0.39	0/1499	0.75	2/2016 (0.1%)
42	BH	0.35	0/1246	0.70	0/1684
42	DH	0.43	0/1246	0.73	0/1684
43	BI	0.36	0/1147	0.68	0/1553
43	DI	0.35	0/1147	0.74	0/1553
45	BK	0.33	0/1057	0.58	0/1432
45	DK	0.34	0/1057	0.58	0/1432
46	BN	0.37	0/1132	0.76	1/1527 (0.1%)
46	DN	0.47	0/1132	0.80	1/1527 (0.1%)
47	BO	0.42	0/943	0.69	0/1269
47	DO	0.47	0/943	0.71	0/1269
48	BP	0.44	0/1131	0.99	7/1504 (0.5%)
48	DP	0.55	0/1131	1.04	7/1504 (0.5%)
49	BQ	0.37	0/1143	0.66	0/1527
49	DQ	0.46	0/1143	0.69	0/1527
50	BR	0.39	0/974	0.73	2/1302 (0.2%)
50	DR	0.48	0/974	0.77	2/1302 (0.2%)
51	BS	0.39	0/779	0.70	0/1038
51	DS	0.48	0/779	0.73	0/1038
52	BT	0.43	0/1156	0.81	3/1544 (0.2%)
52	DT	0.48	0/1156	0.83	3/1544 (0.2%)
53	BU	0.41	0/975	0.68	1/1297 (0.1%)
53	DU	0.54	0/975	0.75	2/1297 (0.2%)
54	BV	0.38	0/790	0.73	0/1057
54	DV	0.48	0/790	0.79	0/1057
55	BW	0.39	0/907	0.70	0/1216
55	DW	0.48	0/907	0.74	0/1216
56	BX	0.41	0/740	0.70	0/995
56	DX	0.49	0/740	0.73	0/995
57	BY	0.44	0/789	0.75	0/1053
57	DY	0.52	0/789	0.77	1/1053 (0.1%)
58	BZ	0.36	0/1500	0.65	0/2037
58	DZ	0.42	0/1500	0.71	0/2037
All	All	0.46	4/328312 (0.0%)	0.72	181/489974 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	AA	1	15
1	CA	1	17
22	AW	0	1
22	CV	0	1
22	CW	0	3
30	B5	0	2
30	D5	0	2
35	BA	5	59
35	DA	6	77
36	BB	0	2
36	DB	0	3
All	All	13	182

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
30	D5	49	CYS	CB-SG	5.59	1.91	1.82
35	DA	2685	G	C6-O6	5.54	1.29	1.24
35	BA	1899	G	C2-N2	-5.53	1.29	1.34
30	D5	51	TYR	CD1-CE1	5.27	1.47	1.39

All (181) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1992	G	C2'-C3'-O3'	10.98	133.66	109.50
35	DA	1992	G	C2'-C3'-O3'	10.73	133.11	109.50
35	DA	331	A	C2'-C3'-O3'	9.84	131.14	109.50
35	BA	331	A	C2'-C3'-O3'	9.40	130.19	109.50
35	DA	1653	G	C2'-C3'-O3'	9.16	129.65	109.50
35	DA	1022	G	C2'-C3'-O3'	9.15	129.62	109.50
35	BA	1799	G	C2'-C3'-O3'	9.03	129.37	109.50
35	DA	1799	G	C2'-C3'-O3'	8.99	129.28	109.50
35	BA	1653	G	C2'-C3'-O3'	8.81	128.88	109.50
1	CA	1498	U	C2'-C3'-O3'	8.75	128.75	109.50
48	DP	53	GLY	N-CA-C	-8.71	91.33	113.10
35	DA	1786	A	N9-C1'-C2'	8.61	125.19	114.00
35	BA	1022	G	C2'-C3'-O3'	8.49	128.17	109.50
35	DA	1820	U	C2'-C3'-O3'	8.40	127.98	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1819	A	C2'-C3'-O3'	8.40	127.97	109.50
35	DA	1819	A	C2'-C3'-O3'	8.36	127.90	109.50
35	BA	474	G	C2'-C3'-O3'	8.35	127.86	109.50
1	CA	1504	G	C2'-C3'-O3'	8.30	127.77	109.50
35	DA	2360	A	N9-C1'-C2'	-8.29	102.88	112.00
48	BP	53	GLY	N-CA-C	-8.27	92.43	113.10
1	AA	1504	G	C2'-C3'-O3'	8.26	127.67	109.50
35	BA	1820	U	C2'-C3'-O3'	8.11	127.33	109.50
35	DA	474	G	C2'-C3'-O3'	8.11	127.33	109.50
35	DA	2464	C	N1-C1'-C2'	-8.07	103.12	112.00
35	BA	2464	C	N1-C1'-C2'	-7.98	103.22	112.00
38	BD	244	ARG	C-N-CD	-7.94	103.14	120.60
30	B5	52	TYR	N-CA-C	-7.91	89.63	111.00
30	D5	52	TYR	N-CA-C	-7.91	89.63	111.00
35	BA	1300	U	C2'-C3'-O3'	7.82	126.71	109.50
35	BA	2360	A	N9-C1'-C2'	-7.82	103.40	112.00
35	BA	1786	A	N9-C1'-C2'	7.81	124.16	114.00
48	DP	52	GLU	N-CA-C	7.73	131.87	111.00
48	BP	52	GLU	N-CA-C	7.72	131.85	111.00
38	DD	244	ARG	C-N-CD	-7.66	103.75	120.60
35	DA	1300	U	C2'-C3'-O3'	7.63	126.28	109.50
1	CA	115	G	C2'-C3'-O3'	7.59	126.20	109.50
35	DA	1365	A	C5'-C4'-C3'	7.51	128.01	116.00
1	AA	115	G	C2'-C3'-O3'	7.41	125.81	109.50
41	DG	129	GLY	N-CA-C	-7.29	94.87	113.10
35	BA	587	C	C2'-C3'-O3'	7.25	125.45	109.50
1	CA	575	G	C2'-C3'-O3'	7.24	125.42	109.50
1	CA	366	C	C2'-C3'-O3'	7.14	125.22	109.50
35	DA	2778	A	C5'-C4'-C3'	-7.14	104.58	116.00
35	DA	587	C	C2'-C3'-O3'	7.12	125.15	109.50
1	CA	913	A	C2'-C3'-O3'	7.09	125.10	109.50
35	DA	2655	G	N9-C1'-C2'	7.01	123.12	114.00
35	BA	1365	A	C5'-C4'-C3'	7.01	127.21	116.00
1	AA	575	G	C2'-C3'-O3'	6.99	124.89	113.70
48	DP	54	GLY	N-CA-C	-6.94	95.76	113.10
1	AA	366	C	C2'-C3'-O3'	6.93	124.78	113.70
35	DA	387	U	C2'-C3'-O3'	6.89	124.73	113.70
35	DA	587	C	C4'-C3'-O3'	6.82	126.64	113.00
52	DT	80	SER	N-CA-C	6.76	129.26	111.00
1	AA	913	A	C2'-C3'-O3'	6.76	124.52	113.70
35	DA	1155	A	C5'-C4'-O4'	-6.75	101.00	109.10
52	BT	80	SER	N-CA-C	6.71	129.12	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2655	G	N9-C1'-C2'	6.59	122.57	114.00
48	BP	54	GLY	N-CA-C	-6.56	96.69	113.10
35	BA	587	C	C4'-C3'-O3'	6.55	126.11	113.00
35	DA	1427	A	C2'-C3'-O3'	6.52	124.14	113.70
1	CA	266	G	C2'-C3'-O3'	6.47	124.06	113.70
35	BA	49	A	C2'-C3'-O3'	6.43	124.00	113.70
35	BA	2778	A	C5'-C4'-C3'	-6.43	105.71	116.00
35	BA	387	U	C2'-C3'-O3'	6.33	123.82	113.70
35	DA	1493	C	N1-C1'-C2'	6.32	122.21	114.00
1	CA	1067	A	C2'-C3'-O3'	6.30	123.78	113.70
1	AA	266	G	C2'-C3'-O3'	6.26	123.72	113.70
35	DA	783	A	N9-C1'-C2'	-6.22	105.15	112.00
35	DA	1694	C	N1-C1'-C2'	6.20	122.06	114.00
35	DA	49	A	C2'-C3'-O3'	6.18	123.59	113.70
1	AA	1067	A	C2'-C3'-O3'	6.15	123.53	113.70
35	BA	1427	A	C2'-C3'-O3'	6.12	123.50	113.70
35	BA	1493	C	N1-C1'-C2'	6.02	121.83	114.00
35	DA	1300	U	C4'-C3'-O3'	5.94	124.87	113.00
35	DA	481	G	N9-C1'-C2'	5.93	121.71	114.00
35	DA	2200	C	C5'-C4'-C3'	-5.92	106.52	116.00
35	DA	102	G	N9-C1'-C2'	5.91	121.69	114.00
35	DA	964	C	C5'-C4'-C3'	-5.88	106.58	116.00
35	DA	629	G	C5'-C4'-C3'	-5.87	106.62	116.00
35	DA	2031	A	N9-C1'-C2'	5.86	121.62	114.00
35	DA	1986	A	C5'-C4'-C3'	-5.82	106.68	116.00
1	CA	1504	G	C4'-C3'-O3'	5.82	124.63	113.00
35	BA	1694	C	N1-C1'-C2'	5.80	121.54	114.00
48	BP	59	LEU	N-CA-C	-5.80	95.34	111.00
35	BA	102	G	N9-C1'-C2'	5.79	121.53	114.00
35	DA	945	A	N9-C1'-C2'	5.77	121.50	114.00
48	DP	59	LEU	N-CA-C	-5.74	95.51	111.00
35	DA	1970	A	C5'-C4'-O4'	5.72	115.97	109.10
35	BA	1970	A	C5'-C4'-O4'	5.71	115.95	109.10
35	DA	1819	A	C4'-C3'-O3'	5.71	124.42	113.00
35	BA	2031	A	N9-C1'-C2'	5.71	121.42	114.00
53	DU	97	ASP	N-CA-C	-5.71	95.59	111.00
48	DP	41	ARG	N-CA-C	-5.70	95.60	111.00
35	BA	1300	U	C4'-C3'-O3'	5.69	124.38	113.00
35	BA	783	A	N9-C1'-C2'	-5.65	105.78	112.00
53	BU	97	ASP	N-CA-C	-5.64	95.78	111.00
41	DG	54	GLU	N-CA-C	-5.62	95.84	111.00
48	BP	41	ARG	N-CA-C	-5.60	95.88	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	B1	46	LEU	CA-CB-CG	5.57	128.11	115.30
1	CA	920	U	C5'-C4'-C3'	-5.56	107.10	116.00
35	BA	587	C	C4'-C3'-C2'	5.54	108.14	102.60
35	BA	1155	A	C5'-C4'-O4'	-5.53	102.46	109.10
50	BR	4	LEU	CA-CB-CG	5.53	128.02	115.30
35	DA	1223	G	C5'-C4'-C3'	-5.52	107.16	116.00
46	BN	67	LEU	N-CA-C	-5.51	96.12	111.00
35	BA	945	A	N9-C1'-C2'	5.51	121.16	114.00
35	DA	414	C	C5'-C4'-C3'	-5.49	107.21	116.00
35	DA	2779	U	O4'-C1'-N1	5.47	112.58	108.20
35	BA	629	G	C5'-C4'-C3'	-5.47	107.25	116.00
35	DA	2278	A	C5'-C4'-C3'	5.47	124.75	116.00
1	AA	1498	U	C2'-C3'-O3'	5.46	122.44	113.70
35	BA	2200	C	C5'-C4'-C3'	-5.46	107.26	116.00
35	BA	1986	A	C5'-C4'-C3'	-5.45	107.28	116.00
35	DA	310	A	C5'-C4'-C3'	-5.45	107.28	116.00
35	BA	1495	A	N9-C1'-C2'	5.44	121.07	114.00
52	BT	30	VAL	N-CA-C	5.44	125.68	111.00
40	DF	63	LYS	N-CA-C	-5.43	96.34	111.00
35	DA	587	C	C4'-C3'-C2'	5.42	108.02	102.60
35	BA	310	A	C5'-C4'-C3'	-5.41	107.35	116.00
35	BA	481	G	N9-C1'-C2'	5.39	121.01	114.00
35	DA	2346	A	O4'-C1'-N9	5.38	112.51	108.20
35	DA	1948	G	C5'-C4'-O4'	-5.37	102.65	109.10
35	DA	1321	A	C5'-C4'-C3'	-5.37	107.41	116.00
35	BA	964	C	C5'-C4'-C3'	-5.35	107.44	116.00
35	BA	2278	A	C5'-C4'-C3'	5.33	124.53	116.00
35	DA	673	C	C5'-C4'-O4'	-5.33	102.70	109.10
46	DN	67	LEU	N-CA-C	-5.33	96.62	111.00
35	DA	1159	U	C5'-C4'-C3'	-5.31	107.50	116.00
35	DA	2225	A	C2'-C3'-O3'	5.30	122.18	113.70
35	BA	414	C	C5'-C4'-C3'	-5.29	107.53	116.00
52	DT	30	VAL	N-CA-C	5.29	125.28	111.00
48	DP	10	PRO	N-CA-C	-5.29	98.36	112.10
30	B5	48	GLU	N-CA-C	-5.28	96.74	111.00
50	DR	4	LEU	CA-CB-CG	5.26	127.41	115.30
35	DA	1616	A	O4'-C1'-N9	5.25	112.40	108.20
35	BA	1698	A	N9-C1'-C2'	5.25	120.82	114.00
35	DA	1970	A	C1'-O4'-C4'	-5.22	105.72	109.90
35	DA	1955	U	N1-C1'-C2'	5.22	120.78	114.00
35	DA	146	G	C5'-C4'-O4'	-5.21	102.85	109.10
52	DT	29	ARG	N-CA-C	5.20	125.04	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	D5	48	GLU	N-CA-C	-5.20	96.97	111.00
48	DP	116	GLY	N-CA-C	5.19	126.07	113.10
1	AA	920	U	C5'-C4'-C3'	-5.16	107.74	116.00
35	BA	1819	A	C4'-C3'-O3'	5.16	123.33	113.00
35	DA	1616	A	N9-C1'-C2'	5.16	120.71	114.00
35	DA	331	A	C4'-C3'-C2'	5.16	107.76	102.60
35	BA	1948	G	C5'-C4'-O4'	-5.15	102.92	109.10
52	BT	29	ARG	N-CA-C	5.15	124.91	111.00
35	DA	1318	C	C5'-C4'-C3'	-5.15	107.76	116.00
35	DA	474	G	C4'-C3'-C2'	5.15	107.75	102.60
35	DA	2557	G	C5'-C4'-C3'	-5.14	107.77	116.00
35	DA	1799	G	C4'-C3'-O3'	5.13	123.27	113.00
1	AA	1502	A	N9-C1'-C2'	5.12	120.65	114.00
35	BA	2112	G	C5'-C4'-C3'	-5.11	107.82	116.00
35	BA	2714	G	C5'-C4'-C3'	-5.11	107.82	116.00
35	BA	1159	U	C5'-C4'-C3'	-5.11	107.83	116.00
35	BA	2346	A	O4'-C1'-N9	5.10	112.28	108.20
35	DA	474	G	C4'-C3'-O3'	5.10	123.19	113.00
48	BP	116	GLY	N-CA-C	5.09	125.83	113.10
35	BA	2225	A	C2'-C3'-O3'	5.09	121.84	113.70
40	BF	63	LYS	N-CA-C	-5.08	97.28	111.00
35	DA	493	G	C5'-C4'-C3'	-5.08	107.87	116.00
35	DA	1495	A	N9-C1'-C2'	5.08	120.61	114.00
35	DA	2714	G	C5'-C4'-C3'	-5.08	107.88	116.00
53	DU	95	LEU	CA-CB-CG	-5.08	103.62	115.30
1	AA	509	A	C2'-C3'-O3'	5.07	121.82	113.70
48	BP	10	PRO	N-CA-C	-5.07	98.93	112.10
35	DA	1846	G	C5'-C4'-O4'	-5.06	103.03	109.10
57	DY	7	VAL	N-CA-C	5.06	124.67	111.00
35	BA	1970	A	C1'-O4'-C4'	-5.06	105.85	109.90
35	BA	1970	A	C5'-C4'-C3'	5.06	124.09	116.00
35	BA	1955	U	N1-C1'-C2'	5.05	120.57	114.00
1	CA	509	A	C2'-C3'-O3'	5.05	121.78	113.70
50	BR	10	LEU	CA-CB-CG	5.05	126.91	115.30
35	BA	1799	G	C4'-C3'-O3'	5.04	123.09	113.00
35	DA	1698	A	N9-C1'-C2'	5.04	120.55	114.00
1	AA	687	A	C2'-C3'-O3'	5.03	121.75	113.70
1	AA	115	G	C4'-C3'-C2'	5.03	107.63	102.60
1	AA	1504	G	C4'-C3'-C2'	5.02	107.62	102.60
38	DD	229	VAL	CB-CA-C	-5.01	101.88	111.40
50	DR	44	LEU	CA-CB-CG	5.00	126.81	115.30

All (13) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	AA	1504	G	C3'
35	BA	587	C	C3'
35	BA	1300	U	C3'
35	BA	1799	G	C3'
35	BA	1819	A	C3'
35	BA	1992	G	C3'
1	CA	1504	G	C3'
35	DA	474	G	C3'
35	DA	587	C	C3'
35	DA	1300	U	C3'
35	DA	1799	G	C3'
35	DA	1819	A	C3'
35	DA	1992	G	C3'

All (182) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	AA	1077	G	Sidechain
1	AA	1181	G	Sidechain
1	AA	1281	U	Sidechain
1	AA	1405	G	Sidechain
1	AA	1422	G	Sidechain
1	AA	1487	G	Sidechain
1	AA	1519	A	Sidechain
1	AA	1522	U	Sidechain
1	AA	21	G	Sidechain
1	AA	575	G	Sidechain
1	AA	587	G	Sidechain
1	AA	760	G	Sidechain
1	AA	832	C	Sidechain
1	AA	897	C	Sidechain
1	AA	898	G	Sidechain
22	AW	60	U	Sidechain
30	B5	51	TYR	Sidechain
30	B5	52	TYR	Sidechain
35	BA	102	G	Sidechain
35	BA	1040	C	Sidechain
35	BA	1112	G	Sidechain
35	BA	1215	G	Sidechain
35	BA	1271	G	Sidechain
35	BA	1294	U	Sidechain
35	BA	1379	A	Sidechain
35	BA	1416	G	Sidechain

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Mol	Chain	Res	Type	Group
35	BA	15	G	Sidechain
35	BA	1613	G	Sidechain
35	BA	1642	G	Sidechain
35	BA	1647	G	Sidechain
35	BA	1673	U	Sidechain
35	BA	1772	G	Sidechain
35	BA	178	G	Sidechain
35	BA	1789	A	Sidechain
35	BA	1801	G	Sidechain
35	BA	1807	G	Sidechain
35	BA	1955	U	Sidechain
35	BA	1992	G	Sidechain
35	BA	1993	U	Sidechain
35	BA	1999	C	Sidechain
35	BA	2011	U	Sidechain
35	BA	2031	A	Sidechain
35	BA	2059	A	Sidechain
35	BA	2086	U	Sidechain
35	BA	2282	G	Sidechain
35	BA	2336	A	Sidechain
35	BA	2360	A	Sidechain
35	BA	2387	U	Sidechain
35	BA	2388	A	Sidechain
35	BA	2437	U	Sidechain
35	BA	2464	C	Sidechain
35	BA	249	C	Sidechain
35	BA	250	G	Sidechain
35	BA	2542	A	Sidechain
35	BA	2595	G	Sidechain
35	BA	2596	U	Sidechain
35	BA	2597	G	Sidechain
35	BA	2661	G	Sidechain
35	BA	2692	C	Sidechain
35	BA	271(Q)	G	Sidechain
35	BA	271(Y)	U	Sidechain
35	BA	272(I)	U	Sidechain
35	BA	2746	U	Sidechain
35	BA	2779	U	Sidechain
35	BA	395	U	Sidechain
35	BA	463	G	Sidechain
35	BA	465	G	Sidechain
35	BA	488	G	Sidechain

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Mol	Chain	Res	Type	Group
35	BA	597	U	Sidechain
35	BA	607	U	Sidechain
35	BA	652	C	Sidechain
35	BA	670	A	Sidechain
35	BA	674	G	Sidechain
35	BA	70	G	Sidechain
35	BA	938	G	Sidechain
35	BA	956	G	Sidechain
35	BA	997	G	Sidechain
36	BB	106	G	Sidechain
36	BB	66	A	Sidechain
1	CA	1077	G	Sidechain
1	CA	1181	G	Sidechain
1	CA	1281	U	Sidechain
1	CA	1418	A	Sidechain
1	CA	1436	U	Sidechain
1	CA	1502	A	Sidechain
1	CA	1517	G	Sidechain
1	CA	1519	A	Sidechain
1	CA	1522	U	Sidechain
1	CA	21	G	Sidechain
1	CA	575	G	Sidechain
1	CA	587	G	Sidechain
1	CA	760	G	Sidechain
1	CA	832	C	Sidechain
1	CA	879	C	Sidechain
1	CA	897	C	Sidechain
1	CA	898	G	Sidechain
22	CV	29	G	Sidechain
22	CW	19	G	Sidechain
22	CW	20	U	Sidechain
22	CW	70	G	Sidechain
30	D5	51	TYR	Sidechain
30	D5	52	TYR	Sidechain
35	DA	102	G	Sidechain
35	DA	1025	G	Sidechain
35	DA	1040	C	Sidechain
35	DA	1112	G	Sidechain
35	DA	1132	A	Sidechain
35	DA	1215	G	Sidechain
35	DA	1252	G	Sidechain
35	DA	1271	G	Sidechain

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Mol	Chain	Res	Type	Group
35	DA	1294	U	Sidechain
35	DA	1379	A	Sidechain
35	DA	1391	U	Sidechain
35	DA	1416	G	Sidechain
35	DA	15	G	Sidechain
35	DA	1613	G	Sidechain
35	DA	1642	G	Sidechain
35	DA	1647	G	Sidechain
35	DA	1693	U	Sidechain
35	DA	1772	G	Sidechain
35	DA	1789	A	Sidechain
35	DA	1801	G	Sidechain
35	DA	1807	G	Sidechain
35	DA	1822	G	Sidechain
35	DA	1938	A	Sidechain
35	DA	1955	U	Sidechain
35	DA	1966	A	Sidechain
35	DA	1992	G	Sidechain
35	DA	1999	C	Sidechain
35	DA	2000	G	Sidechain
35	DA	2030	A	Sidechain
35	DA	2031	A	Sidechain
35	DA	2034	U	Sidechain
35	DA	2053	G	Sidechain
35	DA	2059	A	Sidechain
35	DA	2086	U	Sidechain
35	DA	2089	U	Sidechain
35	DA	2267	A	Sidechain
35	DA	2282	G	Sidechain
35	DA	2320	A	Sidechain
35	DA	2336	A	Sidechain
35	DA	2360	A	Sidechain
35	DA	2387	U	Sidechain
35	DA	2437	U	Sidechain
35	DA	2464	C	Sidechain
35	DA	249	C	Sidechain
35	DA	250	G	Sidechain
35	DA	2517	C	Sidechain
35	DA	2522	U	Sidechain
35	DA	2542	A	Sidechain
35	DA	2564	A	Sidechain
35	DA	2595	G	Sidechain

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Mol	Chain	Res	Type	Group
35	DA	2596	U	Sidechain
35	DA	2597	G	Sidechain
35	DA	2661	G	Sidechain
35	DA	2662	A	Sidechain
35	DA	2692	C	Sidechain
35	DA	271(Q)	G	Sidechain
35	DA	271(Y)	U	Sidechain
35	DA	2746	U	Sidechain
35	DA	2776	A	Sidechain
35	DA	2779	U	Sidechain
35	DA	395	U	Sidechain
35	DA	463	G	Sidechain
35	DA	465	G	Sidechain
35	DA	488	G	Sidechain
35	DA	512	G	Sidechain
35	DA	597	U	Sidechain
35	DA	607	U	Sidechain
35	DA	652	C	Sidechain
35	DA	670	A	Sidechain
35	DA	674	G	Sidechain
35	DA	700	G	Sidechain
35	DA	704	G	Sidechain
35	DA	72	U	Sidechain
35	DA	743	G	Sidechain
35	DA	938	G	Sidechain
35	DA	956	G	Sidechain
35	DA	997	G	Sidechain
36	DB	106	G	Sidechain
36	DB	66	A	Sidechain
36	DB	77	U	Sidechain

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	32329	0	16314	1205	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	CA	32329	0	16316	1221	0
2	AB	1901	0	1951	258	0
2	CB	1901	0	1951	259	0
3	AC	1613	0	1677	199	0
3	CC	1613	0	1677	196	0
4	AD	1703	0	1763	219	0
4	CD	1703	0	1763	207	0
5	AE	1147	0	1207	125	0
5	CE	1147	0	1207	125	0
6	AF	843	0	857	88	0
6	CF	843	0	857	95	0
7	AG	1257	0	1296	113	0
7	CG	1257	0	1296	121	0
8	AH	1116	0	1177	118	0
8	CH	1116	0	1177	113	0
9	AI	1011	0	1041	126	0
9	CI	1011	0	1041	129	0
10	AJ	795	0	840	146	0
10	CJ	795	0	840	144	0
11	AK	885	0	904	74	0
11	CK	885	0	904	77	0
12	AL	971	0	1057	122	0
12	CL	971	0	1057	124	0
13	AM	988	0	1055	161	0
13	CM	988	0	1055	153	0
14	AN	492	0	530	66	0
14	CN	492	0	529	65	0
15	AO	734	0	771	55	0
15	CO	734	0	771	52	0
16	AP	701	0	720	81	0
16	CP	701	0	720	87	0
17	AQ	824	0	891	62	0
17	CQ	824	0	891	63	0
18	AR	574	0	644	59	0
18	CR	574	0	644	59	0
19	AS	630	0	651	98	0
19	CS	630	0	651	100	0
20	AT	763	0	861	73	0
20	CT	763	0	861	78	0
21	AU	209	0	221	24	0
21	CU	209	0	221	26	0
22	AV	1630	0	831	77	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
22	AW	1630	0	831	101	0
22	CV	1630	0	831	65	0
22	CW	1630	0	832	109	0
23	AX	165	0	87	11	0
23	CX	165	0	87	17	0
24	AY	2801	0	2816	377	0
24	CY	2801	0	2816	430	0
25	B0	657	0	683	58	0
25	D0	657	0	683	55	0
26	B1	732	0	808	88	0
26	D1	732	0	808	80	0
27	B2	598	0	653	81	0
27	D2	598	0	653	77	0
28	B3	468	0	523	40	0
28	D3	468	0	523	42	0
29	B4	226	0	229	46	0
29	D4	226	0	229	45	0
30	B5	459	0	480	74	0
30	D5	459	0	480	74	0
31	B6	381	0	390	73	0
31	D6	381	0	389	149	0
32	B7	419	0	467	19	0
32	D7	419	0	467	22	0
33	B8	508	0	576	103	0
33	D8	508	0	576	103	0
34	B9	299	0	323	24	0
34	D9	299	0	323	24	0
35	BA	62474	0	31492	1876	0
35	DA	62474	0	31493	1854	0
36	BB	2551	0	1295	80	0
36	DB	2551	0	1295	70	0
37	BC	937	0	957	106	0
37	DC	937	0	957	108	0
38	BD	2105	0	2182	248	0
38	DD	2105	0	2182	254	0
39	BE	1564	0	1629	191	0
39	DE	1564	0	1629	192	0
40	BF	1624	0	1677	189	0
40	DF	1624	0	1677	188	0
41	BG	1474	0	1534	286	0
41	DG	1474	0	1535	240	0
42	BH	1223	0	1282	139	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
42	DH	1223	0	1282	145	0
43	BI	1132	0	1218	179	0
43	DI	1132	0	1218	181	0
44	BJ	651	0	151	34	0
44	DJ	651	0	151	34	0
45	BK	1038	0	1089	196	0
45	DK	1038	0	1089	192	0
46	BN	1105	0	1180	127	0
46	DN	1105	0	1180	134	0
47	BO	933	0	996	84	0
47	DO	933	0	996	93	0
48	BP	1114	0	1187	268	0
48	DP	1114	0	1187	263	0
49	BQ	1122	0	1179	127	0
49	DQ	1122	0	1179	110	0
50	BR	960	0	1021	93	0
50	DR	960	0	1021	94	0
51	BS	771	0	832	126	0
51	DS	771	0	832	121	0
52	BT	1142	0	1202	223	0
52	DT	1142	0	1202	228	0
53	BU	958	0	1015	103	0
53	DU	958	0	1015	109	0
54	BV	779	0	852	132	0
54	DV	779	0	852	133	0
55	BW	896	0	953	50	0
55	DW	896	0	953	50	0
56	BX	726	0	778	73	0
56	DX	726	0	778	70	0
57	BY	776	0	870	178	0
57	DY	776	0	870	190	0
58	BZ	1468	0	1492	228	0
58	DZ	1468	0	1492	188	0
59	AA	161	0	0	0	0
59	AL	1	0	0	0	0
59	AS	1	0	0	0	0
59	AV	7	0	0	0	0
59	AW	4	0	0	0	0
59	AX	1	0	0	0	0
59	AY	1	0	0	0	0
59	B1	1	0	0	0	0
59	B5	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	BA	357	0	0	0	0
59	BB	4	0	0	0	0
59	BD	2	0	0	0	0
59	BF	2	0	0	0	0
59	BG	1	0	0	0	0
59	BT	1	0	0	0	0
59	BX	1	0	0	0	0
59	BY	1	0	0	0	0
59	CA	155	0	0	0	0
59	CD	1	0	0	0	0
59	CL	2	0	0	0	0
59	CN	1	0	0	0	0
59	CS	1	0	0	0	0
59	CV	7	0	0	0	0
59	CW	4	0	0	0	0
59	CX	1	0	0	0	0
59	D1	1	0	0	0	0
59	D5	2	0	0	0	0
59	DA	359	0	0	0	0
59	DB	4	0	0	0	0
59	DD	1	0	0	0	0
59	DE	1	0	0	0	0
59	DF	1	0	0	0	0
59	DG	1	0	0	0	0
59	DH	1	0	0	0	0
59	DP	1	0	0	0	0
59	DS	1	0	0	0	0
59	DX	1	0	0	0	0
60	AD	1	0	0	0	0
60	AN	1	0	0	0	0
60	B9	1	0	0	0	0
60	CD	1	0	0	0	0
60	CN	1	0	0	0	0
60	D9	1	0	0	0	0
61	AV	1	0	0	0	0
61	AY	1	0	0	0	0
61	BA	1	0	0	1	0
All	All	305067	0	208379	18089	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 35.

All (18089) close contacts within the same asymmetric unit are listed below.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:CY:303:ARG:HH22	35:DA:1914:C:C1'	1.34	1.39
24:CY:303:ARG:NH2	35:DA:1914:C:H1'	1.33	1.39
31:D6:41:PRO:HD3	31:D6:46:HIS:CB	1.55	1.36
31:D6:46:HIS:CA	31:D6:47:THR:HG23	1.58	1.33
35:DA:1899:G:N2	35:DA:1902:C:H41	1.26	1.32
31:D6:46:HIS:HA	31:D6:47:THR:CG2	1.58	1.30
35:BA:1899:G:N2	35:BA:1902:C:H41	1.29	1.30
31:D6:41:PRO:CD	31:D6:46:HIS:HB3	1.60	1.28
31:D6:41:PRO:HD2	31:D6:46:HIS:N	1.46	1.26
31:D6:14:THR:O	31:D6:49:HIS:HA	1.05	1.22
31:D6:46:HIS:HB2	31:D6:47:THR:O	1.34	1.22
24:AY:302:VAL:O	24:AY:303:ARG:HG3	1.34	1.20
31:D6:46:HIS:HA	31:D6:47:THR:CB	1.66	1.20
31:D6:14:THR:O	31:D6:49:HIS:CA	1.88	1.20
36:BB:80:U:H2'	36:BB:81:G:H21	1.03	1.20
31:D6:41:PRO:CD	31:D6:46:HIS:CA	2.19	1.18
35:BA:1590:U:H2'	35:BA:1591:G:H5''	1.23	1.18
52:DT:13:ARG:CZ	52:DT:13:ARG:HA	1.73	1.18
52:DT:25:GLY:HA2	52:DT:92:GLY:HA3	1.18	1.17
1:AA:1442(A):G:H3'	1:AA:1442(B):A:H5''	1.19	1.17
35:BA:612:C:H2'	35:BA:613:G:H5''	1.18	1.16
30:B5:55:ARG:HD3	30:B5:56:LYS:H	1.09	1.16
4:CD:128:VAL:HG12	4:CD:129:ASN:H	1.08	1.16
52:BT:13:ARG:HA	52:BT:13:ARG:CZ	1.74	1.16
54:BV:19:LYS:HG2	54:BV:94:LEU:HB2	1.21	1.15
57:BY:10:GLY:HA2	57:BY:27:VAL:HG13	1.27	1.15
22:CV:72:C:H2'	22:CV:73:A:H5''	1.24	1.15
35:DA:1845:G:H2'	35:DA:1846:G:H5''	1.22	1.15
31:D6:45:LYS:CG	35:DA:2371:G:H4'	1.77	1.14
57:DY:76:CYS:SG	57:DY:77:PRO:HD2	1.87	1.14
22:AW:70:G:H2'	22:AW:71:G:H5''	1.15	1.14
35:DA:612:C:H2'	35:DA:613:G:H5''	1.20	1.14
40:BF:24:LEU:HB3	40:BF:25:PRO:HD2	1.30	1.14
57:DY:10:GLY:HA2	57:DY:27:VAL:HG13	1.23	1.13
33:B8:25:MET:HG3	48:BP:64:LYS:HB3	1.19	1.13
35:BA:1845:G:H2'	35:BA:1846:G:H5''	1.21	1.13
35:DA:1798:U:H5'	38:DD:259:THR:HG22	1.28	1.13
31:D6:40:CYS:HA	31:D6:46:HIS:HB3	1.22	1.13
4:CD:86:LYS:HE3	4:CD:87:GLY:H	1.00	1.12
33:D8:62:LEU:HD13	35:DA:242:G:H5''	1.30	1.12
35:DA:1747(A):G:H2'	35:DA:1748:G:H5''	1.20	1.12
33:D8:25:MET:HG3	48:DP:64:LYS:HB3	1.16	1.12
35:DA:2801(A):A:H4'	35:DA:2802:G:H5'	1.15	1.12

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:D3:8:LEU:HD13	28:D3:31:LEU:HD23	1.29	1.11
35:DA:1590:U:H2'	35:DA:1591:G:H5''	1.24	1.11
28:B3:8:LEU:HD13	28:B3:31:LEU:HD23	1.33	1.11
42:DH:41:MET:HG3	42:DH:42:ARG:H	0.99	1.10
36:DB:80:U:H2'	36:DB:81:G:H21	1.01	1.10
58:DZ:81:ARG:HH11	58:DZ:81:ARG:HB3	1.16	1.10
4:AD:86:LYS:HE3	4:AD:87:GLY:H	0.99	1.10
35:BA:612:C:C2'	35:BA:613:G:H5''	1.80	1.10
33:B8:62:LEU:HD13	35:BA:242:G:H5''	1.23	1.10
35:DA:1484:G:H2'	35:DA:1485:G:H5''	1.31	1.10
35:BA:1747(A):G:H2'	35:BA:1748:G:H5''	1.21	1.09
24:CY:111:HIS:NE2	24:CY:214:VAL:HB	1.67	1.09
54:DV:19:LYS:HG2	54:DV:94:LEU:HB2	1.23	1.09
35:BA:1798:U:H5'	38:BD:259:THR:HG22	1.27	1.09
35:DA:612:C:C2'	35:DA:613:G:H5''	1.81	1.09
42:BH:41:MET:HG3	42:BH:42:ARG:H	1.00	1.09
35:DA:154(A):C:H3'	35:DA:155:U:H5''	1.28	1.09
31:D6:41:PRO:HD3	31:D6:47:THR:OG1	1.51	1.09
35:BA:1484:G:H2'	35:BA:1485:G:H5''	1.32	1.09
4:AD:128:VAL:HG12	4:AD:129:ASN:H	1.07	1.09
31:D6:41:PRO:HD3	31:D6:46:HIS:HB3	1.09	1.08
42:BH:13:LYS:HA	42:BH:13:LYS:HE2	1.34	1.08
45:DK:77:LEU:HD13	45:DK:107:ILE:HD11	1.35	1.08
40:DF:24:LEU:HB3	40:DF:25:PRO:HD2	1.30	1.08
52:BT:25:GLY:HA2	52:BT:92:GLY:HA3	1.19	1.08
38:DD:44:ASN:HB3	38:DD:49:ILE:HA	1.32	1.08
31:D6:41:PRO:CD	31:D6:46:HIS:CB	2.20	1.07
57:BY:76:CYS:SG	57:BY:77:PRO:HD2	1.95	1.07
27:B2:11:GLU:HA	27:B2:14:ARG:HB2	1.36	1.07
22:AW:39:U:H2'	22:AW:40:C:H5''	1.35	1.07
40:DF:132:VAL:HG22	40:DF:133:ASN:H	1.19	1.07
40:BF:3:GLU:HA	40:BF:24:LEU:HG	1.34	1.06
35:BA:2491:U:H5'	35:BA:2570:G:H5''	1.34	1.06
58:BZ:166:SER:HB2	58:BZ:168:GLU:N	1.69	1.06
31:D6:15:GLU:HG3	31:D6:47:THR:HB	1.14	1.06
31:D6:15:GLU:CG	31:D6:47:THR:HB	1.83	1.06
57:DY:95:LYS:HG3	57:DY:100:ALA:HA	1.35	1.06
35:BA:2801(A):A:H4'	35:BA:2802:G:H5'	1.15	1.06
35:BA:1887:C:H2'	35:BA:1888:G:H5''	1.36	1.06
38:BD:44:ASN:HB3	38:BD:49:ILE:HA	1.33	1.06
31:D6:41:PRO:HD2	31:D6:46:HIS:CA	1.82	1.06
40:DF:3:GLU:HA	40:DF:24:LEU:HG	1.33	1.06

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:1108:U:H2'	35:BA:1109:C:H5''	1.38	1.06
48:DP:7:ARG:HA	48:DP:7:ARG:NH1	1.69	1.06
13:AM:88:ARG:HA	13:AM:98:VAL:HG11	1.38	1.06
35:BA:154(A):C:H3'	35:BA:155:U:H5''	1.29	1.06
58:DZ:153:SER:H	58:DZ:167:PRO:HB2	1.21	1.06
2:CB:172:ILE:H	2:CB:172:ILE:HD12	1.20	1.06
40:BF:132:VAL:HG22	40:BF:133:ASN:H	1.17	1.06
31:D6:46:HIS:HA	31:D6:47:THR:OG1	1.56	1.05
35:BA:1798:U:H5'	38:BD:259:THR:CG2	1.86	1.05
2:AB:172:ILE:HD12	2:AB:172:ILE:H	1.18	1.05
35:DA:1108:U:H2'	35:DA:1109:C:H5''	1.35	1.05
30:D5:55:ARG:HD3	30:D5:56:LYS:H	1.09	1.05
13:CM:88:ARG:HA	13:CM:98:VAL:HG11	1.37	1.05
42:DH:13:LYS:HA	42:DH:13:LYS:HE2	1.33	1.05
48:BP:7:ARG:HA	48:BP:7:ARG:NH1	1.70	1.05
38:BD:79:VAL:HG21	38:BD:111:LEU:HD11	1.39	1.05
51:BS:13:ARG:HG3	51:BS:14:VAL:H	1.20	1.05
22:AW:70:G:C2'	22:AW:71:G:H5''	1.86	1.04
48:DP:144:GLU:H	48:DP:145:PRO:HD3	1.22	1.04
57:BY:95:LYS:HG3	57:BY:100:ALA:HA	1.35	1.04
19:CS:6:LYS:HG2	19:CS:7:LYS:HE3	1.38	1.04
35:DA:1301:A:O2'	35:DA:1302:A:H2'	1.57	1.04
35:BA:1590:U:C2'	35:BA:1591:G:H5''	1.86	1.04
24:CY:209:GLU:OE2	24:CY:303:ARG:CD	2.06	1.04
35:DA:1887:C:H2'	35:DA:1888:G:H5''	1.37	1.04
35:DA:2491:U:H5'	35:DA:2570:G:H5''	1.33	1.04
24:AY:303:ARG:H	24:AY:304:PRO:HD3	1.22	1.04
51:DS:13:ARG:HG3	51:DS:14:VAL:H	1.18	1.04
35:DA:2661:G:H5''	35:DA:2662:A:H2	1.17	1.04
22:CW:16:U:H3'	22:CW:17:C:H5'	1.34	1.03
41:DG:64:THR:HG23	41:DG:66:GLN:H	1.23	1.03
24:CY:238:GLY:HA3	24:CY:242:VAL:HB	1.38	1.03
5:CE:102:ALA:HB1	5:CE:106:PRO:HG2	1.41	1.03
24:AY:115:ASN:HD22	24:AY:170:LEU:HD11	1.21	1.03
41:DG:115:ARG:HG3	41:DG:116:ASP:H	1.21	1.03
35:BA:1301:A:O2'	35:BA:1302:A:H2'	1.59	1.03
31:D6:41:PRO:CD	31:D6:47:THR:OG1	2.06	1.03
1:AA:979:C:H3'	1:AA:980:C:H5''	1.38	1.03
35:DA:1798:U:H5'	38:DD:259:THR:CG2	1.89	1.02
45:BK:77:LEU:HD13	45:BK:107:ILE:HD11	1.36	1.02
6:AF:30:LEU:HD23	6:AF:30:LEU:H	1.24	1.02
31:D6:45:LYS:HG3	35:DA:2371:G:C4'	1.89	1.02

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:1747(A):G:C2'	35:DA:1748:G:H5''	1.88	1.02
58:BZ:42:VAL:HG13	58:BZ:43:GLU:H	1.19	1.02
38:DD:79:VAL:HG21	38:DD:111:LEU:HD11	1.40	1.02
38:BD:24:ILE:HG23	38:BD:25:THR:H	1.24	1.02
51:DS:87:PHE:HB2	51:DS:106:ARG:HE	1.25	1.02
54:BV:62:LEU:HD21	54:BV:95:LEU:HB2	1.40	1.02
31:D6:40:CYS:HA	31:D6:46:HIS:CB	1.90	1.02
35:BA:1747(A):G:C2'	35:BA:1748:G:H5''	1.87	1.02
24:CY:287:GLU:HA	24:CY:290:LYS:HE3	1.42	1.02
35:DA:1590:U:C2'	35:DA:1591:G:H5''	1.88	1.02
19:AS:6:LYS:HG2	19:AS:7:LYS:HE3	1.40	1.02
52:BT:129:ARG:CZ	52:BT:131:ALA:HB3	1.90	1.02
54:DV:62:LEU:HD21	54:DV:95:LEU:HB2	1.40	1.01
1:CA:979:C:H3'	1:CA:980:C:H5''	1.38	1.01
1:AA:1256:A:H61	1:AA:1278:U:H1'	1.26	1.01
48:DP:146:VAL:HG22	48:DP:147:LEU:H	1.22	1.01
35:DA:1779:U:H5	35:DA:1784:A:N7	1.58	1.01
35:BA:2661:G:H5''	35:BA:2662:A:H2	1.20	1.01
24:AY:241:GLY:HA2	24:AY:244:THR:HG22	1.42	1.01
22:AW:16:U:H3'	22:AW:17:C:H5'	1.39	1.01
2:AB:71:VAL:HG13	2:AB:93:VAL:HB	1.40	1.01
35:BA:2876:G:H4'	52:BT:3:ARG:HE	1.23	1.01
35:DA:654(T):C:H2'	35:DA:654(U):A:H5'	1.42	1.01
57:BY:28:LYS:HA	57:BY:38:ILE:HG22	1.42	1.00
36:BB:20:C:H2'	36:BB:21:G:H5''	1.40	1.00
36:DB:20:C:H2'	36:DB:21:G:H5''	1.41	1.00
3:AC:150:LYS:HB3	3:AC:201:TYR:HB2	1.43	1.00
35:DA:2876:G:H4'	52:DT:3:ARG:HE	1.25	1.00
1:AA:975:A:H4'	1:AA:976:G:H5''	1.43	1.00
52:DT:85:LYS:NZ	52:DT:85:LYS:HB3	1.74	1.00
35:BA:1494:A:H2'	35:BA:1495:A:H5''	1.41	1.00
41:BG:152:LEU:HD23	41:BG:152:LEU:H	1.26	1.00
35:DA:1494:A:H2'	35:DA:1495:A:H5''	1.40	1.00
48:BP:146:VAL:HG22	48:BP:147:LEU:H	1.24	1.00
29:B4:24:THR:HG21	41:BG:104:GLU:HG2	1.44	1.00
57:DY:28:LYS:HA	57:DY:38:ILE:HG22	1.38	1.00
58:DZ:151:HIS:HA	58:DZ:171:ILE:HG12	1.42	1.00
48:BP:144:GLU:H	48:BP:145:PRO:HD3	1.23	1.00
24:AY:188:ARG:HB2	24:AY:310:GLN:HG2	1.44	1.00
35:BA:1884:A:H2'	35:BA:1885:A:H5''	1.44	1.00
1:CA:975:A:H4'	1:CA:976:G:H5''	1.43	1.00
2:CB:71:VAL:HG13	2:CB:93:VAL:HB	1.42	1.00

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:1568:G:H5''	38:DD:61:LEU:HD23	1.43	1.00
57:BY:97:ARG:NH1	57:BY:97:ARG:HB2	1.76	1.00
49:BQ:108:GLY:HA3	58:BZ:116:VAL:HG21	1.44	1.00
6:CF:30:LEU:HD23	6:CF:30:LEU:H	1.27	0.99
10:CJ:50:ILE:HD13	10:CJ:50:ILE:H	1.26	0.99
35:BA:1779:U:H5	35:BA:1784:A:N7	1.60	0.99
31:D6:41:PRO:HD2	31:D6:46:HIS:H	1.05	0.99
31:D6:15:GLU:HG3	31:D6:47:THR:CB	1.92	0.99
4:CD:18:LYS:HB2	4:CD:33:MET:HG2	1.42	0.99
32:D7:8:ASN:ND2	32:D7:11:LYS:H	1.59	0.99
54:BV:18:LEU:HD13	54:BV:19:LYS:H	1.25	0.99
58:DZ:20:ARG:HH11	58:DZ:20:ARG:HB2	1.27	0.99
3:CC:150:LYS:HB3	3:CC:201:TYR:HB2	1.44	0.99
22:AW:76:8AN:H4'	22:AW:77:PHA:O	1.60	0.99
32:B7:8:ASN:ND2	32:B7:11:LYS:H	1.60	0.99
54:DV:15:GLU:HB3	54:DV:16:PRO:HD2	1.45	0.99
31:D6:41:PRO:HG3	31:D6:47:THR:CG2	1.92	0.99
57:DY:97:ARG:NH1	57:DY:97:ARG:HB2	1.77	0.99
52:DT:129:ARG:CZ	52:DT:131:ALA:HB3	1.92	0.99
43:DI:92:VAL:HG13	43:DI:120:ILE:HB	1.44	0.99
35:DA:676:A:H8	35:DA:2069:G:H21	1.11	0.99
35:DA:1899:G:H22	35:DA:1902:C:H41	1.08	0.99
10:AJ:50:ILE:H	10:AJ:50:ILE:HD13	1.26	0.99
35:DA:1899:G:N2	35:DA:1902:C:N4	2.10	0.99
24:AY:302:VAL:O	24:AY:303:ARG:CG	2.10	0.99
35:DA:2660:A:H5'	35:DA:2661:G:N2	1.78	0.99
40:DF:103:LYS:HA	40:DF:106:ARG:HG3	1.41	0.99
35:BA:654(T):C:H2'	35:BA:654(U):A:H5'	1.43	0.99
35:BA:2523:G:H2'	35:BA:2524:G:H5''	1.43	0.99
31:D6:41:PRO:CG	31:D6:47:THR:OG1	2.10	0.99
51:DS:97:ARG:HH21	51:DS:98:VAL:HA	1.26	0.99
55:BW:92:ARG:HH11	55:BW:92:ARG:HB3	1.27	0.99
35:BA:1826:G:H4'	38:BD:242:ARG:HH21	1.27	0.99
13:AM:124:PRO:HD2	24:AY:163:GLY:H	1.25	0.99
54:DV:18:LEU:HD13	54:DV:19:LYS:H	1.25	0.98
22:CW:39:U:H2'	22:CW:40:C:H5''	1.44	0.98
35:DA:2523:G:H2'	35:DA:2524:G:H5''	1.45	0.98
52:DT:28:VAL:HG21	52:DT:46:GLU:HG3	1.45	0.98
31:D6:41:PRO:HG3	31:D6:47:THR:CB	1.92	0.98
35:DA:1540:U:H3'	35:DA:1541:G:H3'	1.45	0.98
52:BT:3:ARG:HB2	52:BT:6:LEU:HB3	1.45	0.98
1:CA:1107:C:H2'	1:CA:1108:G:H5''	1.44	0.98

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:14:ILE:HG12	3:CC:15:THR:H	1.27	0.98
2:AB:22:LYS:HE2	2:AB:22:LYS:HA	1.46	0.98
51:BS:87:PHE:HB2	51:BS:106:ARG:HE	1.26	0.98
39:DE:77:ILE:HG22	39:DE:78:LEU:H	1.24	0.98
41:BG:96:ARG:HG2	41:BG:97:ASP:H	1.23	0.98
49:BQ:16:ARG:HB3	49:BQ:18:LYS:HZ3	1.29	0.98
35:BA:2660:A:H5'	35:BA:2661:G:N2	1.79	0.98
39:BE:77:ILE:HG22	39:BE:78:LEU:H	1.27	0.98
35:DA:1173:G:H3'	35:DA:1174:A:H5'	1.43	0.98
1:AA:137:C:H42	1:AA:226:G:H1	1.11	0.98
40:DF:53:THR:HG23	40:DF:55:GLY:H	1.29	0.97
35:DA:2656:U:H3	35:DA:2665:A:H2	1.10	0.97
24:CY:252:VAL:HG13	24:CY:259:THR:HG22	1.46	0.97
4:AD:86:LYS:HE3	4:AD:87:GLY:N	1.79	0.97
58:BZ:69:THR:HG22	58:BZ:90:VAL:HA	1.44	0.97
27:D2:68:ARG:O	27:D2:69:ARG:HG3	1.64	0.97
35:BA:141:A:H8	35:BA:1408:C:O2'	1.44	0.97
31:D6:41:PRO:HG3	31:D6:47:THR:OG1	1.64	0.97
35:DA:141:A:H8	35:DA:1408:C:O2'	1.45	0.97
43:DI:9:LEU:HB2	43:DI:12:LEU:O	1.64	0.97
1:CA:1256:A:H61	1:CA:1278:U:H1'	1.26	0.97
35:BA:1845:G:C2'	35:BA:1846:G:H5''	1.95	0.97
42:DH:41:MET:CG	42:DH:42:ARG:H	1.75	0.97
42:BH:41:MET:CG	42:BH:42:ARG:H	1.76	0.97
46:BN:2:LYS:NZ	53:BU:95:LEU:HD21	1.79	0.97
58:DZ:151:HIS:HB2	58:DZ:170:THR:HA	1.44	0.96
1:AA:1107:C:H2'	1:AA:1108:G:H5''	1.47	0.96
35:DA:272(J):C:H42	35:DA:363:G:H1	1.08	0.96
55:DW:92:ARG:HB3	55:DW:92:ARG:HH11	1.28	0.96
1:AA:1442(A):G:H3'	1:AA:1442(B):A:C5'	1.93	0.96
1:CA:1116:C:H2'	1:CA:1117:G:H5''	1.47	0.96
35:DA:145:G:H2'	35:DA:146:G:H5''	1.48	0.96
1:CA:939:G:H5''	7:CG:102:ARG:HH12	1.30	0.96
35:BA:145:G:H2'	35:BA:146:G:H5''	1.48	0.96
39:BE:111:ARG:HA	50:BR:2:ARG:HG2	1.47	0.96
45:BK:111:LYS:HD2	45:BK:127:ILE:HD11	1.47	0.96
40:BF:67:GLN:HG3	40:BF:67:GLN:O	1.66	0.96
31:D6:48:VAL:HG23	31:D6:49:HIS:H	1.31	0.96
40:BF:103:LYS:HA	40:BF:106:ARG:HG3	1.46	0.96
52:BT:85:LYS:NZ	52:BT:85:LYS:HB3	1.78	0.96
2:AB:168:THR:HG23	2:AB:192:SER:OG	1.66	0.96
35:BA:1173:G:H3'	35:BA:1174:A:H5'	1.45	0.96

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DN:2:LYS:NZ	53:DU:95:LEU:HD21	1.80	0.96
4:CD:176:LEU:HG	4:CD:177:ASP:H	1.29	0.96
1:CA:1128:C:H1'	1:CA:1146:A:H61	1.31	0.95
57:DY:97:ARG:HB2	57:DY:97:ARG:HH11	1.30	0.95
4:CD:86:LYS:HE3	4:CD:87:GLY:N	1.80	0.95
48:DP:62:LEU:H	48:DP:62:LEU:CD2	1.79	0.95
35:DA:2068:U:N3	35:DA:2430:A:H2	1.64	0.95
5:AE:102:ALA:HB1	5:AE:106:PRO:HG2	1.44	0.95
45:DK:111:LYS:HD2	45:DK:127:ILE:HD11	1.48	0.95
4:AD:176:LEU:HG	4:AD:177:ASP:H	1.28	0.95
58:DZ:40:ASP:OD1	58:DZ:42:VAL:HG12	1.65	0.95
35:BA:676:A:H8	35:BA:2069:G:H21	1.11	0.95
31:D6:48:VAL:HG23	31:D6:49:HIS:N	1.80	0.95
35:DA:1826:G:H4'	38:DD:242:ARG:HH21	1.27	0.95
35:BA:1540:U:H3'	35:BA:1541:G:H3'	1.44	0.95
31:D6:41:PRO:HG3	31:D6:47:THR:HG21	1.46	0.95
35:DA:1845:G:C2'	35:DA:1846:G:H5''	1.95	0.95
13:CM:124:PRO:HD2	24:CY:163:GLY:H	1.26	0.95
51:BS:74:ALA:HB1	51:BS:103:GLU:HB2	1.49	0.95
39:DE:111:ARG:HA	50:DR:2:ARG:HG2	1.48	0.95
22:CW:50:U:H4'	22:CW:65:G:H22	1.30	0.95
52:DT:3:ARG:HB2	52:DT:6:LEU:HB3	1.47	0.95
41:BG:52:ILE:HD13	41:BG:52:ILE:H	1.30	0.95
1:AA:673:G:H2'	1:AA:674:G:C8	2.02	0.95
35:BA:1689:A:H62	35:BA:1698:A:H2	0.95	0.95
52:BT:28:VAL:HG21	52:BT:46:GLU:HG3	1.45	0.95
36:BB:7:G:H3'	36:BB:8:U:H5''	1.48	0.95
49:DQ:16:ARG:HB3	49:DQ:18:LYS:HZ3	1.31	0.95
35:BA:2394:C:OP1	48:BP:63:PRO:HD2	1.67	0.95
3:AC:14:ILE:HG12	3:AC:15:THR:H	1.30	0.95
24:CY:61:THR:HG21	24:CY:101:LEU:HD13	1.45	0.95
1:AA:1116:C:H2'	1:AA:1117:G:H5''	1.46	0.95
35:DA:1884:A:H2'	35:DA:1885:A:H5''	1.45	0.94
54:BV:15:GLU:HB3	54:BV:16:PRO:HD2	1.48	0.94
35:BA:1899:G:N2	35:BA:1902:C:N4	2.14	0.94
45:BK:21:PRO:HB2	45:BK:22:PRO:HD3	1.49	0.94
31:D6:28:ARG:HA	31:D6:32:ASN:HD22	1.32	0.94
35:BA:2068:U:N3	35:BA:2430:A:H2	1.64	0.94
58:DZ:69:THR:HG22	58:DZ:90:VAL:HA	1.44	0.94
35:DA:2394:C:OP1	48:DP:63:PRO:HD2	1.65	0.94
58:DZ:165:VAL:HG12	58:DZ:167:PRO:HA	1.48	0.94
51:DS:74:ALA:HB1	51:DS:103:GLU:HB2	1.46	0.94

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:168:THR:HG23	2:CB:192:SER:OG	1.68	0.94
38:DD:24:ILE:HG23	38:DD:25:THR:H	1.31	0.94
1:CA:673:G:H2'	1:CA:674:G:C8	2.02	0.94
31:D6:45:LYS:HG3	35:DA:2371:G:H4'	0.94	0.94
51:BS:97:ARG:HH21	51:BS:98:VAL:HA	1.32	0.94
43:DI:133:HIS:HB2	43:DI:134:PRO:CD	1.97	0.94
40:DF:67:GLN:O	40:DF:67:GLN:HG3	1.66	0.94
4:AD:18:LYS:HB2	4:AD:33:MET:HG2	1.45	0.94
35:DA:1689:A:H62	35:DA:1698:A:H2	0.94	0.94
24:AY:238:GLY:HA3	24:AY:242:VAL:HB	1.48	0.94
40:BF:53:THR:HG23	40:BF:55:GLY:H	1.30	0.94
42:DH:41:MET:HG3	42:DH:42:ARG:N	1.83	0.94
2:AB:185:ILE:HG22	2:AB:199:TYR:HB2	1.50	0.94
1:AA:192:U:H4'	20:AT:103:GLY:H	1.33	0.94
35:DA:1210:A:H5'	35:DA:1210:A:H8	1.33	0.94
43:BI:131:LYS:HA	43:BI:135:GLU:HG2	1.50	0.94
52:BT:65:LYS:HZ1	52:BT:66:VAL:H	1.12	0.94
52:BT:27:THR:O	52:BT:28:VAL:HG23	1.68	0.94
2:CB:185:ILE:HG22	2:CB:199:TYR:HB2	1.49	0.94
1:AA:1128:C:H1'	1:AA:1146:A:H61	1.31	0.94
35:DA:1043:C:HO2'	35:DA:1044:G:H8	1.06	0.94
35:DA:2661:G:H5''	35:DA:2662:A:C2	2.02	0.94
24:AY:326:THR:HG23	24:AY:328:LEU:H	1.33	0.94
2:CB:22:LYS:HE2	2:CB:22:LYS:HA	1.46	0.94
31:D6:46:HIS:CA	31:D6:47:THR:CG2	2.30	0.93
36:DB:80:U:H2'	36:DB:81:G:N2	1.83	0.93
41:DG:118:ARG:HD2	41:DG:181:ARG:HD3	1.48	0.93
41:DG:118:ARG:H	41:DG:181:ARG:NH2	1.65	0.93
51:DS:30:ARG:HH22	51:DS:62:LYS:HB3	1.33	0.93
52:DT:27:THR:O	52:DT:28:VAL:HG23	1.68	0.93
26:B1:86:SER:HB2	26:B1:89:GLU:HB2	1.50	0.93
24:AY:241:GLY:HA3	61:BA:3401:HOH:O	1.68	0.93
35:DA:272(J):C:H3'	35:DA:274:G:H5''	1.51	0.93
19:CS:10:PHE:HZ	19:CS:70:LYS:HZ3	1.10	0.93
6:CF:91:VAL:HG11	18:CR:72:ARG:HH12	1.34	0.93
43:DI:112:LYS:HD2	43:DI:112:LYS:H	1.32	0.93
35:BA:1210:A:H8	35:BA:1210:A:H5'	1.32	0.93
15:CO:33:THR:HG21	15:CO:85:LEU:HD21	1.50	0.93
8:CH:87:SER:HB2	8:CH:93:VAL:HB	1.49	0.93
11:CK:99:GLN:HG2	11:CK:105:VAL:HG11	1.50	0.93
35:BA:272(J):C:H3'	35:BA:274:G:H5''	1.49	0.93
57:BY:97:ARG:HH11	57:BY:97:ARG:HB2	1.29	0.93

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
57:DY:17:SER:HB2	57:DY:71:LYS:HE2	1.50	0.93
1:AA:939:G:H5''	7:AG:102:ARG:HH12	1.32	0.93
30:D5:4:HIS:HB3	30:D5:5:PRO:CD	1.99	0.93
58:DZ:49:ARG:HH11	58:DZ:49:ARG:HG2	1.32	0.93
35:BA:1114:G:H3'	35:BA:1115:G:H5''	1.49	0.93
45:BK:4:VAL:HG22	45:BK:5:VAL:H	1.33	0.93
52:DT:100:TYR:HD2	52:DT:103:ARG:HH21	1.17	0.93
2:CB:178:ARG:HB2	2:CB:178:ARG:HH11	1.34	0.92
24:CY:323:ASP:HB3	24:CY:326:THR:HG22	1.49	0.92
15:AO:33:THR:HG21	15:AO:85:LEU:HD21	1.50	0.92
35:DA:904:C:H5'	35:DA:904:C:H6	1.33	0.92
35:DA:673:C:H5'	35:DA:673:C:H6	1.34	0.92
31:B6:28:ARG:HA	31:B6:32:ASN:HD22	1.31	0.92
48:BP:59:LEU:HA	48:BP:61:ARG:NH1	1.84	0.92
22:CV:41:C:H3'	22:CV:42:C:H5''	1.49	0.92
48:BP:47:ASP:HB3	48:BP:48:PRO:C	1.89	0.92
41:DG:85:GLY:C	41:DG:87:PRO:HD2	1.89	0.92
35:BA:2645:G:H3'	35:BA:2646:C:H5'	1.50	0.92
24:AY:211:ILE:HG21	24:AY:299:ARG:HG2	1.52	0.92
52:BT:32:TYR:CD2	52:BT:81:PRO:HB2	2.05	0.92
36:DB:7:G:H3'	36:DB:8:U:H5''	1.48	0.92
35:BA:2656:U:H3	35:BA:2665:A:H2	1.11	0.92
49:BQ:132:VAL:HG11	58:BZ:81:ARG:HE	1.34	0.92
51:BS:34:HIS:HB3	51:BS:53:SER:HB3	1.49	0.92
1:CA:137:C:H42	1:CA:226:G:H1	1.10	0.92
35:DA:1114:G:H3'	35:DA:1115:G:H5''	1.49	0.92
1:CA:266:G:H5''	1:CA:268:C:H41	1.35	0.92
8:AH:87:SER:HB2	8:AH:93:VAL:HB	1.52	0.92
35:DA:2245:U:H5'	35:DA:2246:G:H5'	1.52	0.92
41:DG:82:LEU:HD23	41:DG:83:ARG:H	1.32	0.92
1:CA:192:U:H4'	20:CT:103:GLY:H	1.33	0.92
56:BX:12:VAL:HB	56:BX:17:ALA:HB1	1.50	0.92
24:CY:182:PRO:HG3	24:CY:345:ILE:HG23	1.52	0.92
52:DT:65:LYS:HZ1	52:DT:66:VAL:H	1.14	0.92
36:BB:80:U:H2'	36:BB:81:G:N2	1.85	0.92
42:BH:41:MET:HG3	42:BH:42:ARG:N	1.85	0.92
58:DZ:16:SER:O	58:DZ:20:ARG:HG2	1.70	0.92
43:BI:62:LYS:HE2	43:BI:134:PRO:HD2	1.48	0.92
46:DN:133:GLN:HG2	46:DN:134:ARG:H	1.35	0.92
56:DX:12:VAL:HB	56:DX:17:ALA:HB1	1.52	0.92
35:DA:404:C:H4'	35:DA:405:U:H5'	1.52	0.91
45:DK:21:PRO:HB2	45:DK:22:PRO:HD3	1.49	0.91

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:DS:97:ARG:NH2	51:DS:98:VAL:HA	1.84	0.91
51:DS:34:HIS:HB3	51:DS:53:SER:HB3	1.48	0.91
35:BA:904:C:H5'	35:BA:904:C:H6	1.33	0.91
13:CM:125:ARG:HG3	24:CY:160:PRO:HD2	1.50	0.91
52:DT:32:TYR:CD2	52:DT:81:PRO:HB2	2.05	0.91
3:CC:70:VAL:HG12	3:CC:72:LYS:H	1.34	0.91
42:DH:41:MET:SD	42:DH:43:VAL:HG13	2.09	0.91
29:B4:20:ASN:HD22	29:B4:21:VAL:H	1.13	0.91
16:CP:22:THR:HA	16:CP:33:ILE:HG12	1.53	0.91
35:BA:1494:A:C2'	35:BA:1495:A:H5''	1.99	0.91
48:DP:47:ASP:HB3	48:DP:48:PRO:C	1.89	0.91
30:B5:4:HIS:HB3	30:B5:5:PRO:CD	1.99	0.91
2:CB:231:GLU:HB2	2:CB:232:PRO:HD2	1.52	0.91
6:AF:91:VAL:HG11	18:AR:72:ARG:HH12	1.31	0.91
35:DA:2645:G:H3'	35:DA:2646:C:H5'	1.51	0.91
1:CA:15:G:H4'	5:CE:24:ARG:HH12	1.34	0.91
35:DA:1494:A:C2'	35:DA:1495:A:H5''	1.99	0.91
35:DA:2833:G:H3'	35:DA:2834:G:H5'	1.50	0.91
13:CM:126:LYS:N	24:CY:162:ALA:H	1.68	0.91
48:DP:59:LEU:HA	48:DP:61:ARG:HH11	1.36	0.91
35:BA:272(J):C:H42	35:BA:363:G:H1	1.09	0.91
35:BA:2476:A:H2'	35:BA:2477:C:H5''	1.52	0.91
35:DA:914:C:H2'	35:DA:915:C:H5'	1.52	0.91
1:AA:1505:G:H5''	1:AA:1506:U:H5''	1.52	0.91
57:BY:17:SER:HB2	57:BY:71:LYS:HE2	1.53	0.91
35:DA:279:C:H2'	35:DA:280:C:H5''	1.52	0.91
58:DZ:5:LEU:HD21	58:DZ:39:VAL:HG21	1.50	0.91
35:BA:2661:G:H5''	35:BA:2662:A:C2	2.05	0.91
12:AL:18:VAL:HG23	12:AL:19:ARG:H	1.34	0.91
35:DA:154(A):C:H3'	35:DA:155:U:C5'	2.01	0.91
51:DS:106:ARG:HD2	51:DS:106:ARG:O	1.70	0.91
51:BS:106:ARG:O	51:BS:106:ARG:HD2	1.70	0.91
35:BA:1063:G:H4'	45:BK:134:MET:HG2	1.53	0.90
29:D4:20:ASN:HD22	29:D4:21:VAL:H	1.15	0.90
10:AJ:3:LYS:HD2	10:AJ:77:PRO:HG3	1.54	0.90
45:DK:4:VAL:HG22	45:DK:5:VAL:H	1.34	0.90
48:BP:62:LEU:CD2	48:BP:62:LEU:H	1.83	0.90
43:DI:88:ILE:HG22	43:DI:90:GLY:H	1.36	0.90
46:DN:13:TRP:O	46:DN:135:PRO:HD2	1.71	0.90
46:BN:133:GLN:HG2	46:BN:134:ARG:H	1.35	0.90
35:BA:2876:G:H4'	52:BT:3:ARG:NE	1.86	0.90
48:BP:59:LEU:HA	48:BP:61:ARG:HH11	1.36	0.90

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:997:G:OP1	53:BU:93:LYS:HD3	1.71	0.90
4:CD:74:GLN:HA	4:CD:77:ASN:HD22	1.35	0.90
51:BS:30:ARG:HH22	51:BS:62:LYS:HB3	1.33	0.90
35:BA:404:C:H4'	35:BA:405:U:H5'	1.51	0.90
31:D6:41:PRO:CD	31:D6:46:HIS:HA	1.98	0.90
52:DT:25:GLY:CA	52:DT:92:GLY:HA3	2.00	0.90
57:BY:39:VAL:HG12	57:BY:40:GLU:H	1.36	0.90
35:BA:2833:G:H3'	35:BA:2834:G:H5'	1.52	0.90
1:AA:473:G:H4'	16:AP:81:ARG:HH21	1.37	0.90
35:BA:1568:G:H5''	38:BD:61:LEU:HD23	1.51	0.90
5:AE:76:ILE:HD11	5:AE:142:LEU:HD21	1.52	0.90
57:BY:96:ILE:HG22	57:BY:97:ARG:H	1.37	0.90
35:BA:2103:C:H3'	35:BA:2104:G:H5''	1.53	0.90
4:AD:74:GLN:HA	4:AD:77:ASN:HD22	1.35	0.90
58:BZ:134:PRO:HB2	58:BZ:137:ILE:HD11	1.51	0.90
35:DA:1170:G:H1	35:DA:1179:C:H42	1.17	0.90
52:DT:50:ILE:HD11	52:DT:102:ILE:HD11	1.52	0.90
24:CY:150:GLN:HE21	24:CY:172:LYS:NZ	1.69	0.90
57:DY:96:ILE:HG22	57:DY:97:ARG:H	1.34	0.90
25:D0:49:LYS:H	25:D0:80:HIS:HD1	1.14	0.90
25:B0:11:ARG:HB2	25:B0:11:ARG:HH11	1.35	0.90
35:BA:279:C:H2'	35:BA:280:C:H5''	1.53	0.90
16:AP:22:THR:HA	16:AP:33:ILE:HG12	1.54	0.90
1:AA:15:G:H4'	5:AE:24:ARG:HH12	1.35	0.90
57:BY:7:VAL:HB	57:BY:8:LYS:HD2	1.52	0.90
35:DA:1063:G:H4'	45:DK:134:MET:HG2	1.54	0.90
52:BT:25:GLY:CA	52:BT:92:GLY:HA3	2.01	0.90
35:BA:1543:C:H3'	35:BA:1544:A:H5''	1.51	0.90
35:DA:1654:A:OP1	50:DR:3:HIS:HB2	1.72	0.90
27:B2:47:ASN:HD22	35:BA:94(A):G:H21	1.17	0.90
25:D0:11:ARG:HB2	25:D0:11:ARG:HH11	1.37	0.90
53:BU:108:GLU:HG3	54:BV:44:LYS:HD3	1.52	0.90
38:DD:85:ASP:HB2	38:DD:92:ILE:HD12	1.54	0.90
10:CJ:3:LYS:HD2	10:CJ:77:PRO:HG3	1.54	0.90
47:BO:35:VAL:HG11	47:BO:103:ALA:HB3	1.52	0.90
13:AM:125:ARG:HG3	24:AY:160:PRO:HD2	1.54	0.90
35:BA:259:G:H21	35:BA:621:A:H8	1.19	0.90
48:DP:59:LEU:HA	48:DP:61:ARG:NH1	1.86	0.90
35:BA:2833:G:H3'	35:BA:2834:G:C5'	2.02	0.90
11:AK:99:GLN:HG2	11:AK:105:VAL:HG11	1.52	0.90
9:AI:65:VAL:HG21	9:AI:73:GLN:HB3	1.53	0.90
35:DA:2103:C:H3'	35:DA:2104:G:H5''	1.53	0.90

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:673:C:H6	35:BA:673:C:H5'	1.31	0.90
9:CI:28:VAL:HG22	9:CI:63:ILE:HB	1.52	0.90
52:DT:89:VAL:HG11	52:DT:91:ARG:HE	1.37	0.89
45:BK:112:MET:H	45:BK:113:PRO:CD	1.85	0.89
46:BN:2:LYS:HZ2	53:BU:95:LEU:HD21	1.38	0.89
51:BS:97:ARG:NH2	51:BS:98:VAL:HA	1.87	0.89
35:BA:914:C:H2'	35:BA:915:C:H5'	1.52	0.89
19:CS:32:LYS:HA	19:CS:50:ALA:HB3	1.51	0.89
51:BS:27:SER:HA	51:BS:88:ASP:HB3	1.55	0.89
25:B0:11:ARG:HB2	25:B0:11:ARG:NH1	1.87	0.89
22:CW:25:C:H2'	22:CW:26:A:H8	1.36	0.89
13:CM:78:ILE:HA	13:CM:81:LEU:HD12	1.54	0.89
38:BD:10:THR:HG23	38:BD:13:ARG:HB3	1.54	0.89
35:DA:1899:G:H21	35:DA:1902:C:H41	1.15	0.89
13:AM:78:ILE:HA	13:AM:81:LEU:HD12	1.52	0.89
22:AW:16:U:C6	22:AW:18:G:H5''	2.07	0.89
12:CL:18:VAL:HG23	12:CL:19:ARG:H	1.34	0.89
48:DP:101:VAL:HB	48:DP:107:LYS:HA	1.54	0.89
22:CV:72:C:C2'	22:CV:73:A:H5''	2.02	0.89
19:AS:78:ARG:HH11	19:AS:81:ARG:HH12	1.15	0.89
35:BA:145:G:C2'	35:BA:146:G:H5''	2.03	0.89
19:AS:32:LYS:HA	19:AS:50:ALA:HB3	1.53	0.89
39:DE:51:PHE:CD1	39:DE:52:LEU:HD22	2.08	0.89
47:DO:35:VAL:HG11	47:DO:103:ALA:HB3	1.54	0.89
35:BA:2245:U:H5'	35:BA:2246:G:H5'	1.52	0.89
31:D6:41:PRO:HD3	31:D6:46:HIS:CA	1.93	0.89
4:AD:128:VAL:HG12	4:AD:129:ASN:N	1.87	0.89
30:B5:11:THR:HG21	35:BA:1264:G:H5'	1.53	0.89
1:CA:413:G:H4'	1:CA:414:A:H5''	1.52	0.89
4:CD:128:VAL:HG12	4:CD:129:ASN:N	1.87	0.89
35:DA:774:A:H2	35:DA:787:U:HO2'	1.19	0.89
45:BK:66:THR:HG22	45:BK:68:VAL:HG23	1.54	0.89
35:BA:1043:C:HO2'	35:BA:1044:G:H8	1.07	0.89
47:BO:49:ARG:HD3	47:BO:49:ARG:H	1.37	0.89
45:DK:112:MET:H	45:DK:113:PRO:CD	1.84	0.89
35:BA:154(A):C:H3'	35:BA:155:U:C5'	2.01	0.89
22:AW:16:U:H6	22:AW:18:G:H5''	1.38	0.89
52:BT:29:ARG:CB	52:BT:85:LYS:HA	2.03	0.89
22:AV:2:C:H2'	22:AV:3:C:C6	2.08	0.89
31:D6:46:HIS:CA	31:D6:47:THR:CB	2.50	0.89
31:D6:46:HIS:C	31:D6:47:THR:HG23	1.91	0.89
26:B1:53:VAL:HG22	26:B1:74:VAL:HG13	1.55	0.89

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:4:ILE:HD11	10:AJ:77:PRO:HB3	1.53	0.89
1:AA:424:G:H2'	1:AA:425:G:H8	1.38	0.89
24:AY:182:PRO:HG3	24:AY:345:ILE:HG23	1.55	0.89
46:BN:13:TRP:O	46:BN:135:PRO:HD2	1.71	0.88
52:BT:50:ILE:HD11	52:BT:102:ILE:HD11	1.53	0.88
58:DZ:164:ALA:O	58:DZ:165:VAL:HG23	1.73	0.88
52:DT:28:VAL:CG2	52:DT:46:GLU:HG3	2.04	0.88
43:DI:145:VAL:HG12	43:DI:146:ALA:N	1.88	0.88
1:AA:735:C:H2'	1:AA:736:C:H6	1.37	0.88
10:CJ:43:ARG:HB2	10:CJ:67:THR:HB	1.54	0.88
2:AB:178:ARG:HB2	2:AB:178:ARG:HH11	1.37	0.88
3:AC:70:VAL:HG12	3:AC:72:LYS:H	1.37	0.88
1:CA:1057:G:H5''	3:CC:154:SER:HB2	1.54	0.88
41:DG:115:ARG:CG	41:DG:116:ASP:H	1.85	0.88
35:DA:1543:C:H3'	35:DA:1544:A:H5''	1.52	0.88
26:B1:89:GLU:HA	26:B1:92:LYS:HB3	1.54	0.88
46:DN:19:GLU:HG3	46:DN:20:GLY:N	1.88	0.88
35:BA:1170:G:H1	35:BA:1179:C:H42	1.17	0.88
7:AG:37:ASN:HD21	9:AI:40:LEU:HA	1.36	0.88
24:CY:239:GLY:H	24:CY:242:VAL:HG12	1.39	0.88
39:BE:120:TRP:CE3	39:BE:155:LYS:HD3	2.08	0.88
24:AY:123:GLY:HA3	24:AY:305:ILE:HG21	1.56	0.88
27:D2:13:ALA:HA	27:D2:16:LEU:HD12	1.52	0.88
24:AY:303:ARG:H	24:AY:304:PRO:CD	1.85	0.88
3:CC:6:HIS:HD2	3:CC:7:PRO:HD2	1.36	0.88
52:BT:65:LYS:HZ1	52:BT:66:VAL:N	1.70	0.88
52:DT:65:LYS:NZ	52:DT:66:VAL:H	1.71	0.88
53:DU:13:LYS:HE2	53:DU:13:LYS:N	1.88	0.88
1:AA:413:G:H4'	1:AA:414:A:H5''	1.53	0.88
20:AT:57:ARG:HH22	20:AT:100:ILE:HG12	1.38	0.88
5:CE:51:VAL:HB	5:CE:52:PRO:HD3	1.56	0.88
1:CA:735:C:H2'	1:CA:736:C:H6	1.36	0.88
29:B4:18:CYS:HB3	29:B4:35:VAL:HG22	1.56	0.88
52:BT:89:VAL:HG11	52:BT:91:ARG:HE	1.39	0.88
25:D0:11:ARG:HB2	25:D0:11:ARG:NH1	1.88	0.88
35:BA:2120:G:H2'	35:BA:2121:G:H8	1.38	0.88
42:BH:16:SER:HB2	42:BH:27:LYS:HB2	1.54	0.88
13:CM:3:ARG:HH21	13:CM:7:VAL:HG22	1.37	0.88
58:DZ:153:SER:H	58:DZ:167:PRO:CB	1.87	0.88
35:DA:654(T):C:C2'	35:DA:654(U):A:H5'	2.04	0.88
35:DA:145:G:C2'	35:DA:146:G:H5''	2.02	0.88
13:CM:124:PRO:CD	24:CY:163:GLY:H	1.86	0.88

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DE:120:TRP:CE3	39:DE:155:LYS:HD3	2.08	0.88
33:D8:50:LEU:HD12	33:D8:51:ALA:H	1.39	0.88
56:BX:63:LYS:HE3	56:BX:72:LYS:HE3	1.56	0.88
18:AR:56:THR:HB	18:AR:58:LEU:HD13	1.56	0.88
35:DA:997:G:OP1	53:DU:93:LYS:HD3	1.73	0.88
1:CA:473:G:H4'	16:CP:81:ARG:HH21	1.37	0.88
41:BG:56:ALA:HA	41:BG:153:ARG:HH22	1.39	0.88
41:BG:72:ARG:HB3	41:BG:87:PRO:HD2	1.55	0.88
35:BA:1654:A:OP1	50:BR:3:HIS:HB2	1.72	0.88
9:CI:65:VAL:HG21	9:CI:73:GLN:HB3	1.54	0.88
33:B8:50:LEU:HD12	33:B8:51:ALA:H	1.37	0.88
22:CW:68:C:H2'	22:CW:69:G:H8	1.39	0.88
1:AA:1057:G:H5''	3:AC:154:SER:HB2	1.54	0.88
27:B2:13:ALA:HA	27:B2:16:LEU:HG	1.55	0.88
58:BZ:151:HIS:HB2	58:BZ:170:THR:HA	1.54	0.88
35:DA:2523:G:C2'	35:DA:2524:G:H5''	2.04	0.88
52:BT:65:LYS:NZ	52:BT:66:VAL:H	1.71	0.88
35:DA:654(T):C:H2'	35:DA:654(U):A:C5'	2.04	0.87
46:BN:19:GLU:HG3	46:BN:20:GLY:N	1.88	0.87
5:CE:7:GLU:HG2	5:CE:112:LEU:HD22	1.55	0.87
31:B6:15:GLU:HG3	31:B6:47:THR:HG22	1.55	0.87
5:CE:76:ILE:HD11	5:CE:142:LEU:HD21	1.53	0.87
1:AA:1030(A):G:H2'	1:AA:1030(B):C:H5''	1.56	0.87
5:AE:7:GLU:HG2	5:AE:112:LEU:HD22	1.56	0.87
35:DA:1173:G:H3'	35:DA:1174:A:C5'	2.05	0.87
3:AC:6:HIS:HD2	3:AC:7:PRO:HD2	1.37	0.87
35:DA:2287:A:H62	35:DA:2344:U:H3	1.21	0.87
35:DA:1038:C:H2'	35:DA:1039:G:H5''	1.56	0.87
22:AV:41:C:H2'	22:AV:42:C:H5''	1.56	0.87
35:DA:2120:G:H2'	35:DA:2121:G:H8	1.38	0.87
57:DY:88:LYS:NZ	57:DY:93:GLY:HA3	1.87	0.87
35:DA:612:C:H2'	35:DA:613:G:C5'	2.04	0.87
57:DY:39:VAL:HG12	57:DY:40:GLU:H	1.36	0.87
35:DA:2833:G:H3'	35:DA:2834:G:C5'	2.03	0.87
19:CS:78:ARG:HH11	19:CS:81:ARG:HH12	1.15	0.87
27:B2:48:HIS:NE2	35:BA:96:G:H4'	1.89	0.87
29:D4:18:CYS:HB3	29:D4:35:VAL:HG22	1.54	0.87
35:DA:2876:G:H4'	52:DT:3:ARG:NE	1.90	0.87
35:BA:2523:G:C2'	35:BA:2524:G:H5''	2.03	0.87
1:CA:424:G:H2'	1:CA:425:G:H8	1.38	0.87
48:DP:23:PRO:HB2	48:DP:33:ARG:CD	2.04	0.87
56:DX:63:LYS:HE3	56:DX:72:LYS:HE3	1.55	0.87

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BB:6:C:HO2'	51:BS:29:PHE:HE1	1.17	0.87
52:DT:29:ARG:CB	52:DT:85:LYS:HA	2.04	0.87
35:DA:1541:G:H1'	35:DA:1542:A:C5	2.10	0.87
46:DN:2:LYS:HZ2	53:DU:95:LEU:HD21	1.35	0.87
10:CJ:4:ILE:HD11	10:CJ:77:PRO:HB3	1.54	0.87
48:BP:101:VAL:HB	48:BP:107:LYS:HA	1.53	0.87
57:BY:88:LYS:NZ	57:BY:93:GLY:HA3	1.90	0.87
58:DZ:151:HIS:CB	58:DZ:170:THR:HA	2.04	0.87
44:DJ:21:UNK:CB	44:DJ:89:UNK:HA	2.04	0.87
5:CE:41:VAL:HG22	5:CE:113:ALA:HA	1.57	0.87
1:AA:942:G:H21	9:AI:124:GLN:HE22	1.22	0.87
42:BH:41:MET:SD	42:BH:43:VAL:HG13	2.15	0.87
51:DS:27:SER:HA	51:DS:88:ASP:HB3	1.57	0.87
13:AM:3:ARG:HH21	13:AM:7:VAL:HG22	1.37	0.87
35:BA:654(C):G:H2'	35:BA:654(D):G:H5'	1.57	0.87
9:AI:28:VAL:HG22	9:AI:63:ILE:HB	1.54	0.87
38:DD:72:LYS:HZ3	38:DD:75:ILE:HD12	1.38	0.87
2:AB:233:SER:HB2	2:AB:234:PRO:HD2	1.57	0.87
22:AV:5:G:H2'	22:AV:6:G:H5''	1.57	0.87
39:DE:51:PHE:HD1	39:DE:52:LEU:HD22	1.40	0.87
40:DF:24:LEU:HB3	40:DF:25:PRO:CD	2.04	0.86
41:BG:46:ALA:HB2	41:BG:88:ILE:HD11	1.55	0.86
43:BI:133:HIS:HB2	43:BI:134:PRO:CD	2.05	0.86
53:DU:108:GLU:HG3	54:DV:44:LYS:HD3	1.55	0.86
35:DA:1902:C:O2'	38:DD:244:ARG:HB2	1.75	0.86
38:DD:10:THR:HG23	38:DD:13:ARG:HB3	1.58	0.86
46:DN:120:LEU:HD11	46:DN:122:VAL:HG23	1.57	0.86
1:CA:942:G:H21	9:CI:124:GLN:HE22	1.23	0.86
7:CG:37:ASN:HD21	9:CI:40:LEU:HA	1.38	0.86
1:AA:266:G:H5''	1:AA:268:C:H41	1.39	0.86
57:DY:7:VAL:HB	57:DY:8:LYS:HD2	1.55	0.86
2:AB:165:VAL:HG23	2:AB:166:ASP:H	1.39	0.86
35:DA:654(C):G:H2'	35:DA:654(D):G:H5'	1.57	0.86
20:CT:57:ARG:HH22	20:CT:100:ILE:HG12	1.39	0.86
35:BA:1378:A:O2'	35:BA:1379:A:H5'	1.74	0.86
43:DI:77:LEU:HA	43:DI:104:GLN:OE1	1.75	0.86
36:BB:20:C:C2'	36:BB:21:G:H5''	2.06	0.86
35:BA:654(T):C:H2'	35:BA:654(U):A:C5'	2.05	0.86
56:DX:12:VAL:HG23	56:DX:13:LEU:H	1.40	0.86
10:AJ:43:ARG:HB2	10:AJ:67:THR:HB	1.55	0.86
9:AI:50:LEU:HD21	9:AI:81:ILE:HG22	1.56	0.86
9:AI:26:VAL:HG22	9:AI:61:ALA:HB3	1.58	0.86

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DG:5:VAL:HG11	41:DG:101:ILE:HG22	1.56	0.86
2:CB:165:VAL:HG23	2:CB:166:ASP:H	1.39	0.86
38:BD:85:ASP:HB2	38:BD:92:ILE:HD12	1.56	0.86
50:BR:24:GLN:HE22	50:BR:36:THR:HG21	1.40	0.86
50:BR:7:GLY:HA3	50:BR:8:ARG:NH2	1.90	0.86
2:AB:55:PHE:HA	2:AB:58:ILE:HD12	1.57	0.86
42:BH:97:ARG:HG3	42:BH:98:LEU:H	1.40	0.86
35:DA:1464:C:O2'	35:DA:1528:A:H8	1.59	0.86
43:DI:133:HIS:HB2	43:DI:134:PRO:HD3	1.57	0.86
24:CY:286:LEU:HA	24:CY:289:LYS:HD2	1.57	0.86
33:B8:14:VAL:HG21	33:B8:22:VAL:HG13	1.58	0.86
12:AL:6:THR:H	12:AL:9:GLN:HE21	1.23	0.86
45:DK:66:THR:HG22	45:DK:68:VAL:HG23	1.55	0.86
35:BA:612:C:H2'	35:BA:613:G:C5'	2.05	0.86
2:AB:231:GLU:HB2	2:AB:232:PRO:HD2	1.55	0.86
35:DA:2469:A:H2	35:DA:2481:G:H21	1.24	0.86
2:AB:80:ILE:H	2:AB:80:ILE:HD12	1.39	0.86
50:DR:7:GLY:HA3	50:DR:8:ARG:NH2	1.90	0.86
31:D6:41:PRO:CG	31:D6:47:THR:HG21	2.06	0.86
35:DA:2359:C:H2'	35:DA:2360:A:H5'	1.57	0.86
53:DU:117:GLN:HE21	53:DU:117:GLN:HA	1.40	0.86
53:BU:13:LYS:HE2	53:BU:13:LYS:N	1.91	0.85
57:BY:44:ILE:HG22	57:BY:45:VAL:H	1.40	0.85
42:DH:97:ARG:HG3	42:DH:98:LEU:H	1.38	0.85
52:BT:100:TYR:HD2	52:BT:103:ARG:HH21	1.19	0.85
24:CY:209:GLU:OE2	24:CY:303:ARG:HD3	1.75	0.85
52:BT:28:VAL:CG2	52:BT:46:GLU:HG3	2.05	0.85
50:DR:117:VAL:O	50:DR:118:GLU:HB2	1.75	0.85
3:CC:32:LEU:HB3	3:CC:59:ARG:HH22	1.39	0.85
41:DG:121:ASN:HD22	41:DG:122:PRO:HD2	1.40	0.85
35:DA:2681:C:H5	35:DA:2725:A:H62	1.24	0.85
6:AF:77:ARG:NH1	6:AF:77:ARG:HB3	1.90	0.85
35:DA:613:G:H8	35:DA:613:G:H5'	1.42	0.85
33:D8:6:THR:HG21	35:DA:243:U:OP1	1.77	0.85
43:BI:109:ILE:HG23	43:BI:130:TYR:CE1	2.10	0.85
43:BI:132:PRO:HG2	43:BI:133:HIS:CE1	2.11	0.85
1:AA:1028:C:H2'	1:AA:1029:C:H5'	1.57	0.85
44:BJ:21:UNK:CB	44:BJ:89:UNK:HA	2.06	0.85
35:BA:1173:G:H3'	35:BA:1174:A:C5'	2.06	0.85
33:B8:13:ARG:HD2	48:BP:61:ARG:HD3	1.56	0.85
33:D8:13:ARG:HB3	48:DP:63:PRO:HB3	1.59	0.85
1:AA:728:A:H2'	1:AA:729:A:C8	2.12	0.85

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:BU:101:ARG:HH11	53:BU:101:ARG:HB2	1.40	0.85
24:CY:198:SER:HB2	24:CY:200:ARG:HG3	1.56	0.85
22:AV:72:C:H3'	22:AV:73:A:H5''	1.55	0.85
27:B2:4:SER:HA	27:B2:7:ARG:HH11	1.41	0.85
39:BE:51:PHE:CD1	39:BE:52:LEU:HD22	2.10	0.85
31:D6:41:PRO:CD	31:D6:46:HIS:N	2.32	0.85
52:DT:85:LYS:HZ2	52:DT:85:LYS:HB3	1.42	0.85
20:CT:57:ARG:NH2	20:CT:100:ILE:HG12	1.92	0.85
33:B8:52:LYS:N	33:B8:53:PRO:HD2	1.92	0.85
12:CL:25:PRO:C	12:CL:27:LEU:H	1.78	0.85
6:CF:77:ARG:HB3	6:CF:77:ARG:NH1	1.90	0.85
35:BA:1899:G:O2'	35:BA:1900:A:H5''	1.76	0.85
4:CD:128:VAL:CG1	4:CD:129:ASN:H	1.88	0.85
4:AD:128:VAL:CG1	4:AD:129:ASN:H	1.88	0.85
35:DA:2334:G:N3	51:DS:18:ILE:HD11	1.91	0.85
51:DS:89:ARG:O	51:DS:92:TYR:HB3	1.75	0.85
22:AW:77:PHA:O	35:BA:2395:C:H1'	1.75	0.85
7:CG:102:ARG:HG2	7:CG:106:GLN:HE21	1.41	0.85
24:CY:326:THR:HG23	24:CY:328:LEU:H	1.42	0.85
52:DT:65:LYS:HZ1	52:DT:66:VAL:N	1.73	0.85
35:DA:1348:G:H2'	35:DA:1349:A:H5''	1.58	0.85
35:BA:2681:C:H5	35:BA:2725:A:H62	1.21	0.85
9:AI:10:ARG:HH21	9:AI:11:LYS:HB2	1.41	0.85
42:DH:16:SER:HB2	42:DH:27:LYS:HB2	1.59	0.85
9:CI:26:VAL:HG22	9:CI:61:ALA:HB3	1.58	0.85
58:BZ:165:VAL:HG13	58:BZ:169:GLU:HB3	1.59	0.85
35:BA:654(T):C:C2'	35:BA:654(U):A:H5'	2.05	0.85
35:BA:1038:C:H2'	35:BA:1039:G:H5''	1.58	0.85
53:DU:101:ARG:HB2	53:DU:101:ARG:HH11	1.41	0.85
58:DZ:53:ILE:HG22	58:DZ:71:VAL:HG12	1.56	0.85
37:DC:42:VAL:HG22	37:DC:217:THR:HG22	1.59	0.85
22:CV:51:U:H2'	22:CV:52:G:C8	2.11	0.85
48:BP:144:GLU:H	48:BP:145:PRO:CD	1.90	0.85
39:BE:51:PHE:HD1	39:BE:52:LEU:HD22	1.42	0.85
22:CW:72:C:H2'	22:CW:73:A:O4'	1.75	0.85
40:BF:36:VAL:HG11	40:BF:183:VAL:HG11	1.58	0.85
26:B1:45:ASN:HD21	26:B1:47:GLN:NE2	1.73	0.85
3:AC:32:LEU:HB3	3:AC:59:ARG:HH22	1.40	0.85
2:CB:33:TYR:HB2	2:CB:43:ASP:HB2	1.56	0.85
1:CA:1028:C:H2'	1:CA:1029:C:H5'	1.57	0.85
35:DA:2476:A:H2'	35:DA:2477:C:H5''	1.57	0.85
35:BA:1484:G:C2'	35:BA:1485:G:H5''	2.07	0.85

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:DP:144:GLU:H	48:DP:145:PRO:CD	1.89	0.85
35:BA:1541:G:H1'	35:BA:1542:A:C5	2.11	0.85
33:D8:52:LYS:N	33:D8:53:PRO:HD2	1.91	0.85
35:BA:528:A:O2'	35:BA:529:A:H5'	1.76	0.85
35:BA:1598:C:H5'	56:BX:36:LYS:HB2	1.57	0.84
35:DA:2359:C:C2'	35:DA:2360:A:H5'	2.06	0.84
1:CA:1030(A):G:H2'	1:CA:1030(B):C:H5''	1.56	0.84
1:AA:1468:A:H2'	1:AA:1469:G:O4'	1.76	0.84
18:CR:56:THR:HB	18:CR:58:LEU:HD13	1.56	0.84
52:BT:3:ARG:HB2	52:BT:6:LEU:CB	2.07	0.84
41:BG:142:PRO:HG2	41:BG:143:GLU:OE2	1.78	0.84
41:DG:86:MET:N	41:DG:87:PRO:HD2	1.86	0.84
35:DA:807:U:OP2	48:DP:39:LYS:HG3	1.76	0.84
24:AY:91:LEU:HA	24:AY:94:ALA:HB3	1.57	0.84
53:BU:117:GLN:HE21	53:BU:117:GLN:HA	1.41	0.84
35:BA:807:U:OP2	48:BP:39:LYS:HG3	1.76	0.84
56:BX:35:THR:O	56:BX:39:ILE:HG12	1.76	0.84
47:DO:49:ARG:HD3	47:DO:49:ARG:H	1.40	0.84
20:AT:57:ARG:NH2	20:AT:100:ILE:HG12	1.91	0.84
43:DI:123:LEU:HD21	43:DI:143:SER:O	1.78	0.84
9:CI:50:LEU:HD21	9:CI:81:ILE:HG22	1.57	0.84
41:BG:61:ALA:HA	41:BG:64:THR:HG22	1.60	0.84
12:AL:25:PRO:C	12:AL:27:LEU:H	1.79	0.84
22:CW:59:U:H2'	22:CW:60:U:H6	1.41	0.84
35:DA:1598:C:H5'	56:DX:36:LYS:HB2	1.58	0.84
35:DA:1948:G:H5'	35:DA:1948:G:H8	1.42	0.84
24:AY:283:LEU:HB3	24:AY:287:GLU:OE2	1.76	0.84
35:DA:1484:G:C2'	35:DA:1485:G:H5''	2.06	0.84
52:BT:83:ILE:HG13	52:BT:84:GLN:N	1.91	0.84
35:BA:1717:G:H2'	35:BA:1718:G:H5''	1.60	0.84
12:CL:6:THR:HG23	12:CL:9:GLN:HE21	1.41	0.84
52:BT:28:VAL:HG13	52:BT:46:GLU:HA	1.60	0.84
57:DY:81:LYS:HD3	57:DY:97:ARG:HG3	1.58	0.84
40:DF:3:GLU:CA	40:DF:24:LEU:HG	2.08	0.84
41:DG:113:ARG:HA	41:DG:113:ARG:NE	1.89	0.84
22:CW:76:8AN:H4'	22:CW:77:PHA:O	1.77	0.84
35:BA:274:G:O2'	35:BA:275:G:H5''	1.78	0.84
12:AL:6:THR:HG23	12:AL:9:GLN:HE21	1.43	0.84
35:BA:2334:G:N3	51:BS:18:ILE:HD11	1.93	0.84
35:DA:259:G:H21	35:DA:621:A:H8	1.18	0.84
9:CI:9:ARG:HG2	9:CI:14:VAL:HG22	1.60	0.84
50:BR:117:VAL:O	50:BR:118:GLU:HB2	1.78	0.84

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AE:51:VAL:HB	5:AE:52:PRO:HD3	1.57	0.84
10:AJ:24:VAL:HG21	10:AJ:37:PRO:HG3	1.59	0.84
40:BF:3:GLU:HA	40:BF:24:LEU:CG	2.08	0.84
30:D5:46:CYS:SG	30:D5:47:PRO:HD2	2.17	0.84
43:DI:132:PRO:HG2	43:DI:133:HIS:CE1	2.11	0.84
48:DP:23:PRO:HD2	48:DP:33:ARG:HH21	1.42	0.84
58:BZ:110:GLY:HA2	58:BZ:146:ILE:HG22	1.58	0.84
57:DY:44:ILE:HG22	57:DY:45:VAL:H	1.41	0.84
43:BI:123:LEU:HG	43:BI:142:VAL:HG11	1.57	0.84
36:DB:20:C:C2'	36:DB:21:G:H5''	2.06	0.83
1:CA:1347:G:N2	1:CA:1373:G:H2'	1.93	0.83
48:BP:23:PRO:HB2	48:BP:33:ARG:CD	2.08	0.83
12:AL:84:LEU:HD12	12:AL:104:VAL:HG11	1.59	0.83
2:AB:33:TYR:HB2	2:AB:43:ASP:HB2	1.58	0.83
35:BA:1024:G:H3'	35:BA:1025:G:H5''	1.60	0.83
35:BA:1019:U:HO2'	35:BA:1021:A:H2	0.87	0.83
5:AE:101:ILE:HD11	5:AE:119:LEU:HD23	1.59	0.83
19:AS:29:ARG:HD2	19:AS:30:LEU:H	1.41	0.83
51:BS:106:ARG:HB3	51:BS:106:ARG:NH1	1.92	0.83
33:D8:13:ARG:HD2	48:DP:61:ARG:HD3	1.59	0.83
9:AI:9:ARG:HG2	9:AI:14:VAL:HG22	1.60	0.83
35:BA:8:A:H2'	35:BA:9:U:C5	2.13	0.83
46:BN:120:LEU:HD11	46:BN:122:VAL:HG23	1.60	0.83
35:DA:1678:G:N2	35:DA:1989:G:H22	1.76	0.83
50:DR:24:GLN:HE22	50:DR:36:THR:HG21	1.43	0.83
35:DA:1717:G:H2'	35:DA:1718:G:H5''	1.59	0.83
10:CJ:26:ALA:HA	10:CJ:29:ARG:HH12	1.41	0.83
35:DA:8:A:H2'	35:DA:9:U:C5	2.14	0.83
22:CW:59:U:H2'	22:CW:60:U:C6	2.13	0.83
1:CA:939:G:C5'	7:CG:102:ARG:HH12	1.91	0.83
35:BA:1464:C:O2'	35:BA:1528:A:H8	1.61	0.83
26:D1:50:ARG:HG2	26:D1:59:THR:HG22	1.60	0.83
19:CS:29:ARG:HD2	19:CS:30:LEU:H	1.42	0.83
35:BA:2132:U:O2	37:BC:6:LYS:HG3	1.78	0.83
35:DA:2158:A:H4'	35:DA:2159:G:H5'	1.60	0.83
51:DS:106:ARG:HB3	51:DS:106:ARG:NH1	1.93	0.83
26:B1:45:ASN:HD21	35:BA:2090:G:H21	1.26	0.83
26:D1:57:GLU:O	26:D1:58:ILE:HG22	1.78	0.83
43:BI:129:THR:HA	43:BI:137:PRO:HA	1.60	0.83
2:CB:118:LEU:HB3	2:CB:142:LEU:HD12	1.60	0.83
35:BA:1902:C:O2'	38:BD:244:ARG:HB2	1.78	0.83
33:B8:6:THR:HG21	35:BA:243:U:OP1	1.78	0.83

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:CP:45:THR:HG22	16:CP:47:ASP:H	1.43	0.83
1:CA:728:A:H2'	1:CA:729:A:C8	2.14	0.83
30:D5:11:THR:HG21	35:DA:1264:G:H5'	1.58	0.83
16:AP:45:THR:HG22	16:AP:47:ASP:H	1.43	0.83
12:CL:84:LEU:HD12	12:CL:104:VAL:HG11	1.59	0.83
38:DD:43:ARG:HB3	38:DD:54:ARG:HB2	1.60	0.83
48:DP:124:LYS:HA	48:DP:143:GLY:HA3	1.61	0.83
35:BA:1348:G:H2'	35:BA:1349:A:H5''	1.59	0.83
56:BX:12:VAL:HG23	56:BX:13:LEU:H	1.42	0.83
26:B1:45:ASN:ND2	26:B1:47:GLN:HE21	1.77	0.83
2:CB:233:SER:HB2	2:CB:234:PRO:HD2	1.57	0.83
31:D6:40:CYS:HA	31:D6:46:HIS:CG	2.12	0.83
54:BV:18:LEU:HD22	54:BV:19:LYS:N	1.93	0.83
48:DP:146:VAL:HG22	48:DP:147:LEU:N	1.94	0.83
35:BA:672:C:C2'	35:BA:673:C:H5''	2.08	0.83
37:BC:42:VAL:HG22	37:BC:217:THR:HG22	1.60	0.83
48:DP:88:LEU:HD12	48:DP:88:LEU:H	1.43	0.83
2:CB:80:ILE:H	2:CB:80:ILE:HD12	1.42	0.83
48:DP:38:GLN:HG3	48:DP:39:LYS:H	1.44	0.83
35:BA:2469:A:H2	35:BA:2481:G:H21	1.24	0.83
9:CI:10:ARG:HH21	9:CI:11:LYS:HB2	1.41	0.83
19:CS:42:PRO:O	19:CS:43:GLU:HB3	1.77	0.83
35:BA:613:G:H5'	35:BA:613:G:H8	1.44	0.83
24:CY:287:GLU:O	24:CY:290:LYS:HG2	1.79	0.83
24:CY:283:LEU:HB3	24:CY:287:GLU:OE2	1.78	0.83
35:DA:2723:C:H5''	50:DR:2:ARG:HH11	1.41	0.83
31:B6:30:THR:HB	31:B6:31:PRO:HD2	1.60	0.83
41:DG:137:GLU:OE2	41:DG:139:LEU:HD11	1.78	0.83
38:DD:34:VAL:O	38:DD:64:ILE:HG23	1.77	0.83
35:DA:2132:U:O2	37:DC:6:LYS:HG3	1.78	0.83
40:BF:3:GLU:CA	40:BF:24:LEU:HG	2.09	0.83
49:BQ:16:ARG:HB3	49:BQ:18:LYS:NZ	1.94	0.83
31:D6:30:THR:HB	31:D6:31:PRO:HD2	1.61	0.83
35:BA:2287:A:H62	35:BA:2344:U:H3	1.22	0.83
19:AS:42:PRO:O	19:AS:43:GLU:HB3	1.78	0.83
5:AE:41:VAL:HG22	5:AE:113:ALA:HA	1.60	0.83
26:B1:80:LEU:HD23	26:B1:81:LYS:N	1.92	0.83
24:AY:115:ASN:ND2	24:AY:170:LEU:HD11	1.94	0.82
12:CL:6:THR:H	12:CL:9:GLN:HE21	1.23	0.82
2:AB:118:LEU:HB3	2:AB:142:LEU:HD12	1.60	0.82
2:CB:55:PHE:HA	2:CB:58:ILE:HD12	1.60	0.82
40:DF:3:GLU:HA	40:DF:24:LEU:CG	2.07	0.82

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
58:DZ:153:SER:HB3	58:DZ:167:PRO:HG3	1.61	0.82
35:DA:2312:U:H2'	35:DA:2313:C:H5''	1.61	0.82
24:CY:279:LEU:O	24:CY:283:LEU:HG	1.78	0.82
35:DA:274:G:O2'	35:DA:275:G:H5''	1.78	0.82
9:AI:4:TYR:HB2	9:AI:19:LEU:HB2	1.61	0.82
24:AY:267:SER:HB3	25:B0:3:HIS:ND1	1.92	0.82
12:CL:47:LYS:HB3	12:CL:48:PRO:CD	2.09	0.82
40:BF:107:LYS:HZ2	40:BF:107:LYS:HA	1.44	0.82
1:CA:976:G:H5'	1:CA:1358:U:O2'	1.79	0.82
5:AE:92:LYS:HB3	5:AE:119:LEU:HB2	1.60	0.82
43:BI:145:VAL:HG12	43:BI:146:ALA:N	1.94	0.82
35:BA:298:G:H5'	35:BA:299:A:OP1	1.80	0.82
1:CA:922:G:H4'	5:CE:20:GLN:HA	1.62	0.82
35:BA:2359:C:C2'	35:BA:2360:A:H5'	2.09	0.82
4:CD:59:ARG:HA	4:CD:59:ARG:HE	1.44	0.82
5:CE:101:ILE:HD11	5:CE:119:LEU:HD23	1.60	0.82
10:AJ:26:ALA:HA	10:AJ:29:ARG:HH12	1.42	0.82
41:DG:67:LYS:HD2	41:DG:67:LYS:H	1.43	0.82
33:B8:13:ARG:HB3	48:BP:63:PRO:HB3	1.59	0.82
33:D8:14:VAL:HG21	33:D8:22:VAL:HG13	1.61	0.82
9:CI:4:TYR:HB2	9:CI:19:LEU:HB2	1.61	0.82
31:D6:40:CYS:CA	31:D6:46:HIS:HB3	2.09	0.82
52:DT:83:ILE:HG13	52:DT:84:GLN:N	1.94	0.82
35:BA:860:U:H5	35:BA:917:A:N7	1.76	0.82
38:BD:71:ASP:HB2	38:BD:103:ARG:HH22	1.44	0.82
35:DA:1378:A:O2'	35:DA:1379:A:H5'	1.80	0.82
35:BA:2158:A:H4'	35:BA:2159:G:H5'	1.60	0.82
35:BA:1678:G:N2	35:BA:1989:G:H22	1.78	0.82
41:DG:52:ILE:HG13	41:DG:53:LEU:H	1.44	0.82
45:BK:76:TYR:O	45:BK:79:ARG:HG3	1.80	0.82
2:CB:231:GLU:HB2	2:CB:232:PRO:CD	2.10	0.82
9:AI:15:ALA:HB2	9:AI:65:VAL:HG23	1.61	0.82
22:AV:40:C:H2'	22:AV:41:C:C6	2.15	0.82
41:DG:121:ASN:HD22	41:DG:122:PRO:CD	1.91	0.82
27:D2:24:LEU:HA	27:D2:27:GLU:OE1	1.80	0.82
43:DI:113:ARG:NH1	43:DI:132:PRO:HD3	1.94	0.82
35:DA:17:G:H4'	53:DU:25:TRP:CZ3	2.15	0.82
56:DX:80:ILE:HD13	56:DX:80:ILE:O	1.80	0.82
45:DK:76:TYR:O	45:DK:79:ARG:HG3	1.80	0.82
35:BA:155:U:H2'	35:BA:156:U:H5'	1.61	0.82
52:DT:3:ARG:HB2	52:DT:6:LEU:CB	2.09	0.82
35:BA:1175:U:H4'	35:BA:1176:G:H5'	1.62	0.82

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:B5:46:CYS:SG	30:B5:47:PRO:HD2	2.19	0.82
35:DA:1403:C:H5''	35:DA:1471:A:H1'	1.62	0.82
3:CC:113:ALA:HB3	3:CC:114:PRO:HD3	1.62	0.82
1:CA:1502:A:H2	1:CA:1505:G:H1	1.25	0.82
1:AA:976:G:H5'	1:AA:1358:U:O2'	1.79	0.82
35:BA:2723:C:H5''	50:BR:2:ARG:HH11	1.44	0.82
33:D8:53:PRO:HA	33:D8:56:GLU:HB3	1.62	0.82
35:BA:61:G:H1	35:BA:94:C:H42	1.28	0.82
33:B8:53:PRO:HA	33:B8:56:GLU:HB3	1.60	0.82
12:CL:53:ARG:HG2	12:CL:53:ARG:HH11	1.42	0.82
35:DA:860:U:H5	35:DA:917:A:N7	1.77	0.82
31:B6:45:LYS:HZ2	35:BA:2370:G:H21	1.22	0.82
40:BF:24:LEU:HB3	40:BF:25:PRO:CD	2.04	0.81
13:AM:123:ALA:HB1	24:AY:161:GLU:O	1.79	0.81
8:AH:11:THR:HG22	8:AH:15:ASN:ND2	1.95	0.81
35:DA:631:A:OP1	48:DP:64:LYS:HE2	1.80	0.81
1:CA:939:G:H5''	7:CG:102:ARG:NH1	1.95	0.81
1:AA:939:G:C5'	7:AG:102:ARG:HH12	1.93	0.81
57:DY:44:ILE:H	57:DY:62:GLU:CD	1.84	0.81
3:AC:101:LEU:HD23	3:AC:102:ASN:N	1.95	0.81
12:AL:53:ARG:HG2	12:AL:53:ARG:HH11	1.45	0.81
54:DV:19:LYS:NZ	54:DV:20:LEU:H	1.78	0.81
35:DA:155:U:H2'	35:DA:156:U:H5'	1.62	0.81
35:BA:2801(A):A:H4'	35:BA:2802:G:C5'	2.07	0.81
35:DA:1175:U:H4'	35:DA:1176:G:H5'	1.62	0.81
35:DA:903:C:C2'	35:DA:904:C:H5''	2.10	0.81
37:DC:8:TYR:HE1	37:DC:221:PRO:HB3	1.44	0.81
35:BA:2359:C:H2'	35:BA:2360:A:H5'	1.61	0.81
5:CE:92:LYS:HB3	5:CE:119:LEU:HB2	1.62	0.81
40:DF:125:LEU:HD23	40:DF:125:LEU:H	1.44	0.81
4:AD:59:ARG:HE	4:AD:59:ARG:HA	1.43	0.81
55:DW:64:MET:O	55:DW:65:LEU:HB2	1.80	0.81
24:AY:269:ILE:HB	49:BQ:80:GLU:OE2	1.79	0.81
18:CR:31:LEU:HD23	18:CR:31:LEU:H	1.45	0.81
26:B1:46:LEU:HD23	26:B1:61:ARG:HD3	1.61	0.81
55:BW:9:TYR:H	55:BW:102:HIS:HD2	1.27	0.81
1:CA:1321:C:C5'	1:CA:1322:C:H5''	2.10	0.81
35:BA:17:G:H4'	53:BU:25:TRP:CZ3	2.16	0.81
38:BD:34:VAL:O	38:BD:64:ILE:HG23	1.81	0.81
58:BZ:146:ILE:HG13	58:BZ:147:GLY:H	1.45	0.81
37:BC:8:TYR:HE1	37:BC:221:PRO:HB3	1.44	0.81
8:AH:11:THR:HG22	8:AH:15:ASN:HD21	1.45	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DD:131:LEU:HD13	38:DD:136:ILE:HG12	1.62	0.81
22:AV:77:PHA:N	22:AV:77:PHA:HD2	1.95	0.81
8:AH:89:PRO:HA	8:AH:92:ARG:HH11	1.46	0.81
58:BZ:183:LEU:HD13	58:BZ:184:ALA:N	1.95	0.81
45:DK:100:THR:HA	45:DK:139:VAL:HB	1.62	0.81
35:DA:1887:C:C2'	35:DA:1888:G:H5''	2.10	0.81
45:DK:20:ALA:HA	45:DK:25:PRO:HD3	1.63	0.81
38:DD:71:ASP:HB2	38:DD:103:ARG:HH22	1.45	0.81
35:DA:528:A:O2'	35:DA:529:A:H5'	1.80	0.81
38:BD:181:GLU:HA	38:BD:272:ALA:HB3	1.62	0.81
24:AY:54:ARG:HB3	24:AY:54:ARG:NH2	1.93	0.81
57:BY:81:LYS:HD3	57:BY:97:ARG:HG3	1.59	0.81
38:BD:43:ARG:HB3	38:BD:54:ARG:HB2	1.61	0.81
45:BK:78:ILE:HG23	45:BK:99:ILE:HD11	1.63	0.81
52:DT:89:VAL:HG11	52:DT:91:ARG:NE	1.94	0.81
1:CA:1292:U:H2'	1:CA:1293:G:C8	2.14	0.81
1:AA:1292:U:H2'	1:AA:1293:G:C8	2.15	0.81
1:AA:990:C:H2'	1:AA:991:U:C6	2.15	0.81
51:BS:89:ARG:O	51:BS:92:TYR:HB3	1.81	0.81
45:BK:78:ILE:HG21	45:BK:136:VAL:HG21	1.62	0.81
22:AW:77:PHA:HD2	35:BA:248:G:O3'	1.80	0.81
52:DT:28:VAL:HG13	52:DT:46:GLU:HA	1.61	0.81
22:AV:71:G:H2'	22:AV:72:C:H5''	1.63	0.81
35:DA:1019:U:O2'	35:DA:1021:A:H2	1.62	0.81
12:CL:57:LYS:HG2	12:CL:67:THR:HG22	1.63	0.81
54:BV:19:LYS:NZ	54:BV:20:LEU:H	1.79	0.81
45:BK:100:THR:HA	45:BK:139:VAL:HB	1.62	0.81
27:D2:43:GLN:HE21	27:D2:44:LEU:HG	1.44	0.81
1:CA:990:C:H2'	1:CA:991:U:C6	2.16	0.81
1:AA:601:C:H2'	1:AA:602:A:H8	1.44	0.81
35:BA:1948:G:H8	35:BA:1948:G:H5'	1.43	0.81
6:AF:68:PRO:HG2	6:AF:71:ARG:HG3	1.63	0.81
8:CH:11:THR:HG22	8:CH:15:ASN:HD21	1.46	0.81
8:CH:11:THR:HG22	8:CH:15:ASN:ND2	1.96	0.81
4:AD:30:LYS:C	4:AD:32:ALA:H	1.85	0.81
9:CI:15:ALA:HB2	9:CI:65:VAL:HG23	1.62	0.81
57:DY:44:ILE:O	57:DY:62:GLU:HB3	1.81	0.81
19:CS:43:GLU:HG2	19:CS:44:MET:HE1	1.60	0.81
35:DA:1378:A:H4'	35:DA:1379:A:OP1	1.80	0.81
18:AR:31:LEU:H	18:AR:31:LEU:HD23	1.46	0.81
35:BA:2147:G:H2'	35:BA:2148:G:O4'	1.81	0.81
1:AA:1321:C:C5'	1:AA:1322:C:H5''	2.11	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:2147:G:H2'	35:DA:2148:G:O4'	1.81	0.81
35:BA:1887:C:C2'	35:BA:1888:G:H5''	2.09	0.81
48:DP:23:PRO:HB2	48:DP:33:ARG:NE	1.96	0.81
48:BP:38:GLN:HG3	48:BP:39:LYS:H	1.45	0.81
55:DW:9:TYR:H	55:DW:102:HIS:HD2	1.29	0.81
4:CD:93:PHE:O	4:CD:97:LEU:HB2	1.81	0.81
10:CJ:24:VAL:HG21	10:CJ:37:PRO:HG3	1.61	0.81
42:DH:30:LYS:HE3	42:DH:81:GLU:N	1.96	0.81
35:DA:744:G:OP1	39:DE:132:HIS:HB3	1.80	0.81
43:BI:92:VAL:HG22	43:BI:120:ILE:HD12	1.63	0.81
40:DF:83:PHE:O	40:DF:85:GLY:N	2.14	0.81
1:AA:624:C:H2'	1:AA:625:G:H8	1.45	0.81
35:DA:298:G:H5'	35:DA:299:A:OP1	1.81	0.81
13:CM:126:LYS:N	24:CY:162:ALA:N	2.29	0.80
38:DD:181:GLU:HA	38:DD:272:ALA:HB3	1.63	0.80
35:DA:2801(A):A:H4'	35:DA:2802:G:C5'	2.07	0.80
54:DV:18:LEU:HD22	54:DV:19:LYS:N	1.96	0.80
22:CW:63:G:H2'	22:CW:64:A:H5'	1.62	0.80
43:DI:8:PRO:HD3	43:DI:15:VAL:HG13	1.63	0.80
4:AD:176:LEU:HG	4:AD:178:VAL:H	1.46	0.80
35:BA:672:C:H2'	35:BA:673:C:H5''	1.63	0.80
1:AA:1347:G:N2	1:AA:1373:G:H2'	1.94	0.80
41:DG:162:THR:HG22	41:DG:162:THR:O	1.79	0.80
35:DA:2562:U:H1'	47:DO:23:ARG:HH11	1.46	0.80
40:DF:36:VAL:HG11	40:DF:183:VAL:HG11	1.62	0.80
19:CS:16:LEU:HD12	19:CS:16:LEU:H	1.45	0.80
58:BZ:96:VAL:HG22	58:BZ:97:GLU:H	1.46	0.80
3:CC:34:LEU:HD21	3:CC:38:ARG:HD2	1.63	0.80
1:CA:223:U:H2'	1:CA:224:C:H6	1.46	0.80
24:CY:209:GLU:CD	24:CY:303:ARG:HD3	2.00	0.80
1:CA:1116:C:C2'	1:CA:1117:G:H5''	2.12	0.80
35:DA:903:C:H2'	35:DA:904:C:H5''	1.62	0.80
9:CI:17:VAL:HG13	9:CI:81:ILE:HD13	1.63	0.80
2:AB:141:GLU:O	2:AB:145:LEU:HB2	1.82	0.80
3:AC:36:ASP:HB3	3:AC:40:ARG:HH12	1.46	0.80
39:DE:77:ILE:HG22	39:DE:78:LEU:N	1.96	0.80
40:BF:123:LEU:HD12	40:BF:124:LEU:H	1.46	0.80
46:DN:67:LEU:HD23	46:DN:87:LEU:HD13	1.63	0.80
41:BG:17:PRO:HA	41:BG:20:ILE:HD12	1.64	0.80
1:CA:590:C:H2'	1:CA:591:U:H6	1.45	0.80
19:AS:16:LEU:H	19:AS:16:LEU:HD12	1.46	0.80
54:BV:18:LEU:CD1	54:BV:19:LYS:H	1.93	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
57:BY:76:CYS:CB	57:BY:96:ILE:HD11	2.11	0.80
56:BX:12:VAL:HB	56:BX:17:ALA:CB	2.11	0.80
50:BR:7:GLY:O	50:BR:8:ARG:HB2	1.81	0.80
43:BI:31:LEU:HD12	43:BI:31:LEU:N	1.96	0.80
35:BA:271(M):G:H5''	43:BI:57:ARG:HH12	1.47	0.80
39:DE:116:VAL:O	39:DE:117:MET:HB3	1.81	0.80
1:AA:1137:C:H4'	1:AA:1138:G:C2	2.17	0.80
8:CH:89:PRO:HA	8:CH:92:ARG:HH11	1.47	0.80
33:B8:4:MET:HB2	33:B8:61:LEU:HD13	1.61	0.80
36:DB:45:A:C1'	41:DG:95:ARG:HH12	1.94	0.80
3:CC:16:ARG:NH1	3:CC:16:ARG:HB2	1.96	0.80
38:BD:72:LYS:HZ3	38:BD:75:ILE:HD12	1.46	0.80
24:AY:214:VAL:HG13	24:AY:215:ASP:H	1.47	0.80
1:CA:624:C:H2'	1:CA:625:G:H8	1.46	0.80
1:AA:590:C:H2'	1:AA:591:U:H6	1.46	0.80
48:DP:85:LEU:HD23	48:DP:114:ILE:HD11	1.64	0.80
45:DK:78:ILE:HG21	45:DK:136:VAL:HG21	1.61	0.80
35:DA:279:C:C2'	35:DA:280:C:H5''	2.12	0.80
58:DZ:10:ARG:HH21	58:DZ:26:GLY:H	1.28	0.80
1:CA:444:C:H2'	1:CA:445:G:C8	2.17	0.80
35:BA:2312:U:H2'	35:BA:2313:C:H5''	1.62	0.80
6:CF:68:PRO:HG2	6:CF:71:ARG:HG3	1.63	0.80
40:DF:28:ILE:HD13	40:DF:28:ILE:H	1.47	0.80
3:CC:101:LEU:HD23	3:CC:102:ASN:N	1.97	0.80
56:BX:80:ILE:O	56:BX:80:ILE:HD13	1.82	0.80
30:B5:55:ARG:HD3	30:B5:56:LYS:N	1.93	0.80
57:DY:28:LYS:CB	57:DY:37:VAL:HB	2.12	0.80
35:BA:631:A:OP1	48:BP:64:LYS:HE2	1.81	0.80
48:BP:124:LYS:HA	48:BP:143:GLY:HA3	1.61	0.80
35:BA:744:G:OP1	39:BE:132:HIS:HB3	1.81	0.80
19:AS:10:PHE:HZ	19:AS:70:LYS:HZ3	1.28	0.80
45:DK:23:VAL:HG13	45:DK:26:ALA:HB3	1.62	0.80
35:BA:279:C:C2'	35:BA:280:C:H5''	2.12	0.80
57:BY:44:ILE:H	57:BY:62:GLU:CD	1.85	0.80
56:DX:35:THR:O	56:DX:39:ILE:HG12	1.81	0.80
43:BI:5:LEU:O	43:BI:6:LEU:HG	1.82	0.80
40:BF:125:LEU:H	40:BF:125:LEU:HD23	1.45	0.80
58:DZ:81:ARG:CB	58:DZ:81:ARG:HH11	1.94	0.80
54:DV:18:LEU:CD1	54:DV:19:LYS:H	1.94	0.80
35:BA:2491:U:H4'	35:BA:2570:G:OP1	1.82	0.80
52:BT:29:ARG:HG2	52:BT:85:LYS:HA	1.62	0.80
1:AA:1116:C:C2'	1:AA:1117:G:H5''	2.11	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BI:113:ARG:O	43:BI:131:LYS:HB2	1.82	0.80
52:BT:102:ILE:HB	52:BT:110:ILE:HD12	1.63	0.80
47:DO:107:ARG:NH1	52:DT:35:LYS:HB2	1.97	0.80
1:CA:1137:C:H4'	1:CA:1138:G:C2	2.16	0.80
57:BY:28:LYS:CB	57:BY:37:VAL:HB	2.11	0.79
57:DY:76:CYS:CB	57:DY:96:ILE:HD11	2.12	0.79
3:AC:32:LEU:HB3	3:AC:59:ARG:NH2	1.97	0.79
7:AG:100:ALA:O	7:AG:104:LEU:HD23	1.81	0.79
52:DT:29:ARG:HG2	52:DT:85:LYS:HA	1.63	0.79
32:D7:11:LYS:HE2	35:DA:686:G:H5''	1.64	0.79
53:BU:90:VAL:O	53:BU:92:ARG:N	2.15	0.79
47:DO:104:ARG:HE	52:DT:33:LYS:HE3	1.46	0.79
48:BP:23:PRO:HD2	48:BP:33:ARG:HH21	1.45	0.79
38:BD:30:GLU:HG3	38:BD:63:ARG:CZ	2.12	0.79
35:DA:1024:G:H3'	35:DA:1025:G:H5''	1.62	0.79
7:CG:84:ASN:ND2	22:CW:37:A:H61	1.79	0.79
43:DI:46:ALA:O	43:DI:50:ARG:HG3	1.83	0.79
1:AA:444:C:H2'	1:AA:445:G:C8	2.17	0.79
31:D6:48:VAL:O	31:D6:49:HIS:CG	2.36	0.79
52:BT:89:VAL:HG11	52:BT:91:ARG:NE	1.97	0.79
45:DK:78:ILE:HG23	45:DK:99:ILE:HD11	1.63	0.79
4:CD:30:LYS:C	4:CD:32:ALA:H	1.86	0.79
24:CY:115:ASN:HA	24:CY:176:ALA:HB3	1.62	0.79
2:AB:231:GLU:HB2	2:AB:232:PRO:CD	2.13	0.79
3:AC:34:LEU:HD21	3:AC:38:ARG:HD2	1.63	0.79
3:AC:113:ALA:HB3	3:AC:114:PRO:HD3	1.64	0.79
24:AY:341:LEU:HD22	24:AY:344:LEU:HD11	1.63	0.79
35:DA:1899:G:O2'	35:DA:1900:A:H5''	1.81	0.79
58:BZ:144:LEU:HD11	58:BZ:150:LEU:HB3	1.64	0.79
56:DX:12:VAL:HB	56:DX:17:ALA:CB	2.13	0.79
45:BK:14:ALA:HA	45:BK:45:THR:HG21	1.65	0.79
4:AD:49:ARG:HE	4:AD:49:ARG:HA	1.47	0.79
16:CP:28:ARG:HH11	16:CP:28:ARG:HG2	1.46	0.79
12:AL:70:ILE:HG12	12:AL:100:ILE:HD12	1.65	0.79
33:B8:62:LEU:CD1	35:BA:242:G:H5''	2.10	0.79
49:DQ:16:ARG:HB3	49:DQ:18:LYS:NZ	1.95	0.79
35:BA:903:C:C2'	35:BA:904:C:H5''	2.11	0.79
52:DT:102:ILE:HB	52:DT:110:ILE:HD12	1.62	0.79
1:AA:1057:G:H5''	3:AC:154:SER:CB	2.13	0.79
47:DO:4:PRO:O	47:DO:5:GLN:HB2	1.82	0.79
42:BH:30:LYS:HE3	42:BH:81:GLU:N	1.97	0.79
31:B6:14:THR:O	31:B6:49:HIS:HA	1.82	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:36:ASP:HB3	3:CC:40:ARG:HH12	1.46	0.79
35:BA:1403:C:H5''	35:BA:1471:A:H1'	1.64	0.79
24:CY:303:ARG:HH22	35:DA:1914:C:C2'	1.96	0.79
57:DY:96:ILE:HD12	57:DY:99:CYS:SG	2.23	0.79
49:BQ:137:TYR:OH	58:BZ:81:ARG:HD3	1.81	0.79
24:CY:288:ARG:HH11	24:CY:288:ARG:HB3	1.46	0.79
53:BU:88:ILE:HG22	54:BV:47:VAL:HG23	1.64	0.79
40:BF:66:PRO:O	40:BF:67:GLN:HB3	1.81	0.79
52:BT:85:LYS:HB3	52:BT:85:LYS:HZ2	1.47	0.79
47:BO:107:ARG:NH1	52:BT:35:LYS:HB2	1.97	0.79
24:AY:36:PRO:HD3	45:BK:29:GLN:HA	1.64	0.79
31:D6:46:HIS:CA	31:D6:47:THR:OG1	2.30	0.79
22:AW:38:A:H3'	22:AW:39:U:H5''	1.63	0.79
41:BG:72:ARG:HD3	41:BG:86:MET:HA	1.62	0.79
35:DA:676:A:H2	35:DA:802:A:H61	1.31	0.79
45:BK:38:VAL:HG23	45:BK:39:LYS:H	1.48	0.79
1:AA:939:G:H5''	7:AG:102:ARG:NH1	1.96	0.79
50:DR:24:GLN:NE2	50:DR:36:THR:HG21	1.97	0.79
2:CB:141:GLU:O	2:CB:145:LEU:HB2	1.82	0.79
35:BA:2836:U:H2'	35:BA:2837:G:C8	2.18	0.79
39:BE:116:VAL:O	39:BE:117:MET:HB3	1.83	0.79
7:CG:100:ALA:O	7:CG:104:LEU:HD23	1.82	0.79
1:AA:223:U:H2'	1:AA:224:C:H6	1.45	0.79
39:BE:9:VAL:HG22	39:BE:25:VAL:HB	1.64	0.79
11:CK:85:ARG:HG2	11:CK:111:ASP:O	1.83	0.79
49:DQ:141:GLN:HB3	58:DZ:99:TYR:CE2	2.18	0.79
50:BR:99:LYS:HB3	50:BR:99:LYS:HZ3	1.46	0.79
45:DK:92:GLY:HA3	58:DZ:112:ARG:HH12	1.45	0.79
40:DF:66:PRO:O	40:DF:67:GLN:HB3	1.81	0.79
24:CY:49:SER:O	24:CY:53:ALA:HB2	1.81	0.79
1:CA:15:G:H4'	5:CE:24:ARG:NH1	1.97	0.79
3:CC:32:LEU:HB3	3:CC:59:ARG:NH2	1.97	0.79
42:DH:30:LYS:HE3	42:DH:81:GLU:H	1.48	0.79
11:AK:29:ILE:HG13	11:AK:44:SER:HB3	1.64	0.79
28:B3:40:THR:HG23	28:B3:43:ILE:HG12	1.65	0.79
48:DP:7:ARG:HA	48:DP:7:ARG:HH11	1.44	0.79
1:CA:973:G:H3'	1:CA:974:A:H5''	1.65	0.79
54:DV:52:VAL:HG23	54:DV:55:ALA:HB3	1.64	0.79
1:AA:255:G:H1'	17:AQ:16:GLN:NE2	1.98	0.79
26:D1:51:VAL:HG21	26:D1:74:VAL:HG21	1.64	0.79
35:DA:1084:A:H5'	44:DJ:55:UNK:CB	2.12	0.79
35:BA:1054:A:H2'	35:BA:1055:G:H5''	1.66	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:BS:13:ARG:CG	51:BS:14:VAL:H	1.94	0.79
51:BS:20:ARG:HA	51:BS:20:ARG:NE	1.97	0.79
41:DG:115:ARG:HG3	41:DG:116:ASP:N	1.98	0.79
41:DG:41:GLN:HB3	41:DG:43:LEU:HD13	1.63	0.79
35:BA:2660:A:H5'	35:BA:2661:G:C2	2.17	0.79
41:BG:40:ASN:HD22	41:BG:41:GLN:H	1.30	0.79
1:CA:1278:U:H5''	1:CA:1279:A:O4'	1.83	0.79
52:BT:29:ARG:CG	52:BT:85:LYS:HA	2.13	0.79
19:AS:43:GLU:HG2	19:AS:44:MET:HE1	1.65	0.79
28:D3:44:ARG:O	28:D3:48:GLU:HG2	1.83	0.79
35:BA:1639:U:C2'	35:BA:1640:C:H5''	2.13	0.79
35:DA:271(M):G:H2'	35:DA:271(N):U:H5''	1.64	0.79
2:AB:91:PRO:HG3	2:AB:154:LEU:HB2	1.65	0.79
57:DY:76:CYS:HB3	57:DY:96:ILE:HD11	1.63	0.78
4:CD:12:CYS:HA	4:CD:19:LEU:H	1.47	0.78
1:AA:368:U:OP1	43:DI:91:SER:HB3	1.82	0.78
48:BP:58:THR:O	48:BP:61:ARG:NE	2.16	0.78
45:BK:23:VAL:HG13	45:BK:26:ALA:HB3	1.63	0.78
27:B2:48:HIS:CE1	35:BA:96:G:H4'	2.18	0.78
9:AI:17:VAL:HG13	9:AI:81:ILE:HD13	1.63	0.78
4:AD:93:PHE:O	4:AD:97:LEU:HB2	1.82	0.78
40:BF:28:ILE:HD13	40:BF:28:ILE:H	1.48	0.78
19:AS:18:LYS:O	19:AS:22:LEU:HD23	1.83	0.78
40:BF:3:GLU:O	40:BF:19:GLU:HB2	1.83	0.78
54:BV:52:VAL:HG23	54:BV:55:ALA:HB3	1.63	0.78
53:DU:88:ILE:HG22	54:DV:47:VAL:HG23	1.63	0.78
24:CY:131:ASP:HA	24:CY:163:GLY:HA2	1.64	0.78
52:DT:65:LYS:CE	52:DT:66:VAL:H	1.95	0.78
52:DT:80:SER:HB3	52:DT:81:PRO:HD3	1.64	0.78
48:DP:17:LYS:O	48:DP:19:VAL:N	2.16	0.78
1:CA:601:C:H2'	1:CA:602:A:H8	1.47	0.78
24:CY:41:ASP:HB3	24:CY:44:ALA:HB3	1.66	0.78
35:DA:1434:A:H61	35:DA:1558:A:H62	1.30	0.78
24:CY:112:ALA:HA	24:CY:177:TYR:HD2	1.47	0.78
33:D8:4:MET:HB2	33:D8:61:LEU:HD13	1.65	0.78
35:DA:1108:U:C2'	35:DA:1109:C:H5''	2.14	0.78
24:AY:115:ASN:HD22	24:AY:170:LEU:CD1	1.96	0.78
41:BG:96:ARG:HG2	41:BG:97:ASP:N	1.98	0.78
4:AD:12:CYS:HA	4:AD:19:LEU:H	1.48	0.78
52:BT:80:SER:HB3	52:BT:81:PRO:HD3	1.62	0.78
19:CS:18:LYS:O	19:CS:22:LEU:HD23	1.82	0.78
28:B3:44:ARG:O	28:B3:48:GLU:HG2	1.83	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.18	0.78
25:D0:74:ARG:HH22	36:DB:13:A:H8	1.30	0.78
42:DH:88:LEU:HD22	42:DH:130:ARG:HG2	1.66	0.78
58:BZ:17:ALA:O	58:BZ:20:ARG:HG2	1.84	0.78
39:DE:24:THR:HG22	39:DE:186:GLY:HA2	1.65	0.78
47:BO:4:PRO:O	47:BO:5:GLN:HB2	1.81	0.78
22:AW:39:U:H2'	22:AW:40:C:C5'	2.13	0.78
48:BP:7:ARG:HA	48:BP:7:ARG:HH11	1.45	0.78
48:BP:146:VAL:HG22	48:BP:147:LEU:N	1.97	0.78
3:CC:6:HIS:ND1	14:CN:49:HIS:HB3	1.98	0.78
3:AC:6:HIS:ND1	14:AN:49:HIS:HB3	1.98	0.78
22:AV:41:C:C2'	22:AV:42:C:H5''	2.13	0.78
38:DD:182:LEU:H	38:DD:272:ALA:HB3	1.48	0.78
24:CY:295:LEU:CD1	24:CY:299:ARG:HH21	1.97	0.78
35:DA:2836:U:H2'	35:DA:2837:G:C8	2.17	0.78
35:DA:2590:A:OP2	38:DD:238:GLY:HA2	1.84	0.78
22:AW:47:U:O2'	22:AW:48:C:H5'	1.81	0.78
6:CF:19:LEU:HD23	6:CF:19:LEU:O	1.84	0.78
1:AA:1305:G:H5'	21:AU:4:GLY:HA3	1.64	0.78
35:BA:174:C:H3'	35:BA:175:G:H5''	1.65	0.78
31:D6:19:ARG:HD2	31:D6:43:CYS:HB2	1.65	0.78
1:AA:973:G:H3'	1:AA:974:A:H5''	1.64	0.78
10:AJ:49:VAL:HG23	14:AN:41:ARG:HB2	1.65	0.78
33:D8:51:ALA:HA	33:D8:54:GLU:OE1	1.83	0.78
24:CY:150:GLN:HE21	24:CY:172:LYS:HZ3	1.30	0.78
1:AA:878:G:H5'	8:AH:89:PRO:HG2	1.65	0.78
24:CY:270:LYS:O	24:CY:274:LEU:HD13	1.82	0.78
43:BI:43:ASN:HA	43:BI:46:ALA:HB3	1.65	0.78
3:AC:180:ALA:HB1	3:AC:203:PHE:HE1	1.49	0.78
26:B1:41:ARG:HH22	35:BA:1365:A:H5'	1.49	0.78
24:AY:109:PHE:HB2	24:AY:112:ALA:HB2	1.65	0.78
22:CW:57:G:H2'	22:CW:58:A:H5'	1.64	0.78
43:DI:92:VAL:CG1	43:DI:120:ILE:HB	2.14	0.78
53:DU:90:VAL:O	53:DU:92:ARG:N	2.16	0.78
35:DA:672:C:C2'	35:DA:673:C:H5''	2.13	0.78
9:AI:53:VAL:HG12	9:AI:95:LYS:HE3	1.66	0.78
50:BR:24:GLN:NE2	50:BR:36:THR:HG21	1.97	0.78
35:BA:271(M):G:H2'	35:BA:271(N):U:H5''	1.65	0.78
58:DZ:158:PRO:HB2	58:DZ:161:VAL:HG21	1.66	0.78
43:BI:73:GLU:OE1	43:BI:136:VAL:HG23	1.83	0.78
35:DA:1639:U:C2'	35:DA:1640:C:H5''	2.14	0.78
22:CV:26:A:H61	22:CV:44:G:H1	1.29	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:392:G:H2'	1:CA:393:A:H8	1.48	0.78
51:DS:89:ARG:HG2	51:DS:92:TYR:HA	1.66	0.78
38:DD:108:PRO:HB3	38:DD:143:HIS:CE1	2.18	0.78
52:BT:65:LYS:CE	52:BT:66:VAL:H	1.95	0.78
47:BO:47:ILE:HG23	47:BO:48:PRO:HD2	1.66	0.78
38:DD:8:PRO:HB3	38:DD:14:ARG:HB2	1.66	0.78
58:BZ:165:VAL:HG12	58:BZ:166:SER:N	1.98	0.78
35:DA:2287:A:N6	35:DA:2344:U:H3	1.82	0.78
47:BO:104:ARG:HE	52:BT:33:LYS:HE3	1.47	0.78
26:D1:51:VAL:O	26:D1:58:ILE:HG22	1.82	0.78
50:DR:99:LYS:HZ3	50:DR:99:LYS:HB3	1.48	0.78
1:CA:1305:G:H5'	21:CU:4:GLY:HA3	1.63	0.78
35:DA:484:C:OP1	57:DY:50:ARG:HG3	1.84	0.78
43:DI:68:LEU:HG	43:DI:71:ILE:HD11	1.66	0.78
4:CD:196:LEU:HD12	4:CD:196:LEU:H	1.48	0.78
35:BA:1048:A:H62	35:BA:1052:C:H42	1.31	0.78
35:BA:1884:A:C2'	35:BA:1885:A:H5''	2.13	0.78
24:CY:181:SER:H	24:CY:182:PRO:HD2	1.48	0.78
45:DK:38:VAL:HG23	45:DK:39:LYS:H	1.48	0.78
35:BA:1378:A:H4'	35:BA:1379:A:OP1	1.81	0.78
1:CA:1005:A:N6	1:CA:1025:U:H4'	1.99	0.78
58:BZ:44:PHE:CZ	58:BZ:86:VAL:HG11	2.19	0.78
11:AK:85:ARG:HG2	11:AK:111:ASP:O	1.83	0.78
4:CD:49:ARG:HA	4:CD:49:ARG:HE	1.48	0.78
20:AT:75:ASN:N	20:AT:75:ASN:HD22	1.81	0.78
46:BN:67:LEU:HD23	46:BN:87:LEU:HD13	1.66	0.78
1:AA:1278:U:H5''	1:AA:1279:A:O4'	1.82	0.78
52:DT:16:ARG:HH12	52:DT:19:LEU:HD21	1.48	0.78
3:CC:175:LEU:HD21	3:CC:201:TYR:HE2	1.46	0.78
30:B5:40:LYS:NZ	30:B5:49:CYS:SG	2.57	0.78
43:BI:123:LEU:HD21	43:BI:142:VAL:HB	1.65	0.78
44:DJ:27:UNK:C	44:DJ:84:UNK:HA	2.14	0.78
48:BP:88:LEU:H	48:BP:88:LEU:HD12	1.47	0.78
25:B0:41:ARG:NH2	35:BA:2387:U:H4'	1.98	0.78
7:CG:79:ARG:HH21	23:CX:14:A:H61	1.33	0.78
37:DC:54:ARG:HB3	37:DC:57:GLN:HB3	1.66	0.77
35:BA:1210:A:C8	35:BA:1210:A:H5'	2.18	0.77
35:BA:903:C:H2'	35:BA:904:C:H5''	1.67	0.77
1:AA:1502:A:H2	1:AA:1505:G:N1	1.81	0.77
50:BR:7:GLY:HA3	50:BR:8:ARG:HH21	1.46	0.77
12:AL:47:LYS:HB3	12:AL:48:PRO:CD	2.14	0.77
24:AY:164:ILE:HD11	24:AY:167:ALA:HB2	1.66	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CG:15:ASP:HB3	7:CG:19:GLY:N	2.00	0.77
24:CY:288:ARG:NH1	24:CY:288:ARG:HB3	1.98	0.77
35:BA:330:A:H2	35:BA:1210:A:H2'	1.49	0.77
22:AW:68:C:H2'	22:AW:69:G:H8	1.47	0.77
38:BD:44:ASN:HB2	38:BD:48:ARG:O	1.84	0.77
35:DA:1171:G:H3'	35:DA:1173:G:H4'	1.66	0.77
43:BI:53:ALA:O	43:BI:57:ARG:HB3	1.83	0.77
47:DO:122:LEU:HD23	52:DT:43:GLN:HE22	1.50	0.77
39:DE:9:VAL:HG22	39:DE:25:VAL:HB	1.64	0.77
18:CR:37:VAL:HG23	18:CR:38:GLU:H	1.49	0.77
22:AV:27:G:H1	22:AV:43:C:H42	1.33	0.77
1:AA:67:C:H2'	1:AA:68:G:C8	2.19	0.77
56:BX:50:LYS:HB3	56:BX:84:ALA:HB2	1.64	0.77
22:AW:70:G:H2'	22:AW:71:G:C5'	2.08	0.77
19:AS:78:ARG:HB2	19:AS:81:ARG:HH11	1.49	0.77
51:DS:13:ARG:CG	51:DS:14:VAL:H	1.91	0.77
45:BK:20:ALA:HA	45:BK:25:PRO:HD3	1.63	0.77
1:AA:728:A:H2'	1:AA:729:A:H8	1.47	0.77
1:CA:392:G:H2'	1:CA:393:A:C8	2.19	0.77
1:CA:255:G:H1'	17:CQ:16:GLN:NE2	1.99	0.77
53:DU:8:VAL:HG23	53:DU:11:ARG:HH21	1.48	0.77
43:DI:57:ARG:HG2	43:DI:61:ARG:HH12	1.49	0.77
10:AJ:49:VAL:CG2	14:AN:41:ARG:HB2	2.14	0.77
43:DI:8:PRO:HG3	43:DI:14:ASP:HA	1.66	0.77
57:BY:44:ILE:O	57:BY:62:GLU:HB3	1.84	0.77
43:DI:49:ALA:O	43:DI:53:ALA:HB3	1.84	0.77
43:DI:72:LEU:HD12	43:DI:138:ILE:HD11	1.66	0.77
26:D1:80:LEU:HB3	26:D1:82:LEU:HD22	1.66	0.77
12:AL:57:LYS:HG2	12:AL:67:THR:HG22	1.65	0.77
22:CV:21:A:H2'	22:CV:22:G:H5''	1.65	0.77
35:BA:2178:C:H4'	37:BC:47:LYS:HD3	1.66	0.77
58:BZ:101:PRO:O	58:BZ:102:LEU:HD12	1.84	0.77
29:B4:20:ASN:HD22	29:B4:21:VAL:N	1.83	0.77
52:BT:16:ARG:HH12	52:BT:19:LEU:HD21	1.49	0.77
4:CD:176:LEU:HG	4:CD:178:VAL:H	1.48	0.77
35:DA:197:A:H8	35:DA:197:A:H5'	1.47	0.77
33:D8:14:VAL:CG2	33:D8:22:VAL:HG13	2.14	0.77
1:CA:1057:G:H5''	3:CC:154:SER:CB	2.14	0.77
35:BA:1278:A:OP1	50:BR:36:THR:HG22	1.83	0.77
58:BZ:20:ARG:HB2	58:BZ:20:ARG:HH11	1.48	0.77
44:BJ:27:UNK:C	44:BJ:84:UNK:HA	2.15	0.77
56:DX:50:LYS:HB3	56:DX:84:ALA:HB2	1.64	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:650:C:H3'	35:BA:651:G:H5''	1.67	0.77
48:BP:17:LYS:O	48:BP:19:VAL:N	2.17	0.77
57:DY:28:LYS:HB2	57:DY:37:VAL:HB	1.67	0.77
48:DP:62:LEU:H	48:DP:62:LEU:HD23	1.46	0.77
24:CY:214:VAL:HG13	24:CY:215:ASP:H	1.47	0.77
39:BE:77:ILE:HG22	39:BE:78:LEU:N	1.98	0.77
53:DU:66:ASN:ND2	53:DU:76:TYR:H	1.83	0.77
35:BA:296:C:O2'	35:BA:297:C:H5'	1.85	0.77
11:CK:29:ILE:HG13	11:CK:44:SER:HB3	1.67	0.77
39:BE:59:VAL:HG13	39:BE:60:ASN:H	1.50	0.77
2:AB:124:SER:OG	2:AB:125:PRO:HD2	1.85	0.77
4:AD:196:LEU:HD12	4:AD:196:LEU:H	1.49	0.77
35:DA:61:G:H1	35:DA:94:C:H42	1.28	0.77
52:BT:83:ILE:HG13	52:BT:84:GLN:H	1.50	0.77
48:DP:58:THR:O	48:DP:61:ARG:NE	2.18	0.77
7:AG:102:ARG:HG2	7:AG:106:GLN:HE21	1.48	0.77
30:B5:11:THR:CG2	35:BA:1264:G:H5'	2.15	0.77
33:B8:51:ALA:HA	33:B8:54:GLU:OE1	1.83	0.77
1:AA:1005:A:N6	1:AA:1025:U:H4'	2.00	0.77
46:DN:120:LEU:O	46:DN:121:LYS:HD2	1.85	0.77
19:AS:29:ARG:CD	19:AS:30:LEU:H	1.97	0.77
5:CE:100:VAL:HG12	5:CE:118:ILE:HG22	1.65	0.77
58:BZ:14:LYS:HB3	58:BZ:17:ALA:HB3	1.67	0.77
35:BA:365:C:H5'	35:BA:365:C:H6	1.50	0.77
2:CB:91:PRO:HG3	2:CB:154:LEU:HB2	1.65	0.77
35:BA:1084:A:H5'	44:BJ:55:UNK:CB	2.14	0.77
26:B1:5:CYS:SG	26:B1:62:VAL:HG23	2.25	0.77
42:DH:144:VAL:O	42:DH:148:ILE:HG12	1.85	0.77
35:DA:613:G:C8	35:DA:613:G:H5'	2.20	0.77
35:DA:2660:A:H5'	35:DA:2661:G:C2	2.20	0.77
1:AA:976:G:N2	1:AA:1362:C:H2'	2.00	0.77
54:DV:47:VAL:HG11	54:DV:51:VAL:HA	1.66	0.77
35:DA:1210:A:C8	35:DA:1210:A:H5'	2.19	0.77
22:CV:41:C:C3'	22:CV:42:C:H5''	2.14	0.77
5:CE:6:PHE:HB2	5:CE:34:VAL:HG22	1.65	0.77
48:BP:29:LYS:HB3	48:BP:34:GLY:H	1.50	0.77
7:CG:15:ASP:HB3	7:CG:19:GLY:H	1.50	0.77
45:DK:14:ALA:HA	45:DK:45:THR:HG21	1.65	0.77
8:CH:91:ARG:HH11	8:CH:91:ARG:HG2	1.49	0.77
35:BA:1434:A:H61	35:BA:1558:A:H62	1.31	0.77
33:B8:33:ASN:O	33:B8:34:TRP:HB3	1.84	0.77
24:AY:141:THR:HG22	24:AY:145:GLU:OE2	1.85	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:CY:81:ALA:HB1	24:CY:84:ARG:HH21	1.50	0.77
37:BC:54:ARG:HB3	37:BC:57:GLN:HB3	1.66	0.77
53:DU:47:TYR:HA	53:DU:50:ARG:NH2	2.00	0.77
35:DA:1899:G:H22	35:DA:1902:C:N4	1.74	0.77
40:BF:22:ALA:O	40:BF:26:ALA:HB2	1.85	0.77
54:DV:18:LEU:HD13	54:DV:19:LYS:N	2.00	0.77
35:DA:1048:A:H62	35:DA:1052:C:H42	1.33	0.77
41:DG:114:ILE:HG22	41:DG:115:ARG:HG2	1.65	0.77
41:BG:98:ARG:HA	41:BG:101:ILE:HD12	1.66	0.77
46:DN:128:HIS:HD2	46:DN:130:HIS:H	1.33	0.77
29:D4:20:ASN:ND2	29:D4:21:VAL:H	1.83	0.77
35:DA:2103:C:C3'	35:DA:2104:G:H5''	2.14	0.77
38:BD:131:LEU:HD13	38:BD:136:ILE:HG12	1.65	0.77
6:CF:100:ASN:O	18:CR:28:GLU:HG2	1.85	0.77
58:BZ:58:VAL:HG13	58:BZ:66:SER:HB2	1.67	0.77
1:CA:1355:G:H2'	1:CA:1356:G:H8	1.49	0.77
2:AB:208:ILE:HA	2:AB:211:ILE:HD12	1.66	0.77
35:DA:1280:G:H2'	35:DA:1281:G:H5''	1.67	0.77
24:AY:231:VAL:HG12	24:AY:249:VAL:HG12	1.67	0.77
38:DD:44:ASN:CB	38:DD:49:ILE:HA	2.14	0.76
46:BN:55:VAL:HG22	46:BN:126:PRO:HA	1.67	0.76
1:AA:15:G:H4'	5:AE:24:ARG:NH1	1.99	0.76
8:AH:88:LYS:HB3	8:AH:89:PRO:HD2	1.67	0.76
1:CA:878:G:H5'	8:CH:89:PRO:HG2	1.67	0.76
28:D3:40:THR:HG23	28:D3:43:ILE:HG12	1.67	0.76
48:DP:18:ARG:HB3	48:DP:18:ARG:NH1	1.99	0.76
58:DZ:134:PRO:HB2	58:DZ:137:ILE:HD11	1.67	0.76
50:DR:98:LEU:HB2	50:DR:113:LEU:HD21	1.67	0.76
20:CT:11:SER:HA	20:CT:13:LEU:HD12	1.67	0.76
22:AW:25:C:H2'	22:AW:26:A:H8	1.50	0.76
1:CA:954:G:H21	1:CA:1227:A:H62	1.33	0.76
35:DA:2491:U:H4'	35:DA:2570:G:OP1	1.85	0.76
13:CM:124:PRO:N	24:CY:162:ALA:HA	2.00	0.76
39:DE:64:LYS:C	39:DE:66:HIS:H	1.88	0.76
1:AA:1513:A:H2'	1:AA:1514:C:C6	2.20	0.76
4:AD:112:VAL:HG12	4:AD:116:GLN:OE1	1.86	0.76
4:CD:110:PHE:HD1	4:CD:110:PHE:H	1.32	0.76
38:BD:108:PRO:HB3	38:BD:143:HIS:CE1	2.20	0.76
39:DE:77:ILE:CG2	39:DE:78:LEU:H	1.92	0.76
47:DO:77:ILE:HD13	52:DT:74:ARG:HD3	1.67	0.76
38:DD:30:GLU:HG3	38:DD:63:ARG:CZ	2.15	0.76
7:AG:113:GLU:CG	7:AG:119:ARG:HG2	2.15	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
57:DY:2:ARG:N	57:DY:5:MET:HG3	2.00	0.76
52:DT:38:ASN:ND2	52:DT:39:ARG:N	2.34	0.76
35:BA:2189:U:C3'	35:BA:2190:G:H5''	2.15	0.76
1:AA:954:G:H21	1:AA:1227:A:H62	1.31	0.76
29:B4:20:ASN:ND2	29:B4:21:VAL:H	1.82	0.76
22:CW:77:PHA:HB2	26:D1:33:LYS:NZ	2.01	0.76
36:DB:7:G:C3'	36:DB:8:U:H5''	2.14	0.76
2:AB:194:PRO:HG2	2:AB:195:ASP:OD1	1.85	0.76
50:DR:7:GLY:HA3	50:DR:8:ARG:HH21	1.47	0.76
1:CA:728:A:H2'	1:CA:729:A:H8	1.49	0.76
50:BR:99:LYS:HB3	50:BR:99:LYS:NZ	1.99	0.76
50:DR:99:LYS:HB3	50:DR:99:LYS:NZ	1.99	0.76
35:DA:174:C:H3'	35:DA:175:G:H5''	1.66	0.76
48:BP:85:LEU:HD23	48:BP:114:ILE:HD11	1.67	0.76
42:BH:153:LYS:H	42:BH:153:LYS:HD3	1.50	0.76
8:AH:36:LEU:HA	8:AH:39:LEU:HD23	1.67	0.76
22:CW:28:G:H2'	22:CW:29:G:C8	2.20	0.76
31:D6:41:PRO:HD2	31:D6:46:HIS:CB	2.09	0.76
40:DF:3:GLU:O	40:DF:19:GLU:HB2	1.84	0.76
2:AB:166:ASP:HB3	2:AB:169:LYS:HB2	1.68	0.76
10:CJ:49:VAL:HG23	14:CN:41:ARG:HB2	1.67	0.76
24:CY:130:CYS:HB3	24:CY:164:ILE:H	1.49	0.76
57:BY:88:LYS:HZ3	57:BY:93:GLY:HA3	1.49	0.76
9:CI:53:VAL:HG12	9:CI:95:LYS:HE3	1.66	0.76
1:AA:392:G:H2'	1:AA:393:A:C8	2.21	0.76
7:AG:146:GLU:HG2	7:AG:149:ARG:HH12	1.50	0.76
21:AU:9:ARG:HA	21:AU:9:ARG:HH11	1.50	0.76
2:CB:124:SER:OG	2:CB:125:PRO:HD2	1.85	0.76
20:CT:56:MET:HG3	20:CT:84:LEU:CD1	2.15	0.76
35:DA:1054:A:H2'	35:DA:1055:G:H5''	1.66	0.76
24:AY:244:THR:HG21	35:BA:2452:C:H5''	1.67	0.76
52:DT:29:ARG:CG	52:DT:85:LYS:HA	2.14	0.76
52:DT:28:VAL:O	52:DT:28:VAL:HG12	1.83	0.76
38:DD:92:ILE:H	38:DD:92:ILE:HD13	1.51	0.76
35:BA:2287:A:N6	35:BA:2344:U:H3	1.82	0.76
5:AE:6:PHE:HB2	5:AE:34:VAL:HG22	1.66	0.76
38:BD:182:LEU:H	38:BD:272:ALA:HB3	1.50	0.76
1:AA:1294:G:H2'	1:AA:1295:G:H8	1.51	0.76
57:BY:76:CYS:HB3	57:BY:96:ILE:HD11	1.67	0.76
58:BZ:125:LEU:CD2	58:BZ:164:ALA:HB3	2.16	0.76
29:B4:12:ALA:HB1	29:B4:29:PRO:HA	1.68	0.76
24:CY:344:LEU:HD23	24:CY:344:LEU:H	1.49	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DN:55:VAL:HG22	46:DN:126:PRO:HA	1.66	0.76
33:B8:14:VAL:CG2	33:B8:22:VAL:HG13	2.15	0.76
31:B6:19:ARG:HD2	31:B6:43:CYS:HB2	1.67	0.76
30:B5:33:CYS:HB2	30:B5:40:LYS:HE3	1.67	0.76
35:BA:271(M):G:H5''	43:BI:57:ARG:NH1	2.00	0.76
24:AY:227:LEU:HD22	24:AY:251:VAL:HG12	1.66	0.76
7:CG:113:GLU:CG	7:CG:119:ARG:HG2	2.16	0.76
37:BC:7:ARG:HD3	37:BC:35:THR:O	1.86	0.76
35:DA:482:A:H4'	57:DY:47:LYS:HG2	1.67	0.76
20:CT:75:ASN:N	20:CT:75:ASN:HD22	1.80	0.76
52:BT:23:ARG:O	52:BT:25:GLY:N	2.19	0.76
51:DS:20:ARG:NE	51:DS:20:ARG:HA	1.98	0.76
53:BU:91:ASP:CG	53:BU:96:ALA:HB2	2.06	0.76
24:AY:181:SER:N	24:AY:182:PRO:HD2	1.99	0.76
5:AE:100:VAL:HG12	5:AE:118:ILE:HG22	1.68	0.76
24:AY:267:SER:OG	24:AY:270:LYS:HB2	1.85	0.76
26:D1:92:LYS:HE2	35:DA:153:C:OP1	1.86	0.76
5:AE:93:PRO:HG2	8:AH:105:ARG:HH21	1.51	0.76
39:DE:59:VAL:HG13	39:DE:60:ASN:H	1.50	0.76
16:AP:28:ARG:HG2	16:AP:28:ARG:HH11	1.51	0.76
42:BH:144:VAL:O	42:BH:148:ILE:HG12	1.84	0.76
16:CP:53:VAL:HG12	16:CP:79:VAL:HG22	1.68	0.76
40:DF:107:LYS:HA	40:DF:107:LYS:HZ2	1.50	0.76
16:CP:13:HIS:O	16:CP:15:PRO:HD3	1.85	0.76
3:CC:180:ALA:HB1	3:CC:203:PHE:HE1	1.50	0.76
12:CL:70:ILE:HG12	12:CL:100:ILE:HD12	1.66	0.76
35:BA:2103:C:C3'	35:BA:2104:G:H5''	2.15	0.76
6:CF:77:ARG:HB3	6:CF:77:ARG:HH11	1.48	0.76
1:CA:235:C:H5'	17:CQ:70:ARG:HG2	1.66	0.76
4:CD:112:VAL:HG12	4:CD:116:GLN:OE1	1.86	0.76
35:BA:2562:U:H1'	47:BO:23:ARG:HH11	1.50	0.76
1:AA:377:G:H2'	1:AA:378:G:H8	1.51	0.76
4:CD:176:LEU:CG	4:CD:177:ASP:H	1.99	0.76
19:CS:29:ARG:CD	19:CS:30:LEU:H	1.97	0.76
22:CW:28:G:H2'	22:CW:29:G:H8	1.51	0.76
1:AA:392:G:H2'	1:AA:393:A:H8	1.50	0.76
24:CY:303:ARG:CZ	35:DA:1914:C:H1'	2.14	0.75
36:BB:7:G:C3'	36:BB:8:U:H5''	2.16	0.75
22:CW:16:U:H3'	22:CW:17:C:C5'	2.13	0.75
41:BG:101:ILE:O	41:BG:105:LYS:HG3	1.86	0.75
13:CM:124:PRO:HD2	24:CY:163:GLY:N	2.01	0.75
1:AA:1502:A:H2	1:AA:1505:G:H1	1.35	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:AS:48:THR:HG22	19:AS:61:TYR:HA	1.68	0.75
12:CL:47:LYS:HB3	12:CL:48:PRO:HD3	1.68	0.75
48:DP:17:LYS:O	48:DP:19:VAL:HG22	1.86	0.75
26:D1:64:ALA:HA	26:D1:67:ILE:HG13	1.67	0.75
20:AT:56:MET:HG3	20:AT:84:LEU:CD1	2.16	0.75
22:AW:56:C:H2'	22:AW:57:G:C8	2.21	0.75
3:AC:16:ARG:NH1	3:AC:16:ARG:HB2	2.01	0.75
46:DN:120:LEU:CD1	46:DN:122:VAL:HG23	2.16	0.75
1:AA:235:C:H5'	17:AQ:70:ARG:HG2	1.68	0.75
48:BP:18:ARG:HB3	48:BP:18:ARG:NH1	2.01	0.75
17:AQ:7:THR:HG22	17:AQ:58:GLU:HG2	1.68	0.75
1:CA:1513:A:H2'	1:CA:1514:C:C6	2.21	0.75
57:BY:2:ARG:N	57:BY:5:MET:HG3	2.01	0.75
16:AP:53:VAL:HG12	16:AP:79:VAL:HG22	1.67	0.75
8:CH:36:LEU:HA	8:CH:39:LEU:HD23	1.69	0.75
35:DA:2189:U:C3'	35:DA:2190:G:H5''	2.15	0.75
1:CA:67:C:H2'	1:CA:68:G:C8	2.20	0.75
26:B1:50:ARG:HG2	26:B1:59:THR:HG22	1.67	0.75
4:AD:110:PHE:H	4:AD:110:PHE:HD1	1.31	0.75
54:BV:64:HIS:ND1	54:BV:92:THR:HG22	2.00	0.75
1:AA:1355:G:H2'	1:AA:1356:G:H8	1.49	0.75
18:AR:37:VAL:HG23	18:AR:38:GLU:H	1.49	0.75
57:DY:10:GLY:CA	57:DY:27:VAL:HG13	2.12	0.75
48:BP:62:LEU:HD23	48:BP:62:LEU:H	1.49	0.75
27:B2:19:VAL:O	27:B2:22:GLU:HG2	1.87	0.75
35:DA:1779:U:C5	35:DA:1784:A:N7	2.50	0.75
29:B4:10:VAL:N	41:BG:98:ARG:HH22	1.83	0.75
1:CA:976:G:N2	1:CA:1362:C:H2'	2.00	0.75
10:CJ:49:VAL:CG2	14:CN:41:ARG:HB2	2.15	0.75
35:DA:272(G):C:H3'	35:DA:272(H):C:H5''	1.68	0.75
35:DA:1884:A:C2'	35:DA:1885:A:H5''	2.14	0.75
15:AO:33:THR:HG21	15:AO:85:LEU:CD2	2.16	0.75
1:AA:737:A:H2'	1:AA:738:C:C6	2.21	0.75
35:BA:1019:U:O2'	35:BA:1021:A:H2	1.67	0.75
19:CS:48:THR:HG22	19:CS:61:TYR:HA	1.68	0.75
41:BG:32:PRO:HG2	41:BG:172:LEU:HD12	1.66	0.75
27:D2:5:GLU:O	27:D2:9:GLN:HG3	1.86	0.75
1:AA:405:U:H3'	1:AA:406:G:H5'	1.68	0.75
20:AT:11:SER:HA	20:AT:13:LEU:HD12	1.66	0.75
31:D6:41:PRO:CG	31:D6:47:THR:CG2	2.63	0.75
57:DY:28:LYS:CA	57:DY:38:ILE:HG22	2.15	0.75
45:BK:55:VAL:HG22	45:BK:69:THR:HG23	1.68	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AM:125:ARG:CG	24:AY:160:PRO:HD2	2.16	0.75
35:BA:2120:G:H2'	35:BA:2121:G:C8	2.21	0.75
6:AF:77:ARG:HH11	6:AF:77:ARG:HB3	1.48	0.75
38:BD:72:LYS:NZ	38:BD:75:ILE:HD12	2.01	0.75
1:CA:1425:U:H2'	1:CA:1426:C:H6	1.49	0.75
2:CB:101:MET:HA	2:CB:108:ILE:HG13	1.68	0.75
13:CM:32:GLU:O	13:CM:35:GLU:HG2	1.85	0.75
1:CA:377:G:H2'	1:CA:378:G:H8	1.51	0.75
1:CA:532:A:N6	3:CC:156:ARG:HH12	1.83	0.75
41:DG:45:GLU:O	41:DG:88:ILE:HG12	1.87	0.75
43:BI:133:HIS:O	43:BI:135:GLU:HG3	1.86	0.75
48:DP:23:PRO:HD2	48:DP:33:ARG:NH2	2.00	0.75
5:AE:92:LYS:O	5:AE:118:ILE:HD12	1.86	0.75
5:CE:92:LYS:O	5:CE:118:ILE:HD12	1.86	0.75
19:AS:11:VAL:HG13	19:AS:16:LEU:HD11	1.68	0.75
8:AH:91:ARG:HG2	8:AH:91:ARG:HH11	1.49	0.75
58:DZ:146:ILE:HG13	58:DZ:147:GLY:H	1.52	0.75
40:DF:22:ALA:O	40:DF:26:ALA:HB2	1.87	0.75
58:BZ:166:SER:HB2	58:BZ:168:GLU:H	1.45	0.75
38:BD:44:ASN:CB	38:BD:49:ILE:HA	2.15	0.75
22:CW:19:G:H2'	22:CW:20:U:C6	2.21	0.75
35:DA:2524:G:H8	35:DA:2524:G:H5'	1.52	0.75
26:B1:45:ASN:ND2	26:B1:47:GLN:NE2	2.33	0.75
33:D8:32:LEU:HD11	35:DA:2392:A:OP1	1.86	0.75
10:CJ:6:ILE:HG22	10:CJ:98:ILE:HG13	1.69	0.75
17:CQ:7:THR:HG22	17:CQ:58:GLU:HG2	1.67	0.75
7:AG:15:ASP:HB3	7:AG:19:GLY:N	2.01	0.75
57:BY:28:LYS:HB2	57:BY:37:VAL:HB	1.66	0.75
45:DK:11:GLN:HB2	45:DK:52:ILE:HD11	1.69	0.75
35:BA:1348:G:C2'	35:BA:1349:A:H5''	2.16	0.75
39:DE:111:ARG:HD2	39:DE:160:TYR:CE1	2.22	0.75
1:AA:674:G:H2'	1:AA:675:A:H8	1.51	0.75
1:CA:737:A:H2'	1:CA:738:C:C6	2.22	0.75
35:DA:1348:G:C2'	35:DA:1349:A:H5''	2.15	0.75
48:DP:16:ARG:C	48:DP:16:ARG:HH11	1.90	0.75
13:AM:32:GLU:O	13:AM:35:GLU:HG2	1.85	0.75
42:BH:88:LEU:HD22	42:BH:130:ARG:HG2	1.69	0.75
35:DA:2850:A:OP2	35:DA:2866:U:H5	1.68	0.75
8:CH:101:PRO:HG2	8:CH:133:LEU:HD11	1.69	0.75
2:CB:120:ALA:O	2:CB:121:LEU:HD23	1.87	0.75
24:CY:303:ARG:HH22	35:DA:1914:C:H1'	0.60	0.75
57:DY:96:ILE:HB	57:DY:99:CYS:HB2	1.69	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:CW:19:G:H2'	22:CW:20:U:C5	2.21	0.75
35:DA:654(A):G:C2'	35:DA:654(B):C:H5'	2.17	0.75
39:BE:111:ARG:HD2	39:BE:160:TYR:CE1	2.22	0.75
53:DU:91:ASP:CG	53:DU:96:ALA:HB2	2.06	0.75
30:D5:11:THR:CG2	35:DA:1264:G:H5'	2.16	0.75
24:AY:81:ALA:HB3	24:AY:84:ARG:HB2	1.68	0.75
24:CY:186:VAL:HB	24:CY:309:SER:O	1.87	0.75
35:BA:1171:G:H3'	35:BA:1173:G:H4'	1.68	0.75
10:CJ:4:ILE:H	10:CJ:4:ILE:HD12	1.51	0.75
43:DI:47:LEU:HA	43:DI:50:ARG:HD2	1.68	0.75
24:CY:80:PRO:HB3	24:CY:85:GLU:OE1	1.87	0.75
33:D8:33:ASN:H	33:D8:33:ASN:ND2	1.82	0.75
36:DB:86:G:H1	36:DB:91:C:H42	1.34	0.75
1:CA:1163:C:H2'	1:CA:1164:G:H8	1.51	0.75
46:BN:48:MET:H	46:BN:48:MET:HE3	1.52	0.75
1:AA:491:G:H2'	1:AA:492:G:H8	1.52	0.75
25:D0:41:ARG:NH2	35:DA:2387:U:H4'	2.00	0.75
57:BY:20:TYR:CZ	57:BY:42:VAL:HA	2.21	0.75
31:D6:39:TYR:O	31:D6:46:HIS:CG	2.40	0.74
38:DD:44:ASN:HB2	38:DD:48:ARG:O	1.87	0.74
30:D5:55:ARG:HD3	30:D5:56:LYS:N	1.94	0.74
33:D8:59:LYS:HD3	48:DP:50:ARG:HB3	1.69	0.74
48:BP:23:PRO:HB2	48:BP:33:ARG:NE	2.01	0.74
43:BI:128:LEU:HD13	43:BI:129:THR:N	2.02	0.74
43:BI:72:LEU:HD21	43:BI:107:VAL:HG11	1.69	0.74
35:BA:626:U:O2	48:BP:105:LEU:HG	1.87	0.74
54:DV:89:GLN:OE1	54:DV:90:PRO:HD2	1.87	0.74
35:DA:626:U:O2	48:DP:105:LEU:HG	1.87	0.74
2:CB:208:ILE:HA	2:CB:211:ILE:HD12	1.69	0.74
46:DN:18:ALA:HB1	46:DN:21:LYS:HB2	1.68	0.74
52:DT:23:ARG:O	52:DT:25:GLY:N	2.19	0.74
54:BV:18:LEU:HD13	54:BV:19:LYS:N	2.00	0.74
2:CB:166:ASP:HB3	2:CB:169:LYS:HB2	1.68	0.74
4:AD:176:LEU:CG	4:AD:177:ASP:H	1.98	0.74
53:BU:101:ARG:NH1	53:BU:101:ARG:HB2	2.03	0.74
37:DC:7:ARG:HD3	37:DC:35:THR:O	1.86	0.74
43:BI:46:ALA:O	43:BI:50:ARG:HG3	1.87	0.74
33:D8:33:ASN:O	33:D8:34:TRP:HB3	1.86	0.74
9:AI:115:GLY:O	9:AI:116:LYS:HG3	1.87	0.74
2:AB:98:LEU:O	2:AB:101:MET:HG3	1.87	0.74
58:DZ:44:PHE:CE2	58:DZ:86:VAL:HG11	2.22	0.74
5:CE:150:ARG:HA	5:CE:153:LYS:HE2	1.69	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:910:A:C5	49:DQ:13:GLN:HG3	2.22	0.74
25:B0:70:GLN:NE2	25:B0:80:HIS:HE2	1.85	0.74
52:BT:53:ARG:HB2	52:BT:53:ARG:HH11	1.52	0.74
35:DA:2178:C:H4'	37:DC:47:LYS:HD3	1.68	0.74
33:D8:27:THR:HG22	48:DP:62:LEU:HD22	1.69	0.74
4:AD:86:LYS:CE	4:AD:87:GLY:H	1.91	0.74
2:CB:170:GLU:O	2:CB:174:VAL:HG23	1.86	0.74
35:BA:654(A):G:C2'	35:BA:654(B):C:H5'	2.18	0.74
24:CY:25:ARG:HH11	24:CY:29:LEU:HD23	1.51	0.74
12:AL:25:PRO:O	12:AL:27:LEU:HD13	1.88	0.74
43:BI:120:ILE:HG23	43:BI:126:TYR:CZ	2.21	0.74
50:DR:52:ILE:HD13	50:DR:79:LEU:HD21	1.68	0.74
21:CU:9:ARG:HH11	21:CU:9:ARG:HA	1.50	0.74
1:CA:405:U:H3'	1:CA:406:G:H5'	1.68	0.74
40:BF:157:VAL:CG1	40:BF:194:MET:HG2	2.17	0.74
35:BA:2850:A:OP2	35:BA:2866:U:H5	1.70	0.74
22:CW:50:U:H4'	22:CW:65:G:N2	2.03	0.74
1:CA:1107:C:C2'	1:CA:1108:G:H5''	2.16	0.74
45:BK:28:GLY:HA2	45:BK:32:ALA:HB3	1.69	0.74
57:DY:88:LYS:HZ3	57:DY:93:GLY:HA3	1.49	0.74
50:DR:7:GLY:O	50:DR:8:ARG:HB2	1.87	0.74
31:B6:45:LYS:NZ	35:BA:2370:G:H21	1.86	0.74
12:CL:89:ARG:HA	12:CL:97:ARG:HA	1.69	0.74
10:AJ:48:THR:HA	10:AJ:62:HIS:HB3	1.70	0.74
35:DA:271(P):C:O2'	35:DA:271(Q):G:H5'	1.87	0.74
14:CN:23:ARG:NH1	14:CN:30:ALA:HB2	2.02	0.74
41:DG:146:TYR:O	41:DG:149:VAL:HG22	1.88	0.74
44:DJ:22:UNK:O	44:DJ:119:UNK:HA	1.87	0.74
22:CV:1:G:H2'	22:CV:2:C:H6	1.50	0.74
2:CB:224:GLN:HA	2:CB:229:VAL:HG22	1.69	0.74
24:AY:149:PHE:HD1	24:AY:173:GLY:HA3	1.53	0.74
43:DI:88:ILE:HG22	43:DI:90:GLY:N	2.03	0.74
35:BA:654(R):C:H2'	35:BA:654(S):G:C8	2.22	0.74
35:DA:2723:C:H5''	50:DR:2:ARG:NH1	2.01	0.74
3:AC:71:ALA:HB2	3:AC:106:VAL:HB	1.69	0.74
58:BZ:89:PHE:HE1	58:BZ:96:VAL:HG21	1.51	0.74
10:CJ:38:ILE:HD11	10:CJ:71:LEU:HD23	1.68	0.74
35:BA:484:C:OP1	57:BY:50:ARG:HG3	1.87	0.74
8:AH:101:PRO:HG2	8:AH:133:LEU:HD11	1.67	0.74
35:DA:2653:U:C5'	35:DA:2654:A:H5''	2.18	0.74
8:AH:6:ILE:H	8:AH:6:ILE:HD12	1.51	0.74
22:AW:38:A:C3'	22:AW:39:U:H5''	2.18	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:CW:57:G:C2'	22:CW:58:A:H5'	2.18	0.74
41:DG:39:ILE:HG13	41:DG:92:VAL:HG12	1.67	0.74
24:CY:238:GLY:HA3	24:CY:242:VAL:CB	2.16	0.74
35:BA:607:U:H3	35:BA:621:A:H2	1.35	0.74
54:DV:46:VAL:HG12	54:DV:47:VAL:N	2.02	0.74
5:CE:50:GLU:HG3	5:CE:52:PRO:HD2	1.69	0.74
1:AA:1003:G:H2'	1:AA:1004:A:O4'	1.88	0.74
22:AV:40:C:H2'	22:AV:41:C:H6	1.52	0.74
33:B8:33:ASN:H	33:B8:33:ASN:ND2	1.83	0.74
35:BA:2579:C:O3'	39:BE:131:ALA:HB2	1.88	0.74
50:BR:52:ILE:HD13	50:BR:79:LEU:HD21	1.70	0.74
35:DA:2579:C:O3'	39:DE:131:ALA:HB2	1.86	0.74
48:DP:71:VAL:HG13	48:DP:72:PRO:HD3	1.70	0.74
1:AA:1343:G:H2'	1:AA:1344:C:C6	2.22	0.74
57:BY:96:ILE:HB	57:BY:99:CYS:HB2	1.68	0.74
35:DA:2661:G:H2'	35:DA:2662:A:C2	2.23	0.74
35:DA:654(R):C:H2'	35:DA:654(S):G:C8	2.22	0.74
3:CC:121:ALA:HB2	3:CC:198:VAL:HG21	1.70	0.74
46:BN:1:MET:HG2	46:BN:2:LYS:N	2.02	0.74
15:CO:33:THR:HG21	15:CO:85:LEU:CD2	2.17	0.74
2:CB:194:PRO:HG2	2:CB:195:ASP:OD1	1.87	0.74
51:DS:59:LYS:HG2	51:DS:60:GLY:H	1.53	0.74
22:AV:72:C:C3'	22:AV:73:A:H5''	2.16	0.74
12:CL:25:PRO:O	12:CL:27:LEU:HD13	1.87	0.74
48:BP:114:ILE:HD12	48:BP:115:LEU:H	1.52	0.74
46:DN:3:THR:O	46:DN:5:VAL:N	2.21	0.74
40:BF:83:PHE:O	40:BF:85:GLY:N	2.21	0.74
35:BA:910:A:C5	49:BQ:13:GLN:HG3	2.22	0.74
39:BE:64:LYS:C	39:BE:66:HIS:H	1.88	0.74
45:DK:55:VAL:HG22	45:DK:69:THR:HG23	1.68	0.74
31:D6:39:TYR:O	31:D6:46:HIS:CB	2.36	0.74
54:DV:19:LYS:HB3	54:DV:94:LEU:O	1.87	0.74
3:AC:121:ALA:HB2	3:AC:198:VAL:HG21	1.68	0.74
46:DN:1:MET:HG2	46:DN:2:LYS:N	2.01	0.74
3:CC:71:ALA:HB2	3:CC:106:VAL:HB	1.70	0.74
46:BN:19:GLU:HG3	46:BN:20:GLY:H	1.51	0.74
53:BU:66:ASN:ND2	53:BU:76:TYR:H	1.84	0.74
1:AA:17:U:H2'	1:AA:18:C:C6	2.23	0.74
5:AE:50:GLU:HG3	5:AE:52:PRO:HD2	1.69	0.74
38:DD:35:LYS:HG3	38:DD:63:ARG:HD2	1.68	0.74
35:BA:2317:C:C2'	35:BA:2318:G:H5'	2.17	0.74
35:BA:271(P):C:O2'	35:BA:271(Q):G:H5'	1.87	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:613:G:H5'	35:BA:613:G:C8	2.23	0.74
57:DY:8:LYS:HD2	57:DY:8:LYS:N	2.03	0.74
7:AG:84:ASN:CB	22:AW:38:A:H61	2.01	0.74
58:BZ:99:TYR:CE2	58:BZ:125:LEU:HD12	2.22	0.74
58:BZ:42:VAL:HG13	58:BZ:43:GLU:N	2.00	0.74
38:BD:92:ILE:HD13	38:BD:92:ILE:H	1.51	0.74
22:CW:38:A:H2'	22:CW:39:U:H5''	1.70	0.74
43:BI:62:LYS:HG2	43:BI:133:HIS:NE2	2.03	0.74
1:CA:192:U:H2'	1:CA:193:C:C6	2.22	0.74
46:BN:128:HIS:HD2	46:BN:130:HIS:H	1.35	0.74
35:BA:2302:G:N3	41:BG:128:ARG:HG3	2.03	0.74
7:AG:15:ASP:HB3	7:AG:19:GLY:H	1.52	0.74
57:BY:50:ARG:HB2	57:BY:57:GLN:HA	1.70	0.74
38:BD:80:ALA:HB3	38:BD:94:LEU:HD13	1.68	0.74
35:BA:2653:U:C5'	35:BA:2654:A:H5''	2.17	0.74
39:BE:24:THR:HG22	39:BE:186:GLY:HA2	1.69	0.74
1:CA:491:G:H2'	1:CA:492:G:H8	1.51	0.74
22:AW:8:U:O2	22:AW:8:U:H2'	1.87	0.74
13:AM:82:MET:HB2	13:AM:93:ARG:NH1	2.03	0.74
48:DP:126:VAL:HA	48:DP:145:PRO:HB2	1.70	0.74
35:BA:2661:G:H2'	35:BA:2662:A:C2	2.23	0.74
1:CA:963:G:H21	10:CJ:55:LYS:HZ2	1.34	0.74
35:BA:272(G):C:H3'	35:BA:272(H):C:H5''	1.68	0.74
46:DN:58:ASP:O	46:DN:60:ILE:N	2.21	0.74
1:CA:1027:C:H2'	1:CA:1028:C:C5	2.23	0.74
12:AL:70:ILE:HD13	12:AL:77:LEU:HD12	1.70	0.74
48:BP:115:LEU:HA	48:BP:134:ALA:HB2	1.68	0.74
5:CE:31:LEU:HD23	5:CE:45:PHE:HB2	1.68	0.74
6:AF:19:LEU:HD23	6:AF:19:LEU:O	1.86	0.74
55:BW:64:MET:O	55:BW:65:LEU:HB2	1.87	0.74
40:BF:132:VAL:HG22	40:BF:133:ASN:N	1.99	0.73
30:D5:51:TYR:HD2	30:D5:52:TYR:CZ	2.05	0.73
3:AC:175:LEU:HD21	3:AC:201:TYR:HE2	1.53	0.73
35:BA:996:A:H4'	53:BU:92:ARG:NE	2.02	0.73
49:DQ:18:LYS:H	49:DQ:18:LYS:HD2	1.53	0.73
2:CB:178:ARG:HH22	2:CB:196:LEU:C	1.92	0.73
29:D4:20:ASN:HD22	29:D4:21:VAL:N	1.84	0.73
1:AA:474:G:H2'	1:AA:475:G:C8	2.22	0.73
1:CA:1003:G:H2'	1:CA:1004:A:O4'	1.88	0.73
1:CA:1030:C:H2'	1:CA:1030(A):G:H5'	1.70	0.73
1:CA:1321:C:C3'	1:CA:1322:C:H5''	2.18	0.73
38:BD:32:SER:HA	38:BD:35:LYS:HZ3	1.53	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:601:C:H2'	1:AA:602:A:C8	2.23	0.73
7:AG:77:SER:HA	7:AG:86:GLN:HA	1.70	0.73
1:CA:1343:G:H2'	1:CA:1344:C:C6	2.22	0.73
9:CI:115:GLY:O	9:CI:116:LYS:HG3	1.88	0.73
8:AH:19:VAL:HG21	8:AH:21:LYS:HE2	1.69	0.73
46:BN:3:THR:O	46:BN:5:VAL:N	2.21	0.73
33:B8:27:THR:HG22	48:BP:62:LEU:HD22	1.69	0.73
42:BH:19:VAL:HG11	42:BH:43:VAL:O	1.88	0.73
48:DP:124:LYS:HD3	48:DP:143:GLY:CA	2.18	0.73
24:AY:114:LYS:HD2	24:AY:115:ASN:OD1	1.88	0.73
45:BK:93:ARG:O	45:BK:95:LYS:HE3	1.88	0.73
19:AS:6:LYS:HD2	19:AS:6:LYS:H	1.54	0.73
52:BT:125:ARG:O	52:BT:128:GLU:HG3	1.89	0.73
52:DT:89:VAL:CG1	52:DT:91:ARG:HG3	2.17	0.73
3:CC:14:ILE:HG12	3:CC:15:THR:N	2.02	0.73
1:AA:1107:C:C2'	1:AA:1108:G:H5''	2.18	0.73
35:DA:310:A:OP1	57:DY:18:GLY:HA2	1.88	0.73
1:AA:939:G:H5''	7:AG:102:ARG:HH22	1.52	0.73
35:BA:903:C:H2'	35:BA:904:C:C5'	2.18	0.73
19:CS:78:ARG:HB2	19:CS:81:ARG:HH11	1.52	0.73
1:AA:1027:C:H2'	1:AA:1028:C:C5	2.22	0.73
1:AA:878:G:C5'	8:AH:89:PRO:HG2	2.18	0.73
19:CS:11:VAL:HG13	19:CS:16:LEU:HD11	1.69	0.73
43:BI:7:GLU:O	43:BI:9:LEU:HD12	1.88	0.73
35:DA:271(M):G:O2'	35:DA:271(O):C:H5'	1.88	0.73
22:CV:77:PHA:N	22:CV:77:PHA:HD2	2.02	0.73
47:DO:47:ILE:HG23	47:DO:48:PRO:HD2	1.68	0.73
35:BA:1280:G:H2'	35:BA:1281:G:H5''	1.68	0.73
10:CJ:33:GLN:O	10:CJ:75:ILE:HG12	1.88	0.73
3:CC:206:GLU:HG2	3:CC:207:VAL:H	1.53	0.73
13:CM:19:LEU:HA	13:CM:22:ILE:HD13	1.70	0.73
25:D0:24:LYS:O	25:D0:25:ARG:HD3	1.88	0.73
24:AY:26:LEU:HB2	24:AY:55:LEU:HD21	1.69	0.73
24:CY:118:LEU:CD2	24:CY:210:VAL:HG22	2.17	0.73
52:DT:13:ARG:NH1	52:DT:13:ARG:HA	2.02	0.73
49:DQ:130:LYS:HZ3	58:DZ:80:ARG:NH1	1.86	0.73
2:AB:97:TRP:CH2	2:AB:173:ALA:HA	2.23	0.73
19:CS:6:LYS:HD2	19:CS:6:LYS:H	1.52	0.73
35:DA:654(A):G:H2'	35:DA:654(B):C:H5'	1.70	0.73
35:DA:996:A:H4'	53:DU:92:ARG:NE	2.02	0.73
2:CB:187:LEU:HD23	2:CB:201:ILE:HG22	1.70	0.73
52:DT:42:ILE:HG13	52:DT:42:ILE:O	1.88	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:BO:122:LEU:HD23	52:BT:43:GLN:HE22	1.52	0.73
2:AB:101:MET:HA	2:AB:108:ILE:HG13	1.69	0.73
25:B0:74:ARG:HG2	36:BB:12:C:O2'	1.88	0.73
1:AA:353:A:H5'	1:AA:353:A:H8	1.53	0.73
52:BT:54:ARG:HA	52:BT:59:THR:HB	1.70	0.73
41:DG:128:ARG:HB3	41:DG:128:ARG:NH1	2.03	0.73
58:DZ:11:GLU:H	58:DZ:11:GLU:CD	1.90	0.73
6:AF:100:ASN:O	18:AR:28:GLU:HG2	1.87	0.73
1:AA:997:U:H2'	1:AA:998:G:C8	2.23	0.73
57:BY:8:LYS:HD3	57:BY:28:LYS:NZ	2.04	0.73
35:DA:1301:A:O2'	35:DA:1302:A:C2'	2.35	0.73
32:B7:11:LYS:HE2	35:BA:686:G:H5''	1.69	0.73
53:BU:91:ASP:OD1	53:BU:96:ALA:HB2	1.87	0.73
1:AA:1143:G:H2'	1:AA:1144:G:C8	2.23	0.73
45:DK:28:GLY:HA2	45:DK:32:ALA:HB3	1.70	0.73
1:CA:474:G:H2'	1:CA:475:G:C8	2.22	0.73
45:BK:14:ALA:HA	45:BK:45:THR:CG2	2.19	0.73
1:AA:223:U:H2'	1:AA:224:C:C6	2.23	0.73
1:AA:1513:A:H2'	1:AA:1514:C:H6	1.51	0.73
12:CL:70:ILE:HD13	12:CL:77:LEU:HD12	1.71	0.73
1:CA:997:U:H2'	1:CA:998:G:C8	2.23	0.73
54:DV:64:HIS:ND1	54:DV:92:THR:HG22	2.03	0.73
40:DF:123:LEU:HD12	40:DF:124:LEU:H	1.53	0.73
35:DA:365:C:H5'	35:DA:365:C:H6	1.51	0.73
11:AK:80:VAL:HG13	11:AK:103:LEU:HD11	1.70	0.73
7:CG:146:GLU:HG2	7:CG:149:ARG:HH12	1.51	0.73
13:CM:49:THR:HG22	13:CM:51:ALA:H	1.54	0.73
1:CA:979:C:C3'	1:CA:980:C:H5''	2.18	0.73
41:BG:105:LYS:HE2	41:BG:143:GLU:OE2	1.88	0.73
38:BD:8:PRO:HB3	38:BD:14:ARG:HB2	1.69	0.73
55:BW:9:TYR:H	55:BW:102:HIS:CD2	2.06	0.73
8:CH:88:LYS:HB3	8:CH:89:PRO:HD2	1.68	0.73
52:BT:42:ILE:O	52:BT:42:ILE:HG13	1.87	0.73
20:CT:39:LYS:O	20:CT:42:GLN:HB3	1.88	0.73
40:DF:164:ARG:HG2	40:DF:164:ARG:HH11	1.52	0.73
35:BA:482:A:H4'	57:BY:47:LYS:HG2	1.69	0.73
31:D6:46:HIS:N	31:D6:47:THR:HG23	2.02	0.73
49:BQ:140:ALA:O	49:BQ:141:GLN:HB2	1.88	0.73
39:BE:111:ARG:HD2	39:BE:160:TYR:CD1	2.23	0.73
35:BA:1543:C:H3'	35:BA:1544:A:C5'	2.18	0.73
1:CA:674:G:H2'	1:CA:675:A:H8	1.51	0.73
43:DI:130:TYR:HB3	43:DI:136:VAL:HG13	1.70	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:BO:77:ILE:HD13	52:BT:74:ARG:HD3	1.70	0.73
1:AA:926:G:N2	23:AX:15:A:H5'	2.03	0.73
18:AR:88:LYS:HD3	18:AR:88:LYS:C	2.09	0.73
8:CH:11:THR:HG23	8:CH:14:ARG:NH1	2.03	0.73
41:BG:16:ARG:HH21	41:BG:33:ARG:HG3	1.53	0.73
42:BH:30:LYS:HE3	42:BH:81:GLU:H	1.49	0.73
28:B3:40:THR:CG2	28:B3:43:ILE:HG12	2.18	0.73
35:DA:1639:U:O2'	35:DA:1640:C:H5''	1.89	0.73
41:DG:9:ARG:O	41:DG:13:GLU:HG2	1.89	0.73
4:AD:150:GLU:CD	4:AD:151:LYS:H	1.92	0.73
12:AL:89:ARG:HA	12:AL:97:ARG:HA	1.70	0.73
9:AI:97:LYS:HB3	9:AI:98:PRO:HD3	1.71	0.73
1:AA:328:C:H4'	1:AA:329:A:H5'	1.71	0.73
1:AA:1163:C:H2'	1:AA:1164:G:H8	1.52	0.73
33:D8:62:LEU:N	33:D8:63:PRO:HD2	2.02	0.73
45:BK:77:LEU:HD12	45:BK:111:LYS:HE2	1.70	0.73
54:DV:47:VAL:HB	54:DV:49:THR:O	1.88	0.73
54:DV:52:VAL:CG2	54:DV:55:ALA:HB3	2.18	0.73
4:AD:32:ALA:O	4:AD:35:ARG:HG3	1.88	0.73
1:AA:192:U:H2'	1:AA:193:C:C6	2.24	0.73
5:AE:9:LYS:HB2	5:AE:112:LEU:HD11	1.69	0.73
46:BN:120:LEU:O	46:BN:121:LYS:HD2	1.88	0.73
35:BA:2146:C:H4'	35:BA:2147:G:C8	2.23	0.73
45:BK:122:ALA:HA	45:BK:125:ARG:HE	1.53	0.73
1:CA:353:A:H5'	1:CA:353:A:H8	1.54	0.73
33:D8:39:LYS:O	33:D8:43:GLN:HG3	1.88	0.73
52:BT:13:ARG:HA	52:BT:13:ARG:NH1	2.04	0.73
48:DP:126:VAL:HG12	48:DP:148:LEU:HD11	1.71	0.73
41:DG:113:ARG:CA	41:DG:113:ARG:NE	2.52	0.73
41:DG:71:THR:HG23	41:DG:89:GLY:HA3	1.70	0.73
23:AX:19:U:H3'	23:AX:20:A:C8	2.23	0.73
35:DA:1543:C:H3'	35:DA:1544:A:C5'	2.18	0.73
39:DE:111:ARG:HD2	39:DE:160:TYR:CD1	2.23	0.73
35:DA:2120:G:H2'	35:DA:2121:G:C8	2.21	0.73
38:DD:72:LYS:NZ	38:DD:75:ILE:HD12	2.02	0.73
48:BP:16:ARG:HH11	48:BP:16:ARG:C	1.91	0.73
3:CC:127:ARG:HD2	3:CC:127:ARG:N	2.04	0.73
10:AJ:38:ILE:HD11	10:AJ:71:LEU:HD23	1.69	0.73
44:BJ:22:UNK:O	44:BJ:119:UNK:HA	1.88	0.73
40:BF:164:ARG:HH11	40:BF:164:ARG:HG2	1.52	0.73
2:CB:97:TRP:CH2	2:CB:173:ALA:HA	2.23	0.73
51:BS:89:ARG:HG2	51:BS:92:TYR:HA	1.71	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:CY:244:THR:HA	35:DA:2573:C:N4	2.04	0.73
2:AB:178:ARG:HH22	2:AB:196:LEU:C	1.92	0.73
48:DP:115:LEU:HA	48:DP:134:ALA:HB2	1.71	0.73
12:AL:47:LYS:HB3	12:AL:48:PRO:HD3	1.71	0.73
1:CA:685:G:O2'	1:CA:686:U:H5'	1.88	0.73
33:B8:62:LEU:N	33:B8:63:PRO:HD2	2.03	0.73
41:BG:91:ARG:HD2	41:BG:92:VAL:N	2.03	0.73
35:BA:654(A):G:H2'	35:BA:654(B):C:H5'	1.71	0.73
53:BU:92:ARG:NH2	54:BV:10:LYS:HB3	2.04	0.73
24:CY:312:ARG:HE	24:CY:344:LEU:HD12	1.54	0.73
45:DK:4:VAL:O	45:DK:5:VAL:HG12	1.89	0.73
1:CA:1397:C:H2'	24:CY:198:SER:OG	1.87	0.73
1:CA:1028:C:C2'	1:CA:1029:C:H5'	2.19	0.73
35:DA:143:G:H1'	56:DX:37:THR:HG21	1.71	0.73
37:BC:6:LYS:O	37:BC:6:LYS:HD2	1.88	0.73
8:AH:11:THR:HG23	8:AH:14:ARG:NH1	2.03	0.73
38:BD:30:GLU:HB2	38:BD:35:LYS:HE3	1.69	0.73
1:CA:223:U:H2'	1:CA:224:C:C6	2.24	0.73
8:CH:86:ILE:HG12	8:CH:135:CYS:HA	1.70	0.73
52:DT:54:ARG:HA	52:DT:59:THR:HB	1.71	0.73
57:BY:32:PRO:C	57:BY:34:LYS:H	1.92	0.73
35:BA:1066:U:H2'	35:BA:1068:G:OP2	1.88	0.73
57:BY:7:VAL:HB	57:BY:8:LYS:CD	2.18	0.72
49:BQ:134:ARG:CZ	58:BZ:122:ARG:HH21	2.02	0.72
13:CM:91:ARG:HB2	13:CM:98:VAL:HG22	1.71	0.72
51:BS:59:LYS:HG2	51:BS:60:GLY:H	1.53	0.72
24:CY:238:GLY:HA2	35:DA:2602:A:C4	2.24	0.72
46:DN:55:VAL:CG2	46:DN:126:PRO:HA	2.19	0.72
10:AJ:4:ILE:HD12	10:AJ:4:ILE:H	1.54	0.72
5:CE:76:ILE:HG13	5:CE:142:LEU:HD13	1.70	0.72
1:CA:1294:G:H2'	1:CA:1295:G:H8	1.52	0.72
1:AA:1363(A):A:H4'	1:AA:1364:U:H5''	1.71	0.72
10:CJ:7:LYS:HD3	10:CJ:71:LEU:HD13	1.70	0.72
45:DK:122:ALA:HA	45:DK:125:ARG:HE	1.53	0.72
16:CP:19:ILE:HD12	16:CP:19:ILE:H	1.54	0.72
35:BA:774:A:H2	35:BA:787:U:HO2'	1.37	0.72
15:AO:4:THR:OG1	15:AO:7:GLU:HB2	1.88	0.72
9:CI:97:LYS:HB3	9:CI:98:PRO:HD3	1.71	0.72
3:CC:76:VAL:HG23	3:CC:77:ILE:HG13	1.71	0.72
24:CY:303:ARG:H	24:CY:304:PRO:HD3	1.55	0.72
57:DY:8:LYS:HD3	57:DY:28:LYS:NZ	2.03	0.72
35:BA:1108:U:C2'	35:BA:1109:C:H5''	2.15	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:979:C:C3'	1:AA:980:C:H5''	2.17	0.72
54:DV:15:GLU:HB3	54:DV:16:PRO:CD	2.18	0.72
10:AJ:50:ILE:HD11	14:AN:41:ARG:NH1	2.04	0.72
35:BA:141:A:H8	35:BA:1408:C:HO2'	0.74	0.72
35:BA:2723:C:H5''	50:BR:2:ARG:NH1	2.04	0.72
53:DU:101:ARG:HB2	53:DU:101:ARG:NH1	2.04	0.72
50:BR:86:ARG:HB3	50:BR:118:GLU:OE2	1.88	0.72
35:DA:1019:U:HO2'	35:DA:1021:A:H2	0.79	0.72
54:BV:89:GLN:OE1	54:BV:90:PRO:HD2	1.88	0.72
49:DQ:60:ARG:HG2	58:DZ:179:ASP:OD2	1.90	0.72
31:D6:15:GLU:OE2	31:D6:47:THR:HG21	1.90	0.72
45:DK:93:ARG:O	45:DK:95:LYS:HE3	1.89	0.72
35:DA:903:C:H2'	35:DA:904:C:C5'	2.19	0.72
13:CM:82:MET:HB2	13:CM:93:ARG:NH1	2.03	0.72
5:CE:9:LYS:HB2	5:CE:112:LEU:HD11	1.71	0.72
1:AA:1030:C:H2'	1:AA:1030(A):G:H5'	1.70	0.72
48:BP:23:PRO:HD2	48:BP:33:ARG:NH2	2.03	0.72
26:D1:50:ARG:HG2	26:D1:59:THR:CG2	2.19	0.72
48:DP:114:ILE:HD12	48:DP:115:LEU:H	1.52	0.72
41:DG:16:ARG:O	41:DG:20:ILE:HG13	1.89	0.72
35:BA:27:G:H22	35:BA:512:G:H2'	1.54	0.72
24:AY:76:MET:HG3	24:AY:88:LYS:NZ	2.03	0.72
13:AM:19:LEU:HA	13:AM:22:ILE:HD13	1.72	0.72
50:BR:98:LEU:HB2	50:BR:113:LEU:HD21	1.70	0.72
13:AM:49:THR:HG22	13:AM:51:ALA:H	1.54	0.72
33:B8:39:LYS:O	33:B8:43:GLN:HG3	1.89	0.72
35:DA:2308:G:H21	41:DG:79:ASN:ND2	1.86	0.72
2:AB:170:GLU:O	2:AB:174:VAL:HG23	1.89	0.72
35:DA:607:U:H3	35:DA:621:A:H2	1.36	0.72
35:BA:655:A:H4'	35:BA:656:G:H5'	1.69	0.72
53:DU:91:ASP:OD1	53:DU:96:ALA:HB2	1.90	0.72
24:CY:26:LEU:HB2	24:CY:55:LEU:HD21	1.69	0.72
17:AQ:59:ILE:HG21	17:AQ:71:PHE:HB3	1.72	0.72
35:BA:271(M):G:O2'	35:BA:271(O):C:H5'	1.89	0.72
4:AD:49:ARG:HA	4:AD:49:ARG:NE	2.05	0.72
49:DQ:140:ALA:O	49:DQ:141:GLN:HB2	1.89	0.72
43:DI:71:ILE:HG13	43:DI:72:LEU:HD23	1.70	0.72
1:CA:407:G:O2'	4:CD:116:GLN:HG3	1.89	0.72
48:DP:71:VAL:CG1	48:DP:72:PRO:HD3	2.20	0.72
35:BA:2590:A:OP2	38:BD:238:GLY:HA2	1.87	0.72
48:DP:24:GLY:O	48:DP:25:SER:HB3	1.89	0.72
35:BA:1963:U:H2'	35:BA:1963:U:O2	1.89	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:434:U:H2'	1:AA:435:C:C6	2.24	0.72
54:BV:19:LYS:HB3	54:BV:94:LEU:O	1.89	0.72
40:BF:4:VAL:HA	40:BF:19:GLU:HB3	1.71	0.72
13:AM:112:GLY:HA2	13:AM:113:PRO:HD2	1.71	0.72
52:DT:125:ARG:O	52:DT:128:GLU:HG3	1.88	0.72
1:CA:939:G:H5''	7:CG:102:ARG:HH22	1.53	0.72
18:CR:88:LYS:HD3	18:CR:88:LYS:C	2.10	0.72
1:CA:17:U:H2'	1:CA:18:C:C6	2.23	0.72
33:B8:31:HIS:HE1	35:BA:2392:A:OP2	1.72	0.72
26:D1:56:GLN:HG3	26:D1:87:PRO:HD3	1.69	0.72
35:DA:2317:C:C2'	35:DA:2318:G:H5'	2.19	0.72
7:CG:77:SER:HA	7:CG:86:GLN:HA	1.72	0.72
2:AB:187:LEU:HD22	2:AB:201:ILE:O	1.90	0.72
1:AA:685:G:O2'	1:AA:686:U:H5'	1.89	0.72
58:DZ:19:ARG:NH1	58:DZ:84:GLU:O	2.21	0.72
48:BP:24:GLY:O	48:BP:25:SER:HB3	1.89	0.72
24:CY:118:LEU:HD22	24:CY:208:VAL:CG1	2.20	0.72
41:DG:125:PHE:HE1	41:DG:180:PHE:CE2	2.07	0.72
1:AA:1256:A:N6	1:AA:1278:U:H1'	2.02	0.72
13:AM:125:ARG:HA	24:AY:159:GLY:HA3	1.71	0.72
22:CW:38:A:H3'	22:CW:39:U:H5''	1.70	0.72
35:DA:141:A:H8	35:DA:1408:C:HO2'	0.74	0.72
35:DA:672:C:H2'	35:DA:673:C:H5''	1.69	0.72
24:CY:27:LYS:HA	24:CY:30:GLU:HG3	1.71	0.72
9:AI:15:ALA:HA	9:AI:65:VAL:HA	1.72	0.72
1:CA:1321:C:H5'	1:CA:1322:C:H5''	1.70	0.72
8:CH:19:VAL:HG21	8:CH:21:LYS:HE2	1.71	0.72
24:AY:119:THR:HG23	24:AY:166:TYR:HE1	1.55	0.72
3:AC:206:GLU:HG2	3:AC:207:VAL:H	1.53	0.72
37:BC:191:ARG:HB3	37:BC:195:ARG:HH12	1.54	0.72
1:AA:91:C:O2	1:AA:91:C:H2'	1.88	0.72
10:CJ:48:THR:HA	10:CJ:62:HIS:HB3	1.71	0.72
4:AD:60:GLU:OE2	4:AD:198:VAL:HA	1.90	0.72
2:AB:224:GLN:HA	2:AB:229:VAL:HG22	1.71	0.72
42:DH:153:LYS:H	42:DH:153:LYS:HD3	1.55	0.72
2:AB:17:PHE:HD1	2:AB:44:LEU:HD11	1.54	0.72
22:CW:20:U:O2	22:CW:20:U:H2'	1.89	0.72
35:BA:1779:U:C5	35:BA:1784:A:N7	2.52	0.72
35:BA:621:A:H2'	35:BA:622:G:H5'	1.72	0.72
1:CA:1143:G:H2'	1:CA:1144:G:C8	2.25	0.72
51:DS:65:VAL:O	51:DS:69:VAL:HG12	1.89	0.72
23:AX:15:A:H2'	23:AX:15:A:N3	2.02	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:D4:12:ALA:HB1	29:D4:29:PRO:HA	1.69	0.72
1:AA:1321:C:H5'	1:AA:1322:C:H5''	1.70	0.72
41:BG:31:VAL:HG22	41:BG:32:PRO:HD2	1.71	0.72
22:CV:21:A:C2'	22:CV:22:G:H5''	2.20	0.72
8:AH:86:ILE:HG21	8:AH:133:LEU:HD22	1.71	0.72
1:CA:434:U:H2'	1:CA:435:C:C6	2.24	0.72
5:CE:71:LEU:O	5:CE:72:GLN:HG3	1.90	0.72
2:CB:17:PHE:HD1	2:CB:44:LEU:HD11	1.53	0.72
5:AE:31:LEU:HD23	5:AE:45:PHE:HB2	1.71	0.72
1:CA:91:C:O2	1:CA:91:C:H2'	1.89	0.72
1:CA:73:G:H1	1:CA:96:U:H3	1.36	0.72
57:BY:8:LYS:HD2	57:BY:8:LYS:N	2.03	0.72
35:DA:655:A:H4'	35:DA:656:G:H5'	1.70	0.72
52:DT:85:LYS:HZ3	52:DT:85:LYS:HB3	1.53	0.72
55:BW:92:ARG:HH11	55:BW:92:ARG:CB	2.02	0.72
24:AY:30:GLU:HB2	45:BK:20:ALA:CB	2.18	0.72
43:BI:114:LEU:O	43:BI:131:LYS:HD3	1.90	0.72
45:BK:4:VAL:O	45:BK:5:VAL:HG12	1.89	0.72
35:DA:2146:C:H4'	35:DA:2147:G:C8	2.24	0.72
2:CB:69:LEU:HD22	2:CB:91:PRO:HB2	1.71	0.72
35:DA:1011:G:H5''	53:DU:77:SER:OG	1.90	0.72
35:DA:2726:U:H5'	35:DA:2726:U:O2	1.89	0.72
1:AA:1348:U:H4'	9:AI:120:ARG:HD2	1.72	0.72
14:AN:23:ARG:NH1	14:AN:30:ALA:HB2	2.04	0.72
46:BN:18:ALA:HB1	46:BN:21:LYS:HB2	1.70	0.72
8:CH:6:ILE:H	8:CH:6:ILE:HD12	1.55	0.72
52:BT:28:VAL:O	52:BT:28:VAL:HG12	1.89	0.72
58:DZ:119:GLU:HG3	58:DZ:122:ARG:CZ	2.20	0.72
45:BK:11:GLN:HB2	45:BK:52:ILE:HD11	1.69	0.72
46:DN:4:TYR:CD1	46:DN:4:TYR:N	2.58	0.72
46:BN:58:ASP:O	46:BN:60:ILE:N	2.23	0.72
12:CL:28:LYS:HE3	12:CL:33:ARG:HH12	1.53	0.72
35:BA:806:C:OP2	48:BP:39:LYS:HD3	1.90	0.72
2:CB:201:ILE:HG21	2:CB:214:ILE:HG21	1.71	0.72
1:CA:601:C:H2'	1:CA:602:A:C8	2.25	0.72
35:DA:152:G:H1	35:DA:174:C:H42	1.38	0.72
8:CH:86:ILE:HG21	8:CH:133:LEU:HD22	1.70	0.72
7:CG:147:ALA:C	7:CG:148:ASN:HD22	1.92	0.72
31:D6:52:VAL:HG12	31:D6:53:LYS:N	2.05	0.72
43:DI:3:VAL:HG12	43:DI:38:LEU:HA	1.72	0.72
35:DA:1484:G:H2'	35:DA:1485:G:C5'	2.17	0.72
40:DF:4:VAL:HA	40:DF:19:GLU:HB3	1.72	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AM:91:ARG:HB2	13:AM:98:VAL:HG22	1.71	0.72
13:CM:112:GLY:HA2	13:CM:113:PRO:HD2	1.71	0.72
35:DA:1826:G:H4'	38:DD:242:ARG:NH2	2.05	0.72
4:AD:33:MET:C	4:AD:35:ARG:H	1.93	0.72
1:AA:1028:C:C2'	1:AA:1029:C:H5'	2.19	0.72
9:AI:95:LYS:HD3	9:AI:96:LEU:N	2.05	0.72
4:CD:68:TYR:CD2	4:CD:97:LEU:HD22	2.24	0.72
1:CA:1352:C:H2'	1:CA:1353:G:C8	2.24	0.72
2:CB:98:LEU:O	2:CB:101:MET:HG3	1.90	0.72
24:AY:88:LYS:HB2	24:AY:89:PRO:HD3	1.72	0.72
2:AB:187:LEU:HD23	2:AB:201:ILE:HG22	1.70	0.72
9:CI:13:ALA:HB2	9:CI:68:GLY:HA3	1.71	0.72
22:AW:31:A:H2'	22:AW:32:U:H5'	1.70	0.72
22:AW:59:U:H2'	22:AW:60:U:H6	1.53	0.72
57:DY:95:LYS:HG3	57:DY:100:ALA:CA	2.18	0.71
42:DH:19:VAL:HG11	42:DH:43:VAL:O	1.89	0.71
45:DK:77:LEU:HD12	45:DK:111:LYS:HE2	1.71	0.71
58:BZ:81:ARG:HG2	58:BZ:81:ARG:HH11	1.53	0.71
48:BP:126:VAL:HG12	48:BP:148:LEU:HD11	1.72	0.71
35:BA:2524:G:H8	35:BA:2524:G:H5'	1.53	0.71
52:BT:85:LYS:HZ3	52:BT:85:LYS:HB3	1.54	0.71
40:DF:67:GLN:O	40:DF:68:LYS:HB2	1.89	0.71
35:DA:330:A:H2	35:DA:1210:A:H2'	1.53	0.71
43:BI:98:ALA:HA	43:BI:101:LEU:HB3	1.70	0.71
33:D8:50:LEU:C	33:D8:53:PRO:HD2	2.10	0.71
1:CA:865:A:H5'	1:CA:1078:U:O4	1.89	0.71
58:BZ:44:PHE:HZ	58:BZ:86:VAL:HG11	1.54	0.71
35:BA:1358:G:O2'	35:BA:1359:A:H5''	1.90	0.71
5:CE:42:GLY:HA3	5:CE:66:MET:HG2	1.72	0.71
2:CB:130:ARG:NH2	2:CB:138:LEU:HD11	2.05	0.71
30:B5:51:TYR:HD2	30:B5:52:TYR:CZ	2.07	0.71
57:DY:7:VAL:HB	57:DY:8:LYS:CD	2.20	0.71
58:BZ:153:SER:HB3	58:BZ:167:PRO:HB3	1.70	0.71
41:BG:111:LEU:HB3	41:BG:117:PHE:CE2	2.25	0.71
24:CY:326:THR:HG21	24:CY:328:LEU:HD22	1.71	0.71
24:CY:341:LEU:O	24:CY:345:ILE:HG13	1.90	0.71
35:BA:310:A:OP1	57:BY:18:GLY:HA2	1.89	0.71
48:DP:32:THR:HG21	48:DP:37:GLY:HA2	1.72	0.71
1:AA:1321:C:C3'	1:AA:1322:C:H5''	2.19	0.71
1:CA:878:G:C5'	8:CH:89:PRO:HG2	2.20	0.71
1:CA:345:C:OP2	52:DT:41:ARG:HD3	1.90	0.71
1:AA:407:G:O2'	4:AD:116:GLN:HG3	1.90	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:AY:135:MET:O	24:AY:138:ARG:HG3	1.89	0.71
38:DD:80:ALA:HB3	38:DD:94:LEU:HD13	1.72	0.71
16:AP:13:HIS:O	16:AP:15:PRO:HD3	1.88	0.71
3:AC:127:ARG:HD2	3:AC:127:ARG:N	2.04	0.71
1:CA:36:C:H4'	12:CL:122:THR:O	1.90	0.71
41:BG:124:SER:HB2	41:BG:131:TYR:CE1	2.25	0.71
41:BG:73:ALA:H	41:BG:87:PRO:CD	2.02	0.71
41:BG:5:VAL:O	41:BG:8:LYS:HB3	1.91	0.71
49:BQ:18:LYS:HD2	49:BQ:18:LYS:H	1.55	0.71
42:DH:155:SER:O	42:DH:157:TYR:N	2.22	0.71
1:AA:735:C:H2'	1:AA:736:C:C6	2.25	0.71
57:DY:61:ILE:HD12	57:DY:62:GLU:H	1.53	0.71
18:CR:31:LEU:H	18:CR:31:LEU:CD2	2.03	0.71
45:DK:14:ALA:HA	45:DK:45:THR:CG2	2.19	0.71
24:CY:88:LYS:HB2	24:CY:89:PRO:HD3	1.71	0.71
35:DA:2787:C:H1'	39:DE:61:ARG:CD	2.21	0.71
9:AI:13:ALA:HB2	9:AI:68:GLY:HA3	1.72	0.71
24:AY:315:VAL:HG11	24:AY:320:TYR:CZ	2.26	0.71
1:AA:750:G:H1'	15:AO:23:GLY:H	1.54	0.71
41:DG:57:ALA:HB2	41:DG:90:LEU:HD21	1.72	0.71
35:DA:12:U:O2	35:DA:12:U:H2'	1.91	0.71
4:AD:132:ARG:HH11	4:AD:132:ARG:HG2	1.55	0.71
37:DC:31:LYS:HD3	37:DC:31:LYS:O	1.89	0.71
52:DT:53:ARG:HB2	52:DT:53:ARG:HH11	1.53	0.71
48:BP:13:ASN:HD22	48:BP:13:ASN:C	1.93	0.71
37:DC:191:ARG:HB3	37:DC:195:ARG:HH12	1.54	0.71
46:BN:15:LEU:HB2	46:BN:134:ARG:HB2	1.71	0.71
35:BA:279:C:C3'	35:BA:280:C:H5''	2.20	0.71
9:CI:88:TYR:O	9:CI:89:ASN:HB2	1.90	0.71
35:DA:1717:G:C2'	35:DA:1718:G:H5''	2.20	0.71
28:D3:40:THR:CG2	28:D3:43:ILE:HG12	2.20	0.71
22:AW:29:G:H2'	22:AW:30:G:C8	2.25	0.71
1:CA:750:G:H1'	15:CO:23:GLY:H	1.56	0.71
45:BK:90:LYS:HZ3	45:BK:90:LYS:HB3	1.55	0.71
37:BC:31:LYS:O	37:BC:31:LYS:HD3	1.89	0.71
31:D6:18:ARG:HD2	31:D6:43:CYS:SG	2.29	0.71
24:AY:118:LEU:CD2	24:AY:210:VAL:HG22	2.20	0.71
57:BY:26:LYS:HG3	57:BY:27:VAL:H	1.56	0.71
24:CY:237:PRO:HD3	35:DA:2604:U:OP2	1.90	0.71
40:DF:101:LEU:HD12	40:DF:102:PRO:HD2	1.70	0.71
13:CM:90:LEU:C	13:CM:92:HIS:H	1.93	0.71
1:CA:1243:C:H42	1:CA:1294:G:H22	1.37	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:DW:9:TYR:H	55:DW:102:HIS:CD2	2.08	0.71
10:AJ:6:ILE:HG22	10:AJ:98:ILE:HG13	1.71	0.71
2:AB:201:ILE:HG21	2:AB:214:ILE:HG21	1.72	0.71
57:DY:20:TYR:CZ	57:DY:42:VAL:HA	2.25	0.71
4:CD:126:ILE:HG22	4:CD:127:THR:N	2.05	0.71
43:BI:1:MET:HE2	43:BI:23:PRO:HA	1.73	0.71
17:CQ:57:VAL:HG12	17:CQ:76:LEU:HA	1.73	0.71
36:BB:87:G:C3'	36:BB:88:C:H5''	2.21	0.71
42:BH:136:ILE:HD12	42:BH:136:ILE:N	2.05	0.71
48:BP:40:SER:O	48:BP:41:ARG:NE	2.23	0.71
58:DZ:119:GLU:HG3	58:DZ:122:ARG:NH1	2.04	0.71
41:DG:115:ARG:HH22	41:DG:136:ARG:HD2	1.55	0.71
41:DG:178:PHE:HB3	41:DG:180:PHE:HE1	1.55	0.71
41:DG:51:ARG:HE	41:DG:51:ARG:HA	1.56	0.71
41:BG:115:ARG:NH2	41:BG:136:ARG:HD2	2.06	0.71
24:CY:13:LEU:HA	24:CY:16:TYR:HB2	1.73	0.71
46:BN:120:LEU:CD1	46:BN:122:VAL:HG23	2.20	0.71
2:AB:67:THR:HG21	2:AB:155:LEU:HD11	1.72	0.71
48:DP:16:ARG:HD3	48:DP:16:ARG:C	2.11	0.71
9:CI:7:THR:HB	9:CI:83:ARG:NH1	2.06	0.71
52:BT:38:ASN:ND2	52:BT:39:ARG:N	2.37	0.71
35:DA:296:C:O2'	35:DA:297:C:H5'	1.90	0.71
53:BU:47:TYR:HA	53:BU:50:ARG:NH2	2.04	0.71
31:B6:52:VAL:HG12	31:B6:53:LYS:N	2.05	0.71
4:CD:64:LEU:HB2	4:CD:198:VAL:HG11	1.73	0.71
57:BY:96:ILE:HD12	57:BY:99:CYS:SG	2.30	0.71
41:DG:61:ALA:HB2	41:DG:68:PRO:HD3	1.71	0.71
35:DA:2312:U:C2'	35:DA:2313:C:H5''	2.21	0.71
48:BP:126:VAL:HA	48:BP:145:PRO:HB2	1.70	0.71
41:BG:40:ASN:HD22	41:BG:41:GLN:N	1.88	0.71
22:AW:77:PHA:HA	35:BA:2395:C:O4'	1.90	0.71
46:BN:4:TYR:CD1	46:BN:4:TYR:N	2.57	0.71
55:DW:92:ARG:HH11	55:DW:92:ARG:CB	2.02	0.71
46:DN:19:GLU:HG3	46:DN:20:GLY:H	1.55	0.71
24:CY:30:GLU:HB2	45:DK:20:ALA:HB3	1.72	0.71
50:DR:86:ARG:HB3	50:DR:118:GLU:OE2	1.90	0.71
35:DA:480:A:H1'	57:DY:44:ILE:HG21	1.71	0.71
10:CJ:27:ALA:HB2	10:CJ:85:LEU:HD11	1.72	0.71
35:DA:2158:A:H4'	35:DA:2159:G:C5'	2.21	0.71
37:DC:6:LYS:HD2	37:DC:6:LYS:O	1.89	0.71
38:DD:133:LEU:HD22	38:DD:165:ILE:HD11	1.71	0.71
2:CB:67:THR:HG21	2:CB:155:LEU:HD11	1.72	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:1332:G:N2	35:DA:1609:A:O2'	2.23	0.71
26:B1:23:LYS:HD3	26:B1:28:GLY:HA3	1.73	0.71
35:BA:1843:C:H5''	38:BD:257:LEU:HD23	1.73	0.71
7:AG:147:ALA:C	7:AG:148:ASN:HD22	1.93	0.71
1:AA:1031:G:H2'	1:AA:1032:G:O4'	1.89	0.71
1:CA:1031:G:H2'	1:CA:1032:G:O4'	1.89	0.71
30:B5:55:ARG:CD	30:B5:56:LYS:H	1.95	0.71
2:AB:71:VAL:HB	2:AB:164:VAL:HG22	1.73	0.71
41:DG:115:ARG:NH2	41:DG:136:ARG:HD2	2.06	0.71
43:DI:131:LYS:HB3	43:DI:132:PRO:HA	1.73	0.71
35:DA:279:C:C3'	35:DA:280:C:H5''	2.20	0.71
48:DP:100:LEU:HD12	48:DP:112:LEU:HD21	1.73	0.71
31:B6:19:ARG:CG	31:B6:20:ASN:H	2.04	0.71
4:CD:14:ARG:HD2	4:CD:59:ARG:NH1	2.06	0.71
3:CC:20:SER:HB2	3:CC:40:ARG:HH22	1.54	0.71
48:BP:16:ARG:CZ	48:BP:18:ARG:HG2	2.20	0.71
2:AB:54:THR:HG21	2:AB:201:ILE:HD11	1.72	0.71
15:CO:4:THR:OG1	15:CO:7:GLU:HB2	1.90	0.71
24:CY:190:VAL:HB	24:CY:315:VAL:HB	1.70	0.71
1:CA:250:A:H4'	1:CA:251:G:O5'	1.91	0.71
53:DU:31:SER:O	53:DU:33:ARG:N	2.19	0.71
49:DQ:43:THR:OG1	49:DQ:46:GLN:HG3	1.90	0.71
5:AE:71:LEU:O	5:AE:72:GLN:HG3	1.91	0.71
24:CY:209:GLU:OE2	24:CY:303:ARG:NE	2.23	0.71
4:CD:86:LYS:CE	4:CD:87:GLY:H	1.91	0.71
58:DZ:153:SER:N	58:DZ:167:PRO:HB2	2.03	0.71
29:D4:34:GLU:O	41:DG:113:ARG:NH1	2.23	0.71
41:DG:77:ILE:HG22	41:DG:80:PHE:H	1.55	0.71
10:CJ:50:ILE:HD11	14:CN:41:ARG:NH1	2.05	0.71
35:BA:654(S):G:H2'	35:BA:654(T):C:C6	2.26	0.71
22:CW:38:A:C3'	22:CW:39:U:H5''	2.20	0.71
43:DI:10:GLU:O	43:DI:12:LEU:HD23	1.89	0.71
35:BA:1541:G:H4'	35:BA:1542:A:O4'	1.91	0.71
17:AQ:59:ILE:CG2	17:AQ:71:PHE:HB3	2.21	0.71
48:BP:32:THR:HG21	48:BP:37:GLY:HA2	1.72	0.71
1:CA:650:G:O2'	1:CA:651:C:H5'	1.91	0.71
48:BP:16:ARG:HD3	48:BP:16:ARG:C	2.11	0.71
35:BA:2787:C:H1'	39:BE:61:ARG:CD	2.21	0.71
10:AJ:7:LYS:HD3	10:AJ:71:LEU:HD13	1.73	0.71
57:DY:32:PRO:C	57:DY:34:LYS:H	1.92	0.71
20:AT:39:LYS:O	20:AT:42:GLN:HB3	1.90	0.71
57:DY:101:LYS:HG2	57:DY:102:CYS:N	2.05	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
58:DZ:51:ALA:CB	58:DZ:57:ILE:HD11	2.20	0.71
35:BA:2726:U:O2	35:BA:2726:U:H5'	1.91	0.71
33:D8:25:MET:HG3	48:DP:64:LYS:CB	2.10	0.71
51:BS:17:ARG:HH21	51:BS:90:GLY:H	1.38	0.71
53:DU:92:ARG:NH2	54:DV:10:LYS:HB3	2.05	0.71
39:DE:111:ARG:HG3	50:DR:2:ARG:HG2	1.73	0.71
43:BI:133:HIS:HB2	43:BI:134:PRO:HD2	1.70	0.71
46:DN:15:LEU:HB2	46:DN:134:ARG:HB2	1.72	0.71
27:D2:41:ILE:HD11	27:D2:43:GLN:HB2	1.72	0.71
46:BN:55:VAL:CG2	46:BN:126:PRO:HA	2.21	0.71
25:B0:11:ARG:CB	25:B0:11:ARG:HH11	2.04	0.71
57:BY:61:ILE:HD12	57:BY:62:GLU:H	1.56	0.71
18:AR:70:ILE:O	18:AR:74:ARG:HG3	1.90	0.71
58:BZ:20:ARG:HB2	58:BZ:20:ARG:NH1	2.05	0.71
33:B8:32:LEU:HD11	35:BA:2392:A:OP1	1.91	0.71
35:BA:2189:U:H2'	35:BA:2190:G:H5''	1.73	0.71
57:DY:42:VAL:HB	57:DY:65:ALA:HB3	1.73	0.71
40:DF:132:VAL:HG22	40:DF:133:ASN:N	2.00	0.70
45:BK:74:ALA:HB2	45:BK:111:LYS:HE3	1.72	0.70
24:CY:285:GLU:HA	24:CY:288:ARG:NH1	2.06	0.70
22:CW:39:U:C2'	22:CW:40:C:H5''	2.19	0.70
41:BG:48:GLU:O	41:BG:49:ASP:HB2	1.91	0.70
1:AA:1134:G:H2'	1:AA:1135:U:H5'	1.73	0.70
35:BA:2645:G:H3'	35:BA:2646:C:C5'	2.21	0.70
35:DA:2645:G:H3'	35:DA:2646:C:C5'	2.21	0.70
9:CI:95:LYS:HD3	9:CI:96:LEU:N	2.05	0.70
43:BI:128:LEU:HD13	43:BI:129:THR:H	1.56	0.70
35:BA:1639:U:O2'	35:BA:1640:C:H5''	1.90	0.70
4:CD:60:GLU:OE2	4:CD:198:VAL:HA	1.90	0.70
35:DA:615:G:OP2	40:DF:40:GLN:HG2	1.90	0.70
1:CA:333:G:H4'	20:CT:16:HIS:CE1	2.26	0.70
2:AB:120:ALA:O	2:AB:121:LEU:HD23	1.90	0.70
7:CG:64:GLN:HE21	7:CG:68:ASN:HD21	1.38	0.70
42:DH:67:LEU:O	42:DH:71:LEU:HD22	1.90	0.70
53:BU:8:VAL:HG23	53:BU:11:ARG:HH21	1.54	0.70
51:DS:52:SER:HB3	51:DS:55:ALA:HB3	1.72	0.70
35:BA:1902:C:H1'	38:BD:244:ARG:HG3	1.73	0.70
51:BS:28:VAL:HB	51:BS:89:ARG:HB2	1.73	0.70
1:CA:1314:C:OP2	19:CS:6:LYS:HG3	1.91	0.70
35:BA:1301:A:H4'	35:BA:1302:A:OP1	1.91	0.70
35:DA:654(S):G:H2'	35:DA:654(T):C:C6	2.26	0.70
1:CA:963:G:N2	10:CJ:55:LYS:HZ2	1.89	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:32:ALA:O	4:CD:35:ARG:HG3	1.90	0.70
4:CD:31:CYS:C	4:CD:33:MET:H	1.94	0.70
39:BE:77:ILE:CG2	39:BE:78:LEU:H	1.96	0.70
54:BV:52:VAL:CG2	54:BV:55:ALA:HB3	2.21	0.70
35:BA:676:A:H2	35:BA:802:A:H61	1.37	0.70
51:DS:74:ALA:HB1	51:DS:103:GLU:CB	2.21	0.70
10:AJ:33:GLN:O	10:AJ:75:ILE:HG12	1.89	0.70
9:CI:15:ALA:HA	9:CI:65:VAL:HA	1.73	0.70
41:DG:3:LEU:HA	41:DG:97:ASP:OD2	1.90	0.70
2:AB:114:ARG:O	2:AB:118:LEU:HG	1.91	0.70
2:CB:54:THR:HG21	2:CB:201:ILE:HD11	1.73	0.70
35:DA:1019:U:H3	35:DA:1142(A):A:H62	1.40	0.70
1:CA:1363(A):A:H4'	1:CA:1364:U:H5''	1.72	0.70
35:DA:1963:U:O2	35:DA:1963:U:H2'	1.91	0.70
24:CY:303:ARG:HG2	24:CY:303:ARG:O	1.91	0.70
4:CD:33:MET:C	4:CD:35:ARG:H	1.93	0.70
35:DA:621:A:H2'	35:DA:622:G:H5'	1.71	0.70
40:BF:101:LEU:HD12	40:BF:102:PRO:HD2	1.72	0.70
48:DP:48:PRO:O	48:DP:50:ARG:N	2.23	0.70
1:AA:1152:A:H2'	1:AA:1153:C:H6	1.57	0.70
38:DD:30:GLU:HB2	38:DD:35:LYS:HE3	1.71	0.70
1:CA:1112:C:O2	3:CC:179:ARG:HG2	1.91	0.70
35:DA:1843:C:H5''	38:DD:257:LEU:HD23	1.72	0.70
35:DA:1066:U:H2'	35:DA:1068:G:OP2	1.90	0.70
24:CY:68:ASP:OD2	24:CY:94:ALA:HB1	1.90	0.70
6:CF:86:ARG:O	6:CF:87:ARG:HG2	1.91	0.70
10:CJ:50:ILE:HA	10:CJ:60:ARG:HB2	1.74	0.70
1:CA:1256:A:N6	1:CA:1278:U:H1'	2.02	0.70
2:AB:194:PRO:O	2:AB:196:LEU:N	2.25	0.70
26:B1:45:ASN:ND2	35:BA:2090:G:H21	1.89	0.70
35:DA:1278:A:OP1	50:DR:36:THR:HG22	1.91	0.70
4:AD:68:TYR:CD2	4:AD:97:LEU:HD22	2.26	0.70
45:BK:119:ASP:OD2	45:BK:122:ALA:HB3	1.92	0.70
1:CA:1242:C:P	21:CU:10:ARG:HH22	2.15	0.70
8:CH:40:ALA:C	8:CH:42:GLU:H	1.94	0.70
48:DP:40:SER:O	48:DP:41:ARG:NE	2.24	0.70
3:AC:76:VAL:HG23	3:AC:77:ILE:HG13	1.73	0.70
2:AB:130:ARG:NH2	2:AB:138:LEU:HD11	2.06	0.70
24:CY:303:ARG:N	24:CY:304:PRO:HD3	2.06	0.70
57:BY:13:VAL:HG11	57:BY:28:LYS:HD3	1.74	0.70
58:DZ:166:SER:OG	58:DZ:168:GLU:N	2.24	0.70
30:D5:55:ARG:CD	30:D5:56:LYS:H	1.96	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:BS:65:VAL:O	51:BS:69:VAL:HG12	1.91	0.70
51:DS:28:VAL:HB	51:DS:89:ARG:HB2	1.73	0.70
41:BG:141:PHE:O	41:BG:144:ILE:HG22	1.92	0.70
41:BG:61:ALA:HA	41:BG:64:THR:CG2	2.21	0.70
35:BA:654(N):G:H2'	35:BA:654(O):G:O4'	1.91	0.70
55:DW:88:ARG:HB2	55:DW:92:ARG:HB2	1.74	0.70
40:BF:63:LYS:NZ	40:BF:67:GLN:HB2	2.07	0.70
1:CA:1134:G:H2'	1:CA:1135:U:H5'	1.73	0.70
35:DA:1038:C:C2'	35:DA:1039:G:H5''	2.21	0.70
30:D5:4:HIS:HB3	30:D5:5:PRO:HD3	1.72	0.70
31:B6:18:ARG:HD2	31:B6:43:CYS:SG	2.31	0.70
35:BA:2158:A:H4'	35:BA:2159:G:C5'	2.21	0.70
26:B1:11:ARG:HB2	26:B1:12:PRO:HD2	1.73	0.70
1:CA:1054:C:O2'	1:CA:1055:A:H5'	1.92	0.70
35:DA:2310:A:O2'	35:DA:2311:A:H5'	1.91	0.70
35:DA:650:C:H3'	35:DA:651:G:H5''	1.71	0.70
35:DA:2884:U:H2'	35:DA:2885:C:H5'	1.74	0.70
1:AA:1352:C:H2'	1:AA:1353:G:C8	2.26	0.70
1:CA:328:C:H4'	1:CA:329:A:H5'	1.72	0.70
4:CD:128:VAL:O	4:CD:130:GLY:N	2.24	0.70
40:DF:24:LEU:CB	40:DF:25:PRO:HD2	2.18	0.70
35:BA:2802:G:O2'	35:BA:2803:C:H5''	1.92	0.70
2:CB:185:ILE:CG2	2:CB:199:TYR:HB2	2.22	0.70
51:BS:106:ARG:HH11	51:BS:106:ARG:C	1.94	0.70
2:CB:178:ARG:HH11	2:CB:178:ARG:CB	2.05	0.70
1:CA:1347:G:H22	1:CA:1373:G:H2'	1.53	0.70
35:BA:1717:G:C2'	35:BA:1718:G:H5''	2.20	0.70
18:CR:70:ILE:O	18:CR:74:ARG:HG3	1.91	0.70
1:AA:650:G:O2'	1:AA:651:C:H5'	1.91	0.70
3:AC:34:LEU:O	3:AC:38:ARG:HG3	1.92	0.70
2:AB:69:LEU:HD22	2:AB:91:PRO:HB2	1.71	0.70
50:DR:98:LEU:HB2	50:DR:113:LEU:CD2	2.22	0.70
39:DE:59:VAL:O	39:DE:60:ASN:CG	2.30	0.70
49:BQ:52:VAL:O	49:BQ:56:ARG:HG2	1.91	0.70
1:AA:1241:G:H2'	1:AA:1242:C:C6	2.27	0.70
57:DY:96:ILE:HG22	57:DY:97:ARG:N	2.06	0.70
40:DF:1:MET:O	40:DF:3:GLU:HG2	1.92	0.70
58:BZ:141:VAL:HA	58:BZ:144:LEU:HD23	1.73	0.70
41:DG:48:GLU:CD	41:DG:49:ASP:H	1.95	0.70
10:CJ:4:ILE:N	10:CJ:4:ILE:HD12	2.06	0.70
35:BA:480:A:H1'	57:BY:44:ILE:HG21	1.73	0.70
2:CB:46:LYS:HE3	2:CB:46:LYS:HA	1.74	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
57:DY:63:LYS:HG2	57:DY:64:GLU:H	1.57	0.70
43:BI:92:VAL:HG13	43:BI:120:ILE:HD12	1.73	0.70
43:BI:31:LEU:H	43:BI:31:LEU:HD12	1.55	0.70
4:CD:49:ARG:NE	4:CD:49:ARG:HA	2.06	0.70
17:CQ:59:ILE:CG2	17:CQ:71:PHE:HB3	2.21	0.70
14:CN:23:ARG:HD2	14:CN:28:GLY:O	1.92	0.70
35:DA:811:U:OP2	48:DP:24:GLY:HA2	1.92	0.70
8:AH:118:VAL:O	8:AH:119:LEU:HD23	1.92	0.70
1:AA:73:G:H1	1:AA:96:U:H3	1.38	0.70
13:CM:84:ILE:HG13	19:CS:66:MET:SD	2.32	0.70
25:D0:43:THR:O	25:D0:43:THR:HG23	1.91	0.70
31:D6:39:TYR:O	31:D6:46:HIS:HB2	1.91	0.70
45:DK:74:ALA:HB2	45:DK:111:LYS:HE3	1.72	0.70
58:BZ:141:VAL:HA	58:BZ:144:LEU:CD2	2.22	0.70
52:DT:29:ARG:HG3	52:DT:30:VAL:HG13	1.73	0.70
46:BN:1:MET:O	46:BN:2:LYS:HG3	1.92	0.70
42:BH:155:SER:O	42:BH:157:TYR:N	2.24	0.70
45:DK:112:MET:H	45:DK:113:PRO:HD2	1.56	0.70
1:AA:736:C:H2'	1:AA:737:A:C8	2.27	0.70
13:CM:3:ARG:NH2	13:CM:7:VAL:HG22	2.07	0.70
35:DA:1948:G:H5'	35:DA:1948:G:C8	2.26	0.70
2:CB:114:ARG:O	2:CB:118:LEU:HG	1.91	0.70
10:AJ:27:ALA:HB2	10:AJ:85:LEU:HD11	1.74	0.70
48:DP:16:ARG:CZ	48:DP:18:ARG:HG2	2.21	0.70
44:DJ:117:UNK:HA	44:DJ:121:UNK:O	1.92	0.70
4:CD:132:ARG:HH11	4:CD:132:ARG:HG2	1.57	0.70
10:CJ:8:LEU:HD23	10:CJ:96:ILE:CG2	2.22	0.70
42:BH:67:LEU:O	42:BH:71:LEU:HD22	1.91	0.70
35:DA:1073:A:H2'	35:DA:1074:G:O4'	1.92	0.70
11:CK:80:VAL:HG13	11:CK:103:LEU:HD11	1.72	0.70
1:CA:1348:U:H4'	9:CI:120:ARG:HD2	1.73	0.70
5:AE:42:GLY:HA3	5:AE:66:MET:HG2	1.72	0.70
42:DH:136:ILE:HD12	42:DH:136:ILE:N	2.06	0.70
32:D7:4:THR:HG22	35:DA:687:C:H1'	1.74	0.70
35:BA:1748:G:H8	35:BA:1748:G:H5'	1.57	0.70
40:DF:4:VAL:HG22	40:DF:19:GLU:OE1	1.90	0.70
13:AM:3:ARG:NH2	13:AM:7:VAL:HG22	2.07	0.70
1:CA:973:G:O4'	10:CJ:55:LYS:HG3	1.92	0.70
27:D2:64:LEU:O	27:D2:64:LEU:HD23	1.91	0.70
33:B8:59:LYS:HD3	48:BP:50:ARG:HB3	1.72	0.70
19:AS:50:ALA:HB1	19:AS:57:HIS:HB3	1.74	0.70
1:AA:1347:G:H22	1:AA:1373:G:H2'	1.55	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DG:121:ASN:HD22	41:DG:122:PRO:N	1.89	0.70
12:AL:28:LYS:HE3	12:AL:33:ARG:HH12	1.55	0.70
17:CQ:59:ILE:HG21	17:CQ:71:PHE:HB3	1.72	0.70
36:DB:87:G:C3'	36:DB:88:C:H5''	2.21	0.70
41:DG:128:ARG:HH11	41:DG:128:ARG:HB3	1.57	0.70
1:CA:1241:G:H2'	1:CA:1242:C:C6	2.27	0.70
49:BQ:43:THR:OG1	49:BQ:46:GLN:HG3	1.92	0.70
1:AA:1264:C:H2'	1:AA:1265:G:C8	2.26	0.70
30:B5:41:PRO:HG2	30:B5:44:THR:HG21	1.71	0.70
4:CD:129:ASN:N	4:CD:129:ASN:HD22	1.89	0.70
35:DA:654(N):G:H2'	35:DA:654(O):G:O4'	1.92	0.70
52:DT:83:ILE:HG13	52:DT:84:GLN:H	1.55	0.70
48:BP:124:LYS:HD3	48:BP:143:GLY:CA	2.21	0.70
35:BA:1464:C:HO2'	35:BA:1528:A:H8	0.78	0.70
6:CF:69:GLU:O	6:CF:72:VAL:HG12	1.91	0.70
38:DD:32:SER:HA	38:DD:35:LYS:HZ1	1.55	0.70
40:DF:157:VAL:CG1	40:DF:194:MET:HG2	2.21	0.70
18:AR:31:LEU:H	18:AR:31:LEU:CD2	2.04	0.70
57:DY:50:ARG:HB2	57:DY:57:GLN:HA	1.72	0.70
16:CP:20:VAL:HG23	16:CP:34:GLU:O	1.92	0.70
52:DT:53:ARG:HB2	52:DT:53:ARG:NH1	2.07	0.70
6:AF:86:ARG:O	6:AF:87:ARG:HG2	1.92	0.70
40:BF:40:GLN:NE2	40:BF:182:ASN:HB2	2.06	0.70
8:CH:90:GLY:O	12:CL:7:ILE:HG21	1.92	0.70
24:CY:141:THR:O	24:CY:145:GLU:HG3	1.92	0.70
57:BY:28:LYS:HZ2	57:BY:72:VAL:HG21	1.55	0.69
40:BF:4:VAL:HG22	40:BF:19:GLU:OE1	1.91	0.69
30:D5:33:CYS:HB2	30:D5:40:LYS:HE3	1.73	0.69
41:BG:38:VAL:HG22	41:BG:93:THR:HA	1.73	0.69
58:DZ:20:ARG:HH11	58:DZ:20:ARG:CB	2.03	0.69
13:AM:120:LYS:HD3	13:AM:121:LYS:N	2.07	0.69
43:DI:9:LEU:HD13	43:DI:13:GLY:HA2	1.72	0.69
38:DD:27:THR:OG1	38:DD:83:GLU:HG2	1.91	0.69
24:CY:312:ARG:HD2	24:CY:314:TYR:CZ	2.27	0.69
30:B5:4:HIS:HB3	30:B5:5:PRO:HD3	1.73	0.69
48:DP:97:PRO:O	48:DP:98:GLU:HB3	1.91	0.69
31:B6:19:ARG:HH11	31:B6:19:ARG:HG2	1.55	0.69
2:CB:187:LEU:HD22	2:CB:201:ILE:O	1.92	0.69
35:DA:2562:U:H1'	47:DO:23:ARG:NH1	2.06	0.69
43:BI:52:ARG:HG3	43:BI:53:ALA:N	2.06	0.69
48:DP:16:ARG:HD3	48:DP:18:ARG:H	1.57	0.69
38:BD:133:LEU:HD22	38:BD:165:ILE:HD11	1.74	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:2189:U:H2'	35:DA:2190:G:H5''	1.73	0.69
35:BA:910:A:N7	49:BQ:13:GLN:HG3	2.07	0.69
43:BI:47:LEU:O	43:BI:51:ILE:HG12	1.92	0.69
35:BA:2113:U:H2'	35:BA:2114:A:O4'	1.92	0.69
19:AS:67:VAL:HG23	19:AS:68:GLY:H	1.57	0.69
35:DA:2113:U:H2'	35:DA:2114:A:O4'	1.92	0.69
55:DW:10:VAL:O	55:DW:11:ARG:HB2	1.92	0.69
41:BG:9:ARG:NH1	41:BG:9:ARG:HB2	2.06	0.69
15:CO:16:ALA:HB1	15:CO:21:ASP:HB3	1.73	0.69
35:BA:1332:G:N2	35:BA:1609:A:O2'	2.25	0.69
1:CA:503:C:H2'	1:CA:504:C:H6	1.56	0.69
31:D6:48:VAL:CG2	31:D6:49:HIS:H	2.01	0.69
50:BR:33:ARG:HE	50:BR:115:GLU:HG3	1.56	0.69
35:DA:1541:G:H4'	35:DA:1542:A:O4'	1.92	0.69
46:BN:2:LYS:HZ3	53:BU:95:LEU:HD21	1.57	0.69
54:BV:47:VAL:HG11	54:BV:51:VAL:HA	1.74	0.69
24:CY:137:LEU:O	24:CY:137:LEU:HD23	1.91	0.69
41:BG:52:ILE:HG12	41:BG:53:LEU:H	1.57	0.69
46:DN:58:ASP:OD2	46:DN:59:LYS:HG2	1.91	0.69
37:DC:26:ALA:O	37:DC:30:VAL:HG23	1.92	0.69
58:BZ:108:PRO:O	58:BZ:111:VAL:HG22	1.92	0.69
48:BP:17:LYS:O	48:BP:19:VAL:HG22	1.92	0.69
17:AQ:57:VAL:HG12	17:AQ:76:LEU:HA	1.72	0.69
35:DA:910:A:N7	49:DQ:13:GLN:HG3	2.06	0.69
1:AA:1112:C:O2	3:AC:179:ARG:HG2	1.92	0.69
4:AD:64:LEU:HB2	4:AD:198:VAL:HG11	1.74	0.69
35:DA:2629:A:H8	35:DA:2895:U:H3	1.39	0.69
10:AJ:8:LEU:HD23	10:AJ:96:ILE:HG22	1.74	0.69
47:DO:93:PRO:HD3	47:DO:114:ILE:HD11	1.74	0.69
1:CA:659:U:O2'	1:CA:660:G:H5'	1.92	0.69
2:AB:219:VAL:O	2:AB:223:ILE:HG13	1.91	0.69
50:BR:11:ASN:OD1	50:BR:12:ARG:N	2.24	0.69
35:BA:1747(A):G:H2'	35:BA:1748:G:C5'	2.11	0.69
35:BA:1485:G:H1'	35:BA:1505:C:H42	1.57	0.69
36:BB:6:C:O2'	51:BS:29:PHE:HE1	1.75	0.69
39:BE:111:ARG:HG3	50:BR:2:ARG:HG2	1.72	0.69
33:B8:50:LEU:C	33:B8:53:PRO:HD2	2.12	0.69
35:DA:2132:U:H3	37:DC:6:LYS:HB3	1.57	0.69
5:CE:42:GLY:CA	5:CE:66:MET:HG2	2.22	0.69
4:AD:126:ILE:HG22	4:AD:127:THR:N	2.06	0.69
35:BA:12:U:H2'	35:BA:12:U:O2	1.91	0.69
1:AA:1012:U:H2'	1:AA:1013:G:C8	2.26	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:DT:13:ARG:NE	52:DT:13:ARG:HA	2.08	0.69
40:BF:24:LEU:O	40:BF:26:ALA:N	2.24	0.69
35:DA:1803:A:O2'	38:DD:259:THR:HG21	1.91	0.69
24:AY:127:THR:HG23	24:AY:161:GLU:HB2	1.74	0.69
45:BK:112:MET:H	45:BK:113:PRO:HD2	1.56	0.69
35:DA:806:C:OP2	48:DP:39:LYS:HD3	1.93	0.69
35:BA:1073:A:H2'	35:BA:1074:G:O4'	1.91	0.69
1:CA:438:G:H4'	1:CA:439:A:OP1	1.92	0.69
1:CA:1172:C:H2'	1:CA:1173:G:H8	1.58	0.69
24:CY:135:MET:HB3	24:CY:138:ARG:NH1	2.07	0.69
1:AA:438:G:H4'	1:AA:439:A:OP1	1.91	0.69
57:DY:10:GLY:C	57:DY:27:VAL:HG22	2.12	0.69
42:DH:41:MET:HG3	42:DH:43:VAL:H	1.56	0.69
42:BH:41:MET:HG3	42:BH:43:VAL:H	1.57	0.69
41:DG:39:ILE:HD11	41:DG:60:LEU:HD21	1.75	0.69
1:AA:973:G:O4'	10:AJ:55:LYS:HG3	1.91	0.69
46:DN:1:MET:O	46:DN:2:LYS:HG3	1.92	0.69
54:DV:38:LEU:HD23	54:DV:38:LEU:C	2.13	0.69
1:AA:1126:U:H2'	1:AA:1127:G:O4'	1.92	0.69
10:AJ:34:VAL:HG22	10:AJ:74:ILE:HG22	1.75	0.69
27:D2:47:ASN:HD22	35:DA:94(A):G:H21	1.40	0.69
34:D9:31:LYS:HE2	35:DA:2528:U:H5''	1.75	0.69
35:BA:1316:U:O2'	35:BA:1317:A:H5'	1.93	0.69
9:AI:102:LEU:HD23	9:AI:103:THR:N	2.07	0.69
8:AH:40:ALA:C	8:AH:42:GLU:H	1.96	0.69
42:DH:43:VAL:HA	42:DH:46:GLU:OE2	1.93	0.69
58:DZ:139:VAL:HG22	58:DZ:155:LEU:HB2	1.74	0.69
2:AB:185:ILE:CG2	2:AB:199:TYR:HB2	2.23	0.69
30:D5:57:VAL:HG23	30:D5:58:LEU:H	1.57	0.69
48:DP:124:LYS:HD3	48:DP:143:GLY:HA2	1.74	0.69
41:BG:101:ILE:HG22	41:BG:105:LYS:HD2	1.73	0.69
52:DT:129:ARG:NE	52:DT:131:ALA:HB3	2.06	0.69
36:DB:48:A:H4'	51:DS:95:HIS:HD2	1.57	0.69
35:BA:143:G:H1'	56:BX:37:THR:HG21	1.74	0.69
4:AD:35:ARG:O	4:AD:37:PRO:HD3	1.92	0.69
48:BP:47:ASP:HB3	48:BP:48:PRO:O	1.91	0.69
33:D8:52:LYS:N	33:D8:53:PRO:CD	2.56	0.69
6:AF:69:GLU:O	6:AF:72:VAL:HG12	1.92	0.69
13:CM:2:ALA:N	13:CM:9:ILE:HG23	2.08	0.69
47:BO:24:VAL:HB	47:BO:33:ALA:HB2	1.75	0.69
1:CA:67:C:H2'	1:CA:68:G:H8	1.58	0.69
52:BT:53:ARG:NH1	52:BT:53:ARG:HB2	2.07	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:AN:6:LEU:HD22	14:AN:23:ARG:NH2	2.06	0.69
1:CA:537:G:H2'	1:CA:538:G:H8	1.57	0.69
1:CA:1264:C:H2'	1:CA:1265:G:C8	2.27	0.69
1:CA:489:C:H2'	1:CA:490:G:H8	1.57	0.69
7:CG:140:ASP:HA	7:CG:143:ARG:NH1	2.07	0.69
24:CY:112:ALA:HA	24:CY:177:TYR:CD2	2.26	0.69
52:BT:28:VAL:HG22	52:BT:47:GLY:H	1.56	0.69
52:BT:89:VAL:CG1	52:BT:91:ARG:HG3	2.22	0.69
40:BF:2:LYS:HD3	40:BF:25:PRO:CG	2.23	0.69
33:B8:4:MET:CB	33:B8:61:LEU:HD13	2.23	0.69
35:DA:1485:G:H1'	35:DA:1505:C:H42	1.57	0.69
5:CE:102:ALA:HB1	5:CE:106:PRO:CG	2.21	0.69
39:BE:108:SER:HB3	39:BE:165:VAL:HG21	1.73	0.69
56:BX:12:VAL:HG13	56:BX:27:THR:O	1.93	0.69
48:DP:47:ASP:HB3	48:DP:48:PRO:O	1.91	0.69
1:AA:1243:C:H42	1:AA:1294:G:H22	1.40	0.69
1:CA:390:C:H2'	1:CA:391:G:C8	2.28	0.69
1:CA:1355:G:H2'	1:CA:1356:G:C8	2.27	0.69
8:AH:86:ILE:HG12	8:AH:135:CYS:HA	1.73	0.69
36:BB:86:G:H1	36:BB:91:C:H42	1.40	0.69
3:CC:123:GLN:O	3:CC:128:PHE:HB2	1.92	0.69
6:CF:12:PRO:HG3	6:CF:57:GLN:O	1.92	0.69
1:CA:1255:G:H2'	1:CA:1255:G:N3	2.06	0.69
6:AF:12:PRO:HG3	6:AF:57:GLN:O	1.91	0.69
43:BI:68:LEU:HD23	43:BI:68:LEU:O	1.92	0.69
1:AA:1255:G:H2'	1:AA:1255:G:N3	2.06	0.69
35:DA:207:A:H2'	35:DA:208:C:O4'	1.93	0.69
35:DA:1902:C:H1'	38:DD:244:ARG:HG3	1.75	0.69
57:DY:13:VAL:HG11	57:DY:28:LYS:HD3	1.74	0.69
13:AM:90:LEU:C	13:AM:92:HIS:H	1.94	0.69
2:CB:71:VAL:HB	2:CB:164:VAL:HG22	1.73	0.69
52:BT:129:ARG:NE	52:BT:131:ALA:HB3	2.06	0.69
22:AW:57:G:C2'	22:AW:58:A:H5'	2.21	0.69
41:BG:115:ARG:HH21	41:BG:136:ARG:HD2	1.56	0.69
10:AJ:50:ILE:HA	10:AJ:60:ARG:HB2	1.74	0.69
1:CA:1126:U:H2'	1:CA:1127:G:O4'	1.92	0.69
1:AA:194:C:H2'	1:AA:195:A:H5''	1.75	0.69
1:AA:192:U:H5'	20:AT:102:GLY:HA2	1.74	0.69
56:BX:12:VAL:CB	56:BX:17:ALA:HB1	2.22	0.69
1:AA:926:G:H21	23:AX:15:A:H5'	1.57	0.69
1:CA:736:C:H2'	1:CA:737:A:C8	2.27	0.69
33:B8:50:LEU:HD12	33:B8:51:ALA:N	2.08	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DD:11:PRO:O	38:DD:13:ARG:N	2.24	0.69
9:AI:88:TYR:O	9:AI:89:ASN:HB2	1.91	0.69
54:DV:6:LYS:HB3	54:DV:37:VAL:HG12	1.75	0.69
1:CA:1321:C:H3'	1:CA:1322:C:H5''	1.75	0.69
35:BA:2312:U:C2'	35:BA:2313:C:H5''	2.22	0.69
46:BN:47:ALA:HB2	46:BN:112:LEU:HD11	1.73	0.69
10:CJ:75:ILE:HG13	10:CJ:76:ASN:H	1.58	0.69
44:BJ:117:UNK:HA	44:BJ:121:UNK:O	1.93	0.69
10:AJ:8:LEU:HD23	10:AJ:96:ILE:CG2	2.23	0.69
24:CY:136:LEU:HD11	24:CY:187:HIS:HB2	1.73	0.69
19:AS:64:GLU:HG3	19:AS:65:ASN:H	1.58	0.69
24:CY:36:PRO:HD3	45:DK:29:GLN:HA	1.75	0.69
1:AA:503:C:H2'	1:AA:504:C:H6	1.57	0.69
1:AA:250:A:H4'	1:AA:251:G:O5'	1.93	0.69
39:BE:101:ARG:HB2	39:BE:201:THR:HG21	1.74	0.69
1:CA:243:A:H4'	1:CA:244:U:O5'	1.91	0.69
9:AI:7:THR:HB	9:AI:83:ARG:NH1	2.07	0.69
35:DA:1358:G:O2'	35:DA:1359:A:H5''	1.92	0.69
28:B3:29:ARG:H	28:B3:33:GLN:NE2	1.91	0.69
1:AA:1149:C:H2'	1:AA:1150:U:C6	2.28	0.69
35:BA:1011:G:H5''	53:BU:77:SER:OG	1.93	0.69
35:DA:2893:G:H5'	35:DA:2894:G:H5'	1.75	0.69
4:AD:129:ASN:N	4:AD:129:ASN:HD22	1.88	0.69
52:BT:23:ARG:HB2	52:BT:24:PRO:HD2	1.75	0.69
13:AM:2:ALA:N	13:AM:9:ILE:HG23	2.07	0.69
52:DT:28:VAL:HG22	52:DT:47:GLY:H	1.58	0.69
35:DA:1528:A:C2	35:DA:1542:A:H2	2.11	0.69
1:CA:1128:C:C5'	9:CI:16:ARG:HH12	2.06	0.69
35:BA:272(I):U:O2	35:BA:272(I):U:H5'	1.93	0.69
1:CA:194:C:H2'	1:CA:195:A:H5''	1.75	0.69
45:DK:20:ALA:CA	45:DK:25:PRO:HD3	2.23	0.69
35:BA:1019:U:H3	35:BA:1142(A):A:H62	1.39	0.69
35:BA:2132:U:H3	37:BC:6:LYS:HB3	1.57	0.69
35:DA:2134:A:C2	35:DA:2159:G:H1'	2.28	0.69
4:AD:14:ARG:HD2	4:AD:59:ARG:NH1	2.07	0.69
1:AA:444:C:H2'	1:AA:445:G:H8	1.57	0.69
28:B3:43:ILE:O	28:B3:47:VAL:HG23	1.92	0.69
1:AA:67:C:H2'	1:AA:68:G:H8	1.56	0.69
27:D2:50:ILE:O	27:D2:52:ASP:N	2.25	0.69
57:DY:2:ARG:C	57:DY:4:LYS:H	1.95	0.69
1:AA:390:C:H2'	1:AA:391:G:C8	2.27	0.69
4:AD:150:GLU:CD	4:AD:151:LYS:N	2.46	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:127:THR:HG23	4:AD:147:ALA:HB3	1.74	0.69
1:AA:1242:C:P	21:AU:10:ARG:HH22	2.15	0.69
5:AE:150:ARG:HA	5:AE:153:LYS:HE2	1.73	0.69
25:B0:18:ALA:HB3	25:B0:20:ARG:NH1	2.07	0.69
1:AA:489:C:H2'	1:AA:490:G:H8	1.57	0.69
42:BH:19:VAL:HG21	42:BH:44:VAL:HA	1.75	0.69
2:CB:162:ILE:O	2:CB:185:ILE:HG12	1.93	0.69
42:DH:13:LYS:CE	42:DH:13:LYS:HA	2.17	0.69
35:BA:197:A:H8	35:BA:197:A:H5'	1.57	0.69
33:D8:50:LEU:HD12	33:D8:51:ALA:N	2.08	0.69
46:BN:58:ASP:OD2	46:BN:59:LYS:HG2	1.93	0.69
2:AB:46:LYS:HA	2:AB:46:LYS:HE3	1.75	0.69
4:AD:43:HIS:O	4:AD:45:GLN:N	2.25	0.69
38:BD:35:LYS:HG3	38:BD:63:ARG:HD2	1.75	0.69
48:DP:83:VAL:H	48:DP:115:LEU:HD21	1.57	0.69
1:AA:1493:A:H1'	24:AY:124:ALA:HA	1.75	0.69
16:AP:20:VAL:HG23	16:AP:34:GLU:O	1.92	0.69
10:AJ:6:ILE:O	10:AJ:6:ILE:HD12	1.92	0.69
35:BA:811:U:OP2	48:BP:24:GLY:HA2	1.93	0.69
24:CY:138:ARG:HD2	24:CY:142:ARG:NH2	2.08	0.69
1:AA:1312:G:H1	1:AA:1325:C:H42	1.41	0.69
6:CF:82:ARG:HB2	6:CF:85:VAL:HG23	1.75	0.69
9:CI:102:LEU:HD23	9:CI:103:THR:N	2.07	0.69
8:CH:118:VAL:O	8:CH:119:LEU:HD23	1.92	0.69
1:AA:539:A:OP2	12:AL:115:LYS:HE3	1.93	0.69
31:D6:19:ARG:CG	31:D6:20:ASN:H	2.03	0.68
52:DT:23:ARG:HB2	52:DT:24:PRO:HD2	1.75	0.68
57:BY:28:LYS:CA	57:BY:38:ILE:HG22	2.20	0.68
45:DK:95:LYS:N	45:DK:95:LYS:HD2	2.08	0.68
51:BS:92:TYR:CD1	51:BS:93:LYS:N	2.58	0.68
49:BQ:16:ARG:O	49:BQ:17:LEU:HD23	1.93	0.68
54:BV:15:GLU:HB3	54:BV:16:PRO:CD	2.21	0.68
45:BK:10:LEU:HD23	45:BK:23:VAL:HG11	1.76	0.68
24:AY:237:PRO:O	24:AY:242:VAL:HG21	1.93	0.68
38:BD:11:PRO:O	38:BD:13:ARG:N	2.22	0.68
54:DV:6:LYS:HB3	54:DV:37:VAL:CG1	2.22	0.68
35:BA:8:A:H2'	35:BA:9:U:C6	2.28	0.68
35:DA:1658:C:OP1	39:DE:132:HIS:ND1	2.25	0.68
57:BY:31:LEU:HD23	57:BY:36:ALA:O	1.93	0.68
13:CM:83:ASP:CG	13:CM:84:ILE:H	1.97	0.68
7:AG:64:GLN:HE21	7:AG:68:ASN:HD21	1.40	0.68
39:DE:87:GLU:O	39:DE:89:ASP:N	2.25	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:1503:U:O2'	35:DA:1504:C:H5'	1.93	0.68
4:AD:128:VAL:O	4:AD:130:GLY:N	2.26	0.68
40:BF:132:VAL:HG22	40:BF:133:ASN:ND2	2.08	0.68
2:AB:162:ILE:O	2:AB:185:ILE:HG12	1.93	0.68
24:AY:152:GLU:OE1	24:AY:170:LEU:HD23	1.94	0.68
51:DS:106:ARG:C	51:DS:106:ARG:HH11	1.96	0.68
43:DI:81:VAL:HG21	43:DI:88:ILE:HG21	1.75	0.68
35:DA:146:G:H5'	35:DA:146:G:H8	1.57	0.68
40:BF:67:GLN:CG	40:BF:67:GLN:O	2.42	0.68
13:CM:120:LYS:HD3	13:CM:121:LYS:N	2.07	0.68
4:AD:31:CYS:C	4:AD:33:MET:H	1.96	0.68
48:BP:112:LEU:H	48:BP:128:HIS:HD2	1.39	0.68
35:DA:8:A:H2'	35:DA:9:U:C6	2.27	0.68
35:DA:528:A:C2	35:DA:2043:C:H4'	2.28	0.68
3:AC:20:SER:HB2	3:AC:40:ARG:HH22	1.56	0.68
16:CP:20:VAL:HG21	16:CP:32:TYR:CD2	2.27	0.68
24:AY:77:GLU:H	24:AY:84:ARG:CG	2.05	0.68
1:CA:262:A:H2'	1:CA:263:A:C8	2.29	0.68
7:AG:140:ASP:HA	7:AG:143:ARG:NH1	2.08	0.68
20:AT:48:LYS:O	20:AT:52:ALA:HB2	1.94	0.68
15:AO:16:ALA:HB1	15:AO:21:ASP:HB3	1.74	0.68
40:BF:1:MET:O	40:BF:3:GLU:HG2	1.94	0.68
30:D5:33:CYS:SG	30:D5:36:CYS:HB3	2.32	0.68
35:DA:1301:A:H4'	35:DA:1302:A:OP1	1.93	0.68
35:DA:197:A:H5'	35:DA:197:A:C8	2.28	0.68
35:BA:1529:G:N2	35:BA:1530:C:H2'	2.09	0.68
13:CM:124:PRO:HB2	24:CY:163:GLY:C	2.14	0.68
3:AC:14:ILE:HG12	3:AC:15:THR:N	2.04	0.68
45:BK:18:THR:HG23	45:BK:38:VAL:HG11	1.75	0.68
48:BP:48:PRO:O	48:BP:50:ARG:N	2.26	0.68
35:BA:673:C:C6	35:BA:673:C:H5'	2.22	0.68
47:BO:49:ARG:N	47:BO:49:ARG:HD3	2.07	0.68
22:CW:68:C:H2'	22:CW:69:G:C8	2.25	0.68
12:AL:28:LYS:HD2	12:AL:30:ALA:HB2	1.74	0.68
24:AY:187:HIS:CE1	24:AY:311:ILE:HD11	2.27	0.68
48:BP:16:ARG:HD3	48:BP:18:ARG:H	1.56	0.68
58:DZ:44:PHE:CZ	58:DZ:86:VAL:HG11	2.29	0.68
10:CJ:8:LEU:HD23	10:CJ:96:ILE:HG22	1.74	0.68
24:CY:141:THR:HG22	24:CY:145:GLU:OE2	1.93	0.68
13:AM:84:ILE:HG13	19:AS:66:MET:SD	2.33	0.68
13:AM:23:TYR:O	13:AM:66:LEU:HA	1.93	0.68
50:BR:10:LEU:HB3	50:BR:17:ARG:NE	2.08	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:B2:2:LYS:HA	27:B2:5:GLU:OE1	1.93	0.68
35:DA:1090:U:H2'	35:DA:1091:G:C8	2.29	0.68
16:AP:19:ILE:HD12	16:AP:19:ILE:H	1.56	0.68
24:AY:18:ASP:HB3	24:AY:22:LYS:NZ	2.08	0.68
24:CY:223:LYS:C	24:CY:225:GLU:H	1.97	0.68
15:AO:48:LYS:HA	15:AO:48:LYS:HE2	1.76	0.68
8:AH:30:ARG:HB3	8:AH:30:ARG:NH1	2.08	0.68
33:D8:30:ARG:HD3	33:D8:30:ARG:O	1.93	0.68
2:CB:219:VAL:O	2:CB:223:ILE:HG13	1.93	0.68
52:BT:28:VAL:HG22	52:BT:47:GLY:N	2.09	0.68
35:DA:2794:C:H42	35:DA:2801(A):A:H61	1.42	0.68
45:DK:54:PRO:HD3	45:DK:73:PRO:HD3	1.76	0.68
1:AA:1314:C:OP2	19:AS:6:LYS:HG3	1.92	0.68
35:BA:654(C):G:C2'	35:BA:654(D):G:H5'	2.23	0.68
35:DA:272(I):U:O2	35:DA:272(I):U:H5'	1.93	0.68
48:BP:100:LEU:HD12	48:BP:112:LEU:HD21	1.74	0.68
57:BY:63:LYS:HG2	57:BY:64:GLU:H	1.56	0.68
42:DH:97:ARG:HG3	42:DH:98:LEU:N	2.08	0.68
35:BA:1718:G:H8	35:BA:1718:G:H5'	1.57	0.68
38:BD:34:VAL:C	38:BD:36:PRO:HD2	2.12	0.68
43:DI:68:LEU:O	43:DI:68:LEU:HD23	1.93	0.68
27:D2:50:ILE:C	27:D2:52:ASP:H	1.96	0.68
22:AW:63:G:H2'	22:AW:64:A:H5'	1.76	0.68
58:BZ:3:TYR:O	58:BZ:57:ILE:HA	1.94	0.68
7:AG:113:GLU:HG2	7:AG:119:ARG:HG2	1.75	0.68
33:D8:31:HIS:HE1	35:DA:2392:A:OP2	1.75	0.68
14:CN:6:LEU:HD22	14:CN:23:ARG:NH2	2.08	0.68
37:BC:191:ARG:HB3	37:BC:195:ARG:NH1	2.07	0.68
55:BW:36:LEU:HD11	55:BW:47:VAL:HG12	1.75	0.68
35:BA:2310:A:O2'	35:BA:2311:A:H5'	1.93	0.68
53:BU:31:SER:O	53:BU:33:ARG:N	2.20	0.68
35:BA:2893:G:H5'	35:BA:2894:G:H5'	1.75	0.68
34:B9:31:LYS:HE2	35:BA:2528:U:H5''	1.73	0.68
3:CC:53:ALA:HB2	3:CC:115:LEU:HD21	1.74	0.68
58:DZ:79:ARG:O	58:DZ:80:ARG:HB2	1.92	0.68
1:CA:979:C:H3'	1:CA:980:C:C5'	2.20	0.68
41:BG:120:LEU:HD22	41:BG:133:LEU:HD21	1.75	0.68
51:BS:95:HIS:CG	51:BS:96:GLY:H	2.11	0.68
29:D4:14:ILE:H	29:D4:14:ILE:HD12	1.58	0.68
10:CJ:34:VAL:HG22	10:CJ:74:ILE:HG22	1.74	0.68
6:AF:82:ARG:HB2	6:AF:85:VAL:HG23	1.74	0.68
4:CD:150:GLU:CD	4:CD:151:LYS:H	1.95	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:D6:41:PRO:CG	31:D6:46:HIS:HA	2.23	0.68
57:DY:26:LYS:HG3	57:DY:27:VAL:H	1.57	0.68
35:DA:156:U:H4'	35:DA:157:U:H5''	1.74	0.68
58:BZ:163:LEU:HD23	58:BZ:163:LEU:H	1.59	0.68
2:CB:77:ALA:O	2:CB:81:VAL:HG23	1.94	0.68
24:CY:237:PRO:O	24:CY:242:VAL:HG11	1.93	0.68
1:AA:1277:C:H2'	1:AA:1278:U:H5'	1.76	0.68
41:BG:116:ASP:O	41:BG:117:PHE:HB3	1.94	0.68
35:BA:142:A:H5'	35:BA:142(A):C:OP2	1.94	0.68
52:BT:29:ARG:HB3	52:BT:85:LYS:HA	1.74	0.68
43:DI:113:ARG:HH11	43:DI:132:PRO:HD3	1.59	0.68
1:CA:192:U:H5'	20:CT:102:GLY:HA2	1.75	0.68
45:DK:18:THR:HG23	45:DK:38:VAL:HG11	1.76	0.68
48:DP:112:LEU:H	48:DP:128:HIS:HD2	1.40	0.68
1:AA:942:G:H21	9:AI:124:GLN:NE2	1.91	0.68
35:BA:2315:G:H2'	35:BA:2316:C:C6	2.29	0.68
58:BZ:74:VAL:HG22	58:BZ:86:VAL:HG12	1.76	0.68
35:BA:1281:G:H8	35:BA:1281:G:H5'	1.59	0.68
35:DA:89:G:H3'	35:DA:90:U:H5'	1.75	0.68
4:AD:175:SER:HB3	4:AD:186:LEU:HD11	1.76	0.68
26:D1:29:GLY:O	26:D1:30:VAL:HG23	1.93	0.68
19:CS:64:GLU:HG3	19:CS:65:ASN:H	1.58	0.68
35:DA:2682:U:H6	35:DA:2682:U:H5'	1.58	0.68
35:DA:2802:G:O2'	35:DA:2803:C:H5''	1.92	0.68
40:DF:21:ALA:C	40:DF:23:ASP:H	1.95	0.68
35:BA:156:U:H4'	35:BA:157:U:H5''	1.74	0.68
24:CY:241:GLY:O	24:CY:244:THR:N	2.27	0.68
29:B4:14:ILE:H	29:B4:14:ILE:HD12	1.58	0.68
6:CF:3:ARG:HH11	6:CF:3:ARG:HG3	1.59	0.68
52:DT:89:VAL:HG12	52:DT:91:ARG:HG3	1.75	0.68
25:D0:49:LYS:N	25:D0:80:HIS:HD1	1.89	0.68
1:CA:1152:A:H2'	1:CA:1153:C:H6	1.57	0.68
36:BB:75:G:H22	58:BZ:73:GLN:NE2	1.92	0.68
7:CG:82:GLY:HA2	23:CX:14:A:N6	2.08	0.68
35:DA:271(A):A:H5'	35:DA:271(B):C:OP2	1.93	0.68
1:CA:59:A:C5'	1:CA:60:A:H5''	2.24	0.68
41:DG:16:ARG:N	41:DG:17:PRO:HD2	2.09	0.68
3:AC:73:PRO:HG2	3:AC:74:GLY:H	1.58	0.68
1:AA:1148:U:H2'	1:AA:1149:C:O4'	1.93	0.68
30:D5:41:PRO:HG2	30:D5:44:THR:HG21	1.76	0.68
1:CA:1012:U:H2'	1:CA:1013:G:C8	2.28	0.68
40:BF:178:PRO:HG2	40:BF:179:GLU:OE1	1.94	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:89:G:H3'	35:BA:90:U:H5'	1.75	0.68
35:BA:2126:A:H4'	35:BA:2127:G:O5'	1.94	0.68
8:CH:30:ARG:NH1	8:CH:30:ARG:HB3	2.09	0.68
52:DT:67:SER:O	52:DT:68:TYR:HB2	1.93	0.68
35:DA:1902:C:H4'	38:DD:244:ARG:HA	1.75	0.68
24:AY:302:VAL:C	24:AY:303:ARG:HG3	2.14	0.68
40:BF:24:LEU:CB	40:BF:25:PRO:HD2	2.18	0.68
35:BA:1503:U:O2'	35:BA:1504:C:H5'	1.94	0.68
35:DA:1529:G:N2	35:DA:1530:C:H2'	2.09	0.68
35:DA:272(H):C:H2'	35:DA:272(I):U:C5'	2.24	0.68
35:BA:272(H):C:H2'	35:BA:272(I):U:C5'	2.24	0.68
35:BA:2134:A:C2	35:BA:2159:G:H1'	2.28	0.68
35:DA:860:U:C5	35:DA:917:A:N7	2.62	0.68
47:DO:122:LEU:HD23	52:DT:43:GLN:NE2	2.07	0.68
39:DE:24:THR:HG23	39:DE:184:VAL:HG23	1.76	0.68
5:AE:42:GLY:CA	5:AE:66:MET:HG2	2.23	0.68
39:BE:87:GLU:O	39:BE:89:ASP:N	2.26	0.68
49:BQ:1:MET:HE1	49:BQ:48:GLU:HB2	1.75	0.68
6:CF:16:GLN:H	6:CF:16:GLN:CD	1.97	0.68
19:CS:67:VAL:HG23	19:CS:68:GLY:H	1.58	0.68
31:D6:15:GLU:OE2	31:D6:47:THR:CG2	2.42	0.68
4:CD:129:ASN:ND2	4:CD:129:ASN:H	1.92	0.68
57:DY:14:LEU:HD12	57:DY:23:ARG:O	1.93	0.68
58:DZ:165:VAL:HG12	58:DZ:166:SER:N	2.09	0.68
41:BG:39:ILE:HD11	41:BG:60:LEU:HD11	1.74	0.68
13:AM:124:PRO:CD	24:AY:163:GLY:H	2.03	0.68
52:DT:89:VAL:C	52:DT:91:ARG:H	1.97	0.68
35:DA:1542:A:H3'	35:DA:1542:A:H8	1.58	0.68
35:BA:1348:G:H2'	35:BA:1349:A:C5'	2.23	0.68
54:BV:47:VAL:HB	54:BV:49:THR:O	1.93	0.68
1:AA:1128:C:C5'	9:AI:16:ARG:HH12	2.05	0.68
9:CI:28:VAL:HA	9:CI:63:ILE:O	1.94	0.68
19:CS:50:ALA:HB1	19:CS:57:HIS:HB3	1.75	0.68
35:BA:7:G:H2'	35:BA:8:A:O4'	1.94	0.68
16:AP:45:THR:HG23	16:AP:46:PRO:HD2	1.74	0.68
37:BC:26:ALA:O	37:BC:30:VAL:HG23	1.93	0.68
1:CA:1240:U:OP2	7:CG:116:ALA:HB2	1.94	0.68
16:AP:20:VAL:HG21	16:AP:32:TYR:CD2	2.29	0.68
1:AA:1355:G:H2'	1:AA:1356:G:C8	2.28	0.68
9:CI:118:LYS:O	9:CI:119:ALA:HB3	1.94	0.68
50:BR:98:LEU:HB2	50:BR:113:LEU:CD2	2.23	0.68
21:AU:6:ARG:O	21:AU:12:LYS:HE3	1.93	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:150:GLU:CD	4:CD:151:LYS:N	2.48	0.68
35:DA:1405:U:H2'	35:DA:1406:U:C6	2.28	0.68
1:AA:243:A:H4'	1:AA:244:U:O5'	1.94	0.68
55:DW:46:PHE:O	55:DW:50:VAL:HG12	1.93	0.68
35:BA:1090:U:H2'	35:BA:1091:G:C8	2.28	0.68
22:AV:20:U:H2'	22:AV:21:A:H4'	1.75	0.68
17:CQ:9:VAL:HG12	17:CQ:56:VAL:HG22	1.75	0.68
49:DQ:1:MET:HE1	49:DQ:48:GLU:HB2	1.75	0.68
1:AA:716:A:N3	11:AK:118:GLY:HA2	2.08	0.68
35:DA:1748:G:H8	35:DA:1748:G:H5'	1.57	0.68
45:BK:54:PRO:HD3	45:BK:73:PRO:HD3	1.76	0.68
35:BA:654(S):G:H2'	35:BA:654(T):C:C5	2.29	0.68
23:AX:19:U:C4	24:AY:127:THR:HB	2.29	0.68
1:CA:1442(A):G:H2'	52:DT:118:ARG:HD2	1.75	0.68
4:AD:28:SER:CB	4:AD:30:LYS:HE2	2.24	0.68
43:BI:77:LEU:HD21	43:BI:101:LEU:HD13	1.75	0.68
1:CA:191:G:H1'	20:CT:105:SER:HB3	1.76	0.68
43:DI:145:VAL:CG1	43:DI:146:ALA:N	2.57	0.68
35:BA:860:U:C5	35:BA:917:A:N7	2.60	0.68
35:BA:152:G:H1	35:BA:174:C:H42	1.41	0.68
13:AM:83:ASP:CG	13:AM:84:ILE:H	1.98	0.68
1:CA:1158:C:H2'	1:CA:1158:C:O2	1.94	0.68
35:DA:576:U:H2'	35:DA:577:G:C8	2.29	0.68
1:AA:1172:C:H2'	1:AA:1173:G:H8	1.59	0.68
31:D6:19:ARG:HG2	31:D6:19:ARG:HH11	1.57	0.67
57:BY:14:LEU:HD12	57:BY:23:ARG:O	1.94	0.67
35:BA:1803:A:O2'	38:BD:259:THR:HG21	1.94	0.67
57:BY:95:LYS:HG3	57:BY:100:ALA:CA	2.19	0.67
38:BD:27:THR:OG1	38:BD:83:GLU:HG2	1.94	0.67
4:CD:35:ARG:O	4:CD:37:PRO:HD3	1.93	0.67
27:D2:16:LEU:HD22	27:D2:20:GLU:HB3	1.76	0.67
48:DP:29:LYS:HB3	48:DP:34:GLY:H	1.59	0.67
42:DH:97:ARG:O	42:DH:98:LEU:HB2	1.94	0.67
58:BZ:110:GLY:HA2	58:BZ:146:ILE:CG2	2.24	0.67
30:D5:11:THR:HG23	35:DA:1263:U:O3'	1.94	0.67
43:BI:93:THR:HG23	43:BI:96:ASP:H	1.58	0.67
35:BA:1639:U:H2'	35:BA:1640:C:H5''	1.75	0.67
35:BA:2562:U:H1'	47:BO:23:ARG:NH1	2.09	0.67
10:CJ:6:ILE:HD12	10:CJ:6:ILE:O	1.94	0.67
35:BA:481:G:OP2	57:BY:47:LYS:HD3	1.94	0.67
14:AN:23:ARG:HD2	14:AN:28:GLY:O	1.92	0.67
57:BY:101:LYS:HG2	57:BY:102:CYS:N	2.08	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:659:U:O2'	1:AA:660:G:H5'	1.94	0.67
35:DA:2192:G:C2'	35:DA:2193:G:H5''	2.24	0.67
21:CU:6:ARG:O	21:CU:12:LYS:HE3	1.94	0.67
7:CG:120:ILE:HD12	7:CG:120:ILE:H	1.59	0.67
54:DV:22:VAL:O	54:DV:23:GLU:HB2	1.94	0.67
49:DQ:52:VAL:O	49:DQ:56:ARG:HG2	1.93	0.67
1:CA:930:C:O2'	1:CA:931:C:H5'	1.94	0.67
35:BA:1405:U:H2'	35:BA:1406:U:C6	2.29	0.67
1:CA:1149:C:H2'	1:CA:1150:U:C6	2.30	0.67
35:BA:1902:C:H4'	38:BD:244:ARG:HA	1.75	0.67
57:DY:8:LYS:HB2	57:DY:28:LYS:HZ1	1.60	0.67
22:CW:19:G:H8	22:CW:20:U:H5	1.41	0.67
35:DA:2313:C:H5'	35:DA:2313:C:H6	1.59	0.67
41:DG:118:ARG:HB2	41:DG:181:ARG:NE	2.08	0.67
45:BK:95:LYS:HD2	45:BK:95:LYS:N	2.08	0.67
7:CG:151:TYR:OH	11:CK:54:ARG:HD3	1.94	0.67
52:BT:29:ARG:HG2	52:BT:85:LYS:CA	2.23	0.67
24:CY:120:ILE:HB	24:CY:167:ALA:HB3	1.76	0.67
48:BP:97:PRO:O	48:BP:98:GLU:HB3	1.94	0.67
43:BI:144:VAL:HG12	43:BI:145:VAL:H	1.58	0.67
35:DA:1142:U:H5''	35:DA:1142(A):A:H5''	1.76	0.67
3:CC:34:LEU:O	3:CC:38:ARG:HG3	1.94	0.67
22:AW:63:G:C2'	22:AW:64:A:H5'	2.23	0.67
7:AG:146:GLU:HG2	7:AG:149:ARG:NH1	2.08	0.67
57:BY:42:VAL:HB	57:BY:65:ALA:HB3	1.76	0.67
1:CA:1379:G:O6	7:CG:2:ALA:HB3	1.94	0.67
1:CA:1388:C:H2'	1:CA:1389:C:C6	2.29	0.67
35:DA:2126:A:H4'	35:DA:2127:G:O5'	1.94	0.67
57:BY:28:LYS:HG2	57:BY:39:VAL:HG22	1.76	0.67
41:BG:63:ILE:HG22	41:BG:143:GLU:HG2	1.76	0.67
53:DU:95:LEU:HD12	54:DV:11:GLN:HE21	1.59	0.67
53:DU:90:VAL:HG13	54:DV:39:LEU:HD23	1.76	0.67
35:BA:1542:A:H8	35:BA:1542:A:H3'	1.59	0.67
51:BS:74:ALA:HB1	51:BS:103:GLU:CB	2.23	0.67
35:BA:528:A:C2	35:BA:2043:C:H4'	2.28	0.67
40:DF:28:ILE:N	40:DF:28:ILE:HD13	2.09	0.67
47:BO:122:LEU:HD23	52:BT:43:GLN:NE2	2.09	0.67
39:BE:59:VAL:O	39:BE:60:ASN:CG	2.33	0.67
1:CA:1356:G:H2'	1:CA:1357:A:C8	2.28	0.67
35:DA:2189:U:C2'	35:DA:2190:G:H5''	2.24	0.67
37:DC:191:ARG:HB3	37:DC:195:ARG:NH1	2.08	0.67
1:CA:1148:U:H2'	1:CA:1149:C:O4'	1.93	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:D5:16:ARG:NH1	30:D5:17:ASP:OD1	2.28	0.67
35:BA:2666:C:H5''	35:BA:2667:C:H5	1.59	0.67
54:DV:72:VAL:HB	54:DV:85:LYS:HB3	1.76	0.67
1:AA:1054:C:N4	24:AY:201:ARG:HB2	2.09	0.67
35:BA:2112:G:H2'	35:BA:2112:G:N3	2.09	0.67
35:BA:2192:G:H2'	35:BA:2193:G:H5''	1.75	0.67
51:DS:92:TYR:CD1	51:DS:93:LYS:N	2.58	0.67
40:DF:63:LYS:NZ	40:DF:67:GLN:HB2	2.09	0.67
4:AD:28:SER:HB2	4:AD:30:LYS:HE2	1.76	0.67
9:AI:28:VAL:HA	9:AI:63:ILE:O	1.94	0.67
35:DA:1719:G:O2'	35:DA:1720:U:H5'	1.94	0.67
35:BA:2668:G:O2'	35:BA:2669:G:H5'	1.94	0.67
3:AC:43:LEU:O	3:AC:47:LEU:HB3	1.94	0.67
38:DD:70:TRP:CH2	38:DD:150:LYS:HA	2.30	0.67
38:DD:186:HIS:CD2	38:DD:188:GLU:H	2.12	0.67
1:AA:333:G:H4'	20:AT:16:HIS:CE1	2.29	0.67
52:BT:13:ARG:HA	52:BT:13:ARG:NE	2.08	0.67
57:DY:38:ILE:CG2	57:DY:39:VAL:N	2.58	0.67
42:DH:19:VAL:HG21	42:DH:44:VAL:HA	1.74	0.67
48:BP:124:LYS:HD3	48:BP:143:GLY:HA2	1.76	0.67
13:AM:125:ARG:HA	24:AY:159:GLY:CA	2.24	0.67
43:DI:10:GLU:C	43:DI:12:LEU:H	1.98	0.67
35:BA:146:G:H5'	35:BA:146:G:H8	1.59	0.67
53:DU:88:ILE:HG22	54:DV:47:VAL:CG2	2.25	0.67
53:DU:92:ARG:NH1	53:DU:94:ASN:HD22	1.93	0.67
45:BK:20:ALA:CA	45:BK:25:PRO:HD3	2.24	0.67
1:AA:1141:C:H2'	1:AA:1142:G:C8	2.30	0.67
35:BA:672:C:H2'	35:BA:673:C:C5'	2.23	0.67
1:CA:1152:A:H5''	10:CJ:13:HIS:CD2	2.29	0.67
12:CL:28:LYS:HD2	12:CL:30:ALA:HB2	1.76	0.67
6:CF:67:MET:HB2	6:CF:68:PRO:HD2	1.77	0.67
3:AC:180:ALA:HB1	3:AC:203:PHE:CE1	2.29	0.67
35:BA:2189:U:C2'	35:BA:2190:G:H5''	2.25	0.67
4:AD:195:ALA:HB3	6:CF:16:GLN:O	1.95	0.67
50:DR:44:LEU:O	50:DR:48:VAL:HG23	1.94	0.67
35:BA:1590:U:H2'	35:BA:1591:G:C5'	2.14	0.67
35:DA:2849:U:O4	52:DT:23:ARG:NH2	2.27	0.67
13:CM:57:ARG:HH12	29:D4:34:GLU:HA	1.59	0.67
35:DA:654(S):G:H2'	35:DA:654(T):C:C5	2.29	0.67
36:BB:20:C:H2'	36:BB:21:G:C5'	2.22	0.67
3:CC:153:VAL:HG22	3:CC:198:VAL:HG12	1.77	0.67
51:DS:95:HIS:CG	51:DS:96:GLY:H	2.13	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:BV:46:VAL:HG12	54:BV:47:VAL:N	2.08	0.67
35:BA:1528:A:C2	35:BA:1542:A:H2	2.13	0.67
2:CB:194:PRO:O	2:CB:196:LEU:N	2.28	0.67
33:B8:48:PHE:C	33:B8:49:VAL:HG22	2.13	0.67
12:CL:6:THR:HG23	12:CL:9:GLN:NE2	2.09	0.67
18:AR:66:LEU:HG	18:AR:70:ILE:HD11	1.77	0.67
11:CK:111:ASP:OD2	18:CR:84:LYS:HE2	1.94	0.67
28:D3:43:ILE:O	28:D3:47:VAL:HG23	1.94	0.67
43:DI:58:LEU:HD23	43:DI:59:ALA:N	2.10	0.67
24:AY:19:ILE:O	24:AY:23:GLU:HB2	1.94	0.67
1:AA:36:C:H4'	12:AL:122:THR:O	1.93	0.67
39:DE:101:ARG:HB2	39:DE:201:THR:HG21	1.76	0.67
25:B0:24:LYS:O	25:B0:25:ARG:HD3	1.95	0.67
35:BA:2629:A:H8	35:BA:2895:U:H3	1.39	0.67
38:BD:186:HIS:CD2	38:BD:188:GLU:H	2.12	0.67
43:DI:102:SER:O	43:DI:106:GLY:HA2	1.93	0.67
40:BF:21:ALA:C	40:BF:23:ASP:H	1.97	0.67
28:B3:8:LEU:CD1	28:B3:31:LEU:HD23	2.20	0.67
24:AY:243:ASN:HB3	35:BA:2507:C:O4'	1.95	0.67
35:DA:1568:G:H5''	38:DD:61:LEU:CD2	2.23	0.67
23:AX:19:U:H3'	23:AX:20:A:H8	1.60	0.67
35:DA:673:C:C6	35:DA:673:C:H5'	2.25	0.67
1:CA:473:G:H4'	16:CP:81:ARG:NH2	2.09	0.67
12:AL:6:THR:HG23	12:AL:9:GLN:NE2	2.10	0.67
1:AA:1240:U:OP2	7:AG:116:ALA:HB2	1.94	0.67
3:CC:180:ALA:HB1	3:CC:203:PHE:CE1	2.30	0.67
1:CA:59:A:H5''	1:CA:60:A:H5''	1.77	0.67
1:AA:750:G:N3	15:AO:23:GLY:HA3	2.09	0.67
4:CD:127:THR:HG23	4:CD:147:ALA:HB3	1.76	0.67
7:AG:73:MET:HG2	7:AG:90:GLU:HA	1.77	0.67
46:DN:46:VAL:O	46:DN:47:ALA:HB3	1.93	0.67
35:DA:2182:G:H2'	35:DA:2183:C:H6	1.60	0.67
7:CG:73:MET:HG2	7:CG:90:GLU:HA	1.76	0.67
35:DA:2668:G:O2'	35:DA:2669:G:H5'	1.93	0.67
35:BA:2682:U:H6	35:BA:2682:U:H5'	1.59	0.67
38:BD:210:GLY:O	38:BD:211:ARG:HB3	1.94	0.67
57:DY:10:GLY:HA2	57:DY:27:VAL:CG1	2.14	0.67
42:BH:41:MET:HE3	42:BH:42:ARG:N	2.10	0.67
19:CS:6:LYS:CG	19:CS:7:LYS:HE3	2.22	0.67
3:CC:175:LEU:HD21	3:CC:201:TYR:CE2	2.30	0.67
15:CO:78:TYR:O	15:CO:82:ILE:HG22	1.94	0.67
48:DP:50:ARG:HH21	48:DP:50:ARG:HG2	1.60	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:75:ILE:HG13	10:AJ:76:ASN:H	1.59	0.67
22:AV:41:C:C3'	22:AV:42:C:H5''	2.25	0.67
35:DA:1718:G:H8	35:DA:1718:G:H5'	1.60	0.67
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.29	0.67
25:B0:70:GLN:HE21	25:B0:80:HIS:HE2	1.42	0.67
7:CG:146:GLU:HG2	7:CG:149:ARG:NH1	2.10	0.67
2:CB:17:PHE:CD1	2:CB:44:LEU:HD11	2.30	0.67
35:DA:2192:G:H2'	35:DA:2193:G:H5''	1.76	0.67
46:DN:47:ALA:HB2	46:DN:112:LEU:HD11	1.74	0.67
1:AA:930:C:O2'	1:AA:931:C:H5'	1.94	0.67
6:AF:16:GLN:CD	6:AF:16:GLN:H	1.97	0.67
5:AE:40:ARG:HH11	5:AE:40:ARG:HG2	1.58	0.67
3:AC:123:GLN:O	3:AC:128:PHE:HB2	1.94	0.67
35:BA:1484:G:H2'	35:BA:1485:G:C5'	2.18	0.67
58:BZ:156:LYS:O	58:BZ:158:PRO:HD3	1.93	0.67
1:AA:979:C:H3'	1:AA:980:C:C5'	2.21	0.67
41:BG:73:ALA:H	41:BG:87:PRO:HD2	1.58	0.67
10:CJ:56:HIS:O	10:CJ:58:ASP:N	2.27	0.67
43:DI:91:SER:O	43:DI:92:VAL:HG12	1.93	0.67
13:AM:125:ARG:HD2	24:AY:165:ASP:CB	2.24	0.67
22:CW:38:A:C2'	22:CW:39:U:H5''	2.25	0.67
57:DY:61:ILE:HD12	57:DY:62:GLU:N	2.09	0.67
37:DC:7:ARG:NH1	37:DC:11:LEU:HD11	2.10	0.67
1:AA:1466:C:H2'	1:AA:1467:G:O4'	1.94	0.67
42:DH:154:PRO:HB3	42:DH:163:TYR:CZ	2.30	0.67
35:BA:2154:G:H2'	35:BA:2155:G:O4'	1.95	0.67
50:DR:101:ALA:O	50:DR:102:GLU:HB2	1.94	0.67
57:BY:27:VAL:HG12	57:BY:29:GLU:OE1	1.95	0.67
58:BZ:155:LEU:O	58:BZ:157:LEU:HD12	1.95	0.67
24:AY:188:ARG:CB	24:AY:310:GLN:HG2	2.24	0.67
35:DA:1464:C:HO2'	35:DA:1528:A:H8	0.76	0.67
5:AE:76:ILE:HG13	5:AE:142:LEU:HD13	1.77	0.67
11:AK:111:ASP:OD2	18:AR:84:LYS:HE2	1.95	0.67
44:DJ:27:UNK:O	44:DJ:84:UNK:HA	1.95	0.67
48:BP:83:VAL:H	48:BP:115:LEU:HD21	1.58	0.67
37:BC:7:ARG:NH1	37:BC:11:LEU:HD11	2.09	0.67
1:AA:359:U:H2'	1:AA:360:A:H8	1.60	0.67
1:AA:1158:C:H2'	1:AA:1158:C:O2	1.95	0.67
7:AG:120:ILE:HD12	7:AG:120:ILE:H	1.60	0.67
48:BP:71:VAL:HG13	48:BP:72:PRO:HD3	1.77	0.67
1:AA:143:A:H2	1:AA:220:G:H1	1.43	0.67
20:CT:48:LYS:O	20:CT:52:ALA:HB2	1.95	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CH:97:VAL:HG21	8:CH:128:GLY:HA2	1.77	0.67
24:CY:118:LEU:HD11	24:CY:180:LEU:HD22	1.77	0.66
57:DY:7:VAL:HB	57:DY:8:LYS:CE	2.25	0.66
35:DA:1747(A):G:H2'	35:DA:1748:G:C5'	2.12	0.66
40:DF:8:GLN:HG2	40:DF:126:VAL:HG12	1.76	0.66
57:BY:96:ILE:HG22	57:BY:97:ARG:N	2.08	0.66
50:DR:33:ARG:HE	50:DR:115:GLU:HG3	1.59	0.66
51:BS:58:LEU:HD23	51:BS:65:VAL:HG13	1.77	0.66
22:AW:57:G:O2'	22:AW:58:A:H5'	1.95	0.66
1:CA:1442(B):A:C8	52:DT:118:ARG:HD3	2.30	0.66
52:DT:28:VAL:HG22	52:DT:47:GLY:N	2.10	0.66
35:DA:2656:U:H2'	35:DA:2657:A:H5''	1.77	0.66
35:DA:272(G):C:C3'	35:DA:272(H):C:H5''	2.25	0.66
48:DP:58:THR:O	48:DP:58:THR:HG22	1.95	0.66
56:DX:12:VAL:CB	56:DX:17:ALA:HB1	2.24	0.66
27:B2:47:ASN:ND2	35:BA:94(A):G:H21	1.91	0.66
1:CA:473:G:C4'	16:CP:81:ARG:HH21	2.08	0.66
1:CA:475:G:H2'	1:CA:476:G:H8	1.60	0.66
1:CA:942:G:H21	9:CI:124:GLN:NE2	1.91	0.66
35:BA:1038:C:C2'	35:BA:1039:G:H5''	2.24	0.66
47:DO:49:ARG:HD3	47:DO:49:ARG:N	2.09	0.66
1:CA:444:C:H2'	1:CA:445:G:H8	1.57	0.66
7:CG:113:GLU:HG2	7:CG:119:ARG:HG2	1.76	0.66
45:DK:119:ASP:OD2	45:DK:122:ALA:HB3	1.95	0.66
1:CA:750:G:N3	15:CO:23:GLY:HA3	2.09	0.66
1:AA:1054:C:O2'	1:AA:1055:A:H5'	1.94	0.66
35:BA:2192:G:C2'	35:BA:2193:G:H5''	2.24	0.66
35:BA:2474:C:H5'	35:BA:2475:C:OP2	1.95	0.66
1:AA:1388:C:H2'	1:AA:1389:C:C6	2.30	0.66
35:BA:2712:U:O2	35:BA:2712:U:H5'	1.95	0.66
35:DA:2474:C:H5'	35:DA:2475:C:OP2	1.95	0.66
40:DF:178:PRO:HG2	40:DF:179:GLU:OE1	1.95	0.66
51:BS:52:SER:HB3	51:BS:55:ALA:HB3	1.76	0.66
18:AR:36:ASN:HB3	18:AR:39:VAL:CG2	2.24	0.66
18:AR:36:ASN:HB3	18:AR:39:VAL:HG21	1.74	0.66
48:DP:62:LEU:H	48:DP:62:LEU:HD22	1.59	0.66
49:DQ:130:LYS:HD3	58:DZ:80:ARG:HH12	1.60	0.66
58:BZ:102:LEU:HD11	58:BZ:124:ILE:HG12	1.76	0.66
38:BD:24:ILE:HG23	38:BD:25:THR:N	2.04	0.66
35:DA:654(C):G:C2'	35:DA:654(D):G:H5'	2.24	0.66
25:D0:11:ARG:CB	25:D0:11:ARG:HH11	2.05	0.66
11:AK:21:ILE:HD13	11:AK:82:VAL:HG13	1.76	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:D2:16:LEU:O	27:D2:17:SER:HB3	1.96	0.66
1:CA:735:C:H2'	1:CA:736:C:C6	2.24	0.66
33:B8:49:VAL:O	33:B8:53:PRO:HG3	1.94	0.66
42:BH:97:ARG:HG3	42:BH:98:LEU:N	2.10	0.66
13:AM:16:ASP:OD2	13:AM:17:VAL:HG23	1.95	0.66
35:BA:615:G:OP2	40:BF:40:GLN:HG2	1.94	0.66
41:BG:47:LYS:HD3	41:BG:51:ARG:NH1	2.11	0.66
50:DR:10:LEU:HB3	50:DR:17:ARG:NE	2.10	0.66
50:DR:11:ASN:OD1	50:DR:12:ARG:N	2.28	0.66
1:CA:1261:A:C2	1:CA:1275:A:H1'	2.31	0.66
35:DA:2666:C:H5''	35:DA:2667:C:H5	1.60	0.66
52:BT:67:SER:O	52:BT:68:TYR:HB2	1.95	0.66
1:CA:1391:U:H2'	1:CA:1392:G:C8	2.31	0.66
42:DH:19:VAL:CG2	42:DH:44:VAL:HA	2.25	0.66
40:DF:2:LYS:HD3	40:DF:25:PRO:CG	2.25	0.66
35:BA:2794:C:H42	35:BA:2801(A):A:H61	1.43	0.66
13:AM:78:ILE:HG23	13:AM:92:HIS:ND1	2.10	0.66
24:CY:239:GLY:H	24:CY:242:VAL:CG1	2.08	0.66
41:DG:166:ASP:HA	41:DG:169:ALA:HB3	1.76	0.66
36:DB:20:C:H2'	36:DB:21:G:C5'	2.22	0.66
32:D7:8:ASN:HD22	32:D7:11:LYS:H	1.39	0.66
22:AW:77:PHA:CD1	35:BA:2395:C:H4'	2.25	0.66
43:BI:109:ILE:HG23	43:BI:130:TYR:HE1	1.57	0.66
48:BP:47:ASP:HB3	48:BP:48:PRO:CA	2.24	0.66
46:DN:17:ASP:HB2	46:DN:55:VAL:HG13	1.77	0.66
10:AJ:4:ILE:HD12	10:AJ:4:ILE:N	2.10	0.66
53:BU:101:ARG:HH11	53:BU:101:ARG:CB	2.08	0.66
35:DA:7:G:H2'	35:DA:8:A:O4'	1.95	0.66
16:CP:45:THR:HG23	16:CP:46:PRO:HD2	1.76	0.66
1:AA:1321:C:H3'	1:AA:1322:C:H5''	1.76	0.66
40:BF:28:ILE:HD13	40:BF:28:ILE:N	2.09	0.66
35:DA:2787:C:H1'	39:DE:61:ARG:HD3	1.76	0.66
2:CB:211:ILE:O	2:CB:215:LEU:HD23	1.96	0.66
12:AL:89:ARG:HH11	12:AL:89:ARG:HB2	1.61	0.66
3:CC:73:PRO:HG2	3:CC:74:GLY:H	1.61	0.66
35:DA:2115:G:H1'	35:DA:2117:A:N6	2.11	0.66
8:AH:97:VAL:HG21	8:AH:128:GLY:HA2	1.75	0.66
35:DA:548:A:H2'	35:DA:549:G:H5'	1.78	0.66
22:AW:35:A:H2'	22:AW:36:A:C8	2.30	0.66
22:AV:51:U:H2'	22:AV:52:G:C8	2.30	0.66
37:BC:49:GLY:HA2	37:BC:211:ARG:HH22	1.61	0.66
40:DF:132:VAL:HG22	40:DF:133:ASN:ND2	2.11	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:CY:244:THR:HA	35:DA:2573:C:H42	1.59	0.66
52:DT:29:ARG:HG2	52:DT:85:LYS:CA	2.25	0.66
53:BU:88:ILE:HG22	54:BV:47:VAL:CG2	2.24	0.66
1:AA:939:G:H5''	7:AG:102:ARG:NH2	2.10	0.66
47:BO:77:ILE:HD11	52:BT:72:VAL:HG12	1.77	0.66
20:CT:89:ARG:HD2	20:CT:104:LEU:HD11	1.77	0.66
46:BN:17:ASP:HB2	46:BN:55:VAL:HG13	1.77	0.66
30:B5:11:THR:HG23	35:BA:1263:U:O3'	1.95	0.66
54:DV:2:PHE:HB3	54:DV:42:GLY:HA2	1.78	0.66
2:CB:187:LEU:HA	2:CB:201:ILE:HB	1.78	0.66
58:DZ:97:GLU:HG2	58:DZ:125:LEU:HD21	1.78	0.66
48:BP:71:VAL:CG1	48:BP:72:PRO:HD3	2.24	0.66
24:CY:119:THR:HG23	24:CY:166:TYR:CE1	2.31	0.66
2:AB:107:THR:HA	2:AB:110:GLN:HE21	1.59	0.66
47:BO:97:ARG:HG3	47:BO:97:ARG:HH11	1.60	0.66
57:DY:14:LEU:HD12	57:DY:15:VAL:H	1.59	0.66
35:DA:2794:C:N4	35:DA:2801(A):A:H61	1.92	0.66
35:BA:2794:C:N4	35:BA:2801(A):A:H61	1.92	0.66
2:AB:77:ALA:O	2:AB:81:VAL:HG23	1.95	0.66
35:DA:2315:G:H2'	35:DA:2316:C:C6	2.31	0.66
41:DG:119:GLY:H	41:DG:181:ARG:HH21	1.44	0.66
41:DG:41:GLN:HB3	41:DG:43:LEU:CD1	2.25	0.66
41:BG:139:LEU:HA	41:BG:144:ILE:HG21	1.78	0.66
55:BW:88:ARG:HB2	55:BW:92:ARG:HB2	1.76	0.66
2:AB:22:LYS:HE2	2:AB:22:LYS:CA	2.25	0.66
50:BR:2:ARG:HB2	50:BR:5:LYS:HE2	1.78	0.66
43:DI:110:ASP:HA	43:DI:112:LYS:HZ2	1.60	0.66
1:CA:192:U:H4'	20:CT:103:GLY:N	2.10	0.66
56:DX:12:VAL:HG13	56:DX:27:THR:O	1.95	0.66
35:BA:1722:A:O2'	35:BA:1739:U:H5''	1.94	0.66
6:AF:67:MET:HB2	6:AF:68:PRO:HD2	1.77	0.66
35:BA:2787:C:H1'	39:BE:61:ARG:HD3	1.78	0.66
35:DA:1280:G:C2'	35:DA:1281:G:H5''	2.25	0.66
2:AB:187:LEU:HA	2:AB:201:ILE:HB	1.78	0.66
2:CB:223:ILE:HA	2:CB:226:ARG:HB3	1.78	0.66
27:D2:3:LEU:HD12	35:DA:98:G:H5''	1.78	0.66
38:DD:118:VAL:HG22	38:DD:119:ALA:H	1.60	0.66
1:AA:383:A:C2'	1:AA:384:G:H5'	2.25	0.66
49:BQ:110:THR:HG23	49:BQ:113:GLN:OE1	1.96	0.66
1:CA:8:A:N6	4:CD:209:ARG:HB2	2.10	0.66
41:BG:161:THR:HG22	41:BG:162:THR:H	1.60	0.66
40:DF:8:GLN:HB3	40:DF:126:VAL:HA	1.78	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BD:24:ILE:HD13	38:BD:25:THR:N	2.11	0.66
51:DS:106:ARG:HB3	51:DS:106:ARG:HH11	1.61	0.66
52:DT:29:ARG:HB3	52:DT:85:LYS:HA	1.75	0.66
1:CA:1141:C:H2'	1:CA:1142:G:C8	2.30	0.66
49:DQ:16:ARG:O	49:DQ:17:LEU:HD23	1.95	0.66
45:DK:27:LEU:HD23	45:DK:27:LEU:H	1.61	0.66
51:DS:58:LEU:HD21	51:DS:68:GLN:HB2	1.77	0.66
35:DA:914:C:C2'	35:DA:915:C:H5'	2.26	0.66
43:DI:82:ARG:HH11	43:DI:82:ARG:HB2	1.59	0.66
46:DN:120:LEU:C	46:DN:121:LYS:HD2	2.16	0.66
54:BV:5:VAL:HG21	54:BV:35:LEU:HB3	1.78	0.66
35:BA:1142:U:H5''	35:BA:1142(A):A:H5''	1.77	0.66
10:CJ:26:ALA:HB3	10:CJ:85:LEU:HD21	1.78	0.66
24:AY:267:SER:HB3	25:B0:3:HIS:CE1	2.30	0.66
41:DG:33:ARG:H	41:DG:162:THR:HB	1.60	0.66
35:BA:2313:C:H5'	35:BA:2313:C:H6	1.60	0.66
38:BD:165:ILE:HD13	38:BD:175:LEU:HD21	1.78	0.66
27:D2:2:LYS:HD3	27:D2:2:LYS:O	1.95	0.66
13:CM:16:ASP:OD2	13:CM:17:VAL:HG23	1.96	0.66
9:AI:118:LYS:O	9:AI:119:ALA:HB3	1.96	0.66
33:D8:30:ARG:CZ	35:DA:2419:U:O4	2.44	0.66
1:AA:359:U:H2'	1:AA:360:A:C8	2.31	0.66
35:DA:2154:G:H2'	35:DA:2155:G:O4'	1.95	0.66
56:DX:64:LYS:HD3	56:DX:73:ARG:NE	2.10	0.66
25:B0:43:THR:O	25:B0:43:THR:HG23	1.96	0.66
1:CA:383:A:C2'	1:CA:384:G:H5'	2.25	0.66
1:AA:1259:C:H42	1:AA:1276:G:H1	1.44	0.66
55:BW:46:PHE:O	55:BW:50:VAL:HG12	1.94	0.66
54:BV:72:VAL:HB	54:BV:85:LYS:HB3	1.77	0.66
40:BF:2:LYS:HD3	40:BF:25:PRO:HG3	1.77	0.66
45:DK:131:ALA:HA	45:DK:136:VAL:HG23	1.78	0.66
40:DF:24:LEU:O	40:DF:26:ALA:N	2.25	0.66
38:BD:43:ARG:CB	38:BD:54:ARG:HB2	2.25	0.66
54:BV:62:LEU:HD21	54:BV:95:LEU:CB	2.24	0.66
35:BA:833:U:H5''	48:BP:48:PRO:HB3	1.77	0.66
43:BI:92:VAL:CG2	43:BI:120:ILE:HD12	2.25	0.66
35:BA:329:G:H1	57:BY:19:LYS:HE3	1.61	0.66
13:CM:8:GLU:OE1	13:CM:22:ILE:HG13	1.95	0.66
4:CD:121:VAL:HA	4:CD:126:ILE:HD13	1.78	0.66
3:CC:89:GLU:O	3:CC:93:LYS:HB2	1.96	0.66
1:CA:620:C:H2'	1:CA:621:A:O4'	1.94	0.66
38:DD:210:GLY:O	38:DD:211:ARG:HB3	1.94	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:14:GLY:O	2:CB:15:VAL:HG13	1.95	0.66
32:B7:4:THR:HG22	35:BA:687:C:H1'	1.77	0.66
40:DF:134:GLY:H	40:DF:162:LEU:HG	1.60	0.66
28:D3:29:ARG:H	28:D3:33:GLN:NE2	1.93	0.66
57:BY:8:LYS:HD3	57:BY:28:LYS:HZ3	1.61	0.66
40:BF:8:GLN:HB3	40:BF:126:VAL:HA	1.77	0.66
57:DY:8:LYS:HE3	57:DY:74:PRO:HD3	1.76	0.66
28:B3:8:LEU:HD13	28:B3:31:LEU:HA	1.77	0.66
35:DA:1062:G:H2'	35:DA:1063:G:C8	2.31	0.66
24:CY:240:GLN:HA	24:CY:243:ASN:ND2	2.11	0.66
41:BG:101:ILE:CG2	41:BG:105:LYS:HD2	2.26	0.66
24:AY:240:GLN:HE21	35:BA:2506:U:H1'	1.61	0.66
1:AA:1128:C:H5''	9:AI:16:ARG:HH12	1.61	0.66
11:CK:21:ILE:HD13	11:CK:82:VAL:HG13	1.77	0.66
46:DN:58:ASP:C	46:DN:60:ILE:H	1.99	0.66
35:DA:833:U:H5''	48:DP:48:PRO:HB3	1.76	0.66
13:CM:78:ILE:HG23	13:CM:92:HIS:ND1	2.11	0.66
9:AI:40:LEU:O	9:AI:42:ARG:N	2.28	0.66
39:BE:24:THR:HG23	39:BE:184:VAL:HG23	1.77	0.66
13:AM:8:GLU:OE1	13:AM:22:ILE:HG13	1.96	0.66
3:CC:92:ALA:HB2	3:CC:99:VAL:HG22	1.78	0.66
1:AA:32:A:H2'	1:AA:33:A:C8	2.31	0.66
1:CA:155:C:H2'	1:CA:156:G:C8	2.30	0.66
38:BD:142:VAL:HG23	38:BD:192:THR:O	1.96	0.66
18:CR:36:ASN:HB3	18:CR:39:VAL:HG21	1.77	0.66
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.31	0.66
35:DA:792:G:H5''	35:DA:793:A:H5'	1.78	0.66
35:DA:1187:G:H5''	54:DV:81:TYR:CE2	2.30	0.66
2:CB:107:THR:HA	2:CB:110:GLN:HE21	1.59	0.66
3:CC:43:LEU:O	3:CC:47:LEU:HB3	1.94	0.66
24:AY:107:LEU:O	24:AY:107:LEU:HD23	1.94	0.66
1:AA:805:C:H2'	1:AA:806:C:H6	1.61	0.66
24:CY:118:LEU:HD23	24:CY:210:VAL:HG22	1.76	0.66
31:D6:45:LYS:CG	35:DA:2371:G:C4'	2.62	0.66
41:DG:113:ARG:HE	41:DG:113:ARG:CA	2.08	0.66
10:AJ:56:HIS:O	10:AJ:58:ASP:N	2.28	0.66
35:DA:142:A:H5'	35:DA:142(A):C:OP2	1.96	0.66
46:DN:1:MET:HG2	46:DN:2:LYS:H	1.59	0.66
20:AT:50:GLU:HA	20:AT:100:ILE:HG22	1.77	0.66
35:BA:1114:G:C3'	35:BA:1115:G:H5''	2.24	0.66
1:AA:475:G:H2'	1:AA:476:G:H8	1.61	0.66
22:AV:28:G:H1	22:AV:42:C:H42	1.43	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:59:ARG:HG2	3:CC:64:VAL:HA	1.78	0.66
9:CI:17:VAL:CG1	9:CI:81:ILE:HD13	2.26	0.66
3:AC:53:ALA:HB2	3:AC:115:LEU:HD21	1.76	0.66
57:DY:2:ARG:O	57:DY:4:LYS:HG3	1.96	0.66
24:AY:77:GLU:H	24:AY:84:ARG:HG3	1.60	0.66
19:CS:49:ILE:HD12	19:CS:71:LEU:HD21	1.77	0.66
35:BA:2115:G:H1'	35:BA:2117:A:N6	2.10	0.66
13:AM:67:GLU:CD	13:AM:68:GLY:H	1.98	0.66
18:CR:36:ASN:HB3	18:CR:39:VAL:CG2	2.26	0.66
37:DC:49:GLY:HA2	37:DC:211:ARG:HH22	1.59	0.66
1:AA:1479:C:H2'	1:AA:1480:G:H8	1.60	0.66
38:DD:268:ARG:HH11	38:DD:268:ARG:HB3	1.60	0.66
1:CA:1317:C:OP2	14:CN:17:LYS:HG2	1.96	0.66
30:D5:40:LYS:NZ	30:D5:49:CYS:SG	2.61	0.66
42:BH:19:VAL:CG2	42:BH:44:VAL:HA	2.26	0.66
45:DK:79:ARG:HB2	45:DK:84:LEU:O	1.95	0.66
19:CS:6:LYS:HD2	19:CS:6:LYS:N	2.11	0.66
29:B4:33:VAL:HG13	41:BG:109:VAL:HG13	1.76	0.66
4:CD:17:VAL:HG12	4:CD:17:VAL:O	1.96	0.66
24:CY:19:ILE:O	24:CY:23:GLU:HB2	1.95	0.66
45:DK:10:LEU:HD23	45:DK:23:VAL:HG11	1.77	0.66
22:AV:2:C:H2'	22:AV:3:C:H6	1.60	0.66
54:BV:6:LYS:HB3	54:BV:37:VAL:HG12	1.76	0.66
35:DA:1947:C:C2'	35:DA:1948:G:H5"	2.26	0.66
57:DY:62:GLU:HG2	57:DY:63:LYS:H	1.60	0.66
35:BA:1658:C:OP1	39:BE:132:HIS:ND1	2.29	0.66
26:B1:67:ILE:N	26:B1:68:PRO:HD2	2.11	0.66
19:AS:49:ILE:HD12	19:AS:71:LEU:HD21	1.78	0.66
27:B2:2:LYS:CB	35:BA:97:C:H5"	2.26	0.66
44:BJ:23:UNK:O	44:BJ:88:UNK:HA	1.95	0.66
55:BW:82:LEU:HD23	55:BW:84:ARG:HH22	1.60	0.66
8:AH:103:VAL:HG21	8:AH:110:ALA:HB2	1.78	0.66
35:DA:848:G:H2'	35:DA:849:A:C8	2.31	0.66
58:BZ:145:GLU:HB3	58:BZ:148:ASP:OD1	1.95	0.66
35:BA:1062:G:H2'	35:BA:1063:G:C8	2.30	0.65
13:AM:124:PRO:HD2	24:AY:163:GLY:N	2.07	0.65
15:AO:78:TYR:O	15:AO:82:ILE:HG22	1.96	0.65
33:B8:52:LYS:N	33:B8:53:PRO:CD	2.57	0.65
57:BY:62:GLU:HG2	57:BY:63:LYS:H	1.61	0.65
5:AE:55:VAL:O	5:AE:58:ALA:HB3	1.96	0.65
16:AP:48:TRP:O	16:AP:49:LEU:HB2	1.95	0.65
10:AJ:26:ALA:HB3	10:AJ:85:LEU:HD21	1.77	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
57:BY:2:ARG:C	57:BY:4:LYS:H	1.98	0.65
2:AB:223:ILE:HA	2:AB:226:ARG:HB3	1.78	0.65
1:AA:1261:A:C2	1:AA:1275:A:H1'	2.32	0.65
44:DJ:23:UNK:O	44:DJ:88:UNK:HA	1.96	0.65
40:BF:89:VAL:HG12	40:BF:90:PHE:N	2.10	0.65
1:CA:32:A:H2'	1:CA:33:A:C8	2.32	0.65
35:BA:207:A:H2'	35:BA:208:C:O4'	1.96	0.65
53:DU:16:LYS:O	53:DU:20:LEU:HD23	1.96	0.65
30:B5:57:VAL:HG23	30:B5:58:LEU:H	1.60	0.65
57:BY:7:VAL:HB	57:BY:8:LYS:CE	2.25	0.65
33:B8:25:MET:HG3	48:BP:64:LYS:CB	2.12	0.65
38:BD:43:ARG:HB3	38:BD:54:ARG:CB	2.26	0.65
35:BA:2876:G:C4'	52:BT:3:ARG:HE	2.04	0.65
35:DA:1528(A):A:C3'	35:DA:1529:G:H5''	2.27	0.65
40:BF:63:LYS:CE	40:BF:67:GLN:HB2	2.26	0.65
45:BK:53:VAL:O	45:BK:53:VAL:HG23	1.96	0.65
51:BS:30:ARG:NH2	51:BS:62:LYS:HD2	2.11	0.65
43:BI:123:LEU:CD2	43:BI:142:VAL:HB	2.25	0.65
38:DD:34:VAL:C	38:DD:36:PRO:HD2	2.16	0.65
38:DD:182:LEU:O	38:DD:271:ILE:HG13	1.95	0.65
19:AS:40:ILE:HG21	19:AS:62:ILE:HD11	1.78	0.65
23:CX:19:U:C2	24:CY:126:GLY:HA3	2.31	0.65
15:CO:48:LYS:HA	15:CO:48:LYS:HE2	1.77	0.65
54:DV:19:LYS:HG3	54:DV:20:LEU:N	2.11	0.65
35:BA:1484:G:N2	35:BA:1505:C:H42	1.94	0.65
1:CA:1442(B):A:H2'	52:DT:118:ARG:NH1	2.11	0.65
43:DI:6:LEU:HD12	43:DI:35:LEU:C	2.16	0.65
1:CA:1277:C:H2'	1:CA:1278:U:H5'	1.77	0.65
1:CA:939:G:H5''	7:CG:102:ARG:NH2	2.11	0.65
52:BT:29:ARG:HG3	52:BT:30:VAL:HG13	1.78	0.65
13:CM:123:ALA:C	24:CY:162:ALA:HA	2.16	0.65
20:AT:89:ARG:NH2	20:AT:104:LEU:HD21	2.11	0.65
48:DP:47:ASP:HB3	48:DP:48:PRO:CA	2.26	0.65
35:BA:1719:G:O2'	35:BA:1720:U:H5'	1.94	0.65
35:DA:1722:A:O2'	35:DA:1739:U:H5''	1.95	0.65
12:CL:90:VAL:O	12:CL:92:ASP:N	2.29	0.65
24:CY:295:LEU:HD13	24:CY:299:ARG:HH21	1.59	0.65
46:BN:9:VAL:HG12	46:BN:10:GLU:N	2.11	0.65
1:AA:537:G:H2'	1:AA:538:G:H8	1.62	0.65
13:CM:23:TYR:O	13:CM:66:LEU:HA	1.95	0.65
6:AF:97:PHE:HB2	18:AR:32:ARG:NH1	2.12	0.65
6:AF:98:LEU:HG	18:AR:30:ASP:HB2	1.78	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:BV:22:VAL:O	54:BV:23:GLU:HB2	1.95	0.65
55:BW:10:VAL:O	55:BW:11:ARG:HB2	1.96	0.65
35:BA:1796:U:H2'	35:BA:1797:C:C6	2.31	0.65
27:D2:36:ARG:O	27:D2:40:SER:HB3	1.96	0.65
55:DW:36:LEU:HD11	55:DW:47:VAL:HG12	1.77	0.65
45:BK:79:ARG:HB2	45:BK:84:LEU:O	1.96	0.65
3:AC:153:VAL:HG22	3:AC:198:VAL:HG12	1.77	0.65
13:AM:125:ARG:HB2	24:AY:158:PRO:O	1.97	0.65
40:BF:63:LYS:HE3	40:BF:67:GLN:HB2	1.76	0.65
45:DK:21:PRO:HB2	45:DK:22:PRO:CD	2.26	0.65
2:AB:178:ARG:CB	2:AB:178:ARG:HH11	2.09	0.65
53:DU:65:ILE:HD11	53:DU:93:LYS:HA	1.79	0.65
1:AA:1152:A:H2'	1:AA:1153:C:C6	2.31	0.65
54:BV:6:LYS:HB3	54:BV:37:VAL:CG1	2.26	0.65
37:BC:8:TYR:CE1	37:BC:221:PRO:HB3	2.30	0.65
35:BA:1948:G:C8	35:BA:1948:G:H5'	2.28	0.65
3:AC:52:LEU:HD23	3:AC:52:LEU:H	1.61	0.65
41:BG:19:LEU:HD11	41:BG:172:LEU:HB2	1.79	0.65
25:D0:4:LYS:HD3	35:DA:2252:G:O6	1.96	0.65
44:BJ:27:UNK:O	44:BJ:84:UNK:HA	1.96	0.65
35:BA:271(A):A:H5'	35:BA:271(B):C:OP2	1.96	0.65
24:AY:77:GLU:HG2	24:AY:84:ARG:HG2	1.79	0.65
46:BN:46:VAL:O	46:BN:47:ALA:HB3	1.97	0.65
46:BN:9:VAL:HG12	46:BN:10:GLU:H	1.60	0.65
1:AA:59:A:C5'	1:AA:60:A:H5''	2.26	0.65
58:BZ:41:LEU:HD11	58:BZ:82:ARG:NH2	2.11	0.65
58:DZ:128:VAL:HG22	58:DZ:129:SER:N	2.11	0.65
1:AA:1379:G:O6	7:AG:2:ALA:HB3	1.96	0.65
35:BA:118:A:H5'	35:BA:119:A:H8	1.62	0.65
45:BK:108:ALA:HB1	45:BK:120:LEU:HG	1.77	0.65
1:AA:620:C:H2'	1:AA:621:A:O4'	1.97	0.65
2:AB:14:GLY:O	2:AB:15:VAL:HG13	1.95	0.65
54:BV:19:LYS:HE2	54:BV:19:LYS:HA	1.77	0.65
57:BY:28:LYS:HB3	57:BY:37:VAL:HB	1.79	0.65
57:BY:8:LYS:HE3	57:BY:74:PRO:HD3	1.78	0.65
33:D8:4:MET:CB	33:D8:61:LEU:HD13	2.26	0.65
40:DF:25:PRO:HB3	40:DF:119:ARG:HB2	1.79	0.65
41:DG:64:THR:HG23	41:DG:66:GLN:N	2.05	0.65
41:DG:115:ARG:CG	41:DG:116:ASP:N	2.56	0.65
35:BA:1301:A:O2'	35:BA:1302:A:C2'	2.41	0.65
1:AA:973:G:H1'	10:AJ:55:LYS:HE2	1.79	0.65
52:DT:28:VAL:HG11	52:DT:46:GLU:OE2	1.96	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:1114:G:C3'	35:DA:1115:G:H5''	2.24	0.65
35:BA:272(G):C:C3'	35:BA:272(H):C:H5''	2.25	0.65
1:AA:473:G:H4'	16:AP:81:ARG:NH2	2.08	0.65
37:BC:11:LEU:HD22	37:BC:33:LEU:HA	1.79	0.65
57:BY:2:ARG:O	57:BY:4:LYS:HG3	1.96	0.65
35:BA:2653:U:H5''	35:BA:2654:A:H5''	1.77	0.65
1:AA:59:A:H1'	1:AA:354:G:N2	2.12	0.65
42:BH:136:ILE:HD12	42:BH:136:ILE:H	1.62	0.65
19:CS:40:ILE:HG21	19:CS:62:ILE:HD11	1.79	0.65
28:B3:29:ARG:H	28:B3:33:GLN:HE22	1.43	0.65
15:AO:27:VAL:O	15:AO:31:LEU:HD23	1.96	0.65
56:BX:64:LYS:HD3	56:BX:73:ARG:NE	2.12	0.65
1:CA:1079:G:H2'	1:CA:1080:A:C8	2.32	0.65
1:AA:1317:C:OP2	14:AN:17:LYS:HG2	1.97	0.65
22:AV:44:G:H2'	22:AV:45:U:H5'	1.78	0.65
40:BF:134:GLY:H	40:BF:162:LEU:HG	1.62	0.65
1:AA:8:A:N6	4:AD:209:ARG:HB2	2.12	0.65
31:D6:46:HIS:C	31:D6:47:THR:CG2	2.62	0.65
28:D3:8:LEU:CD1	28:D3:31:LEU:HD23	2.18	0.65
45:DK:115:LEU:HD13	45:DK:123:ALA:HB1	1.77	0.65
27:B2:13:ALA:C	27:B2:15:LYS:H	2.00	0.65
1:AA:1227:A:OP2	13:AM:111:LYS:HE2	1.96	0.65
35:DA:2112:G:N3	35:DA:2112:G:H2'	2.10	0.65
35:DA:1528(A):A:H3'	35:DA:1529:G:H5''	1.79	0.65
40:BF:67:GLN:O	40:BF:68:LYS:HB2	1.95	0.65
24:AY:214:VAL:HG13	24:AY:215:ASP:N	2.11	0.65
20:CT:56:MET:HG3	20:CT:84:LEU:HD12	1.78	0.65
35:DA:89:G:H3'	35:DA:90:U:C5'	2.27	0.65
50:DR:9:LYS:O	50:DR:10:LEU:HD23	1.96	0.65
28:D3:29:ARG:H	28:D3:33:GLN:HE22	1.45	0.65
24:CY:129:ALA:HA	24:CY:204:SER:HB3	1.77	0.65
28:D3:59:VAL:HG12	28:D3:60:GLU:N	2.12	0.65
50:BR:28:LEU:HD12	50:BR:44:LEU:HD11	1.79	0.65
1:CA:805:C:H2'	1:CA:806:C:H6	1.62	0.65
1:CA:1260:C:OP1	1:CA:1284:C:H4'	1.97	0.65
1:AA:1205:U:H1'	3:AC:195:VAL:HG21	1.79	0.65
1:CA:1205:U:H1'	3:CC:195:VAL:HG21	1.77	0.65
31:D6:48:VAL:CG2	31:D6:49:HIS:N	2.52	0.65
57:BY:14:LEU:HD12	57:BY:15:VAL:H	1.61	0.65
48:BP:62:LEU:HD23	48:BP:62:LEU:N	2.10	0.65
51:BS:58:LEU:HD21	51:BS:68:GLN:HB2	1.78	0.65
45:BK:131:ALA:HA	45:BK:136:VAL:HG23	1.78	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:BP:48:PRO:HG2	48:BP:49:ARG:H	1.62	0.65
35:DA:404:C:H4'	35:DA:405:U:C5'	2.27	0.65
30:B5:32:PRO:HA	30:B5:38:ALA:O	1.96	0.65
53:DU:101:ARG:HH11	53:DU:101:ARG:CB	2.09	0.65
4:CD:43:HIS:O	4:CD:45:GLN:N	2.29	0.65
3:CC:52:LEU:H	3:CC:52:LEU:HD23	1.61	0.65
24:CY:81:ALA:HB3	24:CY:84:ARG:HE	1.62	0.65
38:BD:133:LEU:HD23	38:BD:136:ILE:HD12	1.79	0.65
2:AB:211:ILE:O	2:AB:215:LEU:HD23	1.97	0.65
5:AE:93:PRO:HG2	8:AH:105:ARG:NH2	2.12	0.65
35:BA:1280:G:C2'	35:BA:1281:G:H5''	2.26	0.65
12:CL:115:LYS:O	12:CL:117:ARG:HG3	1.97	0.65
12:AL:115:LYS:O	12:AL:117:ARG:HG3	1.95	0.65
35:BA:89:G:H3'	35:BA:90:U:C5'	2.27	0.65
24:CY:218:VAL:HG23	24:CY:284:TYR:OH	1.97	0.65
55:DW:18:ARG:HG2	55:DW:76:VAL:CG1	2.26	0.65
6:AF:3:ARG:HH11	6:AF:3:ARG:HG3	1.60	0.65
1:AA:262:A:H2'	1:AA:263:A:C8	2.30	0.65
51:DS:17:ARG:HH21	51:DS:90:GLY:H	1.44	0.65
49:BQ:16:ARG:CB	49:BQ:18:LYS:HZ3	2.07	0.65
39:DE:108:SER:HB3	39:DE:165:VAL:HG21	1.78	0.65
35:DA:672:C:H2'	35:DA:673:C:C5'	2.27	0.65
46:BN:58:ASP:C	46:BN:60:ILE:H	1.99	0.65
1:CA:1468:A:H2'	1:CA:1469:G:O4'	1.97	0.65
24:CY:150:GLN:NE2	24:CY:172:LYS:NZ	2.43	0.65
1:CA:1152:A:H2'	1:CA:1153:C:C6	2.32	0.65
1:CA:736:C:H2'	1:CA:737:A:H8	1.62	0.65
54:DV:5:VAL:HG21	54:DV:35:LEU:HB3	1.78	0.65
3:AC:59:ARG:HG2	3:AC:64:VAL:HA	1.78	0.65
5:CE:101:ILE:N	5:CE:101:ILE:HD13	2.11	0.65
47:DO:24:VAL:HB	47:DO:33:ALA:HB2	1.79	0.65
20:AT:56:MET:HG3	20:AT:84:LEU:HD12	1.78	0.65
54:DV:22:VAL:O	54:DV:23:GLU:CB	2.45	0.65
17:AQ:27:PHE:CE1	17:AQ:36:ILE:HD11	2.31	0.65
35:BA:548:A:H2'	35:BA:549:G:H5'	1.79	0.65
30:D5:32:PRO:HA	30:D5:38:ALA:O	1.97	0.65
33:B8:30:ARG:O	33:B8:30:ARG:HD3	1.97	0.65
35:DA:27:G:H22	35:DA:512:G:H2'	1.62	0.65
1:CA:1249:C:H6	1:CA:1249:C:H5'	1.61	0.65
6:CF:97:PHE:HB2	18:CR:32:ARG:NH1	2.11	0.65
19:CS:24:ALA:O	19:CS:25:LYS:HB2	1.95	0.65
1:CA:272:C:H2'	1:CA:273:A:H8	1.62	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:118:A:H5'	35:DA:119:A:H8	1.62	0.65
2:CB:21:ARG:HB3	2:CB:39:ILE:HG23	1.79	0.65
7:AG:12:LEU:HD13	7:AG:25:ALA:HB2	1.78	0.65
1:CA:1016:A:H2'	1:CA:1017:G:O4'	1.97	0.65
5:CE:40:ARG:HH11	5:CE:40:ARG:HG2	1.61	0.65
1:AA:1071:C:H2'	1:AA:1072:G:H8	1.62	0.65
47:DO:97:ARG:HG3	47:DO:97:ARG:HH11	1.60	0.65
7:CG:12:LEU:HD13	7:CG:25:ALA:HB2	1.78	0.65
56:BX:8:ILE:HD12	56:BX:8:ILE:N	2.11	0.65
35:DA:1845:G:H2'	35:DA:1846:G:C5'	2.14	0.65
28:D3:8:LEU:HD13	28:D3:31:LEU:HA	1.79	0.65
41:DG:39:ILE:C	41:DG:39:ILE:HD12	2.17	0.65
5:CE:105:VAL:H	5:CE:106:PRO:HD2	1.62	0.65
53:BU:95:LEU:HD12	54:BV:11:GLN:HE21	1.61	0.65
1:CA:1127:G:H21	1:CA:1147:C:H41	1.45	0.65
35:BA:1528(A):A:C3'	35:BA:1529:G:H5''	2.27	0.65
20:CT:50:GLU:HA	20:CT:100:ILE:HG22	1.77	0.65
1:CA:1030(B):C:H2'	1:CA:1030(C):G:H5'	1.79	0.65
57:DY:46:LYS:H	57:DY:62:GLU:HB2	1.62	0.65
38:DD:133:LEU:HD23	38:DD:136:ILE:HD12	1.78	0.65
43:BI:120:ILE:HG12	43:BI:126:TYR:CE2	2.32	0.65
16:CP:51:VAL:HG11	16:CP:74:LEU:CD2	2.27	0.65
9:AI:113:LYS:N	9:AI:113:LYS:HD2	2.12	0.65
35:BA:2317:C:O2'	35:BA:2318:G:H5'	1.96	0.65
10:CJ:33:GLN:H	10:CJ:75:ILE:HD11	1.62	0.65
41:DG:171:ALA:O	41:DG:175:LEU:HG	1.97	0.65
35:DA:329:G:H1	57:DY:19:LYS:HE3	1.61	0.65
38:DD:118:VAL:HG22	38:DD:119:ALA:N	2.12	0.65
7:AG:78:ARG:HG2	7:AG:79:ARG:H	1.62	0.65
1:CA:716:A:N3	11:CK:118:GLY:HA2	2.12	0.65
5:CE:110:LEU:O	5:CE:115:VAL:HB	1.97	0.65
8:AH:83:ILE:HD13	8:AH:137:VAL:HG13	1.79	0.65
35:BA:848:G:H2'	35:BA:849:A:C8	2.31	0.65
35:DA:720:C:H2'	35:DA:721:C:H6	1.60	0.65
55:BW:18:ARG:HG2	55:BW:76:VAL:CG1	2.27	0.65
24:CY:246:ASP:HB2	35:DA:2493:U:H5'	1.79	0.65
24:CY:256:THR:HG22	24:CY:258:ILE:HG13	1.79	0.65
41:DG:131:TYR:O	41:DG:159:VAL:HG22	1.96	0.65
1:AA:1249:C:H5'	1:AA:1249:C:H6	1.61	0.65
24:CY:184:ALA:HA	24:CY:208:VAL:O	1.98	0.65
33:D8:25:MET:O	48:DP:62:LEU:HD21	1.97	0.65
35:DA:1484:G:N2	35:DA:1505:C:H42	1.95	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:DK:98:ARG:NH2	45:DK:139:VAL:HG22	2.12	0.65
58:BZ:158:PRO:O	58:BZ:161:VAL:HG23	1.97	0.65
22:CW:63:G:C2'	22:CW:64:A:H5'	2.26	0.65
41:DG:119:GLY:N	41:DG:181:ARG:HE	1.95	0.65
1:AA:963:G:H21	10:AJ:55:LYS:HZ2	1.45	0.65
39:BE:75:VAL:C	39:BE:77:ILE:H	1.98	0.65
1:CA:137:C:N4	1:CA:226:G:H1	1.91	0.65
35:DA:2651:C:O2'	35:DA:2652:C:H5'	1.96	0.65
1:AA:1152:A:H5''	10:AJ:13:HIS:CD2	2.31	0.65
9:AI:17:VAL:CG1	9:AI:81:ILE:HD13	2.26	0.65
12:CL:25:PRO:C	12:CL:27:LEU:N	2.50	0.65
2:CB:18:GLY:H	2:CB:42:ILE:HG22	1.61	0.65
42:BH:121:ILE:CD1	42:BH:144:VAL:HG21	2.27	0.65
27:D2:2:LYS:HB3	35:DA:97:C:H5''	1.78	0.65
9:CI:113:LYS:N	9:CI:113:LYS:HD2	2.12	0.65
4:AD:117:ALA:O	4:AD:121:VAL:HG23	1.97	0.65
1:AA:1325:C:H5'	21:AU:15:ARG:HE	1.63	0.65
50:DR:28:LEU:HD12	50:DR:44:LEU:HD11	1.79	0.65
35:DA:184:C:H2'	35:DA:185:U:C6	2.32	0.65
39:DE:2:LYS:HD2	39:DE:95:ILE:CG2	2.27	0.65
38:DD:241:PRO:O	38:DD:243:GLY:N	2.30	0.65
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.32	0.65
3:AC:89:GLU:O	3:AC:93:LYS:HB2	1.95	0.65
45:DK:108:ALA:HB1	45:DK:120:LEU:HG	1.78	0.65
1:CA:143:A:H2	1:CA:220:G:H1	1.44	0.65
32:B7:24:THR:HG23	32:B7:27:GLY:HA3	1.79	0.65
30:B5:52:TYR:O	30:B5:54:GLY:N	2.29	0.64
42:DH:49:VAL:HG23	42:DH:50:VAL:N	2.11	0.64
42:BH:43:VAL:HA	42:BH:46:GLU:OE2	1.96	0.64
45:DK:78:ILE:HG23	45:DK:99:ILE:CD1	2.27	0.64
22:AW:39:U:C2'	22:AW:40:C:H5''	2.21	0.64
49:BQ:27:VAL:HG23	49:BQ:137:TYR:CD1	2.31	0.64
30:D5:52:TYR:O	30:D5:54:GLY:N	2.29	0.64
22:AW:18:G:N2	22:AW:55:U:H6	1.94	0.64
35:DA:1542:A:C8	35:DA:1542:A:H3'	2.32	0.64
38:DD:24:ILE:HG23	38:DD:25:THR:N	2.10	0.64
1:AA:191:G:H1'	20:AT:105:SER:HB3	1.79	0.64
24:AY:214:VAL:HG22	24:AY:215:ASP:N	2.11	0.64
21:AU:2:GLY:O	21:AU:4:GLY:N	2.31	0.64
48:BP:105:LEU:H	48:BP:105:LEU:HD12	1.62	0.64
50:BR:55:ALA:HB2	50:BR:79:LEU:HD13	1.78	0.64
1:CA:59:A:H1'	1:CA:354:G:N2	2.11	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:CP:18:ARG:HD3	16:CP:35:LYS:HE3	1.79	0.64
3:CC:54:ARG:NH1	3:CC:56:ASP:HB2	2.12	0.64
6:CF:98:LEU:HG	18:CR:30:ASP:HB2	1.79	0.64
1:AA:1456:G:H2'	1:AA:1457:G:H5'	1.79	0.64
1:AA:155:C:H2'	1:AA:156:G:C8	2.32	0.64
1:AA:834:C:H2'	1:AA:835:U:C6	2.32	0.64
1:AA:1471:G:H2'	1:AA:1472:U:C6	2.33	0.64
50:BR:47:PHE:O	50:BR:51:LEU:HD13	1.97	0.64
40:DF:117:ARG:NH2	48:DP:5:ASP:N	2.45	0.64
1:CA:834:C:H2'	1:CA:835:U:C6	2.32	0.64
1:CA:757:U:H2'	1:CA:758:G:O4'	1.97	0.64
8:CH:83:ILE:HD13	8:CH:137:VAL:HG13	1.79	0.64
2:AB:136:VAL:O	2:AB:140:HIS:HB2	1.98	0.64
4:AD:92:VAL:O	4:AD:96:LEU:HD13	1.97	0.64
57:DY:28:LYS:HG2	57:DY:39:VAL:HG22	1.77	0.64
4:AD:129:ASN:H	4:AD:129:ASN:ND2	1.93	0.64
58:BZ:127:LYS:HE2	58:BZ:164:ALA:HB2	1.79	0.64
38:BD:49:ILE:HD11	38:BD:52:ARG:HA	1.79	0.64
41:BG:5:VAL:HG12	41:BG:6:ALA:N	2.12	0.64
35:DA:2523:G:H2'	35:DA:2524:G:C5'	2.24	0.64
27:D2:64:LEU:HD21	27:D2:68:ARG:HH11	1.60	0.64
5:AE:102:ALA:HB1	5:AE:106:PRO:CG	2.23	0.64
45:BK:38:VAL:HG23	45:BK:39:LYS:N	2.12	0.64
31:D6:26:ASN:HD22	31:D6:32:ASN:CG	2.00	0.64
46:DN:133:GLN:HG2	46:DN:135:PRO:HD3	1.79	0.64
57:BY:46:LYS:H	57:BY:62:GLU:HB2	1.60	0.64
1:AA:1288:A:N1	1:AA:1371:G:H1'	2.13	0.64
10:CJ:23:ILE:HG23	10:CJ:85:LEU:HD13	1.79	0.64
35:DA:2150:U:H2'	35:DA:2151:G:C8	2.32	0.64
21:CU:2:GLY:O	21:CU:4:GLY:N	2.28	0.64
24:CY:81:ALA:HB1	24:CY:84:ARG:NH2	2.10	0.64
1:AA:403:C:H2'	1:AA:404:U:H6	1.61	0.64
1:CA:491:G:H2'	1:CA:492:G:C8	2.31	0.64
1:AA:59:A:H5''	1:AA:60:A:H5''	1.79	0.64
2:AB:17:PHE:CD1	2:AB:44:LEU:HD11	2.31	0.64
4:AD:121:VAL:HA	4:AD:126:ILE:HD13	1.78	0.64
49:BQ:14:ARG:HG2	49:BQ:41:TRP:HH2	1.61	0.64
57:DY:31:LEU:HD23	57:DY:36:ALA:O	1.96	0.64
16:AP:72:ARG:HH21	16:AP:73:LEU:HD21	1.62	0.64
3:CC:54:ARG:HH12	3:CC:56:ASP:HB2	1.63	0.64
1:CA:1312:G:H1	1:CA:1325:C:H42	1.44	0.64
2:CB:136:VAL:O	2:CB:140:HIS:HB2	1.97	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:1316:U:O2'	35:DA:1317:A:H5'	1.97	0.64
13:CM:115:LYS:O	13:CM:117:VAL:N	2.30	0.64
6:CF:60:PHE:C	6:CF:61:LEU:HD12	2.17	0.64
55:DW:82:LEU:HD23	55:DW:84:ARG:HH22	1.62	0.64
39:BE:34:VAL:HG13	39:BE:48:GLN:HE21	1.63	0.64
15:CO:37:ASN:N	15:CO:37:ASN:HD22	1.94	0.64
1:CA:123:C:OP1	1:CA:312:C:H5'	1.98	0.64
41:DG:61:ALA:HA	41:DG:64:THR:HG22	1.78	0.64
1:CA:973:G:H1'	10:CJ:55:LYS:HE2	1.80	0.64
51:BS:106:ARG:HB3	51:BS:106:ARG:HH11	1.61	0.64
54:BV:49:THR:HG22	54:BV:50:PRO:HD3	1.78	0.64
43:DI:115:ALA:HB2	43:DI:129:THR:HB	1.78	0.64
24:AY:240:GLN:NE2	35:BA:2506:U:H1'	2.12	0.64
43:BI:78:THR:HA	43:BI:141:LYS:O	1.98	0.64
43:BI:62:LYS:NZ	43:BI:134:PRO:HG2	2.12	0.64
45:DK:20:ALA:H	45:DK:21:PRO:CD	2.10	0.64
1:AA:473:G:C4'	16:AP:81:ARG:HH21	2.07	0.64
24:CY:115:ASN:HB3	24:CY:172:LYS:HA	1.78	0.64
1:CA:1372:U:H5''	9:CI:71:SER:HB3	1.79	0.64
35:DA:2360:A:O2'	35:DA:2361:A:P	2.56	0.64
22:AW:50:U:H4'	22:AW:65:G:H22	1.60	0.64
35:DA:2653:U:H5''	35:DA:2654:A:H5''	1.78	0.64
35:BA:2653:U:H5'	35:BA:2654:A:H5''	1.78	0.64
6:CF:14:LEU:HB3	6:CF:18:GLN:HE21	1.63	0.64
5:AE:137:GLU:HG3	5:AE:141:GLN:NE2	2.12	0.64
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.33	0.64
1:CA:617:G:H4'	16:CP:44:THR:O	1.96	0.64
35:BA:1187:G:H5''	54:BV:81:TYR:CE2	2.33	0.64
35:DA:426:C:O2'	35:DA:427:U:H5'	1.98	0.64
1:CA:186:C:H2'	1:CA:187:C:H6	1.62	0.64
51:DS:107:GLU:O	51:DS:109:GLY:N	2.29	0.64
35:BA:2884:U:H2'	35:BA:2885:C:H5'	1.77	0.64
1:AA:950:U:H2'	1:AA:951:G:H8	1.63	0.64
48:DP:13:ASN:C	48:DP:13:ASN:HD22	2.00	0.64
40:BF:25:PRO:HB3	40:BF:119:ARG:HB2	1.79	0.64
42:BH:13:LYS:HA	42:BH:13:LYS:CE	2.18	0.64
41:DG:178:PHE:HB3	41:DG:180:PHE:CE1	2.33	0.64
41:BG:131:TYR:H	41:BG:159:VAL:CG1	2.09	0.64
10:CJ:50:ILE:HD13	10:CJ:50:ILE:N	2.07	0.64
35:DA:1529:G:H21	35:DA:1530:C:H5''	1.62	0.64
3:CC:9:GLY:HA2	3:CC:12:LEU:HG	1.79	0.64
43:BI:133:HIS:O	43:BI:135:GLU:N	2.31	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:CK:107:SER:C	11:CK:108:ILE:HD12	2.18	0.64
1:AA:254:G:OP1	17:AQ:67:LYS:O	2.15	0.64
53:BU:117:GLN:NE2	53:BU:117:GLN:HA	2.12	0.64
16:CP:48:TRP:O	16:CP:49:LEU:HB2	1.98	0.64
37:DC:11:LEU:HD22	37:DC:33:LEU:HA	1.78	0.64
5:CE:101:ILE:H	5:CE:101:ILE:HD13	1.62	0.64
18:CR:66:LEU:HG	18:CR:70:ILE:HD11	1.78	0.64
35:BA:2150:U:H2'	35:BA:2151:G:C8	2.32	0.64
48:BP:83:VAL:H	48:BP:115:LEU:CD2	2.10	0.64
13:CM:67:GLU:CD	13:CM:68:GLY:H	2.00	0.64
1:CA:1062:U:H2'	1:CA:1063:C:C6	2.33	0.64
4:CD:92:VAL:O	4:CD:96:LEU:HD13	1.97	0.64
47:BO:90:GLN:O	47:BO:91:LEU:HB2	1.97	0.64
4:CD:175:SER:HB3	4:CD:186:LEU:HD11	1.77	0.64
38:BD:268:ARG:HB3	38:BD:268:ARG:HH11	1.61	0.64
58:BZ:10:ARG:HH21	58:BZ:26:GLY:H	1.44	0.64
35:DA:597:U:H4'	48:DP:15:ARG:HH11	1.63	0.64
54:DV:19:LYS:HE2	54:DV:19:LYS:HA	1.78	0.64
29:B4:14:ILE:HD11	29:B4:24:THR:OG1	1.98	0.64
35:BA:1826:G:H4'	38:BD:242:ARG:NH2	2.07	0.64
45:BK:27:LEU:HD23	45:BK:27:LEU:H	1.61	0.64
35:BA:2656:U:H2'	35:BA:2657:A:H5''	1.80	0.64
47:DO:77:ILE:HD11	52:DT:72:VAL:HG12	1.77	0.64
1:AA:1030(B):C:H2'	1:AA:1030(C):G:H5'	1.79	0.64
43:DI:77:LEU:HD21	43:DI:100:ALA:HB1	1.80	0.64
35:DA:1348:G:H2'	35:DA:1349:A:C5'	2.25	0.64
35:DA:1947:C:H2'	35:DA:1948:G:H5''	1.78	0.64
35:BA:1947:C:C2'	35:BA:1948:G:H5''	2.28	0.64
39:DE:132:HIS:O	39:DE:135:HIS:NE2	2.30	0.64
43:BI:96:ASP:O	43:BI:99:GLU:HB3	1.97	0.64
27:D2:47:ASN:O	27:D2:49:LYS:N	2.30	0.64
24:CY:81:ALA:CB	24:CY:84:ARG:HE	2.11	0.64
7:CG:111:ARG:HB3	7:CG:113:GLU:OE2	1.97	0.64
35:BA:27:G:H22	35:BA:512:G:C2'	2.10	0.64
1:CA:539:A:OP2	12:CL:115:LYS:HE3	1.97	0.64
48:BP:41:ARG:NH1	48:BP:45:LEU:HG	2.13	0.64
50:BR:9:LYS:O	50:BR:10:LEU:HD23	1.98	0.64
3:AC:92:ALA:HB2	3:AC:99:VAL:HG22	1.78	0.64
1:CA:853:G:H2'	1:CA:854:G:H8	1.63	0.64
35:BA:1711:C:O2'	35:BA:1712:C:H5'	1.97	0.64
8:AH:51:VAL:HG11	8:AH:60:ARG:HB2	1.79	0.64
1:CA:723:U:H5''	1:CA:724:G:OP2	1.98	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BK:7:VAL:HG12	45:BK:58:THR:HG23	1.80	0.64
35:BA:674:G:H1'	40:BF:74:ARG:HD2	1.79	0.64
1:AA:1079:G:H2'	1:AA:1080:A:C8	2.33	0.64
38:DD:129:ASN:O	38:DD:193:VAL:HG12	1.97	0.64
45:BK:98:ARG:NH2	45:BK:139:VAL:HG22	2.13	0.64
45:BK:78:ILE:HG23	45:BK:99:ILE:CD1	2.27	0.64
29:B4:11:PRO:O	29:B4:29:PRO:HG3	1.98	0.64
43:DI:35:LEU:HD23	43:DI:35:LEU:N	2.13	0.64
53:BU:92:ARG:NH1	53:BU:94:ASN:HD22	1.95	0.64
54:DV:47:VAL:HG12	54:DV:52:VAL:N	2.13	0.64
35:BA:1542:A:C8	35:BA:1542:A:H3'	2.33	0.64
51:DS:58:LEU:HD23	51:DS:65:VAL:HG13	1.79	0.64
16:AP:51:VAL:HG11	16:AP:74:LEU:CD2	2.27	0.64
35:DA:958:U:H5'	35:DA:958:U:H6	1.62	0.64
13:CM:19:LEU:HD22	13:CM:19:LEU:H	1.62	0.64
24:AY:59:VAL:O	24:AY:63:ARG:HG3	1.97	0.64
31:D6:12:GLU:HA	31:D6:23:THR:HA	1.80	0.64
43:BI:1:MET:CE	43:BI:23:PRO:HA	2.28	0.64
1:AA:539:A:H2'	1:AA:540:G:C8	2.33	0.64
19:CS:64:GLU:HG3	19:CS:65:ASN:OD1	1.97	0.64
1:AA:272:C:H2'	1:AA:273:A:H8	1.62	0.64
43:BI:42:SER:HA	43:BI:45:LYS:HE2	1.79	0.64
35:BA:708:C:H5'	35:BA:709:U:OP2	1.97	0.64
50:BR:101:ALA:O	50:BR:102:GLU:HB2	1.97	0.64
1:AA:114:U:H2'	1:AA:115:G:C8	2.33	0.64
20:CT:30:LYS:HE3	20:CT:30:LYS:O	1.97	0.64
25:D0:18:ALA:HB3	25:D0:20:ARG:NH1	2.11	0.64
1:AA:984:C:H2'	1:AA:985:C:C6	2.33	0.64
37:DC:225:ILE:O	37:DC:225:ILE:HD12	1.98	0.64
11:AK:27:ASN:OD1	11:AK:55:LYS:HB3	1.97	0.64
24:AY:41:ASP:HB3	24:AY:44:ALA:HB3	1.79	0.64
19:AS:24:ALA:O	19:AS:25:LYS:HB2	1.95	0.64
45:DK:138:VAL:HG13	45:DK:138:VAL:O	1.97	0.64
38:DD:43:ARG:CB	38:DD:54:ARG:HB2	2.26	0.64
2:CB:172:ILE:CD1	2:CB:172:ILE:H	1.97	0.64
35:BA:2876:G:H4'	52:BT:3:ARG:CD	2.27	0.64
1:CA:961:U:O2'	1:CA:962:C:H5'	1.97	0.64
58:BZ:67:LEU:HD23	58:BZ:90:VAL:HG11	1.80	0.64
1:CA:1128:C:H5''	9:CI:16:ARG:HH12	1.61	0.64
41:DG:72:ARG:HB3	41:DG:85:GLY:O	1.97	0.64
45:DK:38:VAL:HG23	45:DK:39:LYS:N	2.12	0.64
35:DA:2833:G:C3'	35:DA:2834:G:C5'	2.75	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:2103:C:H42	35:BA:2186:G:H1	1.46	0.64
1:AA:1294:G:H2'	1:AA:1295:G:C8	2.33	0.64
3:AC:52:LEU:HD23	3:AC:52:LEU:N	2.13	0.64
24:AY:189:LEU:HD21	24:AY:191:ARG:HG3	1.78	0.64
24:CY:72:LEU:HD13	24:CY:91:LEU:HG	1.80	0.64
22:AW:49:C:H3'	22:AW:50:U:H6	1.63	0.64
1:AA:491:G:H2'	1:AA:492:G:C8	2.32	0.64
16:CP:72:ARG:HH21	16:CP:73:LEU:HD21	1.62	0.64
35:BA:774:A:H2	35:BA:787:U:O2'	1.81	0.64
41:DG:28:VAL:O	41:DG:31:VAL:HG12	1.98	0.64
1:CA:537:G:H2'	1:CA:538:G:C8	2.32	0.64
1:AA:1325:C:H4'	21:AU:17:THR:HG21	1.80	0.64
1:AA:723:U:H5''	1:AA:724:G:OP2	1.97	0.64
17:AQ:9:VAL:HG12	17:AQ:56:VAL:HG22	1.79	0.64
13:AM:115:LYS:O	13:AM:117:VAL:N	2.31	0.64
49:DQ:14:ARG:HG2	49:DQ:41:TRP:HH2	1.63	0.64
1:CA:1095:U:H2'	1:CA:1096:C:C6	2.33	0.64
5:CE:93:PRO:HG2	8:CH:105:ARG:HH21	1.62	0.64
49:DQ:110:THR:HG23	49:DQ:113:GLN:OE1	1.98	0.64
34:D9:9:ARG:HH11	34:D9:9:ARG:CB	2.10	0.64
27:B2:69:ARG:HH11	27:B2:69:ARG:HG3	1.62	0.64
52:BT:89:VAL:HG12	52:BT:91:ARG:HG3	1.80	0.64
4:CD:129:ASN:ND2	4:CD:145:GLU:H	1.96	0.64
58:BZ:141:VAL:HG13	58:BZ:144:LEU:HD23	1.79	0.64
45:BK:115:LEU:HD13	45:BK:123:ALA:HB1	1.78	0.64
38:BD:24:ILE:CG2	38:BD:25:THR:H	2.05	0.64
35:DA:654(R):C:H2'	35:DA:654(S):G:N7	2.13	0.64
4:CD:28:SER:HB2	4:CD:30:LYS:HE2	1.78	0.64
4:CD:28:SER:CB	4:CD:30:LYS:HE2	2.26	0.64
1:AA:136:C:H4'	16:AP:1:MET:HE2	1.80	0.64
53:BU:90:VAL:HG13	54:BV:39:LEU:HD23	1.78	0.64
1:CA:1116:C:C3'	1:CA:1117:G:H5''	2.27	0.64
45:BK:20:ALA:H	45:BK:21:PRO:CD	2.10	0.64
1:AA:1128:C:H1'	1:AA:1146:A:N6	2.09	0.64
26:B1:45:ASN:HD21	26:B1:47:GLN:HE21	1.37	0.64
5:AE:101:ILE:N	5:AE:101:ILE:HD13	2.12	0.64
38:BD:32:SER:O	38:BD:36:PRO:HD3	1.97	0.64
1:CA:1243:C:N4	1:CA:1294:G:H22	1.96	0.64
19:AS:18:LYS:O	19:AS:21:GLU:HG2	1.98	0.64
11:AK:110:ASP:O	18:AR:84:LYS:HD2	1.98	0.64
38:BD:165:ILE:HD13	38:BD:175:LEU:CD2	2.27	0.64
1:CA:403:C:H2'	1:CA:404:U:H6	1.63	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CJ:75:ILE:HG13	10:CJ:76:ASN:N	2.13	0.64
24:AY:55:LEU:HA	24:AY:58:THR:OG1	1.96	0.64
35:BA:1165:U:H2'	35:BA:1166:C:C6	2.33	0.64
47:BO:93:PRO:HD3	47:BO:114:ILE:HD11	1.79	0.64
2:AB:21:ARG:HB3	2:AB:39:ILE:HG23	1.78	0.64
1:CA:359:U:H2'	1:CA:360:A:C8	2.33	0.64
35:DA:2739:U:O2'	35:DA:2740:A:H5'	1.98	0.64
40:DF:65:TRP:CZ3	40:DF:75:HIS:HD2	2.16	0.64
58:BZ:130:PRO:O	58:BZ:133:ILE:HG12	1.97	0.64
35:DA:646:A:H2'	35:DA:647:G:O4'	1.98	0.64
26:B1:40:ARG:C	26:B1:40:ARG:HD3	2.16	0.64
43:BI:125:GLU:OE1	43:BI:125:GLU:HA	1.96	0.64
58:BZ:81:ARG:HG2	58:BZ:81:ARG:NH1	2.11	0.64
35:DA:2659:G:C2	35:DA:2661:G:C8	2.86	0.64
3:CC:6:HIS:CD2	3:CC:7:PRO:HD2	2.28	0.64
39:DE:119:ARG:HG2	39:DE:160:TYR:HB2	1.80	0.64
40:DF:63:LYS:HE3	40:DF:67:GLN:HB2	1.80	0.64
3:AC:71:ALA:CB	3:AC:106:VAL:HB	2.28	0.64
35:BA:1021:A:H62	35:BA:1141:U:H3	1.45	0.64
43:BI:31:LEU:H	43:BI:31:LEU:CD1	2.11	0.64
3:AC:54:ARG:NH1	3:AC:56:ASP:HB2	2.13	0.64
24:AY:312:ARG:HH21	24:AY:344:LEU:HB2	1.62	0.64
50:DR:55:ALA:HB2	50:DR:79:LEU:HD13	1.77	0.64
35:DA:2308:G:O6	35:DA:2310:A:H2'	1.98	0.64
24:AY:342:MET:O	24:AY:346:TRP:HD1	1.81	0.64
1:AA:538:G:OP2	12:AL:115:LYS:HG3	1.98	0.64
58:DZ:93:ASP:OD2	58:DZ:94:GLU:N	2.28	0.64
1:AA:834:C:H2'	1:AA:835:U:H6	1.63	0.64
26:B1:40:ARG:O	26:B1:40:ARG:HD3	1.97	0.64
1:CA:1510:U:H2'	1:CA:1511:G:C8	2.33	0.64
35:BA:2651:C:O2'	35:BA:2652:C:H5'	1.98	0.64
1:AA:1260:C:OP1	1:AA:1284:C:H4'	1.98	0.64
35:DA:1573:G:H2'	35:DA:1574:C:H5'	1.80	0.64
49:BQ:84:GLY:O	49:BQ:85:LYS:HB2	1.97	0.64
45:DK:90:LYS:HZ3	45:DK:90:LYS:HB3	1.63	0.64
1:CA:984:C:H2'	1:CA:985:C:C6	2.32	0.64
40:DF:89:VAL:HG12	40:DF:90:PHE:N	2.11	0.64
58:BZ:165:VAL:HG12	58:BZ:166:SER:H	1.63	0.64
42:DH:12:PRO:O	42:DH:13:LYS:HB2	1.98	0.64
51:DS:85:VAL:O	51:DS:106:ARG:HG2	1.97	0.64
1:AA:1277:C:C2'	1:AA:1278:U:H5'	2.28	0.64
4:CD:18:LYS:HB2	4:CD:33:MET:CG	2.23	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:AT:89:ARG:HD2	20:AT:104:LEU:HD11	1.78	0.64
1:AA:1127:G:H21	1:AA:1147:C:H41	1.45	0.64
11:CK:82:VAL:HB	11:CK:108:ILE:HG13	1.80	0.64
1:AA:1505:G:H4'	1:AA:1506:U:H5'	1.80	0.64
57:BY:17:SER:OG	57:BY:18:GLY:N	2.30	0.64
10:AJ:75:ILE:HG13	10:AJ:76:ASN:N	2.13	0.64
5:CE:41:VAL:CG2	5:CE:113:ALA:HA	2.28	0.64
54:BV:2:PHE:HB3	54:BV:42:GLY:HA2	1.78	0.64
38:BD:71:ASP:CB	38:BD:103:ARG:HH22	2.11	0.64
38:BD:35:LYS:HD2	38:BD:35:LYS:O	1.98	0.64
38:BD:182:LEU:O	38:BD:271:ILE:HG13	1.98	0.64
12:CL:89:ARG:HB2	12:CL:89:ARG:HH11	1.62	0.64
41:DG:127:GLY:O	41:DG:129:GLY:N	2.31	0.64
24:CY:138:ARG:HH22	24:CY:337:LEU:CD1	2.11	0.64
1:CA:489:C:H2'	1:CA:490:G:C8	2.33	0.64
1:AA:489:C:H2'	1:AA:490:G:C8	2.33	0.64
1:AA:833:U:H2'	1:AA:834:C:C6	2.34	0.64
35:BA:720:C:H2'	35:BA:721:C:H6	1.63	0.64
19:CS:20:LEU:HA	19:CS:23:ASN:ND2	2.13	0.64
35:DA:1711:C:O2'	35:DA:1712:C:H5'	1.98	0.64
31:D6:36:LEU:HD22	31:D6:50:ARG:NH1	2.13	0.64
35:DA:1181:C:O2'	35:DA:1182:A:H5'	1.97	0.64
5:CE:33:VAL:HG11	5:CE:109:ILE:HA	1.80	0.64
38:BD:70:TRP:CH2	38:BD:150:LYS:HA	2.32	0.64
31:D6:44:ARG:O	31:D6:45:LYS:C	2.37	0.63
57:BY:10:GLY:C	57:BY:27:VAL:HG22	2.18	0.63
57:DY:27:VAL:HG12	57:DY:29:GLU:OE1	1.97	0.63
35:BA:2849:U:O4	52:BT:23:ARG:NH2	2.31	0.63
51:BS:85:VAL:O	51:BS:106:ARG:HG2	1.97	0.63
54:BV:38:LEU:C	54:BV:38:LEU:HD23	2.18	0.63
20:CT:89:ARG:NH2	20:CT:104:LEU:HD21	2.13	0.63
29:D4:14:ILE:N	29:D4:14:ILE:HD12	2.13	0.63
5:AE:76:ILE:HD11	5:AE:142:LEU:CD2	2.27	0.63
1:CA:1288:A:N1	1:CA:1371:G:H1'	2.13	0.63
4:AD:13:ARG:O	4:AD:15:GLU:N	2.31	0.63
39:DE:132:HIS:CD2	39:DE:135:HIS:NE2	2.66	0.63
43:BI:93:THR:HG23	43:BI:96:ASP:N	2.13	0.63
35:BA:2392:A:H2	35:BA:2424:C:H42	1.43	0.63
33:D8:32:LEU:HD12	35:DA:2391:G:OP1	1.98	0.63
35:DA:2317:C:O2'	35:DA:2318:G:H5'	1.97	0.63
2:AB:18:GLY:H	2:AB:42:ILE:HG22	1.63	0.63
1:CA:1015:A:H2'	1:CA:1016:A:C8	2.34	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:D9:9:ARG:HH11	34:D9:9:ARG:HB3	1.63	0.63
35:BA:1709:U:H2'	35:BA:1710:C:C6	2.33	0.63
24:CY:224:PRO:HA	24:CY:227:LEU:HB2	1.80	0.63
1:AA:1015:A:H2'	1:AA:1016:A:C8	2.33	0.63
35:BA:2808:U:O2'	35:BA:2809:A:H5'	1.97	0.63
36:DB:15:A:O2'	36:DB:16:G:H5'	1.98	0.63
1:AA:123:C:OP1	1:AA:312:C:H5'	1.98	0.63
35:DA:286:C:O2'	35:DA:287:C:H5'	1.97	0.63
39:DE:175:VAL:HG22	39:DE:177:PRO:HD3	1.80	0.63
52:BT:89:VAL:C	52:BT:91:ARG:H	1.99	0.63
1:AA:1319:A:OP2	19:AS:5:LEU:HD23	1.98	0.63
1:CA:1277:C:C2'	1:CA:1278:U:H5'	2.29	0.63
54:DV:47:VAL:CG1	54:DV:51:VAL:HA	2.28	0.63
5:AE:105:VAL:H	5:AE:106:PRO:HD2	1.62	0.63
50:DR:4:LEU:O	50:DR:5:LYS:HD3	1.98	0.63
1:AA:1116:C:C3'	1:AA:1117:G:H5''	2.27	0.63
52:DT:102:ILE:HB	52:DT:110:ILE:CD1	2.28	0.63
35:BA:914:C:C2'	35:BA:915:C:H5'	2.26	0.63
58:DZ:48:PHE:HE2	58:DZ:71:VAL:HG11	1.63	0.63
35:DA:480:A:C1'	57:DY:44:ILE:HG21	2.28	0.63
35:DA:1721:G:H8	35:DA:1741:A:H62	1.46	0.63
37:BC:6:LYS:HG2	37:BC:9:ARG:HB3	1.81	0.63
10:AJ:23:ILE:HG23	10:AJ:85:LEU:HD13	1.80	0.63
35:DA:528:A:C2	35:DA:2042:A:H2'	2.33	0.63
4:CD:112:VAL:HG12	4:CD:116:GLN:CD	2.18	0.63
10:AJ:38:ILE:HG12	10:AJ:71:LEU:O	1.98	0.63
31:B6:12:GLU:HA	31:B6:23:THR:HA	1.78	0.63
19:AS:40:ILE:HD11	19:AS:71:LEU:HD23	1.80	0.63
1:CA:1325:C:H5'	21:CU:15:ARG:HE	1.63	0.63
46:DN:48:MET:H	46:DN:48:MET:HE3	1.63	0.63
41:BG:161:THR:HG22	41:BG:162:THR:N	2.13	0.63
1:CA:359:U:H2'	1:CA:360:A:H8	1.63	0.63
24:CY:227:LEU:HD11	24:CY:276:LEU:CD2	2.28	0.63
47:BO:105:GLU:HA	47:BO:108:GLU:OE1	1.98	0.63
35:BA:271(C):C:H2'	35:BA:271(D):G:H8	1.63	0.63
11:CK:15:ALA:HA	11:CK:76:GLY:O	1.98	0.63
8:CH:51:VAL:HG11	8:CH:60:ARG:HB2	1.80	0.63
53:BU:16:LYS:O	53:BU:20:LEU:HD23	1.98	0.63
57:DY:68:HIS:ND1	57:DY:70:SER:HB3	2.13	0.63
40:DF:10:PRO:HA	40:DF:127:GLU:HB3	1.80	0.63
11:CK:27:ASN:OD1	11:CK:55:LYS:HB3	1.98	0.63
24:CY:117:ILE:HB	24:CY:211:ILE:HG13	1.78	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
58:BZ:163:LEU:HD23	58:BZ:163:LEU:N	2.12	0.63
39:DE:75:VAL:C	39:DE:77:ILE:H	2.00	0.63
11:CK:21:ILE:HD12	11:CK:21:ILE:N	2.13	0.63
54:DV:2:PHE:CB	54:DV:42:GLY:HA2	2.28	0.63
35:DA:1021:A:C8	35:DA:1021:A:H3'	2.33	0.63
43:BI:127:VAL:O	43:BI:127:VAL:HG12	1.97	0.63
48:DP:83:VAL:H	48:DP:115:LEU:CD2	2.11	0.63
48:DP:16:ARG:HB2	48:DP:16:ARG:NH1	2.14	0.63
7:CG:78:ARG:HG2	7:CG:79:ARG:H	1.62	0.63
37:DC:23:ILE:HG22	37:DC:187:ALA:HA	1.81	0.63
31:B6:36:LEU:HD22	31:B6:50:ARG:NH1	2.13	0.63
35:DA:1332:G:H5''	35:DA:1332:G:H8	1.62	0.63
35:BA:1332:G:H5''	35:BA:1332:G:H8	1.63	0.63
10:AJ:96:ILE:HD13	10:AJ:96:ILE:N	2.12	0.63
5:CE:137:GLU:HG3	5:CE:141:GLN:NE2	2.14	0.63
10:CJ:61:GLU:HG2	14:CN:58:LYS:HE2	1.81	0.63
30:D5:43:HIS:CD2	35:DA:2815:C:O2'	2.51	0.63
35:BA:646:A:H2'	35:BA:647:G:O4'	1.99	0.63
1:AA:757:U:H2'	1:AA:758:G:O4'	1.98	0.63
7:AG:151:TYR:OH	11:AK:54:ARG:HD3	1.99	0.63
48:DP:123:LEU:HD12	48:DP:123:LEU:O	1.98	0.63
35:BA:796:C:H2'	35:BA:797:C:C6	2.33	0.63
41:DG:151:ALA:HB3	41:DG:153:ARG:HH12	1.62	0.63
31:D6:15:GLU:CD	31:D6:18:ARG:HE	2.01	0.63
49:DQ:27:VAL:HG23	49:DQ:137:TYR:CD1	2.32	0.63
27:B2:19:VAL:O	27:B2:21:LEU:N	2.31	0.63
35:BA:1049:C:H2'	35:BA:1050:A:H8	1.63	0.63
24:AY:241:GLY:CA	24:AY:244:THR:HG22	2.25	0.63
41:BG:39:ILE:HD11	41:BG:92:VAL:HG12	1.81	0.63
35:DA:1542:A:H5'	35:DA:1543:C:OP2	1.99	0.63
31:B6:26:ASN:HD22	31:B6:32:ASN:CG	2.02	0.63
48:BP:50:ARG:HG3	48:BP:51:PHE:N	2.12	0.63
52:DT:65:LYS:HA	52:DT:65:LYS:HZ2	1.63	0.63
46:DN:126:PRO:O	46:DN:127:ASP:HB2	1.98	0.63
46:BN:17:ASP:HB2	46:BN:55:VAL:CG1	2.29	0.63
1:AA:16:A:O2'	1:AA:17:U:H5'	1.98	0.63
38:DD:32:SER:O	38:DD:36:PRO:HD3	1.98	0.63
43:BI:91:SER:HB3	43:BI:121:LYS:HB2	1.81	0.63
39:DE:117:MET:O	39:DE:118:LYS:HB2	1.97	0.63
43:DI:47:LEU:HA	43:DI:50:ARG:CD	2.28	0.63
7:AG:111:ARG:HB3	7:AG:113:GLU:OE2	1.98	0.63
1:AA:1346:A:N1	1:AA:1374:A:H5''	2.14	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:CO:27:VAL:O	15:CO:31:LEU:HD23	1.98	0.63
1:AA:1258:G:H2'	1:AA:1259:C:C6	2.34	0.63
1:CA:834:C:H2'	1:CA:835:U:H6	1.62	0.63
5:AE:110:LEU:O	5:AE:115:VAL:HB	1.97	0.63
35:DA:1570:A:H2'	35:DA:1571:A:C8	2.33	0.63
1:CA:828:A:H2'	1:CA:829:G:O4'	1.98	0.63
42:BH:154:PRO:HB3	42:BH:163:TYR:CZ	2.33	0.63
40:BF:10:PRO:HA	40:BF:127:GLU:HB3	1.81	0.63
49:DQ:76:LYS:HB3	49:DQ:91:GLU:CG	2.29	0.63
40:BF:117:ARG:NH2	48:BP:5:ASP:N	2.46	0.63
33:B8:25:MET:O	48:BP:62:LEU:HD21	1.97	0.63
49:DQ:35:VAL:HG11	49:DQ:130:LYS:HE2	1.80	0.63
38:DD:49:ILE:HD11	38:DD:52:ARG:HA	1.81	0.63
51:DS:26:LEU:HD12	51:DS:87:PHE:HD1	1.62	0.63
29:B4:14:ILE:N	29:B4:14:ILE:HD12	2.14	0.63
4:AD:17:VAL:O	4:AD:17:VAL:HG12	1.98	0.63
45:DK:53:VAL:HG23	45:DK:53:VAL:O	1.96	0.63
52:BT:107:ASP:H	52:BT:110:ILE:HG12	1.63	0.63
7:AG:37:ASN:ND2	9:AI:40:LEU:HA	2.12	0.63
1:CA:460:G:O6	1:CA:470:C:H5''	1.98	0.63
54:DV:2:PHE:O	54:DV:14:VAL:O	2.16	0.63
46:BN:120:LEU:C	46:BN:121:LYS:HD2	2.19	0.63
4:CD:14:ARG:HA	4:CD:39:PRO:HB3	1.81	0.63
48:DP:85:LEU:CD2	48:DP:114:ILE:HD11	2.28	0.63
58:DZ:110:GLY:HA3	58:DZ:174:VAL:HG11	1.79	0.63
17:CQ:7:THR:CG2	17:CQ:58:GLU:HG2	2.28	0.63
21:CU:9:ARG:HA	21:CU:9:ARG:NH1	2.13	0.63
12:CL:23:LYS:O	12:CL:24:VAL:HG23	1.98	0.63
19:AS:64:GLU:HG3	19:AS:65:ASN:OD1	1.99	0.63
19:AS:40:ILE:HD13	19:AS:62:ILE:HD13	1.80	0.63
1:AA:1055:A:H2	3:AC:194:GLY:HA2	1.63	0.63
1:CA:1258:G:H2'	1:CA:1259:C:C6	2.34	0.63
1:CA:1259:C:H42	1:CA:1276:G:H1	1.45	0.63
1:AA:186:C:H2'	1:AA:187:C:H6	1.63	0.63
1:CA:189(K):U:H2'	1:CA:189(L):G:C8	2.33	0.63
49:BQ:130:LYS:NZ	58:BZ:80:ARG:HD2	2.13	0.63
45:DK:3:LYS:O	45:DK:7:VAL:HG21	1.98	0.63
19:AS:20:LEU:HA	19:AS:23:ASN:ND2	2.13	0.63
31:D6:20:ASN:OD1	31:D6:49:HIS:NE2	2.23	0.63
57:DY:28:LYS:HB3	57:DY:37:VAL:HB	1.80	0.63
40:DF:2:LYS:HD3	40:DF:25:PRO:HG3	1.80	0.63
58:DZ:153:SER:HB2	58:DZ:163:LEU:CD1	2.29	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:CY:287:GLU:CA	24:CY:290:LYS:HE3	2.24	0.63
19:AS:5:LEU:HD13	19:AS:6:LYS:H	1.64	0.63
52:DT:28:VAL:HG22	52:DT:46:GLU:HA	1.81	0.63
35:BA:1528(A):A:H2'	35:BA:1529:G:H5''	1.81	0.63
47:BO:69:ILE:HD12	47:BO:69:ILE:N	2.13	0.63
35:BA:404:C:H4'	35:BA:405:U:C5'	2.26	0.63
11:AK:21:ILE:N	11:AK:21:ILE:HD12	2.14	0.63
11:AK:21:ILE:CD1	11:AK:82:VAL:HG13	2.29	0.63
1:AA:1372:U:H5''	9:AI:71:SER:HB3	1.80	0.63
1:CA:1026:G:H3'	1:CA:1027:C:C5'	2.29	0.63
38:DD:35:LYS:O	38:DD:37:LEU:N	2.31	0.63
12:AL:90:VAL:O	12:AL:92:ASP:N	2.32	0.63
43:BI:127:VAL:HG22	43:BI:139:GLN:HA	1.81	0.63
38:DD:182:LEU:H	38:DD:272:ALA:CB	2.11	0.63
35:DA:1639:U:H2'	35:DA:1640:C:H5''	1.80	0.63
40:DF:107:LYS:HA	40:DF:107:LYS:NZ	2.14	0.63
36:DB:87:G:H3'	36:DB:88:C:H5''	1.80	0.63
16:AP:15:PRO:HB2	16:AP:41:PRO:HG3	1.80	0.63
1:CA:538:G:OP2	12:CL:115:LYS:HG3	1.98	0.63
35:DA:89:G:OP2	35:DA:90:U:H2'	1.98	0.63
6:AF:3:ARG:HB3	6:AF:93:SER:HB2	1.81	0.63
17:CQ:26:GLN:O	17:CQ:27:PHE:HB3	1.98	0.63
1:AA:828:A:H2'	1:AA:829:G:O4'	1.98	0.63
39:BE:2:LYS:HD2	39:BE:95:ILE:CG2	2.29	0.63
27:B2:28:LYS:O	27:B2:31:GLU:HB2	1.98	0.63
41:BG:181:ARG:HG2	41:BG:181:ARG:O	1.99	0.63
34:B9:9:ARG:CB	34:B9:9:ARG:HH11	2.12	0.63
35:BA:2182:G:H2'	35:BA:2183:C:H6	1.60	0.63
35:BA:893:C:H2'	35:BA:894:C:H6	1.64	0.63
1:CA:1488:G:O2'	1:CA:1489:G:H5'	1.98	0.63
57:BY:10:GLY:CA	57:BY:27:VAL:HG13	2.17	0.63
30:D5:36:CYS:CB	30:D5:49:CYS:SG	2.86	0.63
45:DK:93:ARG:C	45:DK:95:LYS:HE3	2.19	0.63
19:CS:5:LEU:HD13	19:CS:6:LYS:H	1.64	0.63
51:DS:14:VAL:HG12	51:DS:15:ARG:N	2.13	0.63
45:BK:138:VAL:HG13	45:BK:138:VAL:O	1.98	0.63
45:BK:93:ARG:HD2	45:BK:93:ARG:O	1.99	0.63
19:AS:6:LYS:HD2	19:AS:6:LYS:N	2.13	0.63
52:DT:85:LYS:NZ	52:DT:85:LYS:CB	2.57	0.63
41:BG:102:PHE:O	41:BG:106:LEU:HB3	1.99	0.63
10:CJ:50:ILE:HA	10:CJ:60:ARG:CB	2.28	0.63
1:AA:1201:A:H1'	1:AA:1202:G:OP2	1.99	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:9:CYS:SG	4:AD:31:CYS:O	2.57	0.63
46:BN:126:PRO:O	46:BN:127:ASP:HB2	1.99	0.63
45:BK:2:LYS:HE3	45:BK:66:THR:HG21	1.81	0.63
2:AB:196:LEU:HA	8:AH:74:PRO:HG3	1.80	0.63
22:AV:5:G:C2'	22:AV:6:G:H5''	2.29	0.63
24:AY:54:ARG:HB3	24:AY:54:ARG:HH21	1.61	0.63
43:DI:51:ILE:C	43:DI:53:ALA:H	2.00	0.63
33:B8:33:ASN:H	33:B8:33:ASN:HD22	1.46	0.63
35:BA:2298:A:H2'	35:BA:2299:G:O4'	1.98	0.63
41:DG:127:GLY:C	41:DG:129:GLY:H	2.02	0.63
40:DF:40:GLN:NE2	40:DF:182:ASN:HB2	2.14	0.63
35:DA:2894:G:H2'	35:DA:2894:G:N3	2.14	0.63
49:BQ:109:VAL:CG1	49:BQ:113:GLN:HB2	2.29	0.63
17:CQ:27:PHE:CE1	17:CQ:36:ILE:HD11	2.34	0.63
6:AF:79:LEU:HD12	6:AF:88:VAL:CG1	2.28	0.63
53:DU:110:VAL:O	53:DU:114:LYS:HG2	1.99	0.63
6:CF:75:LEU:O	6:CF:79:LEU:HG	1.99	0.63
51:BS:107:GLU:O	51:BS:109:GLY:N	2.32	0.63
42:BH:84:SER:O	42:BH:85:LYS:HB3	1.99	0.63
8:CH:103:VAL:HG21	8:CH:110:ALA:HB2	1.79	0.63
9:AI:56:LEU:HD23	9:AI:56:LEU:O	1.99	0.63
24:AY:303:ARG:N	24:AY:304:PRO:HD3	2.05	0.63
33:D8:62:LEU:CD1	35:DA:242:G:H5''	2.17	0.63
35:DA:259:G:N2	35:DA:621:A:H8	1.95	0.63
43:DI:82:ARG:HH21	43:DI:146:ALA:N	1.97	0.63
57:BY:61:ILE:HD12	57:BY:62:GLU:N	2.13	0.63
12:AL:25:PRO:C	12:AL:27:LEU:N	2.51	0.63
43:DI:50:ARG:O	43:DI:51:ILE:HD13	1.98	0.63
3:CC:52:LEU:HD23	3:CC:52:LEU:N	2.13	0.63
37:BC:7:ARG:HD2	37:BC:7:ARG:O	1.99	0.63
1:CA:1055:A:H2	3:CC:194:GLY:HA2	1.64	0.63
10:CJ:6:ILE:O	10:CJ:71:LEU:HD12	1.99	0.63
10:CJ:96:ILE:N	10:CJ:96:ILE:HD13	2.14	0.63
1:AA:1054:C:H3'	1:AA:1054:C:O2	1.99	0.63
35:DA:1188:U:H4'	54:DV:79:VAL:HG22	1.81	0.63
53:DU:16:LYS:O	53:DU:20:LEU:CD2	2.47	0.63
41:BG:54:GLU:O	41:BG:57:ALA:HB3	1.99	0.63
8:AH:20:TYR:HE2	8:AH:75:ARG:HD2	1.63	0.63
56:DX:8:ILE:N	56:DX:8:ILE:HD12	2.14	0.63
49:DQ:84:GLY:O	49:DQ:85:LYS:HB2	1.97	0.63
37:DC:46:ALA:O	37:DC:172:ILE:HG22	1.99	0.63
12:AL:102:ARG:HD2	12:AL:108:ALA:O	1.99	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:2023:G:H5'	35:BA:2617:C:H4'	1.81	0.63
35:BA:597:U:H4'	48:BP:15:ARG:HH11	1.64	0.63
58:DZ:70:LEU:HG	58:DZ:91:LEU:HD11	1.80	0.63
14:CN:26:ARG:HG3	14:CN:39:LEU:HD22	1.79	0.63
24:AY:98:LEU:HD23	24:AY:98:LEU:O	1.97	0.63
52:BT:28:VAL:HG11	52:BT:46:GLU:OE2	1.98	0.63
48:DP:62:LEU:HD23	48:DP:62:LEU:N	2.06	0.63
42:DH:19:VAL:HG21	42:DH:43:VAL:O	1.99	0.63
41:BG:152:LEU:CD2	41:BG:152:LEU:H	2.05	0.63
35:DA:1490:A:H5'	35:DA:1491:G:OP1	1.98	0.63
35:DA:2206:G:C2	35:DA:2207:G:H5'	2.34	0.63
29:B4:33:VAL:CG1	41:BG:109:VAL:HG13	2.29	0.63
1:AA:961:U:O2'	1:AA:962:C:H5'	1.99	0.63
35:DA:1114:G:H2'	35:DA:1115:G:O4'	1.99	0.63
26:B1:94:LEU:O	26:B1:96:LYS:N	2.32	0.63
48:DP:48:PRO:HG2	48:DP:49:ARG:H	1.63	0.63
46:BN:133:GLN:HG2	46:BN:135:PRO:HD3	1.80	0.63
5:AE:101:ILE:H	5:AE:101:ILE:HD13	1.63	0.63
2:CB:112:VAL:C	2:CB:114:ARG:H	2.01	0.63
37:DC:8:TYR:CE1	37:DC:221:PRO:HB3	2.30	0.63
1:CA:519:C:H2'	1:CA:520:A:H8	1.63	0.63
35:BA:2292:C:O2'	35:BA:2293:C:H5'	1.98	0.63
42:BH:130:ARG:NH1	42:BH:130:ARG:HB3	2.13	0.63
6:CF:88:VAL:HG12	6:CF:88:VAL:O	1.98	0.63
1:AA:1095:U:H2'	1:AA:1096:C:C6	2.34	0.63
1:AA:221:C:H2'	1:AA:222:U:H6	1.64	0.63
38:BD:241:PRO:O	38:BD:243:GLY:N	2.31	0.63
35:BA:559:G:H22	53:BU:49:HIS:CD2	2.17	0.63
14:AN:26:ARG:HG3	14:AN:39:LEU:HD22	1.79	0.63
24:CY:97:LYS:C	24:CY:99:ASP:H	2.00	0.63
35:DA:991:C:H5'	35:DA:991:C:H6	1.64	0.63
1:AA:148:G:H2'	1:AA:149:A:H8	1.63	0.63
45:DK:137:GLU:HG3	45:DK:138:VAL:N	2.14	0.62
35:BA:1854:A:H62	35:BA:1888:G:H8	1.47	0.62
41:DG:64:THR:OG1	41:DG:94:LEU:HD11	1.99	0.62
41:DG:76:SER:OG	41:DG:84:LYS:HG3	1.99	0.62
35:BA:2660:A:H5'	35:BA:2661:G:H21	1.60	0.62
58:DZ:20:ARG:NH1	58:DZ:20:ARG:HB2	2.08	0.62
35:DA:1173:G:H5'	35:DA:1174:A:N3	2.14	0.62
35:DA:272(J):C:N4	35:DA:363:G:H1	1.90	0.62
48:BP:50:ARG:HG2	48:BP:50:ARG:HH21	1.64	0.62
10:AJ:33:GLN:H	10:AJ:75:ILE:HD11	1.64	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
57:BY:87:LYS:O	57:BY:88:LYS:HB2	1.99	0.62
54:BV:2:PHE:CB	54:BV:42:GLY:HA2	2.29	0.62
35:BA:528:A:C2	35:BA:2042:A:H2'	2.34	0.62
1:CA:651:C:O2'	1:CA:652:U:H5'	1.99	0.62
39:BE:132:HIS:CD2	39:BE:135:HIS:NE2	2.67	0.62
39:DE:9:VAL:CG2	39:DE:25:VAL:HB	2.28	0.62
42:DH:121:ILE:CD1	42:DH:144:VAL:HG21	2.28	0.62
1:AA:999:C:O2'	1:AA:1000:U:H5'	1.99	0.62
22:AV:21:A:H2'	22:AV:22:G:H5''	1.80	0.62
35:DA:1796:U:H2'	35:DA:1797:C:C6	2.34	0.62
47:DO:105:GLU:HA	47:DO:108:GLU:OE1	1.99	0.62
48:BP:123:LEU:O	48:BP:123:LEU:HD12	1.99	0.62
28:B3:59:VAL:HG12	28:B3:60:GLU:N	2.13	0.62
37:BC:225:ILE:HD12	37:BC:225:ILE:O	1.99	0.62
57:DY:28:LYS:HB3	57:DY:38:ILE:H	1.64	0.62
45:DK:93:ARG:HD2	45:DK:93:ARG:O	1.98	0.62
38:DD:43:ARG:HB3	38:DD:54:ARG:CB	2.27	0.62
57:BY:98:VAL:O	57:BY:99:CYS:SG	2.57	0.62
35:BA:1173:G:H5'	35:BA:1174:A:N3	2.14	0.62
35:BA:1528(A):A:H3'	35:BA:1529:G:H5''	1.81	0.62
40:DF:63:LYS:CE	40:DF:67:GLN:HB2	2.29	0.62
1:AA:192:U:H4'	20:AT:103:GLY:N	2.09	0.62
58:DZ:8:TYR:O	58:DZ:37:VAL:HB	2.00	0.62
9:AI:43:ALA:HA	9:AI:74:ILE:HG21	1.81	0.62
53:DU:117:GLN:HA	53:DU:117:GLN:NE2	2.11	0.62
41:DG:67:LYS:CD	41:DG:67:LYS:H	2.07	0.62
35:BA:271(M):G:C5'	43:BI:57:ARG:HH12	2.12	0.62
3:AC:54:ARG:HH12	3:AC:56:ASP:HB2	1.63	0.62
21:AU:9:ARG:HA	21:AU:9:ARG:NH1	2.12	0.62
35:DA:481:G:OP2	57:DY:47:LYS:HD3	1.98	0.62
16:CP:15:PRO:HB2	16:CP:41:PRO:HG3	1.81	0.62
1:CA:1425:U:H2'	1:CA:1426:C:C6	2.33	0.62
37:BC:195:ARG:HH11	37:BC:195:ARG:HG3	1.64	0.62
35:BA:2894:G:H2'	35:BA:2894:G:N3	2.12	0.62
55:BW:82:LEU:HD23	55:BW:84:ARG:NH2	2.13	0.62
5:AE:137:GLU:HG3	5:AE:141:GLN:HE21	1.64	0.62
54:BV:81:TYR:C	54:BV:82:ARG:HD2	2.20	0.62
39:BE:2:LYS:HD2	39:BE:95:ILE:HG23	1.81	0.62
58:DZ:70:LEU:HG	58:DZ:91:LEU:HD21	1.80	0.62
1:AA:639:G:H2'	1:AA:640:A:H8	1.64	0.62
1:CA:1071:C:H2'	1:CA:1072:G:H8	1.64	0.62
10:AJ:61:GLU:HG2	14:AN:58:LYS:HE2	1.79	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:2779:U:H1'	35:BA:2781:A:C5	2.33	0.62
43:DI:2:LYS:HB2	43:DI:39:ALA:HB3	1.80	0.62
1:AA:1212:U:H2'	24:AY:78:GLU:OE2	1.98	0.62
35:BA:869:G:O2'	35:BA:870:A:H5'	1.98	0.62
31:D6:17:LYS:O	31:D6:18:ARG:HB3	1.99	0.62
57:DY:80:GLY:O	57:DY:81:LYS:HB2	1.98	0.62
48:BP:62:LEU:HD22	48:BP:62:LEU:H	1.63	0.62
28:B3:6:VAL:HB	28:B3:54:VAL:HG11	1.80	0.62
40:BF:132:VAL:CG2	40:BF:133:ASN:H	1.97	0.62
30:D5:57:VAL:HG23	30:D5:58:LEU:N	2.13	0.62
13:CM:111:LYS:O	13:CM:113:PRO:HD2	1.99	0.62
35:DA:2660:A:H5'	35:DA:2661:G:H21	1.60	0.62
41:DG:106:LEU:HA	41:DG:110:ALA:HB3	1.81	0.62
41:BG:134:GLY:C	41:BG:135:LEU:HD12	2.19	0.62
51:BS:26:LEU:HD23	51:BS:39:ILE:CG1	2.28	0.62
35:DA:1173:G:C3'	35:DA:1174:A:H5'	2.26	0.62
43:BI:62:LYS:CE	43:BI:134:PRO:HD2	2.25	0.62
46:DN:15:LEU:HD13	46:DN:16:ILE:N	2.14	0.62
48:DP:50:ARG:HG3	48:DP:51:PHE:N	2.13	0.62
30:B5:33:CYS:SG	30:B5:36:CYS:HB3	2.39	0.62
45:DK:2:LYS:HE3	45:DK:66:THR:HG21	1.81	0.62
37:DC:7:ARG:HD2	37:DC:7:ARG:O	1.99	0.62
39:BE:132:HIS:O	39:BE:135:HIS:NE2	2.32	0.62
16:CP:20:VAL:HG21	16:CP:32:TYR:CG	2.34	0.62
35:DA:2392:A:H2	35:DA:2424:C:H42	1.47	0.62
51:DS:52:SER:CB	51:DS:55:ALA:HB3	2.29	0.62
54:BV:22:VAL:O	54:BV:23:GLU:CB	2.46	0.62
33:B8:30:ARG:HA	33:B8:30:ARG:HE	1.64	0.62
5:CE:137:GLU:HG3	5:CE:141:GLN:HE21	1.64	0.62
38:BD:148:GLU:HB2	38:BD:151:LYS:HD2	1.81	0.62
34:B9:29:ASN:HD21	34:B9:32:HIS:CE1	2.17	0.62
26:D1:94:LEU:O	26:D1:96:LYS:N	2.32	0.62
35:DA:633:A:H2'	35:DA:634:C:H5'	1.80	0.62
9:CI:56:LEU:HD23	9:CI:56:LEU:O	1.99	0.62
35:BA:1438:U:O2'	35:BA:1439:A:H5'	1.99	0.62
57:BY:38:ILE:CG2	57:BY:39:VAL:N	2.61	0.62
1:CA:1227:A:OP2	13:CM:111:LYS:HE2	1.99	0.62
41:DG:60:LEU:O	41:DG:63:ILE:HG23	1.99	0.62
45:BK:93:ARG:C	45:BK:95:LYS:HE3	2.19	0.62
24:CY:122:PRO:HG3	24:CY:164:ILE:O	1.99	0.62
39:DE:120:TRP:CD2	39:DE:155:LYS:HD3	2.34	0.62
31:B6:33:LYS:O	31:B6:34:LEU:HB2	2.00	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:112:VAL:C	2:AB:114:ARG:H	2.01	0.62
26:B1:46:LEU:CD2	26:B1:61:ARG:HD3	2.29	0.62
35:DA:1021:A:H3'	35:DA:1021:A:H8	1.64	0.62
24:AY:312:ARG:NH2	24:AY:344:LEU:HB2	2.14	0.62
4:AD:112:VAL:HG12	4:AD:116:GLN:CD	2.18	0.62
17:AQ:7:THR:CG2	17:AQ:58:GLU:HG2	2.28	0.62
2:AB:44:LEU:HD12	2:AB:44:LEU:N	2.14	0.62
31:D6:12:GLU:HG3	31:D6:23:THR:HG22	1.80	0.62
22:AW:15:G:H22	22:AW:59:U:H1'	1.62	0.62
37:DC:195:ARG:HH11	37:DC:195:ARG:HG3	1.64	0.62
19:CS:40:ILE:HD13	19:CS:62:ILE:HD13	1.80	0.62
1:CA:503:C:H2'	1:CA:504:C:C6	2.35	0.62
3:CC:91:LEU:HB3	3:CC:99:VAL:HG11	1.81	0.62
1:AA:1452:C:H4'	1:AA:1456:G:H5''	1.81	0.62
1:AA:853:G:H2'	1:AA:854:G:H8	1.63	0.62
45:DK:7:VAL:HG12	45:DK:58:THR:HG23	1.80	0.62
35:DA:2712:U:O2	35:DA:2712:U:H5'	1.99	0.62
35:BA:1570:A:H2'	35:BA:1571:A:C8	2.34	0.62
24:AY:13:LEU:HA	24:AY:16:TYR:HB2	1.80	0.62
4:AD:3:ARG:NH2	4:AD:118:ARG:HD3	2.13	0.62
1:CA:1052:U:H5'	24:CY:319:ASN:ND2	2.15	0.62
35:DA:2779:U:H1'	35:DA:2781:A:C5	2.34	0.62
2:CB:213:LEU:O	2:CB:213:LEU:HD23	1.99	0.62
24:CY:117:ILE:O	24:CY:210:VAL:HA	1.99	0.62
54:BV:19:LYS:HG3	54:BV:20:LEU:N	2.14	0.62
4:AD:129:ASN:N	4:AD:129:ASN:ND2	2.47	0.62
35:BA:2659:G:C2	35:BA:2661:G:C8	2.87	0.62
24:AY:232:MET:HB2	35:BA:2555:U:N3	2.14	0.62
35:BA:2206:G:C2	35:BA:2207:G:H5'	2.34	0.62
35:BA:1858:G:H2'	35:BA:1883:G:H22	1.65	0.62
4:CD:9:CYS:SG	4:CD:31:CYS:O	2.58	0.62
32:B7:8:ASN:HD22	32:B7:11:LYS:H	1.42	0.62
10:AJ:50:ILE:HA	10:AJ:60:ARG:CB	2.29	0.62
3:AC:9:GLY:HA2	3:AC:12:LEU:HG	1.80	0.62
57:DY:17:SER:HB2	57:DY:71:LYS:CE	2.28	0.62
35:BA:1568:G:H5''	38:BD:61:LEU:CD2	2.27	0.62
58:BZ:134:PRO:CB	58:BZ:137:ILE:HD11	2.27	0.62
2:CB:32:ILE:HD12	2:CB:40:HIS:CD2	2.35	0.62
35:DA:1021:A:H62	35:DA:1141:U:H3	1.45	0.62
1:AA:346:G:OP2	52:BT:41:ARG:NH2	2.32	0.62
48:DP:16:ARG:HD3	48:DP:17:LYS:N	2.15	0.62
42:DH:130:ARG:HB3	42:DH:130:ARG:NH1	2.15	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BN:67:LEU:O	46:BN:68:GLU:HB2	1.99	0.62
58:BZ:57:ILE:N	58:BZ:57:ILE:HD12	2.14	0.62
35:DA:2298:A:H2'	35:DA:2299:G:O4'	1.99	0.62
31:B6:12:GLU:O	31:B6:51:GLU:HA	1.99	0.62
21:AU:6:ARG:NE	21:AU:15:ARG:HH12	1.96	0.62
45:BK:102:GLU:HA	45:BK:105:LEU:HD13	1.79	0.62
40:BF:139:PHE:HB2	40:BF:166:ALA:HB1	1.79	0.62
55:DW:18:ARG:HG2	55:DW:18:ARG:HH11	1.64	0.62
45:DK:102:GLU:HA	45:DK:105:LEU:HD13	1.81	0.62
6:AF:88:VAL:HG12	6:AF:88:VAL:O	1.99	0.62
8:AH:20:TYR:HA	8:AH:65:TYR:CE2	2.34	0.62
10:AJ:63:PHE:HA	14:AN:59:ALA:H	1.64	0.62
20:AT:30:LYS:HE3	20:AT:30:LYS:O	1.99	0.62
35:BA:1188:U:H4'	54:BV:79:VAL:HG22	1.81	0.62
35:BA:2761:G:C3'	35:BA:2762:G:H5''	2.30	0.62
6:AF:14:LEU:HB3	6:AF:18:GLN:HE21	1.64	0.62
35:BA:1015:G:O2'	35:BA:1016:G:H5'	2.00	0.62
11:AK:15:ALA:HA	11:AK:76:GLY:O	1.98	0.62
1:CA:775:G:O2'	1:CA:776:G:H5'	1.99	0.62
6:AF:8:ILE:HG22	6:AF:9:VAL:N	2.14	0.62
13:CM:34:LEU:HD13	13:CM:41:PRO:HG3	1.81	0.62
24:CY:180:LEU:O	24:CY:210:VAL:HG11	2.00	0.62
1:AA:1442:G:C6	1:AA:1442(B):A:H2	2.17	0.62
51:BS:14:VAL:HG12	51:BS:16:ASN:H	1.65	0.62
51:DS:89:ARG:O	51:DS:92:TYR:CB	2.48	0.62
51:DS:26:LEU:HD23	51:DS:39:ILE:CG1	2.30	0.62
35:DA:2876:G:C4'	52:DT:3:ARG:HE	2.07	0.62
51:BS:26:LEU:HD12	51:BS:87:PHE:HD1	1.63	0.62
46:BN:1:MET:HG2	46:BN:2:LYS:H	1.61	0.62
46:BN:89:LYS:NZ	46:BN:89:LYS:HB3	2.15	0.62
11:AK:82:VAL:HB	11:AK:108:ILE:HG13	1.80	0.62
24:AY:164:ILE:CD1	24:AY:167:ALA:HB2	2.29	0.62
1:CA:1054:C:O2	1:CA:1054:C:H3'	1.99	0.62
33:D8:33:ASN:N	33:D8:33:ASN:HD22	1.96	0.62
48:DP:105:LEU:H	48:DP:105:LEU:HD12	1.64	0.62
48:DP:41:ARG:NH1	48:DP:45:LEU:HG	2.14	0.62
24:CY:135:MET:O	24:CY:138:ARG:HG2	1.98	0.62
46:DN:9:VAL:HG12	46:DN:10:GLU:H	1.65	0.62
50:BR:44:LEU:O	50:BR:48:VAL:HG23	1.98	0.62
1:CA:833:U:H2'	1:CA:834:C:C6	2.34	0.62
4:CD:88:VAL:O	4:CD:92:VAL:HG23	1.99	0.62
7:CG:87:VAL:HG11	7:CG:154:TYR:O	2.00	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:213:LEU:HD23	2:AB:213:LEU:O	2.00	0.62
35:DA:2052:G:H4'	39:DE:143:ASN:O	2.00	0.62
1:CA:114:U:H2'	1:CA:115:G:C8	2.34	0.62
26:B1:75:GLU:OE2	26:B1:75:GLU:HA	1.99	0.62
35:BA:779:U:OP1	38:BD:49:ILE:HG22	2.00	0.62
45:BK:137:GLU:HG3	45:BK:138:VAL:N	2.14	0.62
1:AA:975:A:C4'	1:AA:976:G:H5''	2.26	0.62
54:DV:49:THR:HG22	54:DV:50:PRO:HD3	1.81	0.62
1:CA:1128:C:H1'	1:CA:1146:A:N6	2.10	0.62
31:D6:26:ASN:HD22	31:D6:32:ASN:ND2	1.97	0.62
3:CC:71:ALA:CB	3:CC:106:VAL:HB	2.29	0.62
1:AA:460:G:O6	1:AA:470:C:H5''	1.99	0.62
24:AY:290:LYS:HG3	24:AY:291:ARG:N	2.14	0.62
19:CS:18:LYS:O	19:CS:21:GLU:HG2	1.98	0.62
35:DA:1281:G:H5'	35:DA:1281:G:H8	1.65	0.62
31:D6:25:LYS:NZ	35:DA:2284:C:H41	1.98	0.62
35:DA:2653:U:H5'	35:DA:2654:A:H5''	1.80	0.62
1:CA:328:C:H4'	1:CA:329:A:C5'	2.29	0.62
6:AF:45:LEU:C	6:AF:45:LEU:HD23	2.20	0.62
1:AA:383:A:H2'	1:AA:384:G:H5'	1.82	0.62
49:DQ:109:VAL:HG12	49:DQ:113:GLN:HB2	1.82	0.62
40:DF:185:ASP:HA	40:DF:188:ARG:HG2	1.82	0.62
35:BA:633:A:H2'	35:BA:634:C:H5'	1.82	0.62
58:BZ:8:TYR:O	58:BZ:37:VAL:HB	2.00	0.62
35:BA:1292:U:H2'	35:BA:1293:C:C6	2.35	0.62
1:CA:639:G:H2'	1:CA:640:A:H8	1.64	0.62
1:CA:950:U:H2'	1:CA:951:G:H8	1.64	0.62
42:BH:74:ASN:HD22	42:BH:138:LYS:HD3	1.64	0.62
4:AD:109:GLY:O	4:AD:111:ALA:N	2.32	0.62
37:BC:46:ALA:O	37:BC:172:ILE:HG22	1.98	0.62
35:DA:674:G:H1'	40:DF:74:ARG:HD2	1.82	0.62
51:DS:26:LEU:HD12	51:DS:87:PHE:CD1	2.35	0.62
35:BA:1490:A:H5'	35:BA:1491:G:OP1	2.00	0.62
3:CC:11:ARG:HB3	3:CC:15:THR:HB	1.82	0.62
35:BA:1542:A:H5'	35:BA:1543:C:OP2	2.00	0.62
24:AY:238:GLY:HA2	35:BA:2602:A:C4	2.35	0.62
40:BF:53:THR:HG23	40:BF:55:GLY:N	2.10	0.62
53:BU:65:ILE:HD11	53:BU:93:LYS:HA	1.80	0.62
1:AA:736:C:H2'	1:AA:737:A:H8	1.62	0.62
1:CA:457:C:H2'	1:CA:458:C:C6	2.35	0.62
30:B5:48:GLU:C	30:B5:49:CYS:SG	2.78	0.62
26:D1:71:TYR:CE1	43:DI:27:ARG:HD2	2.35	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CS:29:ARG:HD2	19:CS:29:ARG:N	2.15	0.62
38:DD:35:LYS:O	38:DD:35:LYS:HD2	1.99	0.62
31:B6:45:LYS:HZ2	35:BA:2370:G:N2	1.97	0.62
41:BG:19:LEU:HD21	41:BG:171:ALA:CB	2.29	0.62
42:DH:121:ILE:HD13	42:DH:144:VAL:HG21	1.82	0.62
31:B6:25:LYS:NZ	35:BA:2284:C:H41	1.98	0.62
13:AM:13:LYS:HA	13:AM:44:ARG:HH11	1.65	0.62
24:AY:19:ILE:HB	24:AY:20:PRO:CD	2.30	0.62
42:DH:136:ILE:HD12	42:DH:136:ILE:H	1.65	0.62
58:DZ:128:VAL:HG21	58:DZ:132:ASN:O	2.00	0.62
1:AA:1016:A:H2'	1:AA:1017:G:O4'	1.99	0.62
1:AA:556:C:O2'	1:AA:557:G:H5'	2.00	0.62
43:BI:54:GLN:O	43:BI:58:LEU:HB2	1.99	0.62
13:AM:34:LEU:HD13	13:AM:41:PRO:HG3	1.80	0.62
35:DA:2022:U:O2'	35:DA:2617:C:H5'	2.00	0.62
35:DA:2875:C:O2'	52:DT:5:ALA:HB3	2.00	0.62
57:DY:96:ILE:HD12	57:DY:99:CYS:CB	2.29	0.62
13:AM:89:GLY:O	13:AM:93:ARG:HD2	2.00	0.62
35:DA:1049:C:H2'	35:DA:1050:A:H8	1.62	0.62
48:DP:146:VAL:HG13	48:DP:147:LEU:N	2.15	0.62
41:BG:5:VAL:HG12	41:BG:6:ALA:H	1.64	0.62
4:CD:18:LYS:HG3	4:CD:31:CYS:SG	2.40	0.62
14:AN:29:ARG:HG2	14:AN:40:CYS:HB2	1.82	0.62
35:BA:142:A:H8	35:BA:1595:G:H21	1.46	0.62
24:AY:237:PRO:HD3	35:BA:2604:U:P	2.40	0.62
43:BI:131:LYS:HA	43:BI:135:GLU:CG	2.27	0.62
1:CA:191:G:C4	20:CT:105:SER:HB3	2.34	0.62
33:D8:48:PHE:C	33:D8:49:VAL:HG22	2.20	0.62
35:BA:93:G:H2'	35:BA:94:C:C6	2.35	0.62
30:B5:35:GLU:O	30:B5:36:CYS:HB3	1.99	0.62
42:BH:97:ARG:O	42:BH:98:LEU:HB2	1.98	0.62
35:BA:587:C:C4	48:BP:33:ARG:HG2	2.35	0.62
37:DC:6:LYS:HG2	37:DC:9:ARG:HB3	1.81	0.62
47:DO:107:ARG:NH1	52:DT:35:LYS:HD2	2.15	0.62
17:CQ:45:HIS:HB2	17:CQ:65:ILE:HD13	1.81	0.62
8:AH:6:ILE:N	8:AH:6:ILE:HD12	2.15	0.62
31:D6:12:GLU:O	31:D6:51:GLU:HA	1.99	0.62
19:CS:40:ILE:HD11	19:CS:71:LEU:HD23	1.80	0.62
6:CF:79:LEU:HD12	6:CF:88:VAL:CG1	2.30	0.62
45:BK:91:PRO:O	58:BZ:112:ARG:NH1	2.33	0.62
1:CA:1081:G:H5''	5:CE:18:ARG:HD3	1.80	0.62
35:DA:1709:U:H2'	35:DA:1710:C:C6	2.35	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
57:DY:90:LEU:HD12	57:DY:91:GLU:OE2	2.00	0.62
1:CA:556:C:O2'	1:CA:557:G:H5'	1.99	0.62
47:DO:90:GLN:O	47:DO:91:LEU:HB2	1.97	0.62
41:BG:180:PHE:HB3	41:BG:182:LYS:HG3	1.82	0.62
4:CD:3:ARG:NH2	4:CD:118:ARG:HD3	2.15	0.62
35:BA:1243:G:O2'	48:BP:9:ASN:HA	2.00	0.62
31:D6:46:HIS:CB	31:D6:47:THR:OG1	2.48	0.62
35:BA:2867:G:OP2	52:BT:119:LYS:NZ	2.33	0.62
30:B5:57:VAL:HG23	30:B5:58:LEU:N	2.15	0.62
4:CD:129:ASN:ND2	4:CD:129:ASN:N	2.47	0.62
1:AA:954:G:H21	1:AA:1227:A:N6	1.98	0.62
58:DZ:152:ALA:HB1	58:DZ:167:PRO:HB2	1.81	0.62
1:CA:1319:A:OP2	19:CS:5:LEU:HD23	1.99	0.62
24:CY:241:GLY:O	24:CY:242:VAL:C	2.38	0.62
35:BA:654(R):C:H2'	35:BA:654(S):G:N7	2.13	0.62
53:BU:90:VAL:HG22	54:BV:39:LEU:HB2	1.82	0.62
45:BK:19:PRO:HB2	45:BK:21:PRO:HD2	1.82	0.62
11:CK:21:ILE:CD1	11:CK:82:VAL:HG13	2.30	0.62
35:BA:2476:A:C2'	35:BA:2477:C:H5''	2.29	0.62
33:B8:48:PHE:O	33:B8:49:VAL:HG22	2.00	0.62
25:B0:4:LYS:HD3	35:BA:2252:G:O6	1.98	0.62
41:BG:15:VAL:O	41:BG:18:GLU:HB3	1.98	0.62
43:BI:71:ILE:HG13	43:BI:72:LEU:N	2.15	0.62
11:CK:110:ASP:O	18:CR:84:LYS:HD2	1.99	0.62
45:DK:14:ALA:HB1	45:DK:50:ASP:HA	1.82	0.62
58:BZ:4:ARG:NH1	58:BZ:58:VAL:HG11	2.14	0.62
52:DT:38:ASN:HD22	52:DT:39:ARG:N	1.97	0.62
35:BA:958:U:H6	35:BA:958:U:H5'	1.63	0.62
36:BB:87:G:H3'	36:BB:88:C:H5''	1.81	0.62
31:B6:12:GLU:HG3	31:B6:23:THR:HG22	1.81	0.62
3:CC:51:GLY:O	3:CC:53:ALA:N	2.33	0.62
22:AV:14:A:N6	22:AV:21:A:H2	1.96	0.62
3:AC:155:GLY:O	3:AC:156:ARG:HB2	1.99	0.62
51:BS:52:SER:CB	51:BS:55:ALA:HB3	2.30	0.62
1:CA:383:A:H2'	1:CA:384:G:H5'	1.81	0.62
40:DF:163:VAL:O	40:DF:166:ALA:HB3	2.00	0.62
3:AC:91:LEU:HB3	3:AC:99:VAL:HG11	1.82	0.62
45:BK:3:LYS:O	45:BK:7:VAL:HG21	2.00	0.62
13:AM:115:LYS:C	13:AM:117:VAL:H	2.03	0.62
35:DA:1430:C:H2'	35:DA:1431:U:C6	2.34	0.62
6:AF:60:PHE:C	6:AF:61:LEU:HD12	2.19	0.62
7:AG:87:VAL:HG11	7:AG:154:TYR:O	2.00	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:2176:A:H2'	35:BA:2177:C:C6	2.35	0.62
4:CD:106:TYR:CD1	4:CD:113:SER:HA	2.35	0.62
24:CY:303:ARG:NH2	35:DA:1914:C:O2'	2.32	0.61
28:D3:6:VAL:HB	28:D3:54:VAL:HG11	1.82	0.61
45:DK:115:LEU:CD1	45:DK:123:ALA:HB1	2.30	0.61
35:BA:1048:A:H62	35:BA:1052:C:N4	1.97	0.61
36:BB:5:C:O2'	36:BB:6:C:H5'	2.00	0.61
41:DG:118:ARG:N	41:DG:181:ARG:NH2	2.44	0.61
41:DG:88:ILE:H	41:DG:88:ILE:HD12	1.65	0.61
48:BP:146:VAL:HG13	48:BP:147:LEU:N	2.14	0.61
43:DI:83:ALA:HB2	43:DI:88:ILE:HG23	1.82	0.61
51:DS:30:ARG:NH2	51:DS:62:LYS:HD2	2.15	0.61
35:DA:1654:A:OP1	50:DR:3:HIS:CB	2.47	0.61
45:BK:21:PRO:HB2	45:BK:22:PRO:CD	2.26	0.61
1:AA:191:G:C4	20:AT:105:SER:HB3	2.35	0.61
26:B1:86:SER:O	26:B1:90:ILE:HG12	2.00	0.61
46:DN:17:ASP:HB2	46:DN:55:VAL:CG1	2.29	0.61
24:CY:55:LEU:HA	24:CY:58:THR:OG1	2.00	0.61
52:DT:107:ASP:H	52:DT:110:ILE:HG12	1.65	0.61
35:DA:2103:C:H42	35:DA:2186:G:H1	1.46	0.61
18:AR:52:PRO:O	18:AR:56:THR:HG23	2.00	0.61
1:CA:457:C:H2'	1:CA:458:C:H6	1.65	0.61
35:BA:1947:C:H2'	35:BA:1948:G:H5''	1.82	0.61
33:B8:32:LEU:HD11	35:BA:2391:G:H3'	1.82	0.61
24:AY:276:LEU:O	24:AY:280:LYS:HG3	2.00	0.61
35:BA:2126:A:H61	35:BA:2163:C:H4'	1.64	0.61
33:B8:30:ARG:CZ	35:BA:2419:U:O4	2.48	0.61
1:AA:1220:G:H2'	1:AA:1221:G:H8	1.65	0.61
40:BF:65:TRP:CZ3	40:BF:75:HIS:HD2	2.17	0.61
56:DX:3:THR:HA	56:DX:6:ASP:OD2	2.00	0.61
49:BQ:76:LYS:HB3	49:BQ:91:GLU:CG	2.30	0.61
35:BA:2262:U:O2'	35:BA:2263:C:H5'	2.00	0.61
38:BD:129:ASN:O	38:BD:193:VAL:HG12	2.00	0.61
58:BZ:104:PHE:HD1	58:BZ:139:VAL:HB	1.63	0.61
58:DZ:151:HIS:HA	58:DZ:171:ILE:CG1	2.24	0.61
41:DG:82:LEU:CD2	41:DG:83:ARG:H	2.08	0.61
3:CC:173:VAL:O	3:CC:175:LEU:HD12	2.00	0.61
43:DI:9:LEU:N	43:DI:9:LEU:HD12	2.16	0.61
35:BA:1541:G:H4'	35:BA:1542:A:C5'	2.29	0.61
35:DA:1038:C:H42	35:DA:1117:G:H1	1.47	0.61
45:DK:18:THR:HA	45:DK:38:VAL:HG12	1.82	0.61
1:CA:15:G:H2'	1:CA:16:A:H8	1.65	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:587:C:C4	48:DP:33:ARG:HG2	2.34	0.61
56:DX:63:LYS:HB3	56:DX:72:LYS:HG3	1.82	0.61
35:DA:1658:C:OP1	39:DE:132:HIS:O	2.16	0.61
43:BI:126:TYR:O	43:BI:127:VAL:HG23	2.00	0.61
35:DA:661:C:O3'	48:DP:18:ARG:HD2	2.01	0.61
1:AA:538:G:O3'	12:AL:114:LYS:HD2	1.99	0.61
39:DE:69:LYS:C	39:DE:71:GLY:H	2.03	0.61
35:BA:1405:U:H2'	35:BA:1406:U:H6	1.65	0.61
46:DN:9:VAL:HG12	46:DN:10:GLU:N	2.14	0.61
13:CM:115:LYS:C	13:CM:117:VAL:H	2.03	0.61
49:DQ:76:LYS:HB3	49:DQ:91:GLU:HG3	1.81	0.61
24:CY:234:ALA:HB2	24:CY:247:SER:OG	2.00	0.61
1:CA:221:C:H2'	1:CA:222:U:H6	1.65	0.61
24:AY:322:LYS:HD2	24:AY:329:MET:HG2	1.81	0.61
21:CU:25:LYS:HG2	21:CU:26:LYS:N	2.15	0.61
22:CV:12:U:H3	22:CV:23:A:H61	1.47	0.61
35:BA:304:G:H2'	35:BA:305:U:C6	2.35	0.61
35:DA:2305:A:H5''	41:DG:134:GLY:HA3	1.80	0.61
35:DA:2691:C:H6	35:DA:2691:C:H5'	1.65	0.61
39:BE:4:ILE:HD13	39:BE:28:ALA:HB1	1.83	0.61
38:BD:4:LYS:HE3	38:BD:20:ASP:HA	1.81	0.61
56:BX:3:THR:HA	56:BX:6:ASP:OD2	2.00	0.61
52:BT:28:VAL:HG22	52:BT:46:GLU:HA	1.82	0.61
33:B8:6:THR:CG2	33:B8:63:PRO:HD3	2.31	0.61
2:CB:164:VAL:O	2:CB:186:ALA:HB1	2.00	0.61
36:BB:8:U:H6	36:BB:8:U:C5'	2.14	0.61
35:BA:2660:A:N3	35:BA:2660:A:H2'	2.15	0.61
13:AM:9:ILE:HD12	13:AM:9:ILE:N	2.15	0.61
1:AA:192:U:C4'	20:AT:103:GLY:H	2.11	0.61
52:BT:65:LYS:HZ2	52:BT:65:LYS:HA	1.65	0.61
58:DZ:49:ARG:HH11	58:DZ:49:ARG:CG	2.09	0.61
46:DN:16:ILE:HG23	46:DN:54:VAL:HG22	1.82	0.61
29:D4:11:PRO:O	29:D4:29:PRO:HG3	2.00	0.61
57:DY:87:LYS:O	57:DY:88:LYS:HB2	2.00	0.61
9:CI:40:LEU:O	9:CI:42:ARG:N	2.27	0.61
8:AH:11:THR:HG23	8:AH:14:ARG:HH12	1.64	0.61
1:CA:393:A:O2'	1:CA:394:G:H5'	2.00	0.61
1:AA:67:C:O2'	1:AA:171:A:H1'	2.01	0.61
2:CB:44:LEU:HD12	2:CB:44:LEU:N	2.15	0.61
39:DE:55:ASN:HB2	39:DE:72:VAL:CG1	2.30	0.61
2:CB:24:TRP:CZ3	2:CB:26:PRO:HA	2.35	0.61
35:DA:2761:G:C3'	35:DA:2762:G:H5''	2.30	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:148:G:H2'	1:CA:149:A:H8	1.64	0.61
39:BE:69:LYS:C	39:BE:71:GLY:H	2.02	0.61
42:BH:49:VAL:HG23	42:BH:50:VAL:N	2.14	0.61
58:BZ:144:LEU:CD1	58:BZ:150:LEU:H	2.13	0.61
35:BA:2794:C:H2'	35:BA:2795:G:H8	1.65	0.61
48:DP:7:ARG:HB2	48:DP:8:PRO:CD	2.30	0.61
22:CW:19:G:H4'	22:CW:57:G:H22	1.64	0.61
22:CW:55:U:H2'	22:CW:56:C:C5	2.36	0.61
6:CF:3:ARG:HB3	6:CF:93:SER:HB2	1.81	0.61
39:BE:120:TRP:CD2	39:BE:155:LYS:HD3	2.34	0.61
56:BX:12:VAL:HG23	56:BX:13:LEU:N	2.14	0.61
46:DN:128:HIS:CE1	46:DN:134:ARG:HH11	2.19	0.61
35:BA:673:C:H6	35:BA:673:C:C5'	2.10	0.61
1:CA:1029:C:H4'	1:CA:1033:G:N2	2.16	0.61
12:AL:25:PRO:O	12:AL:27:LEU:N	2.33	0.61
37:BC:6:LYS:HD2	37:BC:6:LYS:C	2.21	0.61
40:BF:107:LYS:NZ	40:BF:107:LYS:HA	2.15	0.61
41:DG:67:LYS:HD2	41:DG:67:LYS:N	2.15	0.61
3:AC:36:ASP:HB3	3:AC:40:ARG:NH1	2.16	0.61
35:BA:1658:C:OP1	39:BE:132:HIS:O	2.19	0.61
24:AY:312:ARG:HD2	24:AY:314:TYR:CZ	2.35	0.61
35:BA:174:C:C3'	35:BA:175:G:H5''	2.30	0.61
33:D8:33:ASN:H	33:D8:33:ASN:HD22	1.45	0.61
35:BA:626:U:C2	48:BP:105:LEU:HG	2.36	0.61
1:CA:539:A:H2'	1:CA:540:G:C8	2.34	0.61
1:CA:155:C:H2'	1:CA:156:G:H8	1.66	0.61
49:DQ:109:VAL:CG1	49:DQ:113:GLN:HB2	2.30	0.61
1:AA:189(K):U:H2'	1:AA:189(L):G:C8	2.34	0.61
43:DI:65:ALA:O	43:DI:69:LYS:N	2.33	0.61
35:DA:708:C:H5'	35:DA:709:U:OP2	1.99	0.61
10:AJ:5:ARG:HA	10:AJ:73:ASP:OD1	2.01	0.61
5:AE:33:VAL:HG11	5:AE:109:ILE:HA	1.82	0.61
8:CH:20:TYR:HA	8:CH:65:TYR:CE2	2.35	0.61
16:AP:18:ARG:HD3	16:AP:35:LYS:HE3	1.81	0.61
35:BA:184:C:H2'	35:BA:185:U:C6	2.36	0.61
35:DA:1292:U:H2'	35:DA:1293:C:C6	2.35	0.61
49:DQ:136:ALA:C	49:DQ:138:ASP:H	2.04	0.61
38:DD:142:VAL:HG23	38:DD:192:THR:O	2.01	0.61
35:BA:2732:G:C3'	35:BA:2733:A:H5'	2.30	0.61
35:BA:2463:C:O2'	35:BA:2464:C:H5'	2.00	0.61
52:DT:77:PRO:O	52:DT:78:LEU:HB2	2.00	0.61
45:DK:109:LYS:HB3	45:DK:109:LYS:NZ	2.15	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:CY:241:GLY:C	24:CY:243:ASN:N	2.51	0.61
48:BP:80:TYR:CZ	48:BP:111:ARG:HD3	2.36	0.61
41:BG:136:ARG:HG2	41:BG:136:ARG:HH11	1.64	0.61
14:CN:29:ARG:HG2	14:CN:40:CYS:HB2	1.82	0.61
35:BA:1654:A:OP1	50:BR:3:HIS:CB	2.47	0.61
57:DY:17:SER:OG	57:DY:18:GLY:N	2.33	0.61
1:AA:15:G:H2'	1:AA:16:A:H8	1.65	0.61
35:BA:17:G:H4'	53:BU:25:TRP:CH2	2.35	0.61
52:BT:35:LYS:CE	52:BT:41:ARG:HG3	2.31	0.61
1:CA:67:C:O2'	1:CA:171:A:H1'	2.00	0.61
3:CC:155:GLY:O	3:CC:156:ARG:HB2	1.99	0.61
8:AH:6:ILE:CD1	8:AH:6:ILE:H	2.12	0.61
13:AM:19:LEU:HD22	13:AM:19:LEU:H	1.64	0.61
31:B6:50:ARG:O	31:B6:51:GLU:HB3	1.99	0.61
35:DA:2808:U:O2'	35:DA:2809:A:H5'	1.99	0.61
2:CB:88:ALA:HB2	2:CB:219:VAL:HG13	1.83	0.61
41:BG:77:ILE:HG22	41:BG:77:ILE:O	1.99	0.61
21:CU:6:ARG:NE	21:CU:15:ARG:HH12	1.98	0.61
35:DA:597:U:H4'	48:DP:15:ARG:NH1	2.16	0.61
20:AT:79:ARG:HA	20:AT:82:SER:OG	1.99	0.61
39:DE:4:ILE:HD13	39:DE:28:ALA:HB1	1.81	0.61
1:CA:533:A:H1'	1:CA:534:U:OP1	2.00	0.61
57:BY:68:HIS:ND1	57:BY:70:SER:HB3	2.16	0.61
1:CA:1486:G:H2'	1:CA:1487:G:O4'	2.00	0.61
15:AO:37:ASN:HD22	15:AO:37:ASN:N	1.97	0.61
42:DH:83:TYR:HB3	42:DH:134:SER:HA	1.82	0.61
13:AM:108:ARG:CZ	13:AM:114:ARG:HG2	2.30	0.61
58:DZ:165:VAL:HG12	58:DZ:166:SER:OG	2.00	0.61
2:AB:165:VAL:HG23	2:AB:166:ASP:N	2.14	0.61
13:CM:88:ARG:HA	13:CM:98:VAL:CG1	2.22	0.61
35:DA:2660:A:H2'	35:DA:2660:A:N3	2.15	0.61
45:BK:115:LEU:CD1	45:BK:123:ALA:HB1	2.31	0.61
29:B4:25:TYR:O	29:B4:26:SER:HB3	2.00	0.61
35:DA:1528(A):A:H2'	35:DA:1529:G:H5''	1.81	0.61
51:BS:26:LEU:HD12	51:BS:87:PHE:CD1	2.35	0.61
27:D2:64:LEU:CD2	27:D2:68:ARG:HD2	2.31	0.61
43:DI:129:THR:HG22	43:DI:130:TYR:N	2.16	0.61
57:BY:17:SER:HB2	57:BY:71:LYS:CE	2.28	0.61
24:AY:106:LEU:HD13	24:AY:106:LEU:O	2.00	0.61
1:AA:737:A:H2'	1:AA:738:C:H6	1.64	0.61
5:CE:6:PHE:HB2	5:CE:34:VAL:CG2	2.31	0.61
12:CL:60:LEU:C	12:CL:62:SER:H	2.03	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1321:C:H5'	1:CA:1322:C:C5'	2.30	0.61
10:CJ:37:PRO:HA	10:CJ:72:VAL:HG22	1.82	0.61
26:D1:80:LEU:HD23	26:D1:81:LYS:H	1.66	0.61
10:AJ:16:LEU:HD23	10:AJ:94:VAL:CG1	2.30	0.61
35:DA:2126:A:H61	35:DA:2163:C:H4'	1.64	0.61
6:CF:8:ILE:HG22	6:CF:9:VAL:N	2.15	0.61
7:CG:131:LYS:O	7:CG:131:LYS:HG3	2.01	0.61
47:DO:80:ASP:OD2	52:DT:64:ARG:NH2	2.34	0.61
1:CA:397:A:H3'	1:CA:397:A:N3	2.15	0.61
58:BZ:11:GLU:CD	58:BZ:11:GLU:H	2.04	0.61
35:DA:1506:C:H2'	35:DA:1506:C:O2	2.01	0.61
35:BA:1980:G:O2'	35:BA:1982:C:OP2	2.19	0.61
1:AA:533:A:H1'	1:AA:534:U:OP1	1.99	0.61
40:BF:8:GLN:HG2	40:BF:126:VAL:HG12	1.82	0.61
49:BQ:132:VAL:CG1	58:BZ:81:ARG:HE	2.12	0.61
22:CW:61:C:H2'	22:CW:62:C:C6	2.36	0.61
41:BG:73:ALA:HB3	41:BG:87:PRO:HG3	1.81	0.61
1:CA:1442(A):G:C3'	1:CA:1442(B):A:H5'	2.31	0.61
35:BA:607:U:C5'	40:BF:103:LYS:HE3	2.31	0.61
3:AC:11:ARG:HB3	3:AC:15:THR:HB	1.82	0.61
3:CC:104:GLN:CD	3:CC:105:GLU:H	2.04	0.61
29:D4:20:ASN:ND2	29:D4:21:VAL:N	2.46	0.61
29:D4:15:ILE:HB	29:D4:31:ILE:O	2.01	0.61
12:CL:18:VAL:HG23	12:CL:19:ARG:N	2.13	0.61
1:AA:1026:G:H3'	1:AA:1027:C:C5'	2.29	0.61
27:B2:50:ILE:C	27:B2:52:ASP:H	2.03	0.61
43:DI:78:THR:HA	43:DI:141:LYS:O	2.00	0.61
12:CL:25:PRO:O	12:CL:27:LEU:N	2.33	0.61
35:BA:1022:G:H22	35:BA:1142(A):A:H2	1.44	0.61
10:CJ:26:ALA:CA	10:CJ:29:ARG:HH12	2.13	0.61
38:BD:182:LEU:H	38:BD:272:ALA:CB	2.12	0.61
46:DN:67:LEU:O	46:DN:68:GLU:HB2	1.99	0.61
24:AY:129:ALA:HA	24:AY:204:SER:HB3	1.82	0.61
12:AL:23:LYS:O	12:AL:24:VAL:HG23	2.00	0.61
1:CA:538:G:O3'	12:CL:114:LYS:HD2	2.00	0.61
1:AA:537:G:H2'	1:AA:538:G:C8	2.35	0.61
1:AA:1471:G:H2'	1:AA:1472:U:H6	1.64	0.61
49:BQ:76:LYS:HB3	49:BQ:91:GLU:HG3	1.82	0.61
30:B5:3:LYS:HB2	35:BA:747:U:C5	2.35	0.61
15:CO:8:LYS:O	15:CO:12:ILE:HG13	2.01	0.61
42:BH:124:GLU:HB2	42:BH:132:ARG:HG2	1.83	0.61
26:D1:19:GLN:HB2	26:D1:35:THR:HG23	1.82	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:2124:G:H2'	35:DA:2125:G:H5'	1.82	0.61
30:B5:16:ARG:NH1	30:B5:17:ASP:OD1	2.34	0.61
4:AD:106:TYR:CD1	4:AD:113:SER:HA	2.35	0.61
28:D3:45:GLY:HA3	35:DA:851:U:O2'	2.01	0.61
47:DO:10:VAL:HG21	47:DO:16:ALA:O	2.00	0.61
1:AA:349:A:O2'	1:AA:350:G:H5'	2.01	0.61
1:AA:180:U:H2'	1:AA:181:G:H5''	1.81	0.61
27:B2:11:GLU:CA	27:B2:14:ARG:HB2	2.22	0.61
40:DF:132:VAL:CG2	40:DF:133:ASN:H	1.98	0.61
51:DS:13:ARG:HG3	51:DS:14:VAL:N	2.02	0.61
41:BG:113:ARG:O	41:BG:140:ILE:HG22	2.01	0.61
29:B4:25:TYR:CE2	41:BG:2:PRO:HA	2.36	0.61
39:BE:119:ARG:HG2	39:BE:160:TYR:HB2	1.81	0.61
24:AY:30:GLU:HB2	45:BK:20:ALA:HB3	1.83	0.61
9:AI:40:LEU:C	9:AI:42:ARG:H	2.04	0.61
31:B6:19:ARG:HG3	31:B6:20:ASN:H	1.66	0.61
1:AA:1029:C:H4'	1:AA:1033:G:N2	2.15	0.61
46:DN:99:LEU:HD12	46:DN:122:VAL:HG21	1.83	0.61
40:BF:36:VAL:HG11	40:BF:183:VAL:CG1	2.31	0.61
9:CI:50:LEU:O	9:CI:53:VAL:HG22	2.01	0.61
35:DA:143(A):C:H4'	56:DX:38:GLU:OE2	2.00	0.61
35:BA:1721:G:C6	35:BA:1739:U:H5'	2.36	0.61
35:BA:2134:A:N6	35:BA:2157:G:H1'	2.16	0.61
1:CA:522:C:H42	1:CA:528:C:H42	1.48	0.61
43:BI:92:VAL:HG13	43:BI:120:ILE:CD1	2.30	0.61
48:BP:16:ARG:HD3	48:BP:17:LYS:N	2.15	0.61
33:B8:33:ASN:N	33:B8:33:ASN:HD22	1.96	0.61
16:AP:20:VAL:HG21	16:AP:32:TYR:CG	2.36	0.61
1:AA:328:C:H4'	1:AA:329:A:C5'	2.29	0.61
35:BA:2308:G:O6	35:BA:2310:A:H2'	2.01	0.61
35:BA:2124:G:H2'	35:BA:2125:G:H5'	1.83	0.61
39:BE:33:VAL:HG11	39:BE:89:ASP:HA	1.82	0.61
22:AV:14:A:H61	22:AV:21:A:H2	1.47	0.61
49:BQ:109:VAL:HG12	49:BQ:113:GLN:HB2	1.83	0.61
40:DF:139:PHE:HB2	40:DF:166:ALA:HB1	1.83	0.61
56:BX:64:LYS:NZ	56:BX:73:ARG:HH21	1.98	0.61
19:AS:53:ASN:O	19:AS:77:THR:HG22	2.00	0.61
1:CA:1220:G:H2'	1:CA:1221:G:H8	1.64	0.61
42:DH:124:GLU:HB2	42:DH:132:ARG:HG2	1.82	0.61
38:DD:58:HIS:HD2	38:DD:59:LYS:O	1.84	0.61
50:BR:38:VAL:HB	50:BR:39:PRO:HD3	1.83	0.61
1:AA:1285:A:H1'	1:AA:1286:A:OP2	2.01	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:796:C:H2'	35:DA:797:C:C6	2.36	0.61
1:AA:1007:C:H2'	1:AA:1008:C:C6	2.36	0.61
38:DD:148:GLU:HB2	38:DD:151:LYS:HD2	1.83	0.61
24:CY:153:VAL:O	24:CY:153:VAL:HG13	2.01	0.61
35:BA:1430:C:H2'	35:BA:1431:U:C6	2.36	0.61
58:DZ:153:SER:HB2	58:DZ:163:LEU:HD11	1.83	0.61
41:DG:118:ARG:HD2	41:DG:181:ARG:CD	2.27	0.61
49:BQ:15:GLY:O	49:BQ:16:ARG:HG2	2.01	0.61
49:BQ:19:GLY:O	49:BQ:20:ALA:HB3	2.01	0.61
53:BU:92:ARG:O	53:BU:94:ASN:N	2.34	0.61
27:D2:41:ILE:HD11	27:D2:43:GLN:CB	2.31	0.61
4:CD:14:ARG:HB2	4:CD:40:PRO:HD2	1.83	0.61
1:CA:1294:G:H2'	1:CA:1295:G:C8	2.34	0.61
8:CH:11:THR:HG23	8:CH:14:ARG:HH12	1.65	0.61
1:AA:1321:C:H5'	1:AA:1322:C:C5'	2.31	0.61
41:BG:29:TRP:C	41:BG:33:ARG:HH12	2.04	0.61
48:BP:16:ARG:HB2	48:BP:16:ARG:NH1	2.15	0.61
42:BH:130:ARG:HH11	42:BH:130:ARG:HB3	1.66	0.61
1:AA:97:G:O2'	1:AA:98:G:H5''	2.00	0.61
19:AS:46:GLY:H	19:AS:62:ILE:HG23	1.66	0.61
34:B9:9:ARG:HH11	34:B9:9:ARG:HB3	1.64	0.61
1:AA:221:C:H2'	1:AA:222:U:C6	2.36	0.61
35:BA:1292:U:O2'	35:BA:1293:C:H5'	2.01	0.61
30:D5:3:LYS:HB2	35:DA:747:U:C5	2.36	0.61
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.36	0.61
11:CK:58:PRO:HD3	11:CK:89:ALA:HB1	1.83	0.61
30:D5:37:LYS:HG3	30:D5:37:LYS:O	2.01	0.61
24:AY:292:GLU:O	24:AY:296:LYS:HG3	2.00	0.61
52:DT:98:LYS:HB3	52:DT:100:TYR:CE1	2.36	0.61
54:BV:18:LEU:HD22	54:BV:19:LYS:H	1.66	0.61
51:DS:89:ARG:HB3	51:DS:92:TYR:HB3	1.82	0.61
45:BK:84:LEU:HD23	45:BK:84:LEU:H	1.65	0.61
54:DV:62:LEU:HD21	54:DV:95:LEU:CB	2.25	0.61
29:B4:15:ILE:HB	29:B4:31:ILE:O	2.01	0.61
35:BA:197:A:C8	35:BA:197:A:H5'	2.35	0.61
43:DI:113:ARG:HB2	43:DI:130:TYR:HE1	1.66	0.61
1:CA:136:C:H4'	16:CP:1:MET:HE2	1.82	0.61
27:D2:41:ILE:CD1	27:D2:43:GLN:HB2	2.31	0.61
45:DK:23:VAL:HG12	45:DK:23:VAL:O	2.00	0.61
1:AA:457:C:H2'	1:AA:458:C:C6	2.35	0.61
35:DA:774:A:H2	35:DA:787:U:O2'	1.81	0.61
24:AY:175:ASN:O	24:AY:179:LEU:HD13	2.00	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DG:3:LEU:O	41:DG:4:ASP:HB2	2.00	0.61
35:BA:1721:G:H8	35:BA:1741:A:H62	1.49	0.61
35:DA:17:G:H4'	53:DU:25:TRP:CH2	2.36	0.61
3:AC:51:GLY:O	3:AC:53:ALA:N	2.34	0.61
39:BE:59:VAL:HG13	39:BE:60:ASN:N	2.16	0.61
41:DG:16:ARG:HH12	41:DG:28:VAL:HG12	1.64	0.61
8:CH:6:ILE:H	8:CH:6:ILE:CD1	2.14	0.61
24:AY:342:MET:O	24:AY:346:TRP:CD1	2.54	0.61
2:AB:16:HIS:HB3	2:AB:210:SER:CB	2.31	0.61
1:CA:221:C:H2'	1:CA:222:U:C6	2.36	0.61
1:CA:69:G:H2'	1:CA:70:G:H8	1.66	0.61
35:DA:2176:A:H2'	35:DA:2177:C:C6	2.36	0.61
28:B3:19:GLN:HE22	28:B3:52:HIS:HE1	1.49	0.61
1:AA:775:G:O2'	1:AA:776:G:H5'	2.01	0.61
1:CA:100:C:H2'	1:CA:101:A:C8	2.36	0.61
25:D0:51:VAL:CG2	25:D0:81:VAL:HG23	2.31	0.61
33:D8:2:PRO:HA	35:DA:591:C:O2	2.01	0.61
52:BT:10:VAL:O	52:BT:13:ARG:HG2	2.01	0.60
33:D8:6:THR:CG2	33:D8:63:PRO:HD3	2.31	0.60
35:DA:1243:G:O2'	48:DP:9:ASN:HA	2.00	0.60
13:AM:111:LYS:O	13:AM:113:PRO:HD2	2.00	0.60
36:DB:45:A:C8	41:DG:95:ARG:NH1	2.69	0.60
41:DG:125:PHE:HE1	41:DG:180:PHE:HE2	1.47	0.60
35:DA:654(T):C:H2'	35:DA:654(U):A:C4'	2.30	0.60
40:DF:53:THR:HG23	40:DF:55:GLY:N	2.09	0.60
35:BA:143(A):C:H4'	56:BX:38:GLU:OE2	2.01	0.60
43:DI:6:LEU:O	43:DI:7:GLU:HB2	2.00	0.60
45:BK:23:VAL:HG12	45:BK:23:VAL:O	2.00	0.60
38:DD:27:THR:HG23	38:DD:27:THR:O	2.01	0.60
43:DI:133:HIS:CB	43:DI:134:PRO:CD	2.76	0.60
35:BA:2564:A:C2	35:BA:2647:U:H4'	2.36	0.60
5:CE:55:VAL:O	5:CE:58:ALA:HB3	2.00	0.60
52:DT:35:LYS:CE	52:DT:41:ARG:HG3	2.31	0.60
33:B8:33:ASN:O	33:B8:34:TRP:CB	2.49	0.60
33:D8:32:LEU:HD11	35:DA:2391:G:H3'	1.83	0.60
10:CJ:38:ILE:HG13	10:CJ:71:LEU:HB3	1.83	0.60
1:CA:1112:C:C4	3:CC:178:LEU:HD23	2.36	0.60
37:BC:23:ILE:HG22	37:BC:187:ALA:HA	1.81	0.60
1:CA:1030(D):A:H2'	1:CA:1031:G:H5'	1.83	0.60
4:AD:88:VAL:O	4:AD:92:VAL:HG23	2.01	0.60
2:CB:132:LYS:HG3	2:CB:135:GLN:NE2	2.15	0.60
17:AQ:9:VAL:HG11	17:AQ:84:LEU:HD12	1.82	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:1188:U:O2'	35:BA:1189:A:H5'	2.00	0.60
4:CD:109:GLY:O	4:CD:111:ALA:N	2.34	0.60
35:DA:2262:U:O2'	35:DA:2263:C:H5'	2.01	0.60
38:DD:4:LYS:HE3	38:DD:20:ASP:HA	1.83	0.60
35:DA:1165:U:H2'	35:DA:1166:C:C6	2.36	0.60
1:AA:1081:G:H5''	5:AE:18:ARG:HD3	1.83	0.60
52:DT:78:LEU:C	52:DT:79:HIS:ND1	2.54	0.60
57:BY:10:GLY:HA2	57:BY:27:VAL:CG1	2.18	0.60
57:DY:7:VAL:HG21	57:DY:8:LYS:NZ	2.16	0.60
52:BT:48:ILE:HD12	52:BT:48:ILE:N	2.16	0.60
58:BZ:99:TYR:HA	58:BZ:125:LEU:HA	1.83	0.60
58:BZ:166:SER:HB2	58:BZ:167:PRO:C	2.19	0.60
35:DA:1854:A:H62	35:DA:1888:G:H8	1.49	0.60
22:AW:76:8AN:C4'	22:AW:77:PHA:O	2.43	0.60
43:DI:90:GLY:O	43:DI:121:LYS:HD2	2.02	0.60
24:CY:137:LEU:HD12	24:CY:167:ALA:HB1	1.82	0.60
38:DD:24:ILE:HD13	38:DD:25:THR:N	2.16	0.60
35:BA:1114:G:H2'	35:BA:1115:G:O4'	2.01	0.60
29:D4:14:ILE:HD11	29:D4:24:THR:OG1	2.00	0.60
46:BN:128:HIS:CE1	46:BN:134:ARG:HH11	2.19	0.60
5:CE:76:ILE:HD11	5:CE:142:LEU:CD2	2.28	0.60
17:AQ:45:HIS:HB2	17:AQ:65:ILE:HD13	1.82	0.60
35:BA:480:A:C1'	57:BY:44:ILE:HG21	2.30	0.60
1:AA:519:C:H2'	1:AA:520:A:C8	2.36	0.60
36:BB:55:U:O2'	36:BB:56:G:H5'	2.01	0.60
1:AA:590:C:H2'	1:AA:591:U:C6	2.34	0.60
39:BE:55:ASN:HB2	39:BE:72:VAL:CG1	2.30	0.60
1:AA:393:A:O2'	1:AA:394:G:H5'	2.01	0.60
16:CP:74:LEU:O	16:CP:79:VAL:HG23	2.01	0.60
18:AR:38:GLU:HA	18:AR:41:LYS:HB3	1.84	0.60
10:CJ:6:ILE:HG22	10:CJ:98:ILE:CG1	2.30	0.60
4:CD:117:ALA:O	4:CD:121:VAL:HG23	2.00	0.60
49:BQ:1:MET:O	49:BQ:2:LEU:HB2	2.01	0.60
1:CA:1325:C:H4'	21:CU:17:THR:HG21	1.81	0.60
1:AA:1436:U:O2'	1:AA:1437:C:H5'	2.01	0.60
20:CT:79:ARG:HA	20:CT:82:SER:OG	2.01	0.60
20:CT:82:SER:O	20:CT:86:ARG:HB2	2.01	0.60
27:B2:34:GLU:O	27:B2:38:GLN:HG2	2.01	0.60
35:BA:2739:U:O2'	35:BA:2740:A:H5'	2.01	0.60
35:DA:893:C:H2'	35:DA:894:C:H6	1.63	0.60
1:AA:1497:G:H2'	1:AA:1498:U:H5'	1.82	0.60
35:BA:2052:G:H4'	39:BE:143:ASN:O	2.01	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:AR:25:THR:HG22	18:AR:42:ARG:NH1	2.16	0.60
31:D6:19:ARG:HG3	31:D6:20:ASN:H	1.64	0.60
1:AA:1442(B):A:OP2	1:AA:1442(B):A:H4'	2.01	0.60
35:DA:2794:C:H2'	35:DA:2795:G:H8	1.66	0.60
35:DA:1048:A:H62	35:DA:1052:C:N4	1.99	0.60
45:BK:103:GLN:HA	45:BK:106:GLU:OE1	2.01	0.60
24:AY:233:ARG:HD3	35:BA:2573:C:N4	2.16	0.60
4:CD:30:LYS:HB3	4:CD:35:ARG:CZ	2.31	0.60
43:DI:81:VAL:HG11	43:DI:88:ILE:HD13	1.84	0.60
35:BA:654(T):C:H2'	35:BA:654(U):A:C4'	2.31	0.60
45:BK:18:THR:HA	45:BK:38:VAL:HG12	1.83	0.60
4:AD:30:LYS:HB3	4:AD:35:ARG:CZ	2.31	0.60
35:BA:2543:G:H2'	35:BA:2544:G:C8	2.37	0.60
1:CA:137:C:H1'	16:CP:63:GLY:HA3	1.84	0.60
1:AA:457:C:H2'	1:AA:458:C:H6	1.65	0.60
35:BA:92:A:H3'	35:BA:93:G:H8	1.67	0.60
52:BT:102:ILE:HB	52:BT:110:ILE:CD1	2.30	0.60
9:CI:43:ALA:HA	9:CI:74:ILE:HG21	1.82	0.60
18:CR:52:PRO:O	18:CR:56:THR:HG23	2.01	0.60
35:BA:1720:U:H2'	35:BA:1721:G:O4'	2.01	0.60
2:CB:18:GLY:HA2	2:CB:42:ILE:HG22	1.83	0.60
24:AY:39:TRP:CE3	24:AY:45:ALA:HB1	2.35	0.60
35:DA:2591:C:OP2	38:DD:239:ARG:HB3	2.01	0.60
39:BE:11:MET:HB2	39:BE:23:VAL:O	2.01	0.60
41:DG:130:ASN:HB3	41:DG:160:VAL:HA	1.83	0.60
35:DA:272(D):G:H1	35:DA:364:C:H42	1.50	0.60
2:AB:32:ILE:HD12	2:AB:40:HIS:CD2	2.36	0.60
8:CH:40:ALA:O	8:CH:42:GLU:N	2.35	0.60
1:CA:1346:A:N1	1:CA:1374:A:H5''	2.16	0.60
58:DZ:92:SER:O	58:DZ:93:ASP:HB3	2.01	0.60
12:CL:82:VAL:HG23	12:CL:106:ASP:OD2	2.01	0.60
1:AA:373:A:O2'	1:AA:374:A:H5'	2.02	0.60
35:BA:271(U):G:O2'	35:BA:271(V):G:H5'	2.01	0.60
22:AV:32:U:H5'	22:AV:33:U:OP2	2.00	0.60
1:CA:180:U:H2'	1:CA:181:G:H5''	1.83	0.60
30:D5:35:GLU:O	30:D5:36:CYS:HB3	2.00	0.60
42:BH:12:PRO:O	42:BH:13:LYS:HB2	2.00	0.60
45:DK:103:GLN:HA	45:DK:106:GLU:OE1	2.01	0.60
51:BS:13:ARG:HG3	51:BS:14:VAL:N	2.03	0.60
24:AY:150:GLN:O	24:AY:171:VAL:HG13	2.00	0.60
41:BG:131:TYR:H	41:BG:159:VAL:HG13	1.64	0.60
35:DA:146:G:O2'	35:DA:147:U:H5'	2.02	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:1529:G:H21	35:BA:1530:C:H5''	1.64	0.60
45:BK:17:ALA:HB3	45:BK:41:PHE:CE2	2.37	0.60
22:CV:40:C:H2'	22:CV:41:C:H6	1.65	0.60
35:BA:2833:G:C3'	35:BA:2834:G:C5'	2.76	0.60
1:AA:413:G:H1'	1:AA:428:G:N2	2.17	0.60
53:DU:117:GLN:HE21	53:DU:117:GLN:CA	2.09	0.60
48:BP:29:LYS:HD2	48:BP:29:LYS:N	2.16	0.60
35:BA:1022:G:N2	35:BA:1142(A):A:C2	2.63	0.60
35:DA:2134:A:N6	35:DA:2157:G:H1'	2.16	0.60
1:CA:923:A:OP1	5:CE:21:ALA:HB2	2.02	0.60
1:AA:519:C:H2'	1:AA:520:A:H8	1.65	0.60
1:AA:522:C:H42	1:AA:528:C:H42	1.48	0.60
1:AA:1243:C:N4	1:AA:1294:G:H22	1.98	0.60
58:BZ:20:ARG:CB	58:BZ:20:ARG:HH11	2.13	0.60
22:CV:1:G:H2'	22:CV:2:C:C6	2.35	0.60
48:BP:40:SER:C	48:BP:41:ARG:HE	2.04	0.60
35:DA:2184:G:H2'	35:DA:2185:C:C6	2.37	0.60
1:AA:1435:G:H2'	1:AA:1436:U:H6	1.66	0.60
24:AY:8:GLN:NE2	24:AY:95:ALA:HB1	2.17	0.60
1:CA:1439:C:H5'	20:CT:38:LYS:HZ1	1.66	0.60
26:B1:20:ARG:HG2	26:B1:20:ARG:HH11	1.65	0.60
1:CA:543:C:H2'	1:CA:544:G:H8	1.66	0.60
1:AA:430:A:OP2	4:AD:8:VAL:HG22	2.01	0.60
35:BA:212:G:O2'	35:BA:213:A:H5'	2.01	0.60
35:BA:953:A:O2'	35:BA:954:G:H5'	2.02	0.60
35:BA:1506:C:O2	35:BA:1506:C:H2'	2.00	0.60
35:DA:304:G:H2'	35:DA:305:U:C6	2.36	0.60
45:DK:84:LEU:HD23	45:DK:84:LEU:H	1.66	0.60
57:BY:80:GLY:O	57:BY:81:LYS:HB2	2.00	0.60
58:BZ:153:SER:HB3	58:BZ:167:PRO:CB	2.32	0.60
35:BA:156:U:H5''	35:BA:158:U:H5	1.67	0.60
58:DZ:153:SER:HG	58:DZ:157:LEU:HD11	1.67	0.60
35:BA:1204:A:N1	35:BA:1241:A:H2	2.00	0.60
29:B4:20:ASN:ND2	29:B4:21:VAL:N	2.46	0.60
4:CD:22:LYS:HG3	4:CD:26:CYS:SG	2.41	0.60
43:DI:5:LEU:C	43:DI:6:LEU:HG	2.21	0.60
54:BV:47:VAL:HG12	54:BV:52:VAL:N	2.17	0.60
3:AC:6:HIS:CD2	3:AC:7:PRO:HD2	2.28	0.60
33:D8:49:VAL:O	33:D8:53:PRO:HG3	2.01	0.60
46:BN:99:LEU:HD12	46:BN:122:VAL:HG21	1.81	0.60
43:BI:92:VAL:HG13	43:BI:120:ILE:HB	1.82	0.60
41:DG:162:THR:O	41:DG:162:THR:CG2	2.48	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1318:A:H1'	19:AS:37:ARG:HH21	1.66	0.60
52:BT:41:ARG:NH2	52:BT:43:GLN:HG3	2.16	0.60
10:CJ:38:ILE:HG12	10:CJ:71:LEU:O	2.00	0.60
26:D1:26:ARG:HH22	35:DA:389:G:H5'	1.65	0.60
25:B0:74:ARG:HH11	25:B0:74:ARG:HG3	1.66	0.60
10:AJ:38:ILE:HG13	10:AJ:71:LEU:HB3	1.82	0.60
7:AG:148:ASN:C	7:AG:150:ALA:H	2.05	0.60
24:CY:135:MET:HB3	24:CY:138:ARG:HH12	1.65	0.60
24:AY:18:ASP:HB3	24:AY:22:LYS:HZ2	1.65	0.60
35:DA:2182:G:H2'	35:DA:2183:C:C6	2.36	0.60
10:CJ:63:PHE:HA	14:CN:59:ALA:H	1.66	0.60
6:AF:75:LEU:O	6:AF:79:LEU:HG	2.01	0.60
35:BA:2732:G:H3'	35:BA:2733:A:C5'	2.32	0.60
6:CF:7:ASN:HD21	18:CR:34:TYR:HE1	1.49	0.60
1:AA:1270:C:O2'	1:AA:1271:G:H5'	2.01	0.60
26:B1:71:TYR:C	26:B1:73:LEU:H	2.04	0.60
17:AQ:12:SER:HB3	17:AQ:20:THR:HB	1.84	0.60
1:CA:1498:U:C5	23:CX:17:U:H5'	2.36	0.60
6:AF:33:TYR:HE2	6:AF:74:ASP:HB2	1.66	0.60
57:BY:28:LYS:HB3	57:BY:38:ILE:H	1.66	0.60
3:AC:173:VAL:O	3:AC:175:LEU:HD12	2.02	0.60
41:BG:140:ILE:HD12	41:BG:141:PHE:N	2.16	0.60
35:BA:2523:G:H2'	35:BA:2524:G:C5'	2.25	0.60
35:DA:1541:G:H4'	35:DA:1542:A:C5'	2.31	0.60
31:D6:30:THR:HB	31:D6:31:PRO:CD	2.31	0.60
51:BS:95:HIS:O	51:BS:98:VAL:HG23	2.02	0.60
4:AD:26:CYS:HA	4:AD:31:CYS:HA	1.82	0.60
24:CY:326:THR:HB	24:CY:347:ALA:HB1	1.83	0.60
46:DN:133:GLN:HG2	46:DN:134:ARG:N	2.11	0.60
24:CY:26:LEU:HB2	24:CY:55:LEU:HD11	1.83	0.60
47:DO:69:ILE:N	47:DO:69:ILE:HD12	2.17	0.60
46:BN:19:GLU:CG	46:BN:20:GLY:N	2.63	0.60
13:CM:89:GLY:O	13:CM:93:ARG:HD2	2.02	0.60
9:CI:40:LEU:C	9:CI:42:ARG:H	2.05	0.60
52:BT:98:LYS:HB3	52:BT:100:TYR:CE1	2.36	0.60
35:BA:1038:C:H42	35:BA:1117:G:H1	1.49	0.60
35:BA:1021:A:C8	35:BA:1021:A:H3'	2.36	0.60
38:BD:35:LYS:O	38:BD:37:LEU:N	2.34	0.60
1:AA:1320:C:H2'	1:AA:1321:C:O4'	2.01	0.60
1:CA:254:G:OP1	17:CQ:67:LYS:O	2.19	0.60
48:BP:16:ARG:HH11	48:BP:16:ARG:CA	2.15	0.60
24:AY:227:LEU:HD22	24:AY:251:VAL:CG1	2.30	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1053:G:N7	1:CA:1200:C:H5''	2.16	0.60
22:AV:21:A:C2'	22:AV:22:G:H5''	2.31	0.60
1:AA:1053:G:N7	1:AA:1200:C:H5''	2.16	0.60
35:DA:27:G:H22	35:DA:512:G:C2'	2.15	0.60
36:BB:15:A:O2'	36:BB:16:G:H5'	2.02	0.60
49:DQ:21:THR:O	49:DQ:22:LYS:HB3	2.00	0.60
53:BU:110:VAL:O	53:BU:114:LYS:HG2	2.01	0.60
1:CA:1291:G:H4'	9:CI:38:GLN:O	2.01	0.60
47:DO:115:VAL:HG13	47:DO:121:VAL:HG21	1.82	0.60
28:B3:45:GLY:HA3	35:BA:851:U:O2'	2.02	0.60
35:BA:1845:G:H2'	35:BA:1846:G:C5'	2.14	0.60
33:D8:6:THR:CG2	35:DA:243:U:OP1	2.50	0.60
35:DA:1590:U:H2'	35:DA:1591:G:C5'	2.16	0.60
42:DH:19:VAL:HG22	42:DH:24:VAL:HG23	1.83	0.60
2:CB:165:VAL:HG23	2:CB:166:ASP:N	2.14	0.60
35:BA:1070:A:H5'	35:BA:1072:C:OP2	2.01	0.60
45:BK:109:LYS:NZ	45:BK:109:LYS:HB3	2.15	0.60
38:BD:27:THR:HG23	38:BD:27:THR:O	2.01	0.60
10:AJ:50:ILE:N	10:AJ:50:ILE:HD13	2.07	0.60
35:BA:654(G):C:H2'	35:BA:654(H):G:C8	2.37	0.60
51:DS:96:GLY:C	51:DS:98:VAL:H	2.05	0.60
35:DA:272(H):C:H2'	35:DA:272(I):U:H5'	1.83	0.60
52:BT:16:ARG:NH1	52:BT:19:LEU:HD21	2.17	0.60
45:BK:23:VAL:CG1	45:BK:26:ALA:HB3	2.32	0.60
43:BI:140:LEU:HD23	43:BI:141:LYS:N	2.17	0.60
1:AA:1132:C:O2'	1:AA:1133:G:H5'	2.02	0.60
36:DB:8:U:C5'	36:DB:8:U:H6	2.14	0.60
29:D4:10:VAL:HB	29:D4:11:PRO:HD2	1.83	0.60
38:BD:13:ARG:NH1	38:BD:16:MET:SD	2.75	0.60
1:CA:413:G:H1'	1:CA:428:G:N2	2.16	0.60
57:DY:88:LYS:NZ	57:DY:93:GLY:CA	2.63	0.60
38:DD:71:ASP:CB	38:DD:103:ARG:HH22	2.13	0.60
4:CD:13:ARG:O	4:CD:15:GLU:N	2.32	0.60
10:AJ:26:ALA:CA	10:AJ:29:ARG:HH12	2.14	0.60
1:CA:519:C:H2'	1:CA:520:A:C8	2.36	0.60
35:DA:1022:G:H22	35:DA:1142(A):A:H2	1.42	0.60
39:BE:9:VAL:CG2	39:BE:25:VAL:HB	2.29	0.60
52:DT:38:ASN:ND2	52:DT:39:ARG:H	1.98	0.60
22:CV:77:PHA:N	22:CV:77:PHA:CD2	2.64	0.60
7:CG:148:ASN:C	7:CG:150:ALA:H	2.04	0.60
24:AY:343:ASP:HA	24:AY:346:TRP:HB2	1.83	0.60
4:CD:127:THR:HA	4:CD:132:ARG:HA	1.82	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:1405:U:H2'	35:DA:1406:U:H6	1.65	0.60
35:BA:2327:A:H2'	35:BA:2328:A:C8	2.37	0.60
41:DG:151:ALA:HB3	41:DG:153:ARG:NH1	2.17	0.60
49:BQ:35:VAL:HG11	49:BQ:130:LYS:HE2	1.82	0.60
35:BA:2184:G:H2'	35:BA:2185:C:C6	2.36	0.60
35:BA:286:C:O2'	35:BA:287:C:H5'	2.02	0.60
5:AE:10:MET:HA	5:AE:32:VAL:HG22	1.84	0.60
17:AQ:82:MET:O	17:AQ:86:GLU:HG2	2.01	0.60
1:CA:1188:A:H2'	1:CA:1189:C:O4'	2.02	0.60
1:CA:1007:C:H2'	1:CA:1008:C:C6	2.36	0.60
1:AA:994:A:N1	1:AA:1047:G:H4'	2.15	0.60
35:BA:2238:G:N3	35:BA:2238:G:H2'	2.17	0.60
35:DA:492:A:H2'	35:DA:493:G:O4'	2.02	0.60
42:DH:137:ASP:HB3	42:DH:140:LYS:HB2	1.84	0.60
30:D5:35:GLU:O	30:D5:36:CYS:CB	2.49	0.60
24:CY:239:GLY:O	24:CY:243:ASN:ND2	2.35	0.60
1:CA:1201:A:H1'	1:CA:1202:G:OP2	2.02	0.60
4:CD:26:CYS:HA	4:CD:31:CYS:HA	1.84	0.60
35:DA:2524:G:C8	35:DA:2524:G:H5'	2.36	0.60
35:DA:2732:G:H3'	35:DA:2733:A:C5'	2.32	0.60
31:B6:15:GLU:CD	31:B6:18:ARG:HE	2.04	0.60
16:CP:49:LEU:HD12	16:CP:50:LYS:H	1.66	0.60
11:AK:22:HIS:HB3	11:AK:29:ILE:CG2	2.31	0.60
48:DP:16:ARG:CA	48:DP:16:ARG:HH11	2.15	0.60
58:DZ:111:VAL:HG23	58:DZ:111:VAL:O	2.02	0.60
24:AY:83:GLU:C	24:AY:84:ARG:HD3	2.21	0.60
35:BA:28:A:N6	35:BA:512:G:H1'	2.17	0.60
35:DA:1011:G:H5''	53:DU:77:SER:HG	1.65	0.60
49:DQ:62:GLY:HA3	49:DQ:109:VAL:HG23	1.84	0.60
58:DZ:56:VAL:HG22	58:DZ:70:LEU:HD21	1.83	0.60
1:CA:430:A:OP2	4:CD:8:VAL:HG22	2.01	0.60
18:AR:53:ARG:C	18:AR:55:ARG:H	2.04	0.60
32:B7:9:ARG:HG3	35:BA:1309:G:OP1	2.01	0.60
10:CJ:5:ARG:HA	10:CJ:73:ASP:OD1	2.01	0.60
17:CQ:82:MET:O	17:CQ:86:GLU:HG2	2.01	0.60
2:AB:117:GLU:HG2	2:AB:117:GLU:O	2.02	0.60
31:D6:19:ARG:HG3	31:D6:20:ASN:N	2.17	0.60
58:DZ:77:ASP:O	58:DZ:79:ARG:N	2.35	0.60
45:DK:54:PRO:HG3	45:DK:71:THR:O	2.02	0.60
51:DS:14:VAL:HG12	51:DS:16:ASN:H	1.66	0.60
29:B4:10:VAL:HB	29:B4:11:PRO:HD2	1.84	0.60
35:BA:1885:A:H3'	35:BA:1886:C:C6	2.37	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DI:6:LEU:HD11	43:DI:36:ALA:HA	1.84	0.60
35:BA:1173:G:C3'	35:BA:1174:A:H5'	2.27	0.60
35:BA:272(H):C:H2'	35:BA:272(I):U:H5'	1.83	0.60
35:BA:272(H):C:H1'	35:BA:363(C):G:N2	2.17	0.60
48:DP:23:PRO:HB2	48:DP:33:ARG:HD2	1.84	0.60
1:CA:1026:G:H3'	1:CA:1027:C:H5'	1.84	0.60
43:BI:60:GLU:HG3	43:BI:61:ARG:HD3	1.84	0.60
48:DP:114:ILE:HD12	48:DP:115:LEU:N	2.17	0.60
39:BE:117:MET:O	39:BE:118:LYS:HB2	2.02	0.60
17:CQ:67:LYS:HA	17:CQ:70:ARG:HH12	1.66	0.60
26:D1:82:LEU:H	26:D1:82:LEU:HD23	1.67	0.60
42:BH:121:ILE:HD13	42:BH:144:VAL:HG21	1.83	0.60
1:CA:999:C:O2'	1:CA:1000:U:H5'	2.01	0.60
1:CA:684:A:H2'	1:CA:685:G:C8	2.37	0.60
5:AE:31:LEU:HD21	5:AE:43:LEU:HD11	1.83	0.60
49:BQ:56:ARG:NH1	58:BZ:180:VAL:HG13	2.17	0.60
35:DA:2193:G:H5'	35:DA:2193:G:H8	1.67	0.60
1:CA:1269:A:H5'	21:CU:18:TYR:O	2.02	0.60
1:CA:69:G:H2'	1:CA:70:G:C8	2.36	0.60
35:BA:1907:G:O2'	35:BA:1908:C:H5'	2.02	0.60
1:AA:1291:G:H4'	9:AI:38:GLN:O	2.02	0.60
35:BA:1910:G:O2'	35:BA:1911:U:H5'	2.02	0.60
24:CY:6:LEU:C	24:CY:8:GLN:H	2.04	0.60
49:BQ:111:GLU:O	49:BQ:115:MET:HG2	2.01	0.60
35:BA:2031:A:C6	35:BA:2498:C:H1'	2.36	0.60
49:BQ:118:LEU:HD12	49:BQ:131:ILE:HG23	1.83	0.60
43:DI:25:TYR:CE1	43:DI:30:LEU:HD21	2.36	0.60
20:CT:23:ARG:O	20:CT:27:LYS:HB2	2.01	0.60
14:AN:12:ARG:NH1	14:AN:12:ARG:HB2	2.17	0.60
35:BA:492:A:H2'	35:BA:493:G:O4'	2.01	0.60
35:DA:559:G:H22	53:DU:49:HIS:CD2	2.19	0.60
33:B8:2:PRO:HA	35:BA:591:C:O2	2.01	0.60
11:AK:92:GLU:HG3	11:AK:96:ARG:HD2	1.82	0.60
54:BV:19:LYS:CE	54:BV:20:LEU:H	2.15	0.60
22:CV:73:A:H5'	22:CV:73:A:N3	2.16	0.60
42:BH:19:VAL:HG22	42:BH:24:VAL:HG23	1.84	0.60
4:AD:129:ASN:ND2	4:AD:145:GLU:H	1.99	0.60
58:BZ:126:VAL:HA	58:BZ:163:LEU:HA	1.83	0.60
58:BZ:157:LEU:CD2	58:BZ:163:LEU:HD22	2.32	0.60
41:DG:113:ARG:O	41:DG:140:ILE:HG13	2.02	0.60
41:BG:106:LEU:HD12	41:BG:110:ALA:CB	2.32	0.60
41:BG:111:LEU:HA	41:BG:114:ILE:CD1	2.32	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BG:41:GLN:HE22	41:BG:153:ARG:HD2	1.67	0.60
1:AA:137:C:H1'	16:AP:63:GLY:HA3	1.84	0.60
49:DQ:15:GLY:O	49:DQ:16:ARG:HG2	2.02	0.60
43:BI:62:LYS:HE2	43:BI:133:HIS:CD2	2.36	0.60
35:BA:1209:G:H21	35:BA:1210:A:H62	1.47	0.60
45:DK:17:ALA:HB3	45:DK:41:PHE:HE2	1.67	0.60
46:BN:133:GLN:HG2	46:BN:134:ARG:N	2.11	0.60
12:AL:60:LEU:C	12:AL:62:SER:H	2.05	0.60
38:DD:165:ILE:HD13	38:DD:175:LEU:CD2	2.32	0.60
22:AV:77:PHA:N	22:AV:77:PHA:CD2	2.63	0.60
39:DE:24:THR:HG22	39:DE:186:GLY:CA	2.30	0.60
58:BZ:53:ILE:HG22	58:BZ:71:VAL:HB	1.84	0.60
7:CG:78:ARG:HG2	7:CG:79:ARG:N	2.16	0.60
27:D2:47:ASN:ND2	35:DA:94(A):G:H21	2.00	0.60
35:DA:174:C:C3'	35:DA:175:G:H5''	2.31	0.60
39:DE:60:ASN:OD1	39:DE:62:PRO:HD2	2.02	0.60
13:CM:13:LYS:HA	13:CM:44:ARG:HH11	1.65	0.60
2:AB:96:ARG:N	2:AB:96:ARG:HD2	2.17	0.60
1:CA:402:G:O2'	1:CA:403:C:H5'	2.01	0.60
35:BA:89:G:OP2	35:BA:90:U:H2'	2.02	0.60
38:BD:142:VAL:HG23	38:BD:192:THR:C	2.22	0.60
41:BG:170:ARG:NH2	41:BG:182:LYS:NZ	2.50	0.60
8:CH:20:TYR:HE2	8:CH:75:ARG:HD2	1.66	0.60
4:AD:8:VAL:HG11	4:AD:115:ARG:NH1	2.17	0.60
35:BA:991:C:H6	35:BA:991:C:H5'	1.67	0.60
35:BA:1181:C:O2'	35:BA:1182:A:H5'	2.01	0.60
35:BA:2201:C:O2'	35:BA:2202:C:H5'	2.00	0.60
1:AA:882:C:O2'	1:AA:883:C:H5'	2.02	0.60
50:DR:38:VAL:HB	50:DR:39:PRO:HD3	1.84	0.60
4:CD:173:TRP:CZ3	4:CD:193:ASP:HB3	2.37	0.60
35:DA:271(C):C:H2'	35:DA:271(D):G:H8	1.65	0.60
52:DT:51:ARG:HG2	52:DT:52:ILE:N	2.17	0.59
35:DA:156:U:H5''	35:DA:158:U:H5	1.66	0.59
13:CM:108:ARG:N	13:CM:108:ARG:HD2	2.17	0.59
41:DG:88:ILE:N	41:DG:88:ILE:HD12	2.17	0.59
3:AC:175:LEU:HD21	3:AC:201:TYR:CE2	2.36	0.59
35:BA:2306:C:N3	41:BG:43:LEU:HA	2.17	0.59
35:BA:1884:A:H2'	35:BA:1885:A:C5'	2.27	0.59
13:CM:123:ALA:HB1	24:CY:162:ALA:HB2	1.82	0.59
51:BS:95:HIS:CG	51:BS:96:GLY:N	2.70	0.59
43:DI:109:ILE:HG13	43:DI:130:TYR:OH	2.02	0.59
43:BI:62:LYS:HG2	43:BI:133:HIS:CD2	2.36	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:DK:23:VAL:CG1	45:DK:26:ALA:HB3	2.30	0.59
35:DA:2732:G:C3'	35:DA:2733:A:H5'	2.31	0.59
25:B0:11:ARG:O	25:B0:14:ARG:NH2	2.35	0.59
3:AC:104:GLN:CD	3:AC:105:GLU:H	2.05	0.59
48:BP:32:THR:CG2	48:BP:37:GLY:HA2	2.32	0.59
4:CD:13:ARG:NH1	4:CD:38:TYR:O	2.34	0.59
19:CS:19:VAL:O	19:CS:22:LEU:HB2	2.02	0.59
10:AJ:6:ILE:O	10:AJ:71:LEU:HD12	2.01	0.59
3:CC:73:PRO:O	3:CC:76:VAL:HG13	2.02	0.59
1:CA:433:C:H2'	1:CA:434:U:C6	2.37	0.59
1:AA:503:C:H2'	1:AA:504:C:C6	2.35	0.59
39:DE:34:VAL:HG13	39:DE:48:GLN:HE21	1.66	0.59
42:BH:83:TYR:HB3	42:BH:134:SER:HA	1.84	0.59
1:CA:1438:G:H2'	1:CA:1439:C:C6	2.37	0.59
35:BA:2093:G:O5'	43:BI:24:GLY:HA3	2.02	0.59
21:AU:25:LYS:HG2	21:AU:26:LYS:N	2.16	0.59
35:DA:2098:U:H2'	35:DA:2099:U:O4'	2.02	0.59
1:AA:100:C:H2'	1:AA:101:A:C8	2.37	0.59
1:AA:397:A:H5'	1:AA:398:C:OP1	2.02	0.59
1:CA:373:A:O2'	1:CA:374:A:H5'	2.01	0.59
35:BA:576:U:H2'	35:BA:577:G:C8	2.37	0.59
35:DA:1910:G:O2'	35:DA:1911:U:H5'	2.02	0.59
4:AD:58:LEU:HD23	4:AD:62:GLN:HG2	1.84	0.59
30:B5:37:LYS:HG3	30:B5:37:LYS:O	2.01	0.59
26:D1:45:ASN:C	26:D1:45:ASN:HD22	2.03	0.59
30:D5:48:GLU:C	30:D5:49:CYS:SG	2.81	0.59
24:CY:214:VAL:HG13	24:CY:215:ASP:N	2.17	0.59
48:DP:7:ARG:HA	48:DP:7:ARG:CZ	2.31	0.59
1:CA:1442(A):G:H3'	1:CA:1442(B):A:H5'	1.84	0.59
46:DN:2:LYS:HZ3	53:DU:95:LEU:HD21	1.62	0.59
38:DD:24:ILE:CG2	38:DD:25:THR:H	2.11	0.59
46:DN:89:LYS:HB3	46:DN:89:LYS:NZ	2.17	0.59
53:BU:66:ASN:HD21	53:BU:76:TYR:H	1.49	0.59
1:CA:1432:G:OP1	52:DT:107:ASP:HB2	2.02	0.59
35:DA:887:A:H1'	35:DA:889:C:N3	2.17	0.59
30:B5:35:GLU:O	30:B5:36:CYS:CB	2.50	0.59
24:CY:196:ASP:OD1	24:CY:200:ARG:HB2	2.02	0.59
19:AS:29:ARG:HD2	19:AS:30:LEU:N	2.15	0.59
38:DD:165:ILE:HD13	38:DD:175:LEU:HD21	1.83	0.59
1:CA:590:C:H2'	1:CA:591:U:C6	2.33	0.59
1:CA:1137:C:H4'	1:CA:1138:G:N2	2.17	0.59
58:DZ:137:ILE:HD11	58:DZ:158:PRO:HG2	1.83	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:AP:74:LEU:O	16:AP:79:VAL:HG23	2.02	0.59
10:AJ:6:ILE:HG22	10:AJ:98:ILE:CG1	2.30	0.59
17:CQ:76:LEU:HD12	17:CQ:77:VAL:H	1.66	0.59
35:DA:548:A:C3'	35:DA:549:G:H5'	2.32	0.59
2:CB:8:LYS:HD3	2:CB:217:ARG:NH1	2.17	0.59
24:CY:128:GLU:HG2	24:CY:204:SER:OG	2.03	0.59
7:AG:78:ARG:HG2	7:AG:79:ARG:N	2.16	0.59
35:BA:597:U:H4'	48:BP:15:ARG:NH1	2.17	0.59
35:DA:2168:G:N2	35:DA:2170:A:H3'	2.17	0.59
45:DK:132:ARG:NH1	45:DK:132:ARG:HB3	2.18	0.59
35:BA:1573:G:H2'	35:BA:1574:C:H5'	1.83	0.59
2:AB:235:SER:HG	2:AB:236:TYR:HD1	1.49	0.59
39:BE:175:VAL:HG22	39:BE:177:PRO:HD3	1.83	0.59
35:DA:2238:G:N3	35:DA:2238:G:H2'	2.16	0.59
7:CG:36:LYS:HB2	7:CG:36:LYS:NZ	2.17	0.59
26:D1:44:PRO:HB2	26:D1:46:LEU:CD1	2.32	0.59
27:B2:16:LEU:O	27:B2:17:SER:HB3	2.00	0.59
58:BZ:150:LEU:HD23	58:BZ:151:HIS:N	2.18	0.59
35:BA:887:A:H1'	35:BA:889:C:N3	2.18	0.59
30:D5:57:VAL:C	30:D5:58:LEU:HD12	2.22	0.59
41:DG:81:LYS:O	41:DG:82:LEU:O	2.20	0.59
35:DA:607:U:C5'	40:DF:103:LYS:HE3	2.32	0.59
13:AM:126:LYS:N	24:AY:160:PRO:HG2	2.16	0.59
54:DV:46:VAL:CG1	54:DV:47:VAL:N	2.65	0.59
1:CA:194:C:C2'	1:CA:195:A:H5''	2.31	0.59
3:CC:70:VAL:O	3:CC:105:GLU:HA	2.02	0.59
45:DK:4:VAL:HG22	45:DK:5:VAL:N	2.12	0.59
46:BN:16:ILE:HG23	46:BN:54:VAL:HG22	1.83	0.59
46:BN:55:VAL:HG22	46:BN:56:ASN:N	2.18	0.59
11:AK:107:SER:C	11:AK:108:ILE:HD12	2.22	0.59
1:AA:1026:G:H3'	1:AA:1027:C:H5'	1.84	0.59
16:CP:43:LYS:HA	16:CP:48:TRP:HB3	1.84	0.59
4:AD:14:ARG:HB2	4:AD:40:PRO:HD2	1.84	0.59
6:AF:68:PRO:CG	6:AF:71:ARG:HG3	2.32	0.59
43:BI:12:LEU:N	43:BI:12:LEU:HD23	2.17	0.59
48:DP:71:VAL:HG13	48:DP:72:PRO:CD	2.33	0.59
39:BE:11:MET:HE3	39:BE:24:THR:HB	1.85	0.59
3:CC:75:VAL:O	3:CC:83:ARG:HG2	2.02	0.59
4:AD:126:ILE:HD12	4:AD:126:ILE:N	2.17	0.59
10:CJ:16:LEU:HD23	10:CJ:94:VAL:CG1	2.31	0.59
10:AJ:16:LEU:HD13	10:AJ:70:ARG:HD2	1.84	0.59
2:AB:88:ALA:HB2	2:AB:219:VAL:HG13	1.83	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:BQ:35:VAL:CG1	49:BQ:130:LYS:HE2	2.33	0.59
42:BH:137:ASP:HB3	42:BH:140:LYS:HB2	1.84	0.59
7:CG:129:GLU:OE2	7:CG:131:LYS:HE2	2.02	0.59
1:AA:397:A:N3	1:AA:397:A:H3'	2.16	0.59
47:BO:98:VAL:HG13	47:BO:117:LEU:HB3	1.84	0.59
35:DA:603:A:H4'	35:DA:604:G:O5'	2.02	0.59
36:DB:94:C:H2'	36:DB:95:C:H6	1.68	0.59
17:AQ:74:LEU:HD12	17:AQ:75:ARG:HG2	1.84	0.59
42:BH:109:PHE:C	42:BH:111:HIS:H	2.05	0.59
1:CA:1285:A:H1'	1:CA:1286:A:OP2	2.01	0.59
46:BN:35:ARG:O	46:BN:37:LYS:N	2.34	0.59
48:DP:80:TYR:CZ	48:DP:111:ARG:HD3	2.36	0.59
52:BT:78:LEU:C	52:BT:79:HIS:ND1	2.56	0.59
38:DD:166:GLN:HE21	38:DD:166:GLN:CA	2.15	0.59
35:BA:969:U:H2'	35:BA:970:C:C6	2.38	0.59
4:AD:100:ARG:CZ	4:AD:137:SER:HA	2.32	0.59
57:DY:38:ILE:HG23	57:DY:39:VAL:N	2.17	0.59
42:BH:19:VAL:HG21	42:BH:43:VAL:O	2.01	0.59
35:DA:1204:A:N1	35:DA:1241:A:H2	2.00	0.59
41:BG:40:ASN:ND2	41:BG:41:GLN:N	2.50	0.59
41:BG:73:ALA:CB	41:BG:87:PRO:HG3	2.32	0.59
35:BA:252:G:P	48:BP:50:ARG:HH11	2.25	0.59
35:DA:2543:G:H2'	35:DA:2544:G:C8	2.38	0.59
1:CA:16:A:O2'	1:CA:17:U:H5'	2.02	0.59
46:BN:123:TYR:OH	46:BN:130:HIS:HE1	1.84	0.59
38:BD:11:PRO:C	38:BD:13:ARG:H	2.05	0.59
53:DU:66:ASN:HD21	53:DU:76:TYR:H	1.47	0.59
22:AV:39:U:H2'	22:AV:40:C:H6	1.66	0.59
27:B2:48:HIS:CE1	35:BA:96:G:C4'	2.86	0.59
10:AJ:37:PRO:HA	10:AJ:72:VAL:HG22	1.83	0.59
24:AY:54:ARG:C	24:AY:56:ARG:H	2.04	0.59
52:DT:41:ARG:NH2	52:DT:43:GLN:HG3	2.17	0.59
47:DO:4:PRO:O	47:DO:5:GLN:CB	2.51	0.59
3:CC:36:ASP:HB3	3:CC:40:ARG:NH1	2.15	0.59
43:DI:60:GLU:C	43:DI:62:LYS:H	2.06	0.59
22:CV:20:U:H5'	22:CV:21:A:OP2	2.03	0.59
35:DA:94:C:H5'	35:DA:94(A):G:OP2	2.03	0.59
1:AA:402:G:O2'	1:AA:403:C:H5'	2.02	0.59
1:CA:377:G:OP1	16:CP:3:LYS:HD2	2.01	0.59
4:CD:121:VAL:O	4:CD:134:ASP:HA	2.02	0.59
4:CD:126:ILE:HD12	4:CD:126:ILE:N	2.17	0.59
48:DP:40:SER:C	48:DP:41:ARG:HE	2.04	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CS:63:THR:HG22	19:CS:66:MET:SD	2.42	0.59
19:CS:66:MET:HA	19:CS:69:HIS:HD2	1.68	0.59
1:AA:1264:C:H2'	1:AA:1265:G:H8	1.66	0.59
37:BC:41:THR:CG2	37:BC:175:PRO:HB2	2.32	0.59
1:AA:950:U:H2'	1:AA:951:G:C8	2.36	0.59
35:DA:1292:U:O2'	35:DA:1293:C:H5'	2.03	0.59
2:AB:24:TRP:CZ3	2:AB:26:PRO:HA	2.37	0.59
1:CA:1161:C:H2'	1:CA:1162:C:C6	2.37	0.59
24:AY:223:LYS:C	24:AY:225:GLU:H	2.06	0.59
47:BO:80:ASP:OD2	52:BT:64:ARG:NH2	2.34	0.59
2:CB:20:GLU:HB2	2:CB:190:THR:OG1	2.01	0.59
22:AW:6:G:N2	22:AW:7:A:H62	2.01	0.59
10:CJ:87:THR:C	10:CJ:89:ASP:H	2.06	0.59
38:BD:201:HIS:O	38:BD:204:ILE:HG12	2.02	0.59
35:BA:422:A:H2'	35:BA:423:A:C8	2.38	0.59
1:AA:1169:A:H2'	1:AA:1170:A:C8	2.37	0.59
24:CY:180:LEU:O	24:CY:210:VAL:HG21	2.02	0.59
31:D6:14:THR:O	31:D6:49:HIS:CB	2.45	0.59
54:DV:18:LEU:HD22	54:DV:19:LYS:H	1.68	0.59
35:DA:1070:A:H5'	35:DA:1072:C:OP2	2.02	0.59
2:AB:172:ILE:H	2:AB:172:ILE:CD1	1.95	0.59
48:BP:7:ARG:HB2	48:BP:8:PRO:CD	2.32	0.59
48:DP:124:LYS:HD3	48:DP:143:GLY:HA3	1.83	0.59
1:CA:1132:C:O2'	1:CA:1133:G:H5'	2.02	0.59
31:D6:32:ASN:O	31:D6:33:LYS:HB2	2.03	0.59
35:DA:1689:A:N6	35:DA:1698:A:H2	1.80	0.59
35:BA:272(H):C:H2'	35:BA:272(I):U:H5"	1.83	0.59
46:DN:55:VAL:HG22	46:DN:56:ASN:N	2.17	0.59
47:DO:77:ILE:HD11	52:DT:72:VAL:CG1	2.32	0.59
3:AC:70:VAL:O	3:AC:105:GLU:HA	2.01	0.59
38:DD:71:ASP:HB2	38:DD:103:ARG:NH2	2.17	0.59
27:B2:4:SER:HA	27:B2:7:ARG:NH1	2.15	0.59
19:AS:29:ARG:HD2	19:AS:29:ARG:N	2.15	0.59
2:CB:18:GLY:H	2:CB:42:ILE:CG2	2.15	0.59
16:CP:28:ARG:NH1	16:CP:28:ARG:HG2	2.17	0.59
38:DD:239:ARG:HG2	38:DD:239:ARG:HH21	1.68	0.59
21:AU:2:GLY:C	21:AU:4:GLY:H	2.06	0.59
35:BA:2811:G:OP1	39:BE:60:ASN:HB2	2.03	0.59
35:DA:61:G:H1	35:DA:94:C:N4	1.99	0.59
3:AC:75:VAL:O	3:AC:83:ARG:HG2	2.02	0.59
46:DN:43:THR:HB	46:DN:46:VAL:HG12	1.84	0.59
23:CX:19:U:O2	24:CY:126:GLY:HA3	2.02	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DE:2:LYS:HD2	39:DE:95:ILE:HG23	1.83	0.59
42:DH:84:SER:O	42:DH:85:LYS:HB3	2.02	0.59
14:CN:12:ARG:NH1	14:CN:14:PRO:HD3	2.18	0.59
7:AG:131:LYS:HG3	7:AG:131:LYS:O	2.01	0.59
35:DA:1438:U:O2'	35:DA:1439:A:H5'	2.02	0.59
37:BC:184:GLU:O	37:BC:185:LYS:HE3	2.03	0.59
39:DE:86:PRO:O	39:DE:88:GLY:N	2.35	0.59
38:DD:201:HIS:O	38:DD:204:ILE:HG12	2.02	0.59
35:DA:394:A:O2'	35:DA:395:U:H5'	2.02	0.59
35:DA:1265:A:OP1	35:DA:1265:A:H8	1.86	0.59
58:BZ:19:ARG:HH12	58:BZ:84:GLU:HA	1.67	0.59
35:DA:1865:G:H5'	35:DA:1866:C:OP2	2.03	0.59
40:BF:7:TYR:HD2	40:BF:16:GLY:H	1.50	0.59
35:DA:779:U:OP1	38:DD:49:ILE:HG22	2.01	0.59
58:DZ:139:VAL:HG21	58:DZ:155:LEU:HD12	1.84	0.59
35:DA:654(G):C:H2'	35:DA:654(H):G:C8	2.37	0.59
22:CW:31:A:H2'	22:CW:32:U:H5'	1.85	0.59
1:AA:194:C:C2'	1:AA:195:A:H5''	2.32	0.59
41:DG:73:ALA:HB3	41:DG:87:PRO:HG2	1.83	0.59
48:DP:101:VAL:HG12	48:DP:106:LEU:HB3	1.84	0.59
31:B6:17:LYS:O	31:B6:18:ARG:HB3	2.01	0.59
12:CL:6:THR:H	12:CL:9:GLN:NE2	1.99	0.59
35:DA:1720:U:H2'	35:DA:1721:G:O4'	2.02	0.59
1:CA:522:C:N4	1:CA:528:C:H42	2.01	0.59
35:DA:626:U:C2	48:DP:105:LEU:HG	2.36	0.59
45:DK:55:VAL:HG13	45:DK:69:THR:HA	1.85	0.59
24:AY:119:THR:HG23	24:AY:166:TYR:CE1	2.37	0.59
1:CA:97:G:O2'	1:CA:98:G:H5''	2.01	0.59
8:CH:6:ILE:HD12	8:CH:6:ILE:N	2.17	0.59
10:CJ:16:LEU:HD13	10:CJ:70:ARG:HD2	1.83	0.59
2:AB:218:ALA:O	2:AB:222:ILE:HG12	2.03	0.59
33:D8:30:ARG:HE	33:D8:30:ARG:HA	1.68	0.59
56:DX:64:LYS:NZ	56:DX:73:ARG:HH21	1.99	0.59
1:AA:936:C:H2'	1:AA:937:A:C8	2.37	0.59
52:BT:77:PRO:O	52:BT:78:LEU:HB2	2.02	0.59
35:DA:969:U:H2'	35:DA:970:C:C6	2.37	0.59
20:AT:23:ARG:O	20:AT:27:LYS:HB2	2.02	0.59
18:CR:25:THR:HG22	18:CR:42:ARG:NH1	2.18	0.59
1:AA:1381:U:H5	1:AA:1382:C:C4	2.20	0.59
35:DA:1419:A:O2'	35:DA:1420:U:H5''	2.03	0.59
58:BZ:103:ARG:O	58:BZ:138:GLU:HA	2.02	0.59
35:DA:2292:C:O2'	35:DA:2293:C:H5'	2.01	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:BT:45:PHE:HE2	52:BT:63:VAL:HB	1.68	0.59
35:BA:2537:U:H2'	35:BA:2538:C:C6	2.37	0.59
6:AF:1:MET:HB3	6:AF:66:GLU:HG2	1.85	0.59
11:AK:58:PRO:HD3	11:AK:89:ALA:HB1	1.84	0.59
13:AM:58:GLU:C	13:AM:60:VAL:H	2.06	0.59
1:AA:512:U:H2'	1:AA:513:C:H6	1.68	0.59
30:B5:57:VAL:C	30:B5:58:LEU:HD12	2.23	0.59
57:BY:96:ILE:HD12	57:BY:99:CYS:CB	2.33	0.59
58:BZ:166:SER:H	58:BZ:167:PRO:HA	1.67	0.59
30:D5:51:TYR:HD2	30:D5:52:TYR:HH	1.45	0.59
1:CA:954:G:H21	1:CA:1227:A:N6	1.98	0.59
13:CM:108:ARG:CZ	13:CM:114:ARG:HG2	2.32	0.59
45:BK:131:ALA:HA	45:BK:136:VAL:CG2	2.32	0.59
39:DE:77:ILE:HG22	39:DE:78:LEU:HG	1.83	0.59
35:DA:272(H):C:H2'	35:DA:272(I):U:H5''	1.84	0.59
48:DP:56:SER:C	48:DP:57:THR:HG1	2.06	0.59
1:CA:1318:A:H1'	19:CS:37:ARG:HH21	1.65	0.59
46:DN:56:ASN:H	46:DN:125:GLY:HA3	1.68	0.59
45:DK:19:PRO:HB2	45:DK:21:PRO:HD2	1.83	0.59
1:AA:1030:C:C2'	1:AA:1030(A):G:H5'	2.32	0.59
5:AE:6:PHE:HD1	5:AE:63:ARG:NH1	2.01	0.59
5:AE:41:VAL:CG2	5:AE:113:ALA:HA	2.32	0.59
43:BI:92:VAL:CG1	43:BI:120:ILE:HD12	2.32	0.59
41:BG:17:PRO:HA	41:BG:20:ILE:CD1	2.31	0.59
42:DH:90:LYS:O	42:DH:94:TYR:HB2	2.03	0.59
1:AA:1305:G:OP1	21:AU:2:GLY:HA3	2.02	0.59
22:AW:68:C:H2'	22:AW:69:G:C8	2.35	0.59
35:BA:1665:A:H4'	47:BO:67:LYS:HB2	1.85	0.59
35:DA:1188:U:O2'	35:DA:1189:A:H5'	2.02	0.59
24:CY:99:ASP:O	24:CY:103:HIS:HB2	2.03	0.59
1:CA:950:U:H2'	1:CA:951:G:C8	2.38	0.59
37:DC:41:THR:CG2	37:DC:175:PRO:HB2	2.32	0.59
1:AA:1188:A:H2'	1:AA:1189:C:O4'	2.01	0.59
35:BA:315:G:H2'	35:BA:316:C:C6	2.37	0.59
2:AB:20:GLU:HB2	2:AB:190:THR:OG1	2.03	0.59
35:BA:2875:C:O2'	52:BT:5:ALA:HB3	2.02	0.59
43:DI:128:LEU:H	43:DI:128:LEU:HD22	1.68	0.59
35:BA:2098:U:H2'	35:BA:2099:U:O4'	2.03	0.59
32:D7:9:ARG:HG3	35:DA:1309:G:OP1	2.02	0.59
47:BO:64:ARG:O	47:BO:82:ASN:HA	2.03	0.59
4:CD:128:VAL:HG12	4:CD:129:ASN:ND2	2.18	0.59
35:DA:2415:G:O3'	48:DP:66:GLY:HA3	2.02	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
58:BZ:150:LEU:O	58:BZ:151:HIS:HB3	2.02	0.59
58:BZ:153:SER:H	58:BZ:167:PRO:HB2	1.66	0.59
13:AM:82:MET:HB2	13:AM:93:ARG:CZ	2.32	0.59
13:AM:88:ARG:CA	13:AM:98:VAL:HG11	2.24	0.59
51:BS:89:ARG:HB3	51:BS:92:TYR:HB3	1.83	0.59
41:DG:114:ILE:O	41:DG:115:ARG:C	2.40	0.59
1:CA:975:A:H5'	1:CA:975:A:H8	1.68	0.59
1:AA:673:G:H2'	1:AA:674:G:H8	1.60	0.59
49:DQ:16:ARG:CB	49:DQ:18:LYS:HZ3	2.11	0.59
45:BK:12:LEU:HD13	45:BK:41:PHE:CE1	2.38	0.59
45:BK:17:ALA:HB3	45:BK:41:PHE:HE2	1.66	0.59
15:AO:82:ILE:HG12	15:AO:87:ILE:HG13	1.84	0.59
45:DK:17:ALA:HB3	45:DK:41:PHE:CE2	2.37	0.59
1:AA:1505:G:C5'	1:AA:1506:U:H5''	2.30	0.59
27:B2:47:ASN:ND2	35:BA:94(A):G:N3	2.50	0.59
43:DI:77:LEU:HD12	43:DI:101:LEU:CD2	2.32	0.59
50:DR:7:GLY:C	50:DR:8:ARG:NE	2.56	0.59
54:BV:2:PHE:O	54:BV:14:VAL:O	2.21	0.59
1:CA:1423:G:P	47:DO:49:ARG:HH12	2.25	0.59
35:BA:1021:A:H8	35:BA:1021:A:H3'	1.68	0.59
12:CL:47:LYS:C	12:CL:47:LYS:HD2	2.23	0.59
4:AD:14:ARG:HA	4:AD:39:PRO:HB3	1.85	0.59
38:DD:120:GLY:O	38:DD:131:LEU:HB3	2.03	0.59
55:DW:8:ARG:HG3	55:DW:8:ARG:NH1	2.18	0.59
38:DD:182:LEU:N	38:DD:272:ALA:HB3	2.18	0.59
47:BO:107:ARG:NH1	52:BT:35:LYS:HD2	2.18	0.59
1:CA:1305:G:OP1	21:CU:2:GLY:HA3	2.02	0.59
35:DA:93:G:H2'	35:DA:94:C:C6	2.37	0.59
57:DY:2:ARG:O	57:DY:4:LYS:N	2.36	0.59
10:AJ:48:THR:HA	10:AJ:62:HIS:CB	2.32	0.59
10:CJ:48:THR:HA	10:CJ:62:HIS:CB	2.33	0.59
35:BA:2136:C:N4	35:BA:2155:G:H22	2.01	0.59
2:AB:8:LYS:HD3	2:AB:217:ARG:NH1	2.18	0.59
1:AA:156:G:O2'	1:AA:157:G:H5'	2.03	0.59
8:AH:51:VAL:CG1	8:AH:60:ARG:HB2	2.33	0.59
4:AD:65:ARG:HD2	4:AD:72:GLU:HA	1.84	0.59
7:AG:129:GLU:OE2	7:AG:131:LYS:HE2	2.02	0.59
10:AJ:44:VAL:HG12	10:AJ:46:ARG:HD2	1.84	0.59
1:AA:477:A:O2'	1:AA:479:C:H5'	2.02	0.59
1:AA:69:G:H2'	1:AA:70:G:C8	2.37	0.59
1:CA:477:A:O2'	1:CA:479:C:H5'	2.03	0.59
19:CS:53:ASN:O	19:CS:77:THR:HG22	2.01	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AG:36:LYS:NZ	7:AG:36:LYS:HB2	2.18	0.59
31:D6:42:TRP:HA	31:D6:42:TRP:CE3	2.37	0.59
12:CL:102:ARG:HD2	12:CL:108:ALA:O	2.03	0.59
1:AA:1161:C:H2'	1:AA:1162:C:C6	2.38	0.59
58:BZ:175:VAL:HB	58:BZ:176:PRO:HD2	1.85	0.59
4:CD:100:ARG:CZ	4:CD:137:SER:HA	2.33	0.59
45:DK:84:LEU:HD22	45:DK:97:GLY:HA3	1.83	0.59
45:DK:93:ARG:H	58:DZ:112:ARG:NH1	2.01	0.59
24:AY:241:GLY:HA2	24:AY:244:THR:CG2	2.27	0.59
3:AC:187:ALA:C	3:AC:188:LEU:HD22	2.23	0.59
1:AA:975:A:H5'	1:AA:975:A:H8	1.68	0.59
35:BA:654(S):G:C5	35:BA:654(T):C:N4	2.71	0.59
24:CY:252:VAL:HG22	24:CY:259:THR:HB	1.84	0.59
54:BV:38:LEU:HD22	54:BV:52:VAL:HG22	1.83	0.59
48:BP:58:THR:O	48:BP:61:ARG:CZ	2.50	0.59
1:CA:191:G:H1'	20:CT:105:SER:CB	2.33	0.59
56:DX:12:VAL:HG23	56:DX:13:LEU:N	2.13	0.59
29:D4:14:ILE:HA	29:D4:31:ILE:HB	1.84	0.59
46:BN:15:LEU:HD13	46:BN:16:ILE:N	2.17	0.59
13:CM:9:ILE:N	13:CM:9:ILE:HD12	2.17	0.59
31:B6:19:ARG:HG3	31:B6:20:ASN:N	2.18	0.59
1:CA:1030:C:C2'	1:CA:1030(A):G:H5'	2.32	0.59
58:BZ:184:ALA:O	58:BZ:185:GLU:HB2	2.02	0.59
1:AA:1137:C:H4'	1:AA:1138:G:N2	2.17	0.59
24:AY:132:TRP:CE2	24:AY:189:LEU:HB2	2.38	0.59
36:BB:75:G:H22	58:BZ:73:GLN:HE21	1.51	0.59
48:BP:18:ARG:HH11	48:BP:18:ARG:HB3	1.67	0.59
39:BE:60:ASN:OD1	39:BE:62:PRO:HD2	2.02	0.59
3:CC:77:ILE:O	3:CC:83:ARG:HB3	2.03	0.59
1:AA:37:U:O2'	1:AA:38:G:H5'	2.03	0.59
39:DE:33:VAL:HG11	39:DE:89:ASP:HA	1.84	0.59
1:AA:1054:C:H41	24:AY:201:ARG:HB2	1.66	0.59
35:BA:2193:G:H8	35:BA:2193:G:H5'	1.68	0.59
45:BK:8:VAL:HG23	45:BK:57:ILE:HB	1.85	0.59
42:DH:74:ASN:HD22	42:DH:138:LYS:HD3	1.68	0.59
18:CR:19:LYS:O	18:CR:20:ALA:HB2	2.02	0.59
1:CA:349:A:O2'	1:CA:350:G:H5'	2.03	0.59
1:CA:1270:C:O2'	1:CA:1271:G:H5'	2.02	0.59
10:AJ:87:THR:C	10:AJ:89:ASP:H	2.06	0.59
5:CE:10:MET:HA	5:CE:32:VAL:HG22	1.84	0.59
35:DA:2867:G:OP2	52:DT:119:LYS:NZ	2.35	0.59
35:BA:1265:A:OP1	35:BA:1265:A:H8	1.86	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:BQ:67:ARG:HH11	49:BQ:67:ARG:HG2	1.68	0.59
17:CQ:52:LYS:H	17:CQ:52:LYS:HD2	1.67	0.59
36:DB:5:C:O2'	36:DB:6:C:H5'	2.02	0.59
10:CJ:90:LEU:N	10:CJ:91:PRO:HD3	2.18	0.59
57:BY:7:VAL:HG21	57:BY:8:LYS:NZ	2.18	0.59
33:B8:23:VAL:HG12	33:B8:46:ARG:NH1	2.18	0.59
35:BA:2414:G:H21	48:BP:67:MET:CE	2.16	0.59
58:DZ:80:ARG:NE	58:DZ:80:ARG:HA	2.16	0.59
2:AB:172:ILE:HD12	2:AB:172:ILE:N	2.03	0.59
52:DT:83:ILE:HG13	52:DT:84:GLN:HG2	1.84	0.59
29:B4:14:ILE:HA	29:B4:31:ILE:HB	1.85	0.59
41:BG:139:LEU:HD12	41:BG:140:ILE:N	2.18	0.59
35:BA:654(S):G:H2'	35:BA:654(T):C:C4	2.38	0.59
27:D2:64:LEU:HD23	27:D2:68:ARG:HD2	1.85	0.59
35:BA:146:G:O2'	35:BA:147:U:H5'	2.02	0.59
13:CM:125:ARG:HD2	24:CY:165:ASP:CB	2.33	0.59
31:B6:26:ASN:HD22	31:B6:32:ASN:ND2	2.00	0.59
24:CY:13:LEU:O	24:CY:17:LEU:HG	2.03	0.59
5:CE:6:PHE:HD1	5:CE:63:ARG:NH1	2.00	0.59
43:DI:77:LEU:HD12	43:DI:101:LEU:HD22	1.85	0.59
38:BD:71:ASP:HB2	38:BD:103:ARG:NH2	2.15	0.59
24:AY:341:LEU:CD2	24:AY:344:LEU:HD11	2.33	0.59
43:DI:71:ILE:HG13	43:DI:72:LEU:CD2	2.33	0.59
7:CG:79:ARG:NH2	23:CX:14:A:H61	1.99	0.59
2:CB:69:LEU:HD23	2:CB:159:PRO:HG2	1.85	0.59
26:B1:27:GLU:OE2	26:B1:28:GLY:N	2.35	0.59
19:AS:66:MET:HA	19:AS:69:HIS:HD2	1.67	0.59
35:BA:2161:C:H2'	35:BA:2162:G:H8	1.68	0.59
22:AV:51:U:H2'	22:AV:52:G:H8	1.66	0.59
1:CA:156:G:O2'	1:CA:157:G:H5'	2.02	0.59
55:DW:82:LEU:HD23	55:DW:84:ARG:NH2	2.17	0.59
45:DK:8:VAL:HG23	45:DK:57:ILE:HB	1.83	0.59
27:B2:43:GLN:O	27:B2:44:LEU:HB2	2.03	0.59
27:B2:57:ILE:O	27:B2:61:LEU:HG	2.03	0.59
43:DI:1:MET:O	43:DI:20:ASP:HA	2.03	0.59
14:CN:12:ARG:HB2	14:CN:12:ARG:NH1	2.17	0.59
1:CA:336:C:H2'	1:CA:337:C:H6	1.67	0.59
37:DC:184:GLU:O	37:DC:185:LYS:HE3	2.02	0.59
35:DA:2728:U:O2'	35:DA:2729:G:H5'	2.03	0.59
6:CF:33:TYR:HE2	6:CF:74:ASP:HB2	1.68	0.59
1:CA:1281:U:H4'	1:CA:1282:C:OP2	2.03	0.59
35:DA:869:G:O2'	35:DA:870:A:H5'	2.02	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:CQ:74:LEU:HD12	17:CQ:75:ARG:HG2	1.84	0.59
7:CG:60:LYS:HD2	7:CG:60:LYS:N	2.18	0.59
38:BD:118:VAL:HG22	38:BD:119:ALA:H	1.67	0.59
36:BB:94:C:H2'	36:BB:95:C:H6	1.68	0.59
42:DH:17:VAL:HG11	42:DH:50:VAL:HG21	1.85	0.58
38:DD:43:ARG:HD2	38:DD:44:ASN:OD1	2.02	0.58
13:AM:88:ARG:HA	13:AM:98:VAL:CG1	2.24	0.58
51:DS:13:ARG:CG	51:DS:14:VAL:N	2.64	0.58
41:DG:95:ARG:O	41:DG:96:ARG:O	2.21	0.58
41:BG:111:LEU:HB2	41:BG:112:PRO:HD3	1.85	0.58
31:D6:33:LYS:O	31:D6:34:LEU:HB2	2.01	0.58
51:BS:96:GLY:O	51:BS:98:VAL:N	2.29	0.58
1:CA:737:A:H2'	1:CA:738:C:H6	1.67	0.58
1:AA:522:C:N4	1:AA:528:C:H42	2.01	0.58
3:AC:119:ARG:HG3	3:AC:119:ARG:HH11	1.68	0.58
7:AG:118:VAL:HG23	7:AG:119:ARG:H	1.67	0.58
1:AA:1112:C:C4	3:AC:178:LEU:HD23	2.38	0.58
3:AC:73:PRO:O	3:AC:76:VAL:HG13	2.03	0.58
3:CC:53:ALA:HB2	3:CC:115:LEU:CD2	2.32	0.58
17:CQ:9:VAL:HG11	17:CQ:84:LEU:HD12	1.84	0.58
54:DV:81:TYR:C	54:DV:82:ARG:HD2	2.23	0.58
47:DO:87:ILE:CG2	47:DO:91:LEU:HA	2.33	0.58
14:AN:12:ARG:NH1	14:AN:14:PRO:HD3	2.18	0.58
1:AA:543:C:H2'	1:AA:544:G:H8	1.67	0.58
12:AL:82:VAL:HG23	12:AL:106:ASP:OD2	2.03	0.58
35:BA:2036:C:H5'	35:BA:2036:C:H6	1.67	0.58
57:BY:90:LEU:HD12	57:BY:91:GLU:OE2	2.03	0.58
10:AJ:90:LEU:N	10:AJ:91:PRO:HD3	2.18	0.58
49:DQ:118:LEU:HD12	49:DQ:131:ILE:HG23	1.84	0.58
1:AA:1333:A:H2'	1:AA:1334:G:O4'	2.03	0.58
1:CA:1496:C:H2'	1:CA:1497:G:O4'	2.01	0.58
54:DV:19:LYS:CE	54:DV:20:LEU:H	2.15	0.58
45:DK:131:ALA:HA	45:DK:136:VAL:CG2	2.33	0.58
36:DB:45:A:H1'	41:DG:95:ARG:HH22	1.68	0.58
45:BK:54:PRO:HG3	45:BK:71:THR:O	2.03	0.58
45:BK:84:LEU:HD22	45:BK:97:GLY:HA3	1.83	0.58
35:BA:1541:G:H1'	35:BA:1542:A:C4	2.38	0.58
35:DA:1885:A:H3'	35:DA:1886:C:C6	2.38	0.58
31:D6:26:ASN:ND2	31:D6:32:ASN:HD21	2.01	0.58
43:DI:113:ARG:HB2	43:DI:130:TYR:CE1	2.37	0.58
43:BI:62:LYS:HZ3	43:BI:134:PRO:HG2	1.67	0.58
1:CA:137:C:H1'	16:CP:63:GLY:CA	2.34	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BK:112:MET:N	45:BK:113:PRO:CD	2.59	0.58
24:AY:123:GLY:HA3	24:AY:305:ILE:CG2	2.29	0.58
22:CV:50:U:H2'	22:CV:51:U:O4'	2.02	0.58
1:CA:1422:G:O3'	47:DO:49:ARG:NH1	2.36	0.58
37:DC:6:LYS:C	37:DC:6:LYS:HD2	2.22	0.58
8:AH:14:ARG:O	8:AH:18:ARG:HD3	2.03	0.58
1:AA:878:G:H5'	8:AH:89:PRO:CG	2.33	0.58
3:AC:116:VAL:O	3:AC:119:ARG:HB3	2.03	0.58
42:BH:30:LYS:HG3	42:BH:80:SER:N	2.18	0.58
2:CB:96:ARG:N	2:CB:96:ARG:HD2	2.18	0.58
46:BN:43:THR:HB	46:BN:46:VAL:HG12	1.85	0.58
56:BX:7:VAL:HB	56:BX:8:ILE:HD12	1.85	0.58
1:AA:692:U:H5	11:AK:26:ASN:HD22	1.50	0.58
1:CA:1439:C:H5'	20:CT:38:LYS:NZ	2.17	0.58
37:BC:181:PHE:HD2	37:BC:185:LYS:HB3	1.68	0.58
1:AA:552:U:O2'	1:AA:553:A:H5'	2.03	0.58
40:BF:185:ASP:HA	40:BF:188:ARG:HG2	1.85	0.58
18:CR:53:ARG:C	18:CR:55:ARG:H	2.05	0.58
49:BQ:136:ALA:C	49:BQ:138:ASP:H	2.06	0.58
50:DR:47:PHE:O	50:DR:51:LEU:HD13	2.02	0.58
38:BD:166:GLN:CA	38:BD:166:GLN:HE21	2.15	0.58
35:BA:603:A:H4'	35:BA:604:G:O5'	2.02	0.58
22:CV:55:U:N3	22:CV:57:G:H5''	2.18	0.58
49:DQ:35:VAL:CG1	49:DQ:130:LYS:HE2	2.33	0.58
42:BH:24:VAL:CG1	42:BH:35:VAL:HB	2.33	0.58
57:BY:96:ILE:CG2	57:BY:97:ARG:H	2.06	0.58
13:AM:90:LEU:HD13	13:AM:94:ARG:NH2	2.18	0.58
24:AY:120:ILE:HG22	24:AY:133:ALA:HB1	1.85	0.58
38:BD:26:LYS:O	38:BD:27:THR:HB	2.04	0.58
14:AN:24:CYS:HB2	14:AN:29:ARG:HB3	1.86	0.58
51:DS:95:HIS:O	51:DS:98:VAL:HG23	2.04	0.58
36:BB:92:C:OP1	49:BQ:19:GLY:HA3	2.02	0.58
39:BE:77:ILE:HG22	39:BE:78:LEU:HG	1.84	0.58
35:DA:1177:A:H5''	35:DA:1178:C:O5'	2.04	0.58
53:DU:95:LEU:HD13	54:DV:4:ILE:HG23	1.85	0.58
13:CM:126:LYS:N	24:CY:161:GLU:N	2.50	0.58
45:BK:18:THR:H	45:BK:19:PRO:CD	2.16	0.58
52:BT:65:LYS:HE3	52:BT:66:VAL:H	1.68	0.58
35:BA:363(A):A:H2'	35:BA:363(A):A:N3	2.18	0.58
52:DT:65:LYS:HE3	52:DT:66:VAL:H	1.68	0.58
45:DK:12:LEU:HD13	45:DK:41:PHE:CE1	2.38	0.58
46:BN:89:LYS:O	46:BN:93:THR:HG22	2.03	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1152:A:H5''	10:CJ:13:HIS:HD2	1.67	0.58
9:AI:50:LEU:O	9:AI:53:VAL:HG22	2.02	0.58
1:CA:1030:C:H5	1:CA:1033:G:N1	2.01	0.58
35:DA:1022:G:N2	35:DA:1142(A):A:C2	2.62	0.58
55:DW:8:ARG:HG3	55:DW:8:ARG:HH11	1.68	0.58
48:DP:16:ARG:O	48:DP:16:ARG:NH1	2.35	0.58
18:CR:38:GLU:HA	18:CR:41:LYS:HB3	1.84	0.58
11:CK:22:HIS:HB3	11:CK:29:ILE:CG2	2.33	0.58
7:CG:118:VAL:HG23	7:CG:119:ARG:H	1.67	0.58
24:AY:19:ILE:HG12	24:AY:62:PHE:CD1	2.38	0.58
41:DG:126:ASP:O	41:DG:128:ARG:NE	2.36	0.58
12:AL:24:VAL:HG22	12:AL:97:ARG:HB3	1.84	0.58
35:DA:2136:C:N4	35:DA:2155:G:H22	2.01	0.58
2:AB:236:TYR:HA	2:AB:239:VAL:CG2	2.33	0.58
1:CA:1169:A:H2'	1:CA:1170:A:C8	2.38	0.58
35:DA:2463:C:O2'	35:DA:2464:C:H5'	2.02	0.58
35:BA:394:A:O2'	35:BA:395:U:H5'	2.03	0.58
27:B2:40:SER:C	27:B2:42:GLY:H	2.07	0.58
1:CA:107:G:C2'	1:CA:108:G:H5'	2.33	0.58
49:DQ:111:GLU:O	49:DQ:115:MET:HG2	2.03	0.58
24:AY:209:GLU:HG2	24:AY:303:ARG:CZ	2.33	0.58
2:CB:172:ILE:N	2:CB:172:ILE:HD12	2.05	0.58
2:AB:164:VAL:O	2:AB:186:ALA:HB1	2.02	0.58
35:DA:654(S):G:H2'	35:DA:654(T):C:C4	2.38	0.58
35:DA:2876:G:H4'	52:DT:3:ARG:CD	2.32	0.58
48:BP:125:VAL:O	48:BP:125:VAL:HG23	2.02	0.58
41:BG:60:LEU:O	41:BG:64:THR:HG22	2.03	0.58
24:CY:120:ILE:HG23	24:CY:133:ALA:HB1	1.84	0.58
4:AD:32:ALA:C	4:AD:35:ARG:HG3	2.23	0.58
43:BI:132:PRO:HG2	43:BI:133:HIS:ND1	2.18	0.58
31:B6:30:THR:HB	31:B6:31:PRO:CD	2.31	0.58
35:BA:2648:C:O2'	35:BA:2649:U:H5'	2.04	0.58
56:DX:12:VAL:HG12	56:DX:27:THR:HG23	1.85	0.58
35:DA:2832:U:H4'	35:DA:2833:G:H5''	1.86	0.58
29:D4:27:THR:C	29:D4:28:LYS:HG2	2.24	0.58
1:AA:1030:C:H5	1:AA:1033:G:N1	2.01	0.58
5:AE:6:PHE:HB2	5:AE:34:VAL:CG2	2.32	0.58
35:BA:1278:A:O3'	50:BR:34:ILE:HD12	2.03	0.58
35:DA:1721:G:H5'	35:DA:1722:A:OP1	2.04	0.58
1:AA:594:G:H1	1:AA:645:C:H42	1.51	0.58
3:AC:53:ALA:HB2	3:AC:115:LEU:CD2	2.33	0.58
24:AY:191:ARG:NE	24:AY:194:PRO:HD3	2.19	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:CU:2:GLY:C	21:CU:4:GLY:H	2.05	0.58
33:B8:32:LEU:HD12	35:BA:2391:G:OP1	2.03	0.58
24:CY:76:MET:CE	24:CY:88:LYS:HE2	2.33	0.58
1:AA:377:G:OP1	16:AP:3:LYS:HD2	2.04	0.58
1:CA:1053:G:C3'	1:CA:1054:C:H5'	2.34	0.58
58:DZ:146:ILE:O	58:DZ:174:VAL:O	2.21	0.58
4:AD:127:THR:HA	4:AD:132:ARG:HA	1.85	0.58
6:CF:45:LEU:HD23	6:CF:45:LEU:C	2.24	0.58
1:AA:1269:A:H5'	21:AU:18:TYR:O	2.03	0.58
50:BR:10:LEU:HD22	50:BR:17:ARG:HD2	1.84	0.58
3:CC:53:ALA:O	3:CC:54:ARG:HB2	2.04	0.58
24:CY:272:LYS:O	24:CY:276:LEU:HG	2.04	0.58
39:BE:69:LYS:O	39:BE:71:GLY:N	2.35	0.58
1:CA:1218:C:H2'	1:CA:1219:U:C6	2.38	0.58
32:D7:24:THR:HG23	32:D7:27:GLY:HA3	1.85	0.58
1:AA:707:C:O2'	1:AA:708:C:H5'	2.03	0.58
41:BG:95:ARG:HH11	41:BG:95:ARG:HG2	1.69	0.58
52:DT:8:LYS:O	52:DT:11:GLU:HB3	2.03	0.58
49:DQ:97:VAL:HG21	49:DQ:103:MET:HE2	1.85	0.58
27:B2:45:SER:O	27:B2:46:GLN:NE2	2.37	0.58
42:DH:109:PHE:C	42:DH:111:HIS:H	2.07	0.58
2:CB:117:GLU:HG2	2:CB:117:GLU:O	2.03	0.58
7:CG:22:LEU:HD23	7:CG:22:LEU:O	2.03	0.58
42:DH:24:VAL:CG1	42:DH:35:VAL:HB	2.33	0.58
45:DK:93:ARG:H	58:DZ:112:ARG:CZ	2.16	0.58
13:AM:108:ARG:N	13:AM:108:ARG:HD2	2.18	0.58
19:AS:6:LYS:CG	19:AS:7:LYS:HE3	2.24	0.58
35:DA:654(B):C:H2'	35:DA:654(C):G:N7	2.18	0.58
52:DT:16:ARG:NH1	52:DT:19:LEU:HD21	2.16	0.58
51:BS:96:GLY:C	51:BS:98:VAL:H	2.06	0.58
4:AD:18:LYS:HE2	4:AD:31:CYS:HB2	1.86	0.58
43:BI:133:HIS:CB	43:BI:134:PRO:CD	2.80	0.58
35:DA:1113:U:H2'	35:DA:1114:G:C8	2.39	0.58
24:CY:52:ALA:O	24:CY:55:LEU:HB2	2.03	0.58
13:CM:82:MET:HB2	13:CM:93:ARG:CZ	2.32	0.58
13:CM:3:ARG:HG2	13:CM:9:ILE:HD11	1.85	0.58
17:AQ:67:LYS:HA	17:AQ:70:ARG:HH12	1.69	0.58
22:CV:50:U:H3	22:CV:64:A:H61	1.50	0.58
2:CB:142:LEU:O	2:CB:142:LEU:HD23	2.03	0.58
4:AD:13:ARG:NH1	4:AD:38:TYR:O	2.37	0.58
1:CA:1320:C:H2'	1:CA:1321:C:O4'	2.03	0.58
35:DA:2148:G:H2'	35:DA:2149:G:H8	1.68	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DH:30:LYS:HG3	42:DH:80:SER:N	2.19	0.58
39:DE:24:THR:HG23	39:DE:184:VAL:CG2	2.34	0.58
26:B1:41:ARG:HH22	35:BA:1365:A:C5'	2.15	0.58
12:AL:47:LYS:C	12:AL:47:LYS:HD2	2.23	0.58
48:BP:114:ILE:HD12	48:BP:115:LEU:N	2.18	0.58
2:AB:119:GLU:C	2:AB:121:LEU:H	2.06	0.58
40:BF:177:ALA:HB1	40:BF:178:PRO:HD2	1.86	0.58
9:CI:31:GLN:NE2	9:CI:36:TYR:HA	2.18	0.58
9:AI:31:GLN:NE2	9:AI:36:TYR:HA	2.18	0.58
39:BE:92:THR:O	39:BE:95:ILE:HG12	2.04	0.58
38:DD:142:VAL:HG23	38:DD:192:THR:C	2.23	0.58
26:D1:45:ASN:HD21	35:DA:2090:G:H21	1.51	0.58
58:BZ:19:ARG:HA	58:BZ:23:LYS:O	2.04	0.58
1:AA:512:U:H2'	1:AA:513:C:C6	2.38	0.58
1:CA:1281:U:H5'	1:CA:1282:C:C5	2.38	0.58
1:AA:369:C:O2'	1:AA:370:C:H5'	2.04	0.58
18:AR:19:LYS:O	18:AR:20:ALA:HB2	2.03	0.58
24:CY:189:LEU:O	24:CY:203:THR:HA	2.03	0.58
35:BA:1396:U:H2'	35:BA:1396:U:O2	2.02	0.58
35:BA:2869:G:H2'	35:BA:2870:C:H6	1.69	0.58
40:BF:167:ALA:HB1	40:BF:173:VAL:HG11	1.86	0.58
1:AA:134:A:H61	16:AP:25:ARG:NH1	2.02	0.58
49:DQ:67:ARG:HG2	49:DQ:67:ARG:HH11	1.67	0.58
22:CV:9:A:H8	22:CV:11:C:N4	2.02	0.58
52:DT:48:ILE:HD12	52:DT:48:ILE:N	2.17	0.58
42:DH:44:VAL:O	42:DH:45:VAL:C	2.41	0.58
40:DF:3:GLU:HA	40:DF:24:LEU:CB	2.33	0.58
38:BD:43:ARG:HD2	38:BD:44:ASN:OD1	2.04	0.58
13:AM:91:ARG:CB	13:AM:98:VAL:HG22	2.34	0.58
41:DG:71:THR:CG2	41:DG:89:GLY:HA3	2.33	0.58
29:B4:27:THR:C	29:B4:28:LYS:HG2	2.23	0.58
41:BG:66:GLN:HB3	41:BG:92:VAL:HG21	1.85	0.58
35:DA:274:G:N3	35:DA:274:G:H2'	2.18	0.58
1:CA:1134:G:C2'	1:CA:1135:U:H5'	2.34	0.58
15:AO:82:ILE:HD13	15:AO:82:ILE:C	2.23	0.58
45:DK:18:THR:H	45:DK:19:PRO:CD	2.16	0.58
29:D4:25:TYR:O	29:D4:26:SER:HB3	2.02	0.58
29:D4:26:SER:HB3	41:DG:105:LYS:HE2	1.85	0.58
43:DI:82:ARG:HB2	43:DI:82:ARG:NH1	2.19	0.58
22:AV:71:G:C2'	22:AV:72:C:H5''	2.33	0.58
35:DA:1721:G:C6	35:DA:1739:U:H5'	2.38	0.58
43:BI:115:ALA:HB3	43:BI:128:LEU:HD12	1.85	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:CV:20:U:C5	22:CV:21:A:H1'	2.39	0.58
8:AH:40:ALA:O	8:AH:42:GLU:N	2.36	0.58
49:BQ:62:GLY:HA3	49:BQ:109:VAL:HG23	1.83	0.58
47:BO:87:ILE:CG2	47:BO:91:LEU:HA	2.33	0.58
38:BD:118:VAL:HG22	38:BD:119:ALA:N	2.19	0.58
2:CB:236:TYR:HA	2:CB:239:VAL:CG2	2.34	0.58
2:AB:36:ARG:O	2:AB:37:ASN:HB3	2.03	0.58
43:BI:116:LEU:HD12	43:BI:117:GLU:H	1.68	0.58
51:DS:56:LEU:O	51:DS:56:LEU:HD23	2.04	0.58
35:BA:2691:C:H5'	35:BA:2691:C:H6	1.68	0.58
39:DE:134:ILE:HD12	39:DE:134:ILE:C	2.24	0.58
36:DB:55:U:O2'	36:DB:56:G:H5'	2.03	0.58
1:CA:994:A:N1	1:CA:1047:G:H4'	2.18	0.58
22:CW:16:U:N3	22:CW:18:G:H2'	2.18	0.58
41:DG:39:ILE:HD12	41:DG:40:ASN:N	2.18	0.58
41:DG:116:ASP:O	41:DG:117:PHE:HB3	2.03	0.58
35:BA:2524:G:C8	35:BA:2524:G:H5'	2.38	0.58
24:CY:61:THR:HG21	24:CY:101:LEU:CD1	2.29	0.58
4:AD:28:SER:O	4:AD:30:LYS:N	2.36	0.58
24:AY:211:ILE:CG2	24:AY:299:ARG:HG2	2.28	0.58
48:BP:101:VAL:HG12	48:BP:106:LEU:HB3	1.84	0.58
19:CS:29:ARG:HD2	19:CS:30:LEU:N	2.15	0.58
2:CB:18:GLY:N	2:CB:42:ILE:HG22	2.19	0.58
1:AA:523:A:N6	12:AL:53:ARG:HH12	2.02	0.58
6:CF:68:PRO:CG	6:CF:71:ARG:HG3	2.31	0.58
19:AS:10:PHE:HZ	19:AS:70:LYS:NZ	2.00	0.58
42:DH:88:LEU:HD12	42:DH:90:LYS:CE	2.33	0.58
24:CY:270:LYS:NZ	25:D0:5:LYS:HD3	2.18	0.58
35:DA:2811:G:OP1	39:DE:60:ASN:HB2	2.03	0.58
57:BY:2:ARG:O	57:BY:4:LYS:N	2.37	0.58
35:BA:626:U:H5''	35:BA:627:A:H5'	1.85	0.58
35:BA:2580:U:H5'	39:BE:131:ALA:HB2	1.85	0.58
2:CB:16:HIS:HB3	2:CB:210:SER:CB	2.33	0.58
55:BW:18:ARG:HG2	55:BW:18:ARG:HH11	1.68	0.58
35:DA:218:A:C2	35:DA:235:U:H4'	2.39	0.58
2:AB:132:LYS:HG3	2:AB:135:GLN:NE2	2.18	0.58
1:CA:358:U:H2'	1:CA:359:U:C6	2.39	0.58
25:B0:16:SER:OG	35:BA:2261:C:H3'	2.03	0.58
1:AA:1281:U:H4'	1:AA:1282:C:OP2	2.04	0.58
1:AA:1410:G:H2'	1:AA:1411:C:C6	2.38	0.58
33:D8:23:VAL:HG12	33:D8:46:ARG:NH1	2.18	0.58
10:CJ:44:VAL:HG12	10:CJ:46:ARG:HD2	1.85	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:867:G:O2'	1:AA:868:C:H5'	2.02	0.58
1:CA:882:C:O2'	1:CA:883:C:H5'	2.04	0.58
1:AA:1058:G:H2'	1:AA:1059:C:C6	2.39	0.58
35:BA:2728:U:O2'	35:BA:2729:G:H5'	2.04	0.58
26:D1:3:LYS:HG2	26:D1:4:VAL:H	1.69	0.58
1:CA:1234:C:O2'	1:CA:1235:U:H5'	2.03	0.58
30:B5:56:LYS:HG3	30:B5:59:GLU:OE2	2.04	0.58
40:BF:3:GLU:HA	40:BF:24:LEU:CB	2.34	0.58
45:DK:111:LYS:HB3	45:DK:115:LEU:HD11	1.86	0.58
37:DC:52:PRO:HG2	37:DC:53:ARG:HD3	1.85	0.58
24:CY:236:GLY:O	24:CY:237:PRO:O	2.21	0.58
41:BG:61:ALA:HB2	41:BG:68:PRO:HD3	1.85	0.58
51:DS:95:HIS:CG	51:DS:96:GLY:N	2.71	0.58
53:DU:91:ASP:O	53:DU:95:LEU:HB2	2.04	0.58
35:DA:1858:G:H2'	35:DA:1883:G:H22	1.66	0.58
22:CW:77:PHA:HB2	26:D1:33:LYS:HZ1	1.67	0.58
15:CO:82:ILE:C	15:CO:82:ILE:HD13	2.24	0.58
31:B6:32:ASN:O	31:B6:33:LYS:HB2	2.03	0.58
35:BA:94:C:H5'	35:BA:94(A):G:OP2	2.04	0.58
35:BA:529:A:H62	35:BA:2041:U:H3	1.52	0.58
58:BZ:146:ILE:HG13	58:BZ:147:GLY:N	2.18	0.58
26:D1:74:VAL:O	26:D1:77:ALA:HB3	2.04	0.58
35:DA:1142(A):A:O2'	35:DA:1143:A:H3'	2.03	0.58
12:CL:38:THR:OG1	12:CL:39:VAL:HG23	2.04	0.58
41:BG:18:GLU:O	41:BG:21:ARG:HB3	2.04	0.58
45:BK:14:ALA:HB1	45:BK:50:ASP:HA	1.84	0.58
11:AK:29:ILE:CG1	11:AK:44:SER:HB3	2.31	0.58
1:AA:1327:C:H2'	1:AA:1328:C:C6	2.39	0.58
42:BH:88:LEU:HD12	42:BH:90:LYS:CE	2.33	0.58
12:CL:24:VAL:HG22	12:CL:97:ARG:HB3	1.86	0.58
35:DA:2580:U:H4'	39:DE:130:GLY:HA2	1.85	0.58
39:BE:24:THR:HG23	39:BE:184:VAL:CG2	2.33	0.58
1:AA:433:C:H2'	1:AA:434:U:C6	2.38	0.58
52:DT:53:ARG:CB	52:DT:53:ARG:NH1	2.67	0.58
1:AA:1030(D):A:H2'	1:AA:1031:G:H5'	1.84	0.58
1:AA:93:G:O2'	1:AA:96:U:H5'	2.04	0.58
39:DE:67:PHE:O	39:DE:70:ALA:HB2	2.03	0.58
2:CB:218:ALA:O	2:CB:222:ILE:HG12	2.03	0.58
38:BD:210:GLY:O	38:BD:212:SER:N	2.34	0.58
1:AA:542:G:P	4:AD:10:ARG:HH22	2.26	0.58
3:AC:148:GLY:HA3	3:AC:172:ARG:O	2.04	0.58
49:BQ:21:THR:O	49:BQ:22:LYS:HB3	2.04	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BD:168:ARG:HH11	38:BD:168:ARG:HG3	1.69	0.58
35:BA:2223:G:C2'	35:BA:2224:G:H5'	2.34	0.58
4:AD:173:TRP:CZ3	4:AD:193:ASP:HB3	2.38	0.58
25:B0:51:VAL:CG2	25:B0:81:VAL:HG23	2.34	0.58
35:DA:2031:A:C6	35:DA:2498:C:H1'	2.38	0.58
58:DZ:114:GLY:O	58:DZ:177:PRO:HD3	2.04	0.58
40:BF:140:LEU:HD13	40:BF:170:LEU:HD21	1.86	0.58
35:DA:588:U:H2'	35:DA:589:C:C6	2.38	0.58
55:BW:1:MET:CE	55:BW:2:GLU:H	2.17	0.58
35:BA:1771:C:HO2'	35:BA:1786:A:H8	1.51	0.58
31:D6:39:TYR:O	31:D6:47:THR:O	2.22	0.58
52:BT:28:VAL:HB	52:BT:88:ILE:HG12	1.86	0.58
35:DA:612:C:C3'	35:DA:613:G:H5''	2.34	0.58
35:DA:2801(A):A:C4'	35:DA:2802:G:H5'	2.10	0.58
35:BA:1748:G:C8	35:BA:1748:G:H5'	2.39	0.58
45:DK:95:LYS:HG3	45:DK:137:GLU:N	2.19	0.58
45:DK:99:ILE:O	45:DK:138:VAL:HA	2.04	0.58
48:DP:146:VAL:CG2	48:DP:147:LEU:H	1.95	0.58
41:DG:77:ILE:CG2	41:DG:80:PHE:H	2.16	0.58
45:BK:99:ILE:O	45:BK:138:VAL:HA	2.04	0.58
41:BG:96:ARG:CG	41:BG:97:ASP:H	2.09	0.58
3:CC:187:ALA:C	3:CC:188:LEU:HD22	2.24	0.58
3:CC:16:ARG:HB2	3:CC:16:ARG:HH11	1.66	0.58
35:DA:363(A):A:N3	35:DA:363(A):A:H2'	2.19	0.58
53:DU:90:VAL:HG22	54:DV:39:LEU:HB2	1.85	0.58
50:DR:2:ARG:CB	50:DR:5:LYS:HZ3	2.15	0.58
24:CY:57:ARG:HA	24:CY:60:ASP:OD1	2.03	0.58
35:BA:2655:G:H1'	35:BA:2656:U:H5	1.68	0.58
24:CY:312:ARG:HE	24:CY:344:LEU:CD1	2.16	0.58
24:CY:33:LEU:HD12	45:DK:25:PRO:HG3	1.85	0.58
56:BX:72:LYS:N	56:BX:72:LYS:HD2	2.18	0.58
50:DR:7:GLY:C	50:DR:8:ARG:HE	2.07	0.58
38:DD:131:LEU:CD1	38:DD:136:ILE:HG12	2.33	0.58
7:AG:17:VAL:HG12	7:AG:18:TYR:CD1	2.38	0.58
24:AY:23:GLU:O	24:AY:26:LEU:HG	2.04	0.58
24:AY:319:ASN:OD1	24:AY:333:PRO:HD2	2.04	0.58
19:CS:46:GLY:N	19:CS:62:ILE:HG23	2.19	0.58
19:CS:46:GLY:H	19:CS:62:ILE:HG23	1.67	0.58
3:CC:116:VAL:O	3:CC:119:ARG:HB3	2.04	0.58
30:D5:43:HIS:HD2	35:DA:2815:C:O2'	1.87	0.58
35:BA:2182:G:H2'	35:BA:2183:C:C6	2.37	0.58
41:BG:122:PRO:HG3	41:BG:182:LYS:HA	1.84	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:D0:16:SER:OG	35:DA:2261:C:H3'	2.03	0.58
52:BT:51:ARG:HG2	52:BT:52:ILE:N	2.19	0.58
1:AA:69:G:H2'	1:AA:70:G:H8	1.67	0.58
1:AA:336:C:H2'	1:AA:337:C:H6	1.69	0.58
8:CH:12:ARG:HH12	8:CH:27:PRO:CD	2.17	0.58
35:DA:1101:U:O2'	35:DA:1102:C:H5'	2.04	0.58
2:AB:52:GLU:O	2:AB:56:ARG:HG2	2.04	0.58
17:CQ:3:LYS:HD2	17:CQ:60:ILE:HD11	1.86	0.58
2:CB:36:ARG:O	2:CB:37:ASN:HB3	2.04	0.58
35:BA:1509(B):A:H2'	35:BA:1510:G:C8	2.39	0.58
35:BA:1865:G:H5'	35:BA:1866:C:OP2	2.04	0.58
45:DK:59:ILE:N	45:DK:59:ILE:HD12	2.19	0.58
4:AD:53:ASP:O	4:AD:57:ARG:HD3	2.03	0.58
3:AC:134:ILE:HG23	3:AC:151:VAL:HB	1.86	0.58
52:BT:27:THR:HA	52:BT:87:ASP:HB2	1.85	0.58
35:DA:1054:A:C2'	35:DA:1055:G:H5''	2.34	0.58
48:BP:7:ARG:HA	48:BP:7:ARG:CZ	2.33	0.58
35:DA:654(S):G:C5	35:DA:654(T):C:N4	2.71	0.58
49:BQ:19:GLY:HA3	58:BZ:79:ARG:HH12	1.69	0.58
35:BA:143:G:H4'	56:BX:35:THR:HG21	1.86	0.58
52:BT:30:VAL:HG22	52:BT:84:GLN:O	2.03	0.58
48:BP:58:THR:O	48:BP:58:THR:HG22	2.03	0.58
1:CA:673:G:H2'	1:CA:674:G:H8	1.61	0.58
24:AY:326:THR:OG1	24:AY:328:LEU:HD13	2.04	0.58
47:BO:77:ILE:HD11	52:BT:72:VAL:CG1	2.34	0.58
10:AJ:3:LYS:O	10:AJ:100:THR:HG23	2.04	0.58
1:AA:1422:G:O3'	47:BO:49:ARG:NH1	2.36	0.58
56:BX:63:LYS:HB3	56:BX:72:LYS:HG3	1.84	0.58
57:BY:88:LYS:NZ	57:BY:93:GLY:CA	2.66	0.58
40:BF:123:LEU:HD12	40:BF:124:LEU:N	2.18	0.58
1:CA:625:G:H2'	1:CA:626:U:C6	2.39	0.58
12:AL:75:HIS:HD2	12:AL:77:LEU:HB2	1.68	0.58
25:D0:74:ARG:HH11	25:D0:74:ARG:HG3	1.67	0.58
35:DA:2591:C:OP1	38:DD:239:ARG:HG2	2.04	0.58
26:B1:6:GLU:O	26:B1:7:ILE:HD12	2.03	0.58
35:DA:626:U:H5''	35:DA:627:A:H5'	1.86	0.58
2:CB:17:PHE:H	2:CB:17:PHE:HD2	1.52	0.58
34:D9:31:LYS:NZ	35:DA:2478:A:OP1	2.36	0.58
47:BO:13:ASN:ND2	47:BO:97:ARG:HB2	2.18	0.58
47:BO:13:ASN:C	47:BO:15:GLY:H	2.08	0.58
35:BA:548:A:C3'	35:BA:549:G:H5'	2.33	0.58
2:AB:140:HIS:O	2:AB:144:ARG:HG2	2.04	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:956:G:OP2	49:DQ:14:ARG:NH2	2.36	0.58
1:AA:66:G:H4'	1:AA:173:U:C5	2.39	0.58
26:D1:45:ASN:HD21	26:D1:47:GLN:HE21	1.51	0.58
11:CK:92:GLU:HG3	11:CK:96:ARG:HD2	1.84	0.58
52:BT:8:LYS:O	52:BT:11:GLU:HB3	2.03	0.58
1:CA:1383:C:H2'	1:CA:1384:C:H6	1.69	0.58
11:AK:67:ASP:OD1	11:AK:71:LYS:HE3	2.04	0.58
35:BA:1952:A:C6	47:BO:22:ILE:HD12	2.39	0.58
1:AA:1234:C:O2'	1:AA:1235:U:H5'	2.04	0.58
35:DA:2036:C:H5'	35:DA:2036:C:H6	1.69	0.58
35:BA:1150:C:O2'	35:BA:1151:G:H5'	2.04	0.58
35:BA:221:A:H4'	35:BA:222:A:O5'	2.04	0.58
36:DB:40:U:H3'	36:DB:41:U:H5''	1.86	0.58
46:DN:35:ARG:O	46:DN:37:LYS:N	2.36	0.58
57:BY:28:LYS:HA	57:BY:39:VAL:H	1.68	0.57
57:DY:28:LYS:HA	57:DY:39:VAL:H	1.69	0.57
7:AG:84:ASN:HB2	22:AW:38:A:H61	1.67	0.57
2:CB:162:ILE:HD11	2:CB:184:VAL:HG22	1.86	0.57
22:CW:56:C:C4	35:DA:2169:A:H2	2.22	0.57
51:DS:87:PHE:HB2	51:DS:106:ARG:NE	2.08	0.57
22:AW:17:C:H2'	22:AW:17:C:O2	2.02	0.57
35:BA:2208:A:H1'	35:BA:2219:G:C5	2.39	0.57
4:CD:9:CYS:HB3	4:CD:32:ALA:HB2	1.86	0.57
51:DS:96:GLY:O	51:DS:98:VAL:N	2.29	0.57
13:AM:125:ARG:CA	24:AY:159:GLY:HA3	2.33	0.57
51:BS:87:PHE:HB2	51:BS:106:ARG:NE	2.09	0.57
53:BU:91:ASP:OD1	53:BU:96:ALA:CB	2.52	0.57
35:BA:259:G:N2	35:BA:621:A:H8	1.96	0.57
50:DR:2:ARG:HB2	50:DR:5:LYS:HE2	1.86	0.57
35:BA:274:G:H2'	35:BA:274:G:N3	2.19	0.57
35:BA:1113:U:H2'	35:BA:1114:G:C8	2.39	0.57
46:DN:128:HIS:CE1	46:DN:134:ARG:HD3	2.39	0.57
35:DA:2564:A:C2	35:DA:2647:U:H4'	2.39	0.57
29:D4:30:GLU:O	29:D4:31:ILE:HD13	2.04	0.57
24:CY:150:GLN:HE21	24:CY:172:LYS:HZ1	1.48	0.57
35:BA:943:U:OP2	48:BP:38:GLN:CD	2.42	0.57
26:D1:50:ARG:HH21	35:DA:2199:A:H5'	1.68	0.57
16:CP:43:LYS:C	16:CP:45:THR:H	2.07	0.57
38:DD:131:LEU:HD13	38:DD:136:ILE:CG1	2.33	0.57
1:AA:625:G:H2'	1:AA:626:U:C6	2.39	0.57
48:DP:18:ARG:HH11	48:DP:18:ARG:HB3	1.65	0.57
22:CV:26:A:N6	22:CV:44:G:H1	2.00	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BE:59:VAL:CG2	39:BE:63:LEU:HG	2.34	0.57
38:BD:120:GLY:O	38:BD:131:LEU:HB3	2.04	0.57
57:BY:2:ARG:HD3	57:BY:3:VAL:HG23	1.85	0.57
1:CA:376:G:O2'	1:CA:377:G:H5'	2.03	0.57
52:BT:53:ARG:NH1	52:BT:53:ARG:CB	2.67	0.57
1:AA:501:C:H2'	1:AA:502:G:C8	2.39	0.57
39:DE:69:LYS:C	39:DE:71:GLY:N	2.58	0.57
39:DE:69:LYS:O	39:DE:71:GLY:N	2.37	0.57
35:DA:2161:C:H2'	35:DA:2162:G:H8	1.68	0.57
25:B0:25:ARG:HG2	25:B0:25:ARG:HH11	1.68	0.57
5:AE:36:ASP:OD2	5:AE:40:ARG:HB2	2.04	0.57
2:CB:7:VAL:C	2:CB:217:ARG:HH22	2.07	0.57
40:BF:163:VAL:O	40:BF:166:ALA:HB3	2.04	0.57
17:AQ:26:GLN:O	17:AQ:27:PHE:HB3	2.04	0.57
35:DA:185:U:H4'	35:DA:218:A:H4'	1.86	0.57
39:DE:92:THR:O	39:DE:95:ILE:HG12	2.04	0.57
35:BA:2022:U:O2'	35:BA:2617:C:H5'	2.04	0.57
1:CA:637:G:H2'	1:CA:638:G:H8	1.69	0.57
45:BK:132:ARG:NH1	45:BK:132:ARG:HB3	2.18	0.57
4:CD:8:VAL:HG11	4:CD:115:ARG:NH1	2.19	0.57
1:AA:1194:U:H2'	1:AA:1195:C:C6	2.39	0.57
38:DD:65:ILE:O	38:DD:65:ILE:HD13	2.03	0.57
35:DA:2208:A:H1'	35:DA:2219:G:C5	2.38	0.57
47:BO:10:VAL:HG21	47:BO:16:ALA:O	2.03	0.57
22:AV:68:C:O2'	22:AV:69:G:H5'	2.04	0.57
26:B1:58:ILE:HD11	26:B1:60:PHE:CE2	2.39	0.57
20:AT:24:LEU:C	20:AT:24:LEU:HD13	2.24	0.57
35:BA:614(A):U:H4'	35:BA:614(B):G:H5''	1.85	0.57
7:AG:60:LYS:HD2	7:AG:60:LYS:N	2.18	0.57
40:BF:192:LEU:HD22	40:BF:194:MET:HG3	1.86	0.57
33:B8:6:THR:HB	33:B8:63:PRO:HG3	1.86	0.57
35:BA:1485:G:H1'	35:BA:1505:C:N4	2.18	0.57
40:DF:24:LEU:HD13	40:DF:118:ALA:HB1	1.86	0.57
58:BZ:150:LEU:C	58:BZ:150:LEU:HD23	2.25	0.57
35:BA:1056:G:H4'	35:BA:1085:A:H2	1.69	0.57
58:DZ:121:HIS:HB2	58:DZ:171:ILE:HA	1.86	0.57
38:BD:25:THR:HG22	38:BD:26:LYS:N	2.19	0.57
41:BG:67:LYS:H	41:BG:67:LYS:HD2	1.67	0.57
52:DT:88:ILE:HG22	52:DT:89:VAL:HG22	1.85	0.57
1:AA:137:C:H1'	16:AP:63:GLY:CA	2.33	0.57
53:BU:92:ARG:CZ	54:BV:11:GLN:H	2.17	0.57
53:BU:95:LEU:HD13	54:BV:4:ILE:HG23	1.85	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:272(H):C:H1'	35:DA:363(C):G:N2	2.19	0.57
54:DV:38:LEU:HD22	54:DV:52:VAL:HG22	1.86	0.57
4:AD:22:LYS:HG3	4:AD:26:CYS:SG	2.44	0.57
4:AD:9:CYS:HB3	4:AD:32:ALA:HB2	1.85	0.57
7:CG:37:ASN:ND2	9:CI:40:LEU:HA	2.14	0.57
1:AA:521:G:H4'	12:AL:73:GLU:HG2	1.86	0.57
58:BZ:97:GLU:O	58:BZ:98:MET:HB3	2.04	0.57
52:DT:36:GLU:HG2	52:DT:36:GLU:O	2.04	0.57
19:AS:22:LEU:HA	19:AS:27:GLU:CD	2.25	0.57
2:CB:119:GLU:C	2:CB:121:LEU:H	2.07	0.57
2:AB:126:GLU:HA	2:AB:129:GLU:HG2	1.87	0.57
4:AD:172:PRO:HD3	6:CF:21:LEU:HD11	1.86	0.57
2:AB:16:HIS:HB3	2:AB:210:SER:HA	1.86	0.57
58:BZ:95:PRO:HA	58:BZ:129:SER:HA	1.86	0.57
1:CA:692:U:H5	11:CK:26:ASN:HD22	1.53	0.57
7:CG:87:VAL:HG21	7:CG:154:TYR:HB3	1.86	0.57
1:AA:1218:C:H2'	1:AA:1219:U:C6	2.39	0.57
4:AD:100:ARG:NH1	4:AD:137:SER:HA	2.18	0.57
37:BC:184:GLU:O	37:BC:188:ASP:HB2	2.04	0.57
37:BC:185:LYS:O	37:BC:189:ASN:HB2	2.04	0.57
35:BA:2869:G:H2'	35:BA:2870:C:C6	2.39	0.57
1:AA:237:C:H4'	17:AQ:25:ARG:HH12	1.69	0.57
1:CA:237:C:H4'	17:CQ:25:ARG:HH12	1.69	0.57
35:BA:2168:G:N2	35:BA:2170:A:H3'	2.19	0.57
22:CW:70:G:H2'	22:CW:71:G:H8	1.69	0.57
8:CH:5:PRO:O	8:CH:8:ASP:HB3	2.04	0.57
44:BJ:56:UNK:CB	44:BJ:83:UNK:HA	2.34	0.57
1:CA:1381:U:H5	1:CA:1382:C:C4	2.21	0.57
35:BA:852:G:O2'	35:BA:853:G:H5'	2.04	0.57
3:AC:60:ALA:O	3:AC:61:ALA:HB2	2.03	0.57
24:CY:269:ILE:HD12	49:DQ:80:GLU:HG3	1.84	0.57
24:AY:10:LEU:O	24:AY:14:ARG:HG3	2.03	0.57
1:CA:1059:C:O2	10:CJ:53:PRO:HG3	2.04	0.57
52:DT:10:VAL:O	52:DT:13:ARG:HG2	2.03	0.57
57:DY:98:VAL:O	57:DY:99:CYS:SG	2.62	0.57
4:AD:128:VAL:HG12	4:AD:129:ASN:ND2	2.19	0.57
24:CY:238:GLY:HA2	35:DA:2602:A:N3	2.20	0.57
35:DA:1541:G:H1'	35:DA:1542:A:C4	2.39	0.57
51:BS:26:LEU:HD23	51:BS:39:ILE:HG13	1.86	0.57
51:DS:34:HIS:HB3	51:DS:53:SER:CB	2.30	0.57
48:DP:50:ARG:NH2	48:DP:50:ARG:HG2	2.20	0.57
13:AM:119:GLY:HA2	22:AV:29:G:OP1	2.05	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:BR:7:GLY:C	50:BR:8:ARG:NE	2.57	0.57
22:AV:72:C:C2'	22:AV:73:A:H5''	2.34	0.57
22:AV:72:C:H3'	22:AV:73:A:C5'	2.30	0.57
12:AL:45:PRO:HG3	12:AL:53:ARG:HD3	1.87	0.57
19:AS:22:LEU:HA	19:AS:27:GLU:OE2	2.04	0.57
1:CA:1212:U:H2'	24:CY:78:GLU:OE2	2.03	0.57
48:BP:85:LEU:CD2	48:BP:114:ILE:HD11	2.32	0.57
35:DA:2787:C:O2	39:DE:61:ARG:NH1	2.38	0.57
1:AA:376:G:O2'	1:AA:377:G:H5'	2.05	0.57
13:AM:14:ARG:HA	13:AM:43:THR:O	2.04	0.57
1:AA:684:A:H2'	1:AA:685:G:C8	2.39	0.57
35:BA:956:G:OP2	49:BQ:14:ARG:NH2	2.37	0.57
1:AA:1053:G:C3'	1:AA:1054:C:H5'	2.34	0.57
13:CM:65:LYS:CE	13:CM:69:GLU:HG3	2.34	0.57
37:DC:184:GLU:O	37:DC:188:ASP:HB2	2.03	0.57
37:DC:185:LYS:O	37:DC:189:ASN:HB2	2.04	0.57
1:CA:107:G:H2'	1:CA:108:G:H5'	1.86	0.57
1:AA:1281:U:H5'	1:AA:1282:C:C5	2.39	0.57
35:BA:2199:A:H5'	35:BA:2200:C:OP2	2.04	0.57
1:AA:663:A:O2'	1:AA:664:G:H5'	2.05	0.57
35:DA:1015:G:O2'	35:DA:1016:G:H5'	2.04	0.57
35:DA:614(A):U:H4'	35:DA:614(B):G:H5''	1.86	0.57
14:AN:25:VAL:HG23	14:AN:38:GLY:O	2.04	0.57
1:AA:783:C:O2'	1:AA:784:C:H5'	2.03	0.57
35:BA:2061:G:H5''	35:BA:2503:A:C2	2.39	0.57
1:CA:1203:C:H2'	1:CA:1204:A:C8	2.40	0.57
12:AL:110:VAL:CG2	12:AL:120:TYR:HB3	2.34	0.57
35:BA:1961:C:C2'	35:BA:1962:C:H5'	2.35	0.57
51:BS:56:LEU:O	51:BS:56:LEU:HD23	2.04	0.57
35:DA:66:C:H2'	35:DA:67:U:H6	1.70	0.57
7:AG:22:LEU:HD23	7:AG:22:LEU:O	2.04	0.57
1:CA:1327:C:H2'	1:CA:1328:C:C6	2.39	0.57
35:BA:2196:C:O2'	35:BA:2197:U:H5'	2.03	0.57
24:CY:303:ARG:NH2	35:DA:1914:C:C2'	2.60	0.57
57:DY:28:LYS:HZ2	57:DY:37:VAL:HG11	1.69	0.57
57:DY:27:VAL:O	57:DY:29:GLU:OE1	2.22	0.57
45:DK:137:GLU:HG3	45:DK:138:VAL:H	1.69	0.57
1:AA:1228:C:H2'	1:AA:1229:A:H8	1.68	0.57
13:CM:91:ARG:CB	13:CM:98:VAL:HG22	2.34	0.57
51:BS:17:ARG:O	51:BS:20:ARG:HG2	2.05	0.57
51:DS:17:ARG:O	51:DS:20:ARG:HG2	2.05	0.57
51:DS:26:LEU:HD23	51:DS:39:ILE:HG13	1.85	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:CY:229:ILE:HG23	24:CY:251:VAL:HG12	1.85	0.57
48:BP:124:LYS:HD3	48:BP:143:GLY:HA3	1.86	0.57
41:BG:155:MET:O	41:BG:155:MET:HG3	2.04	0.57
4:CD:28:SER:O	4:CD:30:LYS:N	2.37	0.57
22:AW:77:PHA:HD2	35:BA:249:C:P	2.44	0.57
35:DA:1175:U:C4'	35:DA:1176:G:H5'	2.34	0.57
43:DI:5:LEU:O	43:DI:6:LEU:HG	2.03	0.57
1:CA:939:G:H5''	7:CG:102:ARG:CZ	2.33	0.57
48:DP:58:THR:O	48:DP:61:ARG:CD	2.51	0.57
35:DA:1209:G:H21	35:DA:1210:A:H62	1.52	0.57
45:BK:4:VAL:HG22	45:BK:5:VAL:N	2.10	0.57
24:CY:326:THR:CB	24:CY:347:ALA:HB1	2.35	0.57
33:D8:51:ALA:N	33:D8:53:PRO:HD2	2.19	0.57
46:BN:19:GLU:CG	46:BN:20:GLY:H	2.18	0.57
47:BO:35:VAL:HG11	47:BO:103:ALA:CB	2.31	0.57
39:DE:51:PHE:CD1	39:DE:52:LEU:N	2.72	0.57
1:AA:1432:G:OP1	52:BT:107:ASP:HB2	2.04	0.57
1:CA:475:G:H2'	1:CA:476:G:C8	2.38	0.57
9:AI:3:GLN:OE1	9:AI:20:ARG:NH2	2.37	0.57
2:AB:80:ILE:CD1	2:AB:80:ILE:H	2.14	0.57
54:DV:14:VAL:HB	54:DV:96:ILE:HG13	1.86	0.57
16:AP:49:LEU:HD12	16:AP:50:LYS:H	1.68	0.57
1:CA:1288:A:O2'	1:CA:1289:A:H5'	2.04	0.57
38:BD:182:LEU:N	38:BD:272:ALA:HB3	2.19	0.57
35:BA:2148:G:H2'	35:BA:2149:G:H8	1.68	0.57
3:AC:53:ALA:O	3:AC:54:ARG:HB2	2.04	0.57
35:DA:92:A:H3'	35:DA:93:G:H8	1.69	0.57
35:BA:272(D):G:H1	35:BA:364:C:H42	1.51	0.57
25:D0:25:ARG:HH11	25:D0:25:ARG:HG2	1.69	0.57
2:AB:18:GLY:H	2:AB:42:ILE:CG2	2.17	0.57
35:BA:1011:G:H5''	53:BU:77:SER:HG	1.68	0.57
8:AH:30:ARG:CB	8:AH:30:ARG:HH11	2.16	0.57
45:BK:105:LEU:HA	45:BK:108:ALA:HB2	1.86	0.57
2:AB:7:VAL:C	2:AB:217:ARG:HH22	2.07	0.57
37:DC:181:PHE:HD2	37:DC:185:LYS:HB3	1.68	0.57
35:DA:221:A:H4'	35:DA:222:A:O5'	2.04	0.57
35:DA:500:G:N2	35:DA:502:A:H3'	2.19	0.57
1:CA:1499:A:H1'	1:CA:1520:G:C5'	2.35	0.57
35:DA:422:A:H2'	35:DA:423:A:C8	2.39	0.57
1:AA:6:G:H4'	1:AA:298:A:H4'	1.86	0.57
58:BZ:104:PHE:HB3	58:BZ:141:VAL:HG21	1.86	0.57
51:BS:28:VAL:HG13	51:BS:99:LYS:NZ	2.19	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:CY:241:GLY:O	24:CY:243:ASN:N	2.38	0.57
35:DA:2312:U:O2'	41:DG:71:THR:HG21	2.04	0.57
45:BK:44:ALA:O	45:BK:48:MET:HG2	2.04	0.57
35:BA:2661:G:H2'	35:BA:2662:A:N3	2.20	0.57
41:BG:109:VAL:CG1	41:BG:142:PRO:HD3	2.35	0.57
54:BV:47:VAL:CG1	54:BV:51:VAL:HA	2.33	0.57
31:D6:33:LYS:CA	31:D6:33:LYS:HE2	2.35	0.57
43:DI:109:ILE:HD11	43:DI:130:TYR:CE2	2.40	0.57
4:AD:18:LYS:HB2	4:AD:33:MET:CG	2.26	0.57
35:DA:252:G:P	48:DP:50:ARG:HH11	2.27	0.57
1:AA:475:G:H2'	1:AA:476:G:C8	2.39	0.57
35:BA:61:G:H1	35:BA:94:C:N4	1.99	0.57
48:DP:99:LEU:HD23	48:DP:99:LEU:O	2.04	0.57
39:DE:5:LEU:HB2	39:DE:51:PHE:CD2	2.40	0.57
31:B6:16:CYS:O	31:B6:17:LYS:HB2	2.04	0.57
22:AV:28:G:H1	22:AV:42:C:N4	2.02	0.57
50:BR:7:GLY:C	50:BR:8:ARG:HE	2.08	0.57
48:BP:23:PRO:HB2	48:BP:33:ARG:HD2	1.86	0.57
2:CB:80:ILE:H	2:CB:80:ILE:CD1	2.16	0.57
47:BO:4:PRO:O	47:BO:5:GLN:CB	2.51	0.57
42:DH:148:ILE:O	42:DH:151:ILE:HG12	2.04	0.57
33:B8:33:ASN:HA	33:B8:36:LYS:HD3	1.87	0.57
35:DA:2850:A:OP2	35:DA:2866:U:C5	2.55	0.57
5:CE:12:LEU:C	5:CE:12:LEU:HD22	2.25	0.57
52:DT:57:PHE:O	52:DT:59:THR:N	2.37	0.57
35:DA:1665:A:H4'	47:DO:67:LYS:HB2	1.86	0.57
13:AM:65:LYS:CE	13:AM:69:GLU:HG3	2.34	0.57
49:DQ:1:MET:O	49:DQ:2:LEU:HB2	2.03	0.57
35:DA:548:A:C2'	35:DA:549:G:H5'	2.35	0.57
45:DK:105:LEU:HA	45:DK:108:ALA:HB2	1.86	0.57
53:BU:16:LYS:O	53:BU:20:LEU:CD2	2.52	0.57
20:AT:82:SER:O	20:AT:86:ARG:HB2	2.03	0.57
1:AA:148:G:H2'	1:AA:149:A:C8	2.39	0.57
1:CA:66:G:H4'	1:CA:173:U:C5	2.39	0.57
39:BE:69:LYS:C	39:BE:71:GLY:N	2.58	0.57
35:DA:304:G:H2'	35:DA:305:U:H6	1.69	0.57
1:CA:165:C:H2'	1:CA:166:G:H8	1.69	0.57
56:DX:44:GLU:HG2	56:DX:51:VAL:HG23	1.85	0.57
3:CC:134:ILE:HG23	3:CC:151:VAL:HB	1.87	0.57
35:DA:1374:G:H2'	35:DA:1375:C:C6	2.38	0.57
15:AO:8:LYS:O	15:AO:12:ILE:HG13	2.04	0.57
35:BA:426:C:O2'	35:BA:427:U:H5'	2.04	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:D0:30:VAL:HG12	25:D0:66:VAL:HG22	1.86	0.57
14:CN:25:VAL:HG23	14:CN:38:GLY:O	2.03	0.57
24:CY:116:ALA:HA	24:CY:212:PRO:HA	1.85	0.57
31:D6:45:LYS:C	31:D6:47:THR:HG23	2.23	0.57
52:BT:13:ARG:CA	52:BT:13:ARG:CZ	2.68	0.57
35:DA:1485:G:H1'	35:DA:1505:C:N4	2.18	0.57
22:AW:38:A:H2'	22:AW:39:U:H5''	1.86	0.57
49:BQ:27:VAL:HG12	49:BQ:105:GLU:OE2	2.05	0.57
58:BZ:119:GLU:HG3	58:BZ:122:ARG:HD3	1.87	0.57
35:BA:1109:C:H2'	35:BA:1110:G:H5'	1.87	0.57
2:CB:72:GLY:HA2	2:CB:165:VAL:HG22	1.87	0.57
51:DS:99:LYS:O	51:DS:101:LEU:N	2.37	0.57
41:DG:39:ILE:HG13	41:DG:92:VAL:CG1	2.33	0.57
45:BK:55:VAL:HG13	45:BK:69:THR:HA	1.85	0.57
22:AW:16:U:H3'	22:AW:17:C:C5'	2.23	0.57
54:BV:39:LEU:HA	54:BV:47:VAL:CG1	2.35	0.57
35:DA:1826:G:C4'	38:DD:242:ARG:HH21	2.10	0.57
1:AA:191:G:H1'	20:AT:105:SER:CB	2.35	0.57
43:BI:108:THR:C	43:BI:109:ILE:HD12	2.24	0.57
56:BX:12:VAL:HG12	56:BX:27:THR:HG23	1.86	0.57
2:AB:178:ARG:HD2	8:AH:71:GLY:C	2.24	0.57
27:D2:16:LEU:O	27:D2:17:SER:CB	2.52	0.57
57:DY:59:GLY:O	57:DY:60:PHE:HB2	2.03	0.57
16:AP:43:LYS:HA	16:AP:48:TRP:HB3	1.84	0.57
38:DD:30:GLU:CB	38:DD:35:LYS:HE3	2.35	0.57
43:BI:102:SER:O	43:BI:103:ARG:HG3	2.04	0.57
1:CA:594:G:H1	1:CA:645:C:H42	1.51	0.57
1:CA:624:C:H4'	16:CP:10:GLY:HA2	1.85	0.57
1:AA:651:C:O2'	1:AA:652:U:H5'	2.05	0.57
48:BP:115:LEU:HA	48:BP:134:ALA:CB	2.34	0.57
2:AB:18:GLY:HA2	2:AB:42:ILE:HG22	1.85	0.57
5:AE:12:LEU:HD22	5:AE:12:LEU:C	2.25	0.57
17:CQ:51:TYR:CD2	17:CQ:57:VAL:HG11	2.40	0.57
35:DA:2485:G:H5''	49:DQ:46:GLN:NE2	2.19	0.57
8:CH:40:ALA:C	8:CH:42:GLU:N	2.58	0.57
35:BA:2485:G:H5''	49:BQ:46:GLN:NE2	2.20	0.57
19:AS:63:THR:HG22	19:AS:66:MET:SD	2.44	0.57
50:DR:10:LEU:HD22	50:DR:17:ARG:HD2	1.87	0.57
35:BA:1078:U:C5'	45:BK:132:ARG:HH12	2.18	0.57
1:AA:180:U:H2'	1:AA:181:G:C5'	2.34	0.57
1:AA:189(A):C:H2'	1:AA:189(B):C:C6	2.39	0.57
1:CA:1296:C:H5'	1:CA:1297:C:OP2	2.05	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1519:A:H2'	1:AA:1520:G:H5'	1.87	0.57
46:BN:62:VAL:HG22	46:BN:66:LYS:HD2	1.86	0.57
52:BT:88:ILE:HG22	52:BT:89:VAL:HG22	1.87	0.57
35:DA:2415:G:H4'	48:DP:67:MET:N	2.19	0.57
41:DG:47:LYS:HG3	41:DG:48:GLU:H	1.70	0.57
52:DT:30:VAL:HG22	52:DT:84:GLN:O	2.05	0.57
35:DA:142:A:H8	35:DA:1595:G:H21	1.49	0.57
53:DU:91:ASP:OD1	53:DU:96:ALA:CB	2.52	0.57
54:DV:47:VAL:O	54:DV:49:THR:O	2.21	0.57
48:BP:56:SER:C	48:BP:57:THR:HG1	2.08	0.57
1:AA:1128:C:C1'	1:AA:1146:A:H61	2.13	0.57
1:AA:1144:G:H21	1:AA:1146:A:H62	1.51	0.57
26:B1:89:GLU:CA	26:B1:92:LYS:HB3	2.30	0.57
2:AB:178:ARG:HD2	8:AH:71:GLY:O	2.05	0.57
24:AY:305:ILE:O	24:AY:305:ILE:CG2	2.53	0.57
42:BH:97:ARG:O	42:BH:125:VAL:HG21	2.05	0.57
12:CL:27:LEU:HB2	12:CL:33:ARG:HD2	1.85	0.57
24:AY:75:LEU:HD23	24:AY:87:LEU:HD22	1.87	0.57
12:AL:27:LEU:HB2	12:AL:33:ARG:HD2	1.86	0.57
16:CP:45:THR:HG22	16:CP:47:ASP:N	2.18	0.57
2:AB:114:ARG:HD3	2:AB:114:ARG:O	2.05	0.57
12:CL:53:ARG:NH1	12:CL:53:ARG:HG2	2.18	0.57
35:DA:528:A:N1	35:DA:2042:A:H2'	2.19	0.57
35:DA:2562:U:C2'	35:DA:2563:U:H5'	2.35	0.57
2:AB:69:LEU:HD23	2:AB:159:PRO:HG2	1.86	0.57
38:BD:133:LEU:HB3	38:BD:173:VAL:HG11	1.86	0.57
35:BA:2189:U:H3'	35:BA:2190:G:H5''	1.87	0.57
20:CT:75:ASN:ND2	20:CT:75:ASN:N	2.53	0.57
2:CB:121:LEU:O	2:CB:127:ILE:HD11	2.04	0.57
24:AY:76:MET:HE3	24:AY:88:LYS:HE2	1.87	0.57
2:AB:17:PHE:H	2:AB:17:PHE:HD2	1.53	0.57
31:B6:13:CYS:O	31:B6:21:TYR:HA	2.05	0.57
12:AL:117:ARG:NH2	12:AL:124:LYS:HB2	2.19	0.57
58:BZ:41:LEU:HD11	58:BZ:82:ARG:HH21	1.69	0.57
5:CE:36:ASP:OD2	5:CE:40:ARG:HB2	2.05	0.57
39:DE:173:VAL:O	39:DE:174:ASP:HB2	2.04	0.57
1:CA:888:G:H4'	1:CA:1488:G:O2'	2.04	0.57
1:CA:148:G:H2'	1:CA:149:A:C8	2.40	0.57
1:CA:397:A:H5'	1:CA:398:C:OP1	2.05	0.57
1:CA:512:U:H2'	1:CA:513:C:C6	2.40	0.57
40:DF:153:SER:HB2	40:DF:189:THR:HG22	1.87	0.57
39:BE:86:PRO:O	39:BE:88:GLY:N	2.37	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:D5:29:THR:HG21	35:DA:2814:C:O2'	2.05	0.57
47:BO:115:VAL:HG13	47:BO:121:VAL:HG21	1.86	0.57
26:D1:41:ARG:HH22	35:DA:1365:A:H5'	1.70	0.57
35:DA:2201:C:O2'	35:DA:2202:C:H5'	2.04	0.57
1:CA:663:A:O2'	1:CA:664:G:H5'	2.04	0.57
39:DE:96:PHE:HA	39:DE:100:GLU:OE1	2.03	0.57
24:CY:112:ALA:HB1	24:CY:178:GLY:CA	2.35	0.57
24:CY:184:ALA:HB2	24:CY:210:VAL:HG23	1.87	0.57
52:DT:13:ARG:CZ	52:DT:13:ARG:CA	2.67	0.57
49:DQ:19:GLY:O	49:DQ:20:ALA:HB3	2.03	0.57
58:DZ:120:ILE:HG22	58:DZ:121:HIS:N	2.20	0.57
2:AB:162:ILE:HD11	2:AB:184:VAL:HG22	1.85	0.57
52:DT:20:PRO:HD2	52:DT:85:LYS:HB2	1.87	0.57
3:CC:186:PHE:CZ	3:CC:188:LEU:HD11	2.39	0.57
39:BE:108:SER:O	39:BE:162:ALA:HA	2.05	0.57
35:DA:1884:A:H2'	35:DA:1885:A:C5'	2.29	0.57
24:AY:30:GLU:HA	24:AY:33:LEU:HD12	1.86	0.57
43:BI:78:THR:OG1	43:BI:141:LYS:HB2	2.05	0.57
24:CY:181:SER:N	24:CY:182:PRO:HD2	2.19	0.57
24:CY:182:PRO:CG	24:CY:345:ILE:HG23	2.31	0.57
1:AA:265:G:O3'	17:AQ:66:SER:HA	2.05	0.57
54:BV:14:VAL:HB	54:BV:96:ILE:HG13	1.87	0.57
9:CI:17:VAL:HG21	9:CI:81:ILE:N	2.20	0.57
48:DP:88:LEU:H	48:DP:88:LEU:CD1	2.15	0.57
39:DE:118:LYS:H	39:DE:121:ASN:H	1.53	0.57
42:DH:130:ARG:HB3	42:DH:130:ARG:HH11	1.68	0.57
1:CA:1305:G:H22	1:CA:1331:G:H1'	1.69	0.57
24:CY:76:MET:HG3	24:CY:88:LYS:HE2	1.87	0.57
35:DA:1280:G:C3'	35:DA:1281:G:H5''	2.35	0.57
35:DA:2580:U:H5'	39:DE:131:ALA:HB2	1.87	0.57
4:AD:121:VAL:O	4:AD:134:ASP:HA	2.05	0.57
35:BA:1316:U:H2'	35:BA:1317:A:H8	1.69	0.57
1:CA:1264:C:H2'	1:CA:1265:G:H8	1.66	0.57
19:AS:46:GLY:N	19:AS:62:ILE:HG23	2.19	0.57
7:CG:120:ILE:HD12	7:CG:120:ILE:N	2.19	0.57
1:AA:1466:C:O2'	1:AA:1467:G:H5'	2.04	0.57
1:AA:155:C:H2'	1:AA:156:G:H8	1.68	0.57
8:CH:120:THR:OG1	8:CH:123:GLU:HG3	2.05	0.57
1:AA:637:G:H2'	1:AA:638:G:H8	1.70	0.57
1:CA:63:C:H42	1:CA:104:G:H1	1.52	0.57
35:BA:185:U:H4'	35:BA:218:A:H4'	1.86	0.57
52:BT:61:PHE:CE2	52:BT:76:PHE:HB2	2.40	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:2875:C:H4'	52:BT:5:ALA:HB2	1.86	0.57
15:AO:36:ILE:HG23	15:AO:56:LEU:HD11	1.85	0.57
35:DA:1509(B):A:H2'	35:DA:1510:G:C8	2.40	0.57
15:CO:39:LEU:HD12	15:CO:56:LEU:HB2	1.86	0.57
4:CD:65:ARG:HD2	4:CD:72:GLU:HA	1.85	0.57
35:DA:176:G:O2'	35:DA:177:G:H5'	2.04	0.57
36:DB:52:A:O2'	36:DB:53:A:C8	2.58	0.57
58:BZ:104:PHE:HB3	58:BZ:141:VAL:CG2	2.35	0.57
48:DP:8:PRO:C	48:DP:10:PRO:HD3	2.25	0.57
1:AA:1229:A:OP2	13:AM:114:ARG:HD3	2.05	0.57
45:BK:95:LYS:HG3	45:BK:137:GLU:N	2.19	0.57
22:AW:57:G:H2'	22:AW:58:A:H5'	1.87	0.57
4:CD:18:LYS:HE2	4:CD:31:CYS:HB2	1.85	0.57
1:AA:1128:C:H4'	9:AI:16:ARG:HH12	1.70	0.57
1:AA:1134:G:C2'	1:AA:1135:U:H5'	2.34	0.57
1:AA:939:G:H5''	7:AG:102:ARG:CZ	2.33	0.57
46:DN:123:TYR:OH	46:DN:130:HIS:HE1	1.87	0.57
1:AA:424:G:H2'	1:AA:425:G:C8	2.30	0.57
17:AQ:59:ILE:HG23	17:AQ:72:ARG:O	2.05	0.57
9:AI:17:VAL:HG21	9:AI:81:ILE:N	2.20	0.57
1:CA:1005:A:H2'	1:CA:1006:C:H5'	1.87	0.57
16:AP:43:LYS:C	16:AP:45:THR:H	2.07	0.57
1:CA:552:U:O2'	1:CA:553:A:H5'	2.05	0.57
43:BI:10:GLU:O	43:BI:12:LEU:HD23	2.05	0.57
19:AS:19:VAL:O	19:AS:22:LEU:HB2	2.04	0.57
1:AA:1305:G:H22	1:AA:1331:G:H1'	1.69	0.57
24:CY:77:GLU:HB2	24:CY:84:ARG:HG2	1.86	0.57
1:CA:532:A:H61	3:CC:156:ARG:HH12	1.50	0.57
58:DZ:24:LEU:HD23	58:DZ:25:PRO:O	2.05	0.57
25:B0:68:GLU:HG3	25:B0:80:HIS:HB2	1.87	0.57
45:DK:44:ALA:O	45:DK:48:MET:HG2	2.04	0.57
35:BA:2317:C:H2'	35:BA:2318:G:H5'	1.86	0.57
5:AE:12:LEU:CD1	5:AE:31:LEU:HB3	2.35	0.57
2:CB:140:HIS:O	2:CB:144:ARG:HG2	2.05	0.57
35:BA:271(E):U:H2'	35:BA:271(F):C:C6	2.40	0.57
8:CH:51:VAL:CG1	8:CH:60:ARG:HB2	2.34	0.57
28:B3:19:GLN:NE2	28:B3:52:HIS:HE1	2.02	0.57
4:CD:100:ARG:NH1	4:CD:137:SER:HA	2.19	0.57
1:AA:1059:C:O2	10:AJ:53:PRO:HG3	2.04	0.57
44:DJ:56:UNK:CB	44:DJ:83:UNK:HA	2.35	0.57
13:CM:118:ALA:HB1	13:CM:119:GLY:N	2.20	0.57
1:CA:707:C:O2'	1:CA:708:C:H5'	2.05	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:1150:C:O2'	35:DA:1151:G:H5'	2.05	0.57
1:CA:1194:U:H2'	1:CA:1195:C:C6	2.39	0.57
36:BB:106:G:O2'	36:BB:107:G:H5'	2.04	0.57
45:BK:59:ILE:HD12	45:BK:59:ILE:N	2.20	0.57
31:D6:16:CYS:O	31:D6:17:LYS:HB2	2.05	0.57
35:BA:2660:A:C2	35:BA:2661:G:H4'	2.40	0.57
35:BA:1494:A:C3'	35:BA:1495:A:H5''	2.34	0.57
41:BG:42:GLY:O	41:BG:44:GLY:N	2.38	0.57
41:BG:8:LYS:NZ	41:BG:96:ARG:HH21	2.02	0.57
35:BA:1175:U:C4'	35:BA:1176:G:H5'	2.34	0.57
31:D6:26:ASN:ND2	31:D6:32:ASN:ND2	2.52	0.57
31:D6:33:LYS:HA	31:D6:33:LYS:HE2	1.87	0.57
41:DG:86:MET:O	41:DG:87:PRO:O	2.22	0.57
46:DN:19:GLU:CG	46:DN:20:GLY:N	2.63	0.57
24:CY:29:LEU:HG	24:CY:51:GLU:HB2	1.85	0.57
33:D8:48:PHE:O	33:D8:49:VAL:HG22	2.04	0.57
41:DG:121:ASN:ND2	41:DG:122:PRO:HD2	2.17	0.57
35:DA:529:A:H62	35:DA:2041:U:H3	1.52	0.57
35:BA:2632:A:O2'	39:BE:61:ARG:NH2	2.38	0.57
39:BE:59:VAL:O	39:BE:62:PRO:HD2	2.05	0.57
57:DY:2:ARG:HD3	57:DY:3:VAL:HG23	1.87	0.57
26:D1:67:ILE:N	26:D1:68:PRO:HD2	2.20	0.57
9:CI:111:ARG:HG2	9:CI:112:LYS:N	2.19	0.57
13:CM:49:THR:O	13:CM:53:VAL:HG23	2.05	0.57
45:BK:122:ALA:HA	45:BK:125:ARG:NE	2.19	0.57
3:CC:119:ARG:HG3	3:CC:119:ARG:HH11	1.70	0.57
37:DC:49:GLY:HA2	37:DC:211:ARG:NH2	2.20	0.57
13:CM:69:GLU:HA	13:CM:70:LEU:N	2.20	0.57
1:AA:1472:U:H2'	1:AA:1473:A:C8	2.40	0.57
39:BE:67:PHE:O	39:BE:70:ALA:HB2	2.05	0.57
1:CA:1097:C:O2'	1:CA:1098:C:H5'	2.05	0.57
35:DA:2875:C:H4'	52:DT:5:ALA:HB2	1.87	0.57
57:DY:89:PHE:C	57:DY:90:LEU:HD23	2.25	0.57
7:AG:87:VAL:HG21	7:AG:154:TYR:HB3	1.87	0.57
35:DA:2099:U:H2'	35:DA:2099:U:O2	2.04	0.57
1:AA:477:A:H2'	1:AA:479:C:H6	1.70	0.57
1:CA:1058:G:H2'	1:CA:1059:C:C6	2.39	0.57
35:BA:2199:A:H3'	35:BA:2200:C:H6	1.70	0.57
46:BN:73:THR:CG2	46:BN:82:LEU:HD11	2.35	0.57
1:AA:189(C):C:O2'	1:AA:189(D):C:H5'	2.05	0.57
4:CD:53:ASP:O	4:CD:57:ARG:HD3	2.05	0.57
35:BA:1441:G:O2'	35:BA:1442:G:H5'	2.04	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:1058:G:H21	45:BK:126:MET:CE	2.18	0.57
1:AA:1296:C:H5'	1:AA:1297:C:OP2	2.05	0.57
1:AA:107:G:C2'	1:AA:108:G:H5'	2.35	0.57
31:B6:42:TRP:CE3	31:B6:42:TRP:HA	2.39	0.57
35:BA:1419:A:O2'	35:BA:1420:U:H5''	2.05	0.57
22:AW:72:C:H2'	22:AW:73:A:O4'	2.05	0.57
31:D6:15:GLU:OE1	31:D6:43:CYS:SG	2.63	0.56
40:BF:20:LEU:HB3	40:BF:23:ASP:OD2	2.05	0.56
35:DA:2660:A:C2	35:DA:2661:G:H4'	2.39	0.56
22:CW:64:A:H2'	22:CW:65:G:C8	2.39	0.56
24:CY:233:ARG:HB2	35:DA:2555:U:O2	2.04	0.56
41:DG:138:GLN:C	41:DG:140:ILE:H	2.08	0.56
24:AY:244:THR:HA	35:BA:2573:C:N4	2.19	0.56
41:BG:87:PRO:O	41:BG:88:ILE:HD13	2.04	0.56
3:CC:150:LYS:HE2	3:CC:152:ILE:HD11	1.87	0.56
46:DN:1:MET:C	46:DN:2:LYS:HG3	2.26	0.56
47:DO:35:VAL:HG11	47:DO:103:ALA:CB	2.31	0.56
24:AY:179:LEU:O	24:AY:345:ILE:HD13	2.05	0.56
1:CA:1001(A):G:H2'	1:CA:1002:G:O4'	2.05	0.56
35:BA:2111:C:H1'	35:BA:2118:U:O4'	2.05	0.56
35:DA:662:G:OP1	48:DP:18:ARG:HD2	2.04	0.56
58:BZ:56:VAL:HG12	58:BZ:57:ILE:N	2.20	0.56
42:DH:153:LYS:H	42:DH:153:LYS:CD	2.17	0.56
1:CA:93:G:O2'	1:CA:96:U:H5'	2.05	0.56
24:AY:315:VAL:HG11	24:AY:320:TYR:CE1	2.39	0.56
52:BT:38:ASN:ND2	52:BT:39:ARG:H	2.02	0.56
35:DA:2789:C:H1'	35:DA:2892:A:H2	1.69	0.56
21:AU:6:ARG:HE	21:AU:15:ARG:HH12	1.52	0.56
1:CA:936:C:H2'	1:CA:937:A:C8	2.40	0.56
49:BQ:62:GLY:O	58:BZ:178:GLU:HG2	2.05	0.56
7:CG:12:LEU:CD1	7:CG:25:ALA:HB2	2.35	0.56
1:CA:186:C:H2'	1:CA:187:C:C6	2.39	0.56
11:AK:24:SER:O	11:AK:26:ASN:N	2.38	0.56
1:CA:1220:G:H2'	1:CA:1221:G:C8	2.40	0.56
24:CY:6:LEU:O	24:CY:8:GLN:N	2.38	0.56
40:BF:170:LEU:HD23	40:BF:172:TRP:CZ2	2.40	0.56
4:CD:58:LEU:HD23	4:CD:62:GLN:HG2	1.86	0.56
35:DA:1058:G:H21	45:DK:126:MET:CE	2.18	0.56
35:BA:359:A:H2'	35:BA:360:G:O4'	2.05	0.56
27:D2:28:LYS:HD3	27:D2:56:GLN:HE21	1.70	0.56
35:BA:1374:G:H2'	35:BA:1375:C:C6	2.40	0.56
1:CA:46:G:O2'	1:CA:365:U:H1'	2.05	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1203:C:H2'	1:AA:1204:A:C8	2.39	0.56
1:CA:189(A):C:H2'	1:CA:189(B):C:C6	2.40	0.56
1:CA:189(C):C:O2'	1:CA:189(D):C:H5'	2.04	0.56
35:DA:1537:G:H2'	35:DA:1538:G:H8	1.70	0.56
54:BV:21:ARG:HB3	54:BV:91:TYR:HB2	1.86	0.56
36:BB:52:A:O2'	36:BB:53:A:C8	2.57	0.56
22:CV:18:G:H21	22:CV:58:A:H5'	1.70	0.56
1:AA:314:C:O2'	1:AA:315:A:H5'	2.05	0.56
1:AA:977:A:H2'	1:AA:978:A:H5'	1.87	0.56
41:BG:118:ARG:HG3	41:BG:118:ARG:HH11	1.69	0.56
58:DZ:103:ARG:O	58:DZ:138:GLU:HA	2.05	0.56
24:CY:98:LEU:HD23	24:CY:98:LEU:O	2.05	0.56
35:DA:951:C:O2'	35:DA:952:G:H5'	2.05	0.56
17:CQ:12:SER:HB3	17:CQ:20:THR:HB	1.85	0.56
4:CD:129:ASN:HD21	4:CD:145:GLU:N	2.03	0.56
40:BF:18:ARG:HH21	40:BF:20:LEU:HD11	1.70	0.56
57:DY:28:LYS:HZ2	57:DY:72:VAL:HG21	1.70	0.56
30:D5:48:GLU:O	30:D5:49:CYS:SG	2.63	0.56
42:BH:44:VAL:O	42:BH:45:VAL:C	2.42	0.56
29:D4:34:GLU:CD	29:D4:34:GLU:H	2.09	0.56
41:DG:111:LEU:HB2	41:DG:112:PRO:HD3	1.86	0.56
45:BK:99:ILE:HG23	45:BK:103:GLN:HB3	1.86	0.56
41:BG:112:PRO:C	41:BG:114:ILE:H	2.08	0.56
41:BG:86:MET:O	41:BG:86:MET:HG2	2.04	0.56
35:BA:654(B):C:H2'	35:BA:654(C):G:N7	2.20	0.56
52:DT:27:THR:HA	52:DT:87:ASP:HB2	1.87	0.56
43:DI:14:ASP:O	43:DI:15:VAL:O	2.22	0.56
53:BU:91:ASP:O	53:BU:95:LEU:HB2	2.05	0.56
39:BE:119:ARG:HD2	39:BE:120:TRP:CE2	2.40	0.56
24:AY:237:PRO:HD3	35:BA:2604:U:OP2	2.05	0.56
24:AY:238:GLY:HA3	24:AY:242:VAL:CB	2.29	0.56
35:BA:2604:U:O2'	35:BA:2605:U:H5'	2.05	0.56
25:D0:68:GLU:HG3	25:D0:80:HIS:HB2	1.87	0.56
35:BA:94(A):G:H2'	35:BA:95:G:O4'	2.06	0.56
1:AA:1026:G:N3	1:AA:1026:G:H2'	2.20	0.56
1:AA:1033:G:H2'	1:AA:1034:G:H5'	1.86	0.56
39:BE:51:PHE:CD1	39:BE:52:LEU:N	2.73	0.56
24:AY:90:GLU:C	24:AY:91:LEU:HD22	2.25	0.56
43:BI:88:ILE:HB	43:BI:121:LYS:O	2.04	0.56
19:CS:22:LEU:HA	19:CS:27:GLU:CD	2.26	0.56
48:BP:88:LEU:CD1	48:BP:88:LEU:H	2.17	0.56
42:BH:90:LYS:O	42:BH:94:TYR:HB2	2.04	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:1280:G:C3'	35:BA:1281:G:H5''	2.34	0.56
1:AA:998:G:O2'	1:AA:999:C:H5'	2.04	0.56
45:DK:122:ALA:HA	45:DK:125:ARG:NE	2.19	0.56
38:BD:239:ARG:HH21	38:BD:239:ARG:HG2	1.70	0.56
26:D1:56:GLN:HE22	26:D1:85:LEU:HD23	1.69	0.56
24:AY:333:PRO:HG2	24:AY:334:GLU:H	1.71	0.56
35:DA:2884:U:C2'	35:DA:2885:C:H5'	2.35	0.56
40:BF:178:PRO:HB2	40:BF:201:VAL:HG11	1.86	0.56
8:CH:30:ARG:CB	8:CH:30:ARG:HH11	2.17	0.56
35:BA:548:A:C2'	35:BA:549:G:H5'	2.36	0.56
2:AB:136:VAL:HG13	2:AB:140:HIS:ND1	2.20	0.56
34:B9:9:ARG:HB3	34:B9:9:ARG:NH1	2.20	0.56
1:CA:542:G:P	4:CD:10:ARG:HH22	2.27	0.56
36:DB:57:A:H1'	41:DG:29:TRP:HB2	1.86	0.56
28:D3:19:GLN:HE22	28:D3:52:HIS:HE1	1.53	0.56
24:CY:106:LEU:C	24:CY:106:LEU:HD23	2.24	0.56
49:BQ:12:GLN:HE21	49:BQ:73:PRO:HD3	1.70	0.56
1:CA:1411:C:O2'	1:CA:1412:C:H5'	2.05	0.56
42:DH:41:MET:CG	42:DH:42:ARG:N	2.49	0.56
58:DZ:81:ARG:NH1	58:DZ:81:ARG:HB3	2.02	0.56
40:DF:7:TYR:HD2	40:DF:16:GLY:H	1.53	0.56
30:D5:58:LEU:N	30:D5:58:LEU:HD12	2.20	0.56
1:CA:1228:C:H2'	1:CA:1229:A:H8	1.70	0.56
48:BP:8:PRO:C	48:BP:10:PRO:HD3	2.25	0.56
22:CW:49:C:H3'	22:CW:50:U:H6	1.69	0.56
41:DG:118:ARG:H	41:DG:181:ARG:CZ	2.17	0.56
35:DA:1494:A:C3'	35:DA:1495:A:H5''	2.35	0.56
41:BG:105:LYS:HZ3	41:BG:143:GLU:CG	2.18	0.56
13:AM:3:ARG:HG2	13:AM:9:ILE:HD11	1.87	0.56
52:DT:129:ARG:HG3	52:DT:129:ARG:O	2.05	0.56
43:DI:88:ILE:C	43:DI:90:GLY:N	2.58	0.56
52:DT:28:VAL:HG13	52:DT:46:GLU:CA	2.33	0.56
35:DA:1173:G:H5'	35:DA:1174:A:C2	2.40	0.56
50:BR:4:LEU:O	50:BR:5:LYS:HD3	2.04	0.56
1:CA:1144:G:H21	1:CA:1146:A:H62	1.53	0.56
24:CY:61:THR:C	24:CY:63:ARG:H	2.09	0.56
40:DF:67:GLN:O	40:DF:67:GLN:CG	2.41	0.56
35:DA:673:C:H6	35:DA:673:C:C5'	2.14	0.56
31:B6:33:LYS:HE2	31:B6:33:LYS:CA	2.35	0.56
35:BA:904:C:C6	35:BA:904:C:H5'	2.25	0.56
58:DZ:28:MET:O	58:DZ:34:ASN:HA	2.05	0.56
27:B2:47:ASN:HD22	35:BA:94(A):G:N2	1.95	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:D0:11:ARG:O	25:D0:14:ARG:NH2	2.38	0.56
13:CM:90:LEU:HD13	13:CM:94:ARG:NH2	2.20	0.56
56:BX:71:GLY:C	56:BX:72:LYS:HD2	2.25	0.56
43:DI:127:VAL:HG22	43:DI:139:GLN:HA	1.88	0.56
9:AI:19:LEU:O	9:AI:20:ARG:HG3	2.04	0.56
1:CA:1033:G:H2'	1:CA:1034:G:H5'	1.86	0.56
48:BP:29:LYS:HB3	48:BP:34:GLY:N	2.17	0.56
2:AB:145:LEU:CD1	2:AB:149:LEU:HD12	2.34	0.56
10:AJ:29:ARG:HG2	10:AJ:29:ARG:HH11	1.70	0.56
1:CA:1399:C:C2	1:CA:1502:A:N6	2.73	0.56
26:B1:3:LYS:HB2	26:B1:61:ARG:HH21	1.71	0.56
43:BI:92:VAL:HG23	43:BI:96:ASP:HB3	1.86	0.56
10:CJ:24:VAL:HG22	10:CJ:72:VAL:HG11	1.87	0.56
41:BG:175:LEU:O	41:BG:176:LEU:HG	2.04	0.56
58:DZ:99:TYR:CE2	58:DZ:125:LEU:HD12	2.41	0.56
39:DE:11:MET:HE3	39:DE:24:THR:HB	1.87	0.56
7:CG:17:VAL:HG12	7:CG:18:TYR:CD1	2.40	0.56
11:CK:29:ILE:CG1	11:CK:44:SER:HB3	2.34	0.56
13:CM:30:ALA:C	13:CM:32:GLU:H	2.09	0.56
33:D8:33:ASN:O	33:D8:34:TRP:CB	2.51	0.56
24:AY:77:GLU:CG	24:AY:84:ARG:HG2	2.36	0.56
54:DV:89:GLN:OE1	54:DV:89:GLN:HA	2.06	0.56
39:BE:24:THR:HG22	39:BE:186:GLY:CA	2.34	0.56
24:AY:19:ILE:HB	24:AY:20:PRO:HD3	1.88	0.56
1:CA:1452:C:H5'	1:CA:1456:G:C5	2.40	0.56
13:AM:49:THR:O	13:AM:53:VAL:HG23	2.05	0.56
37:BC:195:ARG:NH1	37:BC:195:ARG:HG3	2.21	0.56
1:CA:539:A:H2'	1:CA:540:G:H8	1.70	0.56
57:DY:42:VAL:CG1	57:DY:65:ALA:HB3	2.35	0.56
55:DW:10:VAL:O	55:DW:11:ARG:CB	2.54	0.56
1:CA:243:A:H4'	1:CA:244:U:C5'	2.35	0.56
35:DA:2807:G:H3'	35:DA:2808:U:H5''	1.87	0.56
3:CC:112:SER:HB3	3:CC:115:LEU:HD12	1.88	0.56
6:CF:17:SER:O	6:CF:21:LEU:HD23	2.05	0.56
3:AC:156:ARG:HD3	3:AC:194:GLY:HA3	1.86	0.56
35:DA:2666:C:H5'	35:DA:2667:C:OP2	2.05	0.56
3:CC:46:GLU:O	3:CC:47:LEU:HB2	2.05	0.56
8:AH:51:VAL:HG11	8:AH:60:ARG:HD3	1.87	0.56
34:D9:9:ARG:NH1	34:D9:9:ARG:HB3	2.19	0.56
1:CA:356:A:H2'	1:CA:357:G:H8	1.68	0.56
35:BA:2807:G:H3'	35:BA:2808:U:H5''	1.87	0.56
35:BA:271(C):C:H2'	35:BA:271(D):G:C8	2.39	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
58:BZ:9:TYR:CE2	58:BZ:61:LEU:HD13	2.40	0.56
35:DA:2023:G:H5'	35:DA:2617:C:H4'	1.86	0.56
1:CA:477:A:H2'	1:CA:479:C:H6	1.70	0.56
27:B2:39:ALA:HA	27:B2:45:SER:OG	2.05	0.56
1:AA:1499:A:H1'	1:AA:1520:G:H5'	1.87	0.56
1:CA:545:C:O2'	1:CA:546:G:H5'	2.04	0.56
15:AO:39:LEU:HD12	15:AO:56:LEU:HB2	1.86	0.56
24:CY:330:ARG:HG2	24:CY:332:ASP:OD1	2.05	0.56
4:CD:133:VAL:HG12	4:CD:135:LEU:H	1.70	0.56
35:DA:332:A:H4'	35:DA:333:G:OP1	2.04	0.56
56:BX:54:VAL:HG22	56:BX:81:VAL:HG12	1.87	0.56
12:AL:42:THR:OG1	12:AL:52:LEU:HB3	2.06	0.56
35:BA:1766:U:H2'	35:BA:1767:C:H6	1.69	0.56
1:CA:688:G:H2'	1:CA:689:C:H6	1.69	0.56
5:AE:47:LYS:HD3	5:AE:47:LYS:N	2.20	0.56
35:DA:1771:C:HO2'	35:DA:1786:A:H8	1.51	0.56
35:DA:2074:U:H2'	35:DA:2075:U:C6	2.40	0.56
1:CA:1333:A:H2'	1:CA:1334:G:O4'	2.05	0.56
35:BA:32:C:O2'	35:BA:33:U:H5'	2.06	0.56
57:DY:52:SER:N	57:DY:53:PRO:HD2	2.20	0.56
36:BB:40:U:H3'	36:BB:41:U:H5''	1.87	0.56
43:DI:64:GLU:HA	43:DI:64:GLU:OE2	2.04	0.56
38:DD:263:ARG:HB2	38:DD:263:ARG:NH1	2.21	0.56
35:BA:1064:C:O2'	45:BK:89:HIS:HA	2.05	0.56
13:CM:58:GLU:C	13:CM:60:VAL:H	2.07	0.56
2:AB:102:LEU:N	2:AB:102:LEU:HD12	2.20	0.56
41:BG:105:LYS:HZ3	41:BG:143:GLU:HG3	1.70	0.56
43:DI:8:PRO:HA	43:DI:14:ASP:H	1.71	0.56
53:BU:92:ARG:HD2	54:BV:11:GLN:HB2	1.87	0.56
1:CA:192:U:C4'	20:CT:103:GLY:H	2.11	0.56
45:DK:20:ALA:N	45:DK:21:PRO:CD	2.68	0.56
35:BA:310:A:OP1	57:BY:17:SER:O	2.23	0.56
12:AL:18:VAL:HG23	12:AL:19:ARG:N	2.13	0.56
19:CS:22:LEU:HA	19:CS:27:GLU:OE2	2.05	0.56
43:DI:51:ILE:C	43:DI:53:ALA:N	2.56	0.56
22:CV:25:C:H2'	22:CV:26:A:C8	2.40	0.56
24:CY:81:ALA:HB3	24:CY:84:ARG:HB2	1.87	0.56
22:AW:52:G:H2'	22:AW:53:G:C8	2.40	0.56
1:CA:1457:G:H2'	1:CA:1458:G:H8	1.70	0.56
26:D1:56:GLN:HG3	26:D1:87:PRO:CD	2.35	0.56
1:AA:243:A:H4'	1:AA:244:U:C5'	2.34	0.56
21:CU:6:ARG:HE	21:CU:15:ARG:HH12	1.54	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AH:120:THR:OG1	8:AH:123:GLU:HG3	2.06	0.56
42:BH:78:GLY:HA2	42:BH:82:GLY:HA3	1.88	0.56
42:DH:78:GLY:HA2	42:DH:82:GLY:HA3	1.88	0.56
35:DA:271(C):C:H2'	35:DA:271(D):G:C8	2.41	0.56
10:AJ:44:VAL:CG1	10:AJ:46:ARG:HD2	2.35	0.56
35:DA:1771:C:H1'	35:DA:1786:A:C8	2.41	0.56
35:DA:1064:C:O2'	45:DK:89:HIS:HA	2.06	0.56
35:BA:2233:U:H2'	35:BA:2234:G:C8	2.41	0.56
1:AA:165:C:H2'	1:AA:166:G:H8	1.69	0.56
30:B5:29:THR:HG21	35:BA:2814:C:O2'	2.06	0.56
40:BF:9:ILE:O	40:BF:9:ILE:HG22	2.05	0.56
57:BY:39:VAL:HG12	57:BY:40:GLU:N	2.15	0.56
42:BH:13:LYS:O	42:BH:15:VAL:HG13	2.05	0.56
45:DK:99:ILE:HG23	45:DK:103:GLN:HB3	1.88	0.56
57:BY:95:LYS:CG	57:BY:100:ALA:HA	2.24	0.56
27:B2:16:LEU:O	27:B2:20:GLU:HB3	2.05	0.56
48:DP:125:VAL:O	48:DP:125:VAL:HG23	2.05	0.56
22:CW:50:U:C4'	22:CW:65:G:H22	2.10	0.56
10:AJ:57:LYS:HG3	10:AJ:57:LYS:O	2.06	0.56
13:AM:124:PRO:HB3	24:AY:158:PRO:CB	2.36	0.56
13:AM:125:ARG:HA	24:AY:160:PRO:HD2	1.87	0.56
7:CG:102:ARG:HG2	7:CG:106:GLN:NE2	2.17	0.56
35:BA:1448:G:H5'	35:BA:1449:A:OP1	2.04	0.56
13:CM:125:ARG:HA	24:CY:159:GLY:HA3	1.87	0.56
45:BK:20:ALA:N	45:BK:21:PRO:CD	2.68	0.56
38:DD:25:THR:HG22	38:DD:26:LYS:N	2.20	0.56
40:DF:67:GLN:O	40:DF:68:LYS:CB	2.52	0.56
35:DA:1038:C:C3'	35:DA:1039:G:H5''	2.35	0.56
35:DA:904:C:C6	35:DA:904:C:H5'	2.25	0.56
1:CA:865:A:H5'	1:CA:1078:U:C4	2.40	0.56
52:DT:50:ILE:HA	52:DT:99:LEU:CD1	2.36	0.56
1:AA:1005:A:H2'	1:AA:1006:C:H5'	1.86	0.56
1:AA:1288:A:O2'	1:AA:1289:A:H5'	2.06	0.56
9:CI:4:TYR:CB	9:CI:19:LEU:HB2	2.35	0.56
35:DA:2108:C:O2'	35:DA:2109:U:H5'	2.05	0.56
2:AB:142:LEU:HD23	2:AB:142:LEU:O	2.05	0.56
1:CA:521:G:H4'	12:CL:73:GLU:HG2	1.86	0.56
38:BD:30:GLU:CB	38:BD:35:LYS:HE3	2.34	0.56
8:CH:14:ARG:O	8:CH:18:ARG:HD3	2.04	0.56
43:BI:95:LYS:O	43:BI:99:GLU:HB2	2.06	0.56
1:AA:625:G:H2'	1:AA:626:U:H6	1.70	0.56
48:DP:115:LEU:HA	48:DP:134:ALA:CB	2.35	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:DO:107:ARG:HH12	52:DT:35:LYS:HD2	1.68	0.56
24:AY:142:ARG:O	24:AY:146:ARG:HG3	2.05	0.56
1:CA:390:C:O3'	16:CP:28:ARG:NH2	2.39	0.56
17:CQ:45:HIS:O	17:CQ:73:VAL:HG23	2.05	0.56
43:DI:58:LEU:HD23	43:DI:58:LEU:C	2.25	0.56
24:AY:277:LYS:HE2	24:AY:280:LYS:HZ2	1.70	0.56
39:DE:59:VAL:HG13	39:DE:60:ASN:N	2.16	0.56
17:AQ:51:TYR:CD2	17:AQ:57:VAL:HG11	2.40	0.56
39:BE:203:LYS:O	39:BE:203:LYS:HD2	2.06	0.56
35:BA:2666:C:H3'	35:BA:2667:C:C6	2.41	0.56
55:BW:12:ILE:HB	55:BW:42:ARG:HH12	1.69	0.56
7:AG:12:LEU:CD1	7:AG:25:ALA:HB2	2.34	0.56
56:DX:7:VAL:HB	56:DX:8:ILE:HD12	1.87	0.56
35:DA:1078:U:C5'	45:DK:132:ARG:HH12	2.17	0.56
19:CS:33:THR:HG23	19:CS:51:VAL:HA	1.88	0.56
35:BA:1149:G:H2'	35:BA:1150:C:C6	2.41	0.56
1:AA:532:A:H61	3:AC:193:TYR:HB3	1.71	0.56
1:CA:562:C:H4'	1:CA:563:A:O5'	2.06	0.56
39:BE:93:VAL:HG21	39:BE:180:ASN:HA	1.87	0.56
56:DX:54:VAL:HG22	56:DX:81:VAL:HG12	1.88	0.56
34:D9:29:ASN:HD21	34:D9:32:HIS:CE1	2.24	0.56
8:AH:29:SER:HB3	8:AH:32:LYS:CG	2.36	0.56
44:DJ:70:UNK:O	44:DJ:71:UNK:CB	2.53	0.56
30:D5:36:CYS:SG	30:D5:48:GLU:O	2.63	0.56
48:DP:64:LYS:C	48:DP:64:LYS:HD3	2.26	0.56
40:DF:18:ARG:HH21	40:DF:20:LEU:HD11	1.71	0.56
58:BZ:157:LEU:HB3	58:BZ:161:VAL:HB	1.86	0.56
58:DZ:166:SER:N	58:DZ:167:PRO:HA	2.20	0.56
42:DH:13:LYS:O	42:DH:15:VAL:HG13	2.05	0.56
51:BS:18:ILE:C	51:BS:20:ARG:H	2.08	0.56
41:DG:76:SER:OG	41:DG:83:ARG:HB3	2.05	0.56
45:BK:106:GLU:O	45:BK:109:LYS:HG2	2.05	0.56
45:BK:111:LYS:HB3	45:BK:115:LEU:HD11	1.86	0.56
24:CY:279:LEU:HD23	24:CY:283:LEU:HD11	1.88	0.56
41:BG:86:MET:N	41:BG:87:PRO:CD	2.69	0.56
4:CD:32:ALA:C	4:CD:35:ARG:HG3	2.25	0.56
40:DF:101:LEU:HD12	40:DF:102:PRO:CD	2.35	0.56
53:DU:92:ARG:O	53:DU:94:ASN:N	2.39	0.56
39:DE:119:ARG:HD2	39:DE:120:TRP:CE2	2.40	0.56
48:BP:50:ARG:HG3	48:BP:51:PHE:H	1.70	0.56
43:DI:79:ILE:HD11	43:DI:100:ALA:CB	2.35	0.56
1:CA:1004:A:H62	1:CA:1034:G:H8	1.53	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:143:G:H4'	56:DX:35:THR:HG21	1.88	0.56
35:DA:2199:A:H3'	35:DA:2200:C:H6	1.70	0.56
12:CL:90:VAL:O	12:CL:90:VAL:HG12	2.06	0.56
38:DD:133:LEU:HB3	38:DD:173:VAL:HG11	1.87	0.56
38:BD:132:PRO:HD3	38:BD:190:TYR:CZ	2.41	0.56
3:AC:77:ILE:O	3:AC:83:ARG:HB3	2.05	0.56
35:DA:2376:A:O2'	51:DS:108:GLY:HA2	2.05	0.56
28:B3:19:GLN:HE22	28:B3:52:HIS:CE1	2.23	0.56
35:BA:2099:U:O2	35:BA:2099:U:H2'	2.05	0.56
24:CY:269:ILE:HD12	49:DQ:80:GLU:CG	2.34	0.56
58:DZ:103:ARG:HG3	58:DZ:103:ARG:HH11	1.70	0.56
35:BA:539:G:H2'	35:BA:540:C:H6	1.70	0.56
46:DN:62:VAL:HG22	46:DN:66:LYS:HD2	1.88	0.56
35:DA:539:G:H2'	35:DA:540:C:H6	1.71	0.56
1:CA:369:C:O2'	1:CA:370:C:H5'	2.06	0.56
25:D0:53:MET:HA	25:D0:58:THR:O	2.05	0.56
11:CK:67:ASP:OD1	11:CK:71:LYS:HE3	2.06	0.56
52:DT:45:PHE:HE2	52:DT:63:VAL:HB	1.68	0.56
54:BV:18:LEU:CG	54:BV:19:LYS:H	2.19	0.56
40:DF:25:PRO:O	40:DF:26:ALA:C	2.44	0.56
58:BZ:163:LEU:H	58:BZ:163:LEU:CD2	2.18	0.56
35:BA:1050:A:H61	35:BA:1109:C:H6	1.54	0.56
41:DG:46:ALA:HB3	41:DG:88:ILE:HG12	1.87	0.56
3:AC:186:PHE:CZ	3:AC:188:LEU:HD11	2.40	0.56
29:B4:14:ILE:HB	29:B4:22:ILE:HB	1.87	0.56
14:CN:24:CYS:HB2	14:CN:29:ARG:HB3	1.87	0.56
13:AM:125:ARG:HD2	24:AY:165:ASP:CG	2.26	0.56
54:BV:47:VAL:O	54:BV:49:THR:O	2.24	0.56
15:CO:82:ILE:HG12	15:CO:87:ILE:HG13	1.88	0.56
4:CD:74:GLN:HA	4:CD:77:ASN:ND2	2.15	0.56
35:BA:279:C:H42	35:BA:361:G:H1	1.54	0.56
3:AC:71:ALA:CA	3:AC:106:VAL:HB	2.36	0.56
1:CA:424:G:H2'	1:CA:425:G:C8	2.30	0.56
53:BU:117:GLN:CA	53:BU:117:GLN:HE21	2.10	0.56
18:AR:31:LEU:N	18:AR:31:LEU:HD23	2.18	0.56
43:BI:72:LEU:O	43:BI:74:ASN:N	2.38	0.56
48:DP:18:ARG:HH11	48:DP:18:ARG:CB	2.18	0.56
4:CD:49:ARG:CA	4:CD:49:ARG:HE	2.17	0.56
44:BJ:28:UNK:HA	44:BJ:84:UNK:N	2.21	0.56
22:CW:29:G:H2'	22:CW:30:G:H8	1.70	0.56
35:BA:2591:C:OP1	38:BD:239:ARG:HG2	2.06	0.56
27:B2:69:ARG:O	27:B2:70:GLN:HB3	2.06	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CH:51:VAL:HG11	8:CH:60:ARG:HD3	1.86	0.56
39:BE:32:PRO:HB3	39:BE:69:LYS:HE2	1.88	0.56
35:DA:2201:C:H2'	35:DA:2202:C:C6	2.41	0.56
15:CO:56:LEU:O	15:CO:60:VAL:HG23	2.06	0.56
1:AA:107:G:H2'	1:AA:108:G:H5'	1.88	0.56
4:AD:161:ASN:O	4:AD:162:LEU:HG	2.06	0.56
35:DA:1446:C:O2'	35:DA:1447:G:H5'	2.04	0.56
35:DA:1907:G:O2'	35:DA:1908:C:H5'	2.05	0.56
49:BQ:42:ILE:N	49:BQ:42:ILE:HD12	2.21	0.56
4:CD:23:GLY:O	4:CD:27:TYR:HD1	1.88	0.56
8:AH:12:ARG:HH12	8:AH:27:PRO:CD	2.18	0.56
35:DA:1925:C:O2'	35:DA:1926:U:H5'	2.06	0.56
47:DO:98:VAL:HG13	47:DO:117:LEU:HB3	1.86	0.56
41:BG:23:PHE:CE1	41:BG:168:GLU:HA	2.40	0.56
1:CA:946:A:H2'	1:CA:947:G:C8	2.40	0.56
22:AW:38:A:C2'	22:AW:39:U:H5''	2.35	0.56
58:DZ:165:VAL:CG1	58:DZ:167:PRO:HA	2.30	0.56
41:DG:63:ILE:HD12	41:DG:141:PHE:CG	2.41	0.56
35:DA:2312:U:H2'	35:DA:2313:C:C5'	2.34	0.56
52:DT:30:VAL:HG21	52:DT:84:GLN:H	1.70	0.56
41:BG:91:ARG:C	41:BG:91:ARG:HD2	2.26	0.56
52:DT:87:ASP:O	52:DT:87:ASP:OD2	2.24	0.56
43:DI:7:GLU:N	43:DI:15:VAL:HG12	2.20	0.56
54:DV:38:LEU:CD2	54:DV:38:LEU:C	2.74	0.56
35:DA:1654:A:P	50:DR:3:HIS:HB2	2.45	0.56
38:DD:26:LYS:O	38:DD:27:THR:HB	2.05	0.56
4:AD:30:LYS:C	4:AD:32:ALA:N	2.55	0.56
24:CY:344:LEU:H	24:CY:344:LEU:CD2	2.17	0.56
29:D4:12:ALA:CB	29:D4:29:PRO:HA	2.36	0.56
10:CJ:3:LYS:O	10:CJ:100:THR:HG23	2.05	0.56
39:DE:5:LEU:HB2	39:DE:51:PHE:HD2	1.70	0.56
1:CA:1033:G:C2'	1:CA:1034:G:H5'	2.36	0.56
10:AJ:20:ALA:O	10:AJ:24:VAL:HG23	2.04	0.56
35:BA:1142(A):A:O2'	35:BA:1143:A:H3'	2.06	0.56
35:DA:1718:G:O2'	35:DA:1719:G:H5'	2.05	0.56
10:CJ:29:ARG:HH11	10:CJ:29:ARG:HG2	1.69	0.56
38:DD:35:LYS:C	38:DD:37:LEU:H	2.10	0.56
2:CB:47:THR:HG22	2:CB:51:LEU:HD11	1.88	0.56
41:BG:28:VAL:O	41:BG:31:VAL:HG12	2.05	0.56
47:BO:107:ARG:HH12	52:BT:35:LYS:HD2	1.71	0.56
22:AW:51:U:H5'	22:AW:52:G:OP2	2.06	0.56
46:DN:18:ALA:HB1	46:DN:21:LYS:CB	2.34	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:CE:144:THR:O	5:CE:148:VAL:HG23	2.06	0.56
40:BF:164:ARG:HG2	40:BF:164:ARG:NH1	2.20	0.56
7:AG:148:ASN:HD22	7:AG:148:ASN:N	2.02	0.56
10:AJ:16:LEU:HD23	10:AJ:94:VAL:HG13	1.88	0.56
2:AB:86:GLU:C	2:AB:88:ALA:H	2.08	0.56
35:BA:1316:U:H2'	35:BA:1317:A:C8	2.41	0.56
5:AE:146:ALA:O	5:AE:149:GLU:HG2	2.05	0.56
35:DA:2162:G:O2'	35:DA:2163:C:H5'	2.06	0.56
35:BA:2666:C:H5''	35:BA:2667:C:C5	2.39	0.56
8:CH:120:THR:HG23	8:CH:123:GLU:OE1	2.06	0.56
1:CA:1073:U:H2'	1:CA:1074:G:C8	2.41	0.56
1:AA:545:C:O2'	1:AA:546:G:H5'	2.06	0.56
24:AY:223:LYS:O	24:AY:225:GLU:N	2.31	0.56
57:BY:89:PHE:C	57:BY:90:LEU:HD23	2.27	0.56
44:DJ:80:UNK:O	44:DJ:82:UNK:N	2.38	0.56
35:BA:1817:G:H2'	35:BA:1818:U:H5'	1.88	0.56
35:DA:935:C:H2'	35:DA:936:C:H6	1.71	0.56
35:DA:1980:G:O2'	35:DA:1982:C:OP2	2.22	0.56
47:DO:64:ARG:O	47:DO:82:ASN:HA	2.06	0.56
1:CA:6:G:H4'	1:CA:298:A:H4'	1.88	0.56
35:DA:2389:G:H5''	35:DA:2390:U:O4'	2.06	0.56
35:BA:203:C:H3'	35:BA:204:A:H5''	1.87	0.56
50:BR:92:GLY:N	50:BR:94:TYR:CE2	2.74	0.56
18:CR:87:ARG:NH1	18:CR:87:ARG:HB3	2.20	0.56
35:DA:1026:U:O2'	35:DA:1027:A:H5'	2.05	0.56
31:D6:15:GLU:CD	31:D6:18:ARG:NE	2.59	0.56
35:BA:2849:U:OP2	52:BT:95:ARG:NH1	2.39	0.56
42:DH:156:ALA:HB3	42:DH:159:GLU:HB3	1.87	0.56
35:BA:1408:C:H2'	35:BA:1409:C:C6	2.40	0.56
35:BA:996:A:H4'	53:BU:92:ARG:HE	1.71	0.56
13:CM:125:ARG:HD3	24:CY:130:CYS:SG	2.46	0.56
24:CY:50:GLN:O	24:CY:53:ALA:HB3	2.05	0.56
29:D4:26:SER:OG	29:D4:27:THR:N	2.39	0.56
35:BA:2832:U:H4'	35:BA:2833:G:H5''	1.87	0.56
1:AA:474:G:H2'	1:AA:475:G:H8	1.71	0.56
1:AA:418:C:H2'	1:AA:419:C:H6	1.71	0.56
56:DX:72:LYS:HD2	56:DX:72:LYS:N	2.20	0.56
43:BI:92:VAL:HG13	43:BI:120:ILE:CB	2.36	0.56
44:DJ:28:UNK:HA	44:DJ:84:UNK:N	2.21	0.56
1:CA:254:G:O2'	1:CA:255:G:H5'	2.06	0.56
38:BD:131:LEU:HD13	38:BD:136:ILE:CG1	2.36	0.56
35:DA:2632:A:O2'	39:DE:61:ARG:NH2	2.39	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:2189:U:H3'	35:DA:2190:G:H5''	1.87	0.56
10:CJ:38:ILE:O	10:CJ:38:ILE:HG13	2.06	0.56
8:CH:84:ARG:O	8:CH:135:CYS:HB2	2.06	0.56
4:AD:199:ASN:HD22	4:AD:202:LEU:HG	1.70	0.56
2:AB:121:LEU:O	2:AB:127:ILE:HD11	2.06	0.56
1:AA:1073:U:H2'	1:AA:1074:G:H8	1.71	0.56
41:BG:180:PHE:CD1	41:BG:182:LYS:HE3	2.41	0.56
1:CA:512:U:H2'	1:CA:513:C:H6	1.69	0.56
1:CA:708:C:H2'	1:CA:709:G:H8	1.71	0.56
49:BQ:12:GLN:HG2	49:BQ:73:PRO:HD2	1.88	0.56
53:DU:74:LEU:N	53:DU:74:LEU:HD12	2.20	0.56
40:DF:9:ILE:HG22	40:DF:9:ILE:O	2.05	0.56
18:AR:87:ARG:NH1	18:AR:87:ARG:HB3	2.21	0.56
16:CP:75:ARG:HH11	16:CP:75:ARG:HG3	1.71	0.56
1:CA:134:A:H61	16:CP:25:ARG:NH1	2.04	0.56
30:B5:43:HIS:CD2	35:BA:2815:C:O2'	2.59	0.56
38:BD:58:HIS:HD2	38:BD:59:LYS:O	1.87	0.56
30:B5:58:LEU:HD12	30:B5:58:LEU:N	2.20	0.56
40:DF:20:LEU:HB3	40:DF:23:ASP:OD2	2.06	0.56
35:DA:1045:A:H3'	35:DA:1045:A:N3	2.21	0.56
35:DA:1050:A:H61	35:DA:1109:C:H6	1.53	0.56
29:B4:12:ALA:CB	29:B4:29:PRO:HA	2.35	0.56
41:BG:38:VAL:HG11	41:BG:91:ARG:HD3	1.88	0.56
46:BN:1:MET:C	46:BN:2:LYS:HG3	2.25	0.56
52:BT:30:VAL:HG21	52:BT:84:GLN:H	1.71	0.56
13:CM:123:ALA:HB1	24:CY:161:GLU:O	2.05	0.56
35:DA:307:G:H21	35:DA:330:A:H62	1.54	0.56
58:DZ:49:ARG:NH1	58:DZ:49:ARG:HG2	2.10	0.56
31:B6:33:LYS:HA	31:B6:33:LYS:HE2	1.87	0.56
47:BO:69:ILE:HD13	47:BO:77:ILE:HG23	1.88	0.56
36:DB:8:U:H5'	36:DB:8:U:H6	1.71	0.56
46:DN:125:GLY:HA2	46:DN:126:PRO:O	2.06	0.56
24:CY:26:LEU:C	24:CY:26:LEU:HD12	2.27	0.56
29:D4:14:ILE:HG23	29:D4:31:ILE:HG21	1.88	0.56
24:AY:106:LEU:HD23	24:AY:349:LEU:CD1	2.35	0.56
9:AI:5:TYR:HD2	9:AI:18:PHE:CE2	2.24	0.56
39:BE:5:LEU:HB2	39:BE:51:PHE:CD2	2.41	0.56
54:DV:35:LEU:HB2	54:DV:57:VAL:HG13	1.86	0.56
38:DD:34:VAL:O	38:DD:64:ILE:CG2	2.53	0.56
24:AY:266:ARG:HG3	25:B0:3:HIS:CD2	2.41	0.56
1:AA:523:A:H61	12:AL:53:ARG:HH12	1.53	0.56
40:DF:157:VAL:HA	40:DF:176:LEU:O	2.06	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DF:36:VAL:HG11	40:DF:183:VAL:CG1	2.35	0.56
41:BG:31:VAL:CG2	41:BG:32:PRO:HD2	2.36	0.56
37:BC:52:PRO:HG2	37:BC:53:ARG:HD3	1.87	0.56
4:AD:119:GLN:HG2	4:AD:123:HIS:CD2	2.41	0.56
52:DT:38:ASN:CG	52:DT:39:ARG:H	2.08	0.56
1:AA:390:C:O3'	16:AP:28:ARG:NH2	2.39	0.56
35:BA:2562:U:C2'	35:BA:2563:U:H5'	2.36	0.56
17:AQ:76:LEU:HD12	17:AQ:77:VAL:H	1.71	0.56
2:CB:126:GLU:HA	2:CB:129:GLU:HG2	1.87	0.56
12:CL:24:VAL:HG12	12:CL:24:VAL:O	2.04	0.56
10:AJ:98:ILE:O	10:AJ:99:LYS:HD3	2.06	0.56
1:CA:96:U:O2'	1:CA:97:G:H8	1.89	0.56
46:BN:18:ALA:HB1	46:BN:21:LYS:CB	2.36	0.56
1:CA:37:U:O2'	1:CA:38:G:H5'	2.06	0.56
35:DA:2115:G:H2'	35:DA:2116:G:H5''	1.88	0.56
2:CB:86:GLU:C	2:CB:88:ALA:H	2.08	0.56
1:AA:186:C:H2'	1:AA:187:C:C6	2.41	0.56
45:BK:94:GLU:HB3	58:BZ:112:ARG:HH21	1.71	0.56
1:CA:180:U:H2'	1:CA:181:G:C5'	2.35	0.56
35:BA:1771:C:H1'	35:BA:1786:A:C8	2.41	0.56
57:BY:52:SER:N	57:BY:53:PRO:HD2	2.21	0.56
27:D2:71:ASN:OD1	27:D2:71:ASN:O	2.24	0.56
1:AA:1383:C:H2'	1:AA:1384:C:H6	1.70	0.56
35:DA:1517:G:O2'	35:DA:1518:U:H5'	2.05	0.56
39:DE:203:LYS:HD2	39:DE:203:LYS:O	2.05	0.56
41:DG:54:GLU:C	41:DG:56:ALA:H	2.08	0.56
58:BZ:120:ILE:HG22	58:BZ:121:HIS:N	2.20	0.56
40:DF:205:ARG:O	40:DF:205:ARG:HG2	2.06	0.56
29:B4:13:ARG:HG2	29:B4:13:ARG:HH11	1.71	0.56
28:B3:4:LEU:O	28:B3:36:VAL:HA	2.05	0.56
35:BA:2415:G:O3'	48:BP:66:GLY:HA3	2.06	0.55
28:D3:8:LEU:HD13	28:D3:31:LEU:CD2	2.20	0.55
45:DK:106:GLU:O	45:DK:109:LYS:HG2	2.06	0.55
58:BZ:163:LEU:HD12	58:BZ:165:VAL:HG23	1.88	0.55
13:CM:86:CYS:HB2	19:CS:73:GLU:HG2	1.89	0.55
51:DS:28:VAL:HG13	51:DS:99:LYS:NZ	2.21	0.55
41:BG:136:ARG:NH1	41:BG:136:ARG:HG2	2.21	0.55
10:AJ:49:VAL:O	10:AJ:60:ARG:HB2	2.07	0.55
22:CW:38:A:H2'	22:CW:39:U:C5'	2.35	0.55
35:DA:943:U:OP2	48:DP:38:GLN:CD	2.45	0.55
48:BP:99:LEU:O	48:BP:99:LEU:HD23	2.05	0.55
57:BY:86:ARG:HG2	57:BY:87:LYS:N	2.21	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:523:A:N6	12:CL:53:ARG:HH12	2.04	0.55
10:CJ:20:ALA:O	10:CJ:24:VAL:HG23	2.05	0.55
35:BA:661:C:O3'	48:BP:18:ARG:HD2	2.06	0.55
42:BH:92:ILE:HG22	42:BH:93:GLY:N	2.21	0.55
35:BA:2580:U:H4'	39:BE:130:GLY:HA2	1.87	0.55
1:CA:1343:G:H1'	9:CI:121:ARG:HH12	1.72	0.55
2:AB:18:GLY:N	2:AB:42:ILE:HG22	2.20	0.55
8:CH:19:VAL:CG2	8:CH:21:LYS:HE2	2.36	0.55
4:CD:126:ILE:HG22	4:CD:127:THR:H	1.70	0.55
35:BA:2112:G:OP1	35:BA:2112:G:O4'	2.24	0.55
1:AA:358:U:H2'	1:AA:359:U:C6	2.41	0.55
2:AB:204:ASN:ND2	2:AB:206:ASP:H	2.03	0.55
2:CB:36:ARG:HH11	2:CB:36:ARG:HG2	1.71	0.55
15:CO:36:ILE:HG23	15:CO:56:LEU:HD11	1.87	0.55
35:BA:2389:G:H5''	35:BA:2390:U:O4'	2.06	0.55
1:AA:646:U:H2'	1:AA:647:C:C6	2.42	0.55
49:DQ:12:GLN:HG2	49:DQ:73:PRO:HD2	1.87	0.55
8:AH:122:ARG:CZ	8:AH:122:ARG:HB2	2.36	0.55
4:AD:23:GLY:O	4:AD:27:TYR:HD1	1.88	0.55
35:DA:2553:G:H2'	35:DA:2554:U:O4'	2.07	0.55
35:DA:1270:C:H5''	35:DA:1271:G:O5'	2.07	0.55
10:AJ:81:THR:C	10:AJ:83:GLU:H	2.10	0.55
35:DA:1396:U:O2	35:DA:1396:U:H2'	2.05	0.55
32:D7:35:ARG:HD3	35:DA:54:G:O2'	2.06	0.55
10:CJ:81:THR:C	10:CJ:83:GLU:H	2.09	0.55
35:DA:1945:G:H2'	35:DA:1946:U:C6	2.41	0.55
41:DG:71:THR:HG22	41:DG:89:GLY:C	2.27	0.55
10:CJ:49:VAL:O	10:CJ:60:ARG:HB2	2.06	0.55
35:BA:1173:G:H5'	35:BA:1174:A:C2	2.41	0.55
53:DU:92:ARG:HD2	54:DV:11:GLN:HB2	1.89	0.55
31:B6:26:ASN:ND2	31:B6:32:ASN:ND2	2.54	0.55
46:DN:89:LYS:O	46:DN:93:THR:HG22	2.05	0.55
24:CY:46:ARG:NE	24:CY:46:ARG:O	2.40	0.55
24:CY:172:LYS:O	24:CY:176:ALA:HB2	2.06	0.55
5:CE:50:GLU:HB3	5:CE:53:LEU:HD12	1.88	0.55
1:AA:1004:A:H62	1:AA:1034:G:H8	1.53	0.55
57:BY:59:GLY:O	57:BY:60:PHE:HB2	2.05	0.55
9:CI:3:GLN:OE1	9:CI:20:ARG:NH2	2.39	0.55
35:DA:143:G:H1'	56:DX:37:THR:CG2	2.36	0.55
2:CB:145:LEU:CD1	2:CB:149:LEU:HD12	2.36	0.55
43:BI:120:ILE:O	43:BI:122:GLU:N	2.38	0.55
6:CF:1:MET:HB3	6:CF:66:GLU:HG2	1.87	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:DR:98:LEU:O	50:DR:113:LEU:HD23	2.06	0.55
1:AA:390:C:H2'	1:AA:391:G:H8	1.71	0.55
4:CD:119:GLN:HG2	4:CD:123:HIS:CD2	2.41	0.55
8:AH:82:HIS:CE1	8:AH:84:ARG:HB2	2.41	0.55
1:CA:998:G:O2'	1:CA:999:C:H5'	2.06	0.55
40:DF:164:ARG:HG2	40:DF:164:ARG:NH1	2.20	0.55
35:BA:2591:C:OP2	38:BD:239:ARG:HB3	2.06	0.55
37:DC:191:ARG:HH11	37:DC:191:ARG:HG3	1.71	0.55
48:BP:41:ARG:CA	48:BP:41:ARG:HE	2.20	0.55
2:CB:16:HIS:HB3	2:CB:210:SER:HA	1.87	0.55
1:AA:1220:G:H2'	1:AA:1221:G:C8	2.41	0.55
35:DA:1149:G:H2'	35:DA:1150:C:C6	2.41	0.55
1:CA:1060:C:C5	3:CC:2:GLY:HA3	2.40	0.55
3:AC:167:TRP:O	3:AC:168:ALA:HB3	2.07	0.55
1:AA:1476:G:H2'	1:AA:1477:C:H6	1.71	0.55
24:AY:220:VAL:HG12	24:AY:222:LEU:CD2	2.37	0.55
35:BA:2861:G:O2'	35:BA:2862:G:H5'	2.06	0.55
48:BP:92:GLU:HG3	48:BP:93:GLY:H	1.70	0.55
36:DB:29:A:H2'	36:DB:30:C:O4'	2.05	0.55
1:AA:879:C:O2'	1:AA:880:C:H5'	2.06	0.55
17:AQ:52:LYS:HD2	17:AQ:52:LYS:H	1.70	0.55
40:BF:205:ARG:O	40:BF:205:ARG:HG2	2.06	0.55
35:DA:2327:A:H2'	35:DA:2328:A:C8	2.40	0.55
57:DY:8:LYS:HB2	57:DY:28:LYS:NZ	2.21	0.55
35:BA:2794:C:H42	35:BA:2801(A):A:N6	2.04	0.55
2:AB:167:PRO:HG3	2:AB:188:ALA:CB	2.37	0.55
42:DH:13:LYS:CA	42:DH:13:LYS:HE2	2.23	0.55
51:BS:34:HIS:CE1	51:BS:54:LEU:HB2	2.41	0.55
22:CW:16:U:C6	22:CW:18:G:H5''	2.41	0.55
1:AA:137:C:N4	1:AA:226:G:H1	1.93	0.55
35:DA:1857:G:O2'	35:DA:1885:A:N6	2.40	0.55
43:BI:76:THR:HG21	43:BI:141:LYS:HE3	1.87	0.55
2:CB:22:LYS:HE2	2:CB:22:LYS:CA	2.26	0.55
15:CO:82:ILE:HG23	15:CO:83:GLU:H	1.70	0.55
46:DN:17:ASP:OD2	46:DN:19:GLU:HB3	2.07	0.55
1:CA:16:A:N1	1:CA:919:A:H2	2.05	0.55
46:BN:56:ASN:H	46:BN:125:GLY:HA3	1.68	0.55
38:DD:11:PRO:C	38:DD:13:ARG:H	2.06	0.55
12:CL:45:PRO:HG3	12:CL:53:ARG:HD3	1.88	0.55
26:B1:4:VAL:HG23	26:B1:11:ARG:HB3	1.88	0.55
41:BG:15:VAL:HG21	41:BG:175:LEU:O	2.07	0.55
1:CA:445:G:H2'	1:CA:446:G:H8	1.71	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:CK:111:ASP:HA	18:CR:84:LYS:HD2	1.88	0.55
9:AI:111:ARG:HG2	9:AI:112:LYS:N	2.19	0.55
5:CE:11:ILE:HG22	5:CE:12:LEU:N	2.21	0.55
5:CE:12:LEU:CD1	5:CE:31:LEU:HB3	2.36	0.55
41:DG:127:GLY:C	41:DG:129:GLY:N	2.59	0.55
57:DY:42:VAL:CB	57:DY:65:ALA:HB3	2.37	0.55
52:BT:38:ASN:HD22	52:BT:39:ARG:N	2.01	0.55
1:CA:501:C:H2'	1:CA:502:G:C8	2.41	0.55
5:AE:147:ASP:HA	5:AE:150:ARG:NH1	2.21	0.55
39:DE:87:GLU:C	39:DE:89:ASP:H	2.09	0.55
39:BE:87:GLU:C	39:BE:89:ASP:H	2.10	0.55
1:AA:1436:U:H2'	1:AA:1437:C:O4'	2.07	0.55
2:AB:135:GLN:O	2:AB:139:LYS:HG2	2.06	0.55
35:BA:271(G):C:O2'	35:BA:271(H):G:H5'	2.06	0.55
1:CA:692:U:OP1	11:CK:124:LYS:HE2	2.06	0.55
35:DA:1292:U:H2'	35:DA:1293:C:H6	1.70	0.55
2:CB:19:HIS:O	2:CB:20:GLU:O	2.24	0.55
10:CJ:44:VAL:CG1	10:CJ:46:ARG:HD2	2.36	0.55
40:BF:9:ILE:HG23	40:BF:11:VAL:O	2.06	0.55
38:DD:66:ASP:OD2	38:DD:69:ARG:HG2	2.06	0.55
1:CA:628:G:H2'	1:CA:629:G:C8	2.41	0.55
35:DA:1441:G:O2'	35:DA:1442:G:H5'	2.05	0.55
58:DZ:4:ARG:HB3	58:DZ:60:GLU:OE1	2.06	0.55
4:AD:133:VAL:HG12	4:AD:135:LEU:H	1.70	0.55
1:AA:627:G:O2'	1:AA:628:G:H5'	2.07	0.55
13:CM:99:ARG:HB2	13:CM:101:GLN:NE2	2.22	0.55
24:CY:144:ALA:HB1	24:CY:149:PHE:HB2	1.89	0.55
24:CY:205:PHE:HE2	24:CY:310:GLN:NE2	2.05	0.55
1:AA:1442(B):A:N3	1:AA:1442(B):A:H2'	2.22	0.55
13:AM:112:GLY:O	13:AM:113:PRO:HG2	2.06	0.55
51:BS:99:LYS:O	51:BS:101:LEU:N	2.38	0.55
48:DP:143:GLY:O	48:DP:144:GLU:HB2	2.07	0.55
51:DS:18:ILE:C	51:DS:20:ARG:H	2.09	0.55
24:CY:251:VAL:HG23	24:CY:279:LEU:HD12	1.87	0.55
50:BR:2:ARG:CD	50:BR:5:LYS:HZ1	2.20	0.55
35:BA:621:A:H2'	35:BA:622:G:C5'	2.36	0.55
35:BA:1528(A):A:C2'	35:BA:1529:G:H5''	2.36	0.55
42:BH:156:ALA:HB3	42:BH:159:GLU:HB3	1.88	0.55
20:CT:57:ARG:NH1	20:CT:102:GLY:HA3	2.21	0.55
57:DY:88:LYS:CE	57:DY:93:GLY:HA3	2.37	0.55
22:AV:72:C:H2'	22:AV:73:A:H5''	1.88	0.55
9:CI:19:LEU:O	9:CI:20:ARG:HG3	2.05	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AL:27:LEU:C	12:AL:29:GLY:H	2.09	0.55
2:CB:18:GLY:CA	2:CB:42:ILE:HG22	2.36	0.55
1:CA:926:G:N2	1:CA:1505:G:H2'	2.22	0.55
3:AC:52:LEU:CD2	3:AC:52:LEU:H	2.18	0.55
24:AY:187:HIS:NE2	24:AY:311:ILE:HD11	2.22	0.55
24:AY:109:PHE:HB2	24:AY:112:ALA:CB	2.36	0.55
1:CA:255:G:H1'	17:CQ:16:GLN:HE21	1.71	0.55
22:AW:25:C:H2'	22:AW:26:A:C8	2.38	0.55
3:CC:156:ARG:HD3	3:CC:194:GLY:HA3	1.88	0.55
4:CD:199:ASN:HD22	4:CD:202:LEU:HG	1.71	0.55
47:DO:111:PHE:HB3	47:DO:114:ILE:HD13	1.89	0.55
38:BD:186:HIS:CD2	38:BD:188:GLU:HB2	2.41	0.55
7:AG:120:ILE:HD12	7:AG:120:ILE:N	2.21	0.55
35:DA:28:A:N6	35:DA:512:G:H1'	2.21	0.55
24:CY:227:LEU:HD11	24:CY:276:LEU:HD22	1.86	0.55
1:AA:1097:C:H2'	1:AA:1098:C:H6	1.71	0.55
35:DA:2779:U:H1'	35:DA:2781:A:C6	2.42	0.55
57:DY:90:LEU:HD12	57:DY:91:GLU:HG2	1.88	0.55
35:DA:2122:U:H2'	35:DA:2123:G:H8	1.71	0.55
16:CP:17:TYR:N	16:CP:17:TYR:CD1	2.74	0.55
40:DF:9:ILE:HG23	40:DF:11:VAL:O	2.07	0.55
22:CV:66:U:H2'	22:CV:67:C:O4'	2.07	0.55
8:AH:5:PRO:O	8:AH:8:ASP:HB3	2.06	0.55
30:D5:7:PRO:HG2	35:DA:2016:U:O2	2.06	0.55
54:DV:21:ARG:HB3	54:DV:91:TYR:HB2	1.88	0.55
44:BJ:72:UNK:C	44:BJ:74:UNK:N	2.68	0.55
24:AY:282:ARG:HB2	24:AY:282:ARG:NH2	2.21	0.55
24:AY:295:LEU:HD13	24:AY:295:LEU:O	2.06	0.55
26:D1:61:ARG:HG3	26:D1:61:ARG:HH11	1.70	0.55
16:AP:75:ARG:HH11	16:AP:75:ARG:HG3	1.70	0.55
42:BH:53:GLU:HA	42:BH:53:GLU:OE1	2.04	0.55
24:AY:156:LEU:C	24:AY:156:LEU:HD23	2.27	0.55
1:AA:605:U:H2'	1:AA:606:G:O4'	2.07	0.55
24:CY:306:GLU:HG3	24:CY:307:TRP:H	1.69	0.55
31:D6:39:TYR:O	31:D6:46:HIS:CD2	2.58	0.55
48:BP:64:LYS:C	48:BP:64:LYS:HD3	2.26	0.55
58:BZ:125:LEU:HD22	58:BZ:164:ALA:HB3	1.86	0.55
58:DZ:154:ASP:N	58:DZ:154:ASP:OD2	2.38	0.55
2:AB:72:GLY:HA2	2:AB:165:VAL:HG22	1.88	0.55
2:AB:93:VAL:HG21	2:AB:97:TRP:CD1	2.42	0.55
22:CW:55:U:O2'	22:CW:56:C:H5	1.90	0.55
35:DA:2604:U:O2'	35:DA:2605:U:H5'	2.07	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BK:82:ALA:HB1	45:BK:98:ARG:H	1.72	0.55
10:CJ:58:ASP:O	10:CJ:59:SER:C	2.45	0.55
1:AA:368:U:OP1	43:DI:91:SER:CB	2.55	0.55
40:BF:101:LEU:HD12	40:BF:102:PRO:CD	2.37	0.55
35:DA:996:A:OP2	53:DU:92:ARG:NH2	2.39	0.55
1:CA:1128:C:H4'	9:CI:16:ARG:HH12	1.71	0.55
15:AO:82:ILE:HG23	15:AO:83:GLU:H	1.72	0.55
31:B6:26:ASN:ND2	31:B6:32:ASN:HD21	2.03	0.55
1:CA:15:G:H2'	1:CA:16:A:C8	2.41	0.55
23:AX:14:A:H2	23:AX:15:A:H62	1.51	0.55
1:AA:1033:G:C2'	1:AA:1034:G:H5'	2.37	0.55
40:DF:192:LEU:HD22	40:DF:194:MET:HG3	1.88	0.55
42:DH:29:PRO:HD2	42:DH:79:VAL:O	2.05	0.55
1:CA:626:U:H5''	16:CP:38:TYR:CD2	2.42	0.55
12:CL:75:HIS:HD2	12:CL:77:LEU:HB2	1.72	0.55
33:D8:33:ASN:HA	33:D8:36:LYS:HD3	1.87	0.55
25:B0:68:GLU:CG	25:B0:80:HIS:HB2	2.37	0.55
4:CD:126:ILE:CG2	4:CD:127:THR:N	2.69	0.55
49:BQ:14:ARG:HG2	49:BQ:41:TRP:CH2	2.41	0.55
3:AC:73:PRO:C	3:AC:76:VAL:HG22	2.27	0.55
1:AA:96:U:O2'	1:AA:97:G:H8	1.90	0.55
1:AA:537:G:H5''	12:AL:113:ARG:NH1	2.22	0.55
13:AM:69:GLU:HA	13:AM:70:LEU:N	2.21	0.55
1:AA:1172:C:H2'	1:AA:1173:G:C8	2.41	0.55
35:BA:2779:U:H1'	35:BA:2781:A:C6	2.42	0.55
2:CB:11:LEU:C	2:CB:213:LEU:HD11	2.27	0.55
1:CA:637:G:H2'	1:CA:638:G:C8	2.42	0.55
2:AB:204:ASN:HD22	2:AB:206:ASP:H	1.54	0.55
22:CW:70:G:H4'	22:CW:71:G:OP1	2.06	0.55
1:CA:165:C:H2'	1:CA:166:G:C8	2.42	0.55
36:BB:40:U:C2	36:BB:43:C:H5''	2.41	0.55
13:CM:54:VAL:O	13:CM:58:GLU:HG2	2.07	0.55
35:DA:748:G:C8	55:DW:89:ALA:HB1	2.42	0.55
22:CW:6:G:N2	22:CW:7:A:H62	2.05	0.55
35:BA:2074:U:H2'	35:BA:2075:U:C6	2.41	0.55
1:AA:688:G:H2'	1:AA:689:C:H6	1.71	0.55
35:BA:66:C:H2'	35:BA:67:U:H6	1.70	0.55
39:BE:96:PHE:HA	39:BE:100:GLU:OE1	2.07	0.55
36:BB:66:A:H61	36:BB:108:U:H2'	1.71	0.55
46:BN:30:ILE:O	46:BN:34:LEU:HD22	2.06	0.55
15:AO:6:GLU:N	15:AO:6:GLU:OE1	2.39	0.55
1:CA:1040:U:H2'	1:CA:1041:A:C8	2.42	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:D1:8:SER:OG	26:D1:10:LYS:HG3	2.06	0.55
35:BA:1131:G:O6	35:BA:2040:C:H1'	2.06	0.55
33:D8:6:THR:HB	33:D8:63:PRO:HG3	1.87	0.55
2:AB:93:VAL:HG11	2:AB:97:TRP:HD1	1.72	0.55
41:BG:110:ALA:HB1	41:BG:140:ILE:HD13	1.88	0.55
41:BG:44:GLY:HA2	41:BG:88:ILE:HB	1.87	0.55
31:D6:28:ARG:CA	31:D6:32:ASN:HD22	2.14	0.55
40:DF:70:THR:HG22	40:DF:72:ARG:HG2	1.89	0.55
45:DK:20:ALA:H	45:DK:21:PRO:HD3	1.72	0.55
13:AM:118:ALA:HB1	13:AM:119:GLY:N	2.22	0.55
27:B2:48:HIS:HE2	35:BA:96:G:H4'	1.68	0.55
1:AA:254:G:O2'	1:AA:255:G:H5'	2.07	0.55
1:AA:1152:A:H5''	10:AJ:13:HIS:HD2	1.70	0.55
54:BV:59:ALA:HB2	54:BV:96:ILE:HD13	1.89	0.55
12:AL:65:GLU:HG2	12:AL:65:GLU:O	2.07	0.55
35:BA:1721:G:H5'	35:BA:1722:A:OP1	2.05	0.55
19:AS:28:LYS:NZ	19:AS:29:ARG:NH2	2.54	0.55
12:AL:53:ARG:NH1	12:AL:92:ASP:OD2	2.39	0.55
41:DG:33:ARG:HG3	41:DG:33:ARG:HH11	1.72	0.55
35:BA:743:G:O2'	35:BA:744:G:H5'	2.06	0.55
43:DI:50:ARG:C	43:DI:51:ILE:HD13	2.26	0.55
42:BH:29:PRO:HD2	42:BH:79:VAL:O	2.07	0.55
3:CC:52:LEU:H	3:CC:52:LEU:CD2	2.18	0.55
58:DZ:72:ARG:NH2	58:DZ:97:GLU:O	2.37	0.55
12:AL:24:VAL:O	12:AL:24:VAL:HG12	2.07	0.55
1:AA:76:C:H42	1:AA:93:G:H1	1.53	0.55
2:AB:219:VAL:O	2:AB:222:ILE:HB	2.05	0.55
1:AA:1053:G:C6	1:AA:1199:U:H2'	2.41	0.55
46:DN:9:VAL:HG21	46:DN:48:MET:HB2	1.87	0.55
35:DA:2666:C:H5''	35:DA:2667:C:C5	2.40	0.55
35:DA:27:G:N2	35:DA:512:G:O2'	2.40	0.55
19:AS:33:THR:HG23	19:AS:51:VAL:HA	1.88	0.55
37:DC:21:TYR:HB2	37:DC:225:ILE:HG22	1.89	0.55
8:AH:20:TYR:HD1	8:AH:65:TYR:CD2	2.25	0.55
1:AA:1097:C:O2'	1:AA:1098:C:H5'	2.05	0.55
1:AA:560:U:O2'	1:AA:561:U:OP2	2.20	0.55
2:AB:19:HIS:O	2:AB:20:GLU:O	2.24	0.55
48:DP:92:GLU:HG3	48:DP:93:GLY:H	1.70	0.55
1:CA:1463:C:O2'	1:CA:1464:G:H5'	2.07	0.55
35:BA:1453:U:H5'	50:BR:63:ARG:NE	2.21	0.55
22:AV:53:G:O2'	22:AV:54:U:H5'	2.06	0.55
40:BF:29:ASN:ND2	40:BF:32:LEU:HB2	2.22	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1042:G:O2'	1:CA:1043:C:H5'	2.07	0.55
1:CA:783:C:O2'	1:CA:784:C:H5'	2.07	0.55
7:AG:29:LYS:HB2	7:AG:105:VAL:HG21	1.89	0.55
31:D6:41:PRO:HD2	31:D6:46:HIS:HB3	1.70	0.55
52:BT:28:VAL:HG13	52:BT:46:GLU:CA	2.33	0.55
35:DA:1504:C:O2'	35:DA:1505:C:C5'	2.55	0.55
35:DA:1056:G:H4'	35:DA:1085:A:H2	1.70	0.55
1:CA:1229:A:OP2	13:CM:114:ARG:HD3	2.06	0.55
45:BK:104:VAL:O	45:BK:107:ILE:HG22	2.07	0.55
35:BA:1063:G:C4'	45:BK:134:MET:HG2	2.32	0.55
35:DA:654(T):C:N4	35:DA:654(U):A:N3	2.55	0.55
35:DA:1495:A:N3	35:DA:1496:A:C2	2.75	0.55
43:DI:91:SER:O	43:DI:92:VAL:CG1	2.54	0.55
52:DT:28:VAL:HB	52:DT:88:ILE:HG12	1.89	0.55
35:DA:2655:G:H1'	35:DA:2656:U:H5	1.71	0.55
43:DI:15:VAL:C	43:DI:17:GLN:H	2.10	0.55
54:DV:38:LEU:HD23	54:DV:39:LEU:N	2.22	0.55
50:DR:4:LEU:C	50:DR:5:LYS:HG2	2.27	0.55
50:DR:2:ARG:HB2	50:DR:5:LYS:HZ3	1.72	0.55
24:CY:323:ASP:CB	24:CY:326:THR:HG22	2.32	0.55
27:D2:43:GLN:O	27:D2:45:SER:N	2.40	0.55
35:BA:1042:G:N3	35:BA:1042:G:H2'	2.21	0.55
1:AA:1027:C:H2'	1:AA:1028:C:C6	2.41	0.55
35:BA:768:G:O2'	35:BA:1379:A:N6	2.40	0.55
41:DG:121:ASN:ND2	41:DG:122:PRO:N	2.54	0.55
35:BA:528:A:N1	35:BA:2042:A:H2'	2.21	0.55
57:DY:44:ILE:HG22	57:DY:45:VAL:N	2.18	0.55
38:DD:32:SER:CA	38:DD:35:LYS:HZ1	2.20	0.55
1:AA:624:C:H2'	1:AA:625:G:C8	2.35	0.55
24:AY:189:LEU:HD21	24:AY:191:ARG:CG	2.36	0.55
4:AD:49:ARG:HE	4:AD:49:ARG:CA	2.16	0.55
35:BA:648:G:O2'	35:BA:649:G:H5'	2.07	0.55
35:BA:2787:C:O2	39:BE:61:ARG:NH1	2.38	0.55
44:BJ:55:UNK:O	44:BJ:57:UNK:N	2.40	0.55
57:BY:42:VAL:CG1	57:BY:65:ALA:HB3	2.36	0.55
58:DZ:44:PHE:C	58:DZ:44:PHE:CD1	2.80	0.55
5:CE:146:ALA:O	5:CE:149:GLU:HG2	2.06	0.55
12:AL:24:VAL:CG2	12:AL:97:ARG:HB3	2.37	0.55
57:BY:31:LEU:HD22	57:BY:31:LEU:N	2.22	0.55
12:CL:117:ARG:NH2	12:CL:124:LYS:HB2	2.22	0.55
19:CS:39:THR:HG22	19:CS:40:ILE:N	2.22	0.55
2:AB:223:ILE:HG12	2:AB:226:ARG:CZ	2.37	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:539:A:H2'	1:AA:540:G:H8	1.69	0.55
6:AF:17:SER:O	6:AF:21:LEU:HD23	2.06	0.55
2:CB:135:GLN:O	2:CB:139:LYS:HG2	2.06	0.55
49:BQ:130:LYS:HZ2	58:BZ:80:ARG:HD2	1.71	0.55
24:CY:321:VAL:HG23	24:CY:333:PRO:HA	1.88	0.55
35:DA:271(G):C:O2'	35:DA:271(H):G:H5'	2.07	0.55
36:DB:40:U:C2	36:DB:43:C:H5''	2.42	0.55
1:AA:300:A:H2'	1:AA:301:G:O4'	2.07	0.55
1:CA:710:G:O2'	1:CA:711:G:H5'	2.06	0.55
28:D3:19:GLN:HE22	28:D3:52:HIS:CE1	2.25	0.55
35:DA:1131:G:O6	35:DA:2040:C:H1'	2.06	0.55
35:BA:1270:C:H5''	35:BA:1271:G:O5'	2.07	0.55
35:BA:2335:A:O2'	35:BA:2336:A:H5''	2.07	0.55
58:DZ:63:ASP:CB	58:DZ:65:GLN:HG3	2.37	0.55
24:AY:40:ASN:O	24:AY:42:PRO:HD3	2.06	0.55
39:DE:181:LEU:HD21	52:DT:7:ILE:CG2	2.37	0.55
40:DF:140:LEU:HD13	40:DF:170:LEU:HD21	1.87	0.55
54:DV:18:LEU:CG	54:DV:19:LYS:H	2.19	0.55
54:DV:18:LEU:O	54:DV:19:LYS:O	2.24	0.55
22:AW:40:C:H5'	22:AW:40:C:H6	1.72	0.55
35:BA:1054:A:C2'	35:BA:1055:G:H5''	2.33	0.55
2:CB:102:LEU:HD12	2:CB:102:LEU:N	2.21	0.55
35:DA:1109:C:H2'	35:DA:1110:G:H5'	1.88	0.55
30:D5:51:TYR:CD2	30:D5:52:TYR:CZ	2.93	0.55
24:AY:137:LEU:HD21	24:AY:169:ILE:HD11	1.88	0.55
41:DG:113:ARG:HE	41:DG:113:ARG:N	2.03	0.55
41:DG:48:GLU:CD	41:DG:49:ASP:N	2.60	0.55
43:DI:121:LYS:O	43:DI:122:GLU:HG2	2.05	0.55
35:BA:654(T):C:N4	35:BA:654(U):A:N3	2.55	0.55
42:DH:158:HIS:HE1	42:DH:169:VAL:O	1.90	0.55
35:DA:2068:U:N3	35:DA:2430:A:C2	2.53	0.55
35:BA:2543:G:H21	35:BA:2646:C:H5''	1.72	0.55
1:AA:15:G:H2'	1:AA:16:A:C8	2.42	0.55
39:DE:52:LEU:O	39:DE:74:PRO:HB3	2.05	0.55
1:AA:1004:A:H5'	1:AA:1005:A:OP1	2.07	0.55
2:AB:47:THR:HG22	2:AB:51:LEU:HD11	1.89	0.55
35:DA:2111:C:H1'	35:DA:2118:U:O4'	2.07	0.55
3:CC:20:SER:HB2	3:CC:40:ARG:NH2	2.22	0.55
42:DH:92:ILE:HG22	42:DH:93:GLY:N	2.20	0.55
12:AL:38:THR:OG1	12:AL:39:VAL:HG23	2.05	0.55
8:CH:91:ARG:CG	8:CH:91:ARG:HH11	2.19	0.55
2:AB:76:GLN:O	2:AB:208:ILE:HG23	2.07	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:76:GLN:O	2:CB:208:ILE:HG23	2.07	0.55
25:B0:48:GLY:HA3	25:B0:80:HIS:ND1	2.22	0.55
54:BV:89:GLN:OE1	54:BV:89:GLN:HA	2.07	0.55
35:BA:27:G:N2	35:BA:512:G:O2'	2.40	0.55
37:DC:195:ARG:NH1	37:DC:195:ARG:HG3	2.21	0.55
3:AC:46:GLU:O	3:AC:47:LEU:HB2	2.06	0.55
7:AG:73:MET:HA	7:AG:91:VAL:HG23	1.88	0.55
6:AF:97:PHE:HB2	18:AR:32:ARG:HH11	1.72	0.55
15:CO:37:ASN:N	15:CO:37:ASN:ND2	2.55	0.55
1:AA:116:A:H8	1:AA:116:A:O5'	1.90	0.55
1:AA:692:U:OP1	11:AK:124:LYS:HE2	2.06	0.55
35:BA:1077:A:O2'	35:BA:1078:U:H5'	2.07	0.55
35:DA:2352:A:H2'	35:DA:2353:G:O4'	2.07	0.55
58:DZ:126:VAL:HB	58:DZ:162:GLU:O	2.07	0.55
3:CC:148:GLY:HA3	3:CC:172:ARG:O	2.07	0.55
35:BA:2300:G:O2'	35:BA:2301:C:H5'	2.07	0.55
34:D9:15:LYS:HE2	34:D9:17:ILE:HD11	1.89	0.55
35:BA:80:G:O2'	35:BA:81:G:H5'	2.07	0.55
24:AY:27:LYS:O	24:AY:31:ARG:HB2	2.07	0.55
1:CA:1224:G:H4'	13:CM:102:ARG:NH1	2.22	0.55
54:BV:19:LYS:HZ3	54:BV:20:LEU:H	1.52	0.55
40:BF:187:VAL:HG12	40:BF:187:VAL:O	2.06	0.55
35:DA:1748:G:C8	35:DA:1748:G:H5'	2.39	0.55
42:DH:41:MET:HE3	42:DH:42:ARG:N	2.21	0.55
40:DF:3:GLU:C	40:DF:24:LEU:HG	2.27	0.55
2:CB:162:ILE:HD13	2:CB:177:ALA:CB	2.36	0.55
13:CM:112:GLY:HA2	13:CM:113:PRO:CD	2.36	0.55
45:BK:137:GLU:HG3	45:BK:138:VAL:H	1.69	0.55
41:BG:41:GLN:NE2	41:BG:153:ARG:HD2	2.22	0.55
22:AV:76:8AN:O2'	24:AY:240:GLN:HB2	2.07	0.55
58:DZ:8:TYR:CD1	58:DZ:8:TYR:N	2.75	0.55
29:B4:18:CYS:SG	29:B4:35:VAL:HA	2.46	0.55
54:BV:35:LEU:HB2	54:BV:57:VAL:HG13	1.89	0.55
39:BE:52:LEU:HD23	39:BE:76:ARG:HB2	1.89	0.55
35:DA:2476:A:N3	35:DA:2477:C:H5''	2.22	0.55
48:BP:32:THR:O	48:BP:33:ARG:CB	2.54	0.55
48:BP:23:PRO:O	48:BP:33:ARG:CZ	2.55	0.55
12:AL:58:VAL:O	12:AL:60:LEU:HD22	2.07	0.55
4:CD:55:ALA:O	4:CD:59:ARG:HG2	2.07	0.55
4:AD:15:GLU:HA	4:AD:15:GLU:OE1	2.07	0.55
19:CS:22:LEU:HD13	19:CS:27:GLU:HB2	1.89	0.55
19:AS:22:LEU:HD13	19:AS:27:GLU:CB	2.37	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:BP:16:ARG:O	48:BP:16:ARG:NH1	2.37	0.55
35:DA:94(A):G:H2'	35:DA:95:G:O4'	2.06	0.55
31:B6:25:LYS:HZ1	35:BA:2284:C:N4	2.05	0.55
39:DE:59:VAL:O	39:DE:62:PRO:HD2	2.06	0.55
16:AP:64:ALA:O	16:AP:65:GLN:C	2.46	0.55
13:AM:30:ALA:C	13:AM:32:GLU:H	2.11	0.55
5:CE:147:ASP:O	5:CE:151:LEU:HG	2.07	0.55
1:CA:76:C:H42	1:CA:93:G:H1	1.54	0.55
4:AD:126:ILE:CG2	4:AD:127:THR:N	2.70	0.55
9:CI:79:LEU:HD11	9:CI:83:ARG:HH21	1.72	0.55
13:AM:83:ASP:OD2	13:AM:84:ILE:N	2.40	0.55
13:AM:65:LYS:HB2	13:AM:69:GLU:O	2.07	0.55
22:AV:44:G:C2'	22:AV:45:U:H5'	2.37	0.55
45:BK:57:ILE:HG22	45:BK:58:THR:N	2.22	0.55
35:BA:2789:C:H1'	35:BA:2892:A:H2	1.71	0.55
1:CA:1073:U:H2'	1:CA:1074:G:H8	1.71	0.55
6:AF:7:ASN:HD21	18:AR:34:TYR:HE1	1.53	0.55
1:CA:1169:A:H2'	1:CA:1170:A:H8	1.72	0.55
2:CB:204:ASN:ND2	2:CB:206:ASP:H	2.05	0.55
1:CA:1519:A:C3'	1:CA:1520:G:H5'	2.36	0.55
40:DF:170:LEU:HD23	40:DF:172:TRP:CZ2	2.42	0.55
34:B9:17:ILE:HB	34:B9:26:ILE:HD13	1.88	0.55
36:BB:29:A:H2'	36:BB:30:C:O4'	2.07	0.55
1:CA:867:G:O2'	1:CA:868:C:H5'	2.06	0.55
24:AY:235:SER:HB3	24:AY:263:GLN:HE22	1.72	0.55
1:AA:356:A:H2'	1:AA:357:G:H8	1.71	0.55
28:D3:35:ARG:HE	28:D3:37:LEU:HD21	1.71	0.55
52:DT:61:PHE:CE2	52:DT:76:PHE:HB2	2.42	0.55
35:BA:2415:G:H4'	48:BP:67:MET:N	2.22	0.55
58:BZ:165:VAL:HG13	58:BZ:169:GLU:CB	2.36	0.55
2:CB:97:TRP:HZ2	2:CB:102:LEU:HD13	1.71	0.55
1:CA:1226:C:H4'	1:CA:1227:A:OP1	2.07	0.55
29:B4:26:SER:OG	29:B4:27:THR:N	2.40	0.55
24:AY:158:PRO:O	24:AY:165:ASP:HB2	2.06	0.55
39:BE:78:LEU:C	39:BE:79:ARG:HD2	2.28	0.55
3:AC:7:PRO:O	3:AC:11:ARG:HG2	2.07	0.55
35:DA:1884:A:C3'	35:DA:1885:A:H5''	2.37	0.55
43:BI:77:LEU:HD13	43:BI:140:LEU:HD12	1.87	0.55
1:AA:1144:G:H21	1:AA:1146:A:N6	2.05	0.55
35:DA:1042:G:N3	35:DA:1042:G:H2'	2.22	0.55
35:BA:252:G:OP2	48:BP:50:ARG:NH1	2.36	0.55
46:BN:128:HIS:CE1	46:BN:134:ARG:HD3	2.41	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:D0:68:GLU:CG	25:D0:80:HIS:HB2	2.37	0.55
39:DE:6:GLY:HA2	39:DE:51:PHE:CE2	2.41	0.55
1:AA:1001(A):G:H2'	1:AA:1002:G:O4'	2.06	0.55
42:BH:97:ARG:CG	42:BH:98:LEU:H	2.14	0.55
57:DY:62:GLU:CD	57:DY:63:LYS:O	2.46	0.55
38:DD:270:ILE:O	38:DD:271:ILE:HG23	2.07	0.55
3:AC:34:LEU:HD23	3:AC:34:LEU:C	2.28	0.55
39:BE:118:LYS:H	39:BE:121:ASN:H	1.54	0.55
44:DJ:57:UNK:O	44:DJ:58:UNK:C	2.55	0.55
58:DZ:158:PRO:HB2	58:DZ:161:VAL:CG2	2.36	0.55
58:BZ:4:ARG:NE	58:BZ:58:VAL:HG21	2.22	0.55
57:DY:2:ARG:CZ	57:DY:3:VAL:HG23	2.37	0.55
37:BC:7:ARG:HH12	37:BC:11:LEU:HD11	1.71	0.55
16:AP:28:ARG:HG2	16:AP:28:ARG:NH1	2.22	0.55
42:BH:148:ILE:O	42:BH:151:ILE:HG12	2.06	0.55
1:CA:1424:C:O2'	1:CA:1425:U:H5'	2.07	0.55
13:CM:14:ARG:HA	13:CM:43:THR:O	2.06	0.55
9:AI:112:LYS:HA	9:AI:119:ALA:HB2	1.89	0.55
48:BP:30:THR:O	48:BP:31:ALA:C	2.46	0.55
13:CM:83:ASP:OD2	13:CM:84:ILE:N	2.37	0.55
27:B2:2:LYS:HG2	35:BA:97:C:H5"	1.87	0.55
40:DF:178:PRO:HB2	40:DF:201:VAL:HG11	1.88	0.55
41:BG:47:LYS:HD3	41:BG:51:ARG:HH11	1.71	0.55
8:AH:120:THR:HG23	8:AH:123:GLU:OE1	2.06	0.55
45:BK:108:ALA:HB1	45:BK:120:LEU:CG	2.37	0.55
1:AA:1073:U:H2'	1:AA:1074:G:C8	2.41	0.55
2:CB:136:VAL:HG13	2:CB:140:HIS:ND1	2.21	0.55
45:DK:3:LYS:O	45:DK:7:VAL:HG11	2.07	0.55
35:BA:882:G:N2	35:BA:895:U:H3	2.04	0.55
2:AB:11:LEU:C	2:AB:213:LEU:HD11	2.27	0.55
37:BC:46:ALA:H	37:BC:172:ILE:HG22	1.72	0.55
35:BA:218:A:C2	35:BA:235:U:H4'	2.41	0.55
57:BY:51:VAL:HB	57:BY:53:PRO:HD2	1.89	0.55
35:BA:1534:U:H2'	35:BA:1535:A:O4'	2.06	0.55
55:DW:1:MET:CE	55:DW:2:GLU:H	2.19	0.55
35:DA:359:A:H2'	35:DA:360:G:O4'	2.06	0.55
1:CA:1190:G:OP1	3:CC:5:ILE:HG23	2.07	0.55
24:CY:185:GLY:HA3	24:CY:311:ILE:CG2	2.37	0.55
42:DH:53:GLU:OE1	42:DH:53:GLU:HA	2.07	0.55
35:BA:792:G:H5"	35:BA:793:A:H5'	1.89	0.55
3:CC:60:ALA:O	3:CC:61:ALA:HB2	2.05	0.55
31:D6:19:ARG:O	31:D6:20:ASN:O	2.24	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:1846:G:H8	35:DA:1846:G:H5'	1.72	0.54
57:DY:95:LYS:HG2	57:DY:96:ILE:N	2.21	0.54
24:CY:240:GLN:N	35:DA:2585:U:H5	2.06	0.54
29:D4:18:CYS:SG	29:D4:35:VAL:HA	2.47	0.54
41:DG:136:ARG:O	41:DG:154:GLY:HA2	2.07	0.54
45:BK:84:LEU:N	45:BK:84:LEU:HD23	2.21	0.54
10:CJ:57:LYS:HG3	10:CJ:57:LYS:O	2.06	0.54
1:AA:1116:C:H2'	1:AA:1117:G:C5'	2.29	0.54
20:AT:57:ARG:NH1	20:AT:102:GLY:HA3	2.22	0.54
35:DA:330:A:HO2'	35:DA:331:A:H8	1.55	0.54
43:BI:62:LYS:HG2	43:BI:133:HIS:CE1	2.41	0.54
15:CO:67:LEU:HD11	15:CO:87:ILE:HD12	1.89	0.54
9:AI:45:ALA:HA	9:AI:48:GLU:OE1	2.07	0.54
31:B6:19:ARG:O	31:B6:20:ASN:O	2.25	0.54
35:BA:2681:C:H5	35:BA:2725:A:N6	1.97	0.54
1:CA:644:G:H5'	8:CH:92:ARG:NH2	2.22	0.54
43:BI:6:LEU:HA	43:BI:15:VAL:HB	1.87	0.54
24:AY:189:LEU:HA	24:AY:314:TYR:O	2.07	0.54
26:B1:6:GLU:C	26:B1:7:ILE:HD12	2.27	0.54
1:AA:377:G:H2'	1:AA:378:G:C8	2.40	0.54
1:AA:1343:G:H1'	9:AI:121:ARG:HH12	1.73	0.54
5:AE:12:LEU:HD13	5:AE:31:LEU:HB3	1.88	0.54
43:BI:1:MET:HG3	43:BI:23:PRO:HG3	1.88	0.54
49:DQ:43:THR:HB	49:DQ:45:GLN:HE21	1.72	0.54
6:CF:97:PHE:HB2	18:CR:32:ARG:HH11	1.72	0.54
1:AA:692:U:O2	1:AA:694:A:C8	2.60	0.54
1:AA:163:C:O2'	1:AA:164:U:H5'	2.06	0.54
12:CL:119:LYS:HB2	12:CL:120:TYR:HD1	1.72	0.54
35:DA:2196:C:O2'	35:DA:2197:U:H5'	2.06	0.54
35:DA:271(U):G:O2'	35:DA:271(V):G:H5'	2.07	0.54
1:CA:744:C:H2'	1:CA:745:C:C6	2.42	0.54
1:AA:81:U:H2'	1:AA:82:U:C6	2.43	0.54
1:CA:484:G:H4'	1:CA:485:G:O5'	2.08	0.54
35:DA:2869:G:H2'	35:DA:2870:C:C6	2.42	0.54
1:AA:9:G:H2'	1:AA:10:A:H8	1.71	0.54
24:AY:50:GLN:C	24:AY:50:GLN:NE2	2.60	0.54
40:BF:7:TYR:HB3	40:BF:16:GLY:N	2.21	0.54
48:DP:64:LYS:O	48:DP:66:GLY:N	2.40	0.54
2:CB:93:VAL:HG21	2:CB:97:TRP:CD1	2.41	0.54
2:AB:162:ILE:HD13	2:AB:177:ALA:CB	2.37	0.54
35:DA:2112:G:OP1	35:DA:2112:G:O4'	2.25	0.54
24:AY:115:ASN:HD21	24:AY:213:GLU:CD	2.11	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DG:154:GLY:O	41:DG:155:MET:HB3	2.06	0.54
41:BG:37:VAL:HB	41:BG:99:MET:HG3	1.90	0.54
22:AW:77:PHA:CD2	35:BA:249:C:OP2	2.55	0.54
35:BA:143:G:H1'	56:BX:37:THR:CG2	2.37	0.54
53:BU:92:ARG:HB3	54:BV:11:GLN:NE2	2.23	0.54
35:BA:1543:C:C3'	35:BA:1544:A:H5''	2.34	0.54
45:BK:20:ALA:H	45:BK:21:PRO:HD3	1.72	0.54
1:CA:135:C:H2'	1:CA:136:C:H5'	1.89	0.54
3:AC:58:GLU:HB2	3:AC:65:ALA:HB3	1.90	0.54
35:BA:2108:C:O2'	35:BA:2109:U:H5'	2.06	0.54
1:AA:644:G:H5'	8:AH:92:ARG:NH2	2.21	0.54
52:DT:41:ARG:O	52:DT:42:ILE:O	2.25	0.54
57:BY:2:ARG:CZ	57:BY:3:VAL:HG23	2.37	0.54
16:CP:64:ALA:O	16:CP:65:GLN:C	2.46	0.54
1:CA:1053:G:C6	1:CA:1199:U:H2'	2.42	0.54
46:BN:48:MET:H	46:BN:48:MET:CE	2.19	0.54
39:BE:64:LYS:C	39:BE:66:HIS:N	2.58	0.54
52:BT:57:PHE:O	52:BT:59:THR:N	2.40	0.54
1:AA:321:A:H62	1:AA:328:C:HO2'	1.54	0.54
1:CA:537:G:H5''	12:CL:113:ARG:NH1	2.21	0.54
52:BT:38:ASN:CG	52:BT:39:ARG:H	2.09	0.54
40:BF:40:GLN:HE22	40:BF:182:ASN:HB2	1.71	0.54
7:AG:64:GLN:NE2	7:AG:68:ASN:HD21	2.05	0.54
27:B2:5:GLU:O	27:B2:8:LYS:HB2	2.07	0.54
37:BC:21:TYR:HB2	37:BC:225:ILE:HG22	1.88	0.54
1:CA:638:G:O2'	1:CA:639:G:H5'	2.08	0.54
35:DA:2122:U:H2'	35:DA:2123:G:C8	2.42	0.54
35:DA:882:G:H22	35:DA:894:C:H42	1.55	0.54
2:AB:204:ASN:C	2:AB:204:ASN:HD22	2.09	0.54
58:BZ:19:ARG:HH12	58:BZ:84:GLU:CA	2.19	0.54
10:CJ:90:LEU:N	10:CJ:91:PRO:CD	2.70	0.54
35:BA:1952:A:C5	47:BO:22:ILE:HD12	2.43	0.54
44:BJ:80:UNK:O	44:BJ:82:UNK:N	2.39	0.54
24:CY:106:LEU:C	24:CY:108:ASN:H	2.11	0.54
57:DY:51:VAL:HB	57:DY:53:PRO:HD2	1.88	0.54
26:D1:7:ILE:HG22	26:D1:8:SER:N	2.22	0.54
8:CH:29:SER:HB3	8:CH:32:LYS:CG	2.37	0.54
58:DZ:175:VAL:HB	58:DZ:176:PRO:HD2	1.89	0.54
1:AA:102:G:H2'	1:AA:103:C:C6	2.43	0.54
3:CC:167:TRP:O	3:CC:168:ALA:HB3	2.07	0.54
25:B0:53:MET:HA	25:B0:58:THR:O	2.07	0.54
35:BA:2322:A:H2'	35:BA:2323:G:O4'	2.07	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:BJ:70:UNK:O	44:BJ:71:UNK:CB	2.55	0.54
38:DD:168:ARG:HG3	38:DD:168:ARG:HH11	1.70	0.54
2:CB:52:GLU:O	2:CB:56:ARG:HG2	2.07	0.54
38:BD:263:ARG:NH1	38:BD:263:ARG:HB2	2.21	0.54
51:DS:36:TYR:CD1	51:DS:36:TYR:N	2.75	0.54
24:CY:118:LEU:HD21	24:CY:210:VAL:HG22	1.88	0.54
52:DT:13:ARG:CA	52:DT:13:ARG:NH1	2.71	0.54
35:BA:612:C:C3'	35:BA:613:G:H5''	2.36	0.54
57:BY:13:VAL:HG22	57:BY:73:ARG:O	2.07	0.54
40:BF:25:PRO:O	40:BF:26:ALA:C	2.46	0.54
57:DY:8:LYS:HD3	57:DY:28:LYS:HZ3	1.70	0.54
57:DY:7:VAL:CG2	57:DY:8:LYS:HZ2	2.21	0.54
35:BA:2416:C:OP1	48:BP:64:LYS:O	2.25	0.54
40:DF:21:ALA:C	40:DF:23:ASP:N	2.61	0.54
35:BA:1045:A:H3'	35:BA:1045:A:N3	2.22	0.54
2:AB:70:PHE:HA	2:AB:163:PHE:O	2.08	0.54
51:BS:14:VAL:HG12	51:BS:15:ARG:N	2.20	0.54
45:BK:48:MET:SD	45:BK:69:THR:HG21	2.47	0.54
52:BT:129:ARG:O	52:BT:129:ARG:HG3	2.07	0.54
29:B4:22:ILE:N	29:B4:22:ILE:HD12	2.22	0.54
41:BG:39:ILE:HD12	41:BG:60:LEU:HD21	1.88	0.54
4:CD:25:ARG:NH1	4:CD:30:LYS:HB2	2.23	0.54
1:AA:963:G:N2	10:AJ:55:LYS:HZ2	2.04	0.54
35:DA:1408:C:H2'	35:DA:1409:C:C6	2.42	0.54
35:BA:1210:A:H5''	35:BA:1212:G:O4'	2.07	0.54
46:DN:131:GLN:HE21	46:DN:134:ARG:NH2	2.06	0.54
47:DO:104:ARG:HH21	52:DT:33:LYS:HE2	1.72	0.54
31:B6:19:ARG:NH1	31:B6:19:ARG:HG2	2.22	0.54
54:BV:1:MET:SD	54:BV:42:GLY:HA3	2.47	0.54
35:BA:1718:G:O2'	35:BA:1719:G:H5'	2.06	0.54
35:DA:2199:A:H5'	35:DA:2200:C:OP2	2.08	0.54
19:CS:28:LYS:NZ	19:CS:29:ARG:NH2	2.55	0.54
2:CB:114:ARG:HD3	2:CB:114:ARG:O	2.07	0.54
35:BA:2291:U:H2'	35:BA:2292:C:C6	2.43	0.54
35:BA:2315:G:H2'	35:BA:2316:C:H6	1.72	0.54
3:AC:112:SER:HB3	3:AC:115:LEU:HD12	1.88	0.54
52:BT:36:GLU:HG2	52:BT:36:GLU:O	2.05	0.54
39:DE:11:MET:HB2	39:DE:23:VAL:O	2.07	0.54
48:BP:17:LYS:O	48:BP:18:ARG:C	2.46	0.54
36:DB:86:G:H1	36:DB:91:C:N4	2.03	0.54
4:AD:152:SER:HA	4:AD:155:LEU:CD1	2.37	0.54
10:AJ:38:ILE:HG13	10:AJ:38:ILE:O	2.06	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:2317:C:H2'	35:DA:2318:G:H5'	1.89	0.54
5:CE:72:GLN:O	5:CE:75:THR:HG22	2.08	0.54
7:CG:148:ASN:HD22	7:CG:148:ASN:N	2.02	0.54
1:CA:328:C:HO2'	1:CA:329:A:P	2.29	0.54
46:DN:42:TRP:CZ3	46:DN:48:MET:HE1	2.42	0.54
2:CB:15:VAL:HG23	2:CB:16:HIS:CE1	2.42	0.54
55:BW:12:ILE:HB	55:BW:42:ARG:NH1	2.22	0.54
1:AA:1316:G:O2'	14:AN:18:VAL:HG11	2.07	0.54
1:CA:314:C:O2'	1:CA:315:A:H5'	2.06	0.54
47:BO:111:PHE:HB3	47:BO:114:ILE:HD13	1.89	0.54
24:AY:13:LEU:HD23	24:AY:16:TYR:CD2	2.41	0.54
1:AA:559:A:H4'	1:AA:560:U:H5''	1.90	0.54
1:AA:1008:C:H42	1:AA:1021:G:H1	1.55	0.54
35:DA:271(E):U:H2'	35:DA:271(F):C:C6	2.42	0.54
2:AB:36:ARG:N	2:AB:36:ARG:HD2	2.22	0.54
26:B1:60:PHE:CD1	26:B1:91:LYS:HE3	2.43	0.54
22:CW:70:G:H2'	22:CW:71:G:C8	2.42	0.54
1:CA:1427:U:H2'	1:CA:1428:A:H8	1.72	0.54
35:BA:1537:G:H2'	35:BA:1538:G:H8	1.70	0.54
28:D3:4:LEU:O	28:D3:36:VAL:HA	2.08	0.54
27:D2:29:LYS:HG2	27:D2:57:ILE:HD13	1.88	0.54
35:BA:2873:A:C2	50:BR:6:SER:HB2	2.42	0.54
35:BA:1945:G:H2'	35:BA:1946:U:C6	2.42	0.54
1:AA:1042:G:O2'	1:AA:1043:C:H5'	2.07	0.54
11:AK:126:ARG:HB3	11:AK:126:ARG:NH1	2.22	0.54
24:CY:107:LEU:O	24:CY:107:LEU:HD23	2.07	0.54
35:DA:620:G:N3	35:DA:620:G:H5''	2.23	0.54
35:BA:332:A:H4'	35:BA:333:G:OP1	2.06	0.54
35:BA:558:G:P	46:BN:111:PRO:HD2	2.47	0.54
24:CY:152:GLU:O	24:CY:169:ILE:HG23	2.07	0.54
31:D6:15:GLU:CD	31:D6:47:THR:HB	2.28	0.54
42:DH:24:VAL:HG12	42:DH:35:VAL:HB	1.88	0.54
33:B8:62:LEU:HD13	35:BA:242:G:C5'	2.16	0.54
2:CB:167:PRO:HG3	2:CB:188:ALA:CB	2.37	0.54
30:D5:56:LYS:HG3	30:D5:59:GLU:OE2	2.06	0.54
1:AA:1256:A:H5'	1:AA:1257:U:OP1	2.07	0.54
48:BP:80:TYR:CE1	48:BP:111:ARG:HD3	2.42	0.54
22:AW:77:PHA:C	35:BA:2395:C:H1'	2.36	0.54
35:DA:1528(A):A:C2'	35:DA:1529:G:H5''	2.37	0.54
52:BT:83:ILE:HG13	52:BT:84:GLN:HG2	1.89	0.54
5:AE:105:VAL:HB	5:AE:106:PRO:HD3	1.89	0.54
22:CW:76:8AN:C4'	22:CW:77:PHA:O	2.54	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:CO:82:ILE:HG23	15:CO:83:GLU:N	2.22	0.54
51:DS:34:HIS:CE1	51:DS:54:LEU:HB2	2.42	0.54
35:BA:310:A:P	57:BY:18:GLY:HA2	2.47	0.54
35:DA:279:C:H42	35:DA:361:G:H1	1.54	0.54
31:B6:43:CYS:SG	31:B6:43:CYS:O	2.64	0.54
48:BP:97:PRO:C	48:BP:99:LEU:H	2.11	0.54
9:AI:4:TYR:CB	9:AI:19:LEU:HB2	2.35	0.54
24:AY:75:LEU:H	24:AY:75:LEU:HD22	1.71	0.54
1:CA:922:G:H2'	1:CA:923:A:C8	2.42	0.54
55:BW:8:ARG:HH11	55:BW:8:ARG:HG3	1.71	0.54
41:BG:16:ARG:O	41:BG:20:ILE:HG13	2.07	0.54
3:AC:119:ARG:HH21	3:AC:140:ARG:HE	1.56	0.54
35:BA:662:G:OP1	48:BP:18:ARG:HD2	2.06	0.54
8:AH:84:ARG:O	8:AH:135:CYS:HB2	2.07	0.54
46:DN:5:VAL:HG13	46:DN:5:VAL:O	2.08	0.54
2:CB:44:LEU:H	2:CB:44:LEU:HD12	1.72	0.54
35:BA:2115:G:H2'	35:BA:2116:G:H5''	1.87	0.54
2:AB:222:ILE:O	2:AB:226:ARG:HB2	2.08	0.54
5:AE:144:THR:O	5:AE:148:VAL:HG23	2.07	0.54
35:BA:2666:C:H5'	35:BA:2667:C:OP2	2.08	0.54
45:DK:108:ALA:HB1	45:DK:120:LEU:CG	2.36	0.54
47:BO:87:ILE:HG22	47:BO:88:ASN:O	2.07	0.54
35:DA:882:G:N2	35:DA:895:U:H3	2.05	0.54
35:DA:2869:G:H2'	35:DA:2870:C:H6	1.72	0.54
35:DA:2818:G:O2'	35:DA:2819:G:H5'	2.06	0.54
1:AA:744:C:H2'	1:AA:745:C:C6	2.43	0.54
35:DA:1534:U:H2'	35:DA:1535:A:O4'	2.06	0.54
35:BA:1101:U:O2'	35:BA:1102:C:H5'	2.06	0.54
1:AA:773:G:O3'	38:BD:202:LYS:NZ	2.34	0.54
45:BK:9:LYS:O	45:BK:9:LYS:HG3	2.08	0.54
39:BE:173:VAL:O	39:BE:174:ASP:HB2	2.07	0.54
35:BA:588:U:H2'	35:BA:589:C:C6	2.42	0.54
35:DA:2674:G:H2'	35:DA:2675:A:C8	2.42	0.54
35:DA:1766:U:H2'	35:DA:1767:C:H6	1.71	0.54
35:BA:898:C:C2'	35:BA:899:A:H5'	2.37	0.54
35:BA:1902:C:H5'	38:BD:246:PRO:HD3	1.88	0.54
52:BT:87:ASP:O	52:BT:87:ASP:OD2	2.26	0.54
13:AM:93:ARG:CG	35:BA:888:C:OP1	2.56	0.54
2:CB:164:VAL:HG12	2:CB:165:VAL:N	2.23	0.54
13:CM:96:LEU:HB3	13:CM:97:PRO:HD2	1.88	0.54
24:CY:283:LEU:O	24:CY:287:GLU:HB2	2.07	0.54
35:DA:621:A:H2'	35:DA:622:G:C5'	2.35	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:7:PRO:O	3:CC:11:ARG:HG2	2.08	0.54
35:BA:1171:G:H3'	35:BA:1173:G:C4'	2.37	0.54
13:CM:126:LYS:N	24:CY:161:GLU:H	2.06	0.54
1:AA:674:G:H2'	1:AA:675:A:C8	2.39	0.54
4:AD:18:LYS:HE2	4:AD:31:CYS:CB	2.38	0.54
51:DS:35:ILE:O	51:DS:35:ILE:HG23	2.08	0.54
10:AJ:24:VAL:HG22	10:AJ:72:VAL:HG11	1.90	0.54
55:BW:8:ARG:NH1	55:BW:8:ARG:HG3	2.21	0.54
1:CA:625:G:H2'	1:CA:626:U:H6	1.70	0.54
24:CY:41:ASP:CB	24:CY:44:ALA:HB3	2.35	0.54
24:AY:272:LYS:O	24:AY:276:LEU:HG	2.06	0.54
12:CL:89:ARG:CB	12:CL:89:ARG:HH11	2.20	0.54
12:AL:89:ARG:HH11	12:AL:89:ARG:CB	2.20	0.54
3:CC:73:PRO:C	3:CC:76:VAL:HG22	2.28	0.54
3:CC:83:ARG:O	3:CC:86:VAL:HG22	2.08	0.54
35:DA:1331:A:HO2'	35:DA:1332:G:H8	1.56	0.54
57:DY:31:LEU:HD22	57:DY:31:LEU:N	2.23	0.54
34:B9:31:LYS:NZ	35:BA:2478:A:OP1	2.40	0.54
7:CG:73:MET:HA	7:CG:91:VAL:HG23	1.90	0.54
40:DF:177:ALA:HB1	40:DF:178:PRO:HD2	1.89	0.54
50:DR:11:ASN:O	50:DR:12:ARG:HB2	2.07	0.54
24:CY:124:ALA:O	24:CY:129:ALA:HB2	2.08	0.54
1:CA:272:C:H2'	1:CA:273:A:C8	2.43	0.54
54:BV:82:ARG:HD2	54:BV:82:ARG:N	2.23	0.54
19:AS:20:LEU:HA	19:AS:23:ASN:HD22	1.71	0.54
35:BA:2376:A:O2'	51:BS:108:GLY:HA2	2.07	0.54
1:AA:63:C:H42	1:AA:104:G:H1	1.55	0.54
1:CA:1082:G:O2'	1:CA:1083:U:H5'	2.07	0.54
47:DO:87:ILE:HG22	47:DO:88:ASN:O	2.08	0.54
3:CC:130:VAL:O	3:CC:134:ILE:HG13	2.07	0.54
1:AA:826:C:H2'	1:AA:827:U:C6	2.42	0.54
1:AA:562:C:H4'	1:AA:563:A:O5'	2.06	0.54
7:CG:45:ASP:O	7:CG:49:ILE:HG12	2.08	0.54
1:CA:102:G:H2'	1:CA:103:C:C6	2.43	0.54
45:BK:16:LYS:N	45:BK:16:LYS:HD3	2.23	0.54
9:AI:64:THR:HG22	9:AI:64:THR:O	2.07	0.54
50:BR:107:ASP:C	50:BR:107:ASP:OD2	2.45	0.54
35:DA:2322:A:H2'	35:DA:2323:G:O4'	2.07	0.54
13:CM:112:GLY:O	13:CM:113:PRO:HG2	2.07	0.54
1:CA:980:C:H3'	1:CA:981:U:C6	2.43	0.54
35:BA:2876:G:H4'	52:BT:3:ARG:HD3	1.89	0.54
35:DA:141:A:C8	35:DA:1408:C:O2'	2.36	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BN:2:LYS:HZ1	54:BV:12:TYR:HA	1.72	0.54
35:DA:363(A):A:C2	35:DA:363(B):G:C5	2.96	0.54
52:BT:29:ARG:HD3	52:BT:86:ILE:HG22	1.90	0.54
24:CY:50:GLN:C	24:CY:50:GLN:HE21	2.11	0.54
3:CC:71:ALA:CA	3:CC:106:VAL:HB	2.37	0.54
45:DK:5:VAL:O	45:DK:6:ALA:HB2	2.07	0.54
1:AA:1034:G:H2'	1:AA:1035:A:C5	2.43	0.54
9:CI:43:ALA:C	9:CI:45:ALA:H	2.11	0.54
17:AQ:45:HIS:O	17:AQ:73:VAL:HG23	2.08	0.54
35:DA:2481:G:O2'	35:DA:2482:G:P	2.65	0.54
39:BE:167:VAL:HG22	39:BE:170:LEU:HD11	1.90	0.54
9:CI:26:VAL:HG13	9:CI:61:ALA:O	2.07	0.54
1:CA:1026:G:N3	1:CA:1026:G:H2'	2.21	0.54
1:CA:1027:C:H2'	1:CA:1028:C:C6	2.42	0.54
27:D2:24:LEU:O	27:D2:24:LEU:HD12	2.07	0.54
18:CR:31:LEU:HD23	18:CR:31:LEU:N	2.17	0.54
41:BG:26:GLN:O	41:BG:27:ASN:HB2	2.05	0.54
48:DP:115:LEU:HD23	48:DP:115:LEU:N	2.23	0.54
48:BP:18:ARG:HH11	48:BP:18:ARG:CB	2.19	0.54
35:BA:2810:A:H1'	39:BE:61:ARG:HH12	1.72	0.54
39:BE:72:VAL:O	39:BE:72:VAL:HG12	2.08	0.54
31:B6:12:GLU:HB3	31:B6:21:TYR:HD2	1.71	0.54
15:CO:7:GLU:O	15:CO:10:LYS:HB3	2.08	0.54
48:DP:41:ARG:HE	48:DP:41:ARG:CA	2.19	0.54
37:BC:49:GLY:HA2	37:BC:211:ARG:NH2	2.21	0.54
38:DD:209:ALA:C	38:DD:210:GLY:O	2.44	0.54
40:DF:160:ASN:ND2	40:DF:162:LEU:H	2.06	0.54
11:CK:24:SER:O	11:CK:26:ASN:N	2.41	0.54
1:AA:710:G:O2'	1:AA:711:G:H5'	2.07	0.54
2:CB:204:ASN:HD22	2:CB:204:ASN:C	2.11	0.54
55:BW:1:MET:HE3	55:BW:2:GLU:H	1.70	0.54
38:DD:122:ASP:CG	38:DD:123:ALA:H	2.11	0.54
35:BA:500:G:N2	35:BA:502:A:H3'	2.22	0.54
39:BE:14:ILE:HG12	39:BE:21:VAL:HG23	1.90	0.54
35:DA:2300:G:O2'	35:DA:2301:C:H5'	2.08	0.54
35:DA:2033:A:H4'	35:DA:2034:U:OP1	2.08	0.54
36:DB:106:G:O2'	36:DB:107:G:H5'	2.07	0.54
31:D6:19:ARG:HH21	35:DA:2401:U:C5'	2.21	0.54
35:BA:1590:U:C3'	35:BA:1591:G:H5''	2.38	0.54
4:CD:129:ASN:HD21	4:CD:145:GLU:H	1.55	0.54
40:BF:3:GLU:C	40:BF:24:LEU:HG	2.28	0.54
35:DA:2414:G:H21	48:DP:67:MET:CE	2.21	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:D8:25:MET:SD	48:DP:64:LYS:HD2	2.48	0.54
33:B8:6:THR:CG2	35:BA:243:U:OP1	2.53	0.54
27:B2:13:ALA:HA	27:B2:16:LEU:CG	2.32	0.54
30:D5:54:GLY:O	30:D5:56:LYS:HD3	2.08	0.54
35:DA:2584:U:H2'	35:DA:2585:U:H2'	1.90	0.54
29:B4:30:GLU:O	29:B4:31:ILE:HD13	2.08	0.54
29:B4:34:GLU:O	41:BG:113:ARG:HD2	2.07	0.54
41:BG:159:VAL:HG13	41:BG:159:VAL:O	2.07	0.54
41:BG:63:ILE:HG22	41:BG:143:GLU:CG	2.38	0.54
35:BA:1884:A:C3'	35:BA:1885:A:H5''	2.37	0.54
10:CJ:57:LYS:HE3	10:CJ:60:ARG:HH22	1.72	0.54
35:DA:676:A:H2	35:DA:802:A:N6	2.04	0.54
35:BA:1177:A:H5''	35:BA:1178:C:O5'	2.06	0.54
1:CA:1128:C:C1'	1:CA:1146:A:H61	2.13	0.54
4:AD:33:MET:C	4:AD:35:ARG:N	2.61	0.54
45:BK:5:VAL:O	45:BK:6:ALA:HB2	2.07	0.54
35:BA:903:C:O2'	35:BA:904:C:H5''	2.08	0.54
48:DP:101:VAL:CG2	48:DP:102:ARG:N	2.71	0.54
48:DP:101:VAL:C	48:DP:103:ALA:H	2.11	0.54
48:DP:97:PRO:C	48:DP:99:LEU:H	2.11	0.54
52:BT:50:ILE:HA	52:BT:99:LEU:CD1	2.37	0.54
9:AI:43:ALA:C	9:AI:45:ALA:H	2.11	0.54
3:CC:58:GLU:HB2	3:CC:65:ALA:HB3	1.89	0.54
5:AE:50:GLU:HB3	5:AE:53:LEU:HD12	1.90	0.54
43:BI:123:LEU:HG	43:BI:142:VAL:CG1	2.36	0.54
5:AE:101:ILE:CD1	5:AE:119:LEU:HD23	2.35	0.54
4:AD:55:ALA:O	4:AD:59:ARG:HG2	2.08	0.54
8:CH:11:THR:HA	8:CH:14:ARG:NH1	2.22	0.54
40:DF:83:PHE:O	40:DF:84:VAL:HB	2.07	0.54
7:AG:69:VAL:CG1	7:AG:100:ALA:HA	2.38	0.54
24:AY:36:PRO:HD3	45:BK:29:GLN:CA	2.36	0.54
7:CG:118:VAL:HG23	7:CG:119:ARG:N	2.23	0.54
16:CP:19:ILE:HD11	16:CP:39:TYR:HB2	1.88	0.54
36:DB:77:U:P	58:DZ:19:ARG:HH21	2.31	0.54
17:CQ:76:LEU:HD12	17:CQ:77:VAL:N	2.21	0.54
1:AA:1242:C:H5''	21:AU:10:ARG:HH12	1.72	0.54
35:BA:2122:U:H2'	35:BA:2123:G:C8	2.43	0.54
35:BA:2162:G:O2'	35:BA:2163:C:H5'	2.06	0.54
3:AC:47:LEU:HD11	3:AC:68:VAL:HG11	1.89	0.54
1:AA:1457:G:O2'	1:AA:1458:G:H5'	2.07	0.54
35:BA:2884:U:C2'	35:BA:2885:C:H5'	2.38	0.54
47:BO:114:ILE:HD12	47:BO:114:ILE:N	2.22	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CS:36:ARG:HB2	19:CS:72:GLY:CA	2.38	0.54
1:AA:1007:C:H2'	1:AA:1008:C:C5	2.42	0.54
1:AA:708:C:H2'	1:AA:709:G:H8	1.72	0.54
36:DB:41:U:C5	41:DG:69:ALA:HB1	2.43	0.54
1:AA:881:G:P	12:AL:12:ARG:HH22	2.31	0.54
58:BZ:35:ARG:HH21	58:BZ:36:LYS:HG2	1.73	0.54
17:AQ:3:LYS:HD2	17:AQ:60:ILE:HD11	1.89	0.54
38:DD:62:TYR:HA	38:DD:87:ASN:HD21	1.73	0.54
1:CA:41:G:H2'	1:CA:42:G:H8	1.73	0.54
1:CA:203:U:H4'	1:CA:216:G:C4	2.43	0.54
1:AA:1224:G:H4'	13:AM:102:ARG:NH1	2.22	0.54
15:CO:6:GLU:N	15:CO:6:GLU:OE1	2.40	0.54
1:AA:1524:C:H2'	1:AA:1525:G:C8	2.42	0.54
35:DA:852:G:O2'	35:DA:853:G:H5'	2.07	0.54
2:AB:158:LEU:HD22	2:AB:182:ILE:HD11	1.90	0.54
1:AA:1086:U:H2'	1:AA:1087:G:H8	1.73	0.54
22:CW:12:U:H3	22:CW:23:A:H61	1.55	0.54
33:D8:61:LEU:HD12	33:D8:62:LEU:HD12	1.90	0.54
42:BH:17:VAL:HG11	42:BH:50:VAL:HG21	1.89	0.54
35:BA:155:U:C2'	35:BA:156:U:H5'	2.35	0.54
2:AB:75:LYS:HD3	2:AB:78:GLN:NE2	2.23	0.54
35:DA:2661:G:H2'	35:DA:2662:A:N3	2.21	0.54
22:CW:19:G:H8	22:CW:20:U:C5	2.23	0.54
4:CD:33:MET:C	4:CD:35:ARG:N	2.61	0.54
27:D2:64:LEU:C	27:D2:64:LEU:HD23	2.28	0.54
53:DU:92:ARG:CZ	54:DV:11:GLN:H	2.20	0.54
4:AD:18:LYS:HG3	4:AD:31:CYS:SG	2.47	0.54
15:AO:82:ILE:HG23	15:AO:83:GLU:N	2.22	0.54
52:BT:32:TYR:CE2	52:BT:81:PRO:HB2	2.43	0.54
42:BH:158:HIS:HE1	42:BH:169:VAL:O	1.90	0.54
9:AI:4:TYR:HE1	9:AI:21:PRO:HD3	1.73	0.54
24:AY:287:GLU:O	24:AY:290:LYS:HG2	2.07	0.54
1:AA:1104:G:H4'	2:AB:111:ARG:NH1	2.23	0.54
1:CA:921:U:O2	5:CE:19:MET:HB2	2.08	0.54
38:BD:35:LYS:N	38:BD:36:PRO:CD	2.71	0.54
39:DE:132:HIS:CD2	39:DE:135:HIS:CE1	2.96	0.54
43:BI:120:ILE:HG22	43:BI:121:LYS:N	2.22	0.54
1:CA:878:G:H5'	8:CH:89:PRO:CG	2.35	0.54
58:BZ:71:VAL:HG22	58:BZ:88:PHE:CE2	2.42	0.54
27:D2:50:ILE:C	27:D2:52:ASP:N	2.61	0.54
5:CE:147:ASP:HA	5:CE:150:ARG:NH1	2.22	0.54
1:AA:1123:A:H4'	10:AJ:36:GLY:HA3	1.90	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:2308:G:N2	41:DG:79:ASN:ND2	2.54	0.54
30:D5:16:ARG:NH2	35:DA:517:C:OP1	2.41	0.54
38:DD:186:HIS:CD2	38:DD:188:GLU:HB2	2.43	0.54
46:DN:48:MET:CE	46:DN:48:MET:H	2.20	0.54
1:AA:383:A:H2'	1:AA:384:G:O4'	2.07	0.54
8:AH:103:VAL:CG2	8:AH:110:ALA:HB2	2.37	0.54
8:AH:109:ILE:HG12	8:AH:110:ALA:N	2.23	0.54
1:CA:692:U:O2	1:CA:694:A:C8	2.61	0.54
35:BA:882:G:H22	35:BA:894:C:H42	1.55	0.54
10:AJ:90:LEU:N	10:AJ:91:PRO:CD	2.70	0.54
22:CV:53:G:H2'	22:CV:54:U:H6	1.72	0.54
12:CL:119:LYS:O	12:CL:120:TYR:HB2	2.07	0.54
35:DA:1961:C:C2'	35:DA:1962:C:H5'	2.38	0.54
35:BA:2845:G:O2'	35:BA:2846:G:H5'	2.07	0.54
39:DE:14:ILE:HG12	39:DE:21:VAL:HG23	1.89	0.54
13:AM:105:THR:O	13:AM:106:ASN:C	2.46	0.54
24:CY:313:SER:OG	24:CY:324:HIS:HE1	1.91	0.54
35:BA:136:G:O2'	35:BA:137:C:H5'	2.08	0.54
35:BA:2737:G:H2'	35:BA:2738:A:H8	1.72	0.54
1:CA:233:C:O2'	1:CA:234:C:H5'	2.07	0.54
1:CA:977:A:H2'	1:CA:978:A:H5'	1.89	0.54
57:BY:38:ILE:HG23	57:BY:39:VAL:N	2.23	0.54
40:BF:18:ARG:HG2	40:BF:19:GLU:N	2.23	0.54
36:DB:92:C:H5''	58:DZ:79:ARG:HH22	1.71	0.54
35:DA:1503:U:H2'	35:DA:1504:C:C6	2.43	0.54
35:DA:155:U:C2'	35:DA:156:U:H5'	2.36	0.54
40:DF:24:LEU:O	40:DF:115:ALA:HB1	2.08	0.54
1:AA:1226:C:H4'	1:AA:1227:A:OP1	2.08	0.54
36:BB:8:U:H6	36:BB:8:U:H5'	1.72	0.54
35:DA:1496:A:C8	35:DA:1577:C:O2'	2.61	0.54
1:CA:1256:A:H5'	1:CA:1257:U:OP1	2.08	0.54
13:CM:125:ARG:CA	24:CY:159:GLY:HA3	2.38	0.54
35:DA:310:A:P	57:DY:18:GLY:HA2	2.48	0.54
56:DX:12:VAL:CG2	56:DX:13:LEU:H	2.10	0.54
24:CY:25:ARG:O	24:CY:29:LEU:HB2	2.07	0.54
46:BN:17:ASP:OD2	46:BN:19:GLU:HB3	2.08	0.54
27:D2:12:GLU:O	27:D2:15:LYS:HG2	2.08	0.54
31:B6:19:ARG:HH21	35:BA:2401:U:C5'	2.21	0.54
1:AA:1005:A:C2'	1:AA:1006:C:H5'	2.38	0.54
48:DP:23:PRO:O	48:DP:33:ARG:CZ	2.55	0.54
38:DD:13:ARG:NH1	38:DD:16:MET:SD	2.80	0.54
39:BE:6:GLY:HA2	39:BE:51:PHE:CE2	2.42	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BD:35:LYS:C	38:BD:37:LEU:H	2.11	0.54
18:AR:50:ILE:HD12	18:AR:70:ILE:HG21	1.89	0.54
35:BA:2198:A:H5'	43:BI:33:ARG:HH22	1.73	0.54
24:AY:311:ILE:HB	24:AY:325:ARG:HE	1.73	0.54
7:CG:69:VAL:CG1	7:CG:100:ALA:HA	2.38	0.54
11:AK:22:HIS:HB3	11:AK:29:ILE:HG22	1.89	0.54
35:DA:1478:G:HO2'	35:DA:1558:A:H2	1.55	0.54
58:BZ:51:ALA:O	58:BZ:52:SER:CB	2.55	0.54
1:CA:265:G:O3'	17:CQ:66:SER:HA	2.08	0.54
52:DT:38:ASN:C	52:DT:38:ASN:HD22	2.11	0.54
16:AP:51:VAL:O	16:AP:53:VAL:N	2.41	0.54
46:BN:9:VAL:HG21	46:BN:48:MET:HB2	1.89	0.54
41:DG:129:GLY:O	41:DG:130:ASN:O	2.25	0.54
47:DO:114:ILE:HD12	47:DO:114:ILE:N	2.23	0.54
2:CB:222:ILE:O	2:CB:226:ARG:HB2	2.08	0.54
1:AA:637:G:H2'	1:AA:638:G:C8	2.42	0.54
35:DA:674:G:O2'	40:DF:74:ARG:HD3	2.07	0.54
2:AB:36:ARG:HG2	2:AB:36:ARG:HH11	1.72	0.54
1:CA:1203:C:H2'	1:CA:1204:A:H8	1.73	0.54
35:BA:1961:C:O2'	35:BA:1962:C:H5'	2.07	0.54
35:DA:1536:C:H2'	35:DA:1537:G:O4'	2.08	0.54
1:CA:627:G:O2'	1:CA:628:G:H5'	2.07	0.54
30:B5:7:PRO:HG2	35:BA:2016:U:O2	2.08	0.54
1:AA:46:G:O2'	1:AA:365:U:H1'	2.07	0.54
1:AA:484:G:H4'	1:AA:485:G:O5'	2.07	0.54
35:DA:32:C:O2'	35:DA:33:U:H5'	2.08	0.54
1:AA:167:G:O2'	1:AA:168:G:H5'	2.08	0.54
24:AY:118:LEU:HD21	24:AY:210:VAL:HG22	1.88	0.54
35:BA:1591:G:H5'	35:BA:1591:G:H8	1.72	0.54
40:BF:24:LEU:HD13	40:BF:118:ALA:HB1	1.90	0.54
45:DK:84:LEU:HD23	45:DK:84:LEU:N	2.23	0.54
58:BZ:144:LEU:HD11	58:BZ:150:LEU:H	1.72	0.54
51:BS:35:ILE:HG23	51:BS:35:ILE:O	2.08	0.54
35:DA:2314:C:O2'	35:DA:2315:G:H5'	2.08	0.54
43:DI:6:LEU:CD1	43:DI:36:ALA:HA	2.38	0.54
53:BU:95:LEU:HD12	54:BV:11:GLN:HB2	1.90	0.54
35:DA:272(J):C:H3'	35:DA:274:G:C5'	2.33	0.54
4:AD:26:CYS:O	4:AD:31:CYS:HB2	2.07	0.54
29:D4:14:ILE:HB	29:D4:22:ILE:HB	1.90	0.54
52:DT:106:SER:HA	52:DT:110:ILE:CG1	2.38	0.54
48:DP:112:LEU:H	48:DP:128:HIS:CD2	2.25	0.54
39:DE:52:LEU:HD23	39:DE:76:ARG:HB2	1.89	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AI:48:GLU:N	9:AI:49:PRO:HD2	2.23	0.54
1:CA:473:G:H2'	1:CA:474:G:C8	2.43	0.54
33:B8:22:VAL:HG12	33:B8:49:VAL:HG21	1.90	0.54
57:DY:86:ARG:HG2	57:DY:87:LYS:N	2.23	0.54
35:DA:2476:A:C2'	35:DA:2477:C:H5''	2.34	0.54
26:D1:57:GLU:O	26:D1:58:ILE:CG2	2.53	0.54
58:BZ:185:GLU:O	58:BZ:187:ALA:N	2.40	0.54
52:BT:41:ARG:NH2	52:BT:43:GLN:HA	2.23	0.54
19:AS:22:LEU:HD13	19:AS:27:GLU:HB2	1.88	0.54
26:B1:41:ARG:NH2	35:BA:1365:A:H5'	2.20	0.54
45:DK:48:MET:SD	45:DK:69:THR:HG21	2.48	0.54
5:CE:27:ARG:HG2	5:CE:28:PHE:N	2.22	0.54
2:AB:18:GLY:CA	2:AB:42:ILE:HG22	2.38	0.54
4:AD:132:ARG:HG2	4:AD:132:ARG:NH1	2.22	0.54
6:CF:84:ASN:O	6:CF:86:ARG:HG3	2.08	0.54
24:CY:136:LEU:HD11	24:CY:187:HIS:CB	2.38	0.54
9:AI:79:LEU:HD11	9:AI:83:ARG:HH21	1.72	0.54
24:CY:223:LYS:C	24:CY:225:GLU:N	2.61	0.54
35:DA:2666:C:H3'	35:DA:2667:C:C6	2.43	0.54
58:BZ:129:SER:HB2	58:BZ:130:PRO:HD2	1.89	0.54
19:CS:36:ARG:HB2	19:CS:72:GLY:HA2	1.90	0.54
24:CY:224:PRO:HA	24:CY:227:LEU:HD12	1.90	0.54
8:CH:109:ILE:HG12	8:CH:110:ALA:N	2.22	0.54
24:AY:322:LYS:CD	24:AY:329:MET:HG2	2.38	0.54
28:B3:19:GLN:NE2	28:B3:52:HIS:CE1	2.76	0.54
2:CB:36:ARG:N	2:CB:36:ARG:HD2	2.22	0.54
35:DA:2201:C:H2'	35:DA:2202:C:H6	1.71	0.54
1:CA:605:U:H2'	1:CA:606:G:O4'	2.07	0.54
39:BE:197:ILE:HD11	39:BE:199:ARG:HE	1.73	0.54
35:DA:1607:C:H4'	35:DA:1608:A:O5'	2.07	0.54
35:DA:2272:U:H5''	35:DA:2273:A:OP1	2.08	0.54
38:BD:248:SER:HB2	38:BD:249:PRO:HD2	1.89	0.54
1:CA:1086:U:H2'	1:CA:1087:G:H8	1.74	0.54
5:AE:27:ARG:HG2	5:AE:28:PHE:N	2.22	0.54
53:DU:34:LYS:HE2	53:DU:34:LYS:HA	1.90	0.54
43:DI:33:ARG:HH11	43:DI:33:ARG:HG2	1.72	0.54
35:BA:150:C:H2'	35:BA:151:C:H6	1.71	0.54
31:D6:43:CYS:O	31:D6:43:CYS:SG	2.66	0.53
31:D6:45:LYS:O	31:D6:47:THR:HG23	2.08	0.53
52:DT:25:GLY:HA2	52:DT:92:GLY:CA	2.13	0.53
35:BA:1846:G:H5'	35:BA:1846:G:H8	1.72	0.53
40:DF:7:TYR:HB3	40:DF:16:GLY:N	2.22	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:D5:52:TYR:CD1	30:D5:52:TYR:C	2.81	0.53
35:BA:2206:G:N2	35:BA:2207:G:H4'	2.23	0.53
41:BG:38:VAL:HG22	41:BG:93:THR:HG23	1.88	0.53
41:BG:87:PRO:C	41:BG:88:ILE:HD13	2.28	0.53
1:CA:975:A:C4'	1:CA:976:G:H5''	2.27	0.53
43:DI:15:VAL:O	43:DI:17:GLN:N	2.40	0.53
48:BP:58:THR:O	48:BP:61:ARG:CD	2.56	0.53
35:DA:675:A:OP1	40:DF:63:LYS:HE2	2.08	0.53
1:AA:192:U:C4'	20:AT:103:GLY:N	2.71	0.53
43:DI:112:LYS:HD2	43:DI:112:LYS:N	2.12	0.53
46:DN:57:ALA:O	46:DN:58:ASP:C	2.46	0.53
35:DA:2543:G:H21	35:DA:2646:C:H5''	1.73	0.53
24:AY:181:SER:N	24:AY:182:PRO:CD	2.69	0.53
52:BT:106:SER:HA	52:BT:110:ILE:CG1	2.38	0.53
53:DU:76:TYR:OH	53:DU:93:LYS:HE3	2.07	0.53
54:BV:5:VAL:HG23	54:BV:37:VAL:O	2.08	0.53
35:DA:2132:U:H3	37:DC:6:LYS:CB	2.20	0.53
42:DH:80:SER:O	42:DH:81:GLU:HB2	2.08	0.53
19:CS:22:LEU:HD13	19:CS:27:GLU:CB	2.38	0.53
1:CA:591:U:H2'	1:CA:592:G:C8	2.43	0.53
39:BE:132:HIS:CD2	39:BE:135:HIS:CE1	2.96	0.53
44:DJ:55:UNK:O	44:DJ:57:UNK:N	2.41	0.53
17:CQ:66:SER:O	17:CQ:70:ARG:NH1	2.41	0.53
42:DH:115:VAL:HG11	42:DH:148:ILE:CD1	2.39	0.53
39:DE:64:LYS:C	39:DE:66:HIS:N	2.59	0.53
42:BH:153:LYS:H	42:BH:153:LYS:CD	2.14	0.53
39:DE:59:VAL:CG2	39:DE:63:LEU:HG	2.38	0.53
8:CH:82:HIS:CE1	8:CH:84:ARG:HB2	2.43	0.53
5:CE:47:LYS:N	5:CE:47:LYS:HD3	2.23	0.53
16:CP:19:ILE:HD12	16:CP:19:ILE:N	2.22	0.53
24:AY:319:ASN:HD21	24:AY:334:GLU:CG	2.20	0.53
57:DY:32:PRO:C	57:DY:34:LYS:N	2.60	0.53
7:CG:64:GLN:NE2	7:CG:68:ASN:HD21	2.05	0.53
24:CY:138:ARG:NH2	24:CY:337:LEU:HB3	2.23	0.53
35:DA:2788:C:O2'	35:DA:2809:A:N3	2.37	0.53
2:CB:219:VAL:O	2:CB:222:ILE:HB	2.07	0.53
6:CF:16:GLN:O	6:CF:20:ALA:HB2	2.08	0.53
1:AA:243:A:O2'	1:AA:244:U:OP2	2.25	0.53
2:AB:139:LYS:O	2:AB:143:GLU:HG3	2.08	0.53
38:BD:124:PRO:HG2	38:BD:129:ASN:ND2	2.22	0.53
35:BA:2201:C:H2'	35:BA:2202:C:C6	2.42	0.53
12:AL:110:VAL:HG21	12:AL:120:TYR:HB3	1.90	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:AO:56:LEU:O	15:AO:60:VAL:HG23	2.07	0.53
12:CL:110:VAL:CG2	12:CL:120:TYR:HB3	2.37	0.53
35:DA:1314:C:H6	35:DA:1314:C:H5'	1.73	0.53
8:CH:58:TYR:O	8:CH:59:LEU:HD23	2.07	0.53
41:DG:32:PRO:O	41:DG:172:LEU:HD22	2.08	0.53
22:CV:74:C:OP2	24:CY:266:ARG:NH1	2.41	0.53
1:AA:487:A:H2'	1:AA:488:C:O4'	2.07	0.53
35:BA:1925:C:O2'	35:BA:1926:U:H5'	2.07	0.53
1:AA:946:A:H2'	1:AA:947:G:C8	2.42	0.53
1:CA:879:C:O2'	1:CA:880:C:H5'	2.08	0.53
25:B0:30:VAL:HG12	25:B0:66:VAL:HG22	1.90	0.53
28:B3:35:ARG:HE	28:B3:37:LEU:HD21	1.72	0.53
35:DA:817:C:O2'	35:DA:839:U:H5''	2.08	0.53
38:BD:66:ASP:OD2	38:BD:69:ARG:HG2	2.08	0.53
1:CA:309:G:O2'	1:CA:310:G:H5'	2.08	0.53
56:BX:44:GLU:HG2	56:BX:51:VAL:HG23	1.89	0.53
35:DA:212:G:O2'	35:DA:213:A:H5'	2.08	0.53
1:CA:323:U:H2'	1:CA:324:G:O4'	2.08	0.53
24:CY:111:HIS:CE1	24:CY:214:VAL:HB	2.42	0.53
4:AD:129:ASN:HD21	4:AD:145:GLU:N	2.06	0.53
45:DK:104:VAL:O	45:DK:107:ILE:HG22	2.09	0.53
1:AA:1223:C:P	19:AS:78:ARG:HH21	2.31	0.53
2:AB:164:VAL:HG12	2:AB:165:VAL:N	2.23	0.53
1:CA:1227:A:H2'	1:CA:1228:C:O5'	2.08	0.53
48:BP:143:GLY:O	48:BP:144:GLU:HB2	2.07	0.53
41:BG:143:GLU:CD	41:BG:143:GLU:H	2.11	0.53
41:BG:43:LEU:HG	41:BG:45:GLU:OE1	2.08	0.53
40:BF:70:THR:HG22	40:BF:72:ARG:HG2	1.90	0.53
1:AA:1143:G:H2'	1:AA:1144:G:H8	1.71	0.53
47:BO:104:ARG:HH21	52:BT:33:LYS:HE2	1.72	0.53
1:AA:918:A:H2'	1:AA:919:A:C8	2.43	0.53
31:B6:46:HIS:HB2	31:B6:47:THR:OG1	2.09	0.53
35:BA:74:A:H4'	35:BA:75:G:O5'	2.09	0.53
56:DX:71:GLY:C	56:DX:72:LYS:HD2	2.28	0.53
22:AV:6:G:O2'	22:AV:7:A:H5'	2.08	0.53
12:CL:58:VAL:O	12:CL:60:LEU:HD22	2.08	0.53
1:CA:1005:A:C2'	1:CA:1006:C:H5'	2.38	0.53
35:BA:1719:G:C2'	35:BA:1720:U:H5'	2.39	0.53
35:BA:2132:U:H3	37:BC:6:LYS:CB	2.22	0.53
5:CE:19:MET:O	5:CE:20:GLN:HB2	2.08	0.53
1:AA:445:G:H2'	1:AA:446:G:H8	1.72	0.53
48:DP:17:LYS:O	48:DP:19:VAL:CG2	2.56	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:CK:22:HIS:HB3	11:CK:29:ILE:HG22	1.90	0.53
24:CY:76:MET:HE2	24:CY:88:LYS:HE2	1.90	0.53
20:CT:84:LEU:O	20:CT:88:VAL:HG23	2.08	0.53
13:AM:14:ARG:NH2	13:AM:16:ASP:OD1	2.42	0.53
35:DA:2884:U:H2'	35:DA:2885:C:C5'	2.38	0.53
47:DO:114:ILE:HD12	47:DO:114:ILE:H	1.73	0.53
35:BA:2171:A:H4'	35:BA:2172:U:O5'	2.08	0.53
35:DA:2171:A:H4'	35:DA:2172:U:O5'	2.09	0.53
35:BA:2154:G:O2'	35:BA:2155:G:H5'	2.08	0.53
19:AS:51:VAL:O	19:AS:58:VAL:HG22	2.08	0.53
45:DK:57:ILE:HG22	45:DK:58:THR:N	2.22	0.53
27:B2:61:LEU:HD12	35:BA:72:U:O4'	2.09	0.53
1:CA:1007:C:H2'	1:CA:1008:C:C5	2.43	0.53
2:CB:204:ASN:HD22	2:CB:206:ASP:H	1.55	0.53
24:CY:269:ILE:HB	49:DQ:80:GLU:OE2	2.07	0.53
34:B9:18:ARG:HE	35:BA:1034:G:H5'	1.73	0.53
35:DA:2223:G:C2'	35:DA:2224:G:H5'	2.38	0.53
35:BA:1446:C:O2'	35:BA:1447:G:H5'	2.09	0.53
5:CE:68:GLU:O	5:CE:70:PRO:HD3	2.08	0.53
35:DA:1754:C:OP1	52:DT:96:ARG:NH1	2.41	0.53
35:BA:951:C:O2'	35:BA:952:G:H5'	2.08	0.53
1:CA:81:U:H2'	1:CA:82:U:C6	2.43	0.53
35:DA:2335:A:O2'	35:DA:2336:A:H5''	2.07	0.53
31:D6:41:PRO:HG3	31:D6:46:HIS:HA	1.89	0.53
40:BF:117:ARG:HH21	40:BF:187:VAL:HA	1.73	0.53
40:BF:21:ALA:C	40:BF:23:ASP:N	2.62	0.53
57:DY:7:VAL:HG21	57:DY:8:LYS:HZ2	1.73	0.53
35:BA:2801(A):A:O4'	35:BA:2802:G:H2'	2.08	0.53
35:BA:1053:C:N4	35:BA:1107:G:H21	2.07	0.53
13:AM:90:LEU:C	13:AM:92:HIS:N	2.61	0.53
2:CB:163:PHE:HA	2:CB:185:ILE:O	2.08	0.53
2:CB:167:PRO:HG2	2:CB:192:SER:OG	2.09	0.53
2:CB:75:LYS:HD3	2:CB:78:GLN:NE2	2.24	0.53
30:D5:55:ARG:O	30:D5:56:LYS:HD3	2.09	0.53
41:DG:118:ARG:H	41:DG:181:ARG:HH21	1.51	0.53
41:DG:165:THR:OG1	41:DG:168:GLU:HG2	2.08	0.53
1:AA:980:C:H3'	1:AA:981:U:C6	2.43	0.53
52:DT:29:ARG:HD3	52:DT:86:ILE:HG22	1.89	0.53
41:BG:135:LEU:HD12	41:BG:135:LEU:N	2.24	0.53
41:BG:140:ILE:HD12	41:BG:140:ILE:C	2.29	0.53
53:BU:90:VAL:CG2	54:BV:39:LEU:HB2	2.38	0.53
1:CA:939:G:H2'	1:CA:940:C:C6	2.44	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:145:G:H2'	35:BA:146:G:C5'	2.31	0.53
53:DU:61:TRP:CH2	53:DU:94:ASN:HB2	2.44	0.53
35:DA:1654:A:P	50:DR:3:HIS:CB	2.96	0.53
41:BG:49:ASP:O	41:BG:50:ALA:HB3	2.07	0.53
24:AY:323:ASP:HB3	24:AY:326:THR:HG22	1.90	0.53
41:DG:85:GLY:C	41:DG:87:PRO:CD	2.69	0.53
47:BO:104:ARG:HE	52:BT:33:LYS:CE	2.21	0.53
46:DN:89:LYS:HB3	46:DN:89:LYS:HZ2	1.72	0.53
24:CY:52:ALA:HA	24:CY:55:LEU:HD13	1.89	0.53
48:DP:48:PRO:O	48:DP:49:ARG:C	2.47	0.53
45:DK:112:MET:N	45:DK:113:PRO:CD	2.58	0.53
1:CA:458:C:N4	1:CA:474:G:H1	2.07	0.53
48:DP:32:THR:CG2	48:DP:37:GLY:HA2	2.36	0.53
48:BP:101:VAL:C	48:BP:103:ALA:H	2.11	0.53
9:AI:4:TYR:HA	9:AI:88:TYR:CE1	2.43	0.53
12:CL:27:LEU:C	12:CL:29:GLY:H	2.11	0.53
12:AL:104:VAL:O	12:AL:107:ALA:HB3	2.08	0.53
1:CA:1104:G:H4'	2:CB:111:ARG:NH1	2.23	0.53
58:BZ:184:ALA:O	58:BZ:185:GLU:CB	2.57	0.53
43:BI:81:VAL:HG21	43:BI:88:ILE:HD13	1.90	0.53
43:BI:28:ASN:C	43:BI:32:PRO:HG2	2.29	0.53
35:BA:2314:C:O2'	35:BA:2315:G:H5'	2.07	0.53
7:AG:69:VAL:HG21	7:AG:104:LEU:HD21	1.90	0.53
57:DY:2:ARG:C	57:DY:4:LYS:N	2.62	0.53
35:DA:482:A:H4'	57:DY:47:LYS:HE2	1.91	0.53
5:CE:12:LEU:HD13	5:CE:31:LEU:HB3	1.90	0.53
2:AB:44:LEU:HD12	2:AB:44:LEU:H	1.71	0.53
35:DA:648:G:O2'	35:DA:649:G:H5'	2.09	0.53
16:AP:19:ILE:HD11	16:AP:39:TYR:HB2	1.90	0.53
35:BA:2122:U:H2'	35:BA:2123:G:H8	1.73	0.53
35:DA:2154:G:O2'	35:DA:2155:G:H5'	2.08	0.53
1:CA:1015:A:H2'	1:CA:1016:A:H8	1.73	0.53
40:DF:117:ARG:HH21	40:DF:187:VAL:HA	1.74	0.53
19:AS:36:ARG:HB2	19:AS:72:GLY:CA	2.38	0.53
19:AS:36:ARG:HB2	19:AS:72:GLY:HA2	1.90	0.53
1:CA:1097:C:H2'	1:CA:1098:C:H6	1.73	0.53
35:DA:530:G:C5	35:DA:2022:U:H5''	2.43	0.53
40:BF:65:TRP:HZ3	40:BF:73:ALA:O	1.91	0.53
35:BA:2201:C:H2'	35:BA:2202:C:H6	1.74	0.53
35:DA:1077:A:O2'	35:DA:1078:U:H5'	2.07	0.53
18:CR:53:ARG:NH1	18:CR:60:ALA:HA	2.24	0.53
28:D3:19:GLN:NE2	28:D3:52:HIS:HE1	2.06	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:300:A:H2'	1:CA:301:G:O4'	2.07	0.53
35:BA:1131:G:HO2'	35:BA:1132:A:H8	1.55	0.53
35:BA:1997:G:O2'	35:BA:1998:G:H5'	2.08	0.53
35:DA:150:C:H2'	35:DA:151:C:H6	1.74	0.53
35:BA:1935:G:H1'	35:BA:1964:G:N2	2.23	0.53
15:CO:70:LEU:HD11	15:CO:77:ARG:HG3	1.90	0.53
55:DW:83:LYS:HD3	55:DW:95:ILE:HD12	1.91	0.53
11:AK:61:ALA:CB	11:AK:90:GLY:HA3	2.39	0.53
49:DQ:42:ILE:N	49:DQ:42:ILE:HD12	2.23	0.53
38:BD:65:ILE:HD11	38:BD:67:PHE:CE1	2.42	0.53
36:DB:66:A:H61	36:DB:108:U:H2'	1.73	0.53
39:DE:93:VAL:HG21	39:DE:180:ASN:HA	1.90	0.53
54:BV:18:LEU:O	54:BV:19:LYS:O	2.26	0.53
28:B3:8:LEU:HB2	28:B3:28:LEU:HD13	1.91	0.53
13:AM:112:GLY:HA2	13:AM:113:PRO:CD	2.36	0.53
35:BA:1204:A:N1	35:BA:1241:A:C2	2.76	0.53
22:CW:56:C:N3	22:CW:57:G:N7	2.56	0.53
51:DS:85:VAL:HG22	51:DS:106:ARG:HB2	1.90	0.53
29:B4:34:GLU:CD	29:B4:34:GLU:H	2.11	0.53
4:CD:18:LYS:HE2	4:CD:31:CYS:CB	2.38	0.53
32:B7:8:ASN:HD22	32:B7:8:ASN:C	2.10	0.53
35:DA:1541:G:H1'	35:DA:1542:A:C6	2.43	0.53
45:BK:12:LEU:HB3	45:BK:13:PRO:HD2	1.91	0.53
1:CA:674:G:H2'	1:CA:675:A:C8	2.39	0.53
20:AT:104:LEU:HD23	20:AT:105:SER:N	2.23	0.53
1:CA:192:U:H2'	1:CA:193:C:H6	1.71	0.53
20:CT:104:LEU:HD23	20:CT:105:SER:N	2.23	0.53
24:CY:17:LEU:O	24:CY:20:PRO:HD2	2.08	0.53
35:DA:2679:A:O2'	35:DA:2680:C:H5'	2.08	0.53
12:CL:58:VAL:O	12:CL:65:GLU:HA	2.08	0.53
22:CV:51:U:H2'	22:CV:52:G:H8	1.69	0.53
37:BC:6:LYS:C	37:BC:8:TYR:N	2.61	0.53
24:AY:344:LEU:HD23	24:AY:344:LEU:H	1.73	0.53
1:CA:390:C:H2'	1:CA:391:G:H8	1.71	0.53
22:AW:47:U:C2'	22:AW:48:C:H5'	2.39	0.53
43:BI:69:LYS:O	43:BI:73:GLU:HB2	2.08	0.53
11:AK:111:ASP:HA	18:AR:84:LYS:HD2	1.88	0.53
56:BX:50:LYS:HB3	56:BX:84:ALA:CB	2.38	0.53
1:AA:769:G:H4'	1:AA:1513:A:H4'	1.90	0.53
1:CA:170:U:O2'	1:CA:171:A:H5'	2.08	0.53
3:CC:179:ARG:HH21	3:CC:207:VAL:HG22	1.72	0.53
14:AN:7:ILE:O	14:AN:11:LYS:HG2	2.08	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AF:79:LEU:HD12	6:AF:88:VAL:HG13	1.89	0.53
1:CA:639:G:O2'	1:CA:640:A:H5'	2.08	0.53
1:CA:1381:U:H5	1:CA:1382:C:C5	2.27	0.53
35:DA:1026:U:C2'	35:DA:1027:A:H5'	2.38	0.53
48:DP:92:GLU:HG3	48:DP:93:GLY:N	2.24	0.53
1:CA:646:U:H2'	1:CA:647:C:C6	2.43	0.53
35:BA:935:C:H2'	35:BA:936:C:H6	1.73	0.53
1:CA:1478:C:O2'	1:CA:1479:C:H5'	2.08	0.53
35:DA:643:A:O2'	35:DA:644:A:H5'	2.08	0.53
1:CA:599:C:H4'	8:CH:130:GLY:HA3	1.90	0.53
37:DC:194:ILE:O	37:DC:198:GLU:HG3	2.09	0.53
38:BD:122:ASP:CG	38:BD:123:ALA:H	2.10	0.53
24:CY:209:GLU:OE2	24:CY:303:ARG:HD2	2.04	0.53
33:B8:25:MET:SD	48:BP:64:LYS:HD2	2.48	0.53
35:DA:2801(A):A:O4'	35:DA:2802:G:H2'	2.08	0.53
52:BT:25:GLY:HA2	52:BT:92:GLY:CA	2.14	0.53
35:BA:1054:A:H2'	35:BA:1055:G:C5'	2.38	0.53
3:AC:150:LYS:HE2	3:AC:152:ILE:HD11	1.88	0.53
4:CD:31:CYS:C	4:CD:33:MET:N	2.62	0.53
35:BA:654(O):G:H2'	35:BA:654(P):C:C6	2.43	0.53
35:DA:1171:G:H3'	35:DA:1173:G:C4'	2.37	0.53
24:CY:120:ILE:CG2	24:CY:133:ALA:HB1	2.39	0.53
3:AC:16:ARG:HH11	3:AC:16:ARG:HB2	1.71	0.53
15:CO:63:ARG:NH1	15:CO:87:ILE:HG21	2.23	0.53
24:CY:49:SER:OG	35:DA:1067:A:H1'	2.08	0.53
1:CA:865:A:C2	1:CA:918:A:H4'	2.44	0.53
46:BN:131:GLN:HE21	46:BN:134:ARG:NH2	2.07	0.53
5:AE:76:ILE:CG1	5:AE:77:PRO:HD2	2.39	0.53
48:BP:81:GLN:NE2	48:BP:106:LEU:HA	2.24	0.53
50:BR:7:GLY:O	50:BR:8:ARG:CB	2.54	0.53
35:BA:528:A:H2	35:BA:2043:C:H5'	1.74	0.53
12:CL:104:VAL:O	12:CL:107:ALA:HB3	2.09	0.53
24:AY:270:LYS:HD3	25:B0:5:LYS:HD3	1.91	0.53
35:DA:1658:C:OP1	39:DE:132:HIS:CE1	2.62	0.53
4:CD:47:ARG:NE	4:CD:49:ARG:HH22	2.05	0.53
16:AP:67:THR:HB	16:AP:70:ALA:HB3	1.89	0.53
39:BE:24:THR:CG2	39:BE:184:VAL:HG23	2.39	0.53
58:DZ:51:ALA:HB3	58:DZ:57:ILE:HD11	1.89	0.53
6:AF:45:LEU:HD11	6:AF:57:GLN:OE1	2.08	0.53
24:CY:36:PRO:HB3	45:DK:29:GLN:HB3	1.90	0.53
46:DN:46:VAL:O	46:DN:47:ALA:CB	2.56	0.53
1:CA:383:A:H2'	1:CA:384:G:O4'	2.08	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BK:3:LYS:O	45:BK:7:VAL:HG11	2.08	0.53
5:CE:93:PRO:HG2	8:CH:105:ARG:NH2	2.23	0.53
35:BA:1292:U:H2'	35:BA:1293:C:H6	1.73	0.53
41:BG:170:ARG:NH2	41:BG:182:LYS:HZ3	2.07	0.53
2:AB:25:ASN:O	2:AB:27:LYS:N	2.42	0.53
13:AM:54:VAL:O	13:AM:58:GLU:HG2	2.08	0.53
38:DD:65:ILE:HD11	38:DD:67:PHE:CD1	2.43	0.53
35:DA:1532:C:H2'	35:DA:1533:G:O4'	2.09	0.53
1:CA:1060:C:C4	3:CC:2:GLY:HA3	2.43	0.53
1:AA:881:G:OP2	12:AL:12:ARG:NH2	2.41	0.53
34:D9:17:ILE:HB	34:D9:26:ILE:HD13	1.90	0.53
1:CA:1086:U:H2'	1:CA:1087:G:O4'	2.09	0.53
38:BD:65:ILE:HD11	38:BD:67:PHE:CD1	2.43	0.53
43:DI:93:THR:O	43:DI:97:ILE:HG13	2.09	0.53
24:CY:154:VAL:HG12	24:CY:154:VAL:O	2.09	0.53
3:CC:107:GLN:NE2	3:CC:107:GLN:H	2.06	0.53
50:DR:67:LEU:HD21	50:DR:76:VAL:HG11	1.89	0.53
39:BE:134:ILE:HD12	39:BE:134:ILE:C	2.28	0.53
8:CH:45:ILE:O	8:CH:45:ILE:HG13	2.07	0.53
15:AO:70:LEU:HD11	15:AO:77:ARG:HG3	1.90	0.53
52:BT:13:ARG:CA	52:BT:13:ARG:NH1	2.72	0.53
54:BV:18:LEU:CD2	54:BV:19:LYS:H	2.22	0.53
57:BY:8:LYS:HB2	57:BY:28:LYS:NZ	2.23	0.53
35:DA:2794:C:H42	35:DA:2801(A):A:N6	2.04	0.53
42:DH:41:MET:CE	42:DH:42:ARG:N	2.71	0.53
35:DA:1061:U:O4'	35:DA:1070:A:H1'	2.08	0.53
45:DK:87:GLY:O	45:DK:88:ALA:HB2	2.08	0.53
49:BQ:132:VAL:HG21	58:BZ:81:ARG:HH21	1.73	0.53
51:BS:19:LYS:O	51:BS:20:ARG:NH2	2.41	0.53
45:BK:84:LEU:HB3	45:BK:96:VAL:HG23	1.89	0.53
38:DD:111:LEU:HD13	38:DD:112:GLN:H	1.73	0.53
35:DA:654(O):G:H2'	35:DA:654(P):C:C6	2.44	0.53
41:BG:116:ASP:O	41:BG:117:PHE:CB	2.57	0.53
5:AE:105:VAL:HB	5:AE:106:PRO:CD	2.39	0.53
48:DP:58:THR:O	48:DP:61:ARG:CZ	2.57	0.53
43:BI:77:LEU:HD13	43:BI:140:LEU:CD1	2.39	0.53
48:BP:48:PRO:O	48:BP:49:ARG:C	2.47	0.53
56:BX:12:VAL:CG1	56:BX:27:THR:HG23	2.37	0.53
1:CA:918:A:H2'	1:CA:919:A:C8	2.43	0.53
34:B9:4:ARG:NH1	35:BA:2477:C:C4	2.77	0.53
48:DP:32:THR:O	48:DP:33:ARG:CB	2.56	0.53
17:AQ:65:ILE:O	17:AQ:66:SER:HB3	2.08	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DC:7:ARG:HH12	37:DC:11:LEU:HD11	1.72	0.53
38:DD:132:PRO:HD3	38:DD:190:TYR:CZ	2.43	0.53
3:AC:20:SER:HB2	3:AC:40:ARG:NH2	2.24	0.53
2:AB:67:THR:HG21	2:AB:155:LEU:CD1	2.38	0.53
48:DP:17:LYS:O	48:DP:18:ARG:C	2.47	0.53
24:AY:231:VAL:HG11	24:AY:268:GLN:OE1	2.09	0.53
16:CP:3:LYS:O	16:CP:21:VAL:HA	2.08	0.53
35:BA:448:U:H1'	40:BF:84:VAL:HG13	1.91	0.53
10:CJ:16:LEU:HD23	10:CJ:94:VAL:HG13	1.90	0.53
39:BE:202:LYS:O	39:BE:203:LYS:HB3	2.08	0.53
4:CD:152:SER:HA	4:CD:155:LEU:CD1	2.38	0.53
50:DR:12:ARG:HB3	50:DR:16:HIS:HB3	1.90	0.53
35:BA:720:C:H2'	35:BA:721:C:C6	2.44	0.53
35:BA:530:G:C5	35:BA:2022:U:H5''	2.44	0.53
15:AO:37:ASN:ND2	15:AO:37:ASN:N	2.57	0.53
26:B1:20:ARG:HA	26:B1:33:LYS:O	2.08	0.53
18:AR:53:ARG:NH1	18:AR:60:ALA:HA	2.23	0.53
35:DA:953:A:O2'	35:DA:954:G:H5'	2.08	0.53
35:DA:1221:C:H2'	35:DA:1221(A):C:H6	1.74	0.53
35:BA:2842:G:O2'	35:BA:2843:G:H5'	2.09	0.53
35:DA:1603:A:H5'	35:DA:1603:A:C8	2.43	0.53
1:AA:385:C:O2'	1:AA:386:C:H5'	2.09	0.53
35:DA:2690:C:OP2	50:DR:14:SER:HB3	2.09	0.53
7:CG:29:LYS:HB2	7:CG:105:VAL:HG21	1.89	0.53
38:BD:28:GLU:N	38:BD:29:PRO:HD2	2.23	0.53
1:AA:1060:C:C5	3:AC:2:GLY:HA3	2.43	0.53
35:DA:545:C:H2'	35:DA:547:A:O4'	2.09	0.53
11:AK:79:SER:CB	11:AK:106:LYS:HE3	2.39	0.53
1:CA:487:A:H2'	1:CA:488:C:O4'	2.08	0.53
35:DA:2861:G:O2'	35:DA:2862:G:H5'	2.09	0.53
8:AH:45:ILE:O	8:AH:45:ILE:HG13	2.08	0.53
35:DA:203:C:H3'	35:DA:204:A:H5''	1.89	0.53
35:DA:1952:A:C6	47:DO:22:ILE:HD12	2.43	0.53
30:B5:59:GLU:O	30:B5:60:VAL:HG23	2.08	0.53
57:DY:96:ILE:CG2	57:DY:97:ARG:H	2.04	0.53
35:DA:1803:A:H4'	38:DD:259:THR:HG23	1.89	0.53
2:AB:97:TRP:HZ2	2:AB:102:LEU:HD13	1.71	0.53
51:DS:101:LEU:C	51:DS:101:LEU:HD12	2.29	0.53
45:BK:95:LYS:HG3	45:BK:136:VAL:CA	2.39	0.53
35:BA:654(V):A:H2'	35:BA:655:A:C8	2.43	0.53
35:BA:2068:U:N3	35:BA:2430:A:C2	2.54	0.53
38:DD:25:THR:CG2	38:DD:26:LYS:N	2.72	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DI:109:ILE:HG13	43:DI:130:TYR:CZ	2.43	0.53
35:BA:272(J):C:H3'	35:BA:274:G:C5'	2.32	0.53
46:BN:89:LYS:HZ2	46:BN:89:LYS:HB3	1.72	0.53
1:CA:1223:C:P	19:CS:78:ARG:HH21	2.31	0.53
18:AR:56:THR:CB	18:AR:58:LEU:HD13	2.36	0.53
9:CI:45:ALA:HA	9:CI:48:GLU:OE1	2.08	0.53
35:DA:2481:G:HO2'	35:DA:2482:G:P	2.32	0.53
42:DH:97:ARG:O	42:DH:125:VAL:HG21	2.07	0.53
1:CA:1034:G:H2'	1:CA:1035:A:C5	2.43	0.53
9:CI:18:PHE:HD1	9:CI:62:TYR:CD2	2.26	0.53
9:CI:4:TYR:HA	9:CI:88:TYR:CE1	2.44	0.53
12:CL:47:LYS:HE2	12:CL:48:PRO:HD3	1.89	0.53
12:CL:50:SER:O	12:CL:51:ALA:HB2	2.09	0.53
12:AL:50:SER:O	12:AL:51:ALA:HB2	2.09	0.53
43:BI:31:LEU:CD1	43:BI:31:LEU:N	2.64	0.53
45:BK:15:GLY:H	45:BK:45:THR:HG21	1.74	0.53
43:DI:58:LEU:HA	43:DI:61:ARG:NH2	2.24	0.53
14:CN:7:ILE:O	14:CN:11:LYS:HG2	2.08	0.53
8:AH:19:VAL:CG2	8:AH:21:LYS:HE2	2.36	0.53
10:CJ:33:GLN:N	10:CJ:75:ILE:HD11	2.24	0.53
24:AY:76:MET:CE	24:AY:88:LYS:HE2	2.39	0.53
4:AD:126:ILE:HG22	4:AD:127:THR:H	1.72	0.53
6:AF:84:ASN:O	6:AF:86:ARG:HG3	2.08	0.53
2:AB:223:ILE:HG12	2:AB:226:ARG:NH2	2.23	0.53
1:CA:1118:C:H5'	9:CI:104:ARG:HD2	1.90	0.53
6:AF:16:GLN:O	6:AF:20:ALA:HB2	2.09	0.53
1:CA:1316:G:O2'	14:CN:18:VAL:HG11	2.08	0.53
58:DZ:128:VAL:HG22	58:DZ:129:SER:H	1.73	0.53
47:BO:114:ILE:HD12	47:BO:114:ILE:H	1.73	0.53
24:CY:268:GLN:O	24:CY:272:LYS:HG3	2.09	0.53
1:CA:829:G:O2'	1:CA:830:G:H5'	2.08	0.53
35:DA:2762:G:H2'	35:DA:2763:G:H5'	1.91	0.53
30:D5:2:ALA:O	30:D5:3:LYS:HD2	2.09	0.53
1:CA:1008:C:H42	1:CA:1021:G:H1	1.55	0.53
1:AA:1203:C:H2'	1:AA:1204:A:H8	1.72	0.53
34:D9:18:ARG:HE	35:DA:1034:G:H5'	1.73	0.53
35:DA:2737:G:H2'	35:DA:2738:A:H8	1.74	0.53
37:BC:186:LEU:O	37:BC:190:ILE:HG12	2.09	0.53
8:CH:122:ARG:CZ	8:CH:122:ARG:HB2	2.37	0.53
38:DD:248:SER:HB2	38:DD:249:PRO:HD2	1.91	0.53
35:DA:2873:A:C2	50:DR:6:SER:HB2	2.43	0.53
17:AQ:10:VAL:HG13	17:AQ:19:VAL:HB	1.90	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BE:179:GLU:HB3	39:BE:181:LEU:HD22	1.91	0.53
24:AY:153:VAL:O	24:AY:153:VAL:HG13	2.09	0.53
45:DK:16:LYS:N	45:DK:16:LYS:HD3	2.24	0.53
35:DA:74:A:H4'	35:DA:75:G:O5'	2.07	0.53
45:DK:60:TYR:O	45:DK:61:ALA:HB3	2.08	0.53
35:DA:2243:U:H2'	35:DA:2244:U:C6	2.43	0.53
53:DU:54:LYS:O	53:DU:58:ARG:HG3	2.09	0.53
35:BA:1902:C:HO2'	38:BD:244:ARG:HB2	1.73	0.53
30:B5:55:ARG:O	30:B5:56:LYS:HD3	2.07	0.53
35:BA:614(C):A:C5	40:BF:180:GLY:HA3	2.43	0.53
42:BH:41:MET:CE	42:BH:42:ARG:N	2.71	0.53
45:DK:130:SER:O	45:DK:134:MET:HE2	2.08	0.53
57:BY:95:LYS:HG2	57:BY:96:ILE:N	2.23	0.53
35:DA:1204:A:H2	35:DA:1241:A:N1	2.06	0.53
38:BD:25:THR:CG2	38:BD:26:LYS:N	2.72	0.53
35:BA:654(S):G:H2'	35:BA:654(T):C:C2	2.44	0.53
1:AA:135:C:H2'	1:AA:136:C:H5'	1.89	0.53
24:CY:139:MET:HE3	24:CY:341:LEU:HD21	1.91	0.53
24:CY:33:LEU:HB2	45:DK:25:PRO:CG	2.39	0.53
48:DP:81:GLN:NE2	48:DP:106:LEU:HA	2.24	0.53
1:CA:474:G:H2'	1:CA:475:G:H8	1.70	0.53
30:B5:33:CYS:CB	30:B5:40:LYS:HE3	2.38	0.53
39:BE:5:LEU:HB2	39:BE:51:PHE:HD2	1.74	0.53
54:DV:1:MET:SD	54:DV:42:GLY:HA3	2.48	0.53
9:CI:5:TYR:HD2	9:CI:18:PHE:CE2	2.26	0.53
43:BI:93:THR:CG2	43:BI:96:ASP:HB2	2.39	0.53
19:CS:9:VAL:O	19:CS:11:VAL:N	2.41	0.53
35:BA:2315:G:H21	41:BG:128:ARG:NE	2.06	0.53
24:AY:336:VAL:C	24:AY:338:ASP:H	2.11	0.53
20:AT:75:ASN:N	20:AT:75:ASN:ND2	2.54	0.53
33:B8:33:ASN:N	33:B8:36:LYS:HD2	2.23	0.53
7:AG:118:VAL:HG23	7:AG:119:ARG:N	2.23	0.53
10:CJ:98:ILE:O	10:CJ:99:LYS:HD3	2.08	0.53
24:AY:77:GLU:CB	24:AY:84:ARG:HG2	2.39	0.53
13:CM:19:LEU:HD22	13:CM:19:LEU:N	2.24	0.53
35:BA:27:G:N2	35:BA:512:G:C2'	2.72	0.53
38:BD:238:GLY:O	38:BD:239:ARG:O	2.27	0.53
39:BE:89:ASP:CG	39:BE:90:THR:N	2.61	0.53
1:AA:383:A:H2'	1:AA:384:G:C5'	2.39	0.53
3:CC:92:ALA:HA	3:CC:95:THR:HB	1.90	0.53
35:BA:2183:C:O2'	35:BA:2184:G:H5'	2.08	0.53
6:CF:79:LEU:HD12	6:CF:88:VAL:HG13	1.91	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:63:PHE:HD1	14:AN:58:LYS:HG2	1.74	0.53
26:D1:19:GLN:CB	26:D1:35:THR:HG23	2.38	0.53
35:DA:491:G:O2'	35:DA:492:A:H5'	2.09	0.53
2:CB:19:HIS:CG	2:CB:20:GLU:H	2.26	0.53
1:AA:541:G:H2'	1:AA:542:G:H8	1.74	0.53
49:DQ:67:ARG:NH1	49:DQ:67:ARG:HG2	2.24	0.53
35:BA:1786:A:C2	35:BA:2606:C:H1'	2.44	0.53
1:CA:545:C:H5''	4:CD:72:GLU:HG2	1.91	0.53
48:BP:92:GLU:HG3	48:BP:93:GLY:N	2.23	0.53
12:CL:110:VAL:HG21	12:CL:120:TYR:HB3	1.91	0.53
35:BA:1532:C:H2'	35:BA:1533:G:O4'	2.09	0.53
1:AA:1086:U:H2'	1:AA:1087:G:O4'	2.09	0.53
1:AA:47:C:H5''	1:AA:365:U:C6	2.44	0.53
35:DA:898:C:C2'	35:DA:899:A:H5'	2.38	0.53
35:BA:2584:U:H2'	35:BA:2585:U:H2'	1.90	0.53
24:CY:156:LEU:HD23	24:CY:157:THR:N	2.24	0.53
38:DD:28:GLU:N	38:DD:29:PRO:HD2	2.24	0.53
1:AA:679:C:O2'	1:AA:680:C:H5'	2.09	0.53
1:AA:203:U:H4'	1:AA:216:G:C4	2.43	0.53
22:AV:66:U:H2'	22:AV:67:C:C6	2.43	0.53
23:CX:15:A:H5''	23:CX:15:A:C4	2.44	0.53
1:CA:84:U:O2'	1:CA:88:A:H5'	2.09	0.53
35:BA:2096:U:H2'	35:BA:2097:C:C6	2.44	0.53
44:DJ:72:UNK:C	44:DJ:74:UNK:N	2.68	0.53
58:BZ:144:LEU:HD11	58:BZ:150:LEU:CB	2.35	0.53
58:DZ:150:LEU:O	58:DZ:151:HIS:HB3	2.08	0.53
2:CB:185:ILE:HG22	2:CB:199:TYR:CB	2.32	0.53
2:AB:167:PRO:HG3	2:AB:188:ALA:HB2	1.91	0.53
35:DA:1053:C:N4	35:DA:1107:G:H21	2.06	0.53
48:DP:125:VAL:O	48:DP:145:PRO:HD2	2.07	0.53
3:AC:186:PHE:CE2	3:AC:188:LEU:HD21	2.44	0.53
41:BG:117:PHE:HE1	41:BG:120:LEU:HD23	1.74	0.53
3:CC:186:PHE:CZ	3:CC:188:LEU:HD21	2.44	0.53
35:BA:195:A:C8	35:BA:197:A:OP1	2.62	0.53
1:AA:192:U:H2'	1:AA:193:C:H6	1.73	0.53
46:BN:125:GLY:HA2	46:BN:126:PRO:O	2.09	0.53
48:BP:98:GLU:O	48:BP:101:VAL:HG22	2.09	0.53
57:BY:88:LYS:CE	57:BY:93:GLY:HA3	2.39	0.53
43:DI:75:LEU:HD23	43:DI:105:HIS:CG	2.44	0.53
35:BA:2679:A:O2'	35:BA:2680:C:H5'	2.09	0.53
53:DU:101:ARG:O	53:DU:102:GLU:HG2	2.09	0.53
2:CB:80:ILE:HD12	2:CB:80:ILE:N	2.20	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1318:A:H4'	19:AS:10:PHE:HB2	1.91	0.53
24:AY:189:LEU:C	24:AY:189:LEU:HD23	2.30	0.53
50:DR:99:LYS:CB	50:DR:99:LYS:NZ	2.67	0.53
20:AT:84:LEU:O	20:AT:88:VAL:HG23	2.08	0.53
16:AP:51:VAL:HG11	16:AP:74:LEU:HD23	1.89	0.53
7:AG:16:LEU:O	7:AG:17:VAL:HG23	2.09	0.53
37:BC:191:ARG:HH11	37:BC:191:ARG:HG3	1.74	0.53
24:AY:315:VAL:HG13	24:AY:320:TYR:O	2.09	0.53
22:AW:29:G:H2'	22:AW:30:G:H8	1.74	0.53
1:AA:437:U:H2'	1:AA:438:G:O4'	2.08	0.53
20:AT:43:LEU:HB3	20:AT:48:LYS:HB2	1.91	0.53
38:BD:209:ALA:C	38:BD:210:GLY:O	2.46	0.53
38:DD:211:ARG:HD3	38:DD:214:TRP:CZ3	2.42	0.53
35:BA:674:G:O2'	40:BF:74:ARG:HD3	2.09	0.53
1:AA:1015:A:H2'	1:AA:1016:A:H8	1.73	0.53
1:AA:638:G:O2'	1:AA:639:G:H5'	2.09	0.53
1:CA:116:A:O5'	1:CA:116:A:H8	1.91	0.53
38:DD:166:GLN:HE21	38:DD:166:GLN:N	2.07	0.53
1:AA:1169:A:H2'	1:AA:1170:A:H8	1.72	0.53
1:CA:237:C:H4'	17:CQ:25:ARG:NH1	2.24	0.53
1:CA:163:C:O2'	1:CA:164:U:H5'	2.09	0.53
55:DW:1:MET:HE3	55:DW:2:GLU:H	1.74	0.53
35:BA:1536:C:H2'	35:BA:1537:G:O4'	2.08	0.53
35:DA:2537:U:H2'	35:DA:2538:C:C6	2.44	0.53
37:BC:197:LEU:C	37:BC:199:ALA:H	2.13	0.53
35:BA:1026:U:O2'	35:BA:1027:A:H5'	2.08	0.53
16:AP:17:TYR:N	16:AP:17:TYR:CD1	2.75	0.53
1:CA:751:U:C2'	1:CA:752:G:H5'	2.39	0.53
1:AA:323:U:H2'	1:AA:324:G:O4'	2.09	0.53
1:AA:793:U:H5'	1:AA:794:A:O5'	2.09	0.53
35:BA:1881:C:O2	35:BA:1881:C:H2'	2.09	0.53
24:AY:218:VAL:HG13	24:AY:218:VAL:O	2.09	0.53
43:BI:82:ARG:HG3	43:BI:82:ARG:HH11	1.74	0.53
35:DA:2233:U:H2'	35:DA:2234:G:C8	2.44	0.53
24:CY:116:ALA:HB1	24:CY:210:VAL:HG12	1.91	0.53
30:B5:52:TYR:CD1	30:B5:52:TYR:C	2.82	0.53
40:BF:157:VAL:HA	40:BF:176:LEU:O	2.09	0.53
35:BA:2850:A:OP2	35:BA:2866:U:C5	2.56	0.53
1:AA:1227:A:H2'	1:AA:1228:C:O5'	2.09	0.53
13:AM:79:LYS:O	13:AM:82:MET:HB3	2.09	0.53
2:CB:93:VAL:HG11	2:CB:97:TRP:HD1	1.73	0.53
38:BD:111:LEU:HD13	38:BD:112:GLN:N	2.25	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:BS:34:HIS:HB3	51:BS:53:SER:CB	2.31	0.53
35:BA:1063:G:H5'	45:BK:75:SER:HB3	1.91	0.53
45:BK:87:GLY:O	45:BK:88:ALA:HB2	2.09	0.53
35:DA:654(V):A:H2'	35:DA:655:A:C8	2.43	0.53
50:BR:2:ARG:HD3	50:BR:5:LYS:HZ1	1.74	0.53
58:DZ:69:THR:CG2	58:DZ:90:VAL:HG22	2.38	0.53
4:AD:31:CYS:O	4:AD:32:ALA:HB3	2.09	0.53
15:AO:81:LEU:HD11	15:AO:85:LEU:HD12	1.91	0.53
42:BH:156:ALA:O	42:BH:157:TYR:C	2.48	0.53
24:CY:29:LEU:HG	24:CY:51:GLU:CB	2.39	0.53
51:DS:59:LYS:CG	51:DS:60:GLY:H	2.22	0.53
46:BN:57:ALA:O	46:BN:58:ASP:C	2.46	0.53
4:AD:74:GLN:HA	4:AD:77:ASN:ND2	2.16	0.53
13:CM:79:LYS:O	13:CM:82:MET:HB3	2.08	0.53
1:AA:1151:A:HO2'	1:AA:1152:A:H8	1.57	0.53
5:AE:100:VAL:HG23	5:AE:100:VAL:O	2.09	0.53
2:CB:142:LEU:HA	2:CB:145:LEU:HB2	1.91	0.53
2:CB:29:ALA:HA	2:CB:32:ILE:HG22	1.91	0.53
35:BA:2360:A:O2'	35:BA:2361:A:P	2.66	0.53
4:CD:15:GLU:OE1	4:CD:15:GLU:HA	2.08	0.53
35:DA:614(C):A:C5	40:DF:180:GLY:HA3	2.44	0.53
35:DA:1021:A:C3'	35:DA:1021:A:C8	2.92	0.53
19:AS:9:VAL:O	19:AS:11:VAL:N	2.42	0.53
1:AA:345:C:H5'	52:BT:41:ARG:HD3	1.91	0.53
1:CA:1211:U:H5'	1:CA:1212:U:OP1	2.09	0.53
24:CY:81:ALA:HB3	24:CY:84:ARG:NE	2.24	0.53
16:CP:51:VAL:HG11	16:CP:74:LEU:HD23	1.91	0.53
1:CA:353:A:H5'	1:CA:353:A:C8	2.41	0.53
48:DP:30:THR:O	48:DP:31:ALA:C	2.47	0.53
7:CG:136:LYS:O	7:CG:140:ASP:HB2	2.09	0.53
1:CA:1158:C:O2	1:CA:1158:C:C2'	2.57	0.53
35:BA:271(F):C:H2'	35:BA:271(G):C:C6	2.44	0.53
53:DU:106:PHE:O	53:DU:110:VAL:HG23	2.09	0.53
42:BH:83:TYR:CD2	42:BH:83:TYR:N	2.77	0.53
30:B5:16:ARG:NH2	35:BA:517:C:OP1	2.42	0.53
30:D5:3:LYS:HB2	35:DA:747:U:H5	1.73	0.53
28:D3:17:LYS:HG2	35:DA:969:U:OP1	2.09	0.53
35:DA:2208:A:H1'	35:DA:2219:G:C4	2.44	0.53
1:AA:628:G:H2'	1:AA:629:G:C8	2.43	0.53
1:AA:84:U:O2'	1:AA:88:A:H5'	2.09	0.53
1:AA:1060:C:H2'	1:AA:1061:G:H8	1.73	0.53
1:AA:583:A:H2'	1:AA:584:G:O4'	2.09	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:CT:18:GLN:O	20:CT:22:ARG:HG3	2.09	0.53
1:CA:862:C:O2'	1:CA:863:U:H5'	2.08	0.53
22:AV:56:C:H1'	41:BG:76:SER:CB	2.38	0.53
35:DA:466:A:H2'	35:DA:467:G:H5'	1.90	0.53
38:BD:46:GLN:N	38:BD:46:GLN:OE1	2.42	0.53
25:D0:7:LEU:HD21	49:DQ:81:VAL:HB	1.90	0.53
51:BS:36:TYR:N	51:BS:36:TYR:CD1	2.76	0.53
35:BA:1754:C:OP1	52:BT:96:ARG:NH1	2.42	0.53
13:CM:105:THR:O	13:CM:106:ASN:C	2.47	0.53
40:BF:7:TYR:HB2	40:BF:17:ARG:N	2.23	0.52
28:D3:31:LEU:O	35:DA:1158:C:H4'	2.09	0.52
35:BA:1803:A:H4'	38:BD:259:THR:HG23	1.91	0.52
42:BH:24:VAL:HG12	42:BH:35:VAL:O	2.10	0.52
27:B2:13:ALA:O	27:B2:15:LYS:N	2.42	0.52
35:DA:1204:A:N1	35:DA:1241:A:C2	2.77	0.52
35:DA:1054:A:H2'	35:DA:1055:G:C5'	2.38	0.52
35:DA:1109:C:H3'	35:DA:1109:C:O2	2.09	0.52
6:CF:39:LYS:O	6:CF:40:VAL:HB	2.10	0.52
4:CD:31:CYS:O	4:CD:32:ALA:HB3	2.09	0.52
43:DI:88:ILE:HG22	43:DI:90:GLY:CA	2.39	0.52
1:CA:1144:G:H21	1:CA:1146:A:N6	2.06	0.52
26:B1:94:LEU:O	26:B1:95:LEU:C	2.47	0.52
24:CY:348:GLY:O	24:CY:352:LYS:HB2	2.09	0.52
46:DN:128:HIS:CD2	46:DN:130:HIS:H	2.21	0.52
35:BA:903:C:H2'	35:BA:904:C:H5'	1.91	0.52
48:DP:48:PRO:HG2	48:DP:49:ARG:N	2.23	0.52
13:CM:90:LEU:C	13:CM:92:HIS:N	2.60	0.52
38:DD:12:SER:HB2	38:DD:208:LYS:HB3	1.89	0.52
9:CI:48:GLU:N	9:CI:49:PRO:HD2	2.24	0.52
35:DA:1719:G:C2'	35:DA:1720:U:H5'	2.39	0.52
35:DA:768:G:O2'	35:DA:1379:A:N6	2.42	0.52
35:DA:1019:U:O2'	35:DA:1021:A:C2	2.47	0.52
42:DH:89:ILE:HD12	42:DH:90:LYS:O	2.09	0.52
39:DE:23:VAL:HA	39:DE:186:GLY:H	1.73	0.52
22:AW:49:C:H2'	22:AW:49:C:O2	2.08	0.52
58:BZ:58:VAL:CG1	58:BZ:66:SER:HB2	2.39	0.52
16:AP:3:LYS:O	16:AP:21:VAL:HA	2.09	0.52
1:CA:1123:A:H4'	10:CJ:36:GLY:HA3	1.89	0.52
11:AK:78:GLN:O	11:AK:103:LEU:HD13	2.09	0.52
1:CA:437:U:H2'	1:CA:438:G:O4'	2.09	0.52
24:CY:142:ARG:HB2	24:CY:338:ASP:O	2.08	0.52
54:DV:82:ARG:HD2	54:DV:82:ARG:N	2.24	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:DO:13:ASN:C	47:DO:15:GLY:H	2.12	0.52
3:AC:92:ALA:HA	3:AC:95:THR:HB	1.91	0.52
1:AA:1456:G:C2'	1:AA:1457:G:H5'	2.39	0.52
35:BA:2762:G:H2'	35:BA:2763:G:H5'	1.89	0.52
48:DP:80:TYR:CE1	48:DP:111:ARG:HD3	2.44	0.52
49:DQ:118:LEU:HD12	49:DQ:131:ILE:CG2	2.40	0.52
36:DB:56:G:H5'	41:DG:27:ASN:ND2	2.24	0.52
1:CA:47:C:H5''	1:CA:365:U:C6	2.44	0.52
35:DA:332:A:O2'	35:DA:334:C:OP2	2.15	0.52
49:DQ:12:GLN:HE21	49:DQ:73:PRO:HD3	1.75	0.52
35:BA:1100:C:O2'	35:BA:1101:U:H5'	2.10	0.52
1:CA:1478:C:H2'	1:CA:1479:C:H6	1.73	0.52
40:DF:29:ASN:ND2	40:DF:32:LEU:HB2	2.24	0.52
35:BA:545:C:H2'	35:BA:547:A:O4'	2.08	0.52
58:DZ:183:LEU:HD13	58:DZ:183:LEU:C	2.30	0.52
5:CE:135:THR:O	5:CE:138:ALA:N	2.42	0.52
35:BA:2777:G:H5''	35:BA:2778:A:H5'	1.90	0.52
13:AM:99:ARG:HB2	13:AM:101:GLN:NE2	2.24	0.52
7:AG:45:ASP:O	7:AG:49:ILE:HG12	2.09	0.52
40:BF:4:VAL:HA	40:BF:19:GLU:CB	2.38	0.52
35:DA:1061:U:O4	45:DK:11:GLN:HG2	2.09	0.52
38:DD:111:LEU:HD13	38:DD:112:GLN:N	2.24	0.52
3:AC:186:PHE:CZ	3:AC:188:LEU:HD21	2.44	0.52
52:DT:85:LYS:HZ2	52:DT:85:LYS:CB	2.16	0.52
35:DA:2206:G:N2	35:DA:2207:G:H4'	2.24	0.52
35:DA:142:A:C8	35:DA:1408:C:H1'	2.44	0.52
43:DI:5:LEU:HD11	43:DI:19:VAL:CG1	2.39	0.52
35:BA:607:U:OP1	40:BF:102:PRO:HA	2.09	0.52
52:BT:20:PRO:HD2	52:BT:85:LYS:HB2	1.90	0.52
4:AD:20:TYR:CD1	4:AD:20:TYR:N	2.78	0.52
35:BA:363(A):A:C2	35:BA:363(B):G:C5	2.97	0.52
48:BP:50:ARG:NH2	48:BP:50:ARG:HG2	2.23	0.52
56:DX:12:VAL:CG1	56:DX:27:THR:HG23	2.38	0.52
9:AI:42:ARG:NH1	9:AI:71:SER:OG	2.42	0.52
33:B8:51:ALA:N	33:B8:53:PRO:HD2	2.23	0.52
48:DP:29:LYS:HB3	48:DP:34:GLY:N	2.23	0.52
35:BA:1038:C:C3'	35:BA:1039:G:H5''	2.39	0.52
35:DA:1947:C:C3'	35:DA:1948:G:H5''	2.40	0.52
26:B1:80:LEU:HD23	26:B1:81:LYS:H	1.68	0.52
42:DH:80:SER:O	42:DH:81:GLU:CB	2.56	0.52
3:CC:34:LEU:CD2	3:CC:38:ARG:HD2	2.37	0.52
58:DZ:10:ARG:HH21	58:DZ:26:GLY:N	2.04	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:BO:23:ARG:HG3	47:BO:24:VAL:N	2.24	0.52
9:CI:112:LYS:HA	9:CI:119:ALA:HB2	1.90	0.52
41:DG:13:GLU:O	41:DG:14:GLU:HB2	2.08	0.52
57:BY:31:LEU:HB2	57:BY:32:PRO:HA	1.90	0.52
58:DZ:51:ALA:HB1	58:DZ:57:ILE:HD11	1.89	0.52
39:DE:33:VAL:HG23	39:DE:47:VAL:HG23	1.90	0.52
19:AS:39:THR:HG22	19:AS:40:ILE:N	2.23	0.52
1:AA:1055:A:C2	3:AC:194:GLY:HA2	2.43	0.52
55:DW:18:ARG:HG2	55:DW:76:VAL:HG12	1.90	0.52
35:DA:218:A:H2	35:DA:235:U:H4'	1.74	0.52
20:CT:26:ASN:N	20:CT:26:ASN:HD22	2.06	0.52
1:CA:797:C:OP1	11:CK:124:LYS:HE3	2.09	0.52
27:B2:31:GLU:CB	27:B2:53:LEU:HD11	2.38	0.52
1:AA:104:G:O2'	1:AA:105:G:H5'	2.09	0.52
35:DA:633:A:C2'	35:DA:634:C:H5'	2.40	0.52
35:DA:881:G:H2'	35:DA:882:G:O4'	2.10	0.52
1:CA:543:C:C2	1:CA:544:G:C8	2.97	0.52
17:AQ:11:VAL:O	17:AQ:12:SER:HB2	2.10	0.52
1:AA:1381:U:H5	1:AA:1382:C:C5	2.26	0.52
52:BT:45:PHE:CE2	52:BT:63:VAL:HB	2.44	0.52
2:AB:19:HIS:CG	2:AB:20:GLU:H	2.27	0.52
19:CS:51:VAL:O	19:CS:58:VAL:HG22	2.09	0.52
11:AK:79:SER:OG	11:AK:106:LYS:HE3	2.09	0.52
1:AA:922:G:H4'	5:AE:20:GLN:HA	1.90	0.52
35:BA:2674:G:H2'	35:BA:2675:A:C8	2.44	0.52
11:CK:61:ALA:CB	11:CK:90:GLY:HA3	2.39	0.52
26:B1:29:GLY:O	26:B1:31:GLY:N	2.39	0.52
35:BA:843:G:O2'	35:BA:844:C:H5'	2.09	0.52
2:AB:61:LEU:HA	2:AB:64:ARG:HD2	1.91	0.52
35:DA:1817:G:H2'	35:DA:1818:U:H5'	1.91	0.52
42:DH:68:THR:O	42:DH:72:ILE:HG12	2.09	0.52
35:BA:2065:C:H2'	35:BA:2066:C:C6	2.44	0.52
46:DN:61:ARG:HG3	46:DN:61:ARG:HH11	1.73	0.52
5:AE:68:GLU:O	5:AE:70:PRO:HD3	2.09	0.52
35:DA:2061:G:H5''	35:DA:2503:A:C2	2.45	0.52
31:D6:15:GLU:HA	31:D6:48:VAL:O	2.10	0.52
35:DA:1902:C:H5'	38:DD:246:PRO:HD3	1.91	0.52
35:DA:1061:U:H4'	35:DA:1070:A:O3'	2.09	0.52
45:DK:117:THR:OG1	45:DK:123:ALA:HB2	2.09	0.52
45:DK:95:LYS:HG3	45:DK:136:VAL:CA	2.39	0.52
45:DK:84:LEU:HB3	45:DK:96:VAL:HG23	1.91	0.52
40:DF:18:ARG:HG2	40:DF:19:GLU:N	2.24	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BD:79:VAL:HG21	38:BD:111:LEU:CD1	2.28	0.52
41:DG:96:ARG:O	41:DG:99:MET:HB3	2.09	0.52
24:CY:239:GLY:O	24:CY:243:ASN:CG	2.48	0.52
35:BA:1061:U:O4'	35:BA:1070:A:H1'	2.09	0.52
35:BA:1496:A:C8	35:BA:1577:C:O2'	2.62	0.52
10:AJ:57:LYS:HE3	10:AJ:60:ARG:HH22	1.74	0.52
43:DI:5:LEU:HD11	43:DI:19:VAL:HG11	1.91	0.52
50:BR:2:ARG:HD2	50:BR:5:LYS:CE	2.38	0.52
43:BI:97:ILE:HG22	43:BI:98:ALA:N	2.23	0.52
24:CY:25:ARG:NH1	24:CY:29:LEU:HD23	2.22	0.52
52:DT:32:TYR:HD1	52:DT:33:LYS:H	1.56	0.52
31:B6:15:GLU:OE2	31:B6:41:PRO:HG3	2.09	0.52
9:AI:18:PHE:HD1	9:AI:62:TYR:CD2	2.27	0.52
12:CL:65:GLU:O	12:CL:65:GLU:HG2	2.09	0.52
1:CA:1004:A:H5'	1:CA:1005:A:OP1	2.08	0.52
35:BA:1718:G:C8	35:BA:1718:G:H5'	2.42	0.52
1:CA:523:A:H61	12:CL:53:ARG:HH12	1.56	0.52
12:CL:53:ARG:NH1	12:CL:92:ASP:OD2	2.42	0.52
12:AL:91:LYS:HD3	12:AL:91:LYS:C	2.30	0.52
38:BD:181:GLU:HA	38:BD:272:ALA:CB	2.36	0.52
1:AA:591:U:H2'	1:AA:592:G:C8	2.44	0.52
22:AW:62:C:O2'	22:AW:63:G:H5'	2.10	0.52
58:BZ:57:ILE:HG22	58:BZ:58:VAL:N	2.25	0.52
1:CA:407:G:H1'	4:CD:119:GLN:OE1	2.10	0.52
1:CA:1055:A:C2	3:CC:194:GLY:HA2	2.44	0.52
33:D8:34:TRP:CG	33:D8:35:GLN:N	2.75	0.52
1:AA:1329:A:P	13:AM:28:ALA:HB3	2.50	0.52
38:BD:80:ALA:HB3	38:BD:94:LEU:CD1	2.38	0.52
7:CG:148:ASN:C	7:CG:150:ALA:N	2.62	0.52
38:DD:80:ALA:HB3	38:DD:94:LEU:CD1	2.40	0.52
1:CA:1172:C:H2'	1:CA:1173:G:C8	2.40	0.52
1:AA:1118:C:H5'	9:AI:104:ARG:HD2	1.90	0.52
8:AH:40:ALA:C	8:AH:42:GLU:N	2.60	0.52
1:CA:715:A:O2'	1:CA:716:A:H5'	2.10	0.52
1:CA:1096:C:O2'	1:CA:1097:C:H5'	2.09	0.52
6:AF:8:ILE:CG2	6:AF:9:VAL:N	2.73	0.52
35:DA:2306:C:H5''	35:DA:2307:G:O4'	2.10	0.52
1:AA:1019:C:O2'	1:AA:1020:U:H5'	2.10	0.52
1:AA:1194:U:C5'	5:AE:22:GLY:O	2.57	0.52
4:CD:61:LYS:HG3	4:CD:203:VAL:HG13	1.91	0.52
38:DD:62:TYR:HA	38:DD:87:ASN:ND2	2.25	0.52
5:AE:19:MET:O	5:AE:20:GLN:HB2	2.09	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:535:C:O2'	35:BA:536:A:H5'	2.09	0.52
3:AC:5:ILE:HD13	3:AC:5:ILE:O	2.10	0.52
35:BA:582:G:H2'	35:BA:583:G:C8	2.45	0.52
46:DN:73:THR:CG2	46:DN:82:LEU:HD11	2.40	0.52
1:AA:1040:U:H2'	1:AA:1041:A:C8	2.43	0.52
3:AC:147:LYS:HD2	3:AC:204:LEU:O	2.10	0.52
22:AW:9:A:N6	22:AW:23:A:N7	2.57	0.52
29:D4:13:ARG:HH11	29:D4:13:ARG:HG2	1.73	0.52
38:BD:218:ARG:HG3	38:BD:218:ARG:HH11	1.74	0.52
35:BA:690:G:H2'	35:BA:691:C:C6	2.44	0.52
35:BA:2461:C:H2'	35:BA:2462:U:C6	2.44	0.52
30:D5:40:LYS:CE	30:D5:46:CYS:HB3	2.39	0.52
58:BZ:102:LEU:CD1	58:BZ:124:ILE:HG12	2.39	0.52
13:AM:93:ARG:HG3	35:BA:888:C:OP1	2.09	0.52
30:D5:57:VAL:CG2	30:D5:58:LEU:H	2.16	0.52
45:BK:117:THR:OG1	45:BK:123:ALA:HB2	2.09	0.52
42:DH:156:ALA:O	42:DH:157:TYR:C	2.47	0.52
54:DV:47:VAL:CB	54:DV:49:THR:O	2.56	0.52
3:AC:16:ARG:HG3	3:AC:17:ASP:O	2.10	0.52
35:DA:1039:G:O2'	35:DA:1040:C:H5'	2.09	0.52
46:BN:93:THR:O	46:BN:94:HIS:HB2	2.09	0.52
1:AA:473:G:H2'	1:AA:474:G:C8	2.44	0.52
13:CM:93:ARG:HG3	35:DA:888:C:H5'	1.90	0.52
56:DX:63:LYS:HA	56:DX:72:LYS:HA	1.91	0.52
9:CI:53:VAL:HB	9:CI:92:TYR:CE2	2.45	0.52
35:BA:1024:G:C3'	35:BA:1025:G:H5''	2.36	0.52
12:AL:53:ARG:HH11	12:AL:53:ARG:CG	2.20	0.52
52:BT:42:ILE:CG1	52:BT:42:ILE:O	2.55	0.52
48:DP:17:LYS:O	48:DP:17:LYS:HG2	2.09	0.52
35:BA:271(P):C:C2'	35:BA:271(Q):G:H5'	2.38	0.52
52:BT:57:PHE:CD2	52:BT:58:ASN:N	2.76	0.52
4:AD:149:ALA:HB3	4:AD:152:SER:OG	2.09	0.52
5:AE:11:ILE:HG22	5:AE:12:LEU:N	2.22	0.52
57:DY:32:PRO:O	57:DY:34:LYS:N	2.42	0.52
1:CA:243:A:O2'	1:CA:244:U:OP2	2.27	0.52
5:AE:147:ASP:O	5:AE:151:LEU:HG	2.09	0.52
48:BP:71:VAL:HG13	48:BP:72:PRO:CD	2.39	0.52
2:AB:15:VAL:HG23	2:AB:16:HIS:CE1	2.44	0.52
1:AA:272:C:H2'	1:AA:273:A:C8	2.43	0.52
19:CS:20:LEU:HA	19:CS:23:ASN:HD22	1.72	0.52
35:BA:881:G:H2'	35:BA:882:G:O4'	2.09	0.52
43:DI:1:MET:HG2	43:DI:2:LYS:N	2.25	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:2713:A:H3'	35:DA:2714:G:H5'	1.91	0.52
1:CA:1052:U:H5'	24:CY:319:ASN:HD22	1.75	0.52
35:DA:1430:C:H2'	35:DA:1431:U:H6	1.75	0.52
43:DI:69:LYS:O	43:DI:73:GLU:HB2	2.09	0.52
38:DD:144:ALA:HB3	38:DD:192:THR:CG2	2.39	0.52
1:CA:541:G:H2'	1:CA:542:G:H8	1.73	0.52
38:DD:65:ILE:HD11	38:DD:67:PHE:CE1	2.45	0.52
1:CA:1060:C:H2'	1:CA:1061:G:H8	1.75	0.52
44:DJ:96:UNK:C	44:DJ:98:UNK:N	2.72	0.52
1:CA:280:C:O2	17:CQ:38:ARG:HG3	2.09	0.52
1:CA:1529:G:H4'	1:CA:1530:G:OP2	2.10	0.52
35:BA:1192:G:O2'	35:BA:1193:G:H5'	2.08	0.52
26:D1:11:ARG:HB2	26:D1:12:PRO:HD2	1.90	0.52
40:DF:148:LEU:HD11	40:DF:193:VAL:HG21	1.92	0.52
7:CG:76:ARG:HH11	7:CG:76:ARG:HG2	1.75	0.52
3:AC:107:GLN:H	3:AC:107:GLN:NE2	2.07	0.52
8:CH:13:ILE:O	8:CH:17:THR:HG23	2.10	0.52
54:BV:18:LEU:CD2	54:BV:19:LYS:N	2.70	0.52
48:BP:64:LYS:O	48:BP:66:GLY:N	2.40	0.52
35:DA:2416:C:OP1	48:DP:64:LYS:O	2.27	0.52
35:DA:1591:G:H5'	35:DA:1591:G:H8	1.73	0.52
40:DF:7:TYR:HB2	40:DF:17:ARG:N	2.25	0.52
35:BA:1109:C:O2	35:BA:1109:C:H3'	2.09	0.52
35:BA:1204:A:H2	35:BA:1241:A:N1	2.08	0.52
45:BK:130:SER:O	45:BK:134:MET:HE2	2.09	0.52
41:BG:6:ALA:C	41:BG:8:LYS:H	2.12	0.52
35:DA:1528:A:C2	35:DA:1542:A:C2	2.95	0.52
1:CA:192:U:C4'	20:CT:103:GLY:N	2.71	0.52
58:DZ:5:LEU:O	58:DZ:59:LEU:HA	2.10	0.52
10:AJ:4:ILE:HD13	10:AJ:74:ILE:CD1	2.40	0.52
35:DA:1278:A:O3'	50:DR:34:ILE:HD12	2.09	0.52
35:DA:448:U:H1'	40:DF:84:VAL:HG13	1.91	0.52
36:BB:55:U:O4'	41:BG:29:TRP:NE1	2.43	0.52
43:BI:29:TYR:C	43:BI:32:PRO:HD2	2.30	0.52
41:BG:128:ARG:O	41:BG:129:GLY:O	2.28	0.52
4:AD:47:ARG:NE	4:AD:49:ARG:HH22	2.07	0.52
48:DP:19:VAL:HG23	48:DP:19:VAL:O	2.09	0.52
2:CB:121:LEU:HD21	2:CB:126:GLU:OE2	2.10	0.52
1:CA:1242:C:H5''	21:CU:10:ARG:HH12	1.74	0.52
1:AA:1287:A:C2	1:AA:1353:G:H1'	2.45	0.52
15:CO:16:ALA:HA	15:CO:27:VAL:CG2	2.40	0.52
39:DE:89:ASP:CG	39:DE:90:THR:N	2.62	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AG:135:VAL:HG12	7:AG:139:GLU:OE2	2.09	0.52
16:AP:19:ILE:N	16:AP:19:ILE:HD12	2.23	0.52
1:CA:383:A:H2'	1:CA:384:G:C5'	2.39	0.52
1:CA:104:G:H4'	1:CA:174:C:O4'	2.09	0.52
1:CA:179:A:H2'	1:CA:180:U:H6	1.74	0.52
35:DA:2291:U:H2'	35:DA:2292:C:C6	2.43	0.52
57:BY:90:LEU:HD12	57:BY:91:GLU:HG2	1.90	0.52
38:DD:67:PHE:CE1	38:DD:157:ARG:CZ	2.92	0.52
1:CA:711:G:O2'	1:CA:712:A:H5'	2.10	0.52
1:AA:165:C:H2'	1:AA:166:G:C8	2.43	0.52
35:BA:898:C:H2'	35:BA:899:A:O4'	2.10	0.52
58:BZ:45:ASP:OD2	58:BZ:49:ARG:NH2	2.41	0.52
35:BA:1097:U:H2'	35:BA:1098:A:H5'	1.91	0.52
40:DF:46:ARG:HG3	40:DF:46:ARG:NH1	2.25	0.52
18:CR:43:PHE:O	18:CR:51:LEU:HD12	2.09	0.52
35:DA:1097:U:H2'	35:DA:1098:A:H5'	1.92	0.52
22:AV:18:G:H4'	22:AV:60:U:C2	2.45	0.52
35:DA:1762:A:H8	35:DA:1762:A:O5'	1.92	0.52
44:DJ:110:UNK:O	44:DJ:111:UNK:CB	2.58	0.52
35:BA:2818:G:O2'	35:BA:2819:G:H5'	2.09	0.52
16:AP:55:ARG:HE	16:AP:55:ARG:HA	1.75	0.52
24:CY:263:GLN:HA	24:CY:271:ASN:ND2	2.25	0.52
35:DA:1683:C:H2'	35:DA:1684:C:C6	2.44	0.52
35:BA:13:A:H61	35:BA:525:U:H3'	1.75	0.52
35:BA:613:G:H8	35:BA:613:G:C5'	2.18	0.52
57:DY:95:LYS:HE2	57:DY:99:CYS:O	2.10	0.52
5:CE:105:VAL:HB	5:CE:106:PRO:HD3	1.92	0.52
35:DA:2315:G:H2'	35:DA:2316:C:H6	1.74	0.52
48:BP:80:TYR:CD1	48:BP:111:ARG:HB3	2.44	0.52
29:B4:14:ILE:HG23	29:B4:31:ILE:HG21	1.90	0.52
54:BV:39:LEU:H	54:BV:39:LEU:HD22	1.74	0.52
54:BV:46:VAL:CG1	54:BV:47:VAL:N	2.72	0.52
35:BA:1999:C:H4'	35:BA:2723:C:O2	2.09	0.52
35:BA:1688:U:H1'	35:BA:1701:A:C6	2.45	0.52
45:BK:18:THR:HB	45:BK:19:PRO:HD3	1.92	0.52
1:AA:458:C:N4	1:AA:474:G:H1	2.07	0.52
24:AY:106:LEU:HD23	24:AY:349:LEU:HD13	1.92	0.52
5:CE:8:GLU:N	5:CE:34:VAL:HG23	2.24	0.52
13:AM:116:THR:HG22	13:AM:116:THR:O	2.10	0.52
9:CI:42:ARG:NH1	9:CI:71:SER:OG	2.42	0.52
9:AI:26:VAL:HG13	9:AI:61:ALA:O	2.10	0.52
50:DR:118:GLU:HA	50:DR:118:GLU:OE1	2.09	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1029:C:H4'	1:CA:1033:G:H22	1.74	0.52
48:BP:34:GLY:O	48:BP:35:HIS:CG	2.62	0.52
35:BA:2481:G:O2'	35:BA:2482:G:P	2.67	0.52
38:BD:32:SER:CA	38:BD:35:LYS:HZ3	2.20	0.52
41:BG:172:LEU:HD23	41:BG:172:LEU:O	2.09	0.52
7:AG:69:VAL:HG12	7:AG:100:ALA:HA	1.91	0.52
47:BO:107:ARG:CZ	52:BT:35:LYS:HB2	2.40	0.52
35:DA:2591:C:H2'	35:DA:2592:G:C8	2.45	0.52
7:CG:16:LEU:O	7:CG:17:VAL:HG23	2.10	0.52
44:BJ:57:UNK:O	44:BJ:58:UNK:C	2.56	0.52
45:DK:15:GLY:H	45:DK:45:THR:HG21	1.75	0.52
35:DA:2190:G:C2'	35:DA:2191:G:H5'	2.40	0.52
42:BH:89:ILE:HD12	42:BH:90:LYS:O	2.09	0.52
13:CM:21:TYR:C	13:CM:22:ILE:HD12	2.30	0.52
16:CP:19:ILE:H	16:CP:19:ILE:CD1	2.23	0.52
35:BA:993:G:OP1	53:BU:50:ARG:NH2	2.42	0.52
12:CL:7:ILE:CG2	12:CL:8:ASN:N	2.72	0.52
24:CY:138:ARG:HH22	24:CY:337:LEU:HD13	1.73	0.52
34:D9:31:LYS:HE2	35:DA:2528:U:C5'	2.39	0.52
7:AG:140:ASP:HA	7:AG:143:ARG:HH11	1.74	0.52
50:DR:28:LEU:HD12	50:DR:44:LEU:CD1	2.38	0.52
40:DF:160:ASN:HD21	40:DF:162:LEU:HB2	1.75	0.52
15:CO:48:LYS:HE2	15:CO:48:LYS:CA	2.40	0.52
6:AF:62:TRP:CH2	6:AF:64:GLN:HB2	2.45	0.52
55:BW:18:ARG:NH1	55:BW:76:VAL:O	2.41	0.52
1:AA:724:G:H2'	1:AA:725:G:H8	1.75	0.52
35:BA:2761:G:H3'	35:BA:2762:G:H5''	1.90	0.52
47:DO:89:ASN:O	47:DO:91:LEU:HD22	2.10	0.52
1:CA:104:G:O2'	1:CA:105:G:H5'	2.09	0.52
35:DA:2124:G:H1'	37:DC:43:GLU:OE2	2.10	0.52
35:DA:2611:U:H5'	35:DA:2611:U:H6	1.75	0.52
1:CA:1438:G:H2'	1:CA:1439:C:H6	1.74	0.52
35:DA:1374:G:H2'	35:DA:1375:C:H6	1.74	0.52
27:D2:28:LYS:CD	27:D2:56:GLN:HE21	2.22	0.52
3:CC:5:ILE:O	3:CC:5:ILE:HD13	2.09	0.52
24:CY:263:GLN:O	24:CY:263:GLN:HG2	2.10	0.52
3:CC:37:GLN:NE2	14:CN:52:GLN:OE1	2.42	0.52
35:DA:315:G:H2'	35:DA:316:C:C6	2.45	0.52
35:BA:176:G:O2'	35:BA:177:G:H5'	2.09	0.52
1:CA:558:G:H2'	1:CA:559:A:H2	1.74	0.52
1:AA:233:C:O2'	1:AA:234:C:H5'	2.08	0.52
26:D1:23:LYS:HD3	26:D1:28:GLY:HA3	1.92	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:D1:27:GLU:HG3	26:D1:28:GLY:H	1.73	0.52
1:CA:1206:G:H4'	3:CC:192:THR:O	2.10	0.52
35:DA:637:A:H4'	35:DA:638:G:O5'	2.10	0.52
20:CT:51:GLU:HA	20:CT:54:LYS:NZ	2.24	0.52
1:CA:1447:A:H2'	1:CA:1447:A:N3	2.23	0.52
35:DA:214:G:H1'	35:DA:216:A:O2'	2.09	0.52
46:DN:30:ILE:HG23	46:DN:52:VAL:HG11	1.92	0.52
52:DT:100:TYR:HD2	52:DT:103:ARG:NH2	1.99	0.52
30:B5:54:GLY:O	30:B5:56:LYS:HD3	2.10	0.52
42:DH:47:GLU:C	42:DH:49:VAL:H	2.12	0.52
35:BA:1504:C:O2'	35:BA:1505:C:C5'	2.57	0.52
13:AM:96:LEU:HB3	13:AM:97:PRO:HD2	1.90	0.52
30:D5:50:GLY:O	30:D5:51:TYR:CD1	2.63	0.52
13:CM:88:ARG:CA	13:CM:98:VAL:HG11	2.23	0.52
35:BA:1241:A:O2'	35:BA:1242:A:H5'	2.09	0.52
51:BS:59:LYS:HG2	51:BS:60:GLY:N	2.21	0.52
48:BP:144:GLU:N	48:BP:145:PRO:CD	2.64	0.52
10:AJ:58:ASP:O	10:AJ:59:SER:C	2.47	0.52
53:DU:95:LEU:HD12	54:DV:11:GLN:HB2	1.90	0.52
41:BG:52:ILE:O	41:BG:53:LEU:HB2	2.09	0.52
35:BA:272(J):C:H5'	35:BA:274:G:OP1	2.09	0.52
51:DS:41:ASP:OD2	51:DS:44:LYS:HD3	2.10	0.52
24:CY:26:LEU:CB	24:CY:55:LEU:HD11	2.40	0.52
35:BA:2476:A:N3	35:BA:2477:C:H5''	2.25	0.52
58:BZ:100:VAL:CG1	58:BZ:137:ILE:HG12	2.39	0.52
9:AI:65:VAL:CG2	9:AI:73:GLN:HB3	2.34	0.52
9:CI:65:VAL:HG21	9:CI:73:GLN:CB	2.33	0.52
48:BP:101:VAL:CG2	48:BP:102:ARG:N	2.73	0.52
57:BY:62:GLU:CD	57:BY:63:LYS:O	2.48	0.52
34:D9:4:ARG:NH1	35:DA:2477:C:C4	2.78	0.52
16:AP:45:THR:HG22	16:AP:47:ASP:N	2.19	0.52
12:AL:53:ARG:NH1	12:AL:53:ARG:HG2	2.21	0.52
7:CG:69:VAL:HG12	7:CG:100:ALA:HA	1.91	0.52
17:CQ:59:ILE:HG23	17:CQ:72:ARG:O	2.09	0.52
33:D8:32:LEU:HB2	33:D8:36:LYS:NZ	2.25	0.52
12:CL:24:VAL:CG2	12:CL:97:ARG:HB3	2.39	0.52
41:DG:15:VAL:HG13	41:DG:175:LEU:HD12	1.91	0.52
2:AB:200:ILE:HG22	2:AB:201:ILE:N	2.25	0.52
2:CB:130:ARG:HB3	2:CB:134:GLU:HG3	1.91	0.52
7:CG:140:ASP:HA	7:CG:143:ARG:HH11	1.73	0.52
7:AG:136:LYS:O	7:AG:140:ASP:HB2	2.09	0.52
2:CB:223:ILE:HG12	2:CB:226:ARG:CZ	2.40	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:1336:A:OP1	56:DX:64:LYS:HE3	2.09	0.52
55:DW:18:ARG:NH1	55:DW:76:VAL:HG13	2.24	0.52
37:DC:46:ALA:H	37:DC:172:ILE:HG22	1.73	0.52
31:B6:42:TRP:HA	31:B6:42:TRP:HE3	1.75	0.52
22:CV:53:G:H2'	22:CV:54:U:C6	2.45	0.52
28:D3:19:GLN:NE2	28:D3:52:HIS:CE1	2.78	0.52
38:BD:65:ILE:HD13	38:BD:65:ILE:O	2.10	0.52
5:AE:135:THR:O	5:AE:138:ALA:N	2.42	0.52
1:CA:615:C:H2'	1:CA:616:G:O4'	2.10	0.52
35:BA:748:G:C8	55:BW:89:ALA:HB1	2.45	0.52
27:D2:7:ARG:NH2	35:DA:102:G:OP2	2.41	0.52
4:CD:161:ASN:O	4:CD:162:LEU:HG	2.09	0.52
44:BJ:110:UNK:O	44:BJ:111:UNK:CB	2.58	0.52
35:DA:1192:G:O2'	35:DA:1193:G:H5'	2.10	0.52
35:BA:1683:C:H2'	35:BA:1684:C:C6	2.44	0.52
7:CG:6:ARG:HG2	7:CG:6:ARG:O	2.09	0.52
37:DC:186:LEU:O	37:DC:190:ILE:HG12	2.09	0.52
1:AA:1441:G:H5''	1:AA:1442:G:H5'	1.91	0.52
57:DY:39:VAL:HG12	57:DY:40:GLU:N	2.15	0.52
35:DA:2795:G:N3	35:DA:2795:G:H2'	2.25	0.52
40:DF:24:LEU:HD13	40:DF:118:ALA:CB	2.38	0.52
2:CB:185:ILE:HA	2:CB:199:TYR:O	2.10	0.52
2:AB:185:ILE:HA	2:AB:199:TYR:O	2.09	0.52
41:DG:82:LEU:HD23	41:DG:83:ARG:N	2.13	0.52
4:CD:20:TYR:N	4:CD:20:TYR:CD1	2.78	0.52
13:AM:123:ALA:C	24:AY:162:ALA:HA	2.30	0.52
24:CY:257:GLY:O	24:CY:259:THR:HG23	2.10	0.52
35:DA:310:A:OP1	57:DY:17:SER:O	2.28	0.52
38:BD:12:SER:HB2	38:BD:208:LYS:HB3	1.92	0.52
1:AA:1372:U:H2'	1:AA:1373:G:O4'	2.10	0.52
1:AA:1057:G:H5''	3:AC:154:SER:OG	2.10	0.52
48:DP:38:GLN:HG3	48:DP:39:LYS:N	2.21	0.52
35:DA:743:G:O2'	35:DA:744:G:H5'	2.10	0.52
35:BA:2810:A:O2'	39:BE:61:ARG:CZ	2.58	0.52
1:CA:1351:U:O2'	1:CA:1352:C:H5'	2.09	0.52
1:CA:1369:C:H2'	1:CA:1370:G:C8	2.45	0.52
16:AP:67:THR:HB	16:AP:70:ALA:CB	2.40	0.52
26:D1:64:ALA:HA	26:D1:67:ILE:CG1	2.40	0.52
27:D2:5:GLU:OE2	27:D2:9:GLN:NE2	2.43	0.52
57:BY:42:VAL:CB	57:BY:65:ALA:HB3	2.39	0.52
35:DA:271(P):C:C2'	35:DA:271(Q):G:H5'	2.39	0.52
35:DA:363(F):A:HO2'	35:DA:364:C:H6	1.48	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:DT:57:PHE:CD2	52:DT:58:ASN:N	2.74	0.52
57:BY:32:PRO:O	57:BY:34:LYS:N	2.43	0.52
15:AO:7:GLU:O	15:AO:10:LYS:HB3	2.09	0.52
3:AC:179:ARG:HH21	3:AC:207:VAL:HG22	1.73	0.52
5:AE:72:GLN:O	5:AE:75:THR:HG22	2.09	0.52
35:BA:2124:G:H1'	37:BC:43:GLU:OE2	2.10	0.52
22:AV:8:U:H5'	22:AV:49:C:OP1	2.10	0.52
1:AA:797:C:OP1	11:AK:124:LYS:HE3	2.10	0.52
11:AK:125:PHE:N	11:AK:125:PHE:CD1	2.78	0.52
20:AT:26:ASN:HD22	20:AT:26:ASN:N	2.06	0.52
35:BA:304:G:H2'	35:BA:305:U:H6	1.72	0.52
8:CH:20:TYR:HD1	8:CH:65:TYR:CD2	2.26	0.52
42:DH:124:GLU:HB2	42:DH:132:ARG:CG	2.39	0.52
28:B3:52:HIS:CD2	36:BB:83:G:H4'	2.45	0.52
1:CA:1019:C:O2'	1:CA:1020:U:H5'	2.09	0.52
35:DA:1078:U:H5'	45:DK:132:ARG:HH12	1.74	0.52
31:D6:42:TRP:HA	31:D6:42:TRP:HE3	1.73	0.52
49:BQ:67:ARG:NH1	49:BQ:67:ARG:HG2	2.25	0.52
35:BA:1385:G:O2'	35:BA:1396:U:C6	2.61	0.52
1:AA:1206:G:H4'	3:AC:192:THR:O	2.10	0.52
52:DT:45:PHE:CE2	52:DT:63:VAL:HB	2.44	0.52
40:DF:9:ILE:O	40:DF:128:ALA:HB2	2.10	0.52
1:AA:562:C:H1'	12:AL:15:ARG:HD2	1.92	0.52
43:DI:93:THR:O	43:DI:96:ASP:HB2	2.09	0.52
8:AH:13:ILE:O	8:AH:17:THR:HG23	2.09	0.52
35:BA:2352:A:H2'	35:BA:2353:G:O4'	2.10	0.52
1:AA:309:G:O2'	1:AA:310:G:H5'	2.10	0.52
45:BK:60:TYR:O	45:BK:61:ALA:HB3	2.09	0.52
24:AY:177:TYR:CE1	24:AY:212:PRO:HD3	2.45	0.52
58:DZ:73:GLN:HB3	58:DZ:87:ASP:HB2	1.91	0.52
35:DA:1881:C:H2'	35:DA:1881:C:O2	2.09	0.52
1:AA:615:C:H2'	1:AA:616:G:O4'	2.10	0.52
17:CQ:90:ILE:HG23	17:CQ:93:GLN:NE2	2.25	0.52
30:D5:46:CYS:SG	30:D5:47:PRO:CD	2.96	0.52
33:B8:62:LEU:N	33:B8:63:PRO:CD	2.73	0.52
54:DV:18:LEU:CD2	54:DV:19:LYS:H	2.23	0.52
35:BA:1503:U:H2'	35:BA:1504:C:C6	2.44	0.52
58:DZ:119:GLU:O	58:DZ:120:ILE:C	2.48	0.52
24:CY:238:GLY:CA	24:CY:242:VAL:HB	2.26	0.52
41:DG:117:PHE:HA	41:DG:181:ARG:NH2	2.25	0.52
35:BA:2306:C:H5''	35:BA:2307:G:O4'	2.10	0.52
35:DA:1448:G:H5'	35:DA:1449:A:OP1	2.10	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:B8:55:ALA:O	33:B8:59:LYS:HE2	2.10	0.52
29:D4:22:ILE:HD12	29:D4:22:ILE:N	2.25	0.52
9:CI:77:ILE:O	9:CI:77:ILE:HG22	2.09	0.52
22:CW:25:C:H2'	22:CW:26:A:C8	2.29	0.52
56:BX:63:LYS:HA	56:BX:72:LYS:HA	1.92	0.52
5:AE:8:GLU:N	5:AE:34:VAL:HG23	2.24	0.52
50:DR:7:GLY:O	50:DR:8:ARG:CB	2.58	0.52
23:CX:20:A:N6	24:CY:195:PHE:HB2	2.25	0.52
35:DA:2476:A:C2	35:DA:2477:C:C6	2.98	0.52
12:AL:33:ARG:HA	12:AL:33:ARG:HE	1.75	0.52
35:DA:1718:G:C8	35:DA:1718:G:H5'	2.44	0.52
2:CB:200:ILE:HG22	2:CB:201:ILE:N	2.24	0.52
2:CB:42:ILE:HD11	2:CB:202:PRO:HB2	1.92	0.52
16:AP:9:PHE:HB2	16:AP:16:HIS:O	2.10	0.52
16:CP:9:PHE:HB2	16:CP:16:HIS:O	2.10	0.52
47:DO:107:ARG:CZ	52:DT:35:LYS:HB2	2.40	0.52
1:AA:170:U:O2'	1:AA:171:A:H5'	2.10	0.52
56:DX:50:LYS:HB3	56:DX:84:ALA:CB	2.38	0.52
17:AQ:76:LEU:HD12	17:AQ:77:VAL:N	2.24	0.52
2:AB:42:ILE:HD11	2:AB:202:PRO:HB2	1.91	0.52
37:DC:23:ILE:O	37:DC:23:ILE:HG22	2.10	0.52
4:CD:132:ARG:NH1	4:CD:132:ARG:HG2	2.23	0.52
36:BB:86:G:H1	36:BB:91:C:N4	2.08	0.52
1:AA:1149:C:H2'	1:AA:1150:U:H6	1.73	0.52
4:CD:149:ALA:HB3	4:CD:152:SER:OG	2.10	0.52
40:BF:160:ASN:ND2	40:BF:162:LEU:H	2.07	0.52
1:AA:1072:G:H2'	1:AA:1073:U:C6	2.45	0.52
35:BA:719:C:O2'	35:BA:720:C:H5'	2.10	0.52
1:AA:639:G:O2'	1:AA:640:A:H5'	2.10	0.52
47:DO:87:ILE:HG22	47:DO:88:ASN:N	2.25	0.52
8:CH:65:TYR:N	8:CH:65:TYR:CD1	2.78	0.52
42:BH:124:GLU:HB2	42:BH:132:ARG:CG	2.39	0.52
22:AV:12:U:H4'	35:BA:1908:C:O2	2.09	0.52
1:AA:545:C:H5''	4:AD:72:GLU:HG2	1.92	0.52
2:CB:238:LEU:HG	2:CB:239:VAL:N	2.25	0.52
46:BN:30:ILE:HG23	46:BN:52:VAL:HG11	1.91	0.52
35:DA:690:G:H2'	35:DA:691:C:C6	2.45	0.52
35:BA:1547:C:O2'	35:BA:1548:C:H5'	2.09	0.52
56:BX:24:GLY:O	56:BX:82:GLN:HA	2.10	0.52
1:AA:751:U:C2'	1:AA:752:G:H5'	2.39	0.52
51:BS:44:LYS:O	51:BS:46:VAL:HG23	2.10	0.52
35:DA:346:A:H2'	35:DA:347:A:H5'	1.92	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:DP:108:LYS:HD2	48:DP:108:LYS:N	2.25	0.52
38:BD:109:ASP:HB2	38:BD:197:GLY:HA2	1.92	0.52
6:CF:89:MET:SD	18:CR:76:LEU:HD21	2.50	0.52
9:CI:122:ALA:HB1	9:CI:123:PRO:HD2	1.92	0.52
49:BQ:58:PHE:O	49:BQ:58:PHE:HD1	1.92	0.52
9:CI:64:THR:O	9:CI:64:THR:HG22	2.08	0.52
44:DJ:14:UNK:O	44:DJ:65:UNK:HA	2.09	0.52
24:CY:152:GLU:OE1	24:CY:170:LEU:HD23	2.09	0.52
24:CY:309:SER:O	24:CY:310:GLN:HG3	2.10	0.52
40:BF:7:TYR:HB2	40:BF:16:GLY:C	2.31	0.52
33:D8:62:LEU:N	33:D8:63:PRO:CD	2.72	0.52
35:DA:1590:U:C3'	35:DA:1591:G:H5''	2.40	0.52
28:B3:31:LEU:O	28:B3:32:GLN:HB2	2.10	0.52
35:DA:1062:G:H2'	35:DA:1063:G:H8	1.74	0.52
45:DK:82:ALA:HB1	45:DK:98:ARG:H	1.75	0.52
35:BA:2795:G:H2'	35:BA:2795:G:N3	2.24	0.52
2:AB:185:ILE:HG22	2:AB:199:TYR:CB	2.33	0.52
2:AB:97:TRP:HZ3	2:AB:172:ILE:HG22	1.74	0.52
51:BS:20:ARG:HA	51:BS:20:ARG:HE	1.75	0.52
22:CW:59:U:N1	22:CW:60:U:H5	2.08	0.52
24:CY:242:VAL:CG1	24:CY:243:ASN:N	2.72	0.52
35:BA:1062:G:H2'	35:BA:1063:G:H8	1.73	0.52
22:AW:18:G:H1'	22:AW:58:A:C6	2.44	0.52
22:AW:57:G:H2'	22:AW:58:A:C5'	2.40	0.52
35:DA:654(S):G:H2'	35:DA:654(T):C:C2	2.45	0.52
3:CC:186:PHE:CE2	3:CC:188:LEU:HD21	2.44	0.52
1:CA:1143:G:H2'	1:CA:1144:G:H8	1.73	0.52
35:BA:1541:G:H1'	35:BA:1542:A:C6	2.45	0.52
41:BG:52:ILE:H	41:BG:52:ILE:CD1	2.06	0.52
51:BS:97:ARG:NH1	51:BS:97:ARG:HG2	2.24	0.52
35:BA:274:G:N7	35:BA:363:G:N1	2.58	0.52
48:BP:48:PRO:HG2	48:BP:49:ARG:N	2.24	0.52
47:DO:104:ARG:NE	52:DT:33:LYS:HD2	2.25	0.52
1:CA:16:A:N1	1:CA:919:A:C2	2.78	0.52
29:D4:31:ILE:HD12	41:DG:142:PRO:O	2.10	0.52
1:CA:1151:A:HO2'	1:CA:1152:A:H8	1.58	0.52
1:AA:1151:A:H5''	10:AJ:42:THR:H	1.75	0.52
39:DE:167:VAL:HG22	39:DE:170:LEU:HD11	1.92	0.52
12:CL:42:THR:OG1	12:CL:52:LEU:HB3	2.10	0.52
43:BI:93:THR:HG22	43:BI:96:ASP:HB2	1.92	0.52
1:CA:624:C:H2'	1:CA:625:G:C8	2.37	0.52
35:BA:2190:G:C2'	35:BA:2191:G:H5'	2.40	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:BP:113:LYS:O	48:BP:115:LEU:HD22	2.10	0.52
35:DA:2810:A:H1'	39:DE:61:ARG:HH12	1.75	0.52
4:CD:119:GLN:O	4:CD:123:HIS:CD2	2.63	0.52
13:AM:43:THR:O	13:AM:44:ARG:HD3	2.10	0.52
31:D6:12:GLU:HB3	31:D6:21:TYR:HD2	1.74	0.52
55:DW:12:ILE:HB	55:DW:42:ARG:HH12	1.73	0.52
10:AJ:8:LEU:O	10:AJ:16:LEU:HD21	2.10	0.52
8:AH:30:ARG:CB	8:AH:30:ARG:NH1	2.72	0.52
49:DQ:2:LEU:O	49:DQ:70:PRO:HG2	2.10	0.52
1:CA:1315:U:H2'	1:CA:1316:G:O4'	2.10	0.52
35:DA:720:C:H2'	35:DA:721:C:C6	2.42	0.52
40:DF:117:ARG:HD3	40:DF:120:GLU:OE1	2.10	0.52
10:CJ:63:PHE:HD1	14:CN:58:LYS:HG2	1.74	0.52
1:AA:558:G:H2'	1:AA:559:A:H2	1.74	0.52
35:BA:2732:G:O2'	35:BA:2733:A:H5'	2.10	0.52
4:AD:61:LYS:HG3	4:AD:203:VAL:HG13	1.91	0.52
1:AA:479:C:H2'	1:AA:480:U:C6	2.45	0.52
1:AA:237:C:H4'	17:AQ:25:ARG:NH1	2.24	0.52
13:CM:116:THR:O	13:CM:116:THR:HG22	2.10	0.52
49:BQ:97:VAL:HG21	49:BQ:103:MET:HE2	1.91	0.52
39:DE:202:LYS:O	39:DE:203:LYS:HB3	2.09	0.52
11:AK:126:ARG:HB3	11:AK:126:ARG:CZ	2.40	0.52
1:CA:9:G:H2'	1:CA:10:A:H8	1.75	0.52
1:CA:1088:G:H2'	1:CA:1089:G:H8	1.74	0.52
35:DA:1997:G:O2'	35:DA:1998:G:H5'	2.10	0.52
25:D0:10:THR:HG21	35:DA:2277:G:OP1	2.10	0.52
1:CA:119:A:O2'	1:CA:120:A:OP2	2.21	0.52
44:BJ:14:UNK:O	44:BJ:65:UNK:HA	2.10	0.52
27:B2:63:VAL:O	27:B2:67:LYS:HG2	2.09	0.52
58:DZ:131:ARG:CZ	58:DZ:131:ARG:HB3	2.40	0.52
30:B5:51:TYR:CD2	30:B5:52:TYR:CZ	2.95	0.51
28:B3:31:LEU:O	35:BA:1158:C:H4'	2.10	0.51
54:DV:18:LEU:CD2	54:DV:19:LYS:N	2.72	0.51
40:DF:132:VAL:O	40:DF:133:ASN:C	2.48	0.51
58:BZ:102:LEU:HD23	58:BZ:104:PHE:CE1	2.45	0.51
2:CB:70:PHE:HA	2:CB:163:PHE:O	2.10	0.51
2:AB:97:TRP:CZ2	2:AB:173:ALA:HA	2.46	0.51
22:CW:16:U:C2	22:CW:18:G:H3'	2.44	0.51
22:CW:52:G:N1	22:CW:62:C:N4	2.58	0.51
41:DG:125:PHE:CE2	41:DG:173:LEU:HD12	2.45	0.51
35:BA:1857:G:O2'	35:BA:1885:A:N6	2.43	0.51
10:CJ:49:VAL:HG22	10:CJ:50:ILE:N	2.25	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:16:ARG:HG3	3:CC:17:ASP:O	2.10	0.51
1:CA:1279:A:H2'	1:CA:1279:A:N3	2.25	0.51
52:BT:29:ARG:NE	52:BT:86:ILE:HG22	2.25	0.51
24:AY:238:GLY:HA2	35:BA:2602:A:N3	2.25	0.51
35:BA:275:G:N3	35:BA:275:G:H2'	2.25	0.51
46:DN:19:GLU:CG	46:DN:20:GLY:H	2.20	0.51
48:DP:98:GLU:O	48:DP:101:VAL:HG22	2.10	0.51
35:DA:1227:G:OP1	53:DU:13:LYS:HD3	2.10	0.51
31:B6:15:GLU:OE1	31:B6:43:CYS:SG	2.68	0.51
30:B5:48:GLU:O	30:B5:49:CYS:SG	2.68	0.51
48:BP:112:LEU:H	48:BP:128:HIS:CD2	2.24	0.51
1:AA:255:G:H1'	17:AQ:16:GLN:HE21	1.71	0.51
17:AQ:59:ILE:HD12	17:AQ:73:VAL:HA	1.92	0.51
43:DI:77:LEU:HD23	43:DI:77:LEU:O	2.10	0.51
12:AL:6:THR:H	12:AL:9:GLN:NE2	1.99	0.51
1:CA:1029:C:H2'	1:CA:1030(A):G:C5	2.45	0.51
37:DC:6:LYS:C	37:DC:8:TYR:N	2.61	0.51
8:AH:11:THR:HA	8:AH:14:ARG:NH1	2.24	0.51
47:DO:23:ARG:HG3	47:DO:24:VAL:N	2.25	0.51
24:AY:214:VAL:HG22	24:AY:215:ASP:H	1.74	0.51
35:BA:2302:G:H1'	41:BG:128:ARG:HE	1.75	0.51
2:CB:67:THR:HG21	2:CB:155:LEU:CD1	2.38	0.51
26:B1:8:SER:HB3	26:B1:66:HIS:CG	2.45	0.51
24:AY:59:VAL:HG12	24:AY:59:VAL:O	2.09	0.51
13:AM:19:LEU:HD22	13:AM:19:LEU:N	2.24	0.51
1:CA:90:U:OP2	1:CA:91:C:H5'	2.10	0.51
3:AC:83:ARG:O	3:AC:86:VAL:HG22	2.10	0.51
46:DN:9:VAL:HG21	46:DN:48:MET:CB	2.40	0.51
35:DA:2183:C:O2'	35:DA:2184:G:H5'	2.10	0.51
1:CA:385:C:O2'	1:CA:386:C:H5'	2.10	0.51
3:CC:47:LEU:HD11	3:CC:68:VAL:HG11	1.91	0.51
1:AA:1316:G:H2'	1:AA:1317:C:H5''	1.91	0.51
40:DF:187:VAL:O	40:DF:187:VAL:HG12	2.09	0.51
8:AH:51:VAL:HG11	8:AH:60:ARG:CD	2.40	0.51
49:DQ:14:ARG:HG2	49:DQ:41:TRP:CH2	2.42	0.51
8:CH:103:VAL:CG2	8:CH:110:ALA:HB2	2.39	0.51
2:CB:25:ASN:O	2:CB:27:LYS:N	2.43	0.51
35:DA:1058:G:H21	45:DK:126:MET:HE2	1.74	0.51
58:DZ:105:VAL:HG11	58:DZ:138:GLU:OE1	2.10	0.51
1:CA:42:G:H2'	1:CA:43:C:C6	2.46	0.51
1:AA:41:G:H2'	1:AA:42:G:H8	1.75	0.51
35:BA:643:A:O2'	35:BA:644:A:H5'	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AI:126:SER:O	9:AI:127:LYS:HB3	2.10	0.51
1:CA:820:U:H4'	1:CA:821:G:OP2	2.10	0.51
1:AA:119:A:O2'	1:AA:120:A:OP2	2.20	0.51
25:B0:7:LEU:HD21	49:BQ:81:VAL:HB	1.92	0.51
2:CB:158:LEU:HD22	2:CB:182:ILE:HD11	1.92	0.51
8:AH:90:GLY:O	12:AL:7:ILE:HG21	2.10	0.51
1:CA:1298:C:N4	7:CG:114:ARG:HB3	2.25	0.51
24:CY:346:TRP:HE3	24:CY:346:TRP:N	2.08	0.51
49:DQ:58:PHE:HD1	49:DQ:58:PHE:O	1.93	0.51
40:BF:24:LEU:O	40:BF:115:ALA:HB1	2.10	0.51
45:DK:9:LYS:HG3	45:DK:9:LYS:O	2.09	0.51
57:BY:95:LYS:HE2	57:BY:99:CYS:O	2.10	0.51
35:BA:1048:A:OP1	35:BA:1109:C:N4	2.44	0.51
51:BS:89:ARG:O	51:BS:92:TYR:CB	2.54	0.51
41:DG:63:ILE:HD12	41:DG:141:PHE:CD1	2.45	0.51
41:DG:41:GLN:HG2	41:DG:155:MET:HB3	1.92	0.51
41:DG:71:THR:HG22	41:DG:89:GLY:O	2.10	0.51
35:BA:1061:U:O4	45:BK:11:GLN:HG2	2.10	0.51
35:BA:2208:A:H1'	35:BA:2219:G:C4	2.45	0.51
35:DA:1490:A:H5'	35:DA:1494:A:N6	2.25	0.51
41:BG:36:LYS:HG2	41:BG:38:VAL:HG23	1.92	0.51
41:BG:40:ASN:ND2	41:BG:41:GLN:H	2.02	0.51
36:DB:50:G:P	51:DS:62:LYS:HB2	2.51	0.51
51:BS:106:ARG:HH11	51:BS:106:ARG:CB	2.23	0.51
35:BA:142:A:C8	35:BA:1408:C:H1'	2.45	0.51
53:DU:92:ARG:HB3	54:DV:11:GLN:NE2	2.25	0.51
35:BA:330:A:C2	35:BA:1210:A:H2'	2.39	0.51
46:DN:15:LEU:O	46:DN:136:GLU:HA	2.10	0.51
24:CY:23:GLU:OE1	24:CY:26:LEU:HD23	2.10	0.51
35:BA:672:C:O2'	35:BA:673:C:H5''	2.09	0.51
31:B6:15:GLU:CD	31:B6:18:ARG:NE	2.63	0.51
1:AA:1029:C:H2'	1:AA:1030(A):G:C5	2.45	0.51
1:CA:1372:U:OP1	9:CI:72:GLY:N	2.43	0.51
9:AI:53:VAL:HB	9:AI:92:TYR:CE2	2.45	0.51
5:AE:69:VAL:HG21	5:AE:113:ALA:HB1	1.92	0.51
36:DB:42:C:H4'	41:DG:67:LYS:HD3	1.91	0.51
12:AL:90:VAL:O	12:AL:90:VAL:HG12	2.09	0.51
38:DD:181:GLU:HA	38:DD:272:ALA:CB	2.37	0.51
58:BZ:96:VAL:HG22	58:BZ:97:GLU:N	2.20	0.51
39:BE:61:ARG:HB3	39:BE:62:PRO:HD3	1.93	0.51
1:CA:1302:U:C5	13:CM:17:VAL:HG21	2.46	0.51
1:CA:1053:G:N7	1:CA:1199:U:H3'	2.25	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:D1:56:GLN:NE2	26:D1:85:LEU:HD23	2.26	0.51
26:D1:56:GLN:HB3	26:D1:87:PRO:HB3	1.92	0.51
2:AB:29:ALA:HA	2:AB:32:ILE:HG22	1.91	0.51
48:BP:41:ARG:HH12	48:BP:45:LEU:HG	1.75	0.51
19:CS:62:ILE:HD12	19:CS:66:MET:CE	2.41	0.51
3:CC:119:ARG:HH21	3:CC:140:ARG:HE	1.59	0.51
38:BD:211:ARG:HD3	38:BD:214:TRP:CZ3	2.46	0.51
24:CY:119:THR:CG2	24:CY:166:TYR:HE1	2.23	0.51
50:BR:28:LEU:HD12	50:BR:44:LEU:CD1	2.41	0.51
1:AA:1472:U:H2'	1:AA:1473:A:H8	1.74	0.51
35:DA:2761:G:H2'	35:DA:2762:G:H5''	1.91	0.51
22:AV:32:U:H2'	22:AV:32:U:O2	2.09	0.51
14:AN:9:LYS:HG3	14:AN:12:ARG:NH2	2.26	0.51
3:AC:130:VAL:O	3:AC:134:ILE:HG13	2.10	0.51
17:CQ:11:VAL:O	17:CQ:12:SER:HB2	2.10	0.51
1:CA:1409:C:H2'	1:CA:1410:G:H8	1.74	0.51
1:CA:102:G:H2'	1:CA:103:C:H6	1.75	0.51
55:DW:5:ALA:O	55:DW:6:ILE:HB	2.11	0.51
35:DA:13:A:H61	35:DA:525:U:H3'	1.75	0.51
43:BI:59:ALA:HA	43:BI:63:ALA:HB2	1.92	0.51
1:CA:1307:U:H2'	1:CA:1308:U:C6	2.46	0.51
20:AT:73:HIS:O	20:AT:74:LYS:C	2.48	0.51
1:CA:814:A:N7	1:CA:816:A:C4	2.78	0.51
5:AE:140:ARG:O	5:AE:140:ARG:HG2	2.09	0.51
13:AM:86:CYS:HB2	19:AS:73:GLU:HG2	1.92	0.51
38:DD:45:ASN:OD1	38:DD:46:GLN:N	2.44	0.51
35:DA:1046:A:C2	44:DJ:8:UNK:N	2.78	0.51
57:BY:28:LYS:NZ	57:BY:72:VAL:HG21	2.25	0.51
49:DQ:27:VAL:HG12	49:DQ:105:GLU:OE2	2.10	0.51
30:D5:59:GLU:O	30:D5:60:VAL:HG23	2.10	0.51
30:D5:55:ARG:HE	50:DR:33:ARG:NH1	2.07	0.51
38:BD:111:LEU:HD13	38:BD:112:GLN:H	1.75	0.51
19:CS:6:LYS:O	19:CS:7:LYS:HD3	2.11	0.51
51:DS:101:LEU:O	51:DS:101:LEU:HD12	2.11	0.51
51:DS:89:ARG:HG2	51:DS:92:TYR:CA	2.39	0.51
41:BG:106:LEU:HD13	41:BG:141:PHE:HE1	1.76	0.51
1:AA:962:C:H2'	1:AA:963:G:H8	1.75	0.51
35:DA:274:G:N7	35:DA:363:G:N1	2.58	0.51
35:BA:1528:A:C2	35:BA:1542:A:C2	2.96	0.51
35:BA:1528:A:N1	35:BA:1542:A:H2	2.09	0.51
52:BT:65:LYS:HA	52:BT:65:LYS:NZ	2.26	0.51
33:D8:22:VAL:HG12	33:D8:49:VAL:HG21	1.91	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:DP:101:VAL:HG12	48:DP:107:LYS:N	2.25	0.51
1:AA:1029:C:H4'	1:AA:1033:G:H22	1.74	0.51
1:AA:942:G:N2	9:AI:124:GLN:NE2	2.59	0.51
35:BA:1227:G:OP1	53:BU:13:LYS:HD3	2.10	0.51
12:CL:26:ALA:C	12:CL:27:LEU:HD22	2.31	0.51
1:CA:1002:G:H2'	1:CA:1003:G:H5'	1.93	0.51
35:BA:1025:G:C4	35:BA:1135:C:H1'	2.46	0.51
26:B1:80:LEU:HD22	26:B1:82:LEU:HD12	1.92	0.51
5:CE:101:ILE:CD1	5:CE:119:LEU:HD23	2.35	0.51
1:CA:1505:G:H5''	1:CA:1506:U:H5''	1.92	0.51
35:BA:2312:U:H2'	35:BA:2313:C:C5'	2.35	0.51
17:CQ:59:ILE:HD12	17:CQ:73:VAL:HA	1.91	0.51
1:CA:1287:A:C2	1:CA:1353:G:H1'	2.45	0.51
41:DG:10:LYS:O	41:DG:15:VAL:HG23	2.10	0.51
37:BC:23:ILE:O	37:BC:23:ILE:HG22	2.11	0.51
1:AA:90:U:OP2	1:AA:91:C:H5'	2.10	0.51
4:CD:126:ILE:CG2	4:CD:127:THR:H	2.23	0.51
2:AB:121:LEU:HD21	2:AB:126:GLU:OE2	2.10	0.51
10:CJ:8:LEU:HB3	10:CJ:16:LEU:HD21	1.93	0.51
2:CB:223:ILE:HG12	2:CB:226:ARG:NH2	2.26	0.51
37:DC:208:THR:HB	37:DC:211:ARG:CG	2.40	0.51
35:BA:2788:C:O2'	35:BA:2809:A:N3	2.36	0.51
35:DA:893:C:H2'	35:DA:894:C:C6	2.44	0.51
1:AA:1496:C:H2'	1:AA:1497:G:O4'	2.10	0.51
6:AF:78:GLU:O	6:AF:81:ILE:HG13	2.10	0.51
1:AA:677:U:H3	1:AA:713:G:H22	1.58	0.51
1:AA:711:G:O2'	1:AA:712:A:H5'	2.11	0.51
40:BF:11:VAL:HG12	40:BF:12:LEU:H	1.75	0.51
35:DA:1952:A:C5	47:DO:22:ILE:HD12	2.45	0.51
38:BD:121:PRO:HA	38:BD:135:PHE:HD1	1.75	0.51
1:AA:820:U:H4'	1:AA:821:G:OP2	2.11	0.51
32:B7:35:ARG:HD3	35:BA:54:G:O2'	2.10	0.51
28:D3:2:PRO:O	28:D3:39:ASP:HB2	2.09	0.51
35:BA:918:A:H5''	36:BB:98:G:O2'	2.10	0.51
35:BA:817:C:O2'	35:BA:839:U:H5''	2.10	0.51
35:BA:637:A:H4'	35:BA:638:G:O5'	2.11	0.51
1:AA:1307:U:H2'	1:AA:1308:U:C6	2.45	0.51
35:DA:2742:C:O2'	35:DA:2743:C:H5'	2.10	0.51
20:CT:24:LEU:C	20:CT:24:LEU:HD13	2.30	0.51
35:BA:1762:A:O5'	35:BA:1762:A:H8	1.93	0.51
26:B1:19:GLN:O	26:B1:35:THR:HG22	2.10	0.51
35:BA:1517:G:O2'	35:BA:1518:U:H5'	2.11	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:CK:126:ARG:CZ	11:CK:126:ARG:HB3	2.40	0.51
1:CA:793:U:H5'	1:CA:794:A:O5'	2.09	0.51
52:BT:27:THR:O	52:BT:28:VAL:CG2	2.51	0.51
57:DY:77:PRO:O	57:DY:78:ALA:HB2	2.10	0.51
40:BF:18:ARG:NH1	40:BF:199:TRP:HE3	2.08	0.51
42:BH:24:VAL:HG12	42:BH:35:VAL:HB	1.91	0.51
27:B2:20:GLU:C	27:B2:22:GLU:H	2.14	0.51
2:CB:167:PRO:HG3	2:CB:188:ALA:HB2	1.91	0.51
35:DA:1048:A:OP1	35:DA:1109:C:N4	2.43	0.51
51:DS:106:ARG:CB	51:DS:106:ARG:HH11	2.23	0.51
41:BG:85:GLY:O	41:BG:86:MET:HB3	2.09	0.51
1:CA:963:G:H21	10:CJ:55:LYS:CD	2.23	0.51
4:CD:33:MET:O	4:CD:35:ARG:N	2.41	0.51
1:AA:963:G:H21	10:AJ:55:LYS:NZ	2.07	0.51
35:DA:145:G:H2'	35:DA:146:G:C5'	2.30	0.51
52:BT:85:LYS:NZ	52:BT:85:LYS:CB	2.60	0.51
43:BI:130:TYR:O	43:BI:131:LYS:CB	2.58	0.51
35:BA:307:G:H21	35:BA:330:A:H62	1.57	0.51
47:DO:69:ILE:HD13	47:DO:77:ILE:HG23	1.92	0.51
57:BY:17:SER:CB	57:BY:71:LYS:HE2	2.33	0.51
46:DN:120:LEU:HD11	46:DN:122:VAL:CG2	2.36	0.51
54:BV:5:VAL:HG21	54:BV:35:LEU:CB	2.41	0.51
1:AA:1288:A:H2'	1:AA:1289:A:H8	1.75	0.51
54:DV:5:VAL:HG21	54:DV:35:LEU:CB	2.39	0.51
48:DP:88:LEU:N	48:DP:88:LEU:HD12	2.20	0.51
1:AA:1104:G:O2'	1:AA:1105:A:H5'	2.10	0.51
43:BI:145:VAL:CG1	43:BI:146:ALA:N	2.65	0.51
38:BD:35:LYS:NZ	38:BD:35:LYS:HB3	2.26	0.51
43:BI:84:GLY:O	43:BI:85:GLU:CB	2.58	0.51
35:BA:363(F):A:O2'	35:BA:364:C:C6	2.63	0.51
1:CA:997:U:H2'	1:CA:998:G:H8	1.76	0.51
50:BR:10:LEU:HD22	50:BR:17:ARG:CD	2.41	0.51
39:BE:33:VAL:HG23	39:BE:47:VAL:HG23	1.93	0.51
35:BA:2712:U:O2'	35:BA:2713:A:H5'	2.10	0.51
37:BC:208:THR:HB	37:BC:211:ARG:CG	2.41	0.51
40:BF:160:ASN:OD1	40:BF:163:VAL:HG23	2.10	0.51
55:BW:18:ARG:HG2	55:BW:76:VAL:HG12	1.91	0.51
8:CH:51:VAL:HG11	8:CH:60:ARG:CD	2.41	0.51
1:AA:1081:G:O2'	1:AA:1082:G:H5'	2.10	0.51
35:DA:271(F):C:H2'	35:DA:271(G):C:C6	2.46	0.51
48:DP:80:TYR:CD1	48:DP:111:ARG:HB3	2.46	0.51
4:CD:61:LYS:NZ	4:CD:62:GLN:HE21	2.07	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BD:67:PHE:CE1	38:BD:157:ARG:CZ	2.93	0.51
11:AK:79:SER:HB2	11:AK:106:LYS:HE3	1.91	0.51
12:AL:7:ILE:CG2	12:AL:8:ASN:N	2.73	0.51
50:DR:92:GLY:N	50:DR:94:TYR:CE2	2.78	0.51
48:BP:108:LYS:N	48:BP:108:LYS:HD2	2.26	0.51
41:BG:125:PHE:O	41:BG:126:ASP:O	2.28	0.51
1:AA:862:C:O2'	1:AA:863:U:H5'	2.10	0.51
2:AB:95:GLN:HE21	2:AB:147:LYS:CG	2.24	0.51
53:DU:18:LEU:HD11	53:DU:32:PHE:CB	2.40	0.51
35:BA:620:G:H5''	35:BA:620:G:N3	2.25	0.51
1:CA:130:A:C8	17:CQ:63:ARG:HG3	2.44	0.51
40:DF:167:ALA:HB1	40:DF:173:VAL:HG11	1.91	0.51
10:CJ:92:THR:HG23	10:CJ:93:GLY:N	2.25	0.51
30:B5:56:LYS:O	30:B5:57:VAL:O	2.28	0.51
57:DY:7:VAL:CG2	57:DY:8:LYS:NZ	2.74	0.51
42:BH:19:VAL:CG1	42:BH:44:VAL:HG22	2.41	0.51
45:DK:100:THR:OG1	45:DK:103:GLN:HB2	2.09	0.51
58:BZ:166:SER:CB	58:BZ:168:GLU:H	2.20	0.51
35:BA:2801(A):A:C4'	35:BA:2802:G:H5'	2.10	0.51
35:DA:1241:A:O2'	35:DA:1242:A:H5'	2.11	0.51
58:DZ:151:HIS:O	58:DZ:152:ALA:HB3	2.10	0.51
35:DA:1887:C:C3'	35:DA:1888:G:H5''	2.40	0.51
22:CW:16:U:C3'	22:CW:17:C:H5'	2.25	0.51
45:BK:100:THR:OG1	45:BK:103:GLN:HB2	2.11	0.51
45:BK:78:ILE:HD11	45:BK:127:ILE:HG23	1.93	0.51
41:BG:38:VAL:HG13	41:BG:92:VAL:O	2.11	0.51
41:BG:97:ASP:C	41:BG:99:MET:H	2.13	0.51
10:AJ:49:VAL:HG21	14:AN:41:ARG:HB2	1.91	0.51
51:DS:97:ARG:NH1	51:DS:97:ARG:HG2	2.26	0.51
13:AM:124:PRO:HB2	24:AY:163:GLY:C	2.30	0.51
35:DA:275:G:N3	35:DA:275:G:H2'	2.25	0.51
35:BA:146:G:H5'	35:BA:146:G:C8	2.44	0.51
35:DA:996:A:H4'	53:DU:92:ARG:HE	1.71	0.51
51:BS:97:ARG:C	51:BS:97:ARG:NE	2.64	0.51
4:AD:31:CYS:C	4:AD:33:MET:N	2.64	0.51
1:CA:1318:A:H4'	19:CS:10:PHE:HB2	1.92	0.51
35:BA:272(J):C:N4	35:BA:363:G:H1	1.92	0.51
22:CV:40:C:H2'	22:CV:41:C:C6	2.45	0.51
46:DN:93:THR:O	46:DN:94:HIS:HB2	2.11	0.51
45:DK:12:LEU:HB3	45:DK:13:PRO:HD2	1.91	0.51
57:DY:62:GLU:CG	57:DY:63:LYS:N	2.74	0.51
26:B1:82:LEU:HD13	26:B1:82:LEU:N	2.25	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BI:84:GLY:O	43:BI:85:GLU:HB3	2.11	0.51
39:DE:117:MET:HA	39:DE:122:PHE:H	1.74	0.51
48:DP:113:LYS:O	48:DP:115:LEU:HD22	2.10	0.51
43:BI:5:LEU:HD13	43:BI:13:GLY:HA2	1.91	0.51
7:CG:69:VAL:HG21	7:CG:104:LEU:HD21	1.93	0.51
38:DD:238:GLY:O	38:DD:239:ARG:O	2.28	0.51
48:BP:17:LYS:HG2	48:BP:17:LYS:O	2.10	0.51
1:AA:376:G:H2'	1:AA:377:G:H8	1.76	0.51
33:D8:33:ASN:N	33:D8:33:ASN:ND2	2.48	0.51
1:AA:1302:U:C5	13:AM:17:VAL:HG21	2.45	0.51
1:CA:60:A:P	1:CA:60:A:H8	2.34	0.51
39:BE:101:ARG:HB2	39:BE:201:THR:CG2	2.39	0.51
55:BW:10:VAL:O	55:BW:11:ARG:CB	2.57	0.51
35:DA:2445:G:OP1	40:DF:74:ARG:NH2	2.43	0.51
1:AA:1082:G:O2'	1:AA:1083:U:H5'	2.11	0.51
28:B3:17:LYS:HG2	35:BA:969:U:OP1	2.10	0.51
40:BF:9:ILE:O	40:BF:128:ALA:HB2	2.11	0.51
38:BD:28:GLU:H	38:BD:29:PRO:HD2	1.76	0.51
39:BE:181:LEU:HD21	52:BT:7:ILE:CG2	2.40	0.51
1:CA:559:A:H4'	1:CA:560:U:H5''	1.92	0.51
28:D3:46:ASN:ND2	35:DA:850:C:O2'	2.42	0.51
1:AA:857:C:H2'	1:AA:858:G:O4'	2.11	0.51
35:BA:2693:A:H2'	35:BA:2694:G:H8	1.75	0.51
46:DN:45:ASN:HD22	46:DN:45:ASN:H	1.59	0.51
24:AY:85:GLU:O	24:AY:85:GLU:HG2	2.09	0.51
57:DY:8:LYS:HD3	57:DY:28:LYS:HZ1	1.74	0.51
57:DY:28:LYS:NZ	57:DY:72:VAL:HG21	2.25	0.51
42:DH:43:VAL:CA	42:DH:46:GLU:OE2	2.59	0.51
49:DQ:134:ARG:HA	49:DQ:137:TYR:CD1	2.45	0.51
13:AM:94:ARG:CZ	19:AS:81:ARG:HG3	2.41	0.51
40:BF:132:VAL:O	40:BF:133:ASN:C	2.48	0.51
2:AB:163:PHE:HA	2:AB:185:ILE:O	2.11	0.51
22:CW:56:C:C4	35:DA:2169:A:C2	2.99	0.51
24:AY:120:ILE:N	24:AY:120:ILE:HD12	2.26	0.51
41:BG:104:GLU:C	41:BG:106:LEU:H	2.13	0.51
41:BG:72:ARG:CB	41:BG:87:PRO:HD2	2.34	0.51
43:DI:6:LEU:HD12	43:DI:35:LEU:O	2.10	0.51
35:BA:1654:A:P	50:BR:3:HIS:HB2	2.50	0.51
54:DV:39:LEU:HA	54:DV:47:VAL:CG1	2.40	0.51
1:CA:1127:G:O2'	1:CA:1128:C:H5'	2.11	0.51
48:DP:56:SER:O	48:DP:58:THR:N	2.44	0.51
43:DI:133:HIS:CD2	43:DI:134:PRO:HD2	2.46	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:1689:A:N7	35:DA:1698:A:N1	2.59	0.51
46:DN:90:MET:O	46:DN:93:THR:O	2.29	0.51
45:DK:18:THR:HB	45:DK:19:PRO:HD3	1.92	0.51
51:DS:59:LYS:HG2	51:DS:60:GLY:N	2.22	0.51
47:DO:104:ARG:HE	52:DT:33:LYS:CE	2.19	0.51
48:DP:50:ARG:HG3	48:DP:51:PHE:H	1.73	0.51
12:AL:18:VAL:O	12:AL:19:ARG:HB3	2.11	0.51
27:B2:50:ILE:O	27:B2:54:LYS:HB2	2.11	0.51
1:CA:1372:U:H2'	1:CA:1373:G:O4'	2.10	0.51
54:DV:5:VAL:HG23	54:DV:37:VAL:O	2.10	0.51
54:DV:59:ALA:HB2	54:DV:96:ILE:HD13	1.93	0.51
22:CV:50:U:O2'	22:CV:51:U:H5'	2.11	0.51
35:BA:528:A:C2	35:BA:2043:C:C5'	2.93	0.51
5:CE:20:GLN:O	5:CE:23:GLY:O	2.29	0.51
11:CK:111:ASP:HA	18:CR:84:LYS:CD	2.41	0.51
39:BE:59:VAL:HG21	39:BE:63:LEU:HG	1.92	0.51
35:BA:363(E):U:H3'	35:BA:363(F):A:O4'	2.11	0.51
35:BA:1434:A:H61	35:BA:1558:A:N6	2.04	0.51
13:CM:14:ARG:NH2	13:CM:16:ASP:OD1	2.44	0.51
35:DA:389:G:N1	48:DP:71:VAL:HG12	2.26	0.51
24:AY:26:LEU:HD12	24:AY:26:LEU:C	2.31	0.51
57:BY:32:PRO:C	57:BY:34:LYS:N	2.60	0.51
37:DC:208:THR:HB	37:DC:211:ARG:HG3	1.93	0.51
2:AB:16:HIS:HB3	2:AB:210:SER:CA	2.40	0.51
2:CB:139:LYS:O	2:CB:143:GLU:HG3	2.10	0.51
35:DA:1316:U:H2'	35:DA:1317:A:C8	2.46	0.51
39:BE:34:VAL:O	39:BE:34:VAL:HG22	2.11	0.51
11:AK:125:PHE:N	11:AK:125:PHE:HD1	2.08	0.51
1:CA:1081:G:O2'	1:CA:1082:G:H5'	2.10	0.51
6:CF:8:ILE:CG2	6:CF:9:VAL:N	2.73	0.51
30:B5:2:ALA:O	30:B5:3:LYS:HD2	2.11	0.51
1:CA:826:C:H2'	1:CA:827:U:C6	2.45	0.51
12:AL:119:LYS:HB2	12:AL:120:TYR:HD1	1.74	0.51
12:AL:41:ARG:HD3	12:AL:42:THR:C	2.31	0.51
40:BF:11:VAL:O	40:BF:12:LEU:C	2.49	0.51
22:CW:6:G:H21	22:CW:7:A:H62	1.58	0.51
35:BA:346:A:H2'	35:BA:347:A:H5'	1.92	0.51
1:AA:245:C:O2	1:AA:283:C:N3	2.44	0.51
46:DN:108:PRO:O	46:DN:113:GLY:HA3	2.11	0.51
35:DA:2461:C:H2'	35:DA:2462:U:C6	2.45	0.51
35:BA:1679:U:C2'	35:BA:1680:U:H5'	2.40	0.51
15:CO:3:ILE:HG13	15:CO:3:ILE:O	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:CE:91:LEU:N	5:CE:91:LEU:HD22	2.25	0.51
5:CE:140:ARG:HG2	5:CE:140:ARG:O	2.11	0.51
35:BA:230:U:O2'	35:BA:231:C:H5'	2.11	0.51
55:BW:5:ALA:O	55:BW:6:ILE:HB	2.10	0.51
11:CK:79:SER:OG	11:CK:106:LYS:HE3	2.11	0.51
54:DV:40:LEU:HD13	54:DV:41:GLY:N	2.26	0.51
52:BT:89:VAL:C	52:BT:91:ARG:N	2.64	0.51
57:BY:8:LYS:HB2	57:BY:28:LYS:HZ1	1.76	0.51
42:BH:19:VAL:HG11	42:BH:44:VAL:HG22	1.92	0.51
42:BH:41:MET:CG	42:BH:42:ARG:N	2.50	0.51
40:DF:4:VAL:HA	40:DF:19:GLU:CB	2.40	0.51
22:AW:38:A:H3'	22:AW:39:U:C5'	2.38	0.51
30:D5:55:ARG:HG2	50:DR:33:ARG:HD3	1.92	0.51
35:DA:2659:G:C2	35:DA:2661:G:H8	2.28	0.51
41:DG:63:ILE:HG13	41:DG:63:ILE:O	2.10	0.51
41:DG:59:GLU:O	41:DG:62:LEU:HB3	2.10	0.51
35:DA:654(A):G:H2'	35:DA:654(B):C:C5'	2.39	0.51
48:BP:125:VAL:O	48:BP:145:PRO:HD2	2.11	0.51
46:BN:1:MET:CG	46:BN:2:LYS:N	2.74	0.51
4:AD:176:LEU:CG	4:AD:177:ASP:N	2.72	0.51
46:DN:133:GLN:C	46:DN:134:ARG:HG2	2.31	0.51
10:CJ:13:HIS:CE1	10:CJ:14:LYS:HG3	2.45	0.51
1:CA:735:C:O2'	1:CA:736:C:H5'	2.11	0.51
1:CA:423:G:C2'	1:CA:424:G:H5'	2.41	0.51
35:BA:1722:A:C2	35:BA:1740:G:C8	2.99	0.51
19:CS:31:ILE:O	19:CS:31:ILE:HG23	2.11	0.51
38:DD:35:LYS:NZ	38:DD:35:LYS:HB3	2.25	0.51
1:AA:1104:G:H2'	1:AA:1105:A:H8	1.76	0.51
1:CA:1399:C:H4'	1:CA:1400:C:O5'	2.11	0.51
1:CA:1502:A:H2	1:CA:1505:G:N1	2.02	0.51
35:DA:1025:G:C4	35:DA:1135:C:H1'	2.45	0.51
1:AA:1305:G:C2	1:AA:1331:G:N3	2.78	0.51
24:CY:270:LYS:HD3	25:D0:5:LYS:HD3	1.92	0.51
38:BD:131:LEU:CD1	38:BD:136:ILE:HG12	2.36	0.51
41:DG:149:VAL:HG23	41:DG:150:ASP:N	2.26	0.51
35:BA:1963:U:C2'	35:BA:1963:U:O2	2.59	0.51
31:D6:13:CYS:O	31:D6:21:TYR:HA	2.10	0.51
57:DY:31:LEU:HB2	57:DY:32:PRO:HA	1.91	0.51
2:AB:130:ARG:HB3	2:AB:134:GLU:HG3	1.91	0.51
35:DA:1090:U:H2'	35:DA:1091:G:H8	1.75	0.51
38:BD:144:ALA:HB3	38:BD:192:THR:CG2	2.41	0.51
18:AR:30:ASP:OD1	18:AR:32:ARG:HB2	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1315:U:H2'	1:AA:1316:G:O4'	2.10	0.51
1:CA:1205:U:C1'	3:CC:195:VAL:HG21	2.41	0.51
24:CY:227:LEU:HD11	24:CY:276:LEU:HD21	1.91	0.51
42:BH:85:LYS:HG3	42:BH:145:ALA:HB2	1.93	0.51
42:DH:85:LYS:HG3	42:DH:145:ALA:HB2	1.91	0.51
14:CN:9:LYS:HG3	14:CN:12:ARG:NH2	2.26	0.51
26:B1:57:GLU:O	26:B1:58:ILE:O	2.28	0.51
1:CA:1499:A:H1'	1:CA:1520:G:H5''	1.91	0.51
4:CD:52:SER:O	4:CD:53:ASP:C	2.49	0.51
39:BE:176:ILE:HB	39:BE:181:LEU:HB2	1.93	0.51
1:CA:151:A:H2'	1:CA:152:A:H5'	1.93	0.51
55:BW:83:LYS:HD3	55:BW:95:ILE:HD12	1.93	0.51
35:DA:2698:U:H2'	35:DA:2699:C:C6	2.46	0.51
1:AA:125:U:H2'	1:AA:126:G:C8	2.46	0.51
35:DA:908:C:O2'	35:DA:909:A:H5'	2.11	0.51
35:DA:1547:C:O2'	35:DA:1548:C:H5'	2.11	0.51
35:BA:1230:C:H2'	35:BA:1231:G:C8	2.46	0.51
3:AC:37:GLN:NE2	14:AN:52:GLN:OE1	2.43	0.51
31:D6:19:ARG:HG2	31:D6:19:ARG:NH1	2.24	0.51
57:DY:81:LYS:HD3	57:DY:97:ARG:CG	2.36	0.51
33:D8:3:LYS:HE2	35:DA:242:G:O5'	2.11	0.51
35:DA:1063:G:C4'	45:DK:134:MET:HG2	2.33	0.51
40:DF:7:TYR:O	40:DF:8:GLN:HB2	2.11	0.51
58:BZ:104:PHE:CD1	58:BZ:139:VAL:HB	2.45	0.51
1:AA:1226:C:OP1	13:AM:91:ARG:NH1	2.43	0.51
35:BA:156:U:H5''	35:BA:158:U:C5	2.46	0.51
30:D5:51:TYR:CD2	30:D5:52:TYR:OH	2.63	0.51
48:DP:147:LEU:O	48:DP:149:GLU:HG2	2.11	0.51
24:AY:170:LEU:HD12	24:AY:171:VAL:N	2.26	0.51
41:DG:118:ARG:HB2	41:DG:181:ARG:CD	2.41	0.51
35:BA:1061:U:H4'	35:BA:1070:A:O3'	2.11	0.51
1:AA:1279:A:N3	1:AA:1279:A:H2'	2.26	0.51
52:DT:29:ARG:NE	52:DT:86:ILE:HG22	2.25	0.51
35:BA:1495:A:N3	35:BA:1496:A:C2	2.79	0.51
35:BA:654(A):G:H2'	35:BA:654(B):C:C5'	2.40	0.51
31:B6:28:ARG:CA	31:B6:32:ASN:HD22	2.14	0.51
35:BA:2645:G:C3'	35:BA:2646:C:H5'	2.33	0.51
25:D0:48:GLY:HA3	25:D0:80:HIS:ND1	2.25	0.51
9:CI:65:VAL:HB	9:CI:77:ILE:HD11	1.93	0.51
39:DE:51:PHE:HD1	39:DE:52:LEU:H	1.58	0.51
1:AA:1002:G:H2'	1:AA:1003:G:H5'	1.92	0.51
27:B2:50:ILE:C	27:B2:52:ASP:N	2.63	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:BP:101:VAL:HG12	48:BP:107:LYS:N	2.25	0.51
35:DA:2681:C:H5	35:DA:2725:A:N6	2.00	0.51
16:CP:49:LEU:O	16:CP:50:LYS:HB2	2.11	0.51
3:CC:34:LEU:HD23	3:CC:34:LEU:C	2.31	0.51
41:BG:16:ARG:HH11	41:BG:16:ARG:HG3	1.76	0.51
24:AY:36:PRO:HA	24:AY:39:TRP:HD1	1.76	0.51
35:DA:1434:A:H61	35:DA:1558:A:N6	2.04	0.51
1:CA:1305:G:C2	1:CA:1331:G:N3	2.79	0.51
17:CQ:65:ILE:O	17:CQ:66:SER:HB3	2.10	0.51
33:B8:32:LEU:HD21	35:BA:2392:A:OP1	2.11	0.51
5:CE:31:LEU:HD21	5:CE:43:LEU:HD11	1.91	0.51
35:BA:2591:C:H2'	35:BA:2592:G:C8	2.46	0.51
7:AG:148:ASN:C	7:AG:150:ALA:N	2.62	0.51
11:CK:78:GLN:O	11:CK:103:LEU:HD13	2.11	0.51
35:DA:2807:G:C3'	35:DA:2808:U:H5''	2.40	0.51
54:DV:23:GLU:O	54:DV:24:LYS:C	2.49	0.51
13:CM:65:LYS:O	13:CM:66:LEU:N	2.43	0.51
35:BA:870:A:P	49:BQ:6:ARG:HH21	2.33	0.51
40:BF:65:TRP:CZ3	40:BF:73:ALA:O	2.64	0.51
22:AV:31:A:H2'	22:AV:32:U:C6	2.46	0.51
40:DF:11:VAL:O	40:DF:12:LEU:C	2.49	0.51
24:CY:149:PHE:HZ	24:CY:179:LEU:HD22	1.76	0.51
1:CA:1427:U:H2'	1:CA:1428:A:C8	2.46	0.51
1:AA:922:G:H2'	1:AA:923:A:C8	2.45	0.51
11:CK:79:SER:HB2	11:CK:106:LYS:HE3	1.93	0.51
35:BA:445:C:O2'	35:BA:446:G:H5'	2.11	0.51
35:DA:1239:G:H2'	35:DA:1240:U:O4'	2.11	0.51
1:AA:56:U:H2'	1:AA:57:G:C8	2.46	0.51
9:AI:122:ALA:HB1	9:AI:123:PRO:HD2	1.92	0.51
17:AQ:90:ILE:HG23	17:AQ:93:GLN:NE2	2.26	0.51
38:BD:198:ASN:ND2	38:BD:198:ASN:O	2.43	0.51
1:AA:340:U:H2'	1:AA:341:C:C6	2.45	0.51
35:BA:1046:A:C2	44:BJ:8:UNK:N	2.79	0.51
58:DZ:141:VAL:O	58:DZ:142:SER:C	2.50	0.51
35:DA:2849:U:OP2	52:DT:95:ARG:NH1	2.44	0.51
30:B5:55:ARG:HE	50:BR:33:ARG:NH1	2.09	0.51
40:BF:2:LYS:HD3	40:BF:25:PRO:HG2	1.93	0.51
45:DK:78:ILE:HD11	45:DK:127:ILE:HG23	1.92	0.51
45:DK:98:ARG:HH21	45:DK:139:VAL:HG22	1.75	0.51
35:BA:1887:C:C3'	35:BA:1888:G:H5''	2.40	0.51
1:AA:959:A:H2'	1:AA:960:U:H4'	1.93	0.51
2:AB:167:PRO:HG2	2:AB:192:SER:OG	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:BP:7:ARG:HB2	48:BP:8:PRO:HD3	1.92	0.51
51:BS:59:LYS:CG	51:BS:60:GLY:H	2.21	0.51
41:DG:103:LEU:HD23	41:DG:106:LEU:HD23	1.92	0.51
45:BK:84:LEU:CD2	45:BK:84:LEU:H	2.24	0.51
41:BG:4:ASP:HA	41:BG:8:LYS:CD	2.40	0.51
53:BU:92:ARG:NH1	54:BV:11:GLN:O	2.44	0.51
35:DA:146:G:H5'	35:DA:146:G:C8	2.43	0.51
24:AY:33:LEU:HD21	24:AY:52:ALA:HB2	1.93	0.51
51:BS:97:ARG:HG2	51:BS:97:ARG:HH11	1.75	0.51
52:DT:32:TYR:CE2	52:DT:81:PRO:HB2	2.44	0.51
35:DA:2648:C:O2'	35:DA:2649:U:H5'	2.11	0.51
58:DZ:5:LEU:CD2	58:DZ:39:VAL:HG21	2.30	0.51
33:B8:54:GLU:O	33:B8:58:ILE:HG12	2.11	0.51
1:CA:425:G:O2'	1:CA:426:G:H5'	2.11	0.51
53:DU:108:GLU:O	53:DU:112:ARG:HG2	2.11	0.51
54:BV:99:ILE:N	54:BV:99:ILE:HD13	2.25	0.51
41:BG:19:LEU:HD21	41:BG:171:ALA:HB3	1.92	0.51
50:BR:99:LYS:CB	50:BR:99:LYS:NZ	2.67	0.51
24:AY:130:CYS:O	24:AY:164:ILE:HG22	2.11	0.51
24:CY:72:LEU:HB2	24:CY:91:LEU:HG	1.93	0.51
33:D8:32:LEU:HD21	35:DA:2392:A:OP1	2.10	0.51
25:D0:23:VAL:HG21	35:DA:857:C:H4'	1.93	0.51
50:BR:98:LEU:O	50:BR:113:LEU:HD23	2.11	0.51
35:DA:1331:A:O2'	35:DA:1332:G:C8	2.64	0.51
19:AS:62:ILE:HD12	19:AS:66:MET:CE	2.41	0.51
54:DV:82:ARG:HH11	54:DV:82:ARG:HG2	1.76	0.51
13:CM:65:LYS:HB2	13:CM:69:GLU:O	2.09	0.51
1:AA:936:C:H2'	1:AA:937:A:H8	1.75	0.51
47:BO:87:ILE:HG22	47:BO:88:ASN:N	2.25	0.51
35:BA:2761:G:H2'	35:BA:2762:G:H5''	1.93	0.51
35:BA:2261:C:O2'	35:BA:2262:U:H5'	2.11	0.51
16:CP:7:ALA:O	16:CP:17:TYR:HA	2.11	0.51
49:BQ:21:THR:CG2	49:BQ:101:ARG:HB2	2.41	0.51
1:CA:1329:A:P	13:CM:28:ALA:HB3	2.51	0.51
35:DA:1385:G:O2'	35:DA:1396:U:C6	2.59	0.51
34:B9:15:LYS:HE2	34:B9:17:ILE:HD11	1.91	0.51
55:DW:95:ILE:O	55:DW:95:ILE:HG13	2.11	0.51
1:CA:514:C:O2'	1:CA:515:G:H5'	2.11	0.51
35:DA:1155:A:OP1	53:DU:55:ARG:HD2	2.11	0.51
2:CB:61:LEU:HA	2:CB:64:ARG:HD2	1.92	0.51
40:BF:34:TRP:CH2	48:BP:12:ALA:HB2	2.46	0.51
58:DZ:9:TYR:CE2	58:DZ:35:ARG:NH1	2.79	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BH:68:THR:O	42:BH:72:ILE:HG12	2.10	0.51
35:DA:705:A:C2	35:DA:727:A:H1'	2.46	0.51
39:DE:16:ARG:O	39:DE:17:ASP:HB3	2.11	0.51
1:CA:681:C:O2'	1:CA:682:G:H5'	2.11	0.51
35:BA:1221:C:H5'	35:BA:1221:C:H6	1.76	0.51
58:BZ:149:SER:HB3	58:BZ:173:ALA:HA	1.93	0.51
57:DY:7:VAL:HB	57:DY:8:LYS:NZ	2.26	0.51
42:BH:47:GLU:C	42:BH:49:VAL:H	2.14	0.51
35:DA:1063:G:H5''	45:DK:75:SER:HB3	1.91	0.51
48:DP:7:ARG:HB2	48:DP:8:PRO:HD3	1.92	0.51
40:BF:132:VAL:HG22	40:BF:133:ASN:HD22	1.76	0.51
51:DS:19:LYS:O	51:DS:20:ARG:NH2	2.44	0.51
52:DT:6:LEU:C	52:DT:6:LEU:HD23	2.31	0.51
1:CA:976:G:P	14:CN:32:SER:H	2.35	0.51
35:DA:272(J):C:H5'	35:DA:274:G:OP1	2.10	0.51
35:BA:1654:A:P	50:BR:3:HIS:CB	2.99	0.51
46:DN:2:LYS:HZ1	54:DV:12:TYR:HA	1.76	0.51
35:BA:1465:G:H5'	35:BA:1528:A:H1'	1.93	0.51
35:BA:1542:A:C3'	35:BA:1542:A:C8	2.94	0.51
13:CM:125:ARG:HA	24:CY:159:GLY:CA	2.41	0.51
35:BA:363:G:H2'	35:BA:363(A):A:H8	1.76	0.51
24:CY:34:GLU:N	45:DK:25:PRO:HB2	2.26	0.51
3:CC:70:VAL:HG12	3:CC:71:ALA:N	2.26	0.51
33:D8:55:ALA:O	33:D8:59:LYS:HE2	2.11	0.51
48:DP:101:VAL:HG23	48:DP:102:ARG:N	2.25	0.51
1:CA:1151:A:H5''	10:CJ:42:THR:H	1.76	0.51
57:BY:62:GLU:CG	57:BY:63:LYS:N	2.74	0.51
53:BU:101:ARG:O	53:BU:102:GLU:HG2	2.10	0.51
18:CR:50:ILE:HD12	18:CR:70:ILE:HG21	1.92	0.51
24:AY:130:CYS:HB3	24:AY:164:ILE:H	1.75	0.51
48:BP:16:ARG:HD3	48:BP:18:ARG:N	2.24	0.51
22:AW:50:U:H4'	22:AW:65:G:N2	2.25	0.51
22:AW:53:G:O2'	22:AW:54:U:H5'	2.09	0.51
58:BZ:5:LEU:HD21	58:BZ:39:VAL:HG21	1.92	0.51
1:CA:1250:A:H2	1:CA:1370:G:H1'	1.76	0.51
1:AA:407:G:H1'	4:AD:119:GLN:OE1	2.11	0.51
33:D8:33:ASN:N	33:D8:36:LYS:HD2	2.25	0.51
39:BE:23:VAL:HA	39:BE:186:GLY:H	1.75	0.51
35:DA:363(E):U:H3'	35:DA:363(F):A:O4'	2.11	0.51
10:AJ:6:ILE:CG2	10:AJ:98:ILE:HG23	2.41	0.51
24:CY:315:VAL:HG11	24:CY:320:TYR:CZ	2.46	0.51
20:AT:42:GLN:HE21	20:AT:42:GLN:HA	1.76	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1149:C:H2'	1:CA:1150:U:H6	1.75	0.51
25:B0:23:VAL:HG21	35:BA:857:C:H4'	1.93	0.51
8:AH:110:ALA:O	8:AH:112:LEU:HD22	2.11	0.51
1:AA:832:C:O2'	1:AA:833:U:H6	1.94	0.51
1:CA:1072:G:H2'	1:CA:1073:U:C6	2.46	0.51
1:CA:105:G:H2'	1:CA:106:C:C6	2.46	0.51
1:AA:179:A:H2'	1:AA:180:U:H6	1.76	0.51
16:CP:17:TYR:H	16:CP:17:TYR:HD1	1.59	0.51
1:CA:479:C:H2'	1:CA:480:U:C6	2.46	0.51
4:CD:61:LYS:HD2	4:CD:207:TYR:OH	2.11	0.51
2:CB:182:ILE:HG22	2:CB:183:PRO:O	2.11	0.51
35:DA:136:G:O2'	35:DA:137:C:H5'	2.11	0.51
35:BA:2855:C:O2'	35:BA:2856:C:H5'	2.11	0.51
11:AK:31:THR:OG1	11:AK:42:TRP:HB3	2.12	0.51
35:BA:1467:C:O2'	35:BA:1468:C:H5'	2.11	0.51
22:AV:25:C:H2'	22:AV:26:A:H8	1.75	0.51
1:CA:56:U:H2'	1:CA:57:G:C8	2.46	0.51
35:BA:2243:U:H2'	35:BA:2244:U:C6	2.46	0.51
9:CI:126:SER:O	9:CI:127:LYS:HB3	2.11	0.51
35:BA:2272:U:H5''	35:BA:2273:A:OP1	2.11	0.51
35:BA:877:U:O2'	35:BA:878:A:H5''	2.10	0.51
2:CB:97:TRP:CZ2	2:CB:173:ALA:HA	2.45	0.50
22:CW:19:G:C8	22:CW:20:U:H5	2.25	0.50
41:DG:52:ILE:O	41:DG:53:LEU:HB2	2.10	0.50
38:DD:93:ALA:HB2	38:DD:107:ALA:HB2	1.93	0.50
41:BG:138:GLN:OE1	41:BG:152:LEU:HA	2.11	0.50
1:AA:972:C:O2'	10:AJ:55:LYS:HG2	2.11	0.50
15:CO:81:LEU:HD11	15:CO:85:LEU:HD12	1.92	0.50
1:AA:939:G:H2'	1:AA:940:C:C6	2.46	0.50
10:CJ:4:ILE:HD13	10:CJ:74:ILE:CD1	2.41	0.50
13:CM:89:GLY:O	13:CM:92:HIS:HB2	2.12	0.50
1:CA:423:G:H2'	1:CA:424:G:H5'	1.93	0.50
48:DP:29:LYS:N	48:DP:29:LYS:HD2	2.26	0.50
43:DI:77:LEU:HD21	43:DI:100:ALA:O	2.11	0.50
39:BE:6:GLY:HA2	39:BE:51:PHE:CZ	2.46	0.50
24:AY:72:LEU:HD13	24:AY:91:LEU:HG	1.92	0.50
38:DD:131:LEU:N	38:DD:131:LEU:HD12	2.26	0.50
35:DA:1024:G:C3'	35:DA:1025:G:H5''	2.37	0.50
39:DE:185:LYS:O	39:DE:186:GLY:O	2.30	0.50
16:CP:67:THR:HB	16:CP:70:ALA:HB3	1.92	0.50
7:CG:148:ASN:O	7:CG:150:ALA:N	2.44	0.50
26:B1:25:LYS:C	26:B1:27:GLU:H	2.13	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:DW:12:ILE:HB	55:DW:42:ARG:NH1	2.26	0.50
7:CG:135:VAL:HG12	7:CG:139:GLU:OE2	2.10	0.50
9:AI:83:ARG:HA	9:AI:86:VAL:HG12	1.91	0.50
15:AO:48:LYS:HE2	15:AO:48:LYS:CA	2.41	0.50
57:BY:101:LYS:CG	57:BY:102:CYS:N	2.74	0.50
7:AG:120:ILE:HG22	7:AG:124:LEU:HD12	1.93	0.50
45:BK:105:LEU:N	45:BK:105:LEU:HD12	2.25	0.50
3:AC:91:LEU:C	3:AC:93:LYS:H	2.15	0.50
1:CA:311:C:HO2'	1:CA:312:C:H5'	1.75	0.50
6:AF:76:ALA:HB1	6:AF:80:ARG:NH2	2.26	0.50
1:AA:1096:C:O2'	1:AA:1097:C:H5'	2.11	0.50
1:AA:1211:U:H5'	1:AA:1212:U:OP1	2.10	0.50
42:DH:83:TYR:CD2	42:DH:83:TYR:N	2.77	0.50
35:DA:492:A:C2	35:DA:493:G:H1'	2.46	0.50
2:CB:236:TYR:HA	2:CB:239:VAL:HG21	1.93	0.50
35:DA:1100:C:O2'	35:DA:1101:U:H5'	2.10	0.50
40:BF:11:VAL:HG12	40:BF:12:LEU:N	2.26	0.50
35:DA:539:G:H2'	35:DA:540:C:C6	2.46	0.50
40:DF:11:VAL:HG12	40:DF:12:LEU:H	1.77	0.50
7:CG:101:LEU:O	7:CG:105:VAL:HG23	2.12	0.50
1:AA:1190:G:OP1	3:AC:5:ILE:HG23	2.12	0.50
43:BI:59:ALA:HA	43:BI:63:ALA:CB	2.41	0.50
1:AA:1246:C:H2'	1:AA:1247:U:H6	1.76	0.50
35:DA:877:U:O2'	35:DA:878:A:H5''	2.10	0.50
56:BX:65:ARG:HH11	56:BX:65:ARG:HG2	1.76	0.50
55:DW:62:HIS:O	55:DW:63:ASP:C	2.49	0.50
1:AA:599:C:H4'	8:AH:130:GLY:HA3	1.93	0.50
35:DA:832:G:O2'	48:DP:52:GLU:HB3	2.11	0.50
11:CK:31:THR:OG1	11:CK:42:TRP:HB3	2.12	0.50
1:AA:130:A:C8	17:AQ:63:ARG:HG3	2.46	0.50
35:DA:1763:G:OP1	35:DA:1763:G:H4'	2.11	0.50
54:BV:13:ARG:HG3	54:BV:13:ARG:HH11	1.76	0.50
41:BG:164:GLU:OE1	41:BG:164:GLU:N	2.45	0.50
54:DV:34:GLU:O	54:DV:36:PRO:HD3	2.11	0.50
31:D6:39:TYR:HE1	35:DA:2347:C:HO2'	1.57	0.50
54:BV:18:LEU:HD22	54:BV:19:LYS:CA	2.41	0.50
57:BY:7:VAL:CB	57:BY:8:LYS:HD2	2.35	0.50
40:BF:16:GLY:O	40:BF:17:ARG:HG3	2.11	0.50
4:AD:129:ASN:HD21	4:AD:145:GLU:H	1.57	0.50
27:B2:10:LEU:O	27:B2:13:ALA:N	2.44	0.50
51:BS:28:VAL:O	51:BS:89:ARG:HD2	2.11	0.50
51:DS:20:ARG:HE	51:DS:20:ARG:HA	1.75	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:BT:6:LEU:HD23	52:BT:6:LEU:C	2.31	0.50
35:DA:1493:C:H4'	35:DA:1494:A:OP2	2.11	0.50
1:CA:972:C:O2'	10:CJ:55:LYS:HG2	2.11	0.50
4:CD:19:LEU:HD12	4:CD:19:LEU:N	2.26	0.50
10:AJ:49:VAL:HG22	10:AJ:50:ILE:N	2.24	0.50
54:DV:46:VAL:HG12	54:DV:47:VAL:H	1.74	0.50
47:DO:77:ILE:HD13	52:DT:74:ARG:CD	2.39	0.50
1:CA:475:G:O2'	1:CA:476:G:H5'	2.12	0.50
5:CE:76:ILE:CG1	5:CE:77:PRO:HD2	2.41	0.50
1:CA:1036:G:H3'	1:CA:1037:C:C6	2.46	0.50
9:CI:18:PHE:HD1	9:CI:62:TYR:HD2	1.58	0.50
38:DD:35:LYS:N	38:DD:36:PRO:CD	2.74	0.50
35:DA:2562:U:H2'	35:DA:2563:U:H5'	1.94	0.50
24:CY:270:LYS:CE	25:D0:5:LYS:HD3	2.40	0.50
1:CA:1352:C:H2'	1:CA:1353:G:H8	1.74	0.50
1:CA:376:G:OP2	16:CP:67:THR:HG21	2.11	0.50
46:BN:9:VAL:HG21	46:BN:48:MET:CB	2.40	0.50
25:B0:74:ARG:HH22	36:BB:13:A:H8	1.58	0.50
52:BT:38:ASN:C	52:BT:38:ASN:HD22	2.13	0.50
10:CJ:8:LEU:O	10:CJ:16:LEU:HD21	2.10	0.50
33:D8:30:ARG:NH1	35:DA:2419:U:O4	2.43	0.50
35:BA:2884:U:H2'	35:BA:2885:C:C5'	2.41	0.50
27:B2:31:GLU:O	27:B2:34:GLU:HB3	2.11	0.50
53:BU:106:PHE:O	53:BU:110:VAL:HG23	2.11	0.50
19:CS:58:VAL:HG21	19:CS:75:ALA:HB2	1.93	0.50
39:DE:179:GLU:HB3	39:DE:181:LEU:HD22	1.92	0.50
15:AO:70:LEU:O	15:AO:70:LEU:HD12	2.11	0.50
35:DA:1602:U:H3'	35:DA:1603:A:H5''	1.93	0.50
6:CF:42:GLU:HG2	6:CF:42:GLU:O	2.11	0.50
17:CQ:24:GLU:HG2	17:CQ:39:SER:HB3	1.93	0.50
41:BG:59:GLU:HA	41:BG:62:LEU:HD13	1.92	0.50
52:DT:134:GLU:O	52:DT:135:ALA:HB3	2.11	0.50
40:BF:153:SER:HB2	40:BF:189:THR:HG22	1.92	0.50
37:BC:194:ILE:O	37:BC:198:GLU:HG3	2.11	0.50
35:BA:614:U:O4'	35:BA:614:U:O2	2.27	0.50
50:DR:107:ASP:C	50:DR:107:ASP:OD2	2.48	0.50
53:BU:74:LEU:HD12	53:BU:74:LEU:N	2.25	0.50
37:DC:197:LEU:C	37:DC:199:ALA:H	2.14	0.50
57:DY:13:VAL:CG1	57:DY:28:LYS:HD3	2.40	0.50
35:DA:1798:U:C5'	38:DD:259:THR:HG22	2.20	0.50
3:AC:188:LEU:HD22	3:AC:188:LEU:N	2.26	0.50
41:BG:39:ILE:CD1	41:BG:60:LEU:HD21	2.42	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:962:C:H2'	1:CA:963:G:H8	1.75	0.50
39:BE:119:ARG:HD2	39:BE:120:TRP:NE1	2.26	0.50
35:DA:195:A:C8	35:DA:197:A:OP1	2.64	0.50
45:BK:19:PRO:O	45:BK:24:GLY:HA3	2.12	0.50
22:AV:76:8AN:C5'	24:AY:239:GLY:HA3	2.41	0.50
15:AO:67:LEU:HD11	15:AO:87:ILE:HD12	1.92	0.50
35:BA:2476:A:C2	35:BA:2477:C:C6	2.99	0.50
10:AJ:100:THR:HG22	10:AJ:100:THR:O	2.11	0.50
46:BN:15:LEU:O	46:BN:136:GLU:HA	2.11	0.50
1:AA:423:G:H2'	1:AA:424:G:H5'	1.92	0.50
22:CW:68:C:O2'	22:CW:69:G:H5'	2.10	0.50
9:AI:18:PHE:HD1	9:AI:62:TYR:HD2	1.58	0.50
35:BA:2063:C:O2	35:BA:2450:A:N1	2.44	0.50
43:BI:12:LEU:HG	43:BI:12:LEU:O	2.11	0.50
35:DA:2190:G:O2'	35:DA:2191:G:H5'	2.11	0.50
9:AI:112:LYS:O	9:AI:112:LYS:HD3	2.11	0.50
3:CC:82:GLU:O	3:CC:86:VAL:HG13	2.12	0.50
10:AJ:8:LEU:HB3	10:AJ:16:LEU:HD21	1.92	0.50
39:DE:32:PRO:HB3	39:DE:69:LYS:HE2	1.93	0.50
13:AM:65:LYS:O	13:AM:66:LEU:N	2.45	0.50
1:CA:382:A:H2'	1:CA:383:A:C8	2.46	0.50
33:B8:30:ARG:NH1	35:BA:2419:U:O4	2.44	0.50
42:BH:85:LYS:NZ	42:BH:87:LEU:HG	2.26	0.50
24:AY:8:GLN:HE22	24:AY:95:ALA:HB1	1.74	0.50
39:DE:72:VAL:O	39:DE:72:VAL:HG12	2.11	0.50
42:DH:85:LYS:HD2	42:DH:145:ALA:HB2	1.94	0.50
1:CA:375:U:H4'	16:CP:17:TYR:CE2	2.47	0.50
2:AB:209:ARG:HH11	2:AB:239:VAL:CG1	2.23	0.50
2:CB:209:ARG:HH11	2:CB:239:VAL:CG1	2.24	0.50
1:CA:300:A:H1'	1:CA:565:U:O2	2.11	0.50
1:AA:1086:U:O2'	1:AA:1087:G:H5'	2.11	0.50
1:AA:1060:C:C4	3:AC:2:GLY:HA3	2.47	0.50
35:DA:898:C:H2'	35:DA:899:A:O4'	2.10	0.50
11:CK:79:SER:CB	11:CK:106:LYS:HE3	2.41	0.50
32:B7:22:MET:O	32:B7:28:ARG:NH1	2.45	0.50
24:CY:109:PHE:HB3	24:CY:110:PRO:HD2	1.91	0.50
10:AJ:40:LEU:N	10:AJ:69:ASN:O	2.44	0.50
20:AT:51:GLU:HA	20:AT:54:LYS:NZ	2.26	0.50
44:BJ:96:UNK:C	44:BJ:98:UNK:N	2.72	0.50
1:CA:1476:G:H2'	1:CA:1477:C:H6	1.75	0.50
44:BJ:99:UNK:O	44:BJ:101:UNK:N	2.44	0.50
55:BW:29:LEU:HG	55:BW:33:ARG:NH1	2.27	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1207:G:O2'	1:CA:1208:C:H5'	2.12	0.50
15:AO:3:ILE:O	15:AO:3:ILE:HG13	2.11	0.50
46:BN:61:ARG:HG3	46:BN:61:ARG:HH11	1.77	0.50
24:AY:219:GLU:CD	24:AY:219:GLU:C	2.70	0.50
39:BE:1:MET:HB3	39:BE:200:GLU:OE1	2.12	0.50
35:DA:1679:U:C2'	35:DA:1680:U:H5'	2.42	0.50
57:BY:77:PRO:O	57:BY:78:ALA:HB2	2.10	0.50
22:CW:62:C:O4'	37:DC:53:ARG:HG3	2.11	0.50
24:CY:233:ARG:HD3	35:DA:2573:C:N4	2.27	0.50
41:DG:110:ALA:O	41:DG:113:ARG:N	2.44	0.50
35:BA:1493:C:H4'	35:BA:1494:A:OP2	2.10	0.50
41:BG:45:GLU:H	41:BG:88:ILE:HG21	1.77	0.50
1:AA:963:G:H21	10:AJ:55:LYS:CD	2.24	0.50
35:DA:607:U:OP1	40:DF:102:PRO:HA	2.10	0.50
13:AM:120:LYS:HD3	13:AM:121:LYS:O	2.11	0.50
53:DU:92:ARG:NH1	54:DV:11:GLN:O	2.44	0.50
53:DU:90:VAL:CG2	54:DV:39:LEU:HB2	2.42	0.50
35:DA:2287:A:H2	35:DA:2346:A:N1	2.10	0.50
22:CW:77:PHA:HA	35:DA:2395:C:O4'	2.11	0.50
48:DP:58:THR:HG22	48:DP:61:ARG:HG3	1.93	0.50
41:DG:73:ALA:HB3	41:DG:87:PRO:CG	2.41	0.50
24:CY:50:GLN:C	24:CY:50:GLN:NE2	2.65	0.50
9:AI:65:VAL:HB	9:AI:77:ILE:HD11	1.93	0.50
1:AA:423:G:C2'	1:AA:424:G:H5'	2.41	0.50
9:AI:17:VAL:HG21	9:AI:80:GLY:C	2.32	0.50
2:AB:55:PHE:HA	2:AB:58:ILE:CD1	2.35	0.50
14:AN:48:ALA:HB2	14:AN:53:LEU:HD12	1.94	0.50
10:CJ:29:ARG:NH1	10:CJ:29:ARG:HG2	2.26	0.50
4:CD:14:ARG:HD2	4:CD:59:ARG:HH12	1.76	0.50
12:CL:45:PRO:HD3	12:CL:51:ALA:O	2.11	0.50
25:B0:41:ARG:NH2	35:BA:2387:U:C4'	2.73	0.50
33:B8:34:TRP:CG	33:B8:35:GLN:N	2.77	0.50
1:AA:353:A:H5'	1:AA:353:A:C8	2.40	0.50
40:DF:123:LEU:HD12	40:DF:124:LEU:N	2.24	0.50
1:CA:1251:A:H2'	1:CA:1252:A:C8	2.46	0.50
41:DG:57:ALA:CB	41:DG:90:LEU:HD21	2.40	0.50
10:CJ:39:PRO:HB3	10:CJ:70:ARG:NH1	2.26	0.50
49:BQ:43:THR:HB	49:BQ:45:GLN:HE21	1.75	0.50
24:CY:187:HIS:N	24:CY:206:ALA:O	2.40	0.50
40:BF:178:PRO:HB2	40:BF:201:VAL:CG1	2.42	0.50
49:BQ:2:LEU:O	49:BQ:70:PRO:HG2	2.10	0.50
35:BA:1091:G:O2'	35:BA:1092:C:H5'	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:16:HIS:HB3	2:CB:210:SER:CA	2.42	0.50
6:AF:39:LYS:O	6:AF:40:VAL:HB	2.12	0.50
41:DG:124:SER:HB2	41:DG:131:TYR:CE1	2.47	0.50
39:BE:35:GLN:HA	39:BE:67:PHE:CE2	2.46	0.50
14:CN:59:ALA:O	14:CN:60:SER:HB2	2.12	0.50
35:BA:1078:U:H5'	45:BK:132:ARG:HH12	1.76	0.50
35:DA:2761:G:H3'	35:DA:2762:G:H5''	1.92	0.50
35:BA:2732:G:C2'	35:BA:2733:A:H5'	2.41	0.50
30:B5:3:LYS:HB2	35:BA:747:U:H5	1.74	0.50
49:DQ:21:THR:O	49:DQ:21:THR:HG22	2.11	0.50
46:BN:73:THR:HG21	46:BN:82:LEU:HD11	1.94	0.50
40:BF:9:ILE:HG12	40:BF:13:SER:O	2.11	0.50
38:BD:28:GLU:HB2	38:BD:29:PRO:HD3	1.92	0.50
38:DD:28:GLU:HB2	38:DD:29:PRO:HD3	1.93	0.50
22:AV:59:U:C2'	22:AV:60:U:H5'	2.41	0.50
1:CA:1246:C:H2'	1:CA:1247:U:H6	1.76	0.50
1:CA:340:U:H2'	1:CA:341:C:C6	2.47	0.50
35:BA:908:C:O2'	35:BA:909:A:H5'	2.12	0.50
38:DD:121:PRO:HA	38:DD:135:PHE:HD1	1.77	0.50
45:BK:33:ASN:ND2	45:BK:36:GLU:HG3	2.26	0.50
1:AA:696:A:O2'	1:AA:697:U:H5'	2.11	0.50
24:CY:59:VAL:HG12	24:CY:59:VAL:O	2.11	0.50
37:DC:29:LEU:HD23	37:DC:29:LEU:O	2.12	0.50
15:AO:61:GLY:O	15:AO:64:ARG:HB3	2.12	0.50
22:CV:72:C:C3'	22:CV:73:A:H5''	2.42	0.50
57:DY:79:CYS:O	57:DY:80:GLY:O	2.29	0.50
57:DY:97:ARG:O	57:DY:98:VAL:HB	2.12	0.50
35:DA:158:U:O2	35:DA:158:U:C2'	2.60	0.50
40:DF:2:LYS:HD3	40:DF:25:PRO:HG2	1.93	0.50
51:BS:101:LEU:C	51:BS:101:LEU:HD12	2.32	0.50
38:BD:25:THR:O	38:BD:27:THR:HG22	2.11	0.50
3:CC:188:LEU:HD22	3:CC:188:LEU:N	2.26	0.50
13:AM:120:LYS:HE2	13:AM:122:LYS:HZ2	1.77	0.50
35:DA:1539:G:H2'	35:DA:1540:U:O4'	2.12	0.50
3:CC:16:ARG:HH11	3:CC:16:ARG:CB	2.25	0.50
4:AD:12:CYS:SG	4:AD:19:LEU:O	2.69	0.50
35:DA:1688:U:H1'	35:DA:1701:A:C6	2.46	0.50
20:AT:89:ARG:HB2	20:AT:104:LEU:HD11	1.93	0.50
45:DK:19:PRO:O	45:DK:24:GLY:HA3	2.12	0.50
53:BU:76:TYR:OH	53:BU:93:LYS:HE3	2.11	0.50
33:B8:52:LYS:H	33:B8:53:PRO:HD2	1.76	0.50
5:CE:7:GLU:O	5:CE:8:GLU:HB3	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:13:HIS:CE1	10:AJ:14:LYS:HG3	2.46	0.50
57:BY:44:ILE:HG22	57:BY:45:VAL:N	2.17	0.50
54:DV:2:PHE:O	54:DV:3:ALA:HB3	2.12	0.50
35:DA:1722:A:C2	35:DA:1740:G:C8	3.00	0.50
16:AP:49:LEU:O	16:AP:50:LYS:HB2	2.11	0.50
1:AA:521:G:O2'	1:AA:522:C:H5'	2.12	0.50
35:BA:2313:C:O2'	35:BA:2314:C:H5'	2.12	0.50
25:D0:74:ARG:NH2	36:DB:13:A:C8	2.78	0.50
57:BY:2:ARG:C	57:BY:4:LYS:N	2.64	0.50
44:DJ:117:UNK:O	44:DJ:119:UNK:N	2.45	0.50
9:CI:112:LYS:HD3	9:CI:112:LYS:O	2.10	0.50
1:AA:321:A:N6	1:AA:328:C:O2'	2.42	0.50
10:AJ:6:ILE:HG22	10:AJ:98:ILE:HG23	1.94	0.50
41:DG:16:ARG:NH1	41:DG:28:VAL:HG12	2.26	0.50
13:AM:21:TYR:C	13:AM:22:ILE:HD12	2.32	0.50
4:CD:126:ILE:HD12	4:CD:126:ILE:H	1.77	0.50
1:CA:1030(D):A:C2'	1:CA:1031:G:H5'	2.41	0.50
1:AA:1351:U:O2'	1:AA:1352:C:H5'	2.11	0.50
39:DE:33:VAL:HG23	39:DE:47:VAL:CG2	2.41	0.50
20:CT:43:LEU:HB3	20:CT:48:LYS:HB2	1.94	0.50
1:CA:1316:G:H2'	1:CA:1317:C:H5''	1.92	0.50
1:CA:339:C:OP2	47:DO:97:ARG:NH1	2.45	0.50
45:DK:105:LEU:N	45:DK:105:LEU:HD12	2.27	0.50
1:AA:724:G:O2'	1:AA:725:G:H5'	2.11	0.50
1:AA:104:G:H4'	1:AA:174:C:O4'	2.11	0.50
10:AJ:61:GLU:CG	14:AN:58:LYS:HE2	2.42	0.50
14:AN:12:ARG:NH1	14:AN:12:ARG:CB	2.75	0.50
1:AA:546:G:OP1	4:AD:73:ARG:HB2	2.11	0.50
2:AB:238:LEU:HG	2:AB:239:VAL:N	2.26	0.50
13:AM:56:LEU:HD13	13:AM:60:VAL:HG21	1.93	0.50
1:AA:102:G:H2'	1:AA:103:C:H6	1.75	0.50
54:DV:34:GLU:O	54:DV:36:PRO:CD	2.59	0.50
45:BK:33:ASN:HD22	45:BK:36:GLU:HG3	1.77	0.50
35:BA:2019:A:H5''	53:BU:27:LEU:HD12	1.93	0.50
1:AA:1510:U:H2'	1:AA:1511:G:C8	2.47	0.50
35:DA:660:G:H5'	40:DF:99:TYR:CE2	2.46	0.50
24:CY:74:GLU:C	24:CY:75:LEU:HD22	2.32	0.50
1:CA:679:C:O2'	1:CA:680:C:H5'	2.12	0.50
56:DX:24:GLY:O	56:DX:82:GLN:HA	2.11	0.50
35:DA:553:G:O2'	35:DA:554:U:H5'	2.12	0.50
6:AF:42:GLU:O	6:AF:42:GLU:HG2	2.11	0.50
7:AG:76:ARG:HH11	7:AG:76:ARG:HG2	1.76	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:1453:U:H5'	50:DR:63:ARG:NE	2.26	0.50
35:BA:1155:A:OP1	53:BU:55:ARG:HD2	2.11	0.50
38:DD:109:ASP:HB2	38:DD:197:GLY:HA2	1.92	0.50
24:CY:303:ARG:N	24:CY:304:PRO:CD	2.75	0.50
31:D6:44:ARG:O	31:D6:45:LYS:O	2.30	0.50
49:BQ:134:ARG:HA	49:BQ:137:TYR:CD1	2.46	0.50
35:BA:1048:A:N1	35:BA:1108:U:O4	2.45	0.50
41:DG:88:ILE:HG22	41:DG:89:GLY:H	1.76	0.50
41:BG:106:LEU:HD12	41:BG:110:ALA:HB3	1.93	0.50
41:BG:135:LEU:O	41:BG:154:GLY:HA3	2.11	0.50
41:BG:38:VAL:CG2	41:BG:93:THR:HG23	2.41	0.50
6:CF:39:LYS:HG2	6:CF:40:VAL:H	1.76	0.50
14:AN:40:CYS:SG	14:AN:43:CYS:SG	3.03	0.50
13:CM:120:LYS:HD3	13:CM:121:LYS:O	2.11	0.50
35:DA:1688:U:H5'	35:DA:1689:A:OP1	2.11	0.50
35:DA:330:A:O2'	35:DA:331:A:H8	1.94	0.50
13:CM:94:ARG:CZ	19:CS:81:ARG:HG3	2.41	0.50
35:BA:1042:G:H5'	35:BA:1043:C:OP2	2.12	0.50
39:BE:167:VAL:CG2	39:BE:170:LEU:HD11	2.42	0.50
50:BR:118:GLU:HA	50:BR:118:GLU:OE1	2.11	0.50
10:AJ:27:ALA:HB2	10:AJ:85:LEU:CD1	2.41	0.50
26:B1:3:LYS:HE2	35:BA:1364:G:C8	2.46	0.50
41:BG:25:TYR:OH	41:BG:32:PRO:HD3	2.12	0.50
47:DO:107:ARG:NH2	52:DT:35:LYS:HD2	2.27	0.50
52:DT:42:ILE:CG1	52:DT:42:ILE:O	2.57	0.50
3:AC:34:LEU:CD2	3:AC:38:ARG:HD2	2.37	0.50
35:DA:2810:A:O2'	39:DE:61:ARG:CZ	2.59	0.50
1:AA:389:A:H2'	1:AA:390:C:H5'	1.94	0.50
33:D8:32:LEU:CB	33:D8:36:LYS:NZ	2.75	0.50
58:DZ:24:LEU:HD22	58:DZ:86:VAL:HG22	1.92	0.50
14:CN:23:ARG:HH11	14:CN:30:ALA:HB2	1.76	0.50
1:AA:1369:C:H2'	1:AA:1370:G:C8	2.46	0.50
35:DA:2807:G:H2'	35:DA:2808:U:H5''	1.94	0.50
3:CC:140:ARG:HG3	3:CC:140:ARG:HH11	1.75	0.50
1:AA:1053:G:N7	1:AA:1199:U:H3'	2.27	0.50
50:DR:10:LEU:HD22	50:DR:17:ARG:CD	2.42	0.50
1:AA:382:A:H2'	1:AA:383:A:C8	2.47	0.50
1:CA:1316:G:H5''	14:CN:17:LYS:HE3	1.93	0.50
18:CR:32:ARG:HA	18:CR:69:THR:HG21	1.93	0.50
1:CA:358:U:H2'	1:CA:359:U:H6	1.76	0.50
1:CA:986:A:H2'	1:CA:987:G:C8	2.47	0.50
35:BA:2807:G:C3'	35:BA:2808:U:H5''	2.42	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:8:VAL:HB	4:AD:21:LEU:HD12	1.93	0.50
2:AB:212:GLN:HG3	2:AB:235:SER:HB2	1.93	0.50
35:DA:2864:G:OP1	52:DT:119:LYS:HD2	2.11	0.50
55:DW:95:ILE:O	55:DW:95:ILE:CG1	2.59	0.50
35:BA:2742:C:O2'	35:BA:2743:C:H5'	2.11	0.50
35:DA:780:G:H21	35:DA:783:A:H62	1.59	0.50
11:CK:34:ASP:HB3	11:CK:40:ILE:HD11	1.94	0.50
3:AC:30:ARG:HB2	14:AN:36:PHE:O	2.11	0.50
35:BA:498:G:O2'	35:BA:499:U:H5'	2.12	0.50
3:CC:30:ARG:HB2	14:CN:36:PHE:O	2.11	0.50
45:DK:33:ASN:HD22	45:DK:36:GLU:HG3	1.76	0.50
35:DA:923:C:H2'	35:DA:924:C:H6	1.77	0.50
27:B2:3:LEU:HD23	27:B2:3:LEU:O	2.11	0.50
7:AG:6:ARG:O	7:AG:6:ARG:HG2	2.12	0.50
35:BA:1790:C:H2'	35:BA:1791:A:C5	2.46	0.50
52:DT:14:TYR:CD1	52:DT:14:TYR:N	2.80	0.50
35:DA:2065:C:H2'	35:DA:2066:C:C6	2.46	0.50
17:CQ:10:VAL:HG13	17:CQ:19:VAL:HB	1.92	0.50
31:D6:45:LYS:HE3	35:DA:2370:G:O2'	2.12	0.50
35:DA:613:G:H8	35:DA:613:G:C5'	2.20	0.50
54:DV:19:LYS:HG3	54:DV:20:LEU:O	2.12	0.50
35:DA:156:U:H5''	35:DA:158:U:C5	2.45	0.50
40:DF:7:TYR:HB2	40:DF:16:GLY:C	2.32	0.50
49:BQ:132:VAL:HG21	58:BZ:81:ARG:NH2	2.27	0.50
1:CA:963:G:H21	10:CJ:55:LYS:HD2	1.76	0.50
4:CD:26:CYS:O	4:CD:31:CYS:HB2	2.11	0.50
43:DI:8:PRO:C	43:DI:9:LEU:HD12	2.32	0.50
54:DV:39:LEU:HD22	54:DV:39:LEU:H	1.77	0.50
3:AC:14:ILE:CG1	3:AC:15:THR:H	2.07	0.50
35:DA:2287:A:C2	35:DA:2346:A:C2	3.00	0.50
4:AD:25:ARG:NH1	4:AD:30:LYS:HB2	2.26	0.50
29:D4:28:LYS:O	29:D4:30:GLU:N	2.43	0.50
5:AE:76:ILE:HG13	5:AE:77:PRO:HD2	1.94	0.50
10:CJ:100:THR:HG22	10:CJ:100:THR:O	2.11	0.50
1:AA:738:C:H5''	6:AF:69:GLU:HB2	1.93	0.50
48:DP:23:PRO:HD2	48:DP:33:ARG:CZ	2.41	0.50
35:DA:587:C:C5	48:DP:33:ARG:HD3	2.47	0.50
35:DA:729:G:H2'	35:DA:1775:U:H1'	1.92	0.50
54:DV:5:VAL:HG21	54:DV:35:LEU:CG	2.42	0.50
12:CL:91:LYS:C	12:CL:91:LYS:HD3	2.32	0.50
12:AL:53:ARG:HG2	12:AL:93:LEU:HD11	1.94	0.50
18:CR:31:LEU:HD12	18:CR:66:LEU:HB2	1.94	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BI:90:GLY:O	43:BI:121:LYS:HD3	2.12	0.50
43:DI:51:ILE:O	43:DI:53:ALA:N	2.45	0.50
1:CA:389:A:H2'	1:CA:390:C:H5'	1.93	0.50
35:BA:2836:U:H2'	35:BA:2837:G:H8	1.75	0.50
49:DQ:141:GLN:HB3	58:DZ:99:TYR:CZ	2.46	0.50
11:AK:111:ASP:HA	18:AR:84:LYS:CD	2.42	0.50
33:D8:35:GLN:O	33:D8:35:GLN:HG2	2.11	0.50
46:BN:46:VAL:O	46:BN:47:ALA:CB	2.59	0.50
46:BN:5:VAL:HG13	46:BN:5:VAL:O	2.11	0.50
35:DA:11:G:H22	35:DA:2628:C:P	2.35	0.50
4:AD:126:ILE:CG2	4:AD:127:THR:H	2.25	0.50
52:DT:53:ARG:HB3	52:DT:53:ARG:CZ	2.41	0.50
22:AW:28:G:H2'	22:AW:29:G:C8	2.47	0.50
48:DP:41:ARG:HH12	48:DP:45:LEU:HG	1.76	0.50
10:AJ:39:PRO:HB3	10:AJ:70:ARG:NH1	2.27	0.50
50:BR:12:ARG:HB3	50:BR:16:HIS:HB3	1.92	0.50
15:AO:16:ALA:HA	15:AO:27:VAL:CG2	2.42	0.50
8:CH:30:ARG:CB	8:CH:30:ARG:NH1	2.74	0.50
27:D2:3:LEU:HD12	35:DA:98:G:C5'	2.42	0.50
40:DF:116:ASP:O	40:DF:120:GLU:HG3	2.11	0.50
11:AK:124:LYS:HZ3	11:AK:125:PHE:HE1	1.60	0.50
38:DD:166:GLN:CA	38:DD:166:GLN:NE2	2.74	0.50
1:AA:542:G:OP1	4:AD:10:ARG:NH2	2.44	0.50
35:DA:1064:C:O2'	35:DA:1065:U:H5'	2.12	0.50
40:DF:9:ILE:HG12	40:DF:13:SER:O	2.11	0.50
39:DE:176:ILE:HB	39:DE:181:LEU:HB2	1.94	0.50
2:CB:95:GLN:HE21	2:CB:147:LYS:CG	2.25	0.50
39:DE:197:ILE:HD11	39:DE:199:ARG:HE	1.75	0.50
11:AK:43:SER:HB3	11:AK:68:ALA:HB2	1.93	0.50
1:AA:814:A:N7	1:AA:816:A:C4	2.80	0.50
35:BA:923:C:H2'	35:BA:924:C:C6	2.47	0.50
35:BA:2467:C:H4'	49:BQ:123:HIS:CD2	2.47	0.50
50:BR:67:LEU:HD21	50:BR:76:VAL:HG11	1.93	0.50
35:DA:1488:G:H5'	35:DA:1489:U:OP2	2.12	0.50
35:BA:78:A:H2'	35:BA:79:G:H8	1.76	0.50
4:CD:42:GLN:HG2	4:CD:42:GLN:O	2.12	0.50
24:CY:48:VAL:O	24:CY:48:VAL:HG12	2.12	0.50
37:BC:29:LEU:O	37:BC:29:LEU:HD23	2.12	0.50
4:AD:42:GLN:HG2	4:AD:42:GLN:O	2.10	0.50
24:AY:24:THR:O	24:AY:24:THR:HG22	2.11	0.50
20:CT:73:HIS:O	20:CT:74:LYS:C	2.50	0.50
35:BA:780:G:H21	35:BA:783:A:H62	1.59	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:78:A:H2'	35:DA:79:G:H8	1.77	0.50
40:DF:24:LEU:CB	40:DF:25:PRO:CD	2.83	0.50
57:BY:79:CYS:O	57:BY:80:GLY:O	2.29	0.50
49:BQ:137:TYR:CD2	49:BQ:137:TYR:N	2.79	0.50
35:DA:2313:C:O2'	35:DA:2314:C:H5'	2.10	0.50
45:BK:103:GLN:HA	45:BK:106:GLU:CD	2.31	0.50
41:BG:40:ASN:O	41:BG:41:GLN:HG2	2.12	0.50
6:CF:62:TRP:CH2	6:CF:64:GLN:HB2	2.47	0.50
10:CJ:50:ILE:CD1	10:CJ:50:ILE:H	2.07	0.50
35:DA:1528:A:N1	35:DA:1542:A:H2	2.09	0.50
35:DA:1539:G:H2'	35:DA:1540:U:H5'	1.93	0.50
46:DN:1:MET:CG	46:DN:2:LYS:H	2.25	0.50
13:CM:125:ARG:HA	24:CY:159:GLY:C	2.32	0.50
40:DF:68:LYS:C	40:DF:70:THR:H	2.14	0.50
22:AV:76:8AN:C2'	24:AY:240:GLN:H	2.25	0.50
47:BO:104:ARG:NE	52:BT:33:LYS:HD2	2.27	0.50
20:CT:57:ARG:HH12	20:CT:100:ILE:HG13	1.77	0.50
25:D0:70:GLN:NE2	25:D0:80:HIS:NE2	2.59	0.50
9:AI:77:ILE:HG22	9:AI:77:ILE:O	2.12	0.50
1:CA:418:C:H2'	1:CA:419:C:H6	1.74	0.50
53:BU:102:GLU:HG3	54:BV:2:PHE:CE1	2.46	0.50
54:DV:99:ILE:HD13	54:DV:99:ILE:N	2.26	0.50
3:CC:113:ALA:HB3	3:CC:114:PRO:CD	2.39	0.50
1:CA:719:C:N4	18:CR:71:LYS:HE2	2.27	0.50
38:BD:267:SER:HA	38:BD:270:ILE:HG13	1.94	0.50
48:DP:114:ILE:O	48:DP:115:LEU:HB3	2.11	0.50
24:AY:311:ILE:HG13	24:AY:312:ARG:N	2.27	0.50
35:DA:662:G:P	48:DP:18:ARG:HD2	2.52	0.50
58:BZ:73:GLN:HB3	58:BZ:87:ASP:OD1	2.11	0.50
56:DX:50:LYS:N	56:DX:87:GLN:OE1	2.44	0.50
1:CA:377:G:H2'	1:CA:378:G:C8	2.39	0.50
44:BJ:117:UNK:O	44:BJ:119:UNK:N	2.45	0.50
9:CI:83:ARG:HA	9:CI:86:VAL:HG12	1.93	0.50
7:CG:120:ILE:HG22	7:CG:124:LEU:HD12	1.94	0.50
1:AA:1158:C:C2'	1:AA:1158:C:O2	2.58	0.50
35:DA:848:G:H8	35:DA:848:G:H5'	1.77	0.50
24:AY:41:ASP:CB	24:AY:44:ALA:HB3	2.42	0.50
24:CY:153:VAL:O	24:CY:153:VAL:CG1	2.60	0.50
49:DQ:21:THR:CG2	49:DQ:101:ARG:HB2	2.41	0.50
2:AB:236:TYR:HA	2:AB:239:VAL:HG21	1.93	0.50
38:BD:166:GLN:N	38:BD:166:GLN:HE21	2.09	0.50
49:DQ:116:GLU:OE1	49:DQ:116:GLU:HA	2.10	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:2030:A:H4'	35:DA:2031:A:H8	1.77	0.50
58:DZ:63:ASP:HB3	58:DZ:65:GLN:HG3	1.92	0.50
1:CA:1086:U:O2'	1:CA:1087:G:H5'	2.12	0.50
35:DA:1314:C:C6	35:DA:1314:C:H5'	2.47	0.50
38:DD:28:GLU:H	38:DD:29:PRO:HD2	1.76	0.50
1:AA:375:U:H4'	16:AP:17:TYR:CE2	2.47	0.50
55:BW:95:ILE:O	55:BW:95:ILE:HG13	2.11	0.50
42:BH:26:VAL:HG21	42:BH:75:ALA:HB3	1.94	0.50
35:BA:2783:G:H2'	35:BA:2784:C:C6	2.47	0.50
20:AT:18:GLN:O	20:AT:22:ARG:HG3	2.11	0.50
44:DJ:99:UNK:O	44:DJ:101:UNK:N	2.44	0.50
43:BI:41:GLU:HA	43:BI:44:LEU:HB2	1.93	0.50
35:DA:2096:U:H2'	35:DA:2097:C:C6	2.47	0.50
33:B8:29:LYS:HG3	33:B8:29:LYS:O	2.11	0.50
44:DJ:59:UNK:C	44:DJ:61:UNK:N	2.71	0.50
35:BA:907:U:OP1	49:BQ:24:GLY:N	2.45	0.50
40:BF:24:LEU:HD13	40:BF:118:ALA:CB	2.42	0.50
28:D3:8:LEU:HB2	28:D3:28:LEU:HD13	1.94	0.50
58:DZ:80:ARG:O	58:DZ:81:ARG:C	2.50	0.50
40:DF:16:GLY:O	40:DF:17:ARG:HG3	2.11	0.50
2:CB:97:TRP:CZ2	2:CB:102:LEU:HD13	2.47	0.50
30:D5:50:GLY:O	30:D5:51:TYR:HD1	1.95	0.50
52:DT:83:ILE:HD11	52:DT:84:GLN:HE21	1.77	0.50
35:BA:1490:A:H5'	35:BA:1494:A:N6	2.26	0.50
48:BP:147:LEU:O	48:BP:149:GLU:HG2	2.12	0.50
41:BG:142:PRO:O	41:BG:144:ILE:N	2.45	0.50
10:CJ:49:VAL:HG21	14:CN:41:ARG:HB2	1.93	0.50
54:BV:47:VAL:CB	54:BV:49:THR:O	2.60	0.50
54:BV:46:VAL:HG12	54:BV:47:VAL:H	1.77	0.50
39:BE:110:GLY:CA	39:BE:162:ALA:HB2	2.42	0.50
1:CA:1133:G:H22	1:CA:1143:G:H1'	1.77	0.50
43:BI:94:ALA:HB1	43:BI:114:LEU:HD12	1.94	0.50
51:DS:33:LYS:HB3	51:DS:34:HIS:CD2	2.47	0.50
29:D4:25:TYR:CD2	41:DG:2:PRO:HD2	2.47	0.50
46:BN:128:HIS:CD2	46:BN:130:HIS:H	2.23	0.50
46:BN:133:GLN:C	46:BN:134:ARG:HG2	2.33	0.50
1:AA:475:G:O2'	1:AA:476:G:H5'	2.12	0.50
53:BU:108:GLU:O	53:BU:112:ARG:HG2	2.11	0.50
9:CI:65:VAL:CG2	9:CI:73:GLN:HB3	2.35	0.50
31:B6:20:ASN:ND2	31:B6:41:PRO:HA	2.27	0.50
9:AI:4:TYR:HB2	9:AI:19:LEU:CB	2.39	0.50
39:BE:51:PHE:HD1	39:BE:52:LEU:H	1.58	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:BP:33:ARG:O	48:BP:34:GLY:C	2.50	0.50
9:CI:4:TYR:HE1	9:CI:21:PRO:HD3	1.76	0.50
9:CI:17:VAL:HG21	9:CI:80:GLY:C	2.32	0.50
35:DA:2199:A:H3'	35:DA:2200:C:C6	2.47	0.50
24:AY:270:LYS:CE	25:B0:5:LYS:HD3	2.42	0.50
4:CD:15:GLU:HG3	4:CD:63:LYS:HE2	1.94	0.50
41:BG:171:ALA:O	41:BG:175:LEU:HG	2.12	0.50
3:AC:119:ARG:HH21	3:AC:140:ARG:NE	2.09	0.50
3:AC:140:ARG:HH11	3:AC:140:ARG:HG3	1.77	0.50
33:B8:32:LEU:HB2	33:B8:36:LYS:HD2	1.94	0.50
38:BD:131:LEU:N	38:BD:131:LEU:HD12	2.27	0.50
48:BP:115:LEU:HD23	48:BP:115:LEU:N	2.27	0.50
57:BY:2:ARG:NH1	57:BY:3:VAL:HG23	2.27	0.50
8:AH:91:ARG:CG	8:AH:91:ARG:HH11	2.20	0.50
1:CA:911:U:H2'	1:CA:912:C:C6	2.47	0.50
41:DG:128:ARG:O	41:DG:130:ASN:ND2	2.45	0.50
3:AC:179:ARG:O	3:AC:206:GLU:HG3	2.12	0.50
31:D6:52:VAL:CG1	31:D6:53:LYS:N	2.75	0.50
35:DA:2757:A:H2'	35:DA:2758:A:H5'	1.94	0.50
35:BA:1331:A:HO2'	35:BA:1332:G:H8	1.58	0.50
6:CF:45:LEU:HD11	6:CF:57:GLN:OE1	2.11	0.50
1:AA:501:C:H2'	1:AA:502:G:H8	1.76	0.50
35:DA:1357:U:H2'	35:DA:1358:G:O4'	2.12	0.50
35:BA:2123:G:O2'	35:BA:2124:G:H5'	2.12	0.50
35:BA:2712:U:H1'	35:BA:2712(A):A:C8	2.47	0.50
40:DF:160:ASN:OD1	40:DF:163:VAL:HG23	2.12	0.50
47:DO:13:ASN:ND2	47:DO:97:ARG:HB2	2.27	0.50
19:AS:58:VAL:HG23	19:AS:58:VAL:O	2.12	0.50
1:AA:796:C:O2'	1:AA:797:C:H5'	2.12	0.50
11:CK:125:PHE:HD1	11:CK:125:PHE:N	2.09	0.50
8:CH:110:ALA:O	8:CH:112:LEU:HD22	2.12	0.50
1:AA:189(K):U:H2'	1:AA:189(L):G:H8	1.77	0.50
2:CB:212:GLN:HG3	2:CB:235:SER:HB2	1.94	0.50
35:BA:2199:A:H3'	35:BA:2200:C:C6	2.47	0.50
8:AH:29:SER:HB3	8:AH:32:LYS:HG3	1.94	0.50
40:DF:150:GLY:HA2	40:DF:172:TRP:CD2	2.47	0.50
15:CO:70:LEU:HD12	15:CO:70:LEU:O	2.12	0.50
24:CY:262:CYS:O	24:CY:263:GLN:HB2	2.11	0.50
26:D1:27:GLU:HG3	26:D1:28:GLY:N	2.27	0.50
2:CB:180:LEU:C	2:CB:182:ILE:H	2.15	0.50
45:DK:33:ASN:ND2	45:DK:36:GLU:HG3	2.26	0.50
1:AA:634:C:H2'	1:AA:635:G:H8	1.77	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:1230:C:H2'	35:DA:1231:G:C8	2.46	0.50
35:DA:518:G:H2'	35:DA:519:U:C6	2.47	0.50
35:BA:466:A:H2'	35:BA:467:G:H5'	1.94	0.50
35:BA:660:G:H5'	40:BF:99:TYR:CE2	2.46	0.50
1:CA:245:C:O2	1:CA:283:C:N3	2.44	0.50
35:BA:1578:U:H2'	35:BA:1579:A:H5'	1.93	0.50
35:BA:214:G:H1'	35:BA:216:A:O2'	2.12	0.50
53:BU:54:LYS:O	53:BU:58:ARG:HG3	2.11	0.50
1:CA:859:A:H2'	1:CA:860:A:O4'	2.11	0.50
43:DI:125:GLU:OE1	43:DI:125:GLU:HA	2.11	0.50
3:AC:79:ARG:HG3	3:AC:79:ARG:HH11	1.77	0.50
54:DV:13:ARG:HG3	54:DV:13:ARG:HH11	1.77	0.50
1:AA:514:C:O2'	1:AA:515:G:H5'	2.12	0.50
35:BA:1811:G:O2'	35:BA:1812:A:H5'	2.12	0.50
35:BA:705:A:C2	35:BA:727:A:H1'	2.46	0.50
31:D6:45:LYS:O	31:D6:46:HIS:O	2.30	0.49
35:BA:1591:G:H5'	35:BA:1591:G:C8	2.47	0.49
57:DY:13:VAL:HG11	57:DY:28:LYS:CD	2.42	0.49
36:DB:92:C:OP1	49:DQ:19:GLY:HA3	2.12	0.49
35:BA:1484:G:C3'	35:BA:1485:G:H5''	2.41	0.49
40:DF:20:LEU:O	40:DF:21:ALA:O	2.30	0.49
2:CB:97:TRP:HZ3	2:CB:172:ILE:HG22	1.76	0.49
40:BF:133:ASN:H	40:BF:133:ASN:ND2	2.10	0.49
22:CW:19:G:H4'	22:CW:59:U:O4	2.12	0.49
41:DG:47:LYS:CB	41:DG:82:LEU:HD12	2.42	0.49
41:BG:153:ARG:HG3	41:BG:154:GLY:N	2.27	0.49
35:DA:1568:G:C5'	38:DD:61:LEU:HD23	2.29	0.49
13:AM:126:LYS:N	24:AY:161:GLU:N	2.60	0.49
52:DT:88:ILE:HG22	52:DT:89:VAL:CG2	2.41	0.49
51:BS:85:VAL:HG22	51:BS:106:ARG:HB2	1.92	0.49
56:BX:56:THR:HG22	56:BX:79:ALA:HB2	1.94	0.49
54:BV:39:LEU:HA	54:BV:47:VAL:HG11	1.92	0.49
35:BA:1539:G:H2'	35:BA:1540:U:O4'	2.12	0.49
4:AD:9:CYS:HB3	4:AD:32:ALA:CB	2.42	0.49
6:CF:4:TYR:HA	6:CF:91:VAL:O	2.12	0.49
1:AA:735:C:O2'	1:AA:736:C:H5'	2.12	0.49
1:AA:1028:C:H2'	1:AA:1029:C:C5'	2.35	0.49
35:DA:587:C:C5	48:DP:33:ARG:CD	2.95	0.49
35:DA:587:C:OP2	48:DP:33:ARG:NH2	2.45	0.49
22:AV:4:C:H2'	22:AV:5:G:H8	1.75	0.49
1:CA:942:G:N2	9:CI:124:GLN:NE2	2.60	0.49
22:CV:51:U:O5'	22:CV:51:U:H6	1.94	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:AS:31:ILE:O	19:AS:31:ILE:HG23	2.12	0.49
4:AD:15:GLU:HG3	4:AD:63:LYS:HE2	1.92	0.49
35:BA:1799:G:H8	38:BD:181:GLU:OE1	1.95	0.49
57:DY:2:ARG:NH1	57:DY:3:VAL:HG23	2.27	0.49
16:AP:20:VAL:HG22	16:AP:21:VAL:N	2.27	0.49
10:CJ:6:ILE:CG2	10:CJ:98:ILE:HG23	2.42	0.49
9:CI:118:LYS:O	9:CI:119:ALA:CB	2.60	0.49
35:BA:774:A:C2	35:BA:787:U:O2'	2.61	0.49
43:DI:40:THR:O	43:DI:44:LEU:HB2	2.12	0.49
5:CE:152:ARG:HD3	8:CH:42:GLU:O	2.11	0.49
42:DH:136:ILE:CD1	42:DH:136:ILE:N	2.75	0.49
35:BA:1331:A:O2'	35:BA:1332:G:C8	2.65	0.49
50:BR:11:ASN:O	50:BR:12:ARG:HB2	2.12	0.49
27:B2:2:LYS:CG	35:BA:97:C:H5''	2.41	0.49
35:BA:2172:U:H3'	35:BA:2173:A:C8	2.47	0.49
17:CQ:9:VAL:CG1	17:CQ:56:VAL:HG22	2.42	0.49
35:BA:389:G:N1	48:BP:70:GLN:HG3	2.27	0.49
25:B0:43:THR:H	35:BA:2331:G:H4'	1.77	0.49
5:CE:36:ASP:O	5:CE:37:ARG:HB2	2.12	0.49
26:B1:71:TYR:C	26:B1:73:LEU:N	2.64	0.49
35:BA:492:A:C2	35:BA:493:G:H1'	2.47	0.49
1:AA:543:C:C2	1:AA:544:G:C8	3.00	0.49
8:CH:12:ARG:NH1	8:CH:27:PRO:HD2	2.27	0.49
12:AL:119:LYS:O	12:AL:120:TYR:HB2	2.11	0.49
58:DZ:136:PHE:HD1	58:DZ:136:PHE:O	1.95	0.49
28:D3:52:HIS:CD2	36:DB:83:G:H4'	2.47	0.49
35:DA:1771:C:O2'	35:DA:1786:A:H8	1.95	0.49
46:DN:61:ARG:HG3	46:DN:61:ARG:NH1	2.27	0.49
46:DN:30:ILE:O	46:DN:34:LEU:HD22	2.12	0.49
27:D2:7:ARG:HH11	27:D2:7:ARG:HG2	1.76	0.49
55:BW:95:ILE:O	55:BW:95:ILE:CG1	2.60	0.49
35:BA:38:A:H2'	35:BA:39:C:C6	2.46	0.49
35:DA:1578:U:H2'	35:DA:1579:A:H5'	1.94	0.49
35:DA:907:U:OP1	49:DQ:24:GLY:N	2.45	0.49
35:BA:2267:A:H5''	35:BA:2268:A:H5'	1.94	0.49
35:BA:102:G:OP1	35:BA:102:G:H4'	2.12	0.49
24:CY:282:ARG:HH21	24:CY:282:ARG:HB3	1.77	0.49
24:CY:253:HIS:CD2	24:CY:255:PRO:HG2	2.47	0.49
35:DA:2514:U:H2'	35:DA:2515:C:C6	2.47	0.49
52:BT:88:ILE:HG22	52:BT:89:VAL:CG2	2.42	0.49
57:BY:28:LYS:NZ	57:BY:37:VAL:HG11	2.28	0.49
57:DY:28:LYS:O	57:DY:29:GLU:C	2.50	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:D3:31:LEU:O	28:D3:32:GLN:HB2	2.12	0.49
42:DH:41:MET:HG3	42:DH:43:VAL:N	2.25	0.49
49:DQ:35:VAL:CG1	49:DQ:130:LYS:HB3	2.42	0.49
35:DA:1484:G:C3'	35:DA:1485:G:H5''	2.41	0.49
54:DV:18:LEU:HD22	54:DV:19:LYS:CA	2.41	0.49
45:DK:103:GLN:HA	45:DK:106:GLU:CD	2.32	0.49
51:DS:13:ARG:O	51:DS:14:VAL:HB	2.11	0.49
5:CE:105:VAL:HB	5:CE:106:PRO:CD	2.42	0.49
51:DS:85:VAL:CG2	51:DS:106:ARG:HB2	2.43	0.49
36:BB:42:C:H1'	41:BG:92:VAL:HG23	1.93	0.49
35:BA:1858:G:H2'	35:BA:1883:G:N2	2.26	0.49
35:DA:1465:G:H5'	35:DA:1528:A:H1'	1.94	0.49
54:BV:38:LEU:C	54:BV:38:LEU:CD2	2.80	0.49
24:CY:120:ILE:HG22	24:CY:120:ILE:O	2.11	0.49
51:DS:44:LYS:O	51:DS:46:VAL:HG23	2.12	0.49
1:CA:191:G:C1'	20:CT:105:SER:HB3	2.41	0.49
33:D8:7:HIS:CD2	48:DP:50:ARG:HD3	2.47	0.49
38:BD:16:MET:HE1	38:BD:208:LYS:HD3	1.93	0.49
1:CA:738:C:H5''	6:CF:69:GLU:HB2	1.95	0.49
39:BE:52:LEU:O	39:BE:74:PRO:HB3	2.13	0.49
9:CI:4:TYR:HA	9:CI:88:TYR:CZ	2.47	0.49
12:AL:26:ALA:C	12:AL:27:LEU:HD22	2.32	0.49
35:BA:1019:U:O2'	35:BA:1021:A:C2	2.50	0.49
35:BA:2360:A:O2'	35:BA:2361:A:O4'	2.27	0.49
35:BA:1658:C:OP1	39:BE:132:HIS:CE1	2.65	0.49
42:BH:80:SER:O	42:BH:81:GLU:CB	2.59	0.49
35:BA:2810:A:H1'	39:BE:61:ARG:NH1	2.26	0.49
35:BA:363(F):A:O2'	35:BA:364:C:H6	1.95	0.49
4:AD:119:GLN:O	4:AD:123:HIS:CD2	2.65	0.49
33:D8:32:LEU:HB2	33:D8:36:LYS:HD2	1.93	0.49
52:BT:53:ARG:CZ	52:BT:53:ARG:HB3	2.41	0.49
39:BE:185:LYS:O	39:BE:186:GLY:O	2.30	0.49
6:AF:99:ALA:O	6:AF:100:ASN:HB2	2.12	0.49
5:CE:73:ASN:HD22	5:CE:73:ASN:N	2.10	0.49
1:AA:1251:A:H2'	1:AA:1252:A:C8	2.46	0.49
35:DA:11:G:O2'	35:DA:12:U:H5'	2.12	0.49
7:AG:148:ASN:O	7:AG:150:ALA:N	2.44	0.49
1:AA:1250:A:H2	1:AA:1370:G:H1'	1.76	0.49
1:AA:1242:C:H5''	21:AU:10:ARG:NH1	2.27	0.49
24:CY:132:TRP:CE3	24:CY:135:MET:HB2	2.46	0.49
3:CC:91:LEU:C	3:CC:93:LYS:H	2.16	0.49
35:DA:512:G:O2'	35:DA:513:A:P	2.70	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:1316:U:H2'	35:DA:1317:A:H8	1.76	0.49
8:AH:65:TYR:N	8:AH:65:TYR:CD1	2.79	0.49
22:CV:12:U:H2'	22:CV:13:C:H5''	1.94	0.49
42:DH:85:LYS:HE2	42:DH:85:LYS:C	2.32	0.49
42:DH:85:LYS:HE2	42:DH:86:GLU:N	2.27	0.49
49:BQ:118:LEU:HD12	49:BQ:131:ILE:CG2	2.42	0.49
1:CA:573:A:N3	1:CA:883:C:O2'	2.43	0.49
1:CA:712:A:O2'	1:CA:713:G:H5'	2.12	0.49
1:CA:881:G:OP2	12:CL:12:ARG:NH2	2.45	0.49
1:AA:42:G:H2'	1:AA:43:C:C6	2.47	0.49
11:CK:126:ARG:NH1	11:CK:126:ARG:HB3	2.27	0.49
44:DJ:99:UNK:O	44:DJ:100:UNK:C	2.60	0.49
35:DA:80:G:O2'	35:DA:81:G:H5'	2.12	0.49
40:DF:110:LEU:HD13	40:DF:202:PHE:CE1	2.48	0.49
1:AA:859:A:H2'	1:AA:860:A:O4'	2.12	0.49
35:DA:2774:C:H2'	35:DA:2775:A:O4'	2.11	0.49
35:BA:2082:A:H2'	35:BA:2083:G:O4'	2.13	0.49
3:CC:147:LYS:HD2	3:CC:204:LEU:O	2.11	0.49
24:CY:303:ARG:NH2	35:DA:1914:C:C1'	2.18	0.49
42:BH:13:LYS:CA	42:BH:13:LYS:HE2	2.24	0.49
40:DF:18:ARG:NH1	40:DF:199:TRP:HE3	2.10	0.49
58:BZ:125:LEU:C	58:BZ:125:LEU:HD23	2.33	0.49
13:AM:112:GLY:HA2	13:AM:113:PRO:CG	2.43	0.49
13:AM:89:GLY:O	13:AM:92:HIS:HB2	2.13	0.49
35:BA:158:U:C2'	35:BA:158:U:O2	2.60	0.49
1:CA:1226:C:OP1	13:CM:91:ARG:NH1	2.45	0.49
41:DG:114:ILE:HG22	41:DG:115:ARG:N	2.27	0.49
35:DA:2876:G:H4'	52:DT:3:ARG:HD3	1.93	0.49
29:B4:28:LYS:O	29:B4:30:GLU:N	2.43	0.49
41:BG:139:LEU:HA	41:BG:144:ILE:CG2	2.42	0.49
4:CD:9:CYS:HB3	4:CD:32:ALA:CB	2.42	0.49
3:CC:150:LYS:HG3	3:CC:169:ALA:HB2	1.94	0.49
1:AA:368:U:C6	43:DI:90:GLY:HA2	2.47	0.49
35:DA:363:G:H2'	35:DA:363(A):A:H8	1.77	0.49
4:AD:176:LEU:HG	4:AD:177:ASP:N	2.12	0.49
13:CM:123:ALA:CB	24:CY:162:ALA:HB2	2.42	0.49
1:AA:1127:G:N2	1:AA:1147:C:H41	2.08	0.49
51:DS:42:ASP:C	51:DS:44:LYS:N	2.66	0.49
47:DO:104:ARG:CZ	52:DT:33:LYS:HD2	2.42	0.49
54:BV:2:PHE:O	54:BV:3:ALA:HB3	2.12	0.49
5:AE:51:VAL:HB	5:AE:52:PRO:CD	2.36	0.49
35:BA:2108:C:OP2	37:BC:3:LYS:HE2	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:509:A:H5''	4:CD:55:ALA:HB2	1.93	0.49
1:AA:511:C:H1'	4:AD:43:HIS:HE2	1.76	0.49
38:BD:270:ILE:O	38:BD:271:ILE:HG23	2.12	0.49
24:AY:54:ARG:CB	24:AY:54:ARG:HH21	2.25	0.49
52:DT:41:ARG:NH2	52:DT:43:GLN:HA	2.26	0.49
42:BH:80:SER:O	42:BH:81:GLU:HB2	2.11	0.49
24:CY:85:GLU:HA	24:CY:88:LYS:HG2	1.94	0.49
1:CA:61:G:H2'	1:CA:62:U:O4'	2.13	0.49
5:AE:73:ASN:HD22	5:AE:73:ASN:N	2.09	0.49
3:AC:77:ILE:HA	3:AC:84:ILE:HB	1.95	0.49
5:AE:152:ARG:HD3	8:AH:42:GLU:O	2.12	0.49
1:AA:1053:G:O6	1:AA:1199:U:H2'	2.12	0.49
37:BC:208:THR:HB	37:BC:211:ARG:HG3	1.93	0.49
1:AA:1071:C:H2'	1:AA:1072:G:C8	2.45	0.49
19:AS:58:VAL:HG21	19:AS:75:ALA:HB2	1.94	0.49
24:AY:6:LEU:HD22	24:AY:9:ARG:HD2	1.94	0.49
2:AB:212:GLN:NE2	2:AB:216:SER:HB2	2.27	0.49
1:AA:1490:C:O2'	1:AA:1491:G:H5'	2.12	0.49
27:D2:28:LYS:HD3	27:D2:56:GLN:NE2	2.28	0.49
35:DA:2553:G:H3'	35:DA:2554:U:H5''	1.94	0.49
35:BA:478:A:N1	35:BA:500:G:H4'	2.27	0.49
2:AB:180:LEU:C	2:AB:182:ILE:H	2.16	0.49
2:AB:182:ILE:HG22	2:AB:183:PRO:O	2.12	0.49
35:BA:1026:U:C2'	35:BA:1027:A:H5'	2.42	0.49
35:DA:1094:U:H1'	35:DA:1097:U:H5	1.77	0.49
35:DA:1218:C:H42	35:DA:1231:G:H1	1.60	0.49
35:BA:1801:G:OP2	38:BD:154:LYS:HE2	2.12	0.49
25:D0:83:PRO:C	25:D0:85:ALA:H	2.15	0.49
42:BH:56:SER:HB2	42:BH:61:HIS:ND1	2.27	0.49
35:BA:35:G:H2'	35:BA:36:G:O4'	2.12	0.49
39:DE:1:MET:HB3	39:DE:200:GLU:OE1	2.12	0.49
10:CJ:40:LEU:N	10:CJ:69:ASN:O	2.45	0.49
14:CN:31:ARG:HH11	14:CN:31:ARG:HG3	1.77	0.49
24:CY:228:ARG:O	24:CY:228:ARG:HD2	2.12	0.49
55:DW:99:ARG:HG2	55:DW:99:ARG:HH11	1.78	0.49
1:AA:280:C:O2	17:AQ:38:ARG:HG3	2.12	0.49
1:CA:696:A:O2'	1:CA:697:U:H5'	2.12	0.49
31:D6:48:VAL:O	31:D6:49:HIS:CB	2.59	0.49
57:BY:97:ARG:O	57:BY:98:VAL:HB	2.12	0.49
58:BZ:163:LEU:HD12	58:BZ:165:VAL:CG2	2.42	0.49
35:BA:1048:A:N6	35:BA:1053:C:H42	2.11	0.49
2:AB:93:VAL:HG11	2:AB:97:TRP:CD1	2.47	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:BS:58:LEU:HG	51:BS:59:LYS:H	1.77	0.49
51:DS:28:VAL:O	51:DS:89:ARG:HD2	2.13	0.49
37:DC:51:ASP:HB3	37:DC:54:ARG:CG	2.42	0.49
24:AY:120:ILE:HG13	24:AY:208:VAL:HG22	1.94	0.49
41:DG:46:ALA:O	41:DG:47:LYS:C	2.50	0.49
13:AM:125:ARG:CB	24:AY:159:GLY:HA3	2.42	0.49
1:CA:1107:C:C3'	1:CA:1108:G:H5''	2.42	0.49
35:DA:272(H):C:C2'	35:DA:272(I):U:H5''	2.42	0.49
13:CM:120:LYS:HE2	13:CM:122:LYS:HZ2	1.77	0.49
43:DI:111:PRO:HD2	43:DI:112:LYS:HZ2	1.77	0.49
35:BA:272(H):C:C2'	35:BA:272(I):U:H5''	2.42	0.49
15:AO:63:ARG:NH1	15:AO:87:ILE:HG21	2.27	0.49
52:DT:65:LYS:HA	52:DT:65:LYS:NZ	2.28	0.49
51:DS:58:LEU:HG	51:DS:59:LYS:H	1.77	0.49
9:AI:65:VAL:HG21	9:AI:73:GLN:CB	2.33	0.49
48:DP:107:LYS:C	48:DP:109:GLY:H	2.15	0.49
1:AA:1372:U:OP1	9:AI:72:GLY:N	2.44	0.49
31:B6:15:GLU:O	31:B6:15:GLU:HG2	2.12	0.49
5:CE:76:ILE:HG13	5:CE:142:LEU:CD1	2.40	0.49
48:DP:23:PRO:HB2	48:DP:33:ARG:CG	2.43	0.49
48:DP:23:PRO:HD2	48:DP:33:ARG:HE	1.77	0.49
35:DA:2360:A:O2'	35:DA:2361:A:O5'	2.30	0.49
57:BY:62:GLU:HG2	57:BY:63:LYS:N	2.26	0.49
1:CA:1026:G:C3'	1:CA:1027:C:H5'	2.42	0.49
35:BA:1021:A:C3'	35:BA:1021:A:C8	2.94	0.49
2:AB:142:LEU:HA	2:AB:145:LEU:HB2	1.94	0.49
2:CB:54:THR:HG21	2:CB:201:ILE:CD1	2.42	0.49
1:CA:926:G:H21	1:CA:1505:G:H2'	1.77	0.49
12:CL:41:ARG:HD3	12:CL:42:THR:C	2.33	0.49
1:AA:600:C:O2'	1:AA:601:C:H5'	2.13	0.49
43:BI:71:ILE:CG1	43:BI:72:LEU:N	2.74	0.49
24:AY:278:ILE:O	24:AY:281:ALA:HB3	2.13	0.49
1:CA:433:C:H2'	1:CA:434:U:H6	1.77	0.49
24:CY:223:LYS:O	24:CY:225:GLU:N	2.45	0.49
1:AA:1392:G:O2'	1:AA:1393:U:H5'	2.13	0.49
35:BA:1336:A:OP1	56:BX:64:LYS:HE3	2.12	0.49
1:CA:1014:A:H2'	1:CA:1015:A:C8	2.47	0.49
1:AA:833:U:H2'	1:AA:834:C:H6	1.76	0.49
1:AA:985:C:H42	1:AA:1220:G:H1	1.61	0.49
19:AS:53:ASN:HD22	19:AS:58:VAL:CG1	2.26	0.49
45:DK:90:LYS:NZ	45:DK:90:LYS:HB3	2.27	0.49
24:CY:276:LEU:O	24:CY:280:LYS:HG3	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:DK:8:VAL:CG2	45:DK:57:ILE:HB	2.42	0.49
42:BH:83:TYR:O	42:BH:84:SER:HB3	2.13	0.49
4:AD:4:TYR:O	4:AD:5:ILE:HB	2.13	0.49
42:DH:84:SER:O	42:DH:133:VAL:O	2.29	0.49
18:AR:25:THR:O	18:AR:25:THR:HG22	2.13	0.49
1:CA:542:G:OP1	4:CD:10:ARG:NH2	2.46	0.49
6:AF:33:TYR:CE2	6:AF:74:ASP:HB2	2.47	0.49
47:BO:2:ILE:HD12	47:BO:6:THR:HG21	1.95	0.49
37:DC:184:GLU:C	37:DC:185:LYS:HE3	2.33	0.49
1:CA:1166:G:H2'	1:CA:1169:A:OP2	2.12	0.49
28:D3:52:HIS:CG	36:DB:83:G:H4'	2.46	0.49
26:D1:61:ARG:HG3	26:D1:61:ARG:NH1	2.27	0.49
7:AG:101:LEU:O	7:AG:105:VAL:HG23	2.12	0.49
1:AA:751:U:H2'	1:AA:752:G:H5'	1.93	0.49
35:DA:2267:A:H5''	35:DA:2268:A:H5'	1.94	0.49
38:DD:3:VAL:HG23	38:DD:200:ASP:OD2	2.12	0.49
1:CA:22:G:O2'	1:CA:23:C:H5'	2.12	0.49
41:BG:145:THR:OG1	41:BG:146:TYR:N	2.43	0.49
40:BF:200:GLU:HA	40:BF:200:GLU:OE1	2.12	0.49
52:DT:112:ARG:HH21	52:DT:113:LYS:HE2	1.77	0.49
24:CY:306:GLU:HG3	24:CY:307:TRP:N	2.27	0.49
57:BY:7:VAL:HG21	57:BY:8:LYS:HZ1	1.78	0.49
57:DY:95:LYS:HE2	57:DY:100:ALA:HB2	1.93	0.49
40:BF:116:ASP:O	40:BF:120:GLU:HG3	2.12	0.49
58:DZ:153:SER:OG	58:DZ:157:LEU:HD11	2.11	0.49
58:DZ:163:LEU:HG	58:DZ:164:ALA:N	2.27	0.49
51:BS:13:ARG:O	51:BS:14:VAL:HB	2.13	0.49
45:BK:99:ILE:HA	45:BK:103:GLN:HG2	1.94	0.49
6:CF:26:ILE:O	6:CF:29:ALA:HB3	2.12	0.49
10:AJ:50:ILE:CD1	14:AN:41:ARG:HD3	2.43	0.49
53:BU:61:TRP:CH2	53:BU:94:ASN:HB2	2.47	0.49
53:DU:91:ASP:OD2	53:DU:96:ALA:HB2	2.12	0.49
35:DA:1858:G:H2'	35:DA:1883:G:N2	2.27	0.49
35:DA:2287:A:C2	35:DA:2346:A:N1	2.81	0.49
58:DZ:30:ASN:ND2	58:DZ:90:VAL:HG12	2.28	0.49
20:AT:57:ARG:CZ	20:AT:100:ILE:HG12	2.42	0.49
57:DY:17:SER:CB	57:DY:71:LYS:HE2	2.32	0.49
46:DN:133:GLN:O	46:DN:134:ARG:CB	2.60	0.49
45:DK:18:THR:H	45:DK:19:PRO:HD2	1.77	0.49
35:DA:2732:G:O2'	35:DA:2733:A:H5'	2.13	0.49
35:DA:1216:G:P	53:DU:12:ARG:HH21	2.35	0.49
35:DA:1227:G:OP1	53:DU:13:LYS:CD	2.61	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
57:BY:63:LYS:HG2	57:BY:64:GLU:N	2.26	0.49
41:BG:19:LEU:HD21	41:BG:171:ALA:HB1	1.94	0.49
3:AC:119:ARG:HG3	3:AC:119:ARG:NH1	2.27	0.49
49:DQ:141:GLN:HB3	58:DZ:99:TYR:HE2	1.74	0.49
24:CY:72:LEU:HD22	24:CY:91:LEU:HG	1.94	0.49
35:BA:2190:G:O2'	35:BA:2191:G:H5'	2.12	0.49
16:CP:51:VAL:O	16:CP:53:VAL:N	2.45	0.49
16:CP:67:THR:HB	16:CP:70:ALA:CB	2.42	0.49
17:CQ:7:THR:HG22	17:CQ:58:GLU:CG	2.40	0.49
12:CL:22:SER:O	12:CL:24:VAL:N	2.46	0.49
13:CM:19:LEU:CA	13:CM:22:ILE:HD13	2.41	0.49
57:DY:101:LYS:CG	57:DY:102:CYS:N	2.70	0.49
39:BE:101:ARG:CB	39:BE:201:THR:HG21	2.43	0.49
1:CA:1379:G:O2'	1:CA:1380:U:H5'	2.13	0.49
40:DF:178:PRO:HB2	40:DF:201:VAL:CG1	2.42	0.49
24:CY:119:THR:CG2	24:CY:166:TYR:CE1	2.95	0.49
3:CC:95:THR:HG22	3:CC:97:LYS:H	1.78	0.49
1:CA:189(J):G:O2'	1:CA:189(K):U:H5'	2.13	0.49
35:DA:709:U:H3	35:DA:722:A:H61	1.61	0.49
1:CA:176:C:O2'	1:CA:177:C:H5'	2.12	0.49
4:AD:52:SER:O	4:AD:53:ASP:C	2.50	0.49
1:CA:546:G:OP1	4:CD:73:ARG:HB2	2.11	0.49
8:AH:12:ARG:NH1	8:AH:27:PRO:HD2	2.28	0.49
24:CY:149:PHE:CD1	24:CY:173:GLY:HA3	2.48	0.49
1:CA:1040:U:H2'	1:CA:1041:A:H8	1.77	0.49
5:AE:20:GLN:O	5:AE:23:GLY:O	2.31	0.49
2:CB:180:LEU:O	2:CB:182:ILE:N	2.45	0.49
58:BZ:29:TYR:HB3	58:BZ:34:ASN:HB2	1.95	0.49
35:BA:1445:A:O2'	35:BA:1445(A):C:H5'	2.13	0.49
32:D7:22:MET:O	32:D7:28:ARG:NH1	2.46	0.49
43:BI:80:PRO:HA	43:BI:143:SER:OG	2.11	0.49
28:B3:2:PRO:O	28:B3:39:ASP:HB2	2.12	0.49
1:CA:857:C:H2'	1:CA:858:G:O4'	2.12	0.49
3:CC:79:ARG:HG3	3:CC:79:ARG:HH11	1.77	0.49
40:DF:200:GLU:OE1	40:DF:200:GLU:HA	2.12	0.49
57:DY:95:LYS:CG	57:DY:100:ALA:HA	2.24	0.49
40:BF:199:TRP:O	40:BF:203:GLN:HG2	2.12	0.49
40:BF:7:TYR:O	40:BF:8:GLN:HB2	2.12	0.49
57:DY:29:GLU:OE1	57:DY:29:GLU:N	2.44	0.49
35:DA:1591:G:C8	35:DA:1591:G:H5'	2.48	0.49
57:BY:95:LYS:HE2	57:BY:100:ALA:HB2	1.94	0.49
22:CV:76:8AN:O1P	22:CV:76:8AN:H4'	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:AW:16:U:C3'	22:AW:17:C:H5'	2.29	0.49
36:BB:42:C:H4'	41:BG:67:LYS:O	2.12	0.49
1:CA:1442(B):A:N7	52:DT:118:ARG:HD3	2.27	0.49
1:CA:1126:U:O2'	1:CA:1127:G:H5'	2.12	0.49
41:DG:86:MET:N	41:DG:87:PRO:CD	2.66	0.49
24:CY:27:LYS:HE3	24:CY:31:ARG:NH2	2.28	0.49
12:CL:18:VAL:O	12:CL:19:ARG:HB3	2.12	0.49
22:AV:29:G:H1	22:AV:41:C:H42	1.61	0.49
48:DP:23:PRO:HD2	48:DP:33:ARG:NE	2.28	0.49
42:DH:127:GLU:HB3	42:DH:128:PRO:HD2	1.95	0.49
18:AR:50:ILE:CD1	18:AR:70:ILE:HG21	2.41	0.49
43:BI:49:ALA:HA	43:BI:52:ARG:HG2	1.93	0.49
48:DP:16:ARG:HD3	48:DP:18:ARG:N	2.24	0.49
53:DU:8:VAL:HG23	53:DU:11:ARG:NH2	2.24	0.49
42:DH:103:LEU:HB2	42:DH:123:PHE:CD1	2.48	0.49
16:CP:13:HIS:C	16:CP:15:PRO:HD3	2.33	0.49
35:BA:482:A:H4'	57:BY:47:LYS:HE2	1.95	0.49
33:D8:39:LYS:HE3	35:DA:2365:G:O6	2.12	0.49
13:AM:48:LEU:HG	13:AM:53:VAL:HG22	1.94	0.49
35:BA:1357:U:H2'	35:BA:1358:G:O4'	2.12	0.49
9:CI:104:ARG:O	9:CI:104:ARG:HG2	2.13	0.49
41:BG:81:LYS:O	41:BG:82:LEU:HB2	2.12	0.49
35:BA:2311:A:H2	41:BG:82:LEU:HD12	1.76	0.49
1:AA:1379:G:O2'	1:AA:1380:U:H5'	2.12	0.49
40:BF:160:ASN:HD21	40:BF:162:LEU:HB2	1.76	0.49
1:CA:1096:C:H2'	1:CA:1097:C:C6	2.48	0.49
40:DF:65:TRP:HZ3	40:DF:73:ALA:O	1.96	0.49
58:BZ:130:PRO:C	58:BZ:132:ASN:N	2.64	0.49
58:DZ:56:VAL:HA	58:DZ:70:LEU:HD23	1.94	0.49
41:BG:170:ARG:HH21	41:BG:182:LYS:NZ	2.11	0.49
14:AN:9:LYS:HG3	14:AN:12:ARG:HH22	1.78	0.49
4:AD:61:LYS:NZ	4:AD:72:GLU:OE2	2.45	0.49
26:D1:45:ASN:ND2	35:DA:2090:G:H21	2.11	0.49
39:DE:134:ILE:C	39:DE:134:ILE:CD1	2.81	0.49
4:CD:57:ARG:NH2	5:CE:107:ARG:HD3	2.27	0.49
35:BA:1419:A:H2'	35:BA:1421:G:N7	2.27	0.49
35:BA:66:C:H2'	35:BA:67:U:C6	2.47	0.49
35:DA:643:A:N1	35:DA:2369:A:O2'	2.39	0.49
23:CX:15:A:H5''	23:CX:15:A:N3	2.26	0.49
38:BD:45:ASN:OD1	38:BD:46:GLN:N	2.46	0.49
35:DA:102:G:H4'	35:DA:102:G:OP1	2.12	0.49
35:DA:986:C:O2'	35:DA:987:G:H5'	2.13	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:2693:A:H2'	35:DA:2694:G:H8	1.78	0.49
1:AA:1207:G:O2'	1:AA:1208:C:H5'	2.12	0.49
12:AL:111:LYS:HG2	12:AL:112:ASP:N	2.28	0.49
35:BA:862:G:H2'	35:BA:863:A:O4'	2.13	0.49
1:AA:139:G:H2'	1:AA:140:A:H8	1.77	0.49
35:DA:2772:C:H2'	35:DA:2773:C:C6	2.47	0.49
1:AA:1088:G:H2'	1:AA:1089:G:H8	1.76	0.49
35:DA:862:G:H2'	35:DA:863:A:O4'	2.13	0.49
52:DT:78:LEU:HB3	52:DT:79:HIS:CE1	2.48	0.49
57:BY:26:LYS:HG3	57:BY:27:VAL:HG23	1.94	0.49
57:BY:13:VAL:CG1	57:BY:28:LYS:HD3	2.41	0.49
57:BY:28:LYS:O	57:BY:29:GLU:C	2.51	0.49
35:DA:773:U:H4'	38:DD:47:GLY:HA3	1.94	0.49
51:BS:33:LYS:HB3	51:BS:34:HIS:CD2	2.48	0.49
45:BK:98:ARG:HH21	45:BK:139:VAL:HG22	1.77	0.49
35:BA:2659:G:C2	35:BA:2661:G:H8	2.30	0.49
35:BA:1493:C:C4	35:BA:2206:G:O2'	2.65	0.49
41:BG:60:LEU:HD12	41:BG:68:PRO:HB3	1.94	0.49
35:BA:1885:A:H3'	35:BA:1886:C:H6	1.78	0.49
52:DT:122:ASP:O	52:DT:125:ARG:HB2	2.13	0.49
43:DI:88:ILE:C	43:DI:90:GLY:H	2.14	0.49
54:DV:46:VAL:CG1	54:DV:47:VAL:H	2.26	0.49
1:CA:1127:G:N2	1:CA:1147:C:H41	2.07	0.49
35:BA:1539:G:H2'	35:BA:1540:U:H5'	1.94	0.49
39:DE:110:GLY:O	50:DR:2:ARG:HD3	2.13	0.49
39:DE:111:ARG:CG	50:DR:2:ARG:HG2	2.42	0.49
3:AC:11:ARG:HG2	3:AC:11:ARG:HH11	1.77	0.49
45:BK:27:LEU:O	45:BK:32:ALA:HB2	2.12	0.49
45:BK:38:VAL:CG2	45:BK:39:LYS:H	2.24	0.49
41:DG:72:ARG:C	41:DG:87:PRO:HB2	2.33	0.49
36:DB:8:U:O2'	51:DS:40:ILE:HD13	2.12	0.49
20:CT:89:ARG:HB2	20:CT:104:LEU:HD11	1.94	0.49
45:DK:27:LEU:O	45:DK:32:ALA:HB2	2.12	0.49
31:B6:17:LYS:HB2	31:B6:18:ARG:HH12	1.78	0.49
5:AE:7:GLU:O	5:AE:8:GLU:HB3	2.12	0.49
38:DD:72:LYS:HE3	38:DD:101:GLU:OE2	2.12	0.49
22:CV:50:U:H3	22:CV:64:A:N6	2.10	0.49
36:BB:78:A:H2'	36:BB:79:C:O4'	2.12	0.49
18:CR:50:ILE:CD1	18:CR:70:ILE:HG21	2.43	0.49
38:BD:34:VAL:O	38:BD:64:ILE:CG2	2.57	0.49
58:DZ:98:MET:O	58:DZ:125:LEU:HA	2.13	0.49
7:CG:79:ARG:HG3	7:CG:83:ALA:O	2.13	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:B6:25:LYS:HZ1	35:BA:2284:C:H41	1.58	0.49
40:DF:107:LYS:N	40:DF:107:LYS:HZ3	2.10	0.49
57:BY:20:TYR:CE1	57:BY:42:VAL:HA	2.47	0.49
9:AI:112:LYS:HD3	9:AI:112:LYS:C	2.32	0.49
9:CI:112:LYS:C	9:CI:112:LYS:HD3	2.33	0.49
1:CA:1112:C:H1'	3:CC:179:ARG:CD	2.42	0.49
1:AA:1030(D):A:C2'	1:AA:1031:G:H5'	2.42	0.49
13:CM:65:LYS:NZ	13:CM:70:LEU:HD23	2.27	0.49
35:DA:719:C:O2'	35:DA:720:C:H5'	2.13	0.49
11:CK:124:LYS:HZ3	11:CK:125:PHE:HE1	1.60	0.49
27:B2:53:LEU:O	27:B2:57:ILE:HG13	2.11	0.49
35:BA:882:G:H2'	35:BA:883:G:H8	1.78	0.49
42:DH:85:LYS:HD3	42:DH:133:VAL:HB	1.95	0.49
35:DA:2123:G:O2'	35:DA:2124:G:H5'	2.12	0.49
4:CD:173:TRP:CE3	4:CD:193:ASP:HB3	2.48	0.49
1:AA:977:A:C2'	1:AA:978:A:H5'	2.42	0.49
35:BA:539:G:H2'	35:BA:540:C:C6	2.46	0.49
1:CA:599:C:H4'	8:CH:130:GLY:CA	2.43	0.49
2:AB:73:THR:HG22	2:AB:95:GLN:O	2.12	0.49
35:DA:923:C:H2'	35:DA:924:C:C6	2.48	0.49
1:AA:1463:C:O2'	1:AA:1464:G:H5'	2.13	0.49
1:AA:892:A:O2'	1:AA:1415:G:H4'	2.13	0.49
1:CA:583:A:H2'	1:CA:584:G:O4'	2.13	0.49
35:BA:2033:A:H4'	35:BA:2034:U:OP1	2.12	0.49
20:AT:63:ILE:HG23	20:AT:72:LEU:HD13	1.93	0.49
41:DG:144:ILE:HG22	41:DG:145:THR:N	2.27	0.49
26:B1:83:GLU:CD	26:B1:83:GLU:N	2.66	0.49
35:BA:1889:A:O2'	35:BA:2087:G:H5'	2.12	0.49
1:CA:139:G:H2'	1:CA:140:A:H8	1.78	0.49
31:D6:17:LYS:HB2	31:D6:18:ARG:HH12	1.77	0.49
35:DA:1854:A:H2'	35:DA:1855:G:O4'	2.13	0.49
41:DG:114:ILE:HG12	41:DG:140:ILE:HD12	1.94	0.49
45:BK:115:LEU:O	45:BK:116:ASN:CB	2.61	0.49
45:BK:52:ILE:HD13	45:BK:73:PRO:HD2	1.94	0.49
35:DA:654(D):G:H22	35:DA:654(P):C:H42	1.60	0.49
35:BA:1827:C:O2'	35:BA:1828:G:H5'	2.13	0.49
35:BA:141:A:C8	35:BA:1408:C:O2'	2.35	0.49
35:BA:1171:G:H1	35:BA:1178:C:H42	1.61	0.49
24:CY:137:LEU:C	24:CY:137:LEU:HD23	2.32	0.49
35:DA:2287:A:N6	35:DA:2344:U:N3	2.58	0.49
35:DA:1042:G:H5'	35:DA:1043:C:OP2	2.13	0.49
1:CA:656:C:H2'	1:CA:657:G:H8	1.78	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:B6:31:PRO:HD2	35:BA:2286:A:OP1	2.12	0.49
35:DA:2646:C:OP2	35:DA:2732:G:O2'	2.19	0.49
1:CA:865:A:H2	1:CA:918:A:H4'	1.78	0.49
10:AJ:33:GLN:N	10:AJ:75:ILE:HD11	2.26	0.49
27:D2:15:LYS:HG3	27:D2:15:LYS:O	2.13	0.49
33:B8:53:PRO:CA	33:B8:56:GLU:HB3	2.36	0.49
31:B6:16:CYS:O	31:B6:17:LYS:CB	2.60	0.49
9:CI:20:ARG:HH11	9:CI:20:ARG:HG3	1.77	0.49
1:CA:1288:A:H2'	1:CA:1289:A:H8	1.78	0.49
2:CB:187:LEU:CD1	2:CB:205:ASP:HA	2.43	0.49
52:BT:41:ARG:HH21	52:BT:43:GLN:HG3	1.76	0.49
8:CH:91:ARG:NH1	8:CH:91:ARG:HG2	2.24	0.49
16:AP:21:VAL:HG12	16:AP:34:GLU:O	2.13	0.49
13:CM:43:THR:O	13:CM:44:ARG:HD3	2.13	0.49
55:BW:65:LEU:HD22	55:BW:68:ARG:HD3	1.94	0.49
26:D1:84:GLY:O	26:D1:85:LEU:C	2.51	0.49
36:DB:76:G:O3'	58:DZ:19:ARG:NH2	2.46	0.49
35:BA:2726:U:H6	47:BO:67:LYS:HZ3	1.61	0.49
19:CS:40:ILE:HG21	19:CS:62:ILE:CD1	2.43	0.49
1:CA:438:G:H2'	1:CA:494:U:O4	2.12	0.49
1:AA:438:G:C4'	1:AA:439:A:OP1	2.59	0.49
39:BE:33:VAL:HG23	39:BE:47:VAL:CG2	2.43	0.49
35:DA:27:G:N2	35:DA:512:G:C2'	2.76	0.49
18:CR:30:ASP:OD1	18:CR:32:ARG:HB2	2.12	0.49
1:CA:832:C:O2'	1:CA:833:U:H6	1.95	0.49
47:BO:89:ASN:O	47:BO:91:LEU:HD22	2.12	0.49
1:AA:115:G:H1'	1:AA:116:A:N7	2.28	0.49
1:AA:105:G:H2'	1:AA:106:C:C6	2.48	0.49
35:DA:2712:U:O2'	35:DA:2713:A:H5'	2.13	0.49
35:BA:2762:G:C2'	35:BA:2763:G:H5'	2.43	0.49
1:CA:115:G:H1'	1:CA:116:A:N7	2.27	0.49
35:BA:633:A:C2'	35:BA:634:C:H5'	2.42	0.49
1:CA:302:G:N3	1:CA:556:C:H4'	2.28	0.49
42:DH:124:GLU:HG3	42:DH:132:ARG:HG3	1.93	0.49
1:AA:176:C:O2'	1:AA:177:C:H5'	2.13	0.49
19:CS:58:VAL:HG23	19:CS:58:VAL:O	2.12	0.49
38:BD:166:GLN:CA	38:BD:166:GLN:NE2	2.74	0.49
35:DA:2030:A:H4'	35:DA:2031:A:C8	2.47	0.49
15:AO:56:LEU:HD21	35:BA:715:G:C2	2.47	0.49
35:DA:1602:U:H3'	35:DA:1603:A:C5'	2.43	0.49
35:DA:1603:A:H5'	35:DA:1603:A:H8	1.77	0.49
49:BQ:78:PRO:HB2	49:BQ:81:VAL:HG11	1.94	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DE:16:ARG:O	39:DE:18:ASP:N	2.43	0.49
39:BE:38:THR:OG1	39:BE:41:LYS:HE2	2.13	0.49
36:BB:49:C:O2'	36:BB:50:G:H5'	2.13	0.49
35:DA:2855:C:O2'	35:DA:2856:C:H5'	2.13	0.49
1:CA:760:G:H2'	1:CA:761:G:H5'	1.95	0.49
2:CB:28:PHE:HD1	2:CB:28:PHE:O	1.95	0.49
35:BA:392:C:H5''	35:BA:409:C:H5''	1.95	0.49
58:BZ:24:LEU:HD23	58:BZ:25:PRO:N	2.28	0.49
24:CY:186:VAL:HG13	24:CY:305:ILE:HD13	1.94	0.49
45:DK:77:LEU:HB3	45:DK:107:ILE:HD13	1.95	0.49
45:DK:84:LEU:H	45:DK:84:LEU:CD2	2.25	0.49
45:DK:95:LYS:N	45:DK:95:LYS:CD	2.75	0.49
38:DD:218:ARG:HG3	38:DD:218:ARG:HH11	1.78	0.49
58:BZ:150:LEU:HD21	58:BZ:171:ILE:CD1	2.43	0.49
35:BA:1109:C:C2'	35:BA:1110:G:H5'	2.42	0.49
35:DA:1048:A:N1	35:DA:1108:U:O4	2.45	0.49
19:CS:73:GLU:HG2	19:CS:73:GLU:O	2.12	0.49
36:BB:7:G:H4'	51:BS:29:PHE:CD1	2.47	0.49
24:CY:242:VAL:O	24:CY:243:ASN:C	2.51	0.49
22:AW:55:U:HO2'	22:AW:56:C:H5	1.56	0.49
35:DA:1493:C:C4	35:DA:2206:G:O2'	2.65	0.49
41:BG:93:THR:HG22	41:BG:94:LEU:N	2.27	0.49
32:D7:8:ASN:C	32:D7:8:ASN:HD22	2.16	0.49
22:CW:31:A:C2'	22:CW:32:U:H5'	2.43	0.49
35:DA:1543:C:C3'	35:DA:1544:A:H5''	2.34	0.49
39:DE:78:LEU:C	39:DE:79:ARG:HD2	2.33	0.49
1:CA:1116:C:H2'	1:CA:1117:G:C5'	2.30	0.49
50:BR:2:ARG:HB2	50:BR:5:LYS:CE	2.43	0.49
46:DN:1:MET:CG	46:DN:2:LYS:N	2.72	0.49
39:DE:108:SER:O	39:DE:162:ALA:HA	2.12	0.49
33:D8:54:GLU:O	33:D8:58:ILE:HG12	2.12	0.49
6:AF:4:TYR:HA	6:AF:91:VAL:O	2.12	0.49
35:DA:2732:G:C2'	35:DA:2733:A:H5'	2.43	0.49
1:AA:926:G:C6	1:AA:1505:G:C6	3.01	0.49
48:BP:101:VAL:HG23	48:BP:102:ARG:N	2.28	0.49
35:DA:1678:G:H22	35:DA:1989:G:H22	1.54	0.49
10:AJ:29:ARG:HG2	10:AJ:29:ARG:NH1	2.27	0.49
35:BA:16:G:O2'	35:BA:17:G:H5'	2.13	0.49
38:DD:131:LEU:HA	38:DD:190:TYR:CE2	2.48	0.49
1:AA:1418:A:H2	35:BA:1948:G:N3	2.10	0.49
18:AR:74:ARG:HA	18:AR:79:LEU:O	2.13	0.49
35:DA:2150:U:H2'	35:DA:2151:G:H8	1.76	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:271(K):U:H3	43:DI:50:ARG:NH1	2.11	0.49
33:B8:31:HIS:CE1	35:BA:2392:A:OP2	2.61	0.49
22:AW:49:C:H3'	22:AW:50:U:C6	2.46	0.49
38:BD:125:ILE:O	38:BD:125:ILE:HG22	2.12	0.49
42:BH:94:TYR:H	42:BH:94:TYR:HD1	1.61	0.49
42:BH:94:TYR:CD1	42:BH:94:TYR:N	2.81	0.49
3:CC:179:ARG:O	3:CC:206:GLU:HG3	2.13	0.49
1:AA:61:G:H2'	1:AA:62:U:O4'	2.13	0.49
48:BP:24:GLY:O	48:BP:25:SER:CB	2.60	0.49
30:B5:41:PRO:HG2	30:B5:44:THR:CG2	2.39	0.49
2:AB:220:ASP:C	2:AB:222:ILE:H	2.16	0.49
1:CA:438:G:C4'	1:CA:439:A:OP1	2.60	0.49
1:AA:539:A:P	12:AL:114:LYS:HD2	2.53	0.49
27:B2:2:LYS:HA	27:B2:5:GLU:CD	2.33	0.49
52:DT:67:SER:O	52:DT:68:TYR:CB	2.61	0.49
49:BQ:47:ILE:CD1	49:BQ:70:PRO:HD3	2.43	0.49
1:AA:1316:G:H5''	14:AN:17:LYS:HE3	1.93	0.49
6:AF:5:GLU:HG2	6:AF:62:TRP:HZ2	1.78	0.49
45:BK:8:VAL:CG2	45:BK:57:ILE:HB	2.43	0.49
1:AA:986:A:H2'	1:AA:987:G:C8	2.48	0.49
1:CA:984:C:H2'	1:CA:985:C:H6	1.75	0.49
35:BA:642:G:H21	35:BA:646:A:H2	1.57	0.49
6:CF:76:ALA:HB1	6:CF:80:ARG:NH2	2.28	0.49
35:BA:1076:C:H2'	35:BA:1077:A:C8	2.47	0.49
41:BG:170:ARG:HH21	41:BG:182:LYS:HZ1	1.60	0.49
35:DA:1429:G:H2'	35:DA:1430:C:C6	2.47	0.49
14:AN:12:ARG:CB	14:AN:12:ARG:HH11	2.26	0.49
26:D1:3:LYS:HG2	26:D1:4:VAL:N	2.28	0.49
4:AD:190:ASP:HB3	4:AD:193:ASP:OD2	2.13	0.49
35:DA:2498:C:O2'	35:DA:2499:C:H5'	2.13	0.49
1:AA:784:C:H2'	1:AA:785:G:H8	1.77	0.49
35:BA:1766:U:H2'	35:BA:1767:C:C6	2.48	0.49
40:DF:11:VAL:HG12	40:DF:12:LEU:N	2.27	0.49
1:CA:977:A:C2'	1:CA:978:A:H5'	2.43	0.49
42:DH:72:ILE:O	42:DH:75:ALA:HB3	2.13	0.49
43:DI:118:LYS:CG	43:DI:119:PRO:HD2	2.42	0.49
35:BA:276:A:O2'	35:BA:277:C:H5'	2.13	0.49
42:DH:56:SER:HB2	42:DH:61:HIS:ND1	2.28	0.49
39:BE:16:ARG:O	39:BE:17:ASP:HB3	2.13	0.49
4:CD:189:PRO:HB2	4:CD:194:LEU:HD21	1.94	0.49
35:DA:614:U:O2	35:DA:614:U:O4'	2.31	0.49
24:AY:49:SER:OG	35:BA:1067:A:H1'	2.13	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:CY:118:LEU:HA	24:CY:209:GLU:O	2.12	0.49
57:BY:13:VAL:HG11	57:BY:28:LYS:CD	2.42	0.49
42:DH:24:VAL:HG12	42:DH:35:VAL:O	2.13	0.49
51:BS:88:ASP:CG	51:BS:89:ARG:H	2.15	0.49
22:CW:56:C:C2	35:DA:2169:A:H2	2.31	0.49
24:CY:242:VAL:HA	24:CY:245:THR:CG2	2.43	0.49
41:DG:76:SER:HB3	41:DG:83:ARG:CG	2.42	0.49
41:BG:93:THR:O	41:BG:94:LEU:HD23	2.13	0.49
3:CC:14:ILE:CG1	3:CC:15:THR:H	2.05	0.49
52:BT:16:ARG:NH2	52:BT:82:LEU:O	2.46	0.49
1:CA:675:A:H1'	11:CK:116:HIS:CD2	2.48	0.49
4:AD:19:LEU:HD12	4:AD:19:LEU:N	2.28	0.49
4:AD:20:TYR:HD1	4:AD:20:TYR:H	1.61	0.49
35:BA:1040:C:HO2'	35:BA:1041:C:C5'	2.26	0.49
2:CB:178:ARG:HH11	2:CB:178:ARG:CG	2.26	0.49
15:AO:85:LEU:HD23	15:AO:85:LEU:O	2.13	0.49
47:DO:65:THR:OG1	47:DO:69:ILE:HD11	2.13	0.49
35:DA:252:G:OP2	48:DP:50:ARG:NH1	2.36	0.49
31:B6:19:ARG:HH21	35:BA:2401:U:H5''	1.77	0.49
1:AA:1036:G:H3'	1:AA:1037:C:C6	2.48	0.49
48:DP:34:GLY:O	48:DP:35:HIS:CG	2.65	0.49
54:BV:5:VAL:HG21	54:BV:35:LEU:CG	2.42	0.49
37:BC:30:VAL:HG11	37:BC:42:VAL:CG1	2.43	0.49
1:CA:926:G:C6	1:CA:1505:G:C5	3.01	0.49
19:CS:15:LEU:O	19:CS:19:VAL:HG23	2.13	0.49
24:AY:312:ARG:HD2	24:AY:314:TYR:OH	2.12	0.49
58:DZ:137:ILE:CD1	58:DZ:158:PRO:HG2	2.43	0.49
36:BB:103:G:H21	58:BZ:73:GLN:NE2	2.11	0.49
35:BA:2562:U:H2'	35:BA:2563:U:H5'	1.95	0.49
1:AA:376:G:OP2	16:AP:67:THR:HG21	2.13	0.49
2:CB:208:ILE:HA	2:CB:211:ILE:CD1	2.42	0.49
45:DK:55:VAL:CG2	45:DK:69:THR:HG23	2.42	0.49
20:CT:42:GLN:HE21	20:CT:42:GLN:HA	1.76	0.49
35:BA:2192:G:C3'	35:BA:2193:G:H5''	2.43	0.49
25:B0:36:ILE:HD12	25:B0:37:LEU:N	2.28	0.49
49:BQ:62:GLY:HA3	49:BQ:109:VAL:CG2	2.43	0.49
32:B7:4:THR:HG22	35:BA:687:C:C1'	2.43	0.49
54:BV:23:GLU:O	54:BV:24:LYS:C	2.50	0.49
2:CB:21:ARG:CZ	2:CB:39:ILE:HG12	2.43	0.49
1:CA:143:A:N1	1:CA:220:G:O6	2.46	0.49
1:AA:797:C:O2'	1:AA:798:G:H5'	2.13	0.49
4:AD:8:VAL:HG11	4:AD:115:ARG:CZ	2.42	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:DQ:21:THR:HG21	49:DQ:101:ARG:HB2	1.94	0.49
4:CD:8:VAL:HB	4:CD:21:LEU:HD12	1.94	0.49
35:DA:870:A:P	49:DQ:6:ARG:HH21	2.35	0.49
49:BQ:21:THR:O	49:BQ:21:THR:HG22	2.13	0.49
1:AA:335:C:H2'	1:AA:336:C:C6	2.48	0.49
4:AD:57:ARG:NH2	5:AE:107:ARG:HD3	2.27	0.49
1:AA:299:G:H2'	1:AA:300:A:C8	2.47	0.49
1:CA:1410:G:H2'	1:CA:1411:C:C6	2.48	0.49
35:DA:1386:C:H2'	35:DA:1387:C:C6	2.48	0.49
58:BZ:28:MET:O	58:BZ:34:ASN:HA	2.13	0.49
41:DG:143:GLU:O	41:DG:144:ILE:HD13	2.12	0.49
1:AA:818:G:H3'	1:AA:819:A:C5'	2.43	0.49
1:CA:1065:U:O2'	1:CA:1066:C:P	2.71	0.49
1:AA:1065:U:O2'	1:AA:1066:C:P	2.71	0.49
1:AA:1298:C:N4	7:AG:114:ARG:HB3	2.27	0.49
16:CP:55:ARG:HE	16:CP:55:ARG:HA	1.77	0.49
35:DA:843:G:O2'	35:DA:844:C:H5'	2.12	0.49
1:CA:634:C:H2'	1:CA:635:G:H8	1.77	0.49
35:DA:535:C:O2'	35:DA:536:A:H5'	2.13	0.49
1:CA:1121:U:H2'	1:CA:1122:U:C6	2.48	0.49
1:AA:681:C:O2'	1:AA:682:G:H5'	2.13	0.49
32:D7:43:THR:HG22	32:D7:44:PRO:O	2.13	0.49
42:DH:54:ARG:HH11	42:DH:65:HIS:CD2	2.31	0.49
47:BO:61:VAL:O	47:BO:61:VAL:HG13	2.13	0.49
35:BA:239:U:H2'	35:BA:240:G:O4'	2.13	0.49
38:DD:39:LYS:NZ	38:DD:60:ARG:HH11	2.11	0.49
1:AA:22:G:O2'	1:AA:23:C:H5'	2.12	0.49
40:BF:20:LEU:O	40:BF:21:ALA:O	2.30	0.48
35:DA:1048:A:N6	35:DA:1053:C:H42	2.11	0.48
52:DT:29:ARG:CD	52:DT:86:ILE:HG22	2.43	0.48
32:B7:8:ASN:ND2	32:B7:8:ASN:C	2.66	0.48
14:AN:29:ARG:HG2	14:AN:40:CYS:CB	2.43	0.48
13:AM:120:LYS:HE2	13:AM:122:LYS:NZ	2.28	0.48
13:AM:125:ARG:HD2	24:AY:165:ASP:HA	1.94	0.48
4:AD:20:TYR:HA	4:AD:26:CYS:SG	2.52	0.48
4:AD:28:SER:HB3	4:AD:30:LYS:HE2	1.95	0.48
1:AA:1128:C:C4'	9:AI:16:ARG:HH12	2.25	0.48
24:CY:27:LYS:C	24:CY:29:LEU:H	2.16	0.48
33:D8:52:LYS:H	33:D8:53:PRO:HD2	1.74	0.48
30:B5:4:HIS:HB3	30:B5:5:PRO:HD2	1.91	0.48
35:DA:2646:C:H2'	35:DA:2647:U:O4'	2.13	0.48
39:DE:6:GLY:HA2	39:DE:51:PHE:CZ	2.48	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:B6:16:CYS:SG	31:B6:48:VAL:HG22	2.53	0.48
48:DP:23:PRO:CB	48:DP:33:ARG:NE	2.72	0.48
48:BP:107:LYS:C	48:BP:109:GLY:H	2.16	0.48
9:AI:4:TYR:O	9:AI:18:PHE:HA	2.13	0.48
9:AI:20:ARG:HG3	9:AI:20:ARG:HH11	1.78	0.48
42:DH:125:VAL:HG12	42:DH:127:GLU:O	2.12	0.48
3:AC:64:VAL:O	3:AC:100:ALA:HB3	2.13	0.48
9:CI:95:LYS:HD3	9:CI:95:LYS:C	2.33	0.48
12:AL:58:VAL:O	12:AL:65:GLU:HA	2.12	0.48
1:CA:1104:G:H2'	1:CA:1105:A:H8	1.77	0.48
35:DA:528:A:C2	35:DA:2043:C:C5'	2.96	0.48
52:DT:40:THR:O	52:DT:41:ARG:CB	2.60	0.48
48:DP:16:ARG:CZ	48:DP:16:ARG:HB2	2.43	0.48
42:DH:94:TYR:N	42:DH:94:TYR:CD1	2.81	0.48
2:CB:65:GLY:O	2:CB:67:THR:N	2.46	0.48
1:AA:781:A:H4'	1:AA:1522:U:O2'	2.13	0.48
39:DE:61:ARG:HB3	39:DE:62:PRO:HD3	1.94	0.48
1:AA:1357:A:H61	1:AA:1363(A):A:H2	1.60	0.48
24:AY:83:GLU:HG3	24:AY:83:GLU:O	2.13	0.48
3:CC:77:ILE:HA	3:CC:84:ILE:HB	1.95	0.48
2:AB:187:LEU:HD13	2:AB:187:LEU:O	2.13	0.48
2:AB:54:THR:HG21	2:AB:201:ILE:CD1	2.41	0.48
3:AC:76:VAL:HG23	3:AC:77:ILE:N	2.28	0.48
9:AI:104:ARG:HG2	9:AI:104:ARG:O	2.13	0.48
35:DA:2192:G:C3'	35:DA:2193:G:H5''	2.43	0.48
35:DA:2172:U:H3'	35:DA:2173:A:C8	2.48	0.48
20:CT:26:ASN:O	20:CT:30:LYS:HB2	2.13	0.48
1:AA:1014:A:H2'	1:AA:1015:A:C8	2.48	0.48
35:BA:893:C:H2'	35:BA:894:C:C6	2.45	0.48
35:DA:1076:C:H2'	35:DA:1077:A:C8	2.48	0.48
35:DA:2464:C:O2'	35:DA:2465:C:O5'	2.31	0.48
1:CA:677:U:H3	1:CA:713:G:H22	1.59	0.48
54:DV:91:TYR:C	54:DV:91:TYR:CD1	2.87	0.48
35:DA:1961:C:O2'	35:DA:1962:C:H5'	2.12	0.48
16:AP:17:TYR:H	16:AP:17:TYR:HD1	1.61	0.48
35:DA:652:C:O2'	35:DA:653:A:O5'	2.31	0.48
51:BS:41:ASP:OD2	51:BS:44:LYS:HD3	2.12	0.48
35:BA:832:G:O2'	48:BP:52:GLU:HB3	2.12	0.48
58:DZ:18:LEU:HD22	58:DZ:23:LYS:HD2	1.94	0.48
22:AV:9:A:N3	22:AV:46:G:N2	2.61	0.48
9:AI:75:ASP:HA	9:AI:78:LYS:NZ	2.29	0.48
24:AY:253:HIS:HD2	24:AY:256:THR:OG1	1.95	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AG:23:VAL:HG12	7:AG:23:VAL:O	2.13	0.48
5:AE:91:LEU:N	5:AE:91:LEU:HD22	2.28	0.48
52:BT:134:GLU:O	52:BT:135:ALA:HB3	2.12	0.48
30:D5:25:LEU:HD12	55:DW:23:LEU:HD22	1.95	0.48
22:CW:46:G:H3'	22:CW:46:G:OP1	2.13	0.48
1:AA:1084:G:H5'	1:AA:1102:A:OP2	2.13	0.48
38:BD:3:VAL:HG23	38:BD:200:ASP:OD2	2.12	0.48
35:BA:2553:G:H2'	35:BA:2554:U:O4'	2.12	0.48
24:CY:118:LEU:HD22	24:CY:208:VAL:HG12	1.95	0.48
52:BT:27:THR:OG1	52:BT:28:VAL:N	2.45	0.48
57:BY:13:VAL:HG22	57:BY:73:ARG:C	2.33	0.48
38:BD:48:ARG:HH11	38:BD:48:ARG:HG3	1.78	0.48
35:DA:1203:G:H3'	35:DA:1204:A:H5''	1.94	0.48
48:BP:146:VAL:CG2	48:BP:147:LEU:H	1.97	0.48
1:AA:963:G:H21	10:AJ:55:LYS:HD2	1.77	0.48
51:DS:32:LEU:O	51:DS:62:LYS:HE2	2.13	0.48
51:DS:97:ARG:HH11	51:DS:97:ARG:HG2	1.78	0.48
52:BT:29:ARG:CD	52:BT:86:ILE:HG22	2.43	0.48
53:DU:90:VAL:HG13	54:DV:39:LEU:CD2	2.43	0.48
5:AE:102:ALA:HB2	5:AE:120:THR:OG1	2.13	0.48
38:DD:25:THR:O	38:DD:27:THR:HG22	2.14	0.48
6:CF:92:LYS:CB	6:CF:92:LYS:NZ	2.76	0.48
11:CK:105:VAL:HB	11:CK:108:ILE:HD11	1.95	0.48
58:DZ:49:ARG:NH1	58:DZ:49:ARG:CG	2.72	0.48
58:DZ:28:MET:HE3	58:DZ:37:VAL:HG11	1.94	0.48
46:BN:58:ASP:C	46:BN:60:ILE:N	2.64	0.48
13:CM:90:LEU:O	13:CM:92:HIS:N	2.46	0.48
3:AC:71:ALA:CB	3:AC:109:PRO:HB3	2.43	0.48
43:DI:74:ASN:O	43:DI:75:LEU:HD12	2.13	0.48
26:D1:71:TYR:CD1	43:DI:27:ARG:HD2	2.48	0.48
19:CS:29:ARG:CD	19:CS:30:LEU:N	2.73	0.48
1:CA:521:G:O2'	1:CA:522:C:H5'	2.12	0.48
1:AA:519:C:OP2	24:AY:308:GLY:HA2	2.12	0.48
35:DA:2149:G:H2'	35:DA:2150:U:O4'	2.13	0.48
38:DD:267:SER:HA	38:DD:270:ILE:HG13	1.95	0.48
24:AY:332:ASP:HB2	24:AY:335:ASN:HB3	1.94	0.48
58:BZ:73:GLN:O	58:BZ:86:VAL:HA	2.13	0.48
1:AA:171:A:H2'	1:AA:172:A:C8	2.49	0.48
43:DI:60:GLU:HA	43:DI:60:GLU:OE2	2.14	0.48
33:B8:32:LEU:HB2	33:B8:36:LYS:NZ	2.27	0.48
35:DA:993:G:OP1	53:DU:50:ARG:NH2	2.46	0.48
33:D8:36:LYS:HB2	33:D8:41:ILE:HD11	1.96	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:AW:15:G:N2	22:AW:60:U:C5	2.81	0.48
32:D7:4:THR:HG22	35:DA:687:C:C1'	2.41	0.48
39:DE:34:VAL:HG22	39:DE:34:VAL:O	2.13	0.48
13:AM:67:GLU:CG	13:AM:68:GLY:N	2.76	0.48
1:AA:1479:C:O2'	1:AA:1480:G:H5'	2.13	0.48
6:AF:39:LYS:HG2	6:AF:40:VAL:H	1.77	0.48
7:AG:79:ARG:NH1	22:AW:33:U:O3'	2.45	0.48
1:CA:724:G:O2'	1:CA:725:G:H5'	2.13	0.48
43:BI:38:LEU:HB3	43:BI:40:THR:HG23	1.93	0.48
20:CT:29:LYS:O	20:CT:33:ILE:HG13	2.12	0.48
39:DE:98:PRO:HG3	39:DE:174:ASP:HA	1.95	0.48
42:BH:84:SER:O	42:BH:133:VAL:O	2.31	0.48
12:AL:102:ARG:CG	12:AL:102:ARG:HH11	2.26	0.48
18:AR:25:THR:HG22	18:AR:42:ARG:HH12	1.77	0.48
14:CN:9:LYS:HG3	14:CN:12:ARG:HH22	1.78	0.48
49:BQ:21:THR:HG21	49:BQ:101:ARG:HB2	1.95	0.48
35:DA:1786:A:C2	35:DA:2606:C:H1'	2.46	0.48
1:AA:164:U:O2'	1:AA:165:C:H5'	2.13	0.48
1:AA:357:G:OP1	1:AA:367:U:H5''	2.13	0.48
35:BA:476:G:H4'	35:BA:502:A:N1	2.28	0.48
35:DA:1097:U:C2'	35:DA:1098:A:H5'	2.43	0.48
34:B9:35:ARG:HD3	35:BA:2742:C:OP1	2.12	0.48
35:DA:1705:G:O2'	35:DA:1706:U:H5'	2.13	0.48
28:D3:11:SER:OG	28:D3:13:ILE:HG13	2.13	0.48
35:BA:927:G:H5'	35:BA:928:G:OP2	2.13	0.48
1:CA:279:A:OP2	17:CQ:95:TYR:OH	2.31	0.48
35:DA:1810:A:H2'	35:DA:1811:G:O4'	2.13	0.48
56:DX:56:THR:HG22	56:DX:79:ALA:HB2	1.95	0.48
35:DA:38:A:H2'	35:DA:39:C:C6	2.48	0.48
1:AA:967:C:H2'	1:AA:968:A:C8	2.48	0.48
52:BT:112:ARG:HH21	52:BT:113:LYS:HE2	1.77	0.48
35:BA:1603:A:C8	35:BA:1603:A:H5'	2.48	0.48
35:BA:1607:C:H4'	35:BA:1608:A:O5'	2.13	0.48
35:DA:71:A:C8	35:DA:71:A:H5'	2.49	0.48
31:D6:16:CYS:H	31:D6:49:HIS:HA	1.79	0.48
28:B3:7:LYS:HE3	28:B3:32:GLN:O	2.14	0.48
45:DK:52:ILE:HD13	45:DK:73:PRO:HD2	1.95	0.48
40:DF:199:TRP:O	40:DF:203:GLN:HG2	2.12	0.48
57:BY:97:ARG:HB2	57:BY:97:ARG:CZ	2.41	0.48
35:BA:888:C:H2'	35:BA:889:C:H5'	1.95	0.48
2:CB:93:VAL:HG11	2:CB:97:TRP:CD1	2.47	0.48
35:BA:1203:G:H3'	35:BA:1204:A:H5''	1.96	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:BP:7:ARG:O	48:BP:10:PRO:HD3	2.13	0.48
38:DD:108:PRO:HG2	38:DD:111:LEU:HD23	1.95	0.48
35:BA:2206:G:H5''	35:BA:2206:G:N3	2.28	0.48
4:CD:12:CYS:SG	4:CD:19:LEU:O	2.72	0.48
51:DS:97:ARG:C	51:DS:97:ARG:NE	2.67	0.48
13:AM:125:ARG:HA	24:AY:159:GLY:C	2.33	0.48
39:BE:111:ARG:HB2	39:BE:160:TYR:O	2.14	0.48
39:DE:119:ARG:HD2	39:DE:120:TRP:NE1	2.27	0.48
35:BA:1688:U:H5'	35:BA:1689:A:OP1	2.12	0.48
24:AY:30:GLU:HB2	45:BK:20:ALA:HB2	1.94	0.48
45:BK:18:THR:H	45:BK:19:PRO:HD2	1.77	0.48
20:AT:50:GLU:HA	20:AT:100:ILE:CG2	2.43	0.48
35:DA:330:A:O2'	35:DA:331:A:C8	2.66	0.48
35:DA:903:C:O2'	35:DA:904:C:H5''	2.14	0.48
31:B6:31:PRO:HB3	35:BA:2287:A:OP1	2.13	0.48
35:BA:2646:C:H2'	35:BA:2647:U:O4'	2.13	0.48
35:BA:1227:G:OP1	53:BU:13:LYS:CD	2.61	0.48
27:B2:4:SER:HA	27:B2:7:ARG:HG2	1.95	0.48
56:DX:34:ALA:HB1	56:DX:39:ILE:CD1	2.43	0.48
35:DA:2134:A:H2	35:DA:2159:G:H1'	1.77	0.48
12:AL:45:PRO:HD3	12:AL:51:ALA:O	2.13	0.48
40:DF:125:LEU:H	40:DF:125:LEU:CD2	2.22	0.48
35:BA:1947:C:C3'	35:BA:1948:G:H5''	2.43	0.48
35:DA:2810:A:H1'	39:DE:61:ARG:NH1	2.29	0.48
35:DA:2391:G:O6	35:DA:2425:A:H8	1.95	0.48
13:AM:19:LEU:CA	13:AM:22:ILE:HD13	2.42	0.48
3:AC:82:GLU:O	3:AC:86:VAL:HG13	2.13	0.48
1:CA:328:C:O2'	1:CA:329:A:P	2.71	0.48
47:BO:13:ASN:O	47:BO:15:GLY:N	2.46	0.48
7:AG:25:ALA:HA	7:AG:28:ASN:HD22	1.78	0.48
1:AA:1221:G:O2'	1:AA:1222:G:H5'	2.13	0.48
11:AK:24:SER:O	11:AK:27:ASN:N	2.43	0.48
42:BH:85:LYS:HE2	42:BH:86:GLU:N	2.28	0.48
35:BA:597:U:H2'	35:BA:598:G:C8	2.48	0.48
4:CD:2:GLY:O	4:CD:3:ARG:O	2.31	0.48
43:DI:29:TYR:HD2	43:DI:30:LEU:HD23	1.79	0.48
52:BT:78:LEU:HB3	52:BT:79:HIS:CE1	2.48	0.48
1:AA:1194:U:H5'	5:AE:22:GLY:O	2.13	0.48
1:CA:298:A:H2'	1:CA:299:G:O4'	2.13	0.48
24:AY:29:LEU:O	24:AY:29:LEU:HD13	2.13	0.48
22:AV:59:U:O2'	22:AV:60:U:H5'	2.12	0.48
1:CA:1307:U:H2'	1:CA:1308:U:H6	1.78	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:1231:G:H2'	35:BA:1232:G:C8	2.49	0.48
35:DA:2783:G:H2'	35:DA:2784:C:C6	2.48	0.48
24:AY:226:GLU:OE2	24:AY:255:PRO:HG3	2.13	0.48
42:BH:54:ARG:HH11	42:BH:65:HIS:CD2	2.32	0.48
6:AF:89:MET:SD	18:AR:76:LEU:HD21	2.53	0.48
3:AC:29:TYR:HE1	10:AJ:65:LEU:HD21	1.79	0.48
35:BA:1009:A:O4'	53:BU:59:ARG:HD2	2.14	0.48
4:AD:189:PRO:HB2	4:AD:194:LEU:HD21	1.94	0.48
51:BS:83:LYS:CE	51:BS:84:GLN:HE21	2.26	0.48
35:BA:1412:A:H2'	35:BA:1413:G:C8	2.48	0.48
35:BA:2514:U:H2'	35:BA:2515:C:H6	1.78	0.48
35:DA:1283:G:N2	35:DA:1285:G:H3'	2.28	0.48
35:DA:2688:U:C5	35:DA:2720:U:OP1	2.66	0.48
1:CA:411:A:H2'	1:CA:412:A:H4'	1.94	0.48
24:CY:112:ALA:O	24:CY:177:TYR:HB3	2.13	0.48
24:CY:123:GLY:HA3	24:CY:305:ILE:CG2	2.43	0.48
31:D6:19:ARG:HH21	35:DA:2401:U:H5''	1.78	0.48
30:B5:55:ARG:HG2	50:BR:33:ARG:HD3	1.96	0.48
30:D5:47:PRO:C	30:D5:48:GLU:HG2	2.34	0.48
40:DF:4:VAL:HG11	40:DF:17:ARG:HD3	1.95	0.48
2:AB:71:VAL:O	2:AB:164:VAL:HG13	2.14	0.48
35:DA:1109:C:C2'	35:DA:1110:G:H5'	2.44	0.48
22:CW:52:G:N3	22:CW:63:G:O6	2.45	0.48
41:DG:117:PHE:HE2	41:DG:120:LEU:HD23	1.79	0.48
29:B4:26:SER:HB2	41:BG:105:LYS:HZ2	1.79	0.48
35:BA:2304:G:O2'	41:BG:156:ASP:HB3	2.14	0.48
35:DA:623:G:H2'	35:DA:624:C:C6	2.48	0.48
35:DA:1539:G:C2'	35:DA:1540:U:H5'	2.42	0.48
42:DH:158:HIS:O	42:DH:159:GLU:HB2	2.13	0.48
43:DI:7:GLU:O	43:DI:8:PRO:O	2.32	0.48
31:D6:31:PRO:HD2	35:DA:2286:A:OP1	2.14	0.48
48:DP:57:THR:OG1	48:DP:58:THR:N	2.41	0.48
4:AD:33:MET:O	4:AD:35:ARG:N	2.42	0.48
35:DA:1040:C:HO2'	35:DA:1041:C:C5'	2.26	0.48
33:B8:7:HIS:CD2	48:BP:50:ARG:HD3	2.48	0.48
1:CA:1469:G:O2'	1:CA:1470:G:H5'	2.13	0.48
10:CJ:3:LYS:HZ3	10:CJ:77:PRO:HD2	1.79	0.48
12:CL:33:ARG:HA	12:CL:33:ARG:HE	1.78	0.48
56:DX:34:ALA:HB1	56:DX:39:ILE:HD13	1.95	0.48
56:DX:39:ILE:O	56:DX:43:VAL:HG23	2.14	0.48
35:BA:1717:G:C3'	35:BA:1718:G:H5''	2.43	0.48
26:D1:50:ARG:NH2	35:DA:2199:A:H5'	2.27	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:B1:44:PRO:HA	35:BA:396:G:O3'	2.14	0.48
38:BD:31:LYS:HB3	38:BD:34:VAL:CG2	2.44	0.48
1:AA:719:C:N4	18:AR:71:LYS:HE2	2.27	0.48
38:DD:181:GLU:CA	38:DD:272:ALA:HB3	2.40	0.48
43:BI:8:PRO:HA	43:BI:14:ASP:H	1.78	0.48
24:AY:325:ARG:HD3	24:AY:351:TRP:CZ3	2.47	0.48
3:CC:44:GLU:HA	3:CC:52:LEU:HD11	1.95	0.48
16:CP:20:VAL:HG22	16:CP:21:VAL:N	2.29	0.48
41:DG:10:LYS:O	41:DG:14:GLU:HB3	2.13	0.48
10:CJ:16:LEU:O	10:CJ:16:LEU:HD13	2.13	0.48
39:DE:101:ARG:HB2	39:DE:201:THR:CG2	2.41	0.48
1:AA:805:C:O2'	1:AA:806:C:H5'	2.13	0.48
55:BW:18:ARG:NH1	55:BW:76:VAL:HG13	2.28	0.48
1:AA:1457:G:H2'	1:AA:1458:G:H8	1.78	0.48
54:BV:76:LYS:HB2	54:BV:81:TYR:HB3	1.96	0.48
1:CA:797:C:O2'	1:CA:798:G:H5'	2.13	0.48
11:CK:125:PHE:CD1	11:CK:125:PHE:N	2.79	0.48
1:CA:189(I):G:O2'	1:CA:189(J):G:H5'	2.13	0.48
1:AA:1096:C:H2'	1:AA:1097:C:C6	2.48	0.48
10:AJ:63:PHE:HB3	14:AN:58:LYS:HA	1.94	0.48
41:BG:170:ARG:NE	41:BG:174:GLU:OE1	2.41	0.48
8:AH:12:ARG:HH12	8:AH:27:PRO:HD3	1.78	0.48
1:CA:1060:C:H5''	10:CJ:51:ARG:HB3	1.94	0.48
35:DA:1221:C:H6	35:DA:1221:C:H5'	1.77	0.48
16:AP:7:ALA:O	16:AP:17:TYR:HA	2.12	0.48
35:DA:102:G:OP1	35:DA:102:G:C4'	2.62	0.48
1:CA:818:G:H3'	1:CA:819:A:C5'	2.43	0.48
1:AA:495:A:H4'	1:AA:496:A:OP1	2.14	0.48
35:DA:1445:A:O2'	35:DA:1445(A):C:H5'	2.13	0.48
1:AA:1121:U:H2'	1:AA:1122:U:C6	2.47	0.48
35:DA:2842:G:O2'	35:DA:2843:G:H5'	2.13	0.48
11:CK:43:SER:HB3	11:CK:68:ALA:HB2	1.95	0.48
1:AA:442:C:H2'	1:AA:443:C:C6	2.48	0.48
31:D6:40:CYS:HA	31:D6:46:HIS:ND1	2.28	0.48
52:BT:28:VAL:CG1	52:BT:46:GLU:HA	2.38	0.48
40:BF:125:LEU:HA	40:BF:194:MET:O	2.13	0.48
49:DQ:35:VAL:HG11	49:DQ:130:LYS:CE	2.44	0.48
33:B8:3:LYS:HE2	35:BA:242:G:O5'	2.13	0.48
54:DV:19:LYS:HZ3	54:DV:20:LEU:H	1.58	0.48
40:DF:133:ASN:ND2	40:DF:133:ASN:H	2.12	0.48
35:BA:1045:A:H4'	35:BA:1047:G:O4'	2.14	0.48
2:CB:71:VAL:O	2:CB:164:VAL:HG13	2.12	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CM:112:GLY:HA2	13:CM:113:PRO:CG	2.43	0.48
51:BS:101:LEU:O	51:BS:101:LEU:HD12	2.13	0.48
41:BG:142:PRO:C	41:BG:144:ILE:H	2.17	0.48
22:CW:39:U:H3'	22:CW:40:C:C5'	2.44	0.48
54:BV:40:LEU:HD13	54:BV:41:GLY:N	2.28	0.48
35:DA:1210:A:H5''	35:DA:1212:G:O4'	2.13	0.48
1:AA:1127:G:H1	1:AA:1145:C:N4	2.10	0.48
35:DA:903:C:C2'	35:DA:904:C:C5'	2.85	0.48
35:BA:2287:A:C2	35:BA:2346:A:C2	3.01	0.48
46:DN:128:HIS:HD2	46:DN:130:HIS:N	2.08	0.48
24:CY:30:GLU:HB2	45:DK:20:ALA:CB	2.40	0.48
24:CY:30:GLU:OE2	24:CY:31:ARG:HB2	2.13	0.48
9:AI:15:ALA:HB2	9:AI:65:VAL:CG2	2.40	0.48
1:CA:1057:G:H5''	3:CC:154:SER:OG	2.12	0.48
42:BH:125:VAL:HG12	42:BH:127:GLU:O	2.14	0.48
2:AB:80:ILE:N	2:AB:80:ILE:HD12	2.17	0.48
12:AL:60:LEU:HD23	12:AL:64:TYR:HB2	1.96	0.48
26:D1:50:ARG:HB3	26:D1:57:GLU:OE2	2.13	0.48
1:CA:1104:G:O2'	1:CA:1105:A:H5'	2.14	0.48
5:AE:39:GLY:HA2	5:AE:69:VAL:HB	1.94	0.48
18:CR:74:ARG:HA	18:CR:79:LEU:O	2.13	0.48
35:BA:2302:G:H1'	41:BG:128:ARG:CG	2.43	0.48
19:AS:15:LEU:O	19:AS:19:VAL:HG23	2.13	0.48
39:DE:24:THR:CG2	39:DE:184:VAL:HG23	2.42	0.48
22:AW:49:C:C2'	22:AW:50:U:H5'	2.43	0.48
48:BP:114:ILE:O	48:BP:115:LEU:HB3	2.13	0.48
5:CE:150:ARG:HA	5:CE:153:LYS:CE	2.42	0.48
24:AY:320:TYR:HA	24:AY:333:PRO:HD3	1.96	0.48
42:BH:136:ILE:N	42:BH:136:ILE:CD1	2.74	0.48
57:DY:31:LEU:CD2	57:DY:31:LEU:N	2.77	0.48
48:DP:41:ARG:NE	48:DP:41:ARG:HA	2.28	0.48
1:CA:501:C:H2'	1:CA:502:G:H8	1.78	0.48
19:AS:40:ILE:HG21	19:AS:62:ILE:CD1	2.43	0.48
5:AE:36:ASP:O	5:AE:37:ARG:HB2	2.13	0.48
35:BA:848:G:H8	35:BA:848:G:H5'	1.77	0.48
58:BZ:130:PRO:C	58:BZ:132:ASN:H	2.16	0.48
10:CJ:61:GLU:CG	14:CN:58:LYS:HE2	2.43	0.48
35:DA:2762:G:C2'	35:DA:2763:G:H5'	2.44	0.48
1:AA:189(J):G:O2'	1:AA:189(K):U:H5'	2.14	0.48
35:BA:234:C:O2'	35:BA:235:U:H5'	2.14	0.48
6:CF:7:ASN:O	6:CF:8:ILE:HG13	2.14	0.48
1:AA:1019:C:C2'	1:AA:1020:U:H5'	2.44	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:1386:C:H2'	35:BA:1387:C:C6	2.48	0.48
1:AA:336:C:O2'	1:AA:337:C:H5'	2.14	0.48
2:AB:180:LEU:O	2:AB:182:ILE:N	2.46	0.48
42:DH:26:VAL:HG21	42:DH:75:ALA:HB3	1.95	0.48
46:DN:34:LEU:HD12	46:DN:34:LEU:HA	1.69	0.48
35:BA:2514:U:H2'	35:BA:2515:C:C6	2.49	0.48
15:CO:61:GLY:O	15:CO:64:ARG:HB3	2.13	0.48
11:AK:34:ASP:HB2	11:AK:35:PRO:CD	2.44	0.48
30:B5:25:LEU:HD12	55:BW:23:LEU:HD22	1.95	0.48
35:BA:1472:A:O2'	35:BA:1473:G:H5'	2.13	0.48
50:BR:84:ALA:HB3	50:BR:85:PRO:HD3	1.96	0.48
1:AA:411:A:H2'	1:AA:412:A:H4'	1.94	0.48
49:DQ:10:ARG:HB2	49:DQ:10:ARG:HH11	1.78	0.48
52:BT:136:GLN:HG3	52:BT:137:LYS:N	2.29	0.48
35:DA:498:G:O2'	35:DA:499:U:H5'	2.13	0.48
31:D6:20:ASN:ND2	31:D6:41:PRO:HA	2.28	0.48
4:CD:129:ASN:ND2	4:CD:145:GLU:N	2.59	0.48
57:BY:7:VAL:CG2	57:BY:8:LYS:NZ	2.76	0.48
2:CB:78:GLN:O	2:CB:81:VAL:HB	2.14	0.48
1:CA:954:G:H2'	1:CA:955:U:C6	2.49	0.48
51:DS:27:SER:O	51:DS:37:ALA:HA	2.13	0.48
22:CW:19:G:N2	22:CW:56:C:H42	2.11	0.48
37:DC:51:ASP:O	37:DC:54:ARG:HB2	2.13	0.48
22:CW:63:G:H4'	37:DC:54:ARG:NH2	2.29	0.48
24:AY:233:ARG:HD3	35:BA:2573:C:H42	1.78	0.48
35:BA:1882:C:H5'	35:BA:1883:G:OP2	2.13	0.48
10:CJ:50:ILE:CD1	14:CN:41:ARG:HD3	2.44	0.48
14:CN:29:ARG:HG2	14:CN:40:CYS:CB	2.42	0.48
35:DA:363(B):G:H2'	35:DA:363(C):G:H5'	1.95	0.48
55:DW:88:ARG:HB2	55:DW:92:ARG:CB	2.42	0.48
35:BA:1539:G:C2'	35:BA:1540:U:H5'	2.43	0.48
35:DA:1999:C:H4'	35:DA:2723:C:O2	2.13	0.48
50:DR:2:ARG:HD2	50:DR:5:LYS:CE	2.43	0.48
11:AK:116:HIS:O	11:AK:117:ASN:HB2	2.14	0.48
3:CC:71:ALA:CB	3:CC:109:PRO:HB3	2.44	0.48
47:BO:49:ARG:HA	47:BO:53:LYS:NZ	2.29	0.48
24:AY:182:PRO:CG	24:AY:345:ILE:HG23	2.33	0.48
18:AR:43:PHE:O	18:AR:51:LEU:HD12	2.13	0.48
22:AV:41:C:H2'	22:AV:41:C:O2	2.13	0.48
9:CI:43:ALA:O	9:CI:45:ALA:N	2.43	0.48
1:CA:1028:C:H2'	1:CA:1029:C:C5'	2.36	0.48
35:DA:2108:C:OP2	37:DC:3:LYS:HE2	2.13	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:511:C:H1'	4:CD:43:HIS:HE2	1.78	0.48
27:D2:25:VAL:HG21	27:D2:61:LEU:CD1	2.43	0.48
1:CA:223:U:H6	1:CA:223:U:O5'	1.97	0.48
52:BT:41:ARG:O	52:BT:42:ILE:O	2.31	0.48
24:CY:72:LEU:HG	24:CY:76:MET:HE1	1.95	0.48
37:BC:51:ASP:HB3	37:BC:54:ARG:CG	2.43	0.48
9:AI:118:LYS:NZ	9:AI:118:LYS:HB3	2.29	0.48
35:DA:389:G:H1	48:DP:71:VAL:HG12	1.78	0.48
5:CE:11:ILE:HD12	5:CE:31:LEU:CD1	2.44	0.48
37:BC:23:ILE:HB	37:BC:191:ARG:HH12	1.78	0.48
48:BP:41:ARG:CA	48:BP:41:ARG:NE	2.77	0.48
48:DP:41:ARG:NE	48:DP:41:ARG:CA	2.76	0.48
1:CA:437:U:H2'	1:CA:438:G:C8	2.48	0.48
7:CG:139:GLU:O	7:CG:143:ARG:HG3	2.13	0.48
35:DA:1091:G:O2'	35:DA:1092:C:H5'	2.13	0.48
35:BA:2172:U:H3'	35:BA:2173:A:H8	1.78	0.48
1:AA:714:G:H2'	1:AA:715:A:C8	2.49	0.48
35:BA:2713:A:H3'	35:BA:2714:G:H5'	1.93	0.48
6:CF:97:PHE:N	18:CR:30:ASP:OD1	2.47	0.48
1:CA:724:G:H2'	1:CA:725:G:H8	1.77	0.48
35:BA:271(E):U:H2'	35:BA:271(F):C:H6	1.78	0.48
6:AF:7:ASN:O	6:AF:8:ILE:HG13	2.13	0.48
42:DH:85:LYS:NZ	42:DH:87:LEU:HG	2.28	0.48
35:DA:892:G:H2'	35:DA:893:C:C6	2.48	0.48
35:BA:2029:G:H2'	35:BA:2031:A:OP2	2.14	0.48
2:CB:20:GLU:CG	2:CB:189:ASP:OD2	2.62	0.48
14:CN:12:ARG:CB	14:CN:12:ARG:HH11	2.27	0.48
35:DA:476:G:H4'	35:DA:502:A:N1	2.29	0.48
1:AA:300:A:H1'	1:AA:565:U:O2	2.12	0.48
3:CC:138:VAL:HG13	3:CC:149:ALA:CB	2.43	0.48
1:CA:299:G:H2'	1:CA:300:A:C8	2.48	0.48
1:CA:784:C:H2'	1:CA:785:G:H8	1.77	0.48
35:BA:1097:U:C2'	35:BA:1098:A:H5'	2.43	0.48
22:AV:18:G:H4'	22:AV:60:U:O2	2.12	0.48
16:AP:55:ARG:O	16:AP:58:TYR:HB3	2.13	0.48
19:AS:73:GLU:HG2	19:AS:73:GLU:O	2.13	0.48
35:DA:2772:C:H2'	35:DA:2773:C:H6	1.77	0.48
35:BA:2830:G:N3	35:BA:2883:A:H2	2.11	0.48
1:AA:151:A:H2'	1:AA:152:A:H5'	1.94	0.48
1:CA:167:G:O2'	1:CA:168:G:H5'	2.13	0.48
35:BA:1914:C:O4'	35:BA:1914:C:O2	2.32	0.48
35:BA:1283:G:N2	35:BA:1285:G:H3'	2.28	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:2772:C:H2'	35:BA:2773:C:C6	2.48	0.48
35:DA:276:A:O2'	35:DA:277:C:H5'	2.13	0.48
35:DA:186:G:O2'	35:DA:187:G:H5'	2.14	0.48
35:DA:2319:G:OP1	35:DA:2319:G:H4'	2.12	0.48
35:DA:1839:G:H5'	35:DA:1839:G:H8	1.77	0.48
20:CT:63:ILE:HG23	20:CT:72:LEU:HD13	1.95	0.48
14:CN:48:ALA:HB2	14:CN:53:LEU:HD12	1.95	0.48
35:DA:2428:G:H5''	35:DA:2429:G:O5'	2.12	0.48
54:BV:19:LYS:HG3	54:BV:20:LEU:O	2.14	0.48
57:DY:13:VAL:HG22	57:DY:73:ARG:O	2.13	0.48
1:AA:954:G:H2'	1:AA:955:U:C6	2.48	0.48
35:BA:1204:A:C2	35:BA:1241:A:N1	2.81	0.48
51:DS:85:VAL:HG23	51:DS:106:ARG:HG3	1.95	0.48
35:BA:2555:U:H2'	35:BA:2556:C:H5'	1.96	0.48
52:DT:16:ARG:NH2	52:DT:82:LEU:O	2.45	0.48
41:BG:64:THR:C	41:BG:66:GLN:H	2.16	0.48
6:CF:35:ALA:HB1	6:CF:65:VAL:HG21	1.96	0.48
1:CA:1202:G:H1'	14:CN:29:ARG:HD3	1.95	0.48
13:AM:125:ARG:HA	24:AY:160:PRO:CD	2.43	0.48
3:CC:11:ARG:HH11	3:CC:11:ARG:HG2	1.78	0.48
43:DI:10:GLU:C	43:DI:12:LEU:N	2.66	0.48
1:AA:1107:C:C3'	1:AA:1108:G:H5''	2.43	0.48
39:BE:110:GLY:O	50:BR:2:ARG:HD3	2.14	0.48
33:B8:13:ARG:CD	48:BP:61:ARG:HD3	2.38	0.48
31:D6:31:PRO:HB3	35:DA:2287:A:OP1	2.13	0.48
1:AA:1127:G:O2'	1:AA:1128:C:H5'	2.13	0.48
20:CT:50:GLU:HA	20:CT:100:ILE:CG2	2.42	0.48
24:CY:54:ARG:O	24:CY:58:THR:HG23	2.14	0.48
33:D8:53:PRO:CA	33:D8:56:GLU:HB3	2.39	0.48
10:AJ:3:LYS:NZ	10:AJ:77:PRO:HD2	2.29	0.48
5:CE:7:GLU:O	5:CE:8:GLU:CB	2.62	0.48
57:DY:86:ARG:HD2	57:DY:88:LYS:HD2	1.95	0.48
27:B2:48:HIS:HA	27:B2:51:ARG:HG2	1.96	0.48
43:DI:139:GLN:HE21	43:DI:141:LYS:HE3	1.78	0.48
9:AI:4:TYR:HA	9:AI:88:TYR:CZ	2.47	0.48
35:DA:2360:A:O2'	35:DA:2361:A:C5'	2.61	0.48
53:DU:101:ARG:C	53:DU:102:GLU:HG2	2.33	0.48
35:DA:1717:G:C3'	35:DA:1718:G:H5''	2.44	0.48
37:BC:42:VAL:HG22	37:BC:217:THR:CG2	2.38	0.48
38:DD:35:LYS:C	38:DD:35:LYS:HZ3	2.17	0.48
1:CA:427:U:OP1	4:CD:40:PRO:HA	2.14	0.48
4:CD:59:ARG:CA	4:CD:59:ARG:HE	2.18	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BD:35:LYS:HZ2	38:BD:35:LYS:C	2.17	0.48
38:BD:30:GLU:CG	38:BD:63:ARG:NH2	2.77	0.48
38:BD:181:GLU:CA	38:BD:272:ALA:HB3	2.40	0.48
36:BB:56:G:H4'	36:BB:57:A:H8	1.79	0.48
35:DA:2836:U:H2'	35:DA:2837:G:H8	1.73	0.48
58:BZ:71:VAL:HG11	58:BZ:74:VAL:CG2	2.44	0.48
35:BA:1478:G:HO2'	35:BA:1558:A:H2	1.61	0.48
33:B8:33:ASN:ND2	33:B8:33:ASN:N	2.49	0.48
24:CY:83:GLU:HB3	24:CY:84:ARG:NH1	2.29	0.48
1:AA:1515:C:H2'	1:AA:1516:G:H8	1.79	0.48
1:CA:376:G:H2'	1:CA:377:G:H8	1.78	0.48
54:DV:25:LEU:H	54:DV:92:THR:HG21	1.78	0.48
4:AD:152:SER:HA	4:AD:155:LEU:HD12	1.95	0.48
3:CC:76:VAL:HG23	3:CC:77:ILE:N	2.29	0.48
1:CA:539:A:P	12:CL:114:LYS:HD2	2.53	0.48
37:BC:41:THR:HG21	37:BC:175:PRO:HB2	1.96	0.48
25:B0:42:GLY:HA3	35:BA:2331:G:O4'	2.14	0.48
39:BE:35:GLN:HA	39:BE:67:PHE:HE2	1.79	0.48
49:BQ:35:VAL:CG1	49:BQ:130:LYS:HB3	2.44	0.48
1:CA:1071:C:H2'	1:CA:1072:G:C8	2.46	0.48
1:CA:1072:G:H2'	1:CA:1073:U:H6	1.79	0.48
41:BG:170:ARG:HG2	41:BG:170:ARG:HH11	1.78	0.48
35:BA:2732:G:C3'	35:BA:2733:A:C5'	2.92	0.48
42:DH:82:GLY:O	42:DH:83:TYR:O	2.31	0.48
47:DO:10:VAL:CG2	47:DO:16:ALA:O	2.62	0.48
5:AE:18:ARG:HG3	5:AE:18:ARG:HH11	1.77	0.48
35:DA:882:G:H2'	35:DA:883:G:H8	1.78	0.48
43:DI:25:TYR:O	43:DI:29:TYR:HB3	2.13	0.48
35:DA:271(D):G:H1	35:DA:271(T):C:H42	1.62	0.48
1:AA:1166:G:H2'	1:AA:1169:A:OP2	2.13	0.48
19:CS:53:ASN:HD22	19:CS:58:VAL:CG1	2.26	0.48
12:AL:82:VAL:HG12	12:AL:83:VAL:H	1.78	0.48
1:CA:1499:A:H1'	1:CA:1520:G:H5'	1.96	0.48
1:CA:164:U:O2'	1:CA:165:C:H5'	2.12	0.48
35:BA:1064:C:O2'	35:BA:1065:U:H5'	2.13	0.48
1:CA:630:G:N3	1:CA:630:G:H2'	2.29	0.48
1:CA:751:U:H2'	1:CA:752:G:H5'	1.94	0.48
48:DP:108:LYS:O	48:DP:110:TYR:N	2.47	0.48
41:DG:145:THR:O	41:DG:148:MET:N	2.45	0.48
35:BA:1602:U:H3'	35:BA:1603:A:C5'	2.44	0.48
1:CA:818:G:C3'	1:CA:819:A:H5''	2.44	0.48
35:DA:962:G:O2'	35:DA:963:U:H5'	2.13	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:2092:U:C5	35:DA:2226:C:OP2	2.66	0.48
35:BA:2774:C:H2'	35:BA:2775:A:O4'	2.13	0.48
18:CR:59:SER:OG	18:CR:62:GLU:HG2	2.12	0.48
35:DA:35:G:H2'	35:DA:36:G:O4'	2.13	0.48
1:CA:1418:A:C2	1:CA:1483:A:C2	3.02	0.48
1:AA:643:C:H5'	8:AH:31:PHE:CD1	2.49	0.48
35:BA:2092:U:C5	35:BA:2226:C:OP2	2.66	0.48
35:DA:301:G:C4	35:DA:302:C:C5	3.02	0.48
31:D6:16:CYS:O	31:D6:17:LYS:CB	2.61	0.48
1:AA:1442:G:H2'	1:AA:1442(A):G:C5'	2.43	0.48
57:DY:14:LEU:HG	57:DY:15:VAL:N	2.29	0.48
57:DY:7:VAL:CB	57:DY:8:LYS:HD2	2.37	0.48
49:DQ:134:ARG:C	49:DQ:135:ASP:OD1	2.51	0.48
45:DK:99:ILE:HA	45:DK:103:GLN:HG2	1.94	0.48
2:AB:97:TRP:CZ2	2:AB:102:LEU:HD13	2.47	0.48
48:DP:144:GLU:N	48:DP:145:PRO:CD	2.64	0.48
35:DA:2491:U:O2'	35:DA:2492:U:H5'	2.14	0.48
35:DA:1778:U:H2'	35:DA:1784:A:N6	2.29	0.48
36:DB:49:C:O2'	36:DB:50:G:H5'	2.14	0.48
13:AM:126:LYS:N	24:AY:162:ALA:N	2.62	0.48
35:DA:1529:G:N3	35:DA:1529:G:H2'	2.29	0.48
27:D2:65:ASN:HD22	27:D2:69:ARG:NH2	2.12	0.48
54:BV:38:LEU:HD23	54:BV:39:LEU:N	2.28	0.48
3:AC:14:ILE:HG23	3:AC:15:THR:N	2.29	0.48
35:DA:1882:C:H5'	35:DA:1883:G:OP2	2.13	0.48
43:BI:77:LEU:HB2	43:BI:140:LEU:HA	1.94	0.48
35:BA:729:G:H2'	35:BA:1775:U:H1'	1.96	0.48
2:AB:233:SER:HB2	2:AB:234:PRO:CD	2.38	0.48
1:AA:235:C:C5'	17:AQ:70:ARG:HG2	2.41	0.48
17:AQ:66:SER:O	17:AQ:70:ARG:NH1	2.45	0.48
3:AC:22:TRP:CH2	3:AC:32:LEU:HB2	2.49	0.48
9:CI:4:TYR:O	9:CI:18:PHE:HA	2.14	0.48
1:CA:519:C:OP1	24:CY:188:ARG:NH1	2.47	0.48
35:BA:2148:G:H2'	35:BA:2149:G:C8	2.49	0.48
43:BI:29:TYR:CE1	43:BI:33:ARG:NE	2.82	0.48
24:CY:295:LEU:HD13	24:CY:295:LEU:O	2.13	0.48
1:CA:564:C:H5'	17:CQ:32:TYR:CE2	2.48	0.48
58:BZ:58:VAL:HG12	58:BZ:59:LEU:N	2.29	0.48
48:BP:86:LYS:HG3	48:BP:117:GLU:O	2.14	0.48
24:AY:76:MET:HG3	24:AY:88:LYS:HZ1	1.74	0.48
33:B8:39:LYS:HE3	35:BA:2365:G:O6	2.13	0.48
35:BA:2726:U:H6	47:BO:67:LYS:NZ	2.10	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:11:G:O2'	35:BA:12:U:H5'	2.13	0.48
1:AA:437:U:H2'	1:AA:438:G:C8	2.49	0.48
1:AA:438:G:H2'	1:AA:494:U:O4	2.14	0.48
9:AI:83:ARG:O	9:AI:86:VAL:HG12	2.14	0.48
35:BA:2666:C:H3'	35:BA:2667:C:H6	1.78	0.48
38:DD:70:TRP:HZ3	38:DD:146:GLU:CD	2.17	0.48
35:BA:389:G:N1	48:BP:71:VAL:HG12	2.28	0.48
13:CM:67:GLU:CG	13:CM:68:GLY:N	2.77	0.48
2:AB:8:LYS:O	2:AB:12:GLU:HG3	2.14	0.48
6:AF:35:ALA:HB1	6:AF:65:VAL:HG21	1.96	0.48
11:CK:24:SER:O	11:CK:27:ASN:N	2.44	0.48
14:AN:59:ALA:O	14:AN:60:SER:HB2	2.12	0.48
20:AT:26:ASN:ND2	20:AT:26:ASN:N	2.61	0.48
4:CD:3:ARG:HD3	4:CD:3:ARG:O	2.13	0.48
35:BA:218:A:H2	35:BA:235:U:H4'	1.78	0.48
42:DH:83:TYR:O	42:DH:84:SER:HB3	2.13	0.48
45:DK:132:ARG:CB	45:DK:132:ARG:HH11	2.27	0.48
4:AD:173:TRP:CE3	4:AD:193:ASP:HB3	2.48	0.48
35:DA:2029:G:H2'	35:DA:2031:A:OP2	2.13	0.48
47:DO:2:ILE:HD11	47:DO:82:ASN:ND2	2.29	0.48
35:DA:2553:G:H2'	35:DA:2554:U:C4'	2.44	0.48
1:CA:881:G:P	12:CL:12:ARG:HH22	2.37	0.48
49:DQ:78:PRO:HB2	49:DQ:81:VAL:HG11	1.94	0.48
35:BA:2065:C:H2'	35:BA:2066:C:H6	1.78	0.48
51:DS:83:LYS:CE	51:DS:84:GLN:HE21	2.27	0.48
40:DF:34:TRP:CH2	48:DP:12:ALA:HB2	2.49	0.48
1:AA:295:C:H2'	1:AA:296:U:C6	2.48	0.48
35:DA:284:U:H2'	35:DA:285:C:H6	1.78	0.48
2:AB:28:PHE:O	2:AB:28:PHE:HD1	1.96	0.48
24:AY:316:LEU:N	24:AY:316:LEU:HD22	2.27	0.48
35:BA:2687:U:C4	35:BA:2688:U:C5	3.02	0.48
31:D6:15:GLU:O	31:D6:15:GLU:HG2	2.14	0.48
57:BY:7:VAL:HB	57:BY:8:LYS:NZ	2.29	0.48
52:BT:25:GLY:O	52:BT:48:ILE:HG23	2.14	0.48
58:BZ:99:TYR:CD2	58:BZ:99:TYR:N	2.82	0.48
38:BD:44:ASN:ND2	38:BD:47:GLY:O	2.47	0.48
41:DG:88:ILE:HG22	41:DG:89:GLY:N	2.29	0.48
35:DA:654(F):C:H2'	35:DA:654(G):C:O4'	2.14	0.48
36:DB:21:G:O2'	36:DB:22:U:O4'	2.31	0.48
29:B4:27:THR:O	29:B4:28:LYS:HG2	2.13	0.48
35:BA:654(D):G:H22	35:BA:654(P):C:H42	1.61	0.48
13:AM:125:ARG:CA	24:AY:160:PRO:HD2	2.44	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1442(A):G:C8	52:DT:118:ARG:HD2	2.49	0.48
52:DT:27:THR:O	52:DT:28:VAL:CG2	2.51	0.48
50:BR:3:HIS:O	50:BR:4:LEU:HB3	2.14	0.48
35:BA:623:G:H2'	35:BA:624:C:C6	2.49	0.48
1:CA:1128:C:C4'	9:CI:16:ARG:HH12	2.26	0.48
13:CM:124:PRO:N	24:CY:163:GLY:H	2.12	0.48
38:DD:24:ILE:O	38:DD:25:THR:O	2.32	0.48
1:AA:1126:U:O2'	1:AA:1127:G:H5'	2.13	0.48
1:AA:1133:G:H22	1:AA:1143:G:H1'	1.77	0.48
15:CO:25:THR:O	15:CO:28:GLN:N	2.47	0.48
56:BX:12:VAL:O	56:BX:13:LEU:HB2	2.14	0.48
56:BX:12:VAL:CG2	56:BX:13:LEU:H	2.11	0.48
24:CY:17:LEU:C	24:CY:20:PRO:HD2	2.34	0.48
1:AA:1399:C:H4'	1:AA:1400:C:O5'	2.14	0.48
35:DA:888:C:C2'	35:DA:889:C:H5'	2.44	0.48
48:DP:101:VAL:CB	48:DP:107:LYS:HA	2.35	0.48
39:DE:167:VAL:CG1	39:DE:189:PRO:HD3	2.44	0.48
39:DE:167:VAL:HG12	39:DE:189:PRO:HD3	1.94	0.48
12:CL:60:LEU:HD23	12:CL:64:TYR:HB2	1.96	0.48
18:CR:56:THR:CB	18:CR:58:LEU:HD13	2.37	0.48
35:DA:1678:G:N2	35:DA:1989:G:N2	2.55	0.48
10:CJ:27:ALA:HB2	10:CJ:85:LEU:CD1	2.40	0.48
1:AA:644:G:O2'	1:AA:645:C:H5'	2.14	0.48
35:BA:2149:G:H2'	35:BA:2150:U:O4'	2.13	0.48
1:CA:649:G:H2'	1:CA:650:G:H8	1.78	0.48
39:BE:117:MET:HA	39:BE:122:PHE:H	1.79	0.48
35:BA:2350:C:H2'	35:BA:2351:G:O4'	2.14	0.48
35:BA:2391:G:O6	35:BA:2425:A:H8	1.95	0.48
24:CY:85:GLU:O	24:CY:89:PRO:HD3	2.13	0.48
42:BH:103:LEU:HB2	42:BH:123:PHE:CD1	2.48	0.48
4:CD:119:GLN:HG2	4:CD:123:HIS:HD2	1.78	0.48
1:CA:171:A:H2'	1:CA:172:A:C8	2.48	0.48
58:DZ:110:GLY:O	58:DZ:111:VAL:HG13	2.13	0.48
10:AJ:38:ILE:HD11	10:AJ:71:LEU:CD2	2.43	0.48
41:DG:16:ARG:N	41:DG:17:PRO:CD	2.77	0.48
4:AD:126:ILE:HD12	4:AD:126:ILE:H	1.78	0.48
4:CD:120:LEU:HB3	4:CD:126:ILE:HD11	1.95	0.48
10:AJ:16:LEU:HA	10:AJ:94:VAL:HG21	1.95	0.48
7:AG:68:ASN:O	7:AG:138:LYS:HD2	2.14	0.48
25:B0:36:ILE:HD12	25:B0:38:VAL:N	2.29	0.48
1:CA:1261:A:N1	1:CA:1275:A:H1'	2.29	0.48
1:CA:154:C:O2'	1:CA:155:C:H5'	2.14	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:586:A:H5'	40:BF:89:VAL:HG21	1.95	0.48
1:AA:1072:G:H2'	1:AA:1073:U:H6	1.79	0.48
1:AA:154:C:O2'	1:AA:155:C:H5'	2.14	0.48
8:AH:48:TYR:CD1	8:AH:48:TYR:C	2.88	0.48
1:CA:357:G:OP1	1:CA:367:U:H5''	2.13	0.48
1:AA:829:G:O2'	1:AA:830:G:H5'	2.14	0.48
4:AD:3:ARG:HD3	4:AD:3:ARG:O	2.13	0.48
1:AA:302:G:N3	1:AA:556:C:H4'	2.28	0.48
42:BH:124:GLU:HG3	42:BH:132:ARG:HG3	1.94	0.48
37:DC:41:THR:HG21	37:DC:175:PRO:HB2	1.96	0.48
30:D5:3:LYS:HE3	35:DA:2611:U:H1'	1.95	0.48
4:CD:8:VAL:HG11	4:CD:115:ARG:CZ	2.43	0.48
52:BT:51:ARG:O	52:BT:61:PHE:HA	2.14	0.48
14:CN:12:ARG:CB	14:CN:12:ARG:NH1	2.76	0.48
35:BA:2223:G:O2'	35:BA:2224:G:H5'	2.13	0.48
13:CM:56:LEU:HD13	13:CM:60:VAL:HG21	1.94	0.48
35:DA:1026:U:H2'	35:DA:1027:A:H5'	1.95	0.48
24:CY:185:GLY:HA3	24:CY:311:ILE:HG21	1.96	0.48
1:AA:1060:C:H5''	10:AJ:51:ARG:HB3	1.95	0.48
35:BA:2693:A:H2'	35:BA:2694:G:C8	2.49	0.48
58:DZ:35:ARG:HG3	58:DZ:35:ARG:HH11	1.78	0.48
44:BJ:99:UNK:O	44:BJ:100:UNK:C	2.61	0.48
35:DA:2065:C:H2'	35:DA:2066:C:H6	1.79	0.48
2:CB:73:THR:HG22	2:CB:95:GLN:O	2.13	0.48
35:BA:1812:A:H2'	35:BA:1813:G:H8	1.79	0.48
35:DA:1889:A:O2'	35:DA:2087:G:H5'	2.14	0.48
32:B7:43:THR:HG22	32:B7:44:PRO:O	2.14	0.48
11:AK:48:ILE:HD11	11:AK:64:ALA:HA	1.96	0.48
35:DA:2342:C:O2'	35:DA:2374:C:H5''	2.14	0.48
35:DA:1266:G:O5'	55:DW:15:ARG:NH2	2.47	0.48
43:DI:31:LEU:HB2	43:DI:32:PRO:HD3	1.95	0.48
1:CA:295:C:H2'	1:CA:296:U:C6	2.48	0.48
35:DA:1641:A:H2'	35:DA:1642:G:O4'	2.14	0.48
25:B0:83:PRO:C	25:B0:85:ALA:H	2.16	0.48
1:CA:64:G:H4'	1:CA:65:U:H5''	1.96	0.48
35:BA:2689:U:H4'	35:BA:2690:C:C6	2.48	0.48
17:AQ:24:GLU:HG2	17:AQ:39:SER:HB3	1.96	0.48
30:D5:33:CYS:O	30:D5:36:CYS:O	2.32	0.48
45:DK:92:GLY:HA3	58:DZ:112:ARG:NH1	2.20	0.48
57:BY:81:LYS:HD3	57:BY:97:ARG:CG	2.37	0.48
35:BA:1854:A:H2'	35:BA:1855:G:O4'	2.14	0.48
35:DA:1204:A:C2	35:DA:1241:A:N1	2.81	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:DP:7:ARG:O	48:DP:10:PRO:HD3	2.13	0.48
24:AY:115:ASN:HB2	24:AY:170:LEU:HD11	1.96	0.48
41:DG:115:ARG:HH22	41:DG:136:ARG:CD	2.23	0.48
41:DG:45:GLU:O	41:DG:46:ALA:HB3	2.14	0.48
35:BA:1301:A:H2'	35:BA:1302:A:H3'	1.96	0.48
19:AS:6:LYS:O	19:AS:7:LYS:HD3	2.14	0.48
1:AA:976:G:P	14:AN:32:SER:H	2.36	0.48
35:BA:654(F):C:H2'	35:BA:654(G):C:O4'	2.13	0.48
51:DS:61:ASN:OD1	51:DS:62:LYS:N	2.33	0.48
24:AY:128:GLU:O	24:AY:131:ASP:N	2.47	0.48
52:DT:28:VAL:HG22	52:DT:46:GLU:CA	2.44	0.48
35:DA:1542:A:C3'	35:DA:1542:A:C8	2.93	0.48
55:DW:91:GLY:O	55:DW:92:ARG:C	2.52	0.48
4:AD:176:LEU:HG	4:AD:178:VAL:N	2.23	0.48
24:CY:130:CYS:C	24:CY:163:GLY:HA3	2.34	0.48
51:DS:74:ALA:O	51:DS:77:ALA:HB3	2.14	0.48
35:BA:1209:G:N2	35:BA:1210:A:H62	2.11	0.48
47:DO:104:ARG:NE	52:DT:33:LYS:HE3	2.24	0.48
35:BA:279:C:N4	35:BA:361:G:H1	2.11	0.48
33:B8:48:PHE:C	33:B8:49:VAL:CG2	2.82	0.48
57:DY:87:LYS:HG3	57:DY:88:LYS:N	2.29	0.48
41:DG:98:ARG:O	41:DG:101:ILE:HG13	2.14	0.48
2:AB:79:ASP:HB2	2:AB:80:ILE:HD12	1.96	0.48
3:CC:22:TRP:CH2	3:CC:32:LEU:HB2	2.48	0.48
1:AA:1288:A:H2'	1:AA:1289:A:C8	2.48	0.48
2:AB:115:LEU:HD13	2:AB:145:LEU:HB3	1.96	0.48
1:AA:509:A:H5''	4:AD:55:ALA:HB2	1.95	0.48
41:BG:32:PRO:CG	41:BG:172:LEU:HD12	2.40	0.48
58:DZ:10:ARG:NH2	58:DZ:26:GLY:O	2.47	0.48
12:AL:70:ILE:CD1	12:AL:77:LEU:HD12	2.42	0.48
7:CG:15:ASP:CB	7:CG:20:ASP:H	2.27	0.48
48:BP:19:VAL:HG23	48:BP:19:VAL:O	2.14	0.48
8:CH:39:LEU:HD22	8:CH:39:LEU:H	1.78	0.48
33:D8:32:LEU:N	33:D8:32:LEU:HD22	2.29	0.48
9:AI:118:LYS:O	9:AI:119:ALA:CB	2.61	0.48
41:DG:21:ARG:HH12	41:DG:22:ARG:HG2	1.78	0.48
41:DG:31:VAL:HG13	41:DG:31:VAL:O	2.13	0.48
3:AC:179:ARG:HG3	3:AC:179:ARG:O	2.14	0.48
16:AP:13:HIS:C	16:AP:15:PRO:HD3	2.34	0.48
1:CA:539:A:OP1	12:CL:114:LYS:HD2	2.14	0.48
4:AD:120:LEU:HB3	4:AD:126:ILE:HD11	1.95	0.48
10:CJ:16:LEU:HA	10:CJ:94:VAL:HG21	1.96	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:152:SER:HA	4:CD:155:LEU:HD12	1.96	0.48
1:AA:358:U:H2'	1:AA:359:U:H6	1.79	0.48
1:AA:143:A:N1	1:AA:220:G:O6	2.47	0.48
55:DW:18:ARG:NH1	55:DW:76:VAL:O	2.42	0.48
7:CG:25:ALA:HA	7:CG:28:ASN:HD22	1.79	0.48
24:CY:231:VAL:HB	24:CY:246:ASP:HB3	1.96	0.48
35:DA:1573:G:C2'	35:DA:1574:C:H5'	2.42	0.48
35:BA:892:G:H2'	35:BA:893:C:C6	2.48	0.48
42:BH:74:ASN:ND2	42:BH:138:LYS:HD3	2.27	0.48
4:AD:65:ARG:HG3	4:AD:75:PHE:CD1	2.49	0.48
58:BZ:103:ARG:HG3	58:BZ:103:ARG:HH11	1.79	0.48
6:CF:33:TYR:CE2	6:CF:74:ASP:HB2	2.49	0.48
35:BA:1771:C:O2'	35:BA:1786:A:H8	1.97	0.48
35:DA:1533:G:H1'	35:DA:1537:G:H1	1.79	0.48
8:AH:121:ASP:CG	8:AH:122:ARG:H	2.18	0.48
34:D9:26:ILE:N	34:D9:26:ILE:HD12	2.28	0.48
39:BE:98:PRO:HG3	39:BE:174:ASP:HA	1.95	0.48
35:BA:652:C:O2'	35:BA:653:A:O5'	2.31	0.48
46:BN:61:ARG:HG3	46:BN:61:ARG:NH1	2.29	0.48
1:CA:818:G:O2'	1:CA:819:A:H5''	2.14	0.48
2:CB:137:ARG:HH11	2:CB:137:ARG:HG2	1.78	0.48
25:B0:10:THR:HG21	35:BA:2277:G:OP1	2.14	0.48
35:BA:2410:G:H2'	35:BA:2411:A:O4'	2.14	0.48
1:CA:125:U:H2'	1:CA:126:G:C8	2.48	0.48
35:DA:1550:C:H2'	35:DA:1551:C:H6	1.78	0.48
11:AK:91:ARG:HD2	11:AK:91:ARG:C	2.34	0.48
6:CF:27:GLN:HE21	6:CF:27:GLN:HA	1.79	0.48
52:BT:14:TYR:CD1	52:BT:14:TYR:N	2.81	0.48
1:CA:967:C:H2'	1:CA:968:A:C8	2.49	0.48
1:CA:965:A:C2	1:CA:969:A:C2	3.02	0.48
50:DR:87:TYR:O	50:DR:90:ARG:N	2.45	0.48
48:DP:136:GLU:O	48:DP:139:LYS:N	2.44	0.48
35:DA:769:G:O2'	35:DA:770:G:H5'	2.14	0.48
55:DW:31:GLU:O	55:DW:35:ILE:HG12	2.14	0.48
57:DY:26:LYS:HG3	57:DY:27:VAL:HG23	1.96	0.47
45:DK:115:LEU:O	45:DK:116:ASN:CB	2.61	0.47
30:D5:50:GLY:HA3	30:D5:56:LYS:HD2	1.96	0.47
51:DS:89:ARG:CB	51:DS:92:TYR:HB3	2.43	0.47
36:BB:21:G:O2'	36:BB:22:U:O4'	2.31	0.47
3:AC:153:VAL:O	3:AC:165:THR:HA	2.14	0.47
35:BA:2219:G:O2'	35:BA:2220:G:H5'	2.14	0.47
4:CD:12:CYS:HB3	4:CD:18:LYS:HA	1.94	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:186:PHE:HD1	3:CC:198:VAL:O	1.97	0.47
35:BA:2395:C:H2'	35:BA:2396:G:O4'	2.14	0.47
52:DT:117:ASP:O	52:DT:118:ARG:C	2.52	0.47
54:BV:4:ILE:O	54:BV:39:LEU:HD22	2.14	0.47
54:DV:47:VAL:HG12	54:DV:52:VAL:H	1.79	0.47
39:DE:111:ARG:HB2	39:DE:160:TYR:O	2.14	0.47
24:CY:60:ASP:CG	24:CY:61:THR:N	2.67	0.47
40:DF:63:LYS:HE3	40:DF:67:GLN:CB	2.43	0.47
35:DA:1114:G:H3'	35:DA:1115:G:C5'	2.35	0.47
26:B1:93:GLU:O	26:B1:95:LEU:N	2.46	0.47
35:DA:672:C:O2'	35:DA:673:C:H5''	2.12	0.47
47:BO:65:THR:OG1	47:BO:69:ILE:HD11	2.14	0.47
51:DS:42:ASP:C	51:DS:44:LYS:H	2.16	0.47
35:BA:904:C:C5'	35:BA:904:C:H6	2.17	0.47
46:BN:90:MET:O	46:BN:93:THR:O	2.31	0.47
35:DA:888:C:H2'	35:DA:889:C:H5'	1.95	0.47
1:AA:1026:G:C3'	1:AA:1027:C:H5'	2.43	0.47
5:CE:69:VAL:HG21	5:CE:113:ALA:HB1	1.94	0.47
38:DD:73:VAL:HG12	38:DD:74:GLY:N	2.29	0.47
1:AA:189(F):U:C4	17:AQ:72:ARG:CZ	2.97	0.47
43:DI:75:LEU:HD23	43:DI:105:HIS:CD2	2.49	0.47
43:DI:127:VAL:HG12	43:DI:137:PRO:HB2	1.96	0.47
3:AC:22:TRP:CZ2	14:AN:54:PRO:HG2	2.49	0.47
35:BA:1722:A:C2	35:BA:1740:G:H8	2.32	0.47
2:CB:233:SER:HB2	2:CB:234:PRO:CD	2.38	0.47
38:DD:35:LYS:HB2	38:DD:63:ARG:HA	1.96	0.47
40:BF:107:LYS:NZ	40:BF:107:LYS:CA	2.77	0.47
35:DA:1799:G:H8	38:DD:181:GLU:OE1	1.97	0.47
41:BG:172:LEU:HD23	41:BG:172:LEU:C	2.34	0.47
40:DF:107:LYS:CA	40:DF:107:LYS:NZ	2.76	0.47
33:D8:31:HIS:CE1	35:DA:2392:A:OP2	2.63	0.47
1:AA:1300:G:H1'	1:AA:1301:U:H5	1.79	0.47
22:CV:1:G:O2'	22:CV:2:C:H5'	2.14	0.47
13:CM:48:LEU:HG	13:CM:53:VAL:HG22	1.95	0.47
35:DA:2726:U:H6	47:DO:67:LYS:NZ	2.11	0.47
52:DT:53:ARG:CB	52:DT:53:ARG:CZ	2.92	0.47
25:D0:42:GLY:HA3	35:DA:2331:G:O4'	2.14	0.47
21:AU:12:LYS:CB	21:AU:22:ARG:HD2	2.44	0.47
22:AV:21:A:C3'	22:AV:22:G:H5''	2.43	0.47
35:DA:784:A:C5	38:DD:229:VAL:HG21	2.49	0.47
35:BA:118:A:H1'	35:BA:178:G:O4'	2.14	0.47
20:CT:26:ASN:N	20:CT:26:ASN:ND2	2.61	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:21:ARG:CZ	2:AB:39:ILE:HG12	2.44	0.47
35:DA:286:C:H2'	35:DA:287:C:H6	1.79	0.47
45:BK:132:ARG:HH11	45:BK:132:ARG:CB	2.27	0.47
35:DA:2761:G:C2'	35:DA:2762:G:H5''	2.44	0.47
35:BA:570:G:H2'	35:BA:2030:A:C5	2.49	0.47
4:CD:190:ASP:HB3	4:CD:193:ASP:OD2	2.13	0.47
2:CB:212:GLN:NE2	2:CB:216:SER:HB2	2.28	0.47
1:AA:664:G:H22	1:AA:741:G:H1	1.62	0.47
56:DX:44:GLU:CG	56:DX:51:VAL:HG23	2.44	0.47
1:AA:1476:G:H2'	1:AA:1477:C:C6	2.49	0.47
1:AA:619:U:H3	4:AD:135:LEU:HD13	1.79	0.47
34:B9:26:ILE:HD12	34:B9:26:ILE:N	2.29	0.47
56:BX:44:GLU:CG	56:BX:51:VAL:HG23	2.44	0.47
35:BA:1094:U:H1'	35:BA:1097:U:H5	1.78	0.47
35:DA:443:A:H1'	35:DA:1201:C:O4'	2.14	0.47
16:CP:55:ARG:O	16:CP:58:TYR:HB3	2.14	0.47
8:AH:58:TYR:O	8:AH:59:LEU:HD23	2.14	0.47
35:DA:1935:G:H1'	35:DA:1964:G:N2	2.29	0.47
1:CA:248:C:O2'	1:CA:249:U:H5'	2.13	0.47
40:BF:110:LEU:HD13	40:BF:202:PHE:CE1	2.49	0.47
56:BX:31:HIS:HA	56:BX:32:PRO:HD2	1.68	0.47
1:AA:766:A:H2'	1:AA:767:A:O4'	2.14	0.47
26:B1:37:ILE:HG22	26:B1:38:SER:N	2.27	0.47
35:DA:2019:A:H5''	53:DU:27:LEU:HD12	1.95	0.47
35:DA:1366:A:H2'	35:DA:1367:A:H5'	1.95	0.47
35:BA:769:G:O2'	35:BA:770:G:H5'	2.14	0.47
9:CI:75:ASP:HA	9:CI:78:LYS:NZ	2.28	0.47
35:BA:1146:C:O2'	35:BA:1147:C:H5'	2.13	0.47
35:DA:582:G:H2'	35:DA:583:G:C8	2.48	0.47
1:CA:1508:G:H2'	1:CA:1509:C:C6	2.48	0.47
31:B6:22:ALA:HB2	31:B6:39:TYR:CE2	2.49	0.47
1:AA:1442:G:H2'	1:AA:1442(A):G:H5''	1.96	0.47
30:B5:57:VAL:CG2	30:B5:58:LEU:H	2.18	0.47
40:BF:117:ARG:NH2	40:BF:187:VAL:HA	2.28	0.47
4:AD:129:ASN:ND2	4:AD:145:GLU:N	2.62	0.47
38:DD:48:ARG:HG3	38:DD:48:ARG:HH11	1.79	0.47
27:B2:13:ALA:C	27:B2:15:LYS:N	2.66	0.47
35:BA:888:C:C2'	35:BA:889:C:H5'	2.44	0.47
22:CW:55:U:O2	22:CW:55:U:O4'	2.32	0.47
41:DG:77:ILE:HG22	41:DG:80:PHE:N	2.27	0.47
52:BT:126:ALA:C	52:BT:128:GLU:H	2.16	0.47
3:AC:186:PHE:HD1	3:AC:198:VAL:O	1.96	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BG:73:ALA:H	41:BG:87:PRO:CG	2.27	0.47
40:DF:68:LYS:O	40:DF:70:THR:N	2.46	0.47
29:D4:27:THR:O	29:D4:28:LYS:HG2	2.14	0.47
1:AA:1422:G:H2'	1:AA:1423:G:H8	1.79	0.47
37:DC:30:VAL:HG11	37:DC:42:VAL:CG1	2.43	0.47
1:CA:1371:G:OP2	9:CI:11:LYS:HD2	2.13	0.47
4:AD:14:ARG:HD2	4:AD:59:ARG:HH12	1.77	0.47
55:DW:65:LEU:HD22	55:DW:68:ARG:HD3	1.95	0.47
35:DA:94:C:O2	35:DA:94:C:H2'	2.14	0.47
33:B8:32:LEU:N	33:B8:32:LEU:HD22	2.29	0.47
13:CM:16:ASP:O	13:CM:30:ALA:HB1	2.14	0.47
16:CP:4:ILE:CD1	16:CP:64:ALA:HB1	2.44	0.47
8:AH:91:ARG:HG2	8:AH:91:ARG:NH1	2.25	0.47
46:BN:42:TRP:CZ3	46:BN:48:MET:HE1	2.49	0.47
1:AA:60:A:H8	1:AA:60:A:P	2.37	0.47
35:DA:363(F):A:O2'	35:DA:364:C:H6	1.95	0.47
1:CA:76:C:N4	1:CA:93:G:H1	2.12	0.47
42:BH:136:ILE:H	42:BH:136:ILE:CD1	2.25	0.47
10:AJ:16:LEU:HD13	10:AJ:16:LEU:O	2.14	0.47
1:AA:36:C:O2'	1:AA:37:U:H5'	2.13	0.47
34:B9:31:LYS:HE2	35:BA:2528:U:C5'	2.40	0.47
35:BA:2682:U:C6	35:BA:2682:U:H5'	2.46	0.47
38:BD:211:ARG:HA	38:BD:214:TRP:CD2	2.49	0.47
8:AH:109:ILE:HD11	8:AH:120:THR:CG2	2.45	0.47
58:DZ:128:VAL:HG23	58:DZ:160:GLY:O	2.14	0.47
56:BX:64:LYS:HZ3	56:BX:73:ARG:HH21	1.63	0.47
1:CA:186:C:O2'	1:CA:187:C:H5'	2.14	0.47
8:AH:51:VAL:HG23	8:AH:52:ASP:N	2.29	0.47
27:B2:31:GLU:HB3	27:B2:53:LEU:HD11	1.95	0.47
27:B2:53:LEU:O	27:B2:53:LEU:HD23	2.14	0.47
42:BH:85:LYS:C	42:BH:85:LYS:HE2	2.34	0.47
4:CD:3:ARG:O	4:CD:5:ILE:HG13	2.14	0.47
28:B3:17:LYS:HE2	35:BA:969:U:OP1	2.14	0.47
8:CH:12:ARG:HH12	8:CH:27:PRO:HD3	1.78	0.47
15:AO:53:HIS:O	15:AO:56:LEU:HB3	2.15	0.47
8:CH:29:SER:HB3	8:CH:32:LYS:HG3	1.96	0.47
38:DD:168:ARG:O	38:DD:169:GLU:HB2	2.14	0.47
35:BA:782:A:H5'	35:BA:783:A:C2	2.49	0.47
35:DA:2514:U:H2'	35:DA:2515:C:H6	1.77	0.47
5:CE:57:LYS:HB3	5:CE:61:TYR:CE2	2.49	0.47
22:CV:3:C:H2'	22:CV:4:C:C6	2.48	0.47
35:DA:1412:A:H2'	35:DA:1413:G:C8	2.49	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:643:C:H5'	8:CH:31:PHE:CD1	2.48	0.47
40:BF:148:LEU:HD11	40:BF:193:VAL:HG21	1.96	0.47
53:BU:18:LEU:HD11	53:BU:32:PHE:CB	2.44	0.47
53:BU:34:LYS:HA	53:BU:34:LYS:HE2	1.95	0.47
7:CG:23:VAL:HG12	7:CG:23:VAL:O	2.14	0.47
1:AA:1428:A:H2'	1:AA:1429:C:C6	2.48	0.47
35:DA:1009:A:O4'	53:DU:59:ARG:HD2	2.14	0.47
35:BA:2342:C:O2'	35:BA:2374:C:H5''	2.13	0.47
35:BA:2864:G:OP1	52:BT:119:LYS:HD2	2.14	0.47
33:D8:62:LEU:O	33:D8:64:TYR:N	2.47	0.47
42:DH:41:MET:CG	42:DH:43:VAL:HG13	2.44	0.47
49:DQ:137:TYR:CD2	49:DQ:137:TYR:N	2.80	0.47
58:DZ:152:ALA:C	58:DZ:154:ASP:H	2.17	0.47
1:CA:959:A:H2'	1:CA:960:U:H4'	1.95	0.47
22:CW:56:C:N3	35:DA:2169:A:H2	2.11	0.47
35:DA:2555:U:H2'	35:DA:2556:C:H5'	1.96	0.47
38:BD:26:LYS:O	38:BD:27:THR:CB	2.61	0.47
35:DA:654(B):C:H2'	35:DA:654(C):G:C8	2.49	0.47
35:BA:2305:A:O2'	41:BG:136:ARG:NH1	2.48	0.47
4:CD:20:TYR:HD1	4:CD:20:TYR:H	1.61	0.47
1:AA:1202:G:H1'	14:AN:29:ARG:HD3	1.96	0.47
52:DT:89:VAL:O	52:DT:91:ARG:N	2.46	0.47
35:DA:1883:G:HO2'	35:DA:1884:A:H8	1.60	0.47
35:DA:2395:C:H2'	35:DA:2396:G:O4'	2.15	0.47
38:DD:26:LYS:O	38:DD:27:THR:CB	2.62	0.47
35:BA:2648:C:H2'	35:BA:2649:U:C6	2.50	0.47
35:BA:92:A:H3'	35:BA:93:G:C8	2.49	0.47
1:CA:413:G:H4'	1:CA:414:A:C5'	2.36	0.47
35:DA:941:A:H2'	35:DA:942:G:C8	2.49	0.47
48:BP:23:PRO:HD2	48:BP:33:ARG:HE	1.79	0.47
35:BA:2481:G:HO2'	35:BA:2482:G:P	2.38	0.47
56:DX:83:VAL:HG11	56:DX:87:GLN:HB2	1.96	0.47
31:B6:10:LEU:HG	33:B8:34:TRP:CD1	2.49	0.47
1:CA:1357:A:H61	1:CA:1363(A):A:H2	1.60	0.47
1:AA:403:C:H2'	1:AA:404:U:C6	2.47	0.47
24:AY:77:GLU:HB2	24:AY:84:ARG:HG2	1.96	0.47
12:CL:22:SER:C	12:CL:24:VAL:H	2.18	0.47
9:CI:118:LYS:HB3	9:CI:118:LYS:NZ	2.29	0.47
13:CM:19:LEU:CD2	13:CM:19:LEU:H	2.27	0.47
24:AY:19:ILE:HG12	24:AY:62:PHE:CE1	2.49	0.47
57:BY:31:LEU:CD2	57:BY:31:LEU:N	2.77	0.47
35:BA:512:G:C2'	35:BA:513:A:OP2	2.62	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:B1:25:LYS:C	26:B1:27:GLU:N	2.68	0.47
41:BG:9:ARG:HH11	41:BG:9:ARG:HB2	1.76	0.47
3:CC:119:ARG:HH21	3:CC:140:ARG:NE	2.12	0.47
1:AA:715:A:O2'	1:AA:716:A:H5'	2.14	0.47
47:DO:97:ARG:HG3	47:DO:97:ARG:NH1	2.27	0.47
1:AA:1436:U:C2'	1:AA:1437:C:H5'	2.45	0.47
1:CA:189(K):U:H2'	1:CA:189(L):G:H8	1.76	0.47
42:DH:83:TYR:HA	42:DH:135:GLY:H	1.78	0.47
37:BC:184:GLU:C	37:BC:185:LYS:HE3	2.35	0.47
1:CA:336:C:O2'	1:CA:337:C:H5'	2.13	0.47
49:DQ:97:VAL:HG21	49:DQ:103:MET:CE	2.44	0.47
25:B0:51:VAL:N	25:B0:62:LEU:HD12	2.29	0.47
3:AC:138:VAL:HG13	3:AC:149:ALA:HB3	1.97	0.47
1:CA:1383:C:H2'	1:CA:1384:C:C6	2.48	0.47
35:DA:478:A:N1	35:DA:500:G:H4'	2.28	0.47
3:CC:138:VAL:HG13	3:CC:149:ALA:HB3	1.95	0.47
49:BQ:97:VAL:HG21	49:BQ:103:MET:CE	2.44	0.47
35:BA:1533:G:H1'	35:BA:1537:G:H1	1.78	0.47
46:DN:73:THR:HG21	46:DN:82:LEU:HD11	1.97	0.47
35:BA:1221:C:H2'	35:BA:1221(A):C:H6	1.78	0.47
35:BA:923:C:H2'	35:BA:924:C:H6	1.78	0.47
40:DF:110:LEU:CD1	40:DF:202:PHE:CE1	2.97	0.47
35:DA:2693:A:H2'	35:DA:2694:G:C8	2.49	0.47
1:AA:139:G:H2'	1:AA:140:A:C8	2.49	0.47
35:DA:1366:A:C2'	35:DA:1367:A:H5'	2.44	0.47
35:DA:697:C:H2'	35:DA:698:C:C6	2.49	0.47
35:DA:494:G:H21	55:DW:57:ASN:HD21	1.62	0.47
34:B9:27:CYS:SG	34:B9:28:GLU:N	2.88	0.47
35:DA:2467:C:H4'	49:DQ:123:HIS:CD2	2.49	0.47
1:AA:760:G:H2'	1:AA:761:G:H5'	1.95	0.47
56:DX:66:LEU:HD23	56:DX:66:LEU:C	2.34	0.47
35:DA:1057:A:N6	35:DA:1086:A:H2'	2.30	0.47
1:CA:746:A:O2'	1:CA:747:C:H5'	2.15	0.47
42:DH:105:LEU:HD23	42:DH:113:VAL:O	2.14	0.47
37:DC:19:LYS:HD3	37:DC:20:VAL:N	2.29	0.47
37:BC:214:TYR:HD2	37:BC:222:SER:HB2	1.79	0.47
1:AA:19:C:H5''	5:AE:86:ALA:CB	2.44	0.47
33:B8:23:VAL:HG12	33:B8:46:ARG:HH11	1.79	0.47
35:BA:2491:U:O2'	35:BA:2492:U:H5'	2.15	0.47
58:BZ:119:GLU:CG	58:BZ:122:ARG:HD3	2.43	0.47
35:DA:1301:A:H2'	35:DA:1302:A:H3'	1.97	0.47
51:DS:28:VAL:HG12	51:DS:29:PHE:N	2.28	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:2303:G:H1	35:DA:2313:C:H42	1.62	0.47
41:BG:139:LEU:C	41:BG:139:LEU:HD12	2.34	0.47
41:BG:72:ARG:CD	41:BG:86:MET:HA	2.41	0.47
35:BA:1885:A:H2'	35:BA:1886:C:O4'	2.15	0.47
35:DA:2656:U:C2'	35:DA:2657:A:H5''	2.42	0.47
43:DI:6:LEU:C	43:DI:15:VAL:HG12	2.34	0.47
31:D6:30:THR:O	31:D6:32:ASN:N	2.48	0.47
35:BA:1568:G:C5'	38:BD:61:LEU:HD23	2.34	0.47
35:BA:94:C:O2	35:BA:94:C:H2'	2.13	0.47
11:AK:105:VAL:HB	11:AK:108:ILE:HD11	1.96	0.47
53:DU:12:ARG:C	53:DU:13:LYS:HE2	2.35	0.47
35:DA:807:U:O2'	35:DA:808:G:H5'	2.14	0.47
48:DP:38:GLN:CG	48:DP:39:LYS:H	2.14	0.47
57:BY:87:LYS:HG3	57:BY:88:LYS:N	2.29	0.47
58:BZ:108:PRO:C	58:BZ:110:GLY:H	2.17	0.47
2:CB:79:ASP:HB2	2:CB:80:ILE:HD12	1.96	0.47
1:CA:1288:A:H2'	1:CA:1289:A:C8	2.49	0.47
26:B1:3:LYS:HE2	35:BA:1364:G:N7	2.28	0.47
18:AR:31:LEU:HD12	18:AR:66:LEU:HB2	1.95	0.47
6:CF:68:PRO:HG2	6:CF:71:ARG:CG	2.39	0.47
43:BI:5:LEU:O	43:BI:6:LEU:CG	2.59	0.47
24:AY:39:TRP:HA	24:AY:45:ALA:HB2	1.95	0.47
11:AK:22:HIS:HB3	11:AK:29:ILE:HG23	1.97	0.47
2:AB:65:GLY:O	2:AB:67:THR:N	2.47	0.47
22:AW:49:C:H2'	22:AW:50:U:H5'	1.95	0.47
22:CW:27:G:H2'	22:CW:28:G:C8	2.49	0.47
13:AM:16:ASP:O	13:AM:30:ALA:HB1	2.15	0.47
1:AA:1329:A:OP1	13:AM:28:ALA:HB3	2.15	0.47
46:BN:47:ALA:HB2	46:BN:112:LEU:CD1	2.42	0.47
11:CK:59:TYR:CE1	11:CK:63:LEU:HD21	2.49	0.47
21:CU:12:LYS:CB	21:CU:22:ARG:HD2	2.44	0.47
2:AB:217:ARG:HG3	2:AB:217:ARG:HH11	1.80	0.47
38:DD:124:PRO:HG2	38:DD:129:ASN:ND2	2.30	0.47
1:CA:986:A:H2'	1:CA:987:G:H8	1.80	0.47
10:CJ:63:PHE:HB3	14:CN:58:LYS:HA	1.96	0.47
49:BQ:35:VAL:HG11	49:BQ:130:LYS:CE	2.43	0.47
49:BQ:35:VAL:HG13	49:BQ:130:LYS:HB3	1.97	0.47
6:AF:79:LEU:HD12	6:AF:88:VAL:HG11	1.95	0.47
35:DA:527:C:N4	35:DA:2779:U:OP1	2.45	0.47
4:CD:4:TYR:O	4:CD:5:ILE:HB	2.14	0.47
35:DA:2305:A:C2	35:DA:2306:C:H1'	2.49	0.47
35:BA:2611:U:H5'	35:BA:2611:U:H6	1.80	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:61:LYS:HD2	4:AD:207:TYR:OH	2.14	0.47
28:D3:17:LYS:HE2	35:DA:969:U:OP1	2.14	0.47
35:BA:1374:G:H2'	35:BA:1375:C:H6	1.79	0.47
38:DD:263:ARG:HB2	38:DD:263:ARG:CZ	2.44	0.47
24:CY:149:PHE:HD1	24:CY:173:GLY:HA3	1.78	0.47
1:CA:9:G:H5''	5:CE:122:GLU:OE2	2.14	0.47
38:BD:134:ARG:HG3	38:BD:135:PHE:CD2	2.49	0.47
35:BA:1813:G:H1'	38:BD:50:THR:OG1	2.15	0.47
38:DD:2:ALA:O	38:DD:3:VAL:HB	2.14	0.47
49:DQ:10:ARG:NH1	49:DQ:10:ARG:CB	2.78	0.47
35:BA:2373:G:H2'	35:BA:2374:C:C6	2.49	0.47
39:DE:38:THR:OG1	39:DE:41:LYS:HE2	2.14	0.47
40:BF:46:ARG:NH1	40:BF:46:ARG:HG3	2.29	0.47
35:BA:1744:C:C2'	35:BA:1745:C:H5'	2.45	0.47
49:BQ:116:GLU:OE1	49:BQ:116:GLU:HA	2.14	0.47
35:BA:1751:C:O2'	35:BA:1752:C:H5'	2.15	0.47
35:DA:1467:C:O2'	35:DA:1468:C:H5'	2.14	0.47
3:CC:29:TYR:HE1	10:CJ:65:LEU:HD21	1.79	0.47
50:BR:87:TYR:O	50:BR:90:ARG:N	2.46	0.47
2:CB:23:ARG:O	2:CB:23:ARG:HG3	2.14	0.47
38:BD:39:LYS:NZ	38:BD:60:ARG:HH11	2.13	0.47
3:AC:110:ASN:O	3:AC:141:VAL:HG22	2.14	0.47
12:CL:111:LYS:HG2	12:CL:112:ASP:N	2.29	0.47
1:AA:908:A:H2'	1:AA:909:A:H8	1.78	0.47
35:BA:1747:G:H2'	35:BA:1747(A):G:H8	1.80	0.47
57:BY:96:ILE:CB	57:BY:99:CYS:HB2	2.42	0.47
35:BA:1203:G:H4'	48:BP:7:ARG:HG3	1.97	0.47
45:BK:77:LEU:HB3	45:BK:107:ILE:HD13	1.96	0.47
45:BK:98:ARG:HA	45:BK:137:GLU:HB3	1.95	0.47
6:AF:26:ILE:O	6:AF:29:ALA:HB3	2.14	0.47
3:AC:150:LYS:HG3	3:AC:169:ALA:HB2	1.95	0.47
29:B4:26:SER:CB	41:BG:105:LYS:HZ2	2.28	0.47
51:DS:61:ASN:HB3	51:DS:64:GLU:HB2	1.95	0.47
40:BF:63:LYS:HE3	40:BF:67:GLN:CB	2.41	0.47
41:BG:50:ALA:O	41:BG:52:ILE:HD13	2.15	0.47
45:BK:13:PRO:O	45:BK:53:VAL:HG22	2.14	0.47
4:AD:29:PRO:O	4:AD:30:LYS:CB	2.63	0.47
4:AD:29:PRO:O	4:AD:30:LYS:HB3	2.15	0.47
35:DA:1043:C:H6	35:DA:1043:C:O5'	1.98	0.47
1:AA:1422:G:OP1	47:BO:48:PRO:HA	2.14	0.47
1:CA:458:C:H2'	1:CA:460:G:H8	1.79	0.47
9:AI:95:LYS:HD3	9:AI:95:LYS:C	2.34	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:1742:G:N7	35:BA:1743:C:C4	2.82	0.47
2:CB:118:LEU:HD13	2:CB:142:LEU:HB2	1.96	0.47
19:CS:43:GLU:CG	19:CS:44:MET:HE1	2.39	0.47
38:BD:30:GLU:HG3	38:BD:63:ARG:NH2	2.28	0.47
46:DN:65:LYS:O	46:DN:69:GLN:HB2	2.14	0.47
35:BA:2150:U:H2'	35:BA:2151:G:H8	1.76	0.47
43:BI:64:GLU:C	43:BI:64:GLU:CD	2.73	0.47
52:BT:53:ARG:CZ	52:BT:53:ARG:CB	2.92	0.47
35:BA:484:C:H2'	35:BA:485:C:C6	2.49	0.47
25:D0:36:ILE:HD12	25:D0:37:LEU:N	2.30	0.47
1:CA:421:U:C4	3:CC:127:ARG:NH1	2.82	0.47
1:AA:1251:A:H4'	9:AI:12:GLU:OE2	2.15	0.47
4:CD:121:VAL:CA	4:CD:126:ILE:HD13	2.45	0.47
38:BD:211:ARG:HA	38:BD:214:TRP:CE3	2.50	0.47
41:DG:37:VAL:HG22	41:DG:159:VAL:HG12	1.96	0.47
39:BE:34:VAL:CG1	39:BE:48:GLN:HE21	2.26	0.47
1:CA:313:A:H2'	1:CA:314:C:C6	2.49	0.47
35:BA:271(D):G:H1	35:BA:271(T):C:H42	1.61	0.47
42:BH:83:TYR:HA	42:BH:135:GLY:H	1.80	0.47
35:BA:1291:C:O2'	35:BA:1292:U:H5'	2.14	0.47
1:CA:1019:C:C2'	1:CA:1020:U:H5'	2.44	0.47
35:BA:2223:G:H2'	35:BA:2224:G:H5'	1.95	0.47
27:D2:28:LYS:HE2	27:D2:56:GLN:NE2	2.29	0.47
35:DA:1766:U:H2'	35:DA:1767:C:C6	2.49	0.47
35:DA:2689:U:H4'	35:DA:2690:C:C6	2.49	0.47
1:AA:245:C:O2'	1:AA:246:A:H5'	2.15	0.47
24:CY:109:PHE:CE2	24:CY:353:ALA:HB2	2.49	0.47
1:AA:818:G:C3'	1:AA:819:A:H5''	2.44	0.47
35:BA:2690:C:OP2	50:BR:14:SER:HB3	2.14	0.47
11:AK:18:ARG:HH21	11:AK:37:GLY:N	2.12	0.47
1:AA:1385:G:O2'	1:AA:1386:G:H5'	2.15	0.47
7:CG:54:THR:O	7:CG:54:THR:HG23	2.14	0.47
32:B7:5:TRP:CZ3	35:BA:464:U:H4'	2.50	0.47
35:DA:1005:C:H2'	35:DA:1006:C:C6	2.49	0.47
35:BA:1239:G:H2'	35:BA:1240:U:O4'	2.13	0.47
11:CK:91:ARG:C	11:CK:91:ARG:HD2	2.34	0.47
6:AF:27:GLN:HE21	6:AF:27:GLN:HA	1.78	0.47
35:BA:1763:G:H4'	35:BA:1763:G:OP1	2.14	0.47
35:DA:1899:G:C2'	35:DA:1900:A:OP2	2.61	0.47
45:DK:78:ILE:HD12	45:DK:134:MET:HE1	1.95	0.47
45:DK:98:ARG:HA	45:DK:137:GLU:HB3	1.97	0.47
13:AM:81:LEU:O	13:AM:89:GLY:HA3	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BG:120:LEU:HB2	41:BG:179:PRO:O	2.15	0.47
41:BG:117:PHE:HZ	41:BG:179:PRO:HG2	1.79	0.47
41:BG:60:LEU:O	41:BG:60:LEU:HD13	2.15	0.47
6:CF:64:GLN:O	6:CF:65:VAL:HB	2.14	0.47
1:CA:973:G:C3'	1:CA:974:A:H5''	2.41	0.47
13:CM:120:LYS:HE2	13:CM:122:LYS:NZ	2.29	0.47
58:DZ:30:ASN:HD22	58:DZ:90:VAL:HG12	1.79	0.47
35:DA:330:A:C2	35:DA:1210:A:H2'	2.43	0.47
35:DA:903:C:H2'	35:DA:904:C:H5'	1.96	0.47
48:DP:50:ARG:CG	48:DP:51:PHE:N	2.78	0.47
35:DA:279:C:N4	35:DA:361:G:H1	2.11	0.47
58:DZ:6:LYS:HG2	58:DZ:8:TYR:OH	2.14	0.47
1:AA:865:A:H2	1:AA:918:A:H4'	1.78	0.47
1:CA:473:G:H2'	1:CA:474:G:H8	1.80	0.47
30:B5:36:CYS:CB	30:B5:49:CYS:SG	3.03	0.47
30:B5:33:CYS:O	30:B5:36:CYS:O	2.33	0.47
48:DP:23:PRO:O	48:DP:33:ARG:NH1	2.47	0.47
19:CS:29:ARG:O	19:CS:31:ILE:HG22	2.15	0.47
2:CB:51:LEU:O	2:CB:55:PHE:HD2	1.98	0.47
1:CA:922:G:N3	1:CA:1398:A:H2	2.12	0.47
35:BA:860:U:O4'	35:BA:860:U:O2	2.30	0.47
35:BA:1678:G:N2	35:BA:1989:G:N2	2.57	0.47
55:BW:8:ARG:HB3	55:BW:9:TYR:CD1	2.50	0.47
3:AC:44:GLU:HA	3:AC:52:LEU:CD1	2.45	0.47
3:CC:44:GLU:HA	3:CC:52:LEU:CD1	2.44	0.47
1:CA:600:C:O2'	1:CA:601:C:H5'	2.14	0.47
47:BO:3:GLN:HB2	47:BO:4:PRO:HD2	1.97	0.47
1:CA:235:C:C5'	17:CQ:70:ARG:HG2	2.41	0.47
26:B1:5:CYS:CB	26:B1:8:SER:HG	2.27	0.47
33:B8:32:LEU:CB	33:B8:36:LYS:NZ	2.77	0.47
42:BH:153:LYS:N	42:BH:153:LYS:HD3	2.25	0.47
8:AH:39:LEU:HD22	8:AH:39:LEU:H	1.79	0.47
33:D8:32:LEU:O	33:D8:33:ASN:O	2.32	0.47
7:AG:15:ASP:CB	7:AG:20:ASP:H	2.28	0.47
1:AA:1112:C:H1'	3:AC:179:ARG:CD	2.43	0.47
22:AW:15:G:N2	22:AW:60:U:C6	2.83	0.47
48:BP:13:ASN:ND2	48:BP:13:ASN:C	2.66	0.47
16:AP:19:ILE:H	16:AP:19:ILE:CD1	2.24	0.47
2:CB:220:ASP:C	2:CB:222:ILE:H	2.18	0.47
35:BA:2127:G:N2	35:BA:2173:A:N3	2.63	0.47
40:DF:201:VAL:HA	40:DF:204:ASN:HD22	1.79	0.47
54:BV:82:ARG:HG2	54:BV:82:ARG:HH11	1.79	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:597:U:H2'	35:DA:598:G:C8	2.49	0.47
35:BA:2464:C:O2'	35:BA:2465:C:O5'	2.32	0.47
57:DY:52:SER:N	57:DY:53:PRO:CD	2.78	0.47
1:AA:630:G:N3	1:AA:630:G:H2'	2.29	0.47
28:B3:35:ARG:HH21	28:B3:37:LEU:CD2	2.28	0.47
8:AH:17:THR:HB	8:AH:78:GLN:OE1	2.14	0.47
35:BA:229:A:H5''	35:BA:230:U:H5'	1.97	0.47
35:DA:782:A:H5'	35:DA:783:A:C2	2.49	0.47
43:DI:118:LYS:O	43:DI:119:PRO:O	2.32	0.47
17:AQ:24:GLU:OE1	17:AQ:37:LYS:HD3	2.15	0.47
35:DA:579:G:H2'	35:DA:580:C:C6	2.50	0.47
57:DY:35:TYR:CD2	57:DY:69:ALA:HB3	2.49	0.47
35:BA:1481:U:H5'	35:BA:1482:G:OP2	2.14	0.47
57:BY:21:LYS:HG2	57:BY:22:GLY:N	2.30	0.47
35:BA:1862:G:O2'	35:BA:1863:G:H5'	2.14	0.47
35:DA:2777:G:H5''	35:DA:2778:A:H5'	1.97	0.47
47:DO:17:ARG:HG2	47:DO:17:ARG:HH11	1.80	0.47
11:AK:114:VAL:HG13	11:AK:114:VAL:O	2.15	0.47
18:CR:63:GLN:OE1	18:CR:63:GLN:HA	2.14	0.47
46:BN:108:PRO:O	46:BN:113:GLY:HA3	2.15	0.47
31:D6:45:LYS:HD3	31:D6:45:LYS:HA	1.36	0.47
31:D6:45:LYS:O	31:D6:46:HIS:C	2.53	0.47
52:DT:51:ARG:HG3	52:DT:98:LYS:HE3	1.96	0.47
57:BY:15:VAL:HG22	57:BY:72:VAL:HG12	1.97	0.47
40:BF:117:ARG:HD3	40:BF:120:GLU:OE1	2.14	0.47
45:DK:78:ILE:HD12	45:DK:134:MET:CE	2.45	0.47
35:DA:1045:A:H4'	35:DA:1047:G:O4'	2.15	0.47
30:D5:56:LYS:O	30:D5:57:VAL:O	2.32	0.47
51:BS:27:SER:O	51:BS:37:ALA:HA	2.14	0.47
22:CW:54:U:H3'	22:CW:55:U:O2	2.15	0.47
41:DG:59:GLU:OE2	41:DG:138:GLN:NE2	2.47	0.47
45:BK:78:ILE:HD12	45:BK:134:MET:HE1	1.96	0.47
35:BA:2660:A:C4	35:BA:2661:G:H4'	2.49	0.47
35:BA:1494:A:O2'	35:BA:1496:A:C2	2.65	0.47
35:DA:2206:G:N3	35:DA:2206:G:H5''	2.30	0.47
29:B4:26:SER:CB	41:BG:105:LYS:NZ	2.78	0.47
29:B4:33:VAL:HG11	41:BG:109:VAL:HG22	1.97	0.47
41:BG:106:LEU:HA	41:BG:110:ALA:CB	2.45	0.47
41:BG:6:ALA:C	41:BG:8:LYS:N	2.68	0.47
6:CF:5:GLU:HG2	6:CF:62:TRP:HZ2	1.79	0.47
52:DT:126:ALA:C	52:DT:128:GLU:H	2.18	0.47
24:AY:131:ASP:HA	24:AY:163:GLY:HA2	1.97	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:DT:27:THR:OG1	52:DT:28:VAL:N	2.47	0.47
51:BS:85:VAL:HG23	51:BS:106:ARG:HG3	1.95	0.47
35:DA:1171:G:H1	35:DA:1178:C:H42	1.61	0.47
35:BA:996:A:OP2	53:BU:92:ARG:NH2	2.48	0.47
53:BU:91:ASP:OD2	53:BU:96:ALA:HB2	2.14	0.47
39:BE:111:ARG:CG	50:BR:2:ARG:HG2	2.40	0.47
40:BF:67:GLN:O	40:BF:68:LYS:CB	2.56	0.47
54:DV:52:VAL:HG23	54:DV:55:ALA:CB	2.42	0.47
4:CD:176:LEU:HG	4:CD:177:ASP:N	2.13	0.47
39:DE:110:GLY:CA	39:DE:162:ALA:HB2	2.44	0.47
39:DE:111:ARG:HA	50:DR:2:ARG:CG	2.34	0.47
35:BA:1689:A:N7	35:BA:1698:A:N1	2.62	0.47
4:AD:28:SER:HB2	4:AD:30:LYS:CE	2.44	0.47
43:BI:77:LEU:HB3	43:BI:140:LEU:HG	1.97	0.47
35:DA:1039:G:H2'	35:DA:1040:C:C6	2.50	0.47
35:BA:363(B):G:H2'	35:BA:363(C):G:H5'	1.96	0.47
58:DZ:45:ASP:CG	58:DZ:49:ARG:HH12	2.17	0.47
24:CY:322:LYS:HD2	24:CY:328:LEU:O	2.15	0.47
47:BO:104:ARG:NE	52:BT:33:LYS:HE3	2.24	0.47
52:BT:62:THR:HA	52:BT:74:ARG:O	2.15	0.47
46:DN:58:ASP:C	46:DN:60:ILE:N	2.64	0.47
24:CY:26:LEU:O	24:CY:30:GLU:CG	2.63	0.47
45:DK:13:PRO:O	45:DK:53:VAL:HG22	2.15	0.47
52:DT:31:SER:C	52:DT:32:TYR:CD2	2.88	0.47
35:DA:2732:G:H3'	35:DA:2733:A:H5'	1.96	0.47
1:AA:1399:C:C2	1:AA:1502:A:N6	2.83	0.47
10:AJ:4:ILE:HD11	10:AJ:77:PRO:CB	2.37	0.47
46:BN:58:ASP:HB3	46:BN:95:PRO:HB2	1.96	0.47
46:BN:57:ALA:O	46:BN:58:ASP:OD1	2.33	0.47
25:D0:14:ARG:NH1	25:D0:14:ARG:HB2	2.30	0.47
10:CJ:3:LYS:NZ	10:CJ:77:PRO:HD2	2.29	0.47
3:AC:71:ALA:HA	3:AC:106:VAL:HB	1.97	0.47
1:CA:218:C:H5'	1:CA:470:C:N4	2.30	0.47
1:AA:1005:A:C3'	1:AA:1006:C:H5'	2.45	0.47
38:DD:10:THR:HG23	38:DD:13:ARG:CB	2.39	0.47
35:DA:2780:G:OP2	46:DN:118:LYS:HE2	2.14	0.47
43:DI:76:THR:O	43:DI:104:GLN:OE1	2.33	0.47
3:CC:22:TRP:CZ2	14:CN:54:PRO:HG2	2.50	0.47
39:DE:167:VAL:CG2	39:DE:170:LEU:HD11	2.45	0.47
58:DZ:52:SER:OG	58:DZ:53:ILE:N	2.47	0.47
1:CA:1005:A:C3'	1:CA:1006:C:H5'	2.45	0.47
35:BA:528:A:N1	35:BA:2043:C:O5'	2.48	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:587:C:OP2	48:BP:33:ARG:NH2	2.48	0.47
57:DY:45:VAL:HG12	57:DY:60:PHE:CD2	2.50	0.47
35:DA:2158:A:H4'	35:DA:2159:G:C4'	2.45	0.47
2:CB:115:LEU:HD13	2:CB:145:LEU:HB3	1.95	0.47
2:CB:187:LEU:HD11	2:CB:205:ASP:HA	1.96	0.47
35:BA:2360:A:O2'	35:BA:2361:A:C5'	2.63	0.47
35:BA:2158:A:H4'	35:BA:2159:G:C4'	2.44	0.47
12:CL:53:ARG:HG2	12:CL:93:LEU:HD11	1.95	0.47
12:CL:91:LYS:O	12:CL:92:ASP:HB2	2.14	0.47
8:AH:89:PRO:HA	8:AH:92:ARG:NH1	2.23	0.47
38:BD:265:PRO:O	38:BD:267:SER:N	2.48	0.47
43:BI:127:VAL:CG2	43:BI:139:GLN:HG3	2.44	0.47
55:DW:8:ARG:HB3	55:DW:9:TYR:CD1	2.50	0.47
39:DE:132:HIS:HA	39:DE:135:HIS:CE1	2.50	0.47
48:DP:115:LEU:CD2	48:DP:115:LEU:N	2.77	0.47
35:BA:2303:G:H1	35:BA:2313:C:H42	1.63	0.47
24:AY:312:ARG:NE	24:AY:344:LEU:HD13	2.29	0.47
48:DP:16:ARG:CB	48:DP:16:ARG:NH1	2.77	0.47
36:DB:11:C:OP2	36:DB:12:C:H5	1.98	0.47
1:AA:1305:G:N2	1:AA:1331:G:N3	2.62	0.47
48:BP:16:ARG:CZ	48:BP:16:ARG:HB2	2.44	0.47
35:BA:271(A):A:H2	35:BA:272(D):G:N3	2.13	0.47
33:B8:33:ASN:HD22	33:B8:36:LYS:HD3	1.80	0.47
58:BZ:5:LEU:HD21	58:BZ:39:VAL:CG2	2.45	0.47
2:AB:208:ILE:HA	2:AB:211:ILE:CD1	2.41	0.47
1:AA:1522:U:H2'	1:AA:1523:G:H8	1.80	0.47
4:CD:110:PHE:CD1	4:CD:110:PHE:N	2.78	0.47
39:DE:59:VAL:HG21	39:DE:63:LEU:HG	1.95	0.47
27:D2:2:LYS:HG2	27:D2:5:GLU:OE1	2.15	0.47
1:CA:1300:G:O2'	1:CA:1301:U:P	2.73	0.47
16:CP:4:ILE:HB	16:CP:66:PRO:HB3	1.97	0.47
1:CA:1343:G:H1'	9:CI:121:ARG:NH1	2.29	0.47
13:AM:19:LEU:H	13:AM:19:LEU:CD2	2.28	0.47
17:CQ:77:VAL:HG12	17:CQ:78:GLU:N	2.30	0.47
26:B1:27:GLU:O	26:B1:28:GLY:C	2.52	0.47
1:AA:76:C:N4	1:AA:93:G:H1	2.11	0.47
35:BA:2757:A:H2'	35:BA:2758:A:H5'	1.96	0.47
24:CY:138:ARG:HD2	24:CY:142:ARG:HH22	1.80	0.47
1:AA:539:A:OP1	12:AL:114:LYS:HD2	2.14	0.47
39:DE:35:GLN:HA	39:DE:67:PHE:CE2	2.50	0.47
13:AM:65:LYS:HD2	13:AM:69:GLU:HG3	1.97	0.47
53:BU:31:SER:C	53:BU:33:ARG:H	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:B9:31:LYS:HG2	35:BA:2478:A:H5'	1.97	0.47
4:AD:175:SER:CB	4:AD:186:LEU:HD11	2.43	0.47
49:DQ:47:ILE:CD1	49:DQ:70:PRO:HD3	2.45	0.47
35:BA:1090:U:H2'	35:BA:1091:G:H8	1.74	0.47
22:AV:14:A:H2'	22:AV:14:A:N3	2.30	0.47
35:DA:2127:G:N2	35:DA:2173:A:N3	2.63	0.47
1:CA:1493:A:H1'	24:CY:124:ALA:HA	1.96	0.47
1:CA:1493:A:O3'	24:CY:126:GLY:HA2	2.14	0.47
28:D3:59:VAL:CG1	28:D3:60:GLU:N	2.78	0.47
35:DA:184:C:H2'	35:DA:185:U:H6	1.78	0.47
8:AH:48:TYR:HA	8:AH:60:ARG:O	2.14	0.47
24:CY:97:LYS:C	24:CY:99:ASP:N	2.68	0.47
35:BA:527:C:N4	35:BA:2779:U:OP1	2.48	0.47
20:AT:26:ASN:O	20:AT:30:LYS:HB2	2.14	0.47
35:DA:1291:C:O2'	35:DA:1292:U:H5'	2.14	0.47
1:AA:178:C:H2'	1:AA:179:A:H8	1.80	0.47
25:D0:51:VAL:N	25:D0:62:LEU:HD12	2.29	0.47
1:AA:1218:C:P	14:AN:9:LYS:NZ	2.88	0.47
4:AD:61:LYS:NZ	4:AD:62:GLN:HE21	2.12	0.47
18:CR:25:THR:O	18:CR:25:THR:HG22	2.15	0.47
2:AB:20:GLU:CG	2:AB:189:ASP:OD2	2.63	0.47
38:BD:168:ARG:NH1	38:BD:168:ARG:HG3	2.29	0.47
1:AA:298:A:H2'	1:AA:299:G:O4'	2.14	0.47
1:CA:164:U:H2'	1:CA:165:C:H6	1.80	0.47
39:DE:100:GLU:O	39:DE:172:VAL:HG23	2.15	0.47
1:AA:604:G:O2'	1:AA:605:U:H5'	2.15	0.47
26:D1:8:SER:HB3	26:D1:66:HIS:CD2	2.50	0.47
55:DW:1:MET:HE2	55:DW:2:GLU:O	2.14	0.47
1:AA:9:G:H5''	5:AE:122:GLU:OE2	2.15	0.47
35:DA:2223:G:H2'	35:DA:2224:G:H5'	1.96	0.47
27:D2:55:ARG:CZ	35:DA:75:G:H4'	2.44	0.47
35:BA:1679:U:H2'	35:BA:1680:U:H5'	1.96	0.47
15:AO:64:ARG:HG3	15:AO:64:ARG:HH11	1.80	0.47
20:CT:73:HIS:O	20:CT:76:ALA:HB3	2.15	0.47
2:CB:28:PHE:CD1	2:CB:28:PHE:O	2.68	0.47
38:BD:62:TYR:HA	38:BD:87:ASN:HD21	1.79	0.47
35:DA:1146:C:O2'	35:DA:1147:C:H5'	2.14	0.47
37:DC:214:TYR:HD2	37:DC:222:SER:HB2	1.80	0.47
35:BA:284:U:H2'	35:BA:285:C:H6	1.79	0.47
7:AG:103:TRP:CH2	7:AG:141:VAL:HG21	2.50	0.47
24:AY:136:LEU:O	24:AY:140:TYR:CD2	2.67	0.47
35:BA:1005:C:H2'	35:BA:1006:C:C6	2.50	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:137:ARG:HG2	2:AB:137:ARG:HH11	1.79	0.47
37:DC:50:ILE:HD12	37:DC:50:ILE:O	2.14	0.47
45:BK:30:HIS:CD2	45:BK:30:HIS:N	2.83	0.47
35:BA:438:G:O2'	35:BA:440:G:H5'	2.15	0.47
1:AA:284:G:O2'	1:AA:285:G:H5'	2.15	0.47
35:DA:1790:C:H2'	35:DA:1791:A:C5	2.49	0.47
52:DT:136:GLN:HG3	52:DT:137:LYS:N	2.29	0.47
35:DA:1481:U:H5'	35:DA:1482:G:OP2	2.15	0.47
35:BA:2698:U:H2'	35:BA:2699:C:C6	2.50	0.47
10:AJ:92:THR:HG23	10:AJ:93:GLY:N	2.29	0.47
37:BC:50:ILE:HD12	37:BC:50:ILE:O	2.15	0.47
1:CA:1403:C:H6	1:CA:1403:C:O5'	1.97	0.47
31:D6:15:GLU:OE1	31:D6:18:ARG:HD2	2.15	0.47
42:BH:24:VAL:HG13	42:BH:24:VAL:O	2.15	0.47
57:BY:98:VAL:O	57:BY:98:VAL:HG12	2.14	0.47
35:BA:889:C:O4'	35:BA:889:C:O2	2.33	0.47
41:BG:63:ILE:HD12	41:BG:102:PHE:CE2	2.49	0.47
38:DD:61:LEU:HD13	38:DD:61:LEU:HA	1.81	0.47
13:AM:124:PRO:N	24:AY:162:ALA:HA	2.29	0.47
35:DA:272(I):U:O4	35:DA:363(A):A:N1	2.48	0.47
35:BA:1174:A:H5"	35:BA:1175:U:H5'	1.95	0.47
20:AT:57:ARG:HH12	20:AT:100:ILE:HG13	1.79	0.47
24:AY:323:ASP:HB3	24:AY:326:THR:CG2	2.45	0.47
35:BA:1210:A:C8	35:BA:1210:A:C5'	2.95	0.47
35:BA:2657:A:O2'	42:BH:160:LYS:HE2	2.14	0.47
51:BS:32:LEU:O	51:BS:62:LYS:HE2	2.15	0.47
1:AA:458:C:H2'	1:AA:460:G:H8	1.80	0.47
9:CI:70:LYS:O	9:CI:74:ILE:HG13	2.15	0.47
24:AY:87:LEU:O	24:AY:90:GLU:HB2	2.13	0.47
4:CD:14:ARG:HA	4:CD:39:PRO:CB	2.45	0.47
1:AA:586:C:H1'	1:AA:878:G:O2'	2.15	0.47
35:DA:528:A:N1	35:DA:2043:C:O5'	2.48	0.47
3:AC:44:GLU:HA	3:AC:52:LEU:HD11	1.96	0.47
19:AS:9:VAL:HG12	19:AS:9:VAL:O	2.15	0.47
35:BA:2315:G:H21	41:BG:128:ARG:CZ	2.27	0.47
40:DF:28:ILE:CD1	40:DF:28:ILE:H	2.16	0.47
26:B1:49:VAL:HG21	26:B1:67:ILE:HG23	1.97	0.47
22:AW:64:A:H2'	22:AW:65:G:N7	2.29	0.47
22:CW:27:G:H1	22:CW:43:C:N4	2.12	0.47
16:CP:21:VAL:HG12	16:CP:34:GLU:O	2.14	0.47
13:AM:32:GLU:O	13:AM:36:LYS:HG2	2.15	0.47
12:CL:88:GLY:O	12:CL:89:ARG:O	2.33	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BB:11:C:OP2	36:BB:12:C:H5	1.98	0.47
35:DA:363(F):A:O2'	35:DA:364:C:C6	2.63	0.47
52:DT:57:PHE:CG	52:DT:58:ASN:N	2.83	0.47
2:AB:187:LEU:HD11	2:AB:205:ASP:HA	1.96	0.47
5:AE:11:ILE:HD12	5:AE:31:LEU:CD1	2.45	0.47
25:D0:43:THR:H	35:DA:2331:G:H4'	1.79	0.47
35:BA:389:G:C6	48:BP:70:GLN:HG3	2.50	0.47
35:BA:118:A:O2'	35:BA:178:G:H5'	2.14	0.47
56:BX:8:ILE:CD1	56:BX:8:ILE:N	2.77	0.47
3:AC:95:THR:HG22	3:AC:97:LYS:H	1.80	0.47
58:BZ:26:GLY:HA2	58:BZ:85:HIS:CD2	2.50	0.47
35:BA:709:U:H3	35:BA:722:A:H61	1.61	0.47
8:CH:109:ILE:HD11	8:CH:120:THR:CG2	2.43	0.47
18:AR:59:SER:OG	18:AR:62:GLU:HG2	2.14	0.47
1:CA:1170:A:H2'	1:CA:1171:G:H5'	1.97	0.47
1:AA:1193:G:O2'	1:AA:1194:U:H5'	2.15	0.47
35:DA:2219:G:O2'	35:DA:2220:G:H5'	2.14	0.47
1:CA:1193:G:O2'	1:CA:1194:U:H5'	2.15	0.47
24:CY:174:GLU:OE2	24:CY:175:ASN:ND2	2.47	0.47
35:DA:2870:C:H5''	50:DR:65:LEU:HD21	1.96	0.47
45:BK:16:LYS:H	45:BK:16:LYS:HD3	1.80	0.47
1:AA:45:U:H2'	1:AA:46:G:C8	2.50	0.47
43:DI:33:ARG:HG2	43:DI:33:ARG:NH1	2.30	0.47
38:BD:28:GLU:CD	38:BD:28:GLU:H	2.19	0.47
45:DK:16:LYS:H	45:DK:16:LYS:HD3	1.80	0.47
11:AK:34:ASP:HB3	11:AK:40:ILE:HD11	1.95	0.47
2:AB:28:PHE:O	2:AB:28:PHE:CD1	2.68	0.47
35:BA:2689:U:H4'	35:BA:2690:C:H6	1.80	0.47
22:CW:9:A:O2'	22:CW:10:G:N7	2.47	0.47
57:DY:21:LYS:HG2	57:DY:22:GLY:N	2.28	0.47
35:BA:2840:C:H5''	50:BR:53:HIS:CD2	2.49	0.47
1:CA:19:C:H2'	1:CA:20:U:C6	2.50	0.47
35:BA:320:A:H2'	40:BF:136:THR:OG1	2.13	0.47
11:CK:18:ARG:HH21	11:CK:37:GLY:N	2.13	0.47
27:B2:33:MET:HG3	27:B2:37:PHE:CE1	2.50	0.47
54:BV:34:GLU:O	54:BV:36:PRO:HD3	2.15	0.47
35:BA:127:A:H5''	35:BA:128:C:C6	2.50	0.47
55:DW:29:LEU:HG	55:DW:33:ARG:NH1	2.30	0.47
42:DH:19:VAL:HG11	42:DH:44:VAL:HG22	1.96	0.47
2:AB:78:GLN:O	2:AB:81:VAL:HB	2.14	0.47
41:DG:52:ILE:HG13	41:DG:53:LEU:N	2.20	0.47
45:BK:95:LYS:CD	45:BK:95:LYS:N	2.76	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:BT:122:ASP:O	52:BT:125:ARG:HB2	2.15	0.47
41:BG:117:PHE:CE1	41:BG:120:LEU:HD23	2.50	0.47
41:BG:64:THR:HG23	41:BG:66:GLN:H	1.80	0.47
23:AX:19:U:C5	24:AY:127:THR:HB	2.49	0.47
35:DA:1174:A:H5''	35:DA:1175:U:H5'	1.97	0.47
53:BU:90:VAL:HG13	54:BV:39:LEU:CD2	2.44	0.47
1:CA:939:G:H2'	1:CA:940:C:H6	1.78	0.47
31:D6:11:LEU:HD12	31:D6:26:ASN:OD1	2.14	0.47
35:DA:1039:G:C6	35:DA:1040:C:N4	2.83	0.47
35:DA:1040:C:N3	35:DA:1115:G:O6	2.48	0.47
35:DA:1038:C:N4	35:DA:1117:G:H1	2.13	0.47
33:D8:14:VAL:HG21	33:D8:22:VAL:CG1	2.40	0.47
29:D4:24:THR:HG22	41:DG:104:GLU:OE1	2.14	0.47
1:AA:425:G:O2'	1:AA:426:G:H5'	2.14	0.47
9:AI:70:LYS:O	9:AI:74:ILE:HG13	2.15	0.47
5:CE:39:GLY:HA2	5:CE:69:VAL:HB	1.97	0.47
43:DI:76:THR:HG21	43:DI:141:LYS:HD2	1.97	0.47
58:BZ:107:THR:HG23	58:BZ:111:VAL:HG21	1.97	0.47
12:CL:84:LEU:HB3	12:CL:101:VAL:HB	1.97	0.47
35:BA:1678:G:H22	35:BA:1989:G:H22	1.56	0.47
1:AA:625:G:H4'	16:AP:16:HIS:CD2	2.49	0.47
39:BE:117:MET:O	39:BE:118:LYS:CB	2.63	0.47
48:DP:18:ARG:HH11	48:DP:18:ARG:C	2.18	0.47
7:CG:82:GLY:HA2	23:CX:14:A:H61	1.80	0.47
48:BP:16:ARG:CB	48:BP:16:ARG:NH1	2.78	0.47
6:CF:99:ALA:O	6:CF:100:ASN:HB2	2.15	0.47
16:AP:4:ILE:CD1	16:AP:64:ALA:HB1	2.45	0.47
1:CA:1300:G:H1'	1:CA:1301:U:H5	1.79	0.47
52:BT:57:PHE:O	52:BT:58:ASN:C	2.53	0.47
2:AB:187:LEU:CD1	2:AB:205:ASP:HA	2.45	0.47
4:AD:120:LEU:HD23	4:AD:125:HIS:HD2	1.80	0.47
35:DA:2114:A:N6	35:DA:2115:G:H21	2.13	0.47
16:AP:39:TYR:CD1	16:AP:73:LEU:HD13	2.50	0.47
35:DA:89:G:OP1	57:DY:33:LYS:HE2	2.15	0.47
35:DA:2172:U:H3'	35:DA:2173:A:H8	1.79	0.47
47:BO:13:ASN:C	47:BO:15:GLY:N	2.68	0.47
38:DD:211:ARG:HA	38:DD:214:TRP:CD2	2.50	0.47
35:DA:27:G:N2	35:DA:512:G:H2'	2.30	0.47
35:DA:512:G:C2'	35:DA:513:A:OP2	2.63	0.47
1:AA:853:G:H2'	1:AA:854:G:C8	2.47	0.47
38:BD:70:TRP:HZ3	38:BD:146:GLU:CD	2.18	0.47
4:AD:2:GLY:O	4:AD:3:ARG:O	2.33	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DC:43:GLU:HG2	37:DC:216:THR:O	2.15	0.47
1:CA:178:C:H2'	1:CA:179:A:H8	1.79	0.47
28:B3:17:LYS:HA	28:B3:17:LYS:HD3	1.68	0.47
40:BF:150:GLY:HA2	40:BF:172:TRP:CD2	2.50	0.47
1:CA:709:G:O2'	1:CA:710:G:H5'	2.15	0.47
54:BV:91:TYR:C	54:BV:91:TYR:CD1	2.88	0.47
34:D9:30:PRO:O	34:D9:32:HIS:N	2.48	0.47
1:AA:826:C:H5''	8:AH:12:ARG:HH21	1.79	0.47
1:AA:1383:C:H2'	1:AA:1384:C:C6	2.50	0.47
35:DA:2870:C:C5'	50:DR:65:LEU:HD21	2.45	0.47
1:AA:9:G:H2'	1:AA:10:A:C8	2.50	0.47
35:BA:150:C:H2'	35:BA:151:C:C6	2.50	0.47
51:BS:42:ASP:C	51:BS:44:LYS:H	2.17	0.47
35:BA:659:C:H2'	35:BA:660:G:H8	1.79	0.47
1:AA:1463:C:H2'	1:AA:1464:G:H8	1.79	0.47
1:AA:818:G:O2'	1:AA:819:A:H5''	2.15	0.47
35:DA:963:U:H2'	35:DA:964:C:H6	1.79	0.47
35:BA:1625:C:H2'	35:BA:1626:G:H5'	1.97	0.47
35:DA:1499:C:H2'	35:DA:1500:G:H5'	1.97	0.47
1:CA:517:G:H2'	1:CA:531:U:C5	2.50	0.47
17:CQ:46:ASP:OD1	17:CQ:49:GLU:HA	2.15	0.47
24:AY:93:GLU:HA	24:AY:96:LYS:HB3	1.97	0.47
1:CA:908:A:H2'	1:CA:909:A:H8	1.80	0.47
1:AA:1176:A:H2'	1:AA:1177:G:C8	2.50	0.47
52:BT:117:ASP:O	52:BT:118:ARG:C	2.53	0.47
50:BR:33:ARG:NE	50:BR:115:GLU:HG3	2.28	0.47
35:BA:631:A:H2'	35:BA:632:A:O4'	2.15	0.47
42:BH:41:MET:HG3	42:BH:43:VAL:N	2.26	0.47
42:BH:43:VAL:CA	42:BH:46:GLU:OE2	2.63	0.47
58:BZ:99:TYR:N	58:BZ:99:TYR:HD2	2.13	0.47
2:AB:168:THR:O	2:AB:169:LYS:C	2.53	0.47
35:DA:1111:A:O2'	35:DA:1112:G:H4'	2.15	0.47
22:CW:48:C:C5	22:CW:59:U:H1'	2.50	0.47
22:CW:63:G:H2'	22:CW:64:A:C5'	2.41	0.47
45:BK:93:ARG:HD2	45:BK:93:ARG:C	2.35	0.47
38:BD:24:ILE:O	38:BD:25:THR:O	2.32	0.47
52:BT:128:GLU:O	52:BT:129:ARG:C	2.53	0.47
35:BA:1858:G:O2'	35:BA:1884:A:N6	2.48	0.47
6:CF:29:ALA:HB3	6:CF:30:LEU:HD23	1.97	0.47
1:CA:963:G:N2	10:CJ:55:LYS:CD	2.78	0.47
35:BA:654(B):C:H5	35:BA:654(D):G:C4	2.33	0.47
35:BA:654(T):C:O5'	35:BA:654(T):C:H6	1.98	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:BS:106:ARG:CZ	51:BS:106:ARG:HB3	2.45	0.47
27:D2:66:GLU:O	27:D2:68:ARG:N	2.48	0.47
35:BA:1349:A:N6	35:BA:1598:C:H42	2.12	0.47
40:BF:68:LYS:C	40:BF:70:THR:H	2.17	0.47
13:CM:125:ARG:CB	24:CY:159:GLY:HA3	2.45	0.47
13:CM:125:ARG:CG	24:CY:160:PRO:HD2	2.34	0.47
1:AA:1131:G:H2'	1:AA:1132:C:C6	2.50	0.47
35:BA:2287:A:H2	35:BA:2346:A:N1	2.13	0.47
52:BT:31:SER:C	52:BT:32:TYR:CD2	2.88	0.47
35:BA:2656:U:C2'	35:BA:2657:A:H5''	2.44	0.47
46:DN:56:ASN:C	46:DN:57:ALA:O	2.51	0.47
1:AA:926:G:N2	1:AA:1505:G:H2'	2.30	0.47
35:BA:1216:G:P	53:BU:12:ARG:HH21	2.38	0.47
53:BU:102:GLU:HG3	54:BV:2:PHE:CZ	2.50	0.47
12:CL:35:GLY:HA3	12:CL:58:VAL:CG1	2.45	0.47
19:AS:29:ARG:O	19:AS:31:ILE:HG22	2.15	0.47
9:CI:10:ARG:HH11	9:CI:105:ASP:N	2.13	0.47
24:AY:270:LYS:O	24:AY:274:LEU:HB2	2.15	0.47
12:AL:91:LYS:O	12:AL:92:ASP:HB2	2.14	0.47
1:AA:878:G:H5''	8:AH:89:PRO:HG2	1.94	0.47
52:BT:40:THR:O	52:BT:41:ARG:CB	2.63	0.47
52:BT:35:LYS:HE2	52:BT:41:ARG:HG3	1.96	0.47
12:AL:47:LYS:HE2	12:AL:48:PRO:HD3	1.97	0.47
18:CR:37:VAL:HG23	18:CR:38:GLU:N	2.26	0.47
43:DI:58:LEU:C	43:DI:60:GLU:H	2.17	0.47
35:BA:650:C:C3'	35:BA:651:G:H5''	2.41	0.47
35:BA:662:G:H5''	48:BP:18:ARG:O	2.15	0.47
35:DA:2787:C:H1'	39:DE:61:ARG:HD2	1.96	0.47
1:AA:564:C:H5'	17:AQ:32:TYR:CE2	2.50	0.47
1:AA:1301:U:H3'	1:AA:1302:U:H5''	1.97	0.47
12:AL:22:SER:C	12:AL:24:VAL:H	2.19	0.47
16:CP:39:TYR:CD1	16:CP:73:LEU:HD13	2.49	0.47
1:CA:91:C:O2	1:CA:91:C:C2'	2.60	0.47
4:AD:121:VAL:CA	4:AD:126:ILE:HD13	2.44	0.47
3:CC:119:ARG:HG3	3:CC:119:ARG:NH1	2.29	0.47
26:D1:29:GLY:C	26:D1:30:VAL:HG23	2.35	0.47
46:DN:42:TRP:CD1	53:DU:63:VAL:HG11	2.50	0.47
7:AG:120:ILE:CD1	7:AG:120:ILE:H	2.27	0.47
2:CB:217:ARG:HG3	2:CB:217:ARG:HH11	1.80	0.47
1:AA:1205:U:C1'	3:AC:195:VAL:HG21	2.43	0.47
7:AG:79:ARG:HG3	7:AG:83:ALA:O	2.15	0.47
1:AA:984:C:H2'	1:AA:985:C:H6	1.76	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
58:BZ:129:SER:HB2	58:BZ:130:PRO:CD	2.45	0.47
1:CA:1221:G:O2'	1:CA:1222:G:H5'	2.14	0.47
1:CA:985:C:H42	1:CA:1220:G:H1	1.62	0.47
35:BA:634:C:H2'	35:BA:635:C:C6	2.50	0.47
35:BA:1076:C:H2'	35:BA:1077:A:H8	1.79	0.47
38:DD:58:HIS:CD2	38:DD:59:LYS:N	2.83	0.47
18:CR:25:THR:HG22	18:CR:42:ARG:HH12	1.79	0.47
27:B2:40:SER:OG	56:BX:11:PRO:HD2	2.15	0.47
36:DB:56:G:H5'	41:DG:27:ASN:HD21	1.80	0.47
4:CD:65:ARG:HG3	4:CD:75:PHE:CD1	2.50	0.47
1:AA:313:A:H2'	1:AA:314:C:C6	2.50	0.47
36:BB:43:C:H5'	36:BB:44:G:OP2	2.15	0.47
1:CA:562:C:H1'	12:CL:15:ARG:HD2	1.95	0.47
3:AC:167:TRP:CG	3:AC:168:ALA:N	2.82	0.47
58:DZ:63:ASP:C	58:DZ:65:GLN:H	2.19	0.47
38:DD:46:GLN:N	38:DD:46:GLN:OE1	2.48	0.47
38:BD:134:ARG:HG3	38:BD:135:PHE:CE2	2.50	0.47
35:BA:1516:C:H2'	35:BA:1517:G:H8	1.80	0.47
2:AB:95:GLN:HE21	2:AB:147:LYS:HG2	1.79	0.47
35:BA:1812:A:H2'	35:BA:1813:G:C8	2.50	0.47
35:BA:1472:A:C2'	35:BA:1473:G:H5'	2.45	0.47
1:CA:643:C:H5'	8:CH:31:PHE:CE1	2.50	0.47
1:CA:19:C:H5"	5:CE:86:ALA:CB	2.44	0.47
35:DA:1499:C:C2'	35:DA:1500:G:H5'	2.44	0.47
35:BA:1993:U:H2'	35:BA:1994:C:O4'	2.15	0.47
8:AH:1:MET:H3	8:AH:1:MET:HE2	1.80	0.47
1:AA:279:A:OP2	17:AQ:95:TYR:OH	2.32	0.47
26:D1:76:ARG:HH21	26:D1:95:LEU:CD2	2.28	0.47
32:B7:40:TRP:CZ3	35:BA:459:U:H4'	2.50	0.47
35:BA:289:A:H2'	35:BA:290:G:O4'	2.15	0.47
35:DA:1525:G:H2'	35:DA:1526:G:H8	1.79	0.47
18:CR:44:LEU:HD12	18:CR:44:LEU:N	2.30	0.47
1:CA:1472:U:O2'	1:CA:1473:A:H5'	2.15	0.47
48:DP:86:LYS:HG3	48:DP:117:GLU:O	2.15	0.47
24:AY:73:LEU:HG	24:AY:73:LEU:O	2.15	0.47
48:BP:65:ARG:HH11	48:BP:65:ARG:HG3	1.80	0.47
35:BA:196:A:H2'	35:BA:196:A:N3	2.30	0.47
35:DA:2410:G:H2'	35:DA:2411:A:O4'	2.15	0.47
22:CV:37:A:H3'	22:CV:38:A:H8	1.79	0.47
35:DA:2370:G:H2'	35:DA:2371:G:O4'	2.15	0.46
57:DY:97:ARG:HB2	57:DY:97:ARG:CZ	2.41	0.46
40:BF:4:VAL:HG11	40:BF:17:ARG:HD3	1.96	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:DQ:137:TYR:CE2	58:DZ:81:ARG:NH1	2.83	0.46
1:AA:1228:C:H2'	1:AA:1229:A:C8	2.49	0.46
1:AA:959:A:H2'	1:AA:960:U:C4'	2.44	0.46
35:DA:1048:A:N6	35:DA:1053:C:N4	2.64	0.46
45:BK:55:VAL:CG2	45:BK:69:THR:HG23	2.42	0.46
24:CY:279:LEU:HD23	24:CY:283:LEU:CD1	2.44	0.46
35:BA:2305:A:C2	35:BA:2306:C:H1'	2.50	0.46
41:BG:41:GLN:HE21	41:BG:155:MET:HB3	1.80	0.46
41:BG:61:ALA:HB2	41:BG:68:PRO:CD	2.45	0.46
52:DT:28:VAL:CG1	52:DT:46:GLU:HA	2.39	0.46
58:BZ:69:THR:HG22	58:BZ:90:VAL:CA	2.32	0.46
51:BS:74:ALA:CB	51:BS:103:GLU:HG3	2.45	0.46
35:DA:1858:G:O2'	35:DA:1884:A:N6	2.47	0.46
35:DA:2443:C:O2'	35:DA:2444:G:H5'	2.16	0.46
1:CA:1318:A:H1'	19:CS:37:ARG:NH2	2.30	0.46
35:BA:272(I):U:O4	35:BA:363(A):A:N1	2.48	0.46
46:DN:133:GLN:O	46:DN:134:ARG:HB3	2.15	0.46
51:BS:64:GLU:N	51:BS:64:GLU:OE2	2.47	0.46
52:DT:105:LEU:O	52:DT:107:ASP:OD1	2.33	0.46
1:AA:865:A:C2	1:AA:918:A:H4'	2.50	0.46
27:B2:55:ARG:NH1	35:BA:75:G:H4'	2.30	0.46
57:BY:59:GLY:O	57:BY:60:PHE:CB	2.64	0.46
35:DA:2680:C:O2'	35:DA:2681:C:H5'	2.15	0.46
10:AJ:24:VAL:O	10:AJ:28:ARG:HG3	2.15	0.46
19:AS:28:LYS:HZ1	19:AS:29:ARG:NH2	2.13	0.46
35:DA:1722:A:C2	35:DA:1740:G:H8	2.33	0.46
2:AB:118:LEU:HD13	2:AB:142:LEU:HB2	1.97	0.46
35:BA:2370:G:H2'	35:BA:2371:G:O4'	2.15	0.46
41:BG:29:TRP:HE3	41:BG:33:ARG:NH2	2.13	0.46
47:DO:107:ARG:CZ	52:DT:35:LYS:HD2	2.45	0.46
3:AC:112:SER:O	3:AC:116:VAL:HG23	2.16	0.46
47:BO:107:ARG:NH2	52:BT:35:LYS:HD2	2.30	0.46
48:DP:16:ARG:CZ	48:DP:18:ARG:CG	2.93	0.46
48:BP:18:ARG:HH11	48:BP:18:ARG:C	2.18	0.46
27:D2:47:ASN:HB3	27:D2:48:HIS:H	1.32	0.46
33:B8:35:GLN:HG2	33:B8:35:GLN:O	2.14	0.46
13:CM:14:ARG:HD2	13:CM:42:ALA:HA	1.97	0.46
3:CC:156:ARG:NH2	3:CC:161:GLU:HA	2.30	0.46
10:CJ:6:ILE:HG22	10:CJ:98:ILE:HG23	1.96	0.46
9:AI:118:LYS:NZ	9:AI:118:LYS:CB	2.78	0.46
1:CA:911:U:OP2	12:CL:97:ARG:NH2	2.48	0.46
2:AB:44:LEU:CD1	2:AB:44:LEU:H	2.28	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
57:DY:19:LYS:HB3	57:DY:20:TYR:CD1	2.50	0.46
1:CA:1118:C:H1'	1:CA:1179:A:C4	2.50	0.46
12:AL:117:ARG:HB3	12:AL:122:THR:HB	1.97	0.46
13:CM:65:LYS:HD2	13:CM:69:GLU:HG3	1.96	0.46
35:DA:118:A:O2'	35:DA:178:G:H5'	2.15	0.46
56:BX:8:ILE:H	56:BX:8:ILE:HD12	1.78	0.46
57:DY:68:HIS:CE1	57:DY:70:SER:HB3	2.50	0.46
20:AT:33:ILE:HG22	20:AT:34:LYS:N	2.30	0.46
35:BA:2761:G:C2'	35:BA:2762:G:H5''	2.45	0.46
35:BA:1430:C:H2'	35:BA:1431:U:H6	1.78	0.46
42:DH:74:ASN:ND2	42:DH:138:LYS:HD3	2.28	0.46
1:AA:1170:A:H2'	1:AA:1171:G:H5'	1.96	0.46
6:CF:78:GLU:O	6:CF:81:ILE:HG13	2.15	0.46
35:BA:1509(B):A:H2'	35:BA:1510:G:H8	1.81	0.46
1:AA:1519:A:C2'	1:AA:1520:G:H5'	2.44	0.46
1:CA:45:U:H2'	1:CA:46:G:C8	2.50	0.46
38:BD:263:ARG:CZ	38:BD:263:ARG:HB2	2.46	0.46
1:CA:604:G:O2'	1:CA:605:U:H5'	2.15	0.46
5:CE:135:THR:O	5:CE:138:ALA:HB3	2.15	0.46
1:AA:598:U:H4'	8:AH:94:TYR:CG	2.51	0.46
4:AD:166:LYS:HB3	38:DD:135:PHE:CZ	2.50	0.46
35:BA:2567:G:H2'	35:BA:2568:C:C6	2.51	0.46
48:BP:136:GLU:O	48:BP:139:LYS:N	2.43	0.46
35:BA:962:G:O2'	35:BA:963:U:H5'	2.15	0.46
8:CH:102:ARG:N	8:CH:102:ARG:HD3	2.30	0.46
20:CT:25:ARG:HG3	20:CT:25:ARG:HH11	1.79	0.46
33:D8:29:LYS:HG3	33:D8:29:LYS:O	2.15	0.46
14:AN:31:ARG:HH11	14:AN:31:ARG:HG3	1.79	0.46
45:DK:30:HIS:CD2	45:DK:30:HIS:N	2.83	0.46
24:CY:15:GLY:O	24:CY:62:PHE:HE1	1.98	0.46
35:BA:435:C:H2'	35:BA:436:C:H5'	1.97	0.46
24:CY:116:ALA:HB2	24:CY:177:TYR:CD1	2.50	0.46
52:BT:89:VAL:O	52:BT:91:ARG:N	2.48	0.46
22:AW:70:G:C3'	22:AW:71:G:H5''	2.44	0.46
42:DH:19:VAL:CG1	42:DH:44:VAL:HG22	2.43	0.46
45:DK:93:ARG:HD2	45:DK:93:ARG:C	2.35	0.46
35:BA:1048:A:N6	35:BA:1053:C:N4	2.63	0.46
1:AA:1228:C:H5''	13:AM:108:ARG:HH22	1.80	0.46
40:BF:133:ASN:HD22	40:BF:133:ASN:H	1.63	0.46
2:AB:77:ALA:CB	2:AB:165:VAL:HG11	2.45	0.46
24:AY:233:ARG:HB2	35:BA:2555:U:O2	2.14	0.46
6:CF:5:GLU:HG2	6:CF:62:TRP:CZ2	2.50	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CJ:58:ASP:O	10:CJ:60:ARG:N	2.48	0.46
1:AA:136:C:H2'	1:AA:137:C:C6	2.50	0.46
39:BE:111:ARG:CA	50:BR:2:ARG:HG2	2.32	0.46
54:DV:47:VAL:O	54:DV:48:GLY:C	2.54	0.46
24:CY:60:ASP:O	24:CY:63:ARG:HB2	2.15	0.46
35:DA:1885:A:H3'	35:DA:1886:C:H6	1.79	0.46
58:DZ:30:ASN:ND2	58:DZ:90:VAL:CG1	2.78	0.46
4:AD:12:CYS:HB3	4:AD:18:LYS:HA	1.96	0.46
20:AT:89:ARG:CD	20:AT:104:LEU:HD11	2.45	0.46
47:BO:104:ARG:CZ	52:BT:33:LYS:HD2	2.45	0.46
51:DS:25:ARG:NH1	51:DS:42:ASP:OD1	2.47	0.46
24:CY:139:MET:CE	24:CY:341:LEU:HD21	2.44	0.46
12:AL:18:VAL:O	12:AL:19:ARG:CB	2.63	0.46
35:DA:1169:G:H2'	35:DA:1170:G:O4'	2.15	0.46
18:AR:51:LEU:HA	18:AR:52:PRO:HD3	1.77	0.46
9:AI:10:ARG:HH11	9:AI:105:ASP:N	2.12	0.46
56:DX:35:THR:HG22	56:DX:37:THR:H	1.81	0.46
37:BC:6:LYS:HA	37:BC:9:ARG:CB	2.45	0.46
38:DD:175:LEU:HD12	38:DD:185:VAL:HG21	1.98	0.46
35:DA:528:A:H2	35:DA:2043:C:H5'	1.80	0.46
39:DE:132:HIS:O	39:DE:135:HIS:CD2	2.68	0.46
52:BT:40:THR:HB	52:BT:41:ARG:H	1.58	0.46
42:DH:94:TYR:H	42:DH:94:TYR:HD1	1.64	0.46
17:CQ:59:ILE:HG22	17:CQ:71:PHE:HD1	1.80	0.46
33:B8:33:ASN:HA	33:B8:36:LYS:CD	2.45	0.46
57:DY:2:ARG:HD3	57:DY:2:ARG:C	2.35	0.46
16:AP:21:VAL:HG11	16:AP:59:TRP:NE1	2.30	0.46
54:BV:25:LEU:H	54:BV:92:THR:HG21	1.80	0.46
35:BA:1281:G:O2'	35:BA:1282:U:H5'	2.15	0.46
1:CA:1456:G:O3'	20:CT:39:LYS:NZ	2.49	0.46
1:CA:59:A:H5'	1:CA:60:A:H5''	1.95	0.46
2:AB:187:LEU:HD23	2:AB:201:ILE:CG2	2.41	0.46
4:CD:60:GLU:HG2	4:CD:202:LEU:HD12	1.96	0.46
40:BF:201:VAL:HA	40:BF:204:ASN:HD22	1.81	0.46
3:AC:196:LEU:H	3:AC:196:LEU:CD2	2.28	0.46
6:AF:16:GLN:NE2	6:AF:16:GLN:H	2.12	0.46
7:AG:120:ILE:HG22	7:AG:124:LEU:CD1	2.45	0.46
24:CY:155:ASP:HB3	24:CY:168:GLN:HB3	1.96	0.46
47:BO:97:ARG:HG3	47:BO:97:ARG:NH1	2.27	0.46
1:CA:714:G:H2'	1:CA:715:A:C8	2.50	0.46
1:AA:173:U:H5''	1:AA:197:A:O4'	2.16	0.46
35:DA:634:C:H2'	35:DA:635:C:C6	2.49	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:B5:3:LYS:HE3	35:BA:2611:U:H1'	1.96	0.46
35:BA:2030:A:H4'	35:BA:2031:A:C8	2.50	0.46
3:AC:138:VAL:HG13	3:AC:149:ALA:CB	2.45	0.46
35:BA:1058:G:H21	45:BK:126:MET:HE3	1.79	0.46
39:BE:100:GLU:O	39:BE:172:VAL:HG23	2.15	0.46
3:CC:167:TRP:CG	3:CC:168:ALA:N	2.82	0.46
1:AA:1040:U:H2'	1:AA:1041:A:H8	1.79	0.46
20:AT:69:GLY:O	20:AT:73:HIS:CD2	2.68	0.46
20:CT:72:LEU:HD21	20:CT:80:ARG:HE	1.80	0.46
35:BA:443:A:H1'	35:BA:1201:C:O4'	2.15	0.46
35:BA:1057:A:N6	35:BA:1086:A:H2'	2.31	0.46
35:DA:2082:A:H2'	35:DA:2083:G:O4'	2.16	0.46
35:DA:229:A:H5''	35:DA:230:U:H5'	1.97	0.46
35:BA:1366:A:C2'	35:BA:1367:A:H5'	2.45	0.46
35:DA:2547:U:H2'	35:DA:2548:G:H8	1.80	0.46
42:DH:25:LYS:HG3	42:DH:34:GLU:HG2	1.97	0.46
42:BH:149:ARG:HG3	42:BH:162:ILE:O	2.15	0.46
6:AF:50:TYR:CE1	18:AR:77:GLY:HA2	2.51	0.46
34:D9:13:LYS:HE3	34:D9:28:GLU:OE1	2.15	0.46
35:DA:1372:U:H2'	35:DA:1373:A:O4'	2.15	0.46
35:DA:1469:A:H2'	35:DA:1470:G:C8	2.51	0.46
46:BN:45:ASN:HD22	46:BN:45:ASN:H	1.62	0.46
54:DV:75:PHE:CD1	54:DV:75:PHE:C	2.89	0.46
56:DX:57:LEU:HD22	56:DX:57:LEU:O	2.16	0.46
1:AA:160:A:H1'	1:AA:344:A:N7	2.30	0.46
16:AP:56:ALA:O	16:AP:60:LEU:HG	2.14	0.46
35:DA:2405:G:HO2'	35:DA:2406:U:P	2.39	0.46
24:CY:24:THR:O	24:CY:28:GLU:HG3	2.16	0.46
35:BA:2780:G:OP2	46:BN:118:LYS:HE2	2.15	0.46
31:D6:15:GLU:OE2	31:D6:41:PRO:HG3	2.15	0.46
31:D6:15:GLU:OE2	31:D6:47:THR:HB	2.14	0.46
36:BB:81:G:N3	36:BB:81:G:H5'	2.30	0.46
22:AW:39:U:C2'	22:AW:40:C:C5'	2.87	0.46
49:BQ:141:GLN:HB3	58:BZ:99:TYR:CE2	2.50	0.46
2:CB:162:ILE:O	2:CB:162:ILE:HG13	2.15	0.46
29:D4:34:GLU:CD	29:D4:34:GLU:N	2.68	0.46
29:B4:25:TYR:CD2	41:BG:2:PRO:HG3	2.50	0.46
41:BG:45:GLU:OE2	41:BG:45:GLU:HA	2.14	0.46
35:BA:1883:G:HO2'	35:BA:1884:A:H8	1.62	0.46
6:CF:39:LYS:H	6:CF:64:GLN:HB3	1.80	0.46
10:AJ:50:ILE:HD11	14:AN:41:ARG:CZ	2.45	0.46
11:CK:54:ARG:NH1	22:CW:39:U:O2'	2.48	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:BS:85:VAL:CG2	51:BS:106:ARG:HB2	2.45	0.46
49:BQ:18:LYS:HD2	49:BQ:18:LYS:N	2.27	0.46
35:DA:145:G:C3'	35:DA:146:G:H5''	2.46	0.46
51:DS:40:ILE:HG22	51:DS:41:ASP:N	2.30	0.46
35:DA:2645:G:C3'	35:DA:2646:C:H5'	2.34	0.46
10:CJ:4:ILE:HB	10:CJ:74:ILE:HD11	1.97	0.46
12:CL:18:VAL:O	12:CL:19:ARG:CB	2.63	0.46
35:BA:1043:C:O5'	35:BA:1043:C:H6	1.97	0.46
57:BY:86:ARG:HD2	57:BY:88:LYS:HD2	1.97	0.46
41:DG:3:LEU:HD12	41:DG:97:ASP:OD2	2.15	0.46
42:BH:127:GLU:HB3	42:BH:128:PRO:HD2	1.96	0.46
24:AY:283:LEU:O	24:AY:287:GLU:N	2.48	0.46
12:CL:93:LEU:O	12:CL:96:VAL:HG23	2.16	0.46
52:DT:35:LYS:HE2	52:DT:41:ARG:HG3	1.96	0.46
47:BO:107:ARG:C	47:BO:109:LYS:H	2.19	0.46
4:CD:196:LEU:HD12	4:CD:196:LEU:N	2.23	0.46
35:BA:662:G:P	48:BP:18:ARG:HD2	2.56	0.46
26:B1:62:VAL:HG11	26:B1:70:VAL:HG21	1.96	0.46
1:CA:564:C:O2'	8:CH:91:ARG:NH2	2.48	0.46
58:BZ:3:TYR:N	58:BZ:56:VAL:O	2.48	0.46
22:CW:29:G:H2'	22:CW:30:G:C8	2.49	0.46
1:CA:450:G:H4'	16:CP:41:PRO:O	2.16	0.46
17:AQ:7:THR:HG22	17:AQ:58:GLU:CG	2.40	0.46
13:AM:14:ARG:HD2	13:AM:42:ALA:HA	1.96	0.46
46:BN:9:VAL:CG1	46:BN:10:GLU:H	2.28	0.46
46:BN:42:TRP:CD1	53:BU:63:VAL:HG11	2.50	0.46
35:BA:2317:C:H2'	35:BA:2318:G:C5'	2.45	0.46
35:DA:2063:C:O2	35:DA:2450:A:N1	2.48	0.46
12:AL:22:SER:O	12:AL:24:VAL:N	2.48	0.46
52:DT:57:PHE:O	52:DT:58:ASN:C	2.53	0.46
35:DA:1332:G:C8	35:DA:1332:G:H5''	2.47	0.46
1:CA:1242:C:H5''	21:CU:10:ARG:NH1	2.30	0.46
55:DW:10:VAL:HG12	55:DW:12:ILE:HG22	1.96	0.46
6:CF:17:SER:O	6:CF:20:ALA:HB3	2.15	0.46
3:AC:155:GLY:HA3	3:AC:163:ALA:HB1	1.98	0.46
38:DD:70:TRP:CZ3	38:DD:146:GLU:OE2	2.68	0.46
38:DD:210:GLY:O	38:DD:212:SER:N	2.44	0.46
1:CA:33:A:H2'	1:CA:34:C:C6	2.51	0.46
6:AF:5:GLU:HG2	6:AF:62:TRP:CZ2	2.50	0.46
1:AA:1220:G:O3'	19:AS:36:ARG:HD3	2.16	0.46
1:AA:1020:U:H2'	1:AA:1021:G:H8	1.80	0.46
1:CA:1309:G:C6	1:CA:1329:A:C2	3.04	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:1817:G:C2'	35:BA:1818:U:H5'	2.44	0.46
35:BA:2461:C:H2'	35:BA:2462:U:H6	1.81	0.46
43:BI:63:ALA:O	43:BI:66:GLU:HG2	2.15	0.46
1:AA:1207:G:H2'	1:AA:1208:C:H6	1.80	0.46
56:DX:65:ARG:O	56:DX:66:LEU:HB2	2.16	0.46
24:AY:139:MET:HG3	24:AY:337:LEU:HA	1.98	0.46
35:BA:963:U:H2'	35:BA:964:C:H6	1.80	0.46
7:AG:121:ALA:O	7:AG:125:MET:HG3	2.15	0.46
35:DA:239:U:H2'	35:DA:240:G:O4'	2.14	0.46
35:DA:558:G:P	46:DN:111:PRO:HD2	2.55	0.46
1:AA:64:G:H4'	1:AA:65:U:H5''	1.97	0.46
35:BA:2137:C:H2'	35:BA:2138:C:C6	2.51	0.46
35:BA:1488:G:H5'	35:BA:1489:U:OP2	2.14	0.46
35:BA:398:G:H2'	35:BA:399:G:C8	2.51	0.46
11:AK:70:LYS:O	11:AK:73:MET:HG2	2.16	0.46
1:CA:568:G:O6	12:CL:5:PRO:HD3	2.15	0.46
32:D7:5:TRP:CZ3	35:DA:464:U:H4'	2.50	0.46
35:BA:1028:A:N6	35:BA:1125:G:H2'	2.30	0.46
35:BA:2347:C:H2'	35:BA:2348:U:C6	2.50	0.46
1:CA:1225:A:H2'	1:CA:1225:A:N3	2.30	0.46
40:DF:165:ARG:HG3	40:DF:165:ARG:NH1	2.30	0.46
8:AH:102:ARG:N	8:AH:102:ARG:HD3	2.30	0.46
1:AA:161:A:H2'	1:AA:162:A:C8	2.51	0.46
35:BA:494:G:H21	55:BW:57:ASN:HD21	1.61	0.46
1:AA:932:C:H5'	7:AG:4:ARG:CG	2.45	0.46
30:D5:33:CYS:CB	30:D5:40:LYS:HE3	2.45	0.46
45:DK:84:LEU:HD12	45:DK:87:GLY:HA2	1.96	0.46
57:BY:76:CYS:HB2	57:BY:96:ILE:HD11	1.93	0.46
27:B2:21:LEU:O	27:B2:25:VAL:HG23	2.15	0.46
35:DA:1243:G:O2'	48:DP:9:ASN:CA	2.63	0.46
13:AM:90:LEU:O	13:AM:92:HIS:N	2.48	0.46
13:CM:97:PRO:O	13:CM:98:VAL:HA	2.16	0.46
51:BS:92:TYR:CG	51:BS:93:LYS:N	2.83	0.46
24:AY:232:MET:HB2	35:BA:2555:U:H3	1.81	0.46
35:BA:2206:G:N2	35:BA:2207:G:H5'	2.31	0.46
41:BG:111:LEU:HD22	41:BG:120:LEU:HD21	1.97	0.46
41:BG:109:VAL:HG11	41:BG:142:PRO:HD3	1.98	0.46
1:CA:963:G:H21	10:CJ:55:LYS:NZ	2.09	0.46
35:DA:607:U:H5''	40:DF:103:LYS:HE3	1.98	0.46
35:BA:654(B):C:H2'	35:BA:654(C):G:C8	2.50	0.46
22:CW:39:U:C3'	22:CW:40:C:C5'	2.93	0.46
49:BQ:16:ARG:CB	49:BQ:18:LYS:NZ	2.72	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:607:U:H5''	40:BF:103:LYS:HE3	1.96	0.46
1:CA:1131:G:H2'	1:CA:1132:C:C6	2.51	0.46
35:BA:1529:G:N3	35:BA:1529:G:H2'	2.30	0.46
35:BA:272(H):C:C2'	35:BA:272(I):U:C5'	2.93	0.46
1:AA:656:C:H2'	1:AA:657:G:H8	1.80	0.46
31:B6:30:THR:O	31:B6:32:ASN:N	2.48	0.46
35:BA:2287:A:C2	35:BA:2346:A:N1	2.84	0.46
46:DN:56:ASN:O	46:DN:57:ALA:O	2.33	0.46
13:CM:81:LEU:O	13:CM:89:GLY:HA3	2.15	0.46
35:DA:889:C:O2	35:DA:889:C:O4'	2.33	0.46
35:BA:1169:G:H2'	35:BA:1170:G:O4'	2.15	0.46
48:BP:101:VAL:HB	48:BP:107:LYS:CA	2.36	0.46
9:AI:4:TYR:CG	9:AI:19:LEU:HB2	2.51	0.46
24:CY:286:LEU:HA	24:CY:289:LYS:HB2	1.97	0.46
53:BU:101:ARG:C	53:BU:102:GLU:HG2	2.35	0.46
24:AY:75:LEU:N	24:AY:75:LEU:HD22	2.30	0.46
47:DO:49:ARG:HA	47:DO:53:LYS:NZ	2.30	0.46
35:DA:480:A:OP2	57:DY:46:LYS:HE2	2.15	0.46
57:DY:59:GLY:O	57:DY:60:PHE:CB	2.62	0.46
37:BC:6:LYS:HA	37:BC:9:ARG:HB2	1.98	0.46
38:DD:31:LYS:HB3	38:DD:34:VAL:CG2	2.44	0.46
37:DC:6:LYS:HA	37:DC:9:ARG:CB	2.45	0.46
2:CB:187:LEU:HD23	2:CB:201:ILE:CG2	2.41	0.46
38:BD:72:LYS:HE3	38:BD:101:GLU:OE2	2.15	0.46
1:CA:1503:A:HO2'	1:CA:1504:G:P	2.37	0.46
1:CA:1504:G:OP1	1:CA:1507:A:H4'	2.14	0.46
43:BI:52:ARG:HG3	43:BI:53:ALA:H	1.79	0.46
3:AC:113:ALA:HB3	3:AC:114:PRO:CD	2.41	0.46
25:D0:3:HIS:CD2	25:D0:4:LYS:N	2.83	0.46
43:DI:68:LEU:HG	43:DI:71:ILE:CD1	2.40	0.46
25:B0:41:ARG:HD2	25:B0:41:ARG:HA	1.65	0.46
1:AA:402:G:C2'	1:AA:403:C:H5'	2.45	0.46
24:AY:77:GLU:HG2	24:AY:84:ARG:CG	2.45	0.46
35:DA:1081:U:H2'	35:DA:1082:U:H6	1.80	0.46
41:DG:18:GLU:O	41:DG:22:ARG:HG3	2.15	0.46
39:DE:68:ALA:C	39:DE:70:ALA:H	2.18	0.46
22:AV:50:U:O2'	22:AV:51:U:H5'	2.15	0.46
1:AA:1261:A:N1	1:AA:1275:A:H1'	2.30	0.46
2:CB:8:LYS:O	2:CB:12:GLU:HG3	2.14	0.46
1:AA:33:A:H2'	1:AA:34:C:C6	2.51	0.46
1:AA:186:C:O2'	1:AA:187:C:H5'	2.14	0.46
1:AA:186:C:H5'	20:AT:78:ALA:HB1	1.98	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:AY:95:ALA:O	24:AY:98:LEU:HB3	2.15	0.46
35:DA:2712:U:H1'	35:DA:2712(A):A:C8	2.50	0.46
1:AA:189(I):G:O2'	1:AA:189(J):G:H5'	2.15	0.46
1:CA:1437:C:O2'	1:CA:1438:G:H5'	2.14	0.46
35:DA:1419:A:H2'	35:DA:1421:G:N7	2.29	0.46
1:CA:335:C:H2'	1:CA:336:C:C6	2.50	0.46
38:BD:117:VAL:CG1	38:BD:118:VAL:N	2.78	0.46
2:CB:204:ASN:ND2	2:CB:207:ALA:H	2.14	0.46
1:CA:664:G:H22	1:CA:741:G:H1	1.61	0.46
24:AY:220:VAL:HG12	24:AY:222:LEU:HD22	1.97	0.46
35:BA:1998:G:H4'	35:BA:2724:C:O2'	2.14	0.46
8:CH:121:ASP:CG	8:CH:122:ARG:H	2.18	0.46
8:CH:17:THR:HG22	8:CH:63:LEU:HG	1.97	0.46
24:CY:75:LEU:N	24:CY:75:LEU:HD22	2.30	0.46
56:DX:65:ARG:HH11	56:DX:65:ARG:HG2	1.80	0.46
24:CY:15:GLY:O	24:CY:62:PHE:CE1	2.69	0.46
35:DA:402:A:O2'	35:DA:403:U:H5'	2.14	0.46
1:AA:911:U:H2'	1:AA:912:C:C6	2.50	0.46
35:DA:324:A:N6	35:DA:338:G:O2'	2.48	0.46
16:CP:56:ALA:O	16:CP:60:LEU:HG	2.15	0.46
1:CA:1461:G:O2'	1:CA:1462:G:H5'	2.16	0.46
1:CA:769:G:O2'	1:CA:770:C:H5'	2.15	0.46
36:BB:111:G:O2'	36:BB:112:U:H5'	2.16	0.46
20:AT:25:ARG:HG3	20:AT:25:ARG:HH11	1.81	0.46
41:BG:83:ARG:HB2	41:BG:83:ARG:NH1	2.29	0.46
53:DU:22:LYS:HD3	53:DU:22:LYS:HA	1.80	0.46
1:CA:495:A:H4'	1:CA:496:A:OP1	2.14	0.46
35:BA:2637:U:O2'	35:BA:2638:G:H5'	2.16	0.46
35:DA:1862:G:O2'	35:DA:1863:G:H5'	2.15	0.46
57:DY:76:CYS:CB	57:DY:77:PRO:HD2	2.45	0.46
27:B2:20:GLU:O	27:B2:22:GLU:N	2.49	0.46
58:BZ:102:LEU:HD23	58:BZ:104:PHE:CZ	2.51	0.46
35:BA:773:U:H4'	38:BD:47:GLY:HA3	1.96	0.46
1:CA:1227:A:C2'	1:CA:1228:C:O5'	2.64	0.46
22:CW:59:U:H2'	22:CW:60:U:C5	2.49	0.46
1:AA:963:G:N2	10:AJ:55:LYS:CD	2.79	0.46
35:BA:1826:G:C4'	38:BD:242:ARG:HH21	2.12	0.46
24:CY:252:VAL:HG13	24:CY:259:THR:CG2	2.32	0.46
54:BV:52:VAL:HG23	54:BV:52:VAL:O	2.14	0.46
35:DA:197:A:N6	35:DA:2430:A:H2'	2.30	0.46
1:AA:675:A:H1'	11:AK:116:HIS:CD2	2.51	0.46
1:AA:1133:G:N2	1:AA:1143:G:H1'	2.31	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DN:57:ALA:O	46:DN:58:ASP:OD1	2.34	0.46
35:DA:2650:U:O2'	35:DA:2651:C:H5'	2.15	0.46
1:AA:218:C:H5'	1:AA:470:C:N4	2.30	0.46
45:DK:112:MET:H	45:DK:113:PRO:HD3	1.72	0.46
6:CF:69:GLU:HG2	6:CF:70:ASP:N	2.31	0.46
1:AA:1001(A):G:O2'	1:AA:1002:G:H5'	2.16	0.46
1:AA:1342:C:H1'	9:AI:124:GLN:HE21	1.80	0.46
17:AQ:45:HIS:HB2	17:AQ:65:ILE:CD1	2.45	0.46
23:CX:20:A:C2	24:CX:202:HIS:HB3	2.50	0.46
48:BP:23:PRO:HD2	48:BP:33:ARG:CZ	2.45	0.46
9:CI:4:TYR:CG	9:CI:19:LEU:HB2	2.51	0.46
12:AL:28:LYS:HG2	12:AL:28:LYS:O	2.15	0.46
1:CA:729:A:H2'	1:CA:730:G:H8	1.80	0.46
12:CL:53:ARG:NH1	12:CL:53:ARG:CG	2.77	0.46
35:DA:860:U:O2	35:DA:860:U:O4'	2.33	0.46
18:AR:66:LEU:CG	18:AR:70:ILE:HD11	2.44	0.46
1:CA:586:C:H1'	1:CA:878:G:O2'	2.15	0.46
45:BK:15:GLY:H	45:BK:45:THR:CG2	2.29	0.46
1:AA:346:G:OP2	52:BT:41:ARG:CZ	2.63	0.46
1:AA:223:U:O5'	1:AA:223:U:H6	1.97	0.46
35:DA:662:G:H5''	48:DP:18:ARG:O	2.14	0.46
58:BZ:73:GLN:HB3	58:BZ:87:ASP:CG	2.36	0.46
8:CH:91:ARG:CG	8:CH:91:ARG:NH1	2.79	0.46
37:BC:51:ASP:O	37:BC:54:ARG:HB2	2.15	0.46
3:CC:179:ARG:O	3:CC:179:ARG:HG3	2.15	0.46
35:BA:512:G:O2'	35:BA:513:A:P	2.73	0.46
22:AW:15:G:N2	22:AW:59:U:H1'	2.31	0.46
48:BP:41:ARG:HA	48:BP:41:ARG:NE	2.30	0.46
35:BA:2485:G:H5''	49:BQ:46:GLN:HE21	1.79	0.46
37:BC:43:GLU:HG2	37:BC:216:THR:O	2.15	0.46
7:CG:120:ILE:CD1	7:CG:120:ILE:H	2.26	0.46
5:AE:40:ARG:NH1	5:AE:40:ARG:HG2	2.27	0.46
2:AB:7:VAL:CA	2:AB:217:ARG:HH22	2.28	0.46
35:BA:708:C:H42	35:BA:723:G:H1	1.62	0.46
49:DQ:62:GLY:HA3	49:DQ:109:VAL:CG2	2.46	0.46
35:BA:2807:G:H2'	35:BA:2808:U:H5''	1.96	0.46
10:CJ:61:GLU:OE2	14:CN:45:ARG:HD2	2.15	0.46
37:DC:185:LYS:HA	37:DC:185:LYS:HE3	1.97	0.46
2:CB:236:TYR:HA	2:CB:239:VAL:HG23	1.97	0.46
35:DA:1509(A):A:H2'	35:DA:1509(B):A:O4'	2.16	0.46
4:CD:61:LYS:NZ	4:CD:72:GLU:OE2	2.48	0.46
38:BD:58:HIS:CD2	38:BD:59:LYS:N	2.84	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:AY:282:ARG:HH21	24:AY:282:ARG:CB	2.28	0.46
38:DD:168:ARG:NH1	38:DD:168:ARG:HG3	2.30	0.46
48:DP:108:LYS:C	48:DP:110:TYR:H	2.19	0.46
34:D9:35:ARG:HD3	35:DA:2742:C:OP1	2.15	0.46
17:CQ:24:GLU:OE1	17:CQ:37:LYS:HD3	2.15	0.46
38:BD:62:TYR:HA	38:BD:87:ASN:ND2	2.30	0.46
8:AH:1:MET:N	8:AH:1:MET:HE2	2.31	0.46
40:DF:58:ALA:O	40:DF:59:TYR:O	2.32	0.46
1:AA:948:C:P	13:AM:109:THR:HG1	2.39	0.46
11:AK:59:TYR:CE1	11:AK:63:LEU:HD21	2.51	0.46
35:BA:2143:C:O2'	35:BA:2144:U:H5'	2.14	0.46
43:DI:41:GLU:O	43:DI:45:LYS:HG2	2.16	0.46
28:D3:38:GLU:OE2	28:D3:38:GLU:HA	2.14	0.46
26:B1:26:ARG:HG3	26:B1:26:ARG:HH11	1.80	0.46
47:DO:61:VAL:O	47:DO:61:VAL:HG13	2.14	0.46
24:CY:209:GLU:CG	24:CY:303:ARG:HD3	2.46	0.46
24:CY:303:ARG:CZ	35:DA:1914:C:O2'	2.63	0.46
30:B5:50:GLY:HA3	30:B5:56:LYS:HD2	1.97	0.46
57:BY:27:VAL:O	57:BY:29:GLU:OE1	2.34	0.46
57:BY:8:LYS:CD	57:BY:28:LYS:HZ3	2.25	0.46
40:BF:117:ARG:HD3	40:BF:117:ARG:HA	1.77	0.46
57:DY:28:LYS:NZ	57:DY:37:VAL:HG11	2.31	0.46
58:DZ:81:ARG:HH11	58:DZ:81:ARG:CG	2.28	0.46
35:BA:1798:U:C5'	38:BD:259:THR:HG22	2.19	0.46
49:BQ:134:ARG:NH1	58:BZ:122:ARG:HH21	2.12	0.46
58:BZ:139:VAL:HG12	58:BZ:140:ASP:N	2.31	0.46
45:BK:78:ILE:HD12	45:BK:134:MET:CE	2.45	0.46
6:AF:29:ALA:HB3	6:AF:30:LEU:HD23	1.96	0.46
35:DA:654(B):C:H5	35:DA:654(D):G:C4	2.33	0.46
53:BU:90:VAL:HG22	54:BV:39:LEU:CB	2.46	0.46
35:DA:272(H):C:C2'	35:DA:272(I):U:C5'	2.93	0.46
35:BA:2443:C:O2'	35:BA:2444:G:H5'	2.15	0.46
53:DU:91:ASP:O	53:DU:92:ARG:C	2.54	0.46
13:CM:125:ARG:HD2	24:CY:165:ASP:HB2	1.98	0.46
35:DA:2444:G:OP1	40:DF:67:GLN:NE2	2.48	0.46
15:CO:83:GLU:C	15:CO:85:LEU:H	2.19	0.46
11:CK:108:ILE:HD12	11:CK:108:ILE:N	2.30	0.46
24:CY:23:GLU:HG3	24:CY:26:LEU:HD21	1.97	0.46
51:DS:58:LEU:O	51:DS:59:LYS:O	2.33	0.46
29:D4:25:TYR:O	41:DG:105:LYS:CE	2.63	0.46
45:BK:112:MET:H	45:BK:113:PRO:HD3	1.73	0.46
47:BO:17:ARG:HG2	47:BO:17:ARG:HH11	1.79	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:B2:51:ARG:O	27:B2:55:ARG:HD3	2.15	0.46
1:CA:417:C:O2'	1:CA:418:C:H5'	2.16	0.46
25:B0:3:HIS:CD2	25:B0:4:LYS:N	2.83	0.46
4:CD:13:ARG:NH2	4:CD:36:ARG:HD3	2.30	0.46
1:AA:427:U:OP1	4:AD:40:PRO:HA	2.15	0.46
1:AA:649:G:H2'	1:AA:650:G:H8	1.81	0.46
52:DT:41:ARG:HH21	52:DT:43:GLN:HG3	1.78	0.46
25:D0:74:ARG:NH2	36:DB:13:A:H8	2.04	0.46
12:AL:46:LYS:HG2	12:AL:47:LYS:N	2.31	0.46
33:B8:36:LYS:HB2	33:B8:41:ILE:HD11	1.97	0.46
24:CY:76:MET:HG3	24:CY:88:LYS:CE	2.45	0.46
22:AW:63:G:H4'	37:BC:54:ARG:HH22	1.79	0.46
58:BZ:64:GLY:O	58:BZ:66:SER:N	2.49	0.46
33:D8:33:ASN:HD22	33:D8:36:LYS:HD3	1.80	0.46
41:DG:149:VAL:O	41:DG:150:ASP:HB3	2.16	0.46
31:D6:12:GLU:CG	31:D6:23:THR:HG22	2.45	0.46
22:AW:59:U:C2	22:AW:60:U:H5	2.33	0.46
57:DY:34:LYS:HB3	57:DY:34:LYS:HE2	1.70	0.46
40:DF:40:GLN:HE22	40:DF:182:ASN:HB2	1.80	0.46
49:BQ:59:ARG:HB3	58:BZ:180:VAL:HG23	1.98	0.46
10:CJ:16:LEU:O	10:CJ:16:LEU:HD22	2.16	0.46
10:AJ:16:LEU:HD22	10:AJ:16:LEU:O	2.15	0.46
1:AA:1118:C:H1'	1:AA:1179:A:C4	2.50	0.46
3:CC:112:SER:O	3:CC:116:VAL:HG23	2.14	0.46
4:CD:151:LYS:O	4:CD:155:LEU:HG	2.16	0.46
1:CA:936:C:H2'	1:CA:937:A:H8	1.79	0.46
2:CB:14:GLY:C	2:CB:15:VAL:HG22	2.35	0.46
2:CB:7:VAL:CA	2:CB:217:ARG:HH22	2.28	0.46
35:DA:1188:U:C2'	35:DA:1189:A:H5'	2.46	0.46
13:CM:67:GLU:CG	13:CM:68:GLY:H	2.29	0.46
8:CH:51:VAL:HG23	8:CH:52:ASP:N	2.30	0.46
27:B2:38:GLN:HB3	27:B2:44:LEU:O	2.14	0.46
6:AF:80:ARG:HG3	6:AF:88:VAL:HG23	1.98	0.46
20:AT:29:LYS:O	20:AT:33:ILE:HG13	2.16	0.46
35:DA:2261:C:O2'	35:DA:2262:U:H5'	2.15	0.46
14:AN:14:PRO:O	14:AN:15:LYS:C	2.54	0.46
35:BA:1509(A):A:H2'	35:BA:1509(B):A:O4'	2.15	0.46
36:DB:40:U:H3'	36:DB:41:U:C5'	2.46	0.46
35:DA:1509(A):A:O2'	35:DA:1509(B):A:H5'	2.15	0.46
35:DA:1509(B):A:O2'	35:DA:1510:G:H5'	2.16	0.46
15:CO:39:LEU:CD1	15:CO:56:LEU:HB2	2.45	0.46
57:DY:52:SER:O	57:DY:53:PRO:C	2.54	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:880:C:H2'	1:AA:881:G:H8	1.81	0.46
44:BJ:72:UNK:O	44:BJ:74:UNK:N	2.49	0.46
24:AY:29:LEU:HG	24:AY:51:GLU:HB3	1.98	0.46
22:CV:74:C:H2'	22:CV:75:C:H5'	1.97	0.46
39:BE:134:ILE:C	39:BE:134:ILE:CD1	2.84	0.46
43:BI:82:ARG:HG3	43:BI:82:ARG:NH1	2.31	0.46
1:CA:9:G:H5''	5:CE:122:GLU:CD	2.36	0.46
35:DA:1998:G:H4'	35:DA:2724:C:O2'	2.16	0.46
1:AA:1307:U:H2'	1:AA:1308:U:H6	1.79	0.46
35:DA:1679:U:H2'	35:DA:1680:U:H5'	1.98	0.46
1:CA:759:A:H2'	1:CA:760:G:H5'	1.98	0.46
18:CR:44:LEU:HA	18:CR:49:LYS:O	2.15	0.46
18:AR:44:LEU:HA	18:AR:49:LYS:O	2.15	0.46
35:DA:706:A:OP1	38:DD:7:LYS:HE3	2.16	0.46
47:DO:43:VAL:HG21	47:DO:52:VAL:CG1	2.46	0.46
35:BA:186:G:O2'	35:BA:187:G:H5'	2.16	0.46
7:CG:50:ILE:C	7:CG:52:GLU:H	2.18	0.46
56:BX:83:VAL:HG11	56:BX:87:GLN:HB2	1.97	0.46
37:BC:19:LYS:HD3	37:BC:20:VAL:N	2.30	0.46
35:DA:2001:A:H2'	35:DA:2002:G:C8	2.51	0.46
24:AY:104:GLN:HA	24:AY:104:GLN:OE1	2.15	0.46
2:AB:23:ARG:O	2:AB:23:ARG:HG3	2.15	0.46
9:AI:59:PHE:CD1	9:AI:59:PHE:N	2.84	0.46
35:BA:244:A:H2'	35:BA:245:G:O4'	2.15	0.46
1:AA:517:G:H2'	1:AA:531:U:C5	2.51	0.46
35:BA:986:C:O2'	35:BA:987:G:H5'	2.16	0.46
38:BD:73:VAL:HG12	38:BD:74:GLY:N	2.30	0.46
46:BN:65:LYS:O	46:BN:69:GLN:HB2	2.15	0.46
28:B3:46:ASN:O	28:B3:50:VAL:HG22	2.16	0.46
1:AA:1228:C:C5'	13:AM:108:ARG:HH22	2.29	0.46
58:DZ:164:ALA:O	58:DZ:165:VAL:CG2	2.56	0.46
4:CD:16:GLY:HA2	4:CD:33:MET:HE1	1.98	0.46
54:DV:39:LEU:HA	54:DV:47:VAL:HG11	1.98	0.46
54:DV:52:VAL:HG23	54:DV:52:VAL:O	2.16	0.46
48:DP:65:ARG:HH11	48:DP:65:ARG:HG3	1.80	0.46
22:AV:76:8AN:H3'	24:AY:239:GLY:HA3	1.97	0.46
43:BI:77:LEU:O	43:BI:78:THR:HB	2.15	0.46
15:CO:85:LEU:O	15:CO:85:LEU:HD23	2.15	0.46
15:AO:25:THR:O	15:AO:28:GLN:N	2.49	0.46
15:AO:81:LEU:CD1	15:AO:85:LEU:HD12	2.46	0.46
1:CA:136:C:H2'	1:CA:137:C:C6	2.51	0.46
24:CY:23:GLU:HA	24:CY:26:LEU:HG	1.98	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:218:C:H5'	1:AA:470:C:H41	1.81	0.46
6:AF:69:GLU:HG2	6:AF:70:ASP:N	2.31	0.46
48:BP:101:VAL:HG13	48:BP:106:LEU:HD23	1.98	0.46
46:DN:120:LEU:HD13	46:DN:121:LYS:N	2.30	0.46
1:AA:266:G:O2'	1:AA:267:C:OP2	2.33	0.46
1:AA:1469:G:H2'	1:AA:1470:G:H8	1.81	0.46
35:BA:941:A:H4'	48:BP:35:HIS:CE1	2.51	0.46
12:AL:84:LEU:HG	12:AL:105:TYR:CE1	2.50	0.46
35:BA:2107:C:H5'	37:BC:3:LYS:HE3	1.97	0.46
37:DC:6:LYS:O	37:DC:8:TYR:N	2.49	0.46
43:BI:144:VAL:O	43:BI:145:VAL:O	2.33	0.46
1:AA:520:A:OP2	12:AL:51:ALA:HB1	2.16	0.46
39:DE:9:VAL:HG22	39:DE:25:VAL:O	2.16	0.46
2:CB:67:THR:HG21	2:CB:155:LEU:CG	2.46	0.46
7:CG:113:GLU:CB	7:CG:119:ARG:HG2	2.46	0.46
1:AA:564:C:O2'	8:AH:91:ARG:NH2	2.49	0.46
1:AA:1349:A:P	9:AI:118:LYS:NZ	2.89	0.46
1:CA:403:C:H2'	1:CA:404:U:C6	2.48	0.46
1:AA:1343:G:H1'	9:AI:121:ARG:NH1	2.30	0.46
22:CV:77:PHA:HB2	35:DA:2063:C:C4'	2.45	0.46
3:AC:47:LEU:HD21	3:AC:68:VAL:HG11	1.97	0.46
58:BZ:130:PRO:O	58:BZ:132:ASN:N	2.49	0.46
38:BD:70:TRP:CZ3	38:BD:146:GLU:OE2	2.68	0.46
41:BG:181:ARG:O	41:BG:181:ARG:CG	2.63	0.46
24:AY:13:LEU:HD23	24:AY:16:TYR:CG	2.50	0.46
4:AD:3:ARG:O	4:AD:5:ILE:HG13	2.15	0.46
35:BA:2030:A:H4'	35:BA:2031:A:H8	1.80	0.46
35:BA:2537:U:H2'	35:BA:2538:C:H6	1.80	0.46
1:AA:552:U:H4'	12:AL:86:ARG:HG2	1.98	0.46
36:BB:45:A:H8	41:BG:95:ARG:HE	1.61	0.46
38:BD:168:ARG:O	38:BD:169:GLU:HB2	2.15	0.46
55:BW:1:MET:HE2	55:BW:2:GLU:O	2.15	0.46
38:DD:28:GLU:CD	38:DD:28:GLU:H	2.17	0.46
42:BH:72:ILE:O	42:BH:75:ALA:HB3	2.15	0.46
35:DA:1231:G:H2'	35:DA:1232:G:C8	2.49	0.46
35:BA:1603:A:H5'	35:BA:1603:A:H8	1.79	0.46
35:DA:284:U:H2'	35:DA:285:C:C6	2.50	0.46
35:DA:1006:C:C2	35:DA:1138:G:N2	2.84	0.46
54:BV:34:GLU:O	54:BV:36:PRO:CD	2.63	0.46
34:B9:37:GLY:HA2	35:BA:1125:G:H5'	1.98	0.46
36:DB:78:A:H2'	36:DB:79:C:O4'	2.15	0.46
55:BW:73:ALA:HB3	55:BW:106:ILE:HG12	1.98	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BD:158:ALA:O	38:BD:159:ALA:C	2.53	0.46
35:BA:752:A:O2'	35:BA:753:C:OP2	2.31	0.46
35:DA:2845:G:O2'	35:DA:2846:G:H5'	2.16	0.46
44:BJ:59:UNK:C	44:BJ:61:UNK:N	2.72	0.46
7:CG:103:TRP:CH2	7:CG:141:VAL:HG21	2.51	0.46
22:AV:64:A:O2'	22:AV:65:G:H5'	2.16	0.46
1:CA:766:A:H2'	1:CA:767:A:O4'	2.16	0.46
5:CE:26:PHE:N	5:CE:26:PHE:CD1	2.83	0.46
6:AF:92:LYS:NZ	6:AF:92:LYS:CB	2.78	0.46
47:BO:18:LYS:HD2	47:BO:45:GLU:OE2	2.15	0.46
7:AG:54:THR:HG23	7:AG:54:THR:O	2.15	0.46
35:BA:1899:G:C2'	35:BA:1900:A:OP2	2.64	0.46
52:DT:77:PRO:O	52:DT:78:LEU:CB	2.64	0.46
52:BT:28:VAL:HG22	52:BT:46:GLU:CA	2.45	0.46
40:BF:119:ARG:HH11	40:BF:119:ARG:HG2	1.81	0.46
33:B8:6:THR:HG22	33:B8:63:PRO:HD3	1.97	0.46
35:DA:1060:U:H1'	35:DA:1062:G:H5'	1.98	0.46
45:DK:76:TYR:OH	45:DK:80:LYS:HD2	2.16	0.46
58:DZ:112:ARG:HD2	58:DZ:112:ARG:HA	1.68	0.46
2:AB:71:VAL:HG13	2:AB:93:VAL:CB	2.29	0.46
13:CM:91:ARG:HH22	13:CM:103:THR:HG21	1.80	0.46
38:BD:93:ALA:HB2	38:BD:107:ALA:HB2	1.97	0.46
35:DA:2660:A:C4	35:DA:2661:G:H4'	2.51	0.46
41:DG:64:THR:OG1	41:DG:94:LEU:HD21	2.16	0.46
45:BK:76:TYR:OH	45:BK:80:LYS:HD2	2.15	0.46
35:DA:1498:C:O4'	35:DA:1577:C:H4'	2.15	0.46
41:BG:56:ALA:HB1	41:BG:153:ARG:NH1	2.31	0.46
27:D2:21:LEU:CD1	27:D2:64:LEU:HA	2.45	0.46
35:BA:1652:A:C2'	35:BA:1653:G:H5'	2.46	0.46
35:BA:1529:G:H21	35:BA:1530:C:H2'	1.78	0.46
3:AC:16:ARG:CB	3:AC:16:ARG:HH11	2.29	0.46
24:AY:326:THR:HG21	24:AY:328:LEU:HB2	1.97	0.46
47:BO:77:ILE:HD13	52:BT:74:ARG:CD	2.42	0.46
38:BD:11:PRO:C	38:BD:13:ARG:N	2.69	0.46
39:DE:52:LEU:C	39:DE:74:PRO:HB3	2.34	0.46
22:AV:41:C:C3'	22:AV:42:C:C5'	2.92	0.46
43:DI:77:LEU:HB3	43:DI:140:LEU:HG	1.97	0.46
1:AA:729:A:H2'	1:AA:730:G:H8	1.81	0.46
35:BA:941:A:H2'	35:BA:942:G:C8	2.51	0.46
35:BA:896:A:H5''	58:BZ:147:GLY:HA3	1.98	0.46
24:AY:266:ARG:HG3	25:B0:3:HIS:CE1	2.51	0.46
10:CJ:24:VAL:O	10:CJ:28:ARG:HG3	2.15	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:DO:107:ARG:C	47:DO:109:LYS:H	2.19	0.46
24:AY:203:THR:HG22	24:AY:204:SER:N	2.31	0.46
35:DA:661:C:O2'	48:DP:16:ARG:O	2.28	0.46
1:CA:1305:G:N2	1:CA:1331:G:N3	2.63	0.46
48:BP:16:ARG:CZ	48:BP:18:ARG:CG	2.93	0.46
35:DA:2810:A:H2'	35:DA:2811:G:O4'	2.16	0.46
16:CP:53:VAL:CG1	16:CP:79:VAL:HG22	2.43	0.46
1:AA:376:G:H2'	1:AA:377:G:C8	2.51	0.46
16:AP:4:ILE:HB	16:AP:66:PRO:HB3	1.96	0.46
57:BY:2:ARG:HD3	57:BY:2:ARG:C	2.35	0.46
9:AI:112:LYS:HE3	9:AI:116:LYS:O	2.16	0.46
2:CB:224:GLN:HA	2:CB:229:VAL:CG2	2.44	0.46
26:D1:26:ARG:HH11	26:D1:26:ARG:HG3	1.81	0.46
41:DG:17:PRO:O	41:DG:20:ILE:N	2.48	0.46
4:AD:60:GLU:HG2	4:AD:202:LEU:HD12	1.98	0.46
1:CA:1251:A:H4'	9:CI:12:GLU:OE2	2.16	0.46
9:CI:83:ARG:O	9:CI:86:VAL:HG12	2.14	0.46
35:BA:992:C:O2'	35:BA:993:G:H5'	2.16	0.46
13:CM:83:ASP:CG	13:CM:84:ILE:N	2.66	0.46
19:CS:40:ILE:HD13	19:CS:62:ILE:CD1	2.46	0.46
1:CA:502:G:C2	1:CA:503:C:O2	2.69	0.46
13:AM:65:LYS:NZ	13:AM:70:LEU:HD23	2.31	0.46
1:CA:1157:A:H4'	1:CA:1158:C:O5'	2.16	0.46
39:DE:101:ARG:CB	39:DE:201:THR:HG21	2.44	0.46
1:CA:1392:G:O2'	1:CA:1393:U:H5'	2.16	0.46
41:DG:159:VAL:HG23	41:DG:159:VAL:O	2.14	0.46
39:BE:65:GLY:HA2	39:BE:70:ALA:CB	2.45	0.46
27:B2:69:ARG:NH1	27:B2:69:ARG:HG3	2.31	0.46
8:CH:112:LEU:HG	8:CH:112:LEU:O	2.16	0.46
35:BA:747:U:O2	35:BA:2014:A:H1'	2.15	0.46
26:B1:20:ARG:HG2	26:B1:20:ARG:NH1	2.31	0.46
49:DQ:21:THR:HG21	49:DQ:101:ARG:CD	2.45	0.46
2:AB:236:TYR:HA	2:AB:239:VAL:HG23	1.96	0.46
35:DA:1362:C:O2'	35:DA:1363:C:H5'	2.16	0.46
36:DB:43:C:H5'	36:DB:44:G:OP2	2.15	0.46
15:AO:32:LEU:O	15:AO:36:ILE:HG13	2.15	0.46
1:CA:688:G:H2'	1:CA:689:C:C6	2.49	0.46
1:CA:1479:C:O2'	1:CA:1480:G:H5'	2.16	0.46
55:DW:5:ALA:O	55:DW:6:ILE:CB	2.64	0.46
48:BP:108:LYS:O	48:BP:110:TYR:N	2.48	0.46
1:AA:599:C:H4'	8:AH:130:GLY:CA	2.46	0.46
50:DR:63:ARG:HA	50:DR:80:PHE:CZ	2.51	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:1811:G:O2'	35:DA:1812:A:H5'	2.16	0.46
1:AA:19:C:H2'	1:AA:20:U:C6	2.51	0.46
1:CA:908:A:H2'	1:CA:909:A:C8	2.51	0.46
1:CA:770:C:O2'	1:CA:771:G:H5'	2.15	0.46
1:CA:731:G:OP1	1:CA:766:A:H1'	2.16	0.46
35:DA:1970:A:H5''	35:DA:1971:A:OP1	2.16	0.46
5:CE:96:PRO:HA	5:CE:117:ASP:CG	2.36	0.46
50:DR:103:ARG:HH12	50:DR:110:PRO:HD3	1.81	0.46
35:DA:601:C:O2	35:DA:605:C:H4'	2.16	0.46
35:DA:1751:C:O2'	35:DA:1752:C:H5'	2.14	0.46
35:DA:918:A:H5''	36:DB:98:G:O2'	2.16	0.46
35:BA:572:A:H2'	35:BA:573:G:O4'	2.15	0.46
11:CK:48:ILE:HD11	11:CK:64:ALA:HA	1.96	0.46
35:BA:301:G:C4	35:BA:302:C:C5	3.04	0.46
35:BA:2180:U:H2'	35:BA:2180:U:O2	2.16	0.46
38:DD:198:ASN:ND2	38:DD:198:ASN:O	2.48	0.46
1:AA:754:C:H3'	1:AA:754:C:O2	2.16	0.46
10:AJ:95:GLU:HA	10:AJ:95:GLU:OE2	2.15	0.46
7:AG:5:ARG:C	7:AG:7:ALA:H	2.19	0.46
31:D6:22:ALA:HB2	31:D6:39:TYR:CE2	2.50	0.46
38:BD:245:PRO:O	38:BD:246:PRO:C	2.53	0.46
52:BT:91:ARG:HA	52:BT:117:ASP:H	1.80	0.46
28:D3:7:LYS:HE3	28:D3:32:GLN:O	2.15	0.46
27:B2:20:GLU:C	27:B2:22:GLU:N	2.69	0.46
2:CB:168:THR:O	2:CB:169:LYS:C	2.53	0.46
1:CA:959:A:H2'	1:CA:960:U:C4'	2.46	0.46
24:AY:149:PHE:HB3	24:AY:172:LYS:O	2.16	0.46
41:BG:102:PHE:HE1	41:BG:157:ILE:HD13	1.81	0.46
3:CC:153:VAL:O	3:CC:165:THR:HA	2.16	0.46
13:AM:120:LYS:C	13:AM:121:LYS:HD2	2.36	0.46
53:BU:95:LEU:HA	53:BU:95:LEU:HD23	1.69	0.46
1:AA:1106:G:H2'	1:AA:1107:C:C6	2.51	0.46
35:BA:145:G:C3'	35:BA:146:G:H5''	2.46	0.46
50:DR:3:HIS:O	50:DR:4:LEU:HB3	2.16	0.46
35:BA:1040:C:N3	35:BA:1115:G:O6	2.49	0.46
3:CC:71:ALA:HA	3:CC:106:VAL:HB	1.97	0.46
51:BS:61:ASN:HB3	51:BS:64:GLU:HB2	1.97	0.46
25:D0:48:GLY:HA3	25:D0:80:HIS:HD1	1.81	0.46
5:CE:51:VAL:HB	5:CE:52:PRO:CD	2.35	0.46
30:B5:40:LYS:CE	30:B5:46:CYS:HB3	2.46	0.46
54:BV:5:VAL:CG2	54:BV:35:LEU:HB3	2.45	0.46
1:CA:1029:C:H2'	1:CA:1030(A):G:C6	2.51	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:D9:4:ARG:HD2	34:D9:34:GLN:HE21	1.81	0.46
35:BA:941:A:O2'	48:BP:35:HIS:CE1	2.69	0.46
24:AY:290:LYS:HG3	24:AY:291:ARG:H	1.78	0.46
5:CE:100:VAL:HG23	5:CE:100:VAL:O	2.14	0.46
12:CL:38:THR:HG23	12:CL:57:LYS:O	2.16	0.46
42:DH:89:ILE:O	42:DH:89:ILE:HG13	2.15	0.46
1:CA:1305:G:N2	1:CA:1331:G:O2'	2.49	0.46
1:CA:1301:U:H3'	1:CA:1302:U:H5''	1.98	0.46
16:CP:20:VAL:HG21	16:CP:32:TYR:CB	2.46	0.46
16:CP:21:VAL:HG11	16:CP:59:TRP:NE1	2.30	0.46
57:BY:19:LYS:HB3	57:BY:20:TYR:CD1	2.50	0.46
35:DA:389:G:N1	48:DP:70:GLN:HG3	2.31	0.46
13:CM:19:LEU:HB3	13:CM:25:ILE:HG21	1.98	0.46
37:BC:23:ILE:O	37:BC:27:ALA:HB2	2.16	0.46
2:CB:44:LEU:H	2:CB:44:LEU:CD1	2.29	0.46
45:BK:90:LYS:HB3	45:BK:90:LYS:NZ	2.27	0.46
35:BA:958:U:O2	36:BB:90:A:H4'	2.16	0.46
35:DA:2485:G:H5''	49:DQ:46:GLN:HE21	1.79	0.46
2:AB:84:GLU:HB3	2:AB:219:VAL:HG21	1.98	0.46
1:AA:1179:A:O3'	9:AI:103:THR:HG23	2.16	0.46
8:AH:112:LEU:HG	8:AH:112:LEU:O	2.15	0.46
18:AR:32:ARG:HA	18:AR:69:THR:HG21	1.97	0.46
1:CA:1260:C:H4'	1:CA:1284:C:H5'	1.98	0.46
39:BE:68:ALA:C	39:BE:70:ALA:H	2.18	0.46
27:B2:53:LEU:C	27:B2:53:LEU:HD23	2.36	0.46
42:BH:85:LYS:HD2	42:BH:145:ALA:HB2	1.97	0.46
36:DB:56:G:H4'	36:DB:57:A:H8	1.81	0.46
57:BY:52:SER:O	57:BY:53:PRO:C	2.55	0.46
36:BB:28:C:H2'	36:BB:29:A:C8	2.51	0.46
1:CA:598:U:O2'	1:CA:599:C:H5'	2.16	0.46
56:BX:66:LEU:HD23	56:BX:66:LEU:C	2.36	0.46
17:CQ:22:LEU:HD12	17:CQ:23:VAL:N	2.30	0.46
1:AA:1298:C:H4'	1:AA:1299:A:N9	2.31	0.46
38:BD:2:ALA:O	38:BD:3:VAL:HB	2.15	0.46
35:BA:2553:G:H3'	35:BA:2554:U:H5''	1.98	0.46
35:DA:1809:A:H2'	35:DA:1810:A:C8	2.51	0.46
1:AA:643:C:H5'	8:AH:31:PHE:CE1	2.51	0.46
5:CE:57:LYS:HA	5:CE:60:TYR:HB3	1.98	0.46
1:AA:932:C:H5'	7:AG:4:ARG:HG3	1.98	0.46
35:DA:2716:U:O2'	35:DA:2717:G:H5'	2.15	0.46
3:CC:110:ASN:O	3:CC:141:VAL:HG22	2.16	0.46
35:DA:244:A:H2'	35:DA:245:G:O4'	2.15	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DF:62:ARG:NH2	40:DF:64:ILE:HD12	2.31	0.46
38:DD:158:ALA:O	38:DD:159:ALA:C	2.54	0.46
56:DX:90:GLU:O	56:DX:93:GLU:HB2	2.16	0.46
35:BA:2801:A:N3	35:BA:2801:A:H2'	2.31	0.46
11:CK:114:VAL:O	11:CK:114:VAL:HG13	2.16	0.46
35:BA:1839:G:H8	35:BA:1839:G:H5'	1.81	0.46
35:DA:196:A:H2'	35:DA:196:A:N3	2.31	0.46
37:DC:48:LEU:HG	37:DC:210:LEU:HD23	1.98	0.46
1:CA:781:A:C3'	1:CA:782:A:H5'	2.46	0.46
44:DJ:73:UNK:C	44:DJ:75:UNK:N	2.79	0.46
35:BA:2623:G:H4'	35:BA:2825:C:O2	2.15	0.46
26:D1:24:ALA:HA	26:D1:32:LYS:HG2	1.97	0.46
52:DT:51:ARG:O	52:DT:61:PHE:HA	2.15	0.46
30:B5:57:VAL:CG2	30:B5:58:LEU:N	2.77	0.46
49:DQ:130:LYS:NZ	58:DZ:80:ARG:CZ	2.79	0.46
22:AW:40:C:H5'	22:AW:40:C:C6	2.51	0.46
13:CM:108:ARG:H	13:CM:108:ARG:HD2	1.81	0.46
41:DG:93:THR:HG22	41:DG:95:ARG:HD2	1.97	0.46
24:CY:285:GLU:HA	24:CY:288:ARG:HH12	1.78	0.46
4:CD:29:PRO:O	4:CD:30:LYS:HB3	2.15	0.46
4:CD:30:LYS:C	4:CD:32:ALA:N	2.56	0.46
35:DA:1529:G:H21	35:DA:1530:C:H2'	1.79	0.46
27:D2:63:VAL:HA	27:D2:66:GLU:HG2	1.97	0.46
1:CA:1127:G:H1	1:CA:1145:C:N4	2.14	0.46
51:DS:74:ALA:CB	51:DS:103:GLU:HG3	2.45	0.46
6:CF:92:LYS:HB2	6:CF:92:LYS:NZ	2.31	0.46
15:CO:78:TYR:OH	15:CO:88:ARG:HG3	2.16	0.46
31:B6:26:ASN:OD1	31:B6:26:ASN:N	2.49	0.46
22:CV:28:G:O2'	22:CV:29:G:H5'	2.16	0.46
35:BA:2543:G:O2'	35:BA:2544:G:H5'	2.16	0.46
20:CT:89:ARG:CD	20:CT:104:LEU:HD11	2.43	0.46
46:DN:128:HIS:CE1	46:DN:134:ARG:NH1	2.84	0.46
48:DP:23:PRO:CB	48:DP:33:ARG:HG3	2.46	0.46
43:DI:140:LEU:HD23	43:DI:140:LEU:C	2.35	0.46
1:AA:1469:G:H2'	1:AA:1470:G:C8	2.50	0.46
24:AY:72:LEU:HD13	24:AY:91:LEU:CG	2.46	0.46
26:D1:51:VAL:O	26:D1:57:GLU:O	2.34	0.46
19:AS:41:VAL:HG12	19:AS:42:PRO:HD2	1.98	0.46
38:BD:101:GLU:HG2	38:BD:102:LYS:N	2.31	0.46
35:DA:861:A:C2	35:DA:917:A:C4	3.04	0.46
3:CC:40:ARG:O	3:CC:44:GLU:HB2	2.16	0.46
48:DP:18:ARG:O	48:DP:18:ARG:NH1	2.48	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:CQ:45:HIS:CB	17:CQ:65:ILE:HD13	2.46	0.46
35:BA:649:G:H2'	35:BA:650:C:C6	2.51	0.46
45:DK:15:GLY:H	45:DK:45:THR:CG2	2.29	0.46
33:B8:33:ASN:O	35:BA:2420:C:OP1	2.34	0.46
58:BZ:4:ARG:O	58:BZ:5:LEU:HB2	2.15	0.46
24:AY:249:VAL:HG21	24:AY:272:LYS:CA	2.46	0.46
24:AY:277:LYS:CE	24:AY:280:LYS:HZ2	2.29	0.46
26:D1:89:GLU:HA	26:D1:92:LYS:HB3	1.98	0.46
31:D6:25:LYS:HZ3	35:DA:2284:C:H41	1.62	0.46
52:BT:57:PHE:CG	52:BT:58:ASN:N	2.84	0.46
1:AA:997:U:H2'	1:AA:998:G:H8	1.76	0.46
1:AA:328:C:O2'	1:AA:329:A:P	2.74	0.46
35:DA:1081:U:H4'	45:DK:122:ALA:O	2.17	0.46
37:DC:23:ILE:HB	37:DC:191:ARG:HH12	1.80	0.46
39:DE:31:CYS:HB3	39:DE:49:LEU:HB3	1.98	0.46
27:B2:2:LYS:HB3	35:BA:97:C:H5''	1.97	0.46
6:AF:15:ASP:HB2	6:AF:16:GLN:NE2	2.31	0.46
3:AC:94:LEU:HD12	3:AC:94:LEU:C	2.36	0.46
1:CA:853:G:H2'	1:CA:854:G:C8	2.48	0.46
6:CF:79:LEU:HD12	6:CF:88:VAL:HG11	1.97	0.46
42:BH:85:LYS:HD3	42:BH:133:VAL:HB	1.97	0.46
35:BA:2762:G:H2'	35:BA:2763:G:C5'	2.46	0.46
41:BG:173:LEU:HD22	41:BG:178:PHE:CZ	2.51	0.46
18:AR:25:THR:O	18:AR:26:LEU:HG	2.16	0.46
1:CA:1218:C:P	14:CN:9:LYS:NZ	2.88	0.46
35:DA:562:U:C4	35:DA:2036:C:O4'	2.69	0.46
15:CO:53:HIS:O	15:CO:56:LEU:HB3	2.16	0.46
4:AD:159:ARG:O	4:AD:162:LEU:HB2	2.16	0.46
1:AA:233:C:H2'	1:AA:234:C:H6	1.81	0.46
35:BA:1231:G:H2'	35:BA:1232:G:H8	1.81	0.46
37:BC:194:ILE:HD12	37:BC:227:PRO:HB2	1.98	0.46
57:BY:35:TYR:CD2	57:BY:69:ALA:HB3	2.51	0.46
28:B3:11:SER:OG	28:B3:13:ILE:HG13	2.16	0.46
1:AA:965:A:C2	1:AA:969:A:C2	3.04	0.46
1:AA:1504:G:OP1	1:AA:1507:A:H4'	2.16	0.46
40:DF:141:ALA:O	40:DF:144:LYS:HB3	2.16	0.46
14:CN:34:TYR:CD1	14:CN:34:TYR:N	2.84	0.46
35:DA:831:G:O5'	35:DA:831:G:H8	1.99	0.46
47:DO:18:LYS:HD2	47:DO:45:GLU:OE2	2.16	0.46
35:BA:1525:G:H2'	35:BA:1526:G:H8	1.80	0.46
49:DQ:35:VAL:HG13	49:DQ:130:LYS:HB3	1.96	0.45
40:DF:132:VAL:HG22	40:DF:133:ASN:HD22	1.80	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:889:C:O2'	35:BA:890:A:O5'	2.34	0.45
35:DA:654(T):C:O5'	35:DA:654(T):C:H6	1.98	0.45
35:DA:1493:C:O2	35:DA:1493:C:C2'	2.65	0.45
41:BG:41:GLN:HB2	41:BG:90:LEU:HB3	1.98	0.45
14:AN:24:CYS:SG	14:AN:40:CYS:N	2.83	0.45
52:DT:91:ARG:HA	52:DT:117:ASP:H	1.81	0.45
35:DA:274:G:N3	35:DA:274:G:C2'	2.80	0.45
35:DA:2394:C:OP1	48:DP:63:PRO:CD	2.52	0.45
20:AT:50:GLU:HB2	20:AT:99:LEU:HD12	1.98	0.45
15:AO:83:GLU:C	15:AO:85:LEU:H	2.19	0.45
46:DN:55:VAL:CG2	46:DN:56:ASN:N	2.79	0.45
45:DK:37:PHE:CD1	45:DK:41:PHE:HB2	2.51	0.45
16:AP:81:ARG:HG2	16:AP:83:GLU:OE2	2.16	0.45
48:BP:106:LEU:HD22	48:BP:112:LEU:HD23	1.97	0.45
41:DG:101:ILE:C	41:DG:101:ILE:HD12	2.37	0.45
35:BA:528:A:H2	35:BA:2043:C:C5'	2.28	0.45
56:DX:35:THR:HG22	56:DX:36:LYS:N	2.32	0.45
38:BD:267:SER:C	38:BD:269:PHE:H	2.19	0.45
24:AY:142:ARG:HD3	24:AY:338:ASP:OD1	2.16	0.45
43:DI:60:GLU:C	43:DI:62:LYS:N	2.69	0.45
26:D1:78:LYS:C	26:D1:80:LEU:H	2.20	0.45
48:BP:18:ARG:O	48:BP:18:ARG:NH1	2.48	0.45
1:AA:769:G:O2'	1:AA:770:C:H5'	2.16	0.45
1:CA:1513:A:H2'	1:CA:1514:C:H6	1.80	0.45
1:CA:1053:G:O6	1:CA:1199:U:H2'	2.15	0.45
1:CA:1123:A:O2'	10:CJ:38:ILE:HG22	2.15	0.45
35:BA:1281:G:C8	35:BA:1281:G:H5'	2.44	0.45
10:CJ:32:ALA:HB3	10:CJ:75:ILE:HG13	1.97	0.45
35:BA:1081:U:H2'	35:BA:1082:U:H6	1.80	0.45
24:AY:319:ASN:HD21	24:AY:334:GLU:CD	2.20	0.45
15:AO:23:GLY:O	15:AO:24:SER:HB3	2.16	0.45
37:DC:23:ILE:O	37:DC:27:ALA:HB2	2.16	0.45
57:DY:20:TYR:CE1	57:DY:42:VAL:HA	2.51	0.45
5:AE:147:ASP:HA	5:AE:150:ARG:CZ	2.45	0.45
13:AM:83:ASP:CG	13:AM:84:ILE:N	2.67	0.45
3:AC:156:ARG:HD3	3:AC:194:GLY:H	1.80	0.45
1:CA:1493:A:H4'	24:CY:126:GLY:CA	2.46	0.45
58:BZ:82:ARG:HH11	58:BZ:82:ARG:HG2	1.81	0.45
1:AA:1260:C:H4'	1:AA:1284:C:H5'	1.98	0.45
10:CJ:63:PHE:HZ	14:CN:45:ARG:HG3	1.81	0.45
35:DA:882:G:H2'	35:DA:883:G:C8	2.51	0.45
1:CA:1218:C:P	14:CN:9:LYS:HZ3	2.39	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:D2:28:LYS:HE2	27:D2:56:GLN:HE22	1.81	0.45
57:BY:52:SER:N	57:BY:53:PRO:CD	2.79	0.45
13:AM:100:GLY:C	13:AM:101:GLN:HG3	2.37	0.45
8:AH:9:MET:O	8:AH:13:ILE:HG12	2.16	0.45
51:BS:42:ASP:C	51:BS:44:LYS:N	2.67	0.45
24:CY:346:TRP:CE3	24:CY:346:TRP:N	2.84	0.45
48:BP:108:LYS:C	48:BP:110:TYR:H	2.20	0.45
1:CA:139:G:H2'	1:CA:140:A:C8	2.50	0.45
50:BR:13:HIS:O	50:BR:14:SER:C	2.54	0.45
31:B6:39:TYR:CG	31:B6:40:CYS:N	2.85	0.45
5:CE:57:LYS:HE2	5:CE:61:TYR:HE2	1.82	0.45
22:CV:4:C:O2'	22:CV:5:G:H5'	2.16	0.45
1:AA:908:A:H2'	1:AA:909:A:C8	2.51	0.45
35:BA:284:U:H2'	35:BA:285:C:C6	2.51	0.45
5:AE:96:PRO:HA	5:AE:117:ASP:CG	2.37	0.45
35:DA:979:G:H3'	35:DA:980:A:H5''	1.97	0.45
1:CA:442:C:H2'	1:CA:443:C:C6	2.50	0.45
40:BF:88:VAL:HG21	40:BF:91:GLY:HA3	1.99	0.45
1:CA:1176:A:H2'	1:CA:1177:G:C8	2.51	0.45
49:BQ:74:TYR:O	49:BQ:90:VAL:HA	2.16	0.45
35:DA:445:C:O2'	35:DA:446:G:H5'	2.15	0.45
35:DA:2840:C:H5''	50:DR:53:HIS:CD2	2.50	0.45
35:BA:2428:G:H5''	35:BA:2429:G:O5'	2.16	0.45
35:DA:289:A:H2'	35:DA:290:G:O4'	2.16	0.45
5:AE:64:ARG:HG3	5:AE:64:ARG:HH11	1.81	0.45
5:AE:26:PHE:CD1	5:AE:26:PHE:N	2.84	0.45
35:BA:518:G:H2'	35:BA:519:U:C6	2.51	0.45
35:DA:57:C:H2'	35:DA:58:G:O4'	2.16	0.45
4:AD:99:SER:HB2	4:AD:139:ARG:HG3	1.98	0.45
30:B5:50:GLY:O	30:B5:51:TYR:CD1	2.69	0.45
30:D5:47:PRO:O	30:D5:48:GLU:OE1	2.35	0.45
49:BQ:134:ARG:C	49:BQ:135:ASP:OD1	2.54	0.45
2:CB:77:ALA:CB	2:CB:165:VAL:HG11	2.45	0.45
2:CB:93:VAL:HG21	2:CB:97:TRP:HD1	1.80	0.45
30:D5:51:TYR:HD2	30:D5:52:TYR:OH	1.98	0.45
1:CA:1228:C:H5''	13:CM:108:ARG:HH22	1.80	0.45
51:BS:28:VAL:HG12	51:BS:29:PHE:N	2.31	0.45
48:DP:127:ALA:O	48:DP:148:LEU:HG	2.16	0.45
41:DG:107:LEU:HD23	41:DG:111:LEU:HD12	1.98	0.45
45:BK:98:ARG:NH1	45:BK:137:GLU:HG2	2.31	0.45
24:CY:283:LEU:O	24:CY:287:GLU:CB	2.64	0.45
29:B4:26:SER:HB2	41:BG:105:LYS:NZ	2.30	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:2306:C:O2	41:BG:43:LEU:HD22	2.16	0.45
41:BG:44:GLY:HA2	41:BG:88:ILE:CB	2.47	0.45
13:CM:120:LYS:C	13:CM:121:LYS:HD2	2.37	0.45
52:DT:32:TYR:CD2	52:DT:81:PRO:CB	2.89	0.45
37:DC:30:VAL:HG11	37:DC:42:VAL:HG11	1.98	0.45
48:BP:23:PRO:CB	48:BP:33:ARG:NE	2.76	0.45
19:CS:41:VAL:HG12	19:CS:42:PRO:HD2	1.99	0.45
35:DA:2107:C:H5'	37:DC:3:LYS:HE3	1.97	0.45
2:CB:200:ILE:HG22	2:CB:202:PRO:HD3	1.97	0.45
2:CB:55:PHE:HA	2:CB:58:ILE:CD1	2.38	0.45
12:CL:46:LYS:HG2	12:CL:47:LYS:N	2.32	0.45
10:CJ:28:ARG:HG2	10:CJ:28:ARG:HH11	1.82	0.45
43:BI:85:GLU:HG2	43:BI:86:THR:N	2.32	0.45
58:BZ:98:MET:O	58:BZ:98:MET:HG3	2.15	0.45
1:CA:644:G:O2'	1:CA:645:C:H5'	2.15	0.45
1:CA:389:A:C2'	1:CA:390:C:H5'	2.46	0.45
24:CY:77:GLU:CG	24:CY:84:ARG:HG2	2.46	0.45
1:CA:1353:G:O2'	1:CA:1354:C:H5'	2.16	0.45
1:AA:1300:G:O2'	1:AA:1301:U:P	2.75	0.45
46:DN:21:LYS:HD3	46:DN:26:LEU:HB2	1.98	0.45
1:CA:402:G:C2'	1:CA:403:C:H5'	2.45	0.45
14:CN:21:TYR:OH	14:CN:23:ARG:NH2	2.49	0.45
7:AG:148:ASN:ND2	7:AG:148:ASN:N	2.64	0.45
39:BE:103:ASP:CG	39:BE:201:THR:HA	2.36	0.45
35:DA:2682:U:H5'	35:DA:2682:U:C6	2.45	0.45
35:BA:2124:G:H5''	37:BC:175:PRO:HG3	1.99	0.45
3:AC:156:ARG:HD3	3:AC:194:GLY:CA	2.45	0.45
3:CC:94:LEU:HD12	3:CC:94:LEU:C	2.36	0.45
1:AA:833:U:H3	1:AA:853:G:H1	1.64	0.45
8:CH:48:TYR:HA	8:CH:60:ARG:O	2.17	0.45
5:CE:18:ARG:HH11	5:CE:18:ARG:HG3	1.80	0.45
41:BG:174:GLU:HA	41:BG:178:PHE:HB2	1.97	0.45
35:BA:491:G:O2'	35:BA:492:A:H5'	2.16	0.45
2:AB:204:ASN:ND2	2:AB:207:ALA:H	2.14	0.45
2:CB:19:HIS:CG	2:CB:20:GLU:N	2.84	0.45
37:BC:185:LYS:HE3	37:BC:185:LYS:HA	1.98	0.45
35:DA:570:G:H2'	35:DA:2030:A:C5	2.52	0.45
35:DA:1509(B):A:H2'	35:DA:1510:G:H8	1.81	0.45
47:DO:2:ILE:HD12	47:DO:6:THR:HG21	1.98	0.45
24:AY:282:ARG:CB	24:AY:282:ARG:NH2	2.78	0.45
34:B9:17:ILE:HG22	34:B9:18:ARG:N	2.30	0.45
2:CB:95:GLN:HE21	2:CB:147:LYS:HG2	1.81	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:CY:282:ARG:HH21	24:CY:282:ARG:CB	2.28	0.45
1:CA:584:G:H2'	1:CA:585:G:C8	2.51	0.45
35:DA:2687:U:C4	35:DA:2688:U:C5	3.04	0.45
40:BF:110:LEU:CD1	40:BF:202:PHE:CE1	3.00	0.45
1:CA:1471:G:O2'	1:CA:1472:U:H5'	2.16	0.45
35:DA:2547:U:H2'	35:DA:2548:G:C8	2.51	0.45
37:BC:16:ASP:OD2	37:BC:19:LYS:HB2	2.16	0.45
24:AY:193:SER:HB2	24:AY:202:HIS:HB2	1.98	0.45
35:DA:2350:C:H2'	35:DA:2351:G:O4'	2.17	0.45
35:DA:1991:U:H2'	35:DA:1992:G:H5''	1.97	0.45
48:BP:140:ALA:O	48:BP:141:ALA:HB3	2.16	0.45
10:AJ:84:GLN:O	10:AJ:88:LEU:N	2.47	0.45
35:DA:1742:G:N7	35:DA:1743:C:C4	2.85	0.45
6:AF:28:ARG:HG3	6:AF:28:ARG:HH11	1.81	0.45
15:AO:62:GLN:O	15:AO:66:LEU:HD13	2.16	0.45
16:AP:52:ASP:OD2	16:AP:54:GLU:HB2	2.16	0.45
42:BH:25:LYS:HG3	42:BH:34:GLU:HG2	1.97	0.45
24:AY:303:ARG:N	24:AY:304:PRO:CD	2.62	0.45
57:DY:76:CYS:HB3	57:DY:96:ILE:CD1	2.41	0.45
42:DH:46:GLU:O	42:DH:47:GLU:HB2	2.16	0.45
58:BZ:151:HIS:ND1	58:BZ:152:ALA:N	2.64	0.45
48:DP:10:PRO:CD	48:DP:11:GLY:H	2.23	0.45
1:CA:1228:C:H2'	1:CA:1229:A:C8	2.50	0.45
51:BS:89:ARG:CB	51:BS:92:TYR:HB3	2.46	0.45
22:CV:56:C:O4'	41:DG:76:SER:HB2	2.17	0.45
45:BK:84:LEU:HD12	45:BK:87:GLY:HA2	1.97	0.45
36:DB:21:G:O2'	36:DB:22:U:C6	2.68	0.45
13:AM:124:PRO:HB2	24:AY:163:GLY:O	2.16	0.45
13:AM:125:ARG:HD2	24:AY:165:ASP:CA	2.45	0.45
52:DT:89:VAL:C	52:DT:91:ARG:N	2.63	0.45
51:BS:26:LEU:HD23	51:BS:39:ILE:HG12	1.97	0.45
35:BA:1408:C:H2'	35:BA:1409:C:H6	1.82	0.45
39:BE:111:ARG:HG3	50:BR:2:ARG:CG	2.42	0.45
52:BT:32:TYR:CD2	52:BT:81:PRO:CB	2.89	0.45
33:D8:21:LYS:HD3	33:D8:48:PHE:CZ	2.52	0.45
38:BD:8:PRO:C	38:BD:10:THR:H	2.20	0.45
48:DP:106:LEU:HD22	48:DP:112:LEU:HD23	1.99	0.45
1:AA:1347:G:H5''	9:AI:107:ARG:HB3	1.98	0.45
1:CA:218:C:H5'	1:CA:470:C:H41	1.80	0.45
5:AE:7:GLU:O	5:AE:8:GLU:CB	2.64	0.45
1:CA:1001(A):G:O2'	1:CA:1002:G:H5'	2.16	0.45
48:BP:32:THR:O	48:BP:33:ARG:HB2	2.15	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CL:47:LYS:C	12:CL:49:ASN:H	2.20	0.45
1:CA:520:A:OP1	12:CL:52:LEU:HB2	2.16	0.45
38:BD:35:LYS:O	38:BD:35:LYS:CG	2.64	0.45
43:BI:88:ILE:HG22	43:BI:89:TYR:N	2.32	0.45
19:CS:18:LYS:C	19:CS:22:LEU:HD23	2.37	0.45
35:DA:271(K):U:N3	43:DI:50:ARG:CZ	2.80	0.45
1:CA:112:G:H4'	1:CA:389:A:H5''	1.98	0.45
24:AY:109:PHE:CB	24:AY:112:ALA:HB2	2.42	0.45
48:BP:88:LEU:N	48:BP:88:LEU:HD12	2.23	0.45
35:DA:1281:G:O2'	35:DA:1282:U:H5'	2.17	0.45
42:BH:115:VAL:HG11	42:BH:148:ILE:CD1	2.46	0.45
1:CA:377:G:O2'	1:CA:378:G:H5'	2.17	0.45
1:CA:1054:C:O2	1:CA:1054:C:C3'	2.65	0.45
35:BA:2579:C:O2'	39:BE:131:ALA:HB3	2.16	0.45
35:DA:271(A):A:H2	35:DA:272(D):G:N3	2.15	0.45
1:AA:1123:A:O2'	10:AJ:38:ILE:HG22	2.16	0.45
41:DG:17:PRO:HG2	41:DG:18:GLU:H	1.82	0.45
41:DG:31:VAL:CG1	41:DG:31:VAL:O	2.63	0.45
5:CE:72:GLN:O	5:CE:73:ASN:HB2	2.16	0.45
12:CL:117:ARG:HB3	12:CL:122:THR:HB	1.97	0.45
31:B6:12:GLU:OE1	31:B6:52:VAL:HB	2.16	0.45
35:BA:1665:A:C4'	47:BO:67:LYS:HB2	2.45	0.45
7:CG:68:ASN:O	7:CG:138:LYS:HD2	2.16	0.45
48:DP:41:ARG:HE	48:DP:41:ARG:HA	1.82	0.45
49:BQ:59:ARG:CB	58:BZ:180:VAL:HG23	2.46	0.45
35:BA:2712(A):A:H5''	35:BA:2713:A:OP2	2.16	0.45
45:DK:105:LEU:O	45:DK:108:ALA:HB3	2.16	0.45
40:DF:117:ARG:NH2	40:DF:187:VAL:HA	2.30	0.45
35:BA:271(F):C:H2'	35:BA:271(G):C:H6	1.81	0.45
4:CD:10:ARG:HG2	4:CD:10:ARG:O	2.16	0.45
4:CD:98:GLU:O	4:CD:100:ARG:N	2.49	0.45
36:DB:29:A:H2'	36:DB:30:C:C6	2.52	0.45
35:BA:558:G:OP1	46:BN:111:PRO:HD2	2.16	0.45
35:DA:816:C:H2'	35:DA:817:C:H6	1.82	0.45
35:BA:1754:C:H5	52:BT:96:ARG:NH2	2.14	0.45
43:BI:59:ALA:C	43:BI:63:ALA:HB3	2.36	0.45
35:BA:1810:A:H2'	35:BA:1811:G:O4'	2.16	0.45
39:BE:16:ARG:O	39:BE:18:ASP:N	2.48	0.45
35:BA:2772:C:H2'	35:BA:2773:C:H6	1.80	0.45
7:CG:23:VAL:O	7:CG:27:ILE:HG13	2.15	0.45
27:B2:36:ARG:NH2	56:BX:5:TYR:O	2.50	0.45
35:DA:2715:C:O2'	35:DA:2716:U:H5'	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:1266:G:O5'	55:BW:15:ARG:NH2	2.49	0.45
1:CA:161:A:H2'	1:CA:162:A:C8	2.51	0.45
35:DA:1755:A:O2'	35:DA:1756:G:H5'	2.16	0.45
53:DU:21:ALA:HB2	53:DU:35:ALA:HB1	1.98	0.45
56:BX:90:GLU:O	56:BX:93:GLU:HB2	2.15	0.45
35:DA:711:G:O2'	35:DA:712:G:H5'	2.15	0.45
35:BA:57:C:H2'	35:BA:58:G:O4'	2.17	0.45
50:BR:56:LYS:HE3	50:BR:88:ARG:HA	1.99	0.45
35:DA:1472:A:O2'	35:DA:1473:G:H5'	2.16	0.45
26:D1:40:ARG:HD3	26:D1:40:ARG:C	2.37	0.45
9:CI:59:PHE:N	9:CI:59:PHE:CD1	2.84	0.45
31:D6:15:GLU:OE2	31:D6:47:THR:CB	2.64	0.45
52:DT:100:TYR:CD2	52:DT:103:ARG:NH2	2.77	0.45
57:DY:28:LYS:HE3	57:DY:28:LYS:HB2	1.75	0.45
57:DY:28:LYS:C	57:DY:38:ILE:HG22	2.37	0.45
33:D8:6:THR:HG22	33:D8:63:PRO:HD3	1.98	0.45
35:DA:1747:G:H2'	35:DA:1747(A):G:H8	1.82	0.45
42:DH:24:VAL:HG13	42:DH:24:VAL:O	2.15	0.45
35:DA:1484:G:N2	35:DA:1505:C:N4	2.62	0.45
45:DK:92:GLY:CA	58:DZ:112:ARG:HH12	2.22	0.45
49:BQ:134:ARG:HH11	49:BQ:134:ARG:HG3	1.81	0.45
51:BS:34:HIS:NE2	51:BS:54:LEU:HB2	2.32	0.45
38:BD:24:ILE:HD13	38:BD:24:ILE:C	2.37	0.45
35:BA:1493:C:O2	35:BA:1493:C:C2'	2.64	0.45
1:AA:963:G:N2	10:AJ:55:LYS:NZ	2.63	0.45
55:BW:88:ARG:HB2	55:BW:92:ARG:CB	2.45	0.45
24:AY:157:THR:HG23	24:AY:165:ASP:HB3	1.98	0.45
1:CA:1106:G:H2'	1:CA:1107:C:C6	2.52	0.45
39:DE:75:VAL:C	39:DE:77:ILE:N	2.69	0.45
4:AD:165:MET:HB3	4:AD:178:VAL:HG22	1.99	0.45
35:DA:1827:C:O2'	35:DA:1828:G:H5'	2.16	0.45
13:CM:125:ARG:HB2	24:CY:159:GLY:HA3	1.98	0.45
24:CY:131:ASP:CA	24:CY:163:GLY:HA2	2.40	0.45
35:DA:1885:A:H2'	35:DA:1886:C:O4'	2.15	0.45
24:AY:326:THR:CG2	24:AY:328:LEU:HB2	2.46	0.45
26:B1:84:GLY:O	26:B1:86:SER:N	2.50	0.45
30:D5:4:HIS:HB3	30:D5:5:PRO:HD2	1.93	0.45
31:B6:11:LEU:HD12	31:B6:26:ASN:OD1	2.16	0.45
35:DA:2648:C:H2'	35:DA:2649:U:C6	2.52	0.45
35:DA:2732:G:C3'	35:DA:2733:A:C5'	2.93	0.45
35:DA:279:C:H3'	35:DA:280:C:H5''	1.96	0.45
58:BZ:135:GLU:O	58:BZ:137:ILE:HG12	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:B0:14:ARG:NH1	25:B0:14:ARG:HB2	2.31	0.45
48:DP:100:LEU:HD12	48:DP:112:LEU:CD2	2.44	0.45
39:DE:51:PHE:HD1	39:DE:52:LEU:N	2.12	0.45
35:DA:1216:G:OP2	53:DU:12:ARG:NH2	2.49	0.45
41:DG:4:ASP:O	41:DG:5:VAL:HG13	2.16	0.45
35:DA:2360:A:O2'	35:DA:2361:A:O4'	2.31	0.45
54:BV:1:MET:HB3	54:BV:2:PHE:H	1.58	0.45
54:DV:5:VAL:CG2	54:DV:35:LEU:HB3	2.43	0.45
12:AL:35:GLY:HA3	12:AL:58:VAL:CG1	2.46	0.45
35:DA:1947:C:C3'	35:DA:1948:G:C5'	2.94	0.45
38:DD:35:LYS:HZ2	38:DD:35:LYS:HB3	1.80	0.45
1:AA:1104:G:C4	1:AA:1105:A:C8	3.05	0.45
5:CE:20:GLN:O	5:CE:21:ALA:O	2.34	0.45
35:BA:2134:A:H2	35:BA:2159:G:H1'	1.77	0.45
12:AL:53:ARG:NH1	12:AL:53:ARG:CG	2.80	0.45
39:DE:117:MET:O	39:DE:118:LYS:CB	2.62	0.45
52:DT:40:THR:O	52:DT:41:ARG:HB2	2.15	0.45
24:AY:189:LEU:O	24:AY:203:THR:HA	2.16	0.45
26:D1:82:LEU:HD23	26:D1:82:LEU:N	2.30	0.45
48:BP:17:LYS:O	48:BP:19:VAL:CG2	2.60	0.45
26:B1:8:SER:HB3	26:B1:66:HIS:CD2	2.52	0.45
42:DH:115:VAL:O	42:DH:123:PHE:HE1	1.99	0.45
33:B8:32:LEU:O	33:B8:33:ASN:O	2.34	0.45
4:AD:148:VAL:HG12	4:AD:152:SER:HB2	1.98	0.45
10:AJ:38:ILE:CG1	10:AJ:71:LEU:HB3	2.46	0.45
35:DA:811:U:OP1	48:DP:30:THR:HG22	2.16	0.45
22:AW:15:G:H22	22:AW:59:U:C1'	2.29	0.45
35:BA:2114:A:N6	35:BA:2115:G:H21	2.13	0.45
30:D5:41:PRO:HG2	30:D5:44:THR:CG2	2.43	0.45
35:BA:2124:G:H5'	37:BC:175:PRO:HD3	1.99	0.45
6:CF:15:ASP:HB2	6:CF:16:GLN:NE2	2.32	0.45
7:CG:120:ILE:HG22	7:CG:124:LEU:CD1	2.46	0.45
39:DE:103:ASP:CG	39:DE:201:THR:HA	2.37	0.45
35:DA:1276:A:O2'	50:DR:16:HIS:HE1	1.99	0.45
1:AA:383:A:O2'	1:AA:384:G:H5'	2.16	0.45
35:BA:2329:G:H2'	35:BA:2330:G:C8	2.52	0.45
3:CC:92:ALA:C	3:CC:94:LEU:H	2.19	0.45
1:AA:692:U:C5	11:AK:26:ASN:ND2	2.85	0.45
35:BA:2650:U:O2'	35:BA:2651:C:H5'	2.16	0.45
27:B2:35:LEU:O	27:B2:38:GLN:HB2	2.17	0.45
1:CA:373:A:H2'	1:CA:374:A:H8	1.81	0.45
18:CR:25:THR:O	18:CR:26:LEU:HG	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CL:102:ARG:CG	12:CL:102:ARG:HH11	2.27	0.45
2:AB:36:ARG:O	2:AB:37:ASN:CB	2.64	0.45
49:DQ:12:GLN:HE21	49:DQ:73:PRO:CD	2.30	0.45
24:AY:220:VAL:HG12	24:AY:222:LEU:HD21	1.98	0.45
1:CA:41:G:H2'	1:CA:42:G:C8	2.50	0.45
1:CA:80:G:H3'	1:CA:81:U:H5'	1.98	0.45
1:CA:1298:C:H4'	1:CA:1299:A:N9	2.31	0.45
35:BA:1809:A:H2'	35:BA:1810:A:C8	2.51	0.45
47:DO:18:LYS:HB2	47:DO:45:GLU:CG	2.47	0.45
40:BF:129:PHE:CZ	40:BF:156:LEU:HD11	2.51	0.45
5:AE:57:LYS:HE2	5:AE:61:TYR:HE2	1.81	0.45
35:DA:191:A:O2'	35:DA:192:C:H5'	2.17	0.45
1:CA:110:C:H2'	1:CA:111:G:O4'	2.17	0.45
35:BA:831:G:H8	35:BA:831:G:O5'	2.00	0.45
9:CI:2:GLU:HG2	9:CI:2:GLU:O	2.16	0.45
4:AD:107:ARG:HH11	4:AD:107:ARG:HG2	1.81	0.45
11:CK:70:LYS:O	11:CK:73:MET:HG2	2.15	0.45
55:BW:62:HIS:O	55:BW:63:ASP:C	2.54	0.45
40:BF:58:ALA:O	40:BF:59:TYR:O	2.34	0.45
57:DY:14:LEU:CD1	57:DY:15:VAL:H	2.28	0.45
24:CY:215:ASP:C	24:CY:216:GLU:HG3	2.35	0.45
40:DF:21:ALA:O	40:DF:23:ASP:N	2.49	0.45
58:BZ:122:ARG:O	58:BZ:123:ASP:OD1	2.35	0.45
40:BF:133:ASN:O	40:BF:135:LYS:N	2.50	0.45
35:DA:1049:C:O2'	35:DA:1050:A:H5'	2.16	0.45
35:DA:1105:U:H2'	35:DA:1106:G:H8	1.82	0.45
51:BS:88:ASP:CG	51:BS:89:ARG:N	2.69	0.45
22:CW:17:C:O2	22:CW:17:C:H2'	2.15	0.45
13:CM:57:ARG:HH22	29:D4:34:GLU:HG3	1.81	0.45
35:DA:654(Q):C:O2'	35:DA:654(R):C:H5'	2.17	0.45
4:CD:12:CYS:O	4:CD:33:MET:HE2	2.16	0.45
1:AA:1049:U:H1'	1:AA:1201:A:N7	2.31	0.45
27:D2:69:ARG:HH22	35:DA:111:A:H4'	1.81	0.45
43:DI:6:LEU:HD11	43:DI:36:ALA:CA	2.46	0.45
54:BV:47:VAL:HG12	54:BV:52:VAL:H	1.81	0.45
53:DU:90:VAL:HG12	53:DU:91:ASP:N	2.31	0.45
20:AT:102:GLY:O	20:AT:104:LEU:N	2.49	0.45
46:DN:58:ASP:HB3	46:DN:95:PRO:HB2	1.98	0.45
1:AA:473:G:H2'	1:AA:474:G:H8	1.80	0.45
1:CA:735:C:C2	1:CA:736:C:C5	3.05	0.45
33:B8:21:LYS:HD3	33:B8:48:PHE:CZ	2.52	0.45
27:B2:48:HIS:O	27:B2:52:ASP:HB2	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:DU:102:GLU:HG3	54:DV:2:PHE:CE1	2.51	0.45
1:CA:1034:G:H2'	1:CA:1035:A:C6	2.52	0.45
48:BP:23:PRO:O	48:BP:33:ARG:NH1	2.49	0.45
37:BC:6:LYS:O	37:BC:8:TYR:N	2.50	0.45
2:AB:111:ARG:HH21	2:AB:114:ARG:HG2	1.82	0.45
53:DU:25:TRP:C	53:DU:25:TRP:CD1	2.89	0.45
26:B1:46:LEU:HA	26:B1:63:ALA:HA	1.98	0.45
35:BA:15:G:O2'	35:BA:16:G:H5'	2.17	0.45
41:BG:31:VAL:O	41:BG:33:ARG:HD3	2.17	0.45
1:CA:592:G:H2'	1:CA:593:G:H8	1.80	0.45
24:AY:332:ASP:O	24:AY:336:VAL:HG23	2.17	0.45
16:CP:28:ARG:HH11	16:CP:28:ARG:CG	2.22	0.45
35:DA:2590:A:O2'	35:DA:2591:C:H5'	2.15	0.45
1:AA:781:A:C3'	1:AA:782:A:H5'	2.46	0.45
1:AA:389:A:C2'	1:AA:390:C:H5'	2.47	0.45
12:CL:70:ILE:CD1	12:CL:77:LEU:HD12	2.43	0.45
3:CC:156:ARG:NH2	3:CC:159:GLY:O	2.49	0.45
4:AD:150:GLU:OE2	4:AD:151:LYS:N	2.44	0.45
52:BT:38:ASN:O	52:BT:39:ARG:HB3	2.16	0.45
49:BQ:59:ARG:HB3	58:BZ:180:VAL:CG2	2.46	0.45
34:D9:31:LYS:HG2	35:DA:2478:A:H5'	1.97	0.45
26:D1:29:GLY:C	26:D1:30:VAL:CG2	2.84	0.45
54:DV:22:VAL:O	54:DV:23:GLU:HG2	2.17	0.45
46:DN:47:ALA:HB2	46:DN:112:LEU:CD1	2.42	0.45
6:AF:17:SER:O	6:AF:20:ALA:HB3	2.17	0.45
56:DX:64:LYS:CD	56:DX:73:ARG:CZ	2.94	0.45
1:AA:1275:A:H2'	1:AA:1276:G:H8	1.81	0.45
6:AF:3:ARG:HG3	6:AF:3:ARG:NH1	2.30	0.45
35:BA:882:G:H2'	35:BA:883:G:C8	2.51	0.45
1:CA:1020:U:H2'	1:CA:1021:G:H8	1.80	0.45
48:DP:111:ARG:HG3	48:DP:111:ARG:HH21	1.81	0.45
14:CN:14:PRO:O	14:CN:15:LYS:C	2.55	0.45
2:CB:204:ASN:HD21	2:CB:207:ALA:H	1.63	0.45
24:AY:14:ARG:CZ	24:AY:350:GLU:OE1	2.63	0.45
1:CA:1329:A:OP1	13:CM:28:ALA:HB3	2.15	0.45
1:AA:80:G:H3'	1:AA:81:U:H5'	1.98	0.45
24:AY:50:GLN:HE21	24:AY:51:GLU:N	2.15	0.45
11:AK:122:LYS:O	11:AK:126:ARG:HG3	2.16	0.45
1:CA:233:C:H2'	1:CA:234:C:H6	1.82	0.45
30:B5:7:PRO:HA	35:BA:2615:U:C2	2.50	0.45
11:AK:88:GLY:O	11:AK:90:GLY:N	2.49	0.45
5:AE:135:THR:O	5:AE:138:ALA:HB3	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1207:G:H2'	1:CA:1208:C:H6	1.81	0.45
20:CT:69:GLY:O	20:CT:73:HIS:CD2	2.69	0.45
24:CY:282:ARG:NH2	24:CY:282:ARG:CB	2.80	0.45
40:DF:165:ARG:CG	40:DF:165:ARG:HH11	2.30	0.45
18:AR:44:LEU:N	18:AR:44:LEU:HD12	2.31	0.45
28:B3:46:ASN:ND2	35:BA:850:C:O2'	2.44	0.45
35:BA:752:A:H4'	35:BA:753:C:O5'	2.17	0.45
35:BA:711:G:O2'	35:BA:712:G:H5'	2.16	0.45
1:CA:932:C:H5''	7:CG:3:ARG:HD2	1.98	0.45
1:AA:1486:G:H2'	1:AA:1487:G:C8	2.52	0.45
58:DZ:22:GLY:O	58:DZ:41:LEU:HB2	2.17	0.45
4:CD:180:GLY:O	4:CD:182:LYS:HD2	2.16	0.45
54:BV:75:PHE:C	54:BV:75:PHE:CD1	2.90	0.45
40:BF:93:LYS:HD3	40:BF:93:LYS:HA	1.83	0.45
14:AN:34:TYR:CD1	14:AN:34:TYR:N	2.85	0.45
1:AA:1225:A:N3	1:AA:1225:A:H2'	2.30	0.45
35:BA:1705:G:O2'	35:BA:1706:U:H5'	2.17	0.45
1:AA:1442(B):A:C2	52:BT:118:ARG:NH2	2.85	0.45
40:BF:116:ASP:OD2	48:BP:5:ASP:HA	2.17	0.45
48:DP:62:LEU:N	48:DP:62:LEU:CD2	2.52	0.45
45:DK:11:GLN:HA	45:DK:54:PRO:HA	1.99	0.45
58:BZ:153:SER:O	58:BZ:155:LEU:HD23	2.17	0.45
2:CB:102:LEU:CD1	2:CB:102:LEU:N	2.80	0.45
2:AB:162:ILE:O	2:AB:162:ILE:HG13	2.16	0.45
24:AY:169:ILE:HG22	24:AY:170:LEU:N	2.31	0.45
35:DA:654(H):G:H21	35:DA:654(N):G:N2	2.15	0.45
10:CJ:50:ILE:HD11	14:CN:41:ARG:CZ	2.46	0.45
14:AN:41:ARG:HE	14:AN:42:ILE:HD11	1.81	0.45
1:AA:1202:G:N1	14:AN:42:ILE:HG21	2.32	0.45
22:CW:31:A:H1'	22:CW:40:C:O2	2.16	0.45
39:BE:77:ILE:CG2	39:BE:78:LEU:N	2.65	0.45
45:BK:12:LEU:HB2	45:BK:53:VAL:HG23	1.99	0.45
47:BO:77:ILE:CD1	52:BT:74:ARG:HD3	2.44	0.45
20:CT:57:ARG:NH1	20:CT:100:ILE:HG13	2.31	0.45
35:BA:672:C:C2'	35:BA:673:C:C5'	2.86	0.45
3:AC:70:VAL:HG12	3:AC:71:ALA:N	2.32	0.45
1:CA:1347:G:H5''	9:CI:107:ARG:HB3	1.98	0.45
43:DI:79:ILE:O	43:DI:79:ILE:HG22	2.16	0.45
1:AA:1371:G:OP2	9:AI:11:LYS:HD2	2.16	0.45
48:BP:33:ARG:O	48:BP:35:HIS:N	2.49	0.45
57:DY:45:VAL:HG13	57:DY:60:PHE:O	2.16	0.45
38:DD:35:LYS:HD2	38:DD:35:LYS:C	2.36	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:187:LEU:HD13	2:CB:187:LEU:O	2.16	0.45
4:AD:13:ARG:HH11	4:AD:13:ARG:CB	2.30	0.45
53:BU:25:TRP:C	53:BU:25:TRP:CD1	2.90	0.45
19:AS:16:LEU:H	19:AS:16:LEU:CD1	2.24	0.45
22:CV:25:C:H2'	22:CV:26:A:H8	1.80	0.45
1:CA:189(F):U:C4	17:CQ:72:ARG:CZ	2.99	0.45
38:BD:175:LEU:HD12	38:BD:185:VAL:HG21	1.99	0.45
58:BZ:58:VAL:O	58:BZ:59:LEU:HD23	2.16	0.45
24:AY:83:GLU:HB3	24:AY:84:ARG:NH1	2.31	0.45
9:CI:113:LYS:H	9:CI:113:LYS:HD2	1.79	0.45
9:CI:118:LYS:CB	9:CI:118:LYS:NZ	2.79	0.45
1:AA:59:A:H5'	1:AA:60:A:H5''	1.97	0.45
52:DT:55:ASN:O	52:DT:57:PHE:N	2.49	0.45
14:AN:23:ARG:HH11	14:AN:30:ALA:HB2	1.78	0.45
23:CX:21:A:N6	24:CX:190:VAL:HG13	2.32	0.45
35:BA:1331:A:O2'	35:BA:1332:G:H8	1.99	0.45
35:DA:2789:C:H1'	35:DA:2892:A:C2	2.51	0.45
6:CF:16:GLN:NE2	6:CF:16:GLN:H	2.14	0.45
58:DZ:128:VAL:CG2	58:DZ:129:SER:N	2.77	0.45
47:DO:13:ASN:C	47:DO:15:GLY:N	2.70	0.45
40:DF:65:TRP:CZ3	40:DF:73:ALA:O	2.69	0.45
49:BQ:130:LYS:HD2	58:BZ:80:ARG:HH11	1.81	0.45
35:BA:1188:U:C2'	35:BA:1189:A:H5'	2.47	0.45
49:DQ:136:ALA:C	49:DQ:138:ASP:N	2.68	0.45
35:BA:2014:A:H2'	35:BA:2015:A:C8	2.52	0.45
1:CA:1437:C:H2'	1:CA:1438:G:H8	1.81	0.45
35:DA:2464:C:O2'	35:DA:2465:C:H6	2.00	0.45
53:BU:78:THR:O	53:BU:79:PHE:C	2.55	0.45
35:BA:583:G:OP2	53:BU:10:ARG:HD2	2.16	0.45
35:BA:1192:G:C2'	35:BA:1193:G:H5'	2.46	0.45
8:AH:17:THR:HG22	8:AH:63:LEU:HG	1.98	0.45
56:BX:65:ARG:O	56:BX:66:LEU:HB2	2.16	0.45
7:AG:23:VAL:O	7:AG:27:ILE:HG13	2.16	0.45
35:DA:1812:A:H2'	35:DA:1813:G:C8	2.52	0.45
26:D1:76:ARG:HH21	26:D1:95:LEU:HD23	1.81	0.45
32:D7:5:TRP:CD1	32:D7:7:PRO:HD3	2.51	0.45
35:BA:1550:C:H2'	35:BA:1551:C:H6	1.80	0.45
35:BA:738:G:O2'	35:BA:739:G:H5'	2.16	0.45
1:CA:1084:G:H5'	1:CA:1102:A:OP2	2.16	0.45
35:BA:1372:U:H2'	35:BA:1373:A:O4'	2.16	0.45
43:BI:75:LEU:HD21	43:BI:105:HIS:CE1	2.51	0.45
49:BQ:10:ARG:HH11	49:BQ:10:ARG:HB2	1.80	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:754:C:H3'	1:CA:754:C:O2	2.16	0.45
7:AG:50:ILE:C	7:AG:52:GLU:H	2.19	0.45
35:DA:1248:G:C5	53:DU:3:ARG:HB2	2.52	0.45
57:DY:96:ILE:CB	57:DY:99:CYS:HB2	2.43	0.45
57:DY:7:VAL:CB	57:DY:8:LYS:NZ	2.80	0.45
33:B8:61:LEU:HD12	33:B8:62:LEU:HD12	1.98	0.45
35:BA:1484:G:N2	35:BA:1505:C:N4	2.61	0.45
27:B2:19:VAL:O	27:B2:20:GLU:C	2.55	0.45
48:BP:10:PRO:CD	48:BP:11:GLY:H	2.26	0.45
22:CW:20:U:O2	22:CW:20:U:C2'	2.62	0.45
22:CW:55:U:O4	22:CW:57:G:H5''	2.17	0.45
41:DG:181:ARG:O	41:DG:182:LYS:C	2.55	0.45
41:BG:37:VAL:O	41:BG:94:LEU:HD12	2.17	0.45
1:CA:972:C:OP2	10:CJ:57:LYS:HE2	2.16	0.45
39:BE:31:CYS:HB3	39:BE:49:LEU:HB3	1.98	0.45
1:CA:1133:G:N2	1:CA:1143:G:H1'	2.31	0.45
58:DZ:43:GLU:O	58:DZ:47:VAL:HG23	2.16	0.45
35:DA:2444:G:OP2	40:DF:68:LYS:HE2	2.16	0.45
52:BT:33:LYS:NZ	52:BT:74:ARG:HH21	2.15	0.45
20:CT:57:ARG:CZ	20:CT:100:ILE:HG12	2.44	0.45
52:DT:65:LYS:NZ	52:DT:66:VAL:N	2.44	0.45
35:DA:833:U:H5''	48:DP:48:PRO:CB	2.45	0.45
30:B5:4:HIS:CB	30:B5:5:PRO:CD	2.85	0.45
35:BA:279:C:H3'	35:BA:280:C:H5''	1.96	0.45
52:BT:106:SER:HA	52:BT:110:ILE:HG13	1.98	0.45
35:DA:941:A:O2'	48:DP:35:HIS:CE1	2.69	0.45
38:DD:16:MET:HE1	38:DD:208:LYS:HD3	1.99	0.45
1:CA:1342:C:H1'	9:CI:124:GLN:HE21	1.81	0.45
42:DH:97:ARG:CG	42:DH:98:LEU:H	2.13	0.45
5:AE:41:VAL:HG21	5:AE:69:VAL:HG21	1.99	0.45
24:AY:266:ARG:HG3	25:B0:3:HIS:NE2	2.31	0.45
18:CR:66:LEU:CG	18:CR:70:ILE:HD11	2.45	0.45
18:AR:71:LYS:HA	18:AR:74:ARG:CD	2.47	0.45
19:CS:9:VAL:O	19:CS:9:VAL:HG12	2.16	0.45
43:BI:67:ARG:O	43:BI:71:ILE:HG23	2.15	0.45
24:AY:191:ARG:C	24:AY:191:ARG:HD2	2.37	0.45
35:BA:1639:U:H2'	35:BA:1640:C:C5'	2.46	0.45
2:AB:67:THR:HG21	2:AB:155:LEU:CG	2.46	0.45
19:AS:15:LEU:HD23	19:AS:35:SER:OG	2.17	0.45
58:DZ:137:ILE:HG22	58:DZ:137:ILE:O	2.17	0.45
58:BZ:44:PHE:C	58:BZ:44:PHE:CD1	2.89	0.45
26:D1:80:LEU:HD23	26:D1:81:LYS:N	2.29	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:2632:A:C2	39:BE:61:ARG:HD2	2.52	0.45
42:BH:115:VAL:O	42:BH:123:PHE:HE1	1.98	0.45
16:AP:71:ARG:O	16:AP:74:LEU:HB2	2.16	0.45
10:CJ:98:ILE:HD12	10:CJ:98:ILE:N	2.32	0.45
1:CA:1349:A:P	9:CI:118:LYS:NZ	2.90	0.45
8:AH:16:ALA:O	8:AH:19:VAL:HG22	2.16	0.45
35:BA:1081:U:H4'	45:BK:122:ALA:O	2.16	0.45
9:AI:12:GLU:O	9:AI:68:GLY:N	2.50	0.45
24:AY:317:ASP:HB3	24:AY:318:LYS:H	1.61	0.45
7:AG:139:GLU:O	7:AG:143:ARG:HG3	2.16	0.45
4:CD:148:VAL:HG12	4:CD:152:SER:HB2	1.99	0.45
3:AC:156:ARG:NH2	3:AC:159:GLY:O	2.50	0.45
6:CF:97:PHE:CE2	18:CR:65:ILE:HD12	2.52	0.45
17:AQ:9:VAL:CG1	17:AQ:56:VAL:HG22	2.47	0.45
38:BD:148:GLU:CB	38:BD:151:LYS:HD2	2.45	0.45
35:BA:1429:G:H2'	35:BA:1430:C:C6	2.52	0.45
49:DQ:118:LEU:CD1	49:DQ:131:ILE:HG23	2.47	0.45
26:B1:51:VAL:O	26:B1:57:GLU:O	2.35	0.45
4:CD:206:PHE:HD2	4:CD:207:TYR:CE2	2.35	0.45
49:BQ:12:GLN:HE21	49:BQ:73:PRO:CD	2.29	0.45
36:BB:40:U:H3'	36:BB:41:U:C5'	2.46	0.45
24:AY:222:LEU:HD22	24:AY:222:LEU:H	1.82	0.45
35:DA:2016:U:H2'	35:DA:2017:U:C6	2.52	0.45
35:DA:74:A:H5'	35:DA:75:G:O4'	2.17	0.45
58:DZ:183:LEU:O	58:DZ:184:ALA:HB2	2.17	0.45
22:AV:18:G:H21	22:AV:58:A:H5'	1.81	0.45
35:BA:1218:C:H42	35:BA:1231:G:H1	1.64	0.45
35:DA:858:U:O2	35:DA:2268:A:H2'	2.17	0.45
35:DA:1813:G:H1'	38:DD:50:THR:OG1	2.16	0.45
15:CO:64:ARG:HH11	15:CO:64:ARG:HG3	1.80	0.45
35:BA:1473:G:H2'	35:BA:1474:C:O4'	2.16	0.45
22:AV:74:C:H2'	22:AV:75:C:H5'	1.98	0.45
11:AK:57:THR:HG23	11:AK:60:ALA:CB	2.47	0.45
7:CG:121:ALA:O	7:CG:125:MET:HG3	2.16	0.45
2:CB:179:LYS:HA	8:CH:72:PRO:HG3	1.97	0.45
35:BA:402:A:O2'	35:BA:403:U:H5'	2.16	0.45
48:BP:84:ASN:HD22	48:BP:84:ASN:N	2.14	0.45
28:B3:38:GLU:OE2	28:B3:38:GLU:HA	2.17	0.45
35:BA:979:G:H3'	35:BA:980:A:H5''	1.99	0.45
17:AQ:46:ASP:OD1	17:AQ:49:GLU:HA	2.16	0.45
9:AI:33:PHE:C	9:AI:35:GLU:H	2.20	0.45
24:CY:178:GLY:O	24:CY:349:LEU:HD21	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:D6:39:TYR:CG	31:D6:40:CYS:N	2.85	0.45
35:BA:1591:G:H8	35:BA:1591:G:C5'	2.30	0.45
57:BY:29:GLU:N	57:BY:29:GLU:OE1	2.48	0.45
33:D8:61:LEU:HD12	33:D8:62:LEU:CD1	2.47	0.45
28:B3:6:VAL:HB	28:B3:54:VAL:CG1	2.45	0.45
42:BH:41:MET:CG	42:BH:43:VAL:HG13	2.47	0.45
35:DA:1061:U:C5'	45:DK:9:LYS:HZ3	2.30	0.45
1:AA:1227:A:C2'	1:AA:1228:C:O5'	2.64	0.45
30:D5:52:TYR:O	30:D5:53:ALA:C	2.55	0.45
35:DA:2660:A:N3	35:DA:2661:G:H4'	2.32	0.45
24:CY:242:VAL:HG13	24:CY:243:ASN:N	2.30	0.45
29:B4:34:GLU:CD	29:B4:34:GLU:N	2.70	0.45
41:BG:114:ILE:O	41:BG:115:ARG:C	2.55	0.45
41:BG:6:ALA:O	41:BG:8:LYS:N	2.50	0.45
14:CN:41:ARG:HE	14:CN:42:ILE:HD11	1.82	0.45
35:DA:1448:G:H1'	35:DA:1528:A:H62	1.82	0.45
39:DE:78:LEU:HD12	39:DE:78:LEU:O	2.16	0.45
51:BS:74:ALA:O	51:BS:77:ALA:HB3	2.16	0.45
35:DA:1654:A:P	50:DR:3:HIS:HB3	2.57	0.45
35:DA:1999:C:O2'	35:DA:2000:G:H5'	2.17	0.45
49:DQ:18:LYS:HD2	49:DQ:18:LYS:N	2.26	0.45
24:CY:61:THR:C	24:CY:63:ARG:N	2.69	0.45
22:CW:77:PHA:HB2	26:D1:33:LYS:HZ2	1.80	0.45
43:DI:131:LYS:HB3	43:DI:132:PRO:CA	2.42	0.45
20:AT:57:ARG:NH1	20:AT:100:ILE:HG13	2.32	0.45
43:BI:77:LEU:CB	43:BI:140:LEU:HG	2.46	0.45
35:BA:330:A:O2'	35:BA:331:A:H8	2.00	0.45
31:B6:11:LEU:HD22	31:B6:11:LEU:C	2.38	0.45
46:DN:17:ASP:C	46:DN:19:GLU:H	2.20	0.45
45:DK:20:ALA:CB	45:DK:25:PRO:HD3	2.47	0.45
11:AK:108:ILE:HD12	11:AK:108:ILE:N	2.32	0.45
12:CL:17:LYS:HD3	12:CL:18:VAL:HG22	1.99	0.45
22:AV:3:C:H5'	35:BA:2255:G:O2'	2.17	0.45
2:AB:178:ARG:CG	2:AB:178:ARG:HH11	2.30	0.45
5:AE:7:GLU:HB3	5:AE:112:LEU:HD13	1.99	0.45
43:DI:74:ASN:OD1	43:DI:75:LEU:HD13	2.17	0.45
10:AJ:42:THR:HG22	10:AJ:43:ARG:N	2.32	0.45
3:CC:64:VAL:O	3:CC:100:ALA:HB3	2.16	0.45
39:BE:167:VAL:HG12	39:BE:189:PRO:HD3	1.98	0.45
35:BA:587:C:C5	48:BP:33:ARG:HD3	2.52	0.45
16:AP:42:ARG:C	16:AP:43:LYS:HD2	2.36	0.45
2:CB:83:MET:O	2:CB:85:ALA:N	2.50	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AL:44:THR:HA	12:AL:45:PRO:HD3	1.78	0.45
38:BD:35:LYS:HB2	38:BD:63:ARG:HA	1.99	0.45
35:DA:1023:U:H2'	35:DA:1024:G:H5'	1.99	0.45
35:BA:1947:C:C3'	35:BA:1948:G:C5'	2.94	0.45
1:AA:625:G:H4'	16:AP:16:HIS:CG	2.52	0.45
41:BG:18:GLU:HG2	41:BG:175:LEU:HD13	1.98	0.45
28:B3:40:THR:O	28:B3:44:ARG:HG3	2.17	0.45
35:BA:152:G:H1	35:BA:174:C:N4	2.12	0.45
11:CK:22:HIS:HB3	11:CK:29:ILE:HG23	1.99	0.45
35:BA:2810:A:H2'	35:BA:2811:G:O4'	2.16	0.45
38:BD:131:LEU:HA	38:BD:190:TYR:CE2	2.51	0.45
26:D1:88:LYS:O	26:D1:92:LYS:HB2	2.17	0.45
1:AA:377:G:O2'	1:AA:378:G:H5'	2.16	0.45
31:D6:10:LEU:HG	33:D8:34:TRP:CD1	2.52	0.45
25:D0:41:ARG:NH2	35:DA:2387:U:C4'	2.77	0.45
57:BY:42:VAL:HG21	57:BY:67:LEU:HD13	1.98	0.45
5:CE:147:ASP:HA	5:CE:150:ARG:CZ	2.46	0.45
22:CV:77:PHA:HB2	35:DA:2063:C:H4'	1.98	0.45
52:BT:57:PHE:C	52:BT:58:ASN:HD22	2.19	0.45
4:AD:151:LYS:O	4:AD:155:LEU:HG	2.16	0.45
35:BA:27:G:N2	35:BA:512:G:H2'	2.23	0.45
1:AA:433:C:H2'	1:AA:434:U:H6	1.79	0.45
1:CA:536:C:H2'	1:CA:537:G:C8	2.52	0.45
57:DY:42:VAL:HG21	57:DY:67:LEU:HD13	1.98	0.45
1:AA:502:G:C2	1:AA:503:C:O2	2.70	0.45
49:DQ:55:VAL:HG22	49:DQ:56:ARG:N	2.31	0.45
25:B0:23:VAL:HA	25:B0:38:VAL:HG22	1.99	0.45
54:DV:82:ARG:NH1	54:DV:82:ARG:HG2	2.32	0.45
3:CC:47:LEU:HD21	3:CC:68:VAL:HG11	1.98	0.45
1:AA:1079:G:C6	1:AA:1080:A:N6	2.85	0.45
37:BC:48:LEU:HG	37:BC:210:LEU:HD23	1.98	0.45
42:DH:85:LYS:HD3	42:DH:85:LYS:O	2.16	0.45
35:DA:747:U:O2	35:DA:2014:A:H1'	2.17	0.45
2:CB:207:ALA:C	2:CB:209:ARG:N	2.70	0.45
35:BA:1509(A):A:O2'	35:BA:1509(B):A:H5'	2.16	0.45
26:D1:7:ILE:HD13	26:D1:62:VAL:CG2	2.46	0.45
44:DJ:72:UNK:O	44:DJ:74:UNK:N	2.49	0.45
51:BS:25:ARG:NH1	51:BS:42:ASP:OD1	2.49	0.45
12:AL:7:ILE:O	12:AL:10:LEU:HB2	2.17	0.45
35:BA:712:G:O2'	35:BA:713:G:H5'	2.16	0.45
1:CA:932:C:H5'	7:CG:4:ARG:CG	2.47	0.45
35:BA:1161:C:H1'	54:BV:8:GLY:O	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DH:149:ARG:HG3	42:DH:162:ILE:O	2.17	0.45
42:DH:164:TYR:O	42:DH:165:ALA:HB2	2.16	0.45
1:AA:110:C:H2'	1:AA:111:G:O4'	2.17	0.45
35:BA:580:C:H2'	35:BA:581:C:C6	2.52	0.45
35:DA:912:C:O2'	35:DA:913:U:H5'	2.16	0.45
35:DA:2180:U:H2'	35:DA:2180:U:O2	2.16	0.45
1:AA:12:U:H2'	1:AA:13:U:H5''	1.98	0.45
34:D9:37:GLY:HA2	35:DA:1125:G:H5'	1.99	0.45
31:D6:40:CYS:HB2	31:D6:46:HIS:ND1	2.32	0.45
42:BH:46:GLU:O	42:BH:47:GLU:HB2	2.17	0.45
45:DK:98:ARG:NH1	45:DK:137:GLU:HG2	2.31	0.45
40:DF:8:GLN:HG2	40:DF:126:VAL:CG1	2.45	0.45
40:DF:133:ASN:O	40:DF:135:LYS:N	2.50	0.45
35:BA:887:A:H1'	35:BA:889:C:C4	2.52	0.45
2:AB:102:LEU:CD1	2:AB:102:LEU:N	2.80	0.45
51:BS:28:VAL:HG13	51:BS:99:LYS:HZ3	1.81	0.45
41:BG:96:ARG:HG3	41:BG:100:TRP:HE1	1.82	0.45
35:BA:1784:A:H4'	35:BA:1785:A:O5'	2.17	0.45
23:AX:19:U:H5'	23:AX:20:A:OP2	2.16	0.45
49:BQ:19:GLY:O	49:BQ:20:ALA:CB	2.64	0.45
58:BZ:67:LEU:HD23	58:BZ:90:VAL:CG1	2.46	0.45
4:CD:176:LEU:HG	4:CD:178:VAL:N	2.24	0.45
41:DG:72:ARG:CZ	41:DG:86:MET:HA	2.47	0.45
46:DN:15:LEU:HD13	46:DN:15:LEU:C	2.37	0.45
45:DK:18:THR:N	45:DK:19:PRO:CD	2.80	0.45
35:BA:903:C:C2'	35:BA:904:C:C5'	2.83	0.45
35:DA:1170:G:H1	35:DA:1179:C:N4	1.99	0.45
1:AA:417:C:O2'	1:AA:418:C:H5'	2.17	0.45
1:AA:1029:C:H2'	1:AA:1030(A):G:C6	2.51	0.45
2:AB:83:MET:O	2:AB:85:ALA:N	2.50	0.45
48:BP:34:GLY:O	48:BP:35:HIS:CB	2.65	0.45
35:DA:2134:A:H5''	35:DA:2156:G:H22	1.82	0.45
16:CP:50:LYS:C	16:CP:50:LYS:HD3	2.37	0.45
19:AS:41:VAL:CG1	19:AS:42:PRO:HD2	2.47	0.45
19:AS:43:GLU:CG	19:AS:44:MET:HE1	2.43	0.45
3:AC:88:ARG:HG2	3:AC:101:LEU:HB3	1.98	0.45
43:BI:84:GLY:HA3	43:BI:89:TYR:HE1	1.81	0.45
35:DA:1800:C:OP1	38:DD:266:SER:OG	2.35	0.45
38:DD:265:PRO:O	38:DD:267:SER:N	2.49	0.45
43:BI:5:LEU:HD21	43:BI:19:VAL:HG11	1.98	0.45
7:AG:100:ALA:C	7:AG:104:LEU:HD23	2.36	0.45
52:BT:35:LYS:O	52:BT:36:GLU:HB3	2.15	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BI:136:VAL:O	43:BI:136:VAL:HG13	2.17	0.45
1:CA:393:A:C2	1:CA:394:G:C8	3.05	0.45
43:DI:68:LEU:HA	43:DI:71:ILE:HG12	1.99	0.45
4:CD:196:LEU:H	4:CD:196:LEU:CD1	2.23	0.45
16:CP:71:ARG:O	16:CP:74:LEU:HB2	2.16	0.45
13:AM:19:LEU:HB3	13:AM:25:ILE:HG21	1.98	0.45
7:CG:148:ASN:N	7:CG:148:ASN:ND2	2.65	0.45
1:CA:321:A:N6	1:CA:328:C:O2'	2.42	0.45
30:B5:41:PRO:CG	30:B5:44:THR:HG21	2.43	0.45
35:BA:11:G:H22	35:BA:2628:C:P	2.38	0.45
13:AM:67:GLU:CG	13:AM:68:GLY:H	2.29	0.45
35:BA:2171:A:H5''	35:BA:2172:U:OP1	2.17	0.45
3:AC:156:ARG:NH2	3:AC:161:GLU:HA	2.31	0.45
38:DD:117:VAL:CG1	38:DD:118:VAL:N	2.80	0.45
40:DF:160:ASN:C	40:DF:160:ASN:HD22	2.20	0.45
33:B8:30:ARG:HA	33:B8:30:ARG:NE	2.31	0.45
1:CA:833:U:H2'	1:CA:834:C:H6	1.77	0.45
8:CH:48:TYR:CD1	8:CH:48:TYR:C	2.89	0.45
10:AJ:63:PHE:HZ	14:AN:45:ARG:HG3	1.81	0.45
43:DI:1:MET:HG2	43:DI:2:LYS:H	1.81	0.45
44:DJ:81:UNK:C	44:DJ:83:UNK:N	2.80	0.45
1:AA:826:C:C5'	8:AH:12:ARG:HH21	2.29	0.45
8:AH:12:ARG:NH1	8:AH:27:PRO:CD	2.80	0.45
35:BA:1026:U:H2'	35:BA:1027:A:H5'	1.99	0.45
35:BA:637:A:N1	35:BA:652:C:H5'	2.32	0.45
35:DA:71:A:H2	56:DX:31:HIS:CE1	2.34	0.45
56:DX:31:HIS:HA	56:DX:32:PRO:HD2	1.70	0.45
27:B2:32:LEU:O	27:B2:33:MET:C	2.55	0.45
35:DA:2405:G:O2'	35:DA:2406:U:OP2	2.35	0.45
35:BA:753:C:H6	35:BA:753:C:O5'	1.99	0.45
49:BQ:10:ARG:CB	49:BQ:10:ARG:NH1	2.79	0.45
35:BA:1991:U:H2'	35:BA:1992:G:H5''	1.98	0.45
35:BA:814:C:O2'	35:BA:815:C:H5'	2.16	0.45
35:DA:2623:G:H4'	35:DA:2825:C:O2	2.16	0.45
35:DA:752:A:H4'	35:DA:753:C:O5'	2.16	0.45
35:DA:572:A:H2'	35:DA:573:G:O4'	2.16	0.45
1:CA:1385:G:O2'	1:CA:1386:G:H5'	2.17	0.45
22:AW:21:A:N6	22:AW:46:G:C4	2.85	0.45
35:DA:1744:C:C2'	35:DA:1745:C:H5'	2.47	0.45
9:AI:2:GLU:O	9:AI:2:GLU:HG2	2.16	0.45
42:BH:51:ARG:HB2	42:BH:51:ARG:NH1	2.31	0.45
18:AR:63:GLN:OE1	18:AR:63:GLN:HA	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:2319:G:H4'	35:BA:2319:G:OP1	2.16	0.45
38:BD:176:ARG:HG2	38:BD:176:ARG:HH11	1.82	0.45
39:BE:7:VAL:HA	39:BE:194:GLY:O	2.17	0.45
35:DA:2347:C:H2'	35:DA:2348:U:C6	2.51	0.45
52:DT:49:VAL:O	52:DT:49:VAL:HG13	2.17	0.45
30:B5:52:TYR:O	30:B5:53:ALA:C	2.56	0.45
42:DH:24:VAL:O	42:DH:24:VAL:CG1	2.65	0.45
35:BA:1049:C:O2'	35:BA:1050:A:H5'	2.17	0.45
48:DP:9:ASN:C	48:DP:11:GLY:N	2.69	0.45
1:CA:957:U:H2'	1:CA:959:A:OP2	2.17	0.45
22:AW:18:G:H1	22:AW:55:U:H1'	1.81	0.45
48:BP:111:ARG:HH21	48:BP:111:ARG:HG3	1.81	0.45
41:BG:132:ASN:O	41:BG:133:LEU:HB3	2.16	0.45
4:CD:29:PRO:O	4:CD:30:LYS:CB	2.64	0.45
1:AA:1202:G:C2	14:AN:42:ILE:HG21	2.52	0.45
35:DA:1464:C:O2'	35:DA:1528:A:C8	2.47	0.45
35:BA:2820:A:O4'	50:BR:5:LYS:HD2	2.16	0.45
48:BP:57:THR:OG1	48:BP:58:THR:N	2.45	0.45
45:BK:37:PHE:CD1	45:BK:41:PHE:HB2	2.51	0.45
1:AA:939:G:H2'	1:AA:940:C:H6	1.81	0.45
42:BH:158:HIS:O	42:BH:159:GLU:HB2	2.15	0.45
46:BN:133:GLN:O	46:BN:134:ARG:CB	2.64	0.45
9:CI:14:VAL:HG12	9:CI:15:ALA:N	2.32	0.45
48:BP:100:LEU:HD12	48:BP:112:LEU:CD2	2.46	0.45
9:CI:88:TYR:O	9:CI:89:ASN:CB	2.64	0.45
57:DY:62:GLU:HG2	57:DY:63:LYS:N	2.25	0.45
35:BA:2131:G:H4'	35:BA:2132:U:H5''	1.99	0.45
4:AD:13:ARG:NH2	4:AD:36:ARG:HD3	2.32	0.45
38:BD:267:SER:O	38:BD:269:PHE:N	2.50	0.45
35:DA:2118:U:OP1	35:DA:2148:G:H4'	2.17	0.45
35:DA:2148:G:H2'	35:DA:2149:G:C8	2.48	0.45
35:BA:2313:C:H2'	35:BA:2314:C:H6	1.82	0.45
24:AY:205:PHE:CZ	24:AY:307:TRP:HA	2.52	0.45
25:D0:74:ARG:HG2	36:DB:12:C:O2'	2.17	0.45
22:CV:20:U:H5	22:CV:21:A:HO2'	1.62	0.45
4:AD:196:LEU:N	4:AD:196:LEU:HD12	2.23	0.45
24:CY:85:GLU:HA	24:CY:88:LYS:CG	2.46	0.45
35:DA:2576:G:O2'	35:DA:2579:C:OP2	2.29	0.45
25:D0:36:ILE:HD12	25:D0:38:VAL:N	2.32	0.45
25:B0:74:ARG:NH2	36:BB:13:A:OP2	2.50	0.45
2:AB:200:ILE:HG22	2:AB:202:PRO:HD3	1.99	0.45
35:DA:1665:A:C4'	47:DO:67:LYS:HB2	2.47	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AE:73:ASN:ND2	5:AE:73:ASN:N	2.65	0.45
39:BE:101:ARG:HH11	39:BE:171:GLU:N	2.15	0.45
9:AI:79:LEU:CD1	9:AI:83:ARG:HH21	2.30	0.45
35:BA:2328:A:H2'	35:BA:2329:G:C8	2.52	0.45
38:DD:211:ARG:HA	38:DD:214:TRP:CE3	2.52	0.45
6:AF:39:LYS:H	6:AF:64:GLN:HB3	1.81	0.45
3:AC:92:ALA:C	3:AC:94:LEU:H	2.20	0.45
1:AA:114:U:H2'	1:AA:115:G:H8	1.82	0.45
49:DQ:109:VAL:CG1	49:DQ:113:GLN:CB	2.94	0.45
27:B2:69:ARG:O	27:B2:70:GLN:CB	2.65	0.45
35:DA:2305:A:H2'	35:DA:2306:C:O4'	2.17	0.45
57:BY:68:HIS:CE1	57:BY:70:SER:HB3	2.52	0.45
1:AA:429:U:H1'	1:AA:430:A:H5''	1.99	0.45
2:AB:207:ALA:C	2:AB:209:ARG:N	2.70	0.45
37:DC:180:SER:O	37:DC:181:PHE:C	2.56	0.45
8:AH:12:ARG:HH12	8:AH:27:PRO:HD2	1.82	0.45
11:CK:88:GLY:O	11:CK:90:GLY:N	2.50	0.45
8:CH:24:THR:HG22	8:CH:63:LEU:HD21	1.99	0.45
2:AB:95:GLN:NE2	2:AB:147:LYS:HE2	2.32	0.45
37:DC:16:ASP:OD2	37:DC:19:LYS:HB2	2.17	0.45
1:AA:161:A:O2'	1:AA:162:A:H5'	2.17	0.45
1:CA:161:A:O2'	1:CA:162:A:H5'	2.17	0.45
35:DA:1930:G:O2'	35:DA:1931:U:OP2	2.34	0.45
35:DA:1795:C:O2	38:DD:255:LYS:NZ	2.45	0.45
35:BA:2572:A:N7	39:BE:145:LYS:HB2	2.32	0.45
35:DA:1993:U:H2'	35:DA:1994:C:O4'	2.17	0.45
1:AA:763:G:H2'	1:AA:764:C:H6	1.82	0.45
1:AA:1310:G:O2'	1:AA:1311:G:H5'	2.17	0.45
1:CA:1290:G:N3	1:CA:1290:G:H2'	2.31	0.45
35:DA:2600:A:OP2	38:DD:237:GLU:OE1	2.35	0.45
42:BH:37:VAL:HG12	42:BH:38:SER:N	2.31	0.45
57:DY:38:ILE:HG22	57:DY:39:VAL:H	1.81	0.44
28:D3:6:VAL:HB	28:D3:54:VAL:CG1	2.47	0.44
54:DV:18:LEU:N	54:DV:18:LEU:CD1	2.80	0.44
38:DD:44:ASN:ND2	38:DD:47:GLY:O	2.49	0.44
58:BZ:99:TYR:HB3	58:BZ:123:ASP:O	2.17	0.44
35:BA:1047:G:H2'	35:BA:1110:G:N2	2.33	0.44
13:AM:91:ARG:HH22	13:AM:103:THR:HG21	1.81	0.44
58:DZ:155:LEU:O	58:DZ:157:LEU:HG	2.17	0.44
51:DS:89:ARG:CG	51:DS:92:TYR:HA	2.43	0.44
37:DC:52:PRO:O	37:DC:54:ARG:N	2.50	0.44
41:DG:43:LEU:HB3	41:DG:88:ILE:HG21	1.99	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1202:G:N1	14:CN:42:ILE:HG21	2.32	0.44
51:DS:64:GLU:N	51:DS:64:GLU:OE2	2.47	0.44
35:BA:1826:G:H2'	35:BA:1827:C:C6	2.53	0.44
3:CC:16:ARG:HB2	3:CC:16:ARG:CZ	2.46	0.44
24:CY:250:ARG:HG2	24:CY:250:ARG:O	2.17	0.44
54:DV:52:VAL:CG2	54:DV:55:ALA:CB	2.94	0.44
35:BA:1541:G:H5''	35:BA:1542:A:O5'	2.17	0.44
51:DS:103:GLU:O	51:DS:104:GLY:O	2.35	0.44
38:DD:27:THR:CG2	38:DD:83:GLU:HG2	2.46	0.44
35:DA:330:A:H2	35:DA:1210:A:C2'	2.27	0.44
11:CK:21:ILE:CD1	11:CK:21:ILE:N	2.80	0.44
56:DX:12:VAL:CG1	56:DX:17:ALA:HB1	2.47	0.44
35:BA:902:C:H2'	35:BA:903:C:C6	2.52	0.44
12:AL:17:LYS:HD3	12:AL:18:VAL:HG22	1.99	0.44
48:DP:101:VAL:HB	48:DP:107:LYS:CA	2.36	0.44
9:AI:71:SER:HA	9:AI:74:ILE:HD12	1.98	0.44
27:D2:12:GLU:O	27:D2:13:ALA:C	2.54	0.44
1:AA:413:G:H4'	1:AA:414:A:C5'	2.36	0.44
1:CA:1372:U:OP1	9:CI:71:SER:HB3	2.17	0.44
17:AQ:5:VAL:HA	17:AQ:59:ILE:O	2.17	0.44
17:AQ:65:ILE:O	17:AQ:65:ILE:HG22	2.17	0.44
39:BE:51:PHE:HD1	39:BE:52:LEU:N	2.14	0.44
2:CB:142:LEU:HA	2:CB:145:LEU:CB	2.47	0.44
2:CB:187:LEU:HA	2:CB:201:ILE:O	2.17	0.44
4:CD:13:ARG:CB	4:CD:13:ARG:HH11	2.31	0.44
1:AA:594:G:C2'	1:AA:595:G:H5'	2.47	0.44
1:AA:1293:G:O2'	1:AA:1294:G:C8	2.70	0.44
12:CL:38:THR:O	12:CL:79:GLU:HG2	2.17	0.44
43:BI:120:ILE:HG23	43:BI:126:TYR:OH	2.17	0.44
38:DD:270:ILE:C	38:DD:271:ILE:HG12	2.38	0.44
35:DA:2562:U:C1'	47:DO:23:ARG:HH11	2.24	0.44
46:DN:67:LEU:O	46:DN:68:GLU:CB	2.65	0.44
43:BI:57:ARG:HD2	43:BI:61:ARG:HH22	1.82	0.44
39:BE:132:HIS:HA	39:BE:135:HIS:CE1	2.52	0.44
43:BI:6:LEU:O	43:BI:7:GLU:C	2.55	0.44
24:AY:124:ALA:O	24:AY:129:ALA:HB2	2.16	0.44
11:CK:84:VAL:CG2	11:CK:110:ASP:HA	2.47	0.44
36:DB:104:U:H5''	49:DQ:141:GLN:HE21	1.81	0.44
24:CY:295:LEU:HD13	24:CY:299:ARG:NH2	2.29	0.44
46:BN:67:LEU:O	46:BN:68:GLU:CB	2.65	0.44
24:CY:85:GLU:O	24:CY:88:LYS:HB2	2.16	0.44
24:AY:249:VAL:HG21	24:AY:272:LYS:HA	1.99	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CH:39:LEU:HD22	8:CH:39:LEU:N	2.32	0.44
1:CA:376:G:H2'	1:CA:377:G:C8	2.52	0.44
17:CQ:7:THR:HG22	17:CQ:58:GLU:HA	1.99	0.44
9:CI:112:LYS:HE3	9:CI:116:LYS:O	2.16	0.44
35:BA:1332:G:H5''	35:BA:1332:G:C8	2.48	0.44
39:DE:101:ARG:HD3	39:DE:171:GLU:HA	1.98	0.44
35:DA:2666:C:H3'	35:DA:2667:C:H6	1.82	0.44
1:AA:32:A:H2'	1:AA:33:A:H8	1.79	0.44
6:AF:97:PHE:CE2	18:AR:65:ILE:HD12	2.52	0.44
6:AF:97:PHE:N	18:AR:30:ASP:OD1	2.50	0.44
40:DF:116:ASP:OD2	48:DP:5:ASP:HA	2.17	0.44
27:B2:31:GLU:HB2	27:B2:53:LEU:HD11	1.98	0.44
34:B9:30:PRO:O	34:B9:32:HIS:N	2.51	0.44
35:DA:2713:A:H3'	35:DA:2714:G:C5'	2.47	0.44
35:DA:271(E):U:H2'	35:DA:271(F):C:H6	1.79	0.44
35:DA:1077:A:C2	35:DA:1088:A:H2'	2.52	0.44
2:AB:204:ASN:HD21	2:AB:207:ALA:H	1.63	0.44
58:BZ:16:SER:HA	58:BZ:19:ARG:HG2	1.98	0.44
1:CA:1194:U:H2'	1:CA:1195:C:H6	1.81	0.44
24:CY:175:ASN:O	24:CY:179:LEU:HD13	2.17	0.44
58:DZ:63:ASP:HB2	58:DZ:65:GLN:HG3	1.98	0.44
35:BA:1537:G:H2'	35:BA:1538:G:C8	2.52	0.44
1:CA:598:U:H4'	8:CH:94:TYR:CG	2.52	0.44
38:DD:121:PRO:HA	38:DD:135:PHE:CD1	2.52	0.44
25:D0:63:VAL:HG21	25:D0:83:PRO:HG3	2.00	0.44
35:BA:1914:C:H2'	35:BA:1915:U:H5'	1.99	0.44
24:AY:136:LEU:HD23	24:AY:139:MET:SD	2.58	0.44
35:BA:494:G:N2	55:BW:57:ASN:HD21	2.15	0.44
1:CA:781:A:H4'	1:CA:1522:U:O2'	2.17	0.44
35:DA:753:C:O5'	35:DA:753:C:H6	2.00	0.44
40:BF:62:ARG:NH2	40:BF:64:ILE:HD12	2.32	0.44
39:DE:7:VAL:HA	39:DE:194:GLY:O	2.17	0.44
35:DA:1161:C:H1'	54:DV:8:GLY:O	2.17	0.44
4:CD:99:SER:HB3	4:CD:140:VAL:O	2.17	0.44
35:DA:1352:U:O2'	35:DA:1353:A:H5'	2.17	0.44
1:CA:284:G:O2'	1:CA:285:G:H5'	2.17	0.44
46:BN:24:GLY:HA2	46:BN:27:ALA:HB3	1.99	0.44
1:AA:1508:G:H2'	1:AA:1509:C:O4'	2.16	0.44
35:BA:680:G:H2'	35:BA:681:G:C8	2.51	0.44
35:DA:18:C:H4'	53:DU:23:GLY:O	2.17	0.44
35:DA:2801:A:H2'	35:DA:2801:A:N3	2.31	0.44
35:DA:2143:C:O2'	35:DA:2144:U:H5'	2.16	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1310:G:O2'	1:CA:1311:G:H5'	2.17	0.44
42:BH:13:LYS:O	42:BH:15:VAL:HG22	2.17	0.44
58:BZ:99:TYR:HA	58:BZ:124:ILE:O	2.17	0.44
2:CB:174:VAL:HG13	2:CB:184:VAL:HG11	1.99	0.44
51:BS:35:ILE:HD11	51:BS:99:LYS:HZ2	1.83	0.44
35:DA:2206:G:N2	35:DA:2207:G:H5'	2.31	0.44
1:CA:1202:G:C2	14:CN:42:ILE:HG21	2.52	0.44
27:D2:69:ARG:HB2	27:D2:70:GLN:NE2	2.32	0.44
35:BA:675:A:OP1	40:BF:63:LYS:HE2	2.17	0.44
35:BA:1529:G:N7	35:BA:1541:G:N2	2.60	0.44
35:BA:197:A:N6	35:BA:2430:A:H2'	2.31	0.44
38:DD:83:GLU:O	38:DD:92:ILE:HD13	2.17	0.44
20:AT:100:ILE:HG13	20:AT:100:ILE:O	2.16	0.44
35:BA:274:G:C2'	35:BA:274:G:N3	2.81	0.44
46:DN:57:ALA:O	46:DN:58:ASP:CG	2.56	0.44
1:AA:735:C:C2	1:AA:736:C:C5	3.05	0.44
16:CP:81:ARG:HG2	16:CP:83:GLU:OE2	2.17	0.44
13:AM:116:THR:O	13:AM:118:ALA:N	2.51	0.44
48:BP:112:LEU:N	48:BP:128:HIS:HD2	2.12	0.44
3:CC:58:GLU:HB2	3:CC:65:ALA:CB	2.47	0.44
41:DG:121:ASN:ND2	41:DG:121:ASN:C	2.69	0.44
48:BP:23:PRO:HD2	48:BP:33:ARG:NE	2.31	0.44
57:DY:63:LYS:HG2	57:DY:64:GLU:N	2.28	0.44
37:BC:4:HIS:HD1	37:BC:8:TYR:HE2	1.65	0.44
37:DC:6:LYS:HA	37:DC:9:ARG:HB2	1.98	0.44
35:BA:2118:U:OP1	35:BA:2148:G:H4'	2.17	0.44
4:CD:68:TYR:N	4:CD:68:TYR:CD1	2.85	0.44
43:BI:86:THR:O	43:BI:86:THR:HG22	2.17	0.44
39:BE:132:HIS:O	39:BE:135:HIS:CD2	2.70	0.44
3:CC:52:LEU:CD2	3:CC:52:LEU:N	2.79	0.44
1:AA:1305:G:H22	1:AA:1331:G:C1'	2.30	0.44
1:AA:1305:G:N2	1:AA:1331:G:O2'	2.49	0.44
24:CY:267:SER:HB3	25:D0:3:HIS:CE1	2.53	0.44
39:BE:56:PRO:O	39:BE:57:LYS:O	2.35	0.44
39:BE:59:VAL:CG1	39:BE:63:LEU:HG	2.47	0.44
26:B1:7:ILE:HG22	26:B1:8:SER:N	2.31	0.44
33:B8:34:TRP:HB2	35:BA:2420:C:OP1	2.17	0.44
26:D1:89:GLU:O	26:D1:93:GLU:N	2.51	0.44
1:CA:1458:G:H5'	20:CT:32:ALA:HB2	1.98	0.44
2:AB:187:LEU:CD2	2:AB:201:ILE:O	2.62	0.44
35:BA:811:U:OP1	48:BP:30:THR:HG22	2.17	0.44
1:AA:1374:A:H2'	1:AA:1375:A:H8	1.81	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AE:72:GLN:O	5:AE:73:ASN:HB2	2.16	0.44
13:CM:80:ARG:HH22	19:CS:69:HIS:CE1	2.35	0.44
24:CY:138:ARG:HH12	24:CY:337:LEU:HD13	1.82	0.44
1:AA:1274:G:H2'	1:AA:1275:A:C8	2.52	0.44
30:B5:16:ARG:HG2	30:B5:16:ARG:HH11	1.82	0.44
47:DO:115:VAL:CG1	47:DO:121:VAL:HG21	2.47	0.44
35:DA:1079:C:H1'	45:DK:132:ARG:HD3	2.00	0.44
4:AD:100:ARG:HH12	4:AD:137:SER:CB	2.29	0.44
1:AA:1168:A:H2'	1:AA:1169:A:C8	2.52	0.44
1:CA:1281:U:H5'	1:CA:1282:C:H5	1.83	0.44
1:AA:1194:U:H2'	1:AA:1195:C:H6	1.81	0.44
1:AA:784:C:H4'	35:BA:1837:C:OP1	2.18	0.44
1:AA:1402:C:H2'	1:AA:1403:C:C6	2.52	0.44
1:AA:1499:A:H1'	1:AA:1520:G:C5'	2.47	0.44
15:AO:39:LEU:CD1	15:AO:56:LEU:HB2	2.47	0.44
1:CA:740:U:H4'	15:CO:39:LEU:HD23	1.99	0.44
4:CD:61:LYS:HA	4:CD:203:VAL:HG22	1.99	0.44
41:DG:54:GLU:C	41:DG:56:ALA:N	2.71	0.44
35:BA:332:A:O2'	35:BA:334:C:OP2	2.18	0.44
17:CQ:22:LEU:HD11	17:CQ:39:SER:HB2	1.97	0.44
35:DA:922:U:H2'	35:DA:923:C:C6	2.52	0.44
20:AT:72:LEU:HD21	20:AT:80:ARG:HE	1.81	0.44
35:BA:71:A:H2	56:BX:31:HIS:CE1	2.35	0.44
7:CG:23:VAL:HG13	7:CG:43:PHE:CE2	2.52	0.44
35:DA:464:U:H2'	35:DA:465:G:O4'	2.17	0.44
1:AA:948:C:O2'	1:AA:949:A:H5'	2.16	0.44
35:BA:2143:C:C2'	35:BA:2144:U:H5'	2.47	0.44
1:CA:932:C:H5'	7:CG:4:ARG:HG3	1.99	0.44
1:AA:1508:G:H2'	1:AA:1509:C:C6	2.52	0.44
1:AA:746:A:O2'	1:AA:747:C:H5'	2.17	0.44
35:BA:1469:A:H2'	35:BA:1470:G:C8	2.51	0.44
35:DA:1801:G:OP2	38:DD:154:LYS:HE2	2.16	0.44
35:BA:52:A:O2'	35:BA:53:A:H5'	2.17	0.44
13:CM:29:ARG:HD3	13:CM:64:TRP:CD2	2.52	0.44
55:BW:31:GLU:O	55:BW:35:ILE:HG12	2.17	0.44
4:AD:11:LEU:HD13	4:AD:66:ARG:HD3	2.00	0.44
47:BO:44:LYS:HA	47:BO:44:LYS:HD3	1.83	0.44
14:CN:13:THR:HG22	14:CN:13:THR:O	2.18	0.44
1:AA:278:G:OP2	17:AQ:41:LYS:HE2	2.16	0.44
27:B2:11:GLU:HA	27:B2:14:ARG:CB	2.27	0.44
2:CB:74:LYS:HD2	2:CB:169:LYS:HG3	2.00	0.44
51:BS:13:ARG:CG	51:BS:14:VAL:N	2.66	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DG:106:LEU:O	41:DG:111:LEU:HG	2.17	0.44
58:BZ:42:VAL:CG1	58:BZ:43:GLU:H	2.03	0.44
35:BA:1498:C:O4'	35:BA:1577:C:H4'	2.18	0.44
41:BG:45:GLU:N	41:BG:88:ILE:HG13	2.32	0.44
41:BG:68:PRO:HB2	41:BG:90:LEU:HD11	1.98	0.44
1:CA:1049:U:H1'	1:CA:1201:A:N7	2.32	0.44
43:DI:92:VAL:O	43:DI:92:VAL:HG13	2.18	0.44
49:BQ:16:ARG:C	49:BQ:17:LEU:HD23	2.37	0.44
43:DI:9:LEU:CD1	43:DI:13:GLY:HA2	2.42	0.44
48:BP:58:THR:HG22	48:BP:61:ARG:HG3	1.99	0.44
45:BK:23:VAL:O	45:BK:27:LEU:HD23	2.18	0.44
4:AD:17:VAL:O	4:AD:18:LYS:O	2.35	0.44
1:AA:1133:G:C1'	1:AA:1142:G:H22	2.30	0.44
20:CT:102:GLY:O	20:CT:104:LEU:N	2.51	0.44
24:CY:312:ARG:HD2	24:CY:314:TYR:OH	2.16	0.44
56:DX:12:VAL:O	56:DX:13:LEU:HB2	2.17	0.44
10:AJ:4:ILE:HD13	10:AJ:74:ILE:HG13	1.99	0.44
38:DD:11:PRO:C	38:DD:13:ARG:N	2.70	0.44
9:CI:71:SER:HA	9:CI:74:ILE:HD12	1.99	0.44
43:DI:123:LEU:HD11	43:DI:144:VAL:HG22	2.00	0.44
58:DZ:53:ILE:HG22	58:DZ:71:VAL:CG1	2.36	0.44
12:AL:26:ALA:O	12:AL:27:LEU:O	2.35	0.44
24:AY:287:GLU:HA	24:AY:290:LYS:HE3	1.99	0.44
16:CP:42:ARG:C	16:CP:43:LYS:HD2	2.37	0.44
4:AD:38:TYR:CD2	4:AD:45:GLN:HB3	2.52	0.44
18:CR:66:LEU:O	18:CR:70:ILE:HG13	2.18	0.44
1:CA:993:G:N3	1:CA:993:G:H2'	2.32	0.44
52:DT:35:LYS:O	52:DT:36:GLU:HB3	2.17	0.44
52:DT:38:ASN:O	52:DT:39:ARG:HB3	2.17	0.44
33:D8:33:ASN:HA	33:D8:36:LYS:CD	2.46	0.44
42:BH:89:ILE:O	42:BH:89:ILE:HG13	2.17	0.44
9:AI:113:LYS:H	9:AI:113:LYS:HD2	1.80	0.44
13:CM:20:THR:C	13:CM:22:ILE:H	2.21	0.44
1:CA:60:A:H4'	1:CA:61:G:O5'	2.18	0.44
48:DP:25:SER:C	48:DP:30:THR:HG23	2.38	0.44
7:CG:150:ALA:HA	11:CK:59:TYR:HB3	1.99	0.44
43:DI:40:THR:HG23	43:DI:43:ASN:HD22	1.81	0.44
15:CO:23:GLY:O	15:CO:24:SER:HB3	2.16	0.44
35:DA:1331:A:O2'	35:DA:1332:G:H8	1.99	0.44
6:CF:43:LEU:HD23	6:CF:46:ARG:HH11	1.81	0.44
35:BA:2123:G:H2'	35:BA:2124:G:H8	1.82	0.44
1:CA:1378:C:C5	1:CA:1379:G:C4	3.06	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:2161:C:H2'	35:DA:2162:G:C8	2.50	0.44
38:BD:210:GLY:C	38:BD:212:SER:N	2.71	0.44
2:AB:14:GLY:C	2:AB:15:VAL:HG22	2.37	0.44
1:CA:617:G:H1	1:CA:623:C:H42	1.65	0.44
35:BA:2250:G:OP1	49:BQ:85:LYS:NZ	2.38	0.44
6:CF:80:ARG:HG3	6:CF:88:VAL:HG23	1.99	0.44
58:BZ:112:ARG:HD2	58:BZ:112:ARG:O	2.18	0.44
35:DA:271(D):G:O2'	35:DA:271(E):U:H5'	2.17	0.44
7:CG:36:LYS:HB2	7:CG:36:LYS:HZ3	1.81	0.44
52:BT:78:LEU:HB3	52:BT:79:HIS:ND1	2.32	0.44
47:BO:2:ILE:CD1	47:BO:6:THR:HG21	2.48	0.44
22:CV:57:G:H1'	41:DG:78:SER:OG	2.17	0.44
40:BF:140:LEU:HA	40:BF:140:LEU:HD12	1.82	0.44
2:CB:36:ARG:O	2:CB:37:ASN:CB	2.64	0.44
35:BA:1509(B):A:O2'	35:BA:1510:G:H5'	2.18	0.44
35:BA:1058:G:H21	45:BK:126:MET:HE2	1.82	0.44
22:CV:53:G:O2'	22:CV:54:U:H5'	2.17	0.44
35:DA:952:G:C6	35:DA:953:A:N7	2.86	0.44
41:BG:23:PHE:CZ	41:BG:168:GLU:HA	2.51	0.44
1:AA:630:G:H2'	1:AA:631:G:H5''	2.00	0.44
39:BE:97:LYS:O	39:BE:100:GLU:HG3	2.17	0.44
39:DE:181:LEU:HD12	39:DE:181:LEU:HA	1.74	0.44
24:CY:185:GLY:HA3	24:CY:311:ILE:HG23	2.00	0.44
1:AA:81:U:H2'	1:AA:82:U:C5	2.53	0.44
24:AY:116:ALA:HB2	24:AY:177:TYR:HA	1.99	0.44
1:AA:41:G:H2'	1:AA:42:G:C8	2.52	0.44
28:D3:1:MET:CG	28:D3:2:PRO:HD2	2.47	0.44
35:BA:346:A:C2'	35:BA:347:A:H5'	2.47	0.44
55:BW:5:ALA:O	55:BW:6:ILE:CB	2.65	0.44
38:DD:134:ARG:HG3	38:DD:135:PHE:CD2	2.52	0.44
35:BA:922:U:H2'	35:BA:923:C:C6	2.52	0.44
35:BA:102:G:OP1	35:BA:102:G:C4'	2.65	0.44
35:DA:1812:A:H2'	35:DA:1813:G:H8	1.82	0.44
35:DA:1366:A:H2'	35:DA:1367:A:C5'	2.47	0.44
35:BA:1366:A:H2'	35:BA:1367:A:H5'	1.99	0.44
35:DA:1473:G:H2'	35:DA:1474:C:O4'	2.17	0.44
43:BI:104:GLN:O	43:BI:105:HIS:HD2	2.00	0.44
35:DA:1144:G:H2'	35:DA:1145:C:C6	2.53	0.44
20:CT:10:LEU:O	20:CT:12:ALA:N	2.40	0.44
4:AD:180:GLY:O	4:AD:182:LYS:HD2	2.17	0.44
40:BF:141:ALA:O	40:BF:144:LYS:HB3	2.17	0.44
35:DA:533:G:H5'	53:DU:24:TYR:CE2	2.52	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:1666:G:C2'	35:BA:1667:G:H5'	2.47	0.44
35:DA:2051:A:H5'	35:DA:2578:G:O4'	2.17	0.44
1:AA:1406:U:O2'	1:AA:1407:C:H5'	2.17	0.44
8:CH:127:LEU:O	8:CH:129:VAL:HG13	2.18	0.44
35:DA:824:A:H2'	35:DA:825:C:C6	2.53	0.44
1:CA:948:C:O2'	1:CA:949:A:H5'	2.17	0.44
38:DD:6:PHE:N	38:DD:6:PHE:CD1	2.85	0.44
42:DH:51:ARG:HB2	42:DH:51:ARG:NH1	2.33	0.44
1:CA:690:G:C6	1:CA:691:G:C6	3.05	0.44
20:AT:10:LEU:O	20:AT:12:ALA:N	2.42	0.44
24:CY:143:PHE:CD2	24:CY:180:LEU:HD21	2.52	0.44
52:BT:26:ASP:OD2	52:BT:26:ASP:C	2.54	0.44
33:D8:4:MET:HE2	35:DA:593:G:O4'	2.18	0.44
28:D3:6:VAL:HG23	28:D3:28:LEU:HD11	2.00	0.44
51:BS:20:ARG:NE	51:BS:20:ARG:CA	2.77	0.44
24:AY:137:LEU:HD21	24:AY:169:ILE:CD1	2.48	0.44
45:BK:11:GLN:HA	45:BK:54:PRO:HA	1.99	0.44
45:BK:84:LEU:CB	45:BK:96:VAL:HG23	2.47	0.44
6:AF:30:LEU:CD2	6:AF:30:LEU:H	2.03	0.44
38:BD:83:GLU:O	38:BD:92:ILE:HD13	2.17	0.44
51:DS:85:VAL:O	51:DS:106:ARG:CG	2.63	0.44
35:BA:2877:G:O2'	35:BA:2878:U:H5'	2.17	0.44
3:AC:121:ALA:HB2	3:AC:198:VAL:CG2	2.44	0.44
1:CA:962:C:H2'	1:CA:963:G:C8	2.52	0.44
51:DS:30:ARG:NH2	51:DS:62:LYS:HB3	2.16	0.44
35:DA:1541:G:H5''	35:DA:1542:A:O5'	2.17	0.44
56:BX:34:ALA:HB1	56:BX:39:ILE:HD13	1.99	0.44
1:CA:1133:G:C1'	1:CA:1142:G:H22	2.31	0.44
51:BS:74:ALA:HB1	51:BS:103:GLU:CG	2.48	0.44
4:AD:12:CYS:O	4:AD:33:MET:HE2	2.17	0.44
35:BA:330:A:H2	35:BA:1210:A:C2'	2.26	0.44
11:CK:108:ILE:HG22	18:CR:88:LYS:HB3	1.99	0.44
35:DA:874:G:H1	35:DA:903:C:H42	1.64	0.44
22:CV:41:C:H2'	22:CV:41:C:O2	2.18	0.44
35:BA:833:U:H5''	48:BP:48:PRO:CB	2.45	0.44
47:BO:75:SER:HB2	52:BT:75:ILE:O	2.17	0.44
58:DZ:28:MET:HE1	58:DZ:59:LEU:HD13	2.00	0.44
46:BN:56:ASN:C	46:BN:57:ALA:O	2.52	0.44
46:BN:56:ASN:O	46:BN:57:ALA:O	2.34	0.44
58:BZ:100:VAL:HG12	58:BZ:137:ILE:HG12	1.98	0.44
30:B5:11:THR:HG21	35:BA:1264:G:C5'	2.37	0.44
1:AA:1034:G:H2'	1:AA:1035:A:C6	2.52	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:B5:46:CYS:SG	30:B5:47:PRO:CD	3.00	0.44
9:CI:47:LEU:C	9:CI:49:PRO:HD2	2.38	0.44
12:CL:33:ARG:HG2	12:CL:60:LEU:HD12	1.99	0.44
1:CA:1026:G:H2'	1:CA:1027:C:H5'	2.00	0.44
5:AE:51:VAL:O	5:AE:55:VAL:HG23	2.17	0.44
19:AS:48:THR:CG2	19:AS:61:TYR:HD1	2.31	0.44
1:CA:651:C:H2'	1:CA:652:U:C6	2.52	0.44
1:CA:878:G:H5''	8:CH:89:PRO:HG2	1.96	0.44
39:BE:9:VAL:HG22	39:BE:25:VAL:O	2.16	0.44
19:AS:18:LYS:C	19:AS:22:LEU:HD23	2.38	0.44
42:DH:88:LEU:CD2	42:DH:130:ARG:HG2	2.43	0.44
1:AA:782:A:O3'	1:AA:1515:C:H4'	2.17	0.44
4:AD:119:GLN:HG2	4:AD:123:HIS:HD2	1.79	0.44
3:CC:155:GLY:HA3	3:CC:163:ALA:HB1	1.98	0.44
46:BN:46:VAL:HG13	46:BN:48:MET:HG3	1.99	0.44
35:DA:2580:U:H4'	39:DE:130:GLY:CA	2.46	0.44
13:CM:22:ILE:HD12	13:CM:22:ILE:N	2.32	0.44
41:DG:128:ARG:CZ	41:DG:128:ARG:H	2.29	0.44
1:CA:1452:C:H4'	1:CA:1456:G:N3	2.32	0.44
1:CA:1374:A:H2'	1:CA:1375:A:H8	1.82	0.44
24:AY:18:ASP:HB3	24:AY:22:LYS:CE	2.47	0.44
25:B0:36:ILE:HD12	25:B0:36:ILE:C	2.38	0.44
1:AA:1157:A:H4'	1:AA:1158:C:O5'	2.17	0.44
22:AV:49:C:H2'	22:AV:50:U:H6	1.83	0.44
13:CM:66:LEU:O	13:CM:70:LEU:HB2	2.18	0.44
6:AF:3:ARG:HD3	6:AF:64:GLN:NE2	2.32	0.44
24:CY:246:ASP:HB2	35:DA:2493:U:C5'	2.47	0.44
3:AC:91:LEU:C	3:AC:93:LYS:N	2.70	0.44
1:AA:985:C:H2'	1:AA:986:A:C8	2.53	0.44
35:DA:586:A:H5'	40:DF:89:VAL:HG21	2.00	0.44
8:CH:112:LEU:HD23	8:CH:112:LEU:N	2.31	0.44
4:CD:106:TYR:HD1	4:CD:113:SER:HA	1.81	0.44
35:DA:708:C:H42	35:DA:723:G:H1	1.65	0.44
1:CA:1437:C:H2'	1:CA:1438:G:C8	2.53	0.44
35:BA:1573:G:C2'	35:BA:1574:C:H5'	2.47	0.44
28:D3:35:ARG:HH21	28:D3:37:LEU:CD2	2.31	0.44
39:DE:14:ILE:CG1	39:DE:21:VAL:HG23	2.48	0.44
8:CH:25:ASP:HA	8:CH:59:LEU:O	2.17	0.44
35:DA:1817:G:C2'	35:DA:1818:U:H5'	2.47	0.44
35:DA:71:A:H5'	35:DA:71:A:H8	1.82	0.44
35:DA:301:G:H1'	35:DA:302:C:C6	2.53	0.44
1:CA:1508:G:H2'	1:CA:1509:C:O4'	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:1006:C:C2	35:BA:1138:G:N2	2.85	0.44
35:DA:1525:G:H2'	35:DA:1526:G:C8	2.53	0.44
35:DA:1472:A:C2'	35:DA:1473:G:H5'	2.46	0.44
5:AE:57:LYS:HB3	5:AE:61:TYR:CE2	2.52	0.44
3:AC:13:GLY:HA2	14:AN:57:ARG:NE	2.32	0.44
1:CA:12:U:H2'	1:CA:13:U:H5''	1.99	0.44
35:DA:510:C:O2'	35:DA:511:U:H5'	2.18	0.44
7:CG:5:ARG:C	7:CG:7:ALA:H	2.19	0.44
44:BJ:73:UNK:C	44:BJ:75:UNK:N	2.79	0.44
35:BA:1328:G:H2'	35:BA:1330:C:C4	2.53	0.44
4:AD:104:VAL:O	4:AD:104:VAL:HG12	2.17	0.44
35:DA:1914:C:O4'	35:DA:1914:C:O2	2.33	0.44
57:DY:15:VAL:HG22	57:DY:72:VAL:HG12	1.98	0.44
35:DA:631:A:H2'	35:DA:632:A:O4'	2.17	0.44
35:DA:1591:G:C5'	35:DA:1591:G:H8	2.30	0.44
57:BY:76:CYS:HB3	57:BY:96:ILE:CD1	2.43	0.44
58:BZ:158:PRO:HD2	58:BZ:161:VAL:HG21	1.99	0.44
35:BA:1106:G:C6	35:BA:1107:G:N3	2.86	0.44
35:BA:2877:G:P	52:BT:3:ARG:HH21	2.41	0.44
41:BG:112:PRO:C	41:BG:113:ARG:HA	2.37	0.44
41:BG:39:ILE:HG22	41:BG:157:ILE:HG12	2.00	0.44
22:CW:38:A:H2'	22:CW:39:U:C4'	2.47	0.44
27:D2:64:LEU:C	27:D2:64:LEU:CD2	2.86	0.44
35:BA:142(A):C:O2'	35:BA:143:G:H5'	2.18	0.44
35:BA:1177:A:H5'	35:BA:1178:C:C6	2.53	0.44
39:DE:111:ARG:HG3	50:DR:2:ARG:CG	2.45	0.44
22:AV:76:8AN:H2'	24:AY:240:GLN:H	1.83	0.44
1:AA:1144:G:N2	1:AA:1146:A:H62	2.14	0.44
35:BA:2544:G:O5'	35:BA:2544:G:H8	2.00	0.44
20:CT:50:GLU:HB2	20:CT:99:LEU:HD12	1.99	0.44
45:DK:12:LEU:HB2	45:DK:53:VAL:HG23	2.00	0.44
1:AA:1502:A:H2	1:AA:1505:G:C2	2.35	0.44
10:AJ:3:LYS:HZ2	10:AJ:77:PRO:CD	2.30	0.44
52:DT:106:SER:HA	52:DT:110:ILE:HG13	1.99	0.44
48:DP:97:PRO:C	48:DP:99:LEU:N	2.70	0.44
1:AA:1423:G:P	47:BO:49:ARG:HH12	2.41	0.44
9:AI:47:LEU:C	9:AI:49:PRO:HD2	2.38	0.44
48:DP:23:PRO:HB2	48:DP:33:ARG:HG3	2.00	0.44
53:DU:104:GLN:O	54:DV:44:LYS:NZ	2.51	0.44
35:DA:729:G:H5'	35:DA:730:C:H5''	1.99	0.44
35:BA:1378:A:C4'	35:BA:1379:A:OP1	2.60	0.44
12:CL:26:ALA:O	12:CL:27:LEU:O	2.35	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:43:ASP:O	2:AB:46:LYS:HB2	2.18	0.44
27:D2:23:LYS:O	27:D2:24:LEU:C	2.56	0.44
1:CA:1502:A:H5''	1:CA:1504:G:C8	2.52	0.44
38:BD:35:LYS:HD2	38:BD:35:LYS:C	2.37	0.44
38:BD:270:ILE:C	38:BD:271:ILE:HG12	2.37	0.44
1:CA:625:G:H4'	16:CP:16:HIS:CD2	2.52	0.44
22:CV:21:A:C3'	22:CV:22:G:H5''	2.48	0.44
1:CA:1287:A:H2	1:CA:1353:G:N3	2.16	0.44
17:AQ:77:VAL:HG12	17:AQ:78:GLU:N	2.33	0.44
57:BY:2:ARG:N	57:BY:5:MET:CG	2.77	0.44
1:AA:404:U:H2'	1:AA:405:U:C6	2.53	0.44
26:D1:26:ARG:NH2	35:DA:390:A:OP2	2.51	0.44
35:BA:2364:C:H2'	35:BA:2365:G:O4'	2.18	0.44
9:CI:12:GLU:O	9:CI:68:GLY:N	2.51	0.44
24:AY:318:LYS:HB2	24:AY:320:TYR:HE1	1.83	0.44
9:CI:79:LEU:CD1	9:CI:83:ARG:HH21	2.30	0.44
31:B6:35:GLU:HB3	31:B6:51:GLU:OE2	2.18	0.44
6:CF:22:GLU:C	6:CF:24:GLU:N	2.70	0.44
1:AA:1053:G:H3'	1:AA:1054:C:H5'	2.00	0.44
50:DR:25:ALA:O	50:DR:29:LEU:HD22	2.16	0.44
38:BD:210:GLY:O	38:BD:211:ARG:CB	2.61	0.44
22:AV:50:U:C2'	22:AV:51:U:H5'	2.47	0.44
1:CA:383:A:O2'	1:CA:384:G:H5'	2.17	0.44
13:CM:66:LEU:N	13:CM:70:LEU:HD12	2.32	0.44
13:CM:66:LEU:O	13:CM:70:LEU:N	2.51	0.44
1:CA:312:C:O2'	1:CA:313:A:H5'	2.18	0.44
1:CA:1062:U:H2'	1:CA:1063:C:C5	2.53	0.44
35:DA:527:C:O4'	35:DA:527:C:O2	2.36	0.44
35:BA:1243:G:O2'	48:BP:9:ASN:CA	2.64	0.44
1:AA:533:A:O2'	1:AA:534:U:H5''	2.17	0.44
12:CL:82:VAL:HG12	12:CL:83:VAL:H	1.82	0.44
22:AV:31:A:H2'	22:AV:32:U:H6	1.82	0.44
32:B7:9:ARG:NH2	35:BA:1310:G:OP2	2.49	0.44
58:BZ:16:SER:HA	58:BZ:19:ARG:CD	2.48	0.44
26:B1:60:PHE:CE1	26:B1:91:LYS:HG3	2.53	0.44
3:CC:138:VAL:HG12	3:CC:170:GLN:HE21	1.82	0.44
24:CY:332:ASP:HB2	24:CY:335:ASN:HB3	1.99	0.44
36:BB:41:U:O4	41:BG:71:THR:HA	2.18	0.44
1:CA:629:G:H2'	1:CA:630:G:C8	2.53	0.44
1:AA:688:G:H2'	1:AA:689:C:C6	2.52	0.44
24:AY:248:ALA:HB2	24:AY:263:GLN:HG2	1.98	0.44
1:AA:84:U:C2'	1:AA:88:A:H5'	2.48	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:839:U:H2'	35:DA:840:C:C6	2.53	0.44
1:CA:577:G:O2'	1:CA:578:C:H5'	2.18	0.44
58:DZ:141:VAL:O	58:DZ:144:LEU:HD23	2.17	0.44
1:AA:577:G:C8	1:AA:816:A:C6	3.06	0.44
43:BI:4:ILE:HD11	43:BI:44:LEU:HD12	2.00	0.44
28:B3:1:MET:CG	28:B3:2:PRO:HD2	2.47	0.44
35:BA:1625:C:C2'	35:BA:1626:G:H5'	2.47	0.44
7:CG:137:LYS:HE2	7:CG:141:VAL:HG23	2.00	0.44
40:DF:62:ARG:HH22	40:DF:64:ILE:HD12	1.83	0.44
42:DH:146:ALA:HB2	42:DH:164:TYR:OH	2.17	0.44
35:DA:2704:C:H2'	35:DA:2705:A:O4'	2.18	0.44
56:DX:18:TYR:O	56:DX:20:GLY:N	2.50	0.44
3:CC:13:GLY:HA2	14:CN:57:ARG:NE	2.33	0.44
1:CA:127:G:HO2'	17:CQ:2:PRO:N	2.16	0.44
1:AA:1408:A:H2'	1:AA:1409:C:H6	1.82	0.44
7:AG:32:ARG:HH11	7:AG:32:ARG:HG2	1.81	0.44
35:DA:845:G:OP2	35:DA:845:G:H8	2.00	0.44
42:DH:143:GLN:HE21	42:DH:143:GLN:CA	2.30	0.44
22:CW:67:C:H3'	22:CW:67:C:H6	1.82	0.44
35:DA:127:A:H5''	35:DA:128:C:C6	2.53	0.44
57:BY:28:LYS:HZ2	57:BY:37:VAL:HG11	1.81	0.44
40:BF:21:ALA:O	40:BF:23:ASP:N	2.51	0.44
42:DH:41:MET:HE2	42:DH:42:ARG:C	2.38	0.44
38:DD:53:PHE:HB3	38:DD:218:ARG:O	2.17	0.44
1:AA:957:U:H2'	1:AA:959:A:OP2	2.17	0.44
2:AB:71:VAL:O	2:AB:164:VAL:HA	2.18	0.44
35:DA:1106:G:C6	35:DA:1107:G:N3	2.86	0.44
22:CW:18:G:N2	22:CW:55:U:H6	2.15	0.44
22:CW:55:U:C2'	22:CW:56:C:C5	3.01	0.44
41:DG:111:LEU:N	41:DG:112:PRO:CD	2.81	0.44
41:DG:76:SER:HA	41:DG:83:ARG:HA	1.99	0.44
24:CY:283:LEU:O	24:CY:287:GLU:HG3	2.18	0.44
35:BA:2660:A:N3	35:BA:2661:G:H4'	2.31	0.44
41:BG:117:PHE:CZ	41:BG:179:PRO:HG2	2.53	0.44
35:DA:676:A:H8	35:DA:2069:G:N2	1.95	0.44
1:AA:962:C:H2'	1:AA:963:G:C8	2.52	0.44
55:BW:91:GLY:O	55:BW:92:ARG:C	2.55	0.44
56:BX:34:ALA:HB1	56:BX:39:ILE:CD1	2.48	0.44
46:BN:4:TYR:OH	53:BU:61:TRP:NE1	2.39	0.44
39:BE:111:ARG:HA	50:BR:2:ARG:CG	2.33	0.44
35:BA:2444:G:OP1	40:BF:67:GLN:NE2	2.51	0.44
31:D6:32:ASN:O	31:D6:33:LYS:CB	2.65	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1134:G:H2'	1:AA:1135:U:C5'	2.46	0.44
24:AY:326:THR:HG23	24:AY:327:GLY:N	2.33	0.44
19:CS:37:ARG:H	19:CS:37:ARG:HG3	1.57	0.44
1:AA:657:G:H4'	15:AO:28:GLN:HG2	2.00	0.44
48:BP:50:ARG:CG	48:BP:51:PHE:N	2.77	0.44
35:BA:2648:C:H2'	35:BA:2649:U:H6	1.82	0.44
24:CY:341:LEU:HA	24:CY:344:LEU:CD2	2.47	0.44
10:AJ:32:ALA:HB3	10:AJ:75:ILE:HG13	1.98	0.44
46:BN:94:HIS:N	46:BN:95:PRO:CD	2.81	0.44
25:D0:14:ARG:O	25:D0:15:ASP:HB2	2.17	0.44
9:AI:14:VAL:HG12	9:AI:15:ALA:N	2.33	0.44
9:CI:15:ALA:HB2	9:CI:65:VAL:CG2	2.40	0.44
35:DA:889:C:O2'	35:DA:890:A:O5'	2.35	0.44
5:CE:51:VAL:O	5:CE:55:VAL:HG23	2.18	0.44
27:B2:50:ILE:O	27:B2:52:ASP:N	2.51	0.44
35:BA:2680:C:O2'	35:BA:2681:C:H5'	2.18	0.44
1:AA:1290:G:H2'	1:AA:1290:G:N3	2.32	0.44
19:CS:16:LEU:O	19:CS:17:GLU:C	2.56	0.44
19:CS:15:LEU:HD23	19:CS:35:SER:OG	2.17	0.44
1:AA:592:G:H2'	1:AA:593:G:H8	1.83	0.44
52:BT:35:LYS:C	52:BT:37:GLY:H	2.21	0.44
1:CA:1305:G:H22	1:CA:1331:G:C1'	2.30	0.44
17:CQ:59:ILE:CD1	17:CQ:73:VAL:HA	2.47	0.44
43:DI:57:ARG:O	43:DI:60:GLU:HB3	2.17	0.44
22:AW:63:G:H2'	22:AW:63:G:N3	2.33	0.44
58:BZ:4:ARG:CZ	58:BZ:58:VAL:HG21	2.47	0.44
58:BZ:63:ASP:C	58:BZ:65:GLN:H	2.21	0.44
58:BZ:56:VAL:HA	58:BZ:70:LEU:HD23	1.98	0.44
7:AG:113:GLU:CB	7:AG:119:ARG:HG2	2.46	0.44
16:CP:12:LYS:O	16:CP:13:HIS:HB2	2.18	0.44
16:AP:3:LYS:C	16:AP:4:ILE:HD12	2.38	0.44
16:AP:53:VAL:CG1	16:AP:79:VAL:HG22	2.41	0.44
8:AH:86:ILE:CG2	8:AH:133:LEU:HD22	2.45	0.44
1:AA:450:G:H4'	16:AP:41:PRO:O	2.17	0.44
12:CL:7:ILE:O	12:CL:10:LEU:HB2	2.18	0.44
35:DA:2808:U:N3	35:DA:2892:A:N7	2.60	0.44
1:AA:1158:C:H42	1:AA:1181:G:H1	1.64	0.44
24:CY:155:ASP:OD1	24:CY:166:TYR:HE2	2.00	0.44
1:CA:1317:C:P	14:CN:17:LYS:HE2	2.58	0.44
58:DZ:95:PRO:HA	58:DZ:129:SER:HA	2.00	0.44
47:DO:13:ASN:O	47:DO:15:GLY:N	2.51	0.44
1:AA:1473:A:O2'	1:AA:1474:G:H5'	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:832:C:O2'	1:CA:833:U:P	2.75	0.44
1:AA:186:C:H4'	20:AT:82:SER:HB3	2.00	0.44
35:BA:1088:A:N3	35:BA:1088:A:H2'	2.33	0.44
6:AF:10:LEU:HD13	6:AF:61:LEU:CD1	2.47	0.44
1:CA:173:U:H5''	1:CA:197:A:O4'	2.17	0.44
1:AA:177:C:O2'	1:AA:178:C:H5'	2.17	0.44
1:AA:1497:G:C2'	1:AA:1498:U:H5'	2.47	0.44
18:AR:53:ARG:C	18:AR:55:ARG:N	2.71	0.44
22:AW:6:G:H21	22:AW:7:A:H62	1.63	0.44
1:AA:709:G:O2'	1:AA:710:G:H5'	2.18	0.44
13:CM:116:THR:O	13:CM:118:ALA:N	2.50	0.44
1:AA:164:U:H2'	1:AA:165:C:H6	1.82	0.44
1:AA:9:G:H5''	5:AE:122:GLU:CD	2.38	0.44
8:CH:122:ARG:NH1	8:CH:122:ARG:CB	2.81	0.44
35:DA:637:A:P	48:DP:116:GLY:HA2	2.58	0.44
4:CD:159:ARG:O	4:CD:162:LEU:HB2	2.17	0.44
35:DA:1192:G:C2'	35:DA:1193:G:H5'	2.47	0.44
35:BA:229:A:C5'	35:BA:230:U:H5'	2.48	0.44
1:AA:598:U:O2'	1:AA:599:C:H5'	2.17	0.44
22:AV:9:A:O2'	22:AV:10:G:N7	2.51	0.44
35:DA:1839:G:C8	35:DA:1839:G:H5'	2.52	0.44
35:BA:2688:U:C5	35:BA:2720:U:OP1	2.70	0.44
35:DA:1819:A:H5''	38:DD:158:ALA:HB3	1.99	0.44
50:BR:25:ALA:O	50:BR:29:LEU:HD22	2.18	0.44
35:BA:225:A:N6	35:BA:226:G:C2	2.86	0.44
6:CF:28:ARG:HG3	6:CF:28:ARG:HH11	1.82	0.44
7:CG:32:ARG:HH11	7:CG:32:ARG:HG2	1.83	0.44
40:DF:93:LYS:HD3	40:DF:93:LYS:HA	1.82	0.44
35:BA:2547:U:H2'	35:BA:2548:G:H8	1.83	0.44
32:B7:13:ALA:O	32:B7:17:GLY:HA3	2.18	0.44
35:BA:2734:A:H5'	35:BA:2735:G:OP2	2.17	0.44
24:AY:118:LEU:HD23	24:AY:209:GLU:O	2.18	0.44
57:DY:98:VAL:HG12	57:DY:98:VAL:O	2.16	0.44
33:B8:46:ARG:NH2	35:BA:631:A:OP2	2.47	0.44
33:D8:4:MET:HE2	35:DA:593:G:C1'	2.48	0.44
49:DQ:130:LYS:HZ3	58:DZ:80:ARG:CZ	2.29	0.44
35:BA:2793:G:HO2'	35:BA:2794:C:P	2.41	0.44
1:AA:960:U:O2	1:AA:960:U:H2'	2.16	0.44
58:DZ:153:SER:HB2	58:DZ:163:LEU:HD13	1.99	0.44
2:CB:165:VAL:CG2	2:CB:166:ASP:H	2.15	0.44
35:DA:1048:A:H4'	35:DA:1049:C:OP1	2.18	0.44
51:BS:58:LEU:O	51:BS:59:LYS:O	2.36	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:CW:19:G:OP1	22:CW:60:U:C4	2.71	0.44
35:BA:1060:U:H1'	35:BA:1062:G:H5'	2.00	0.44
38:DD:107:ALA:O	38:DD:196:VAL:O	2.35	0.44
41:BG:6:ALA:HB3	41:BG:104:GLU:OE2	2.17	0.44
1:CA:963:G:N2	10:CJ:55:LYS:NZ	2.63	0.44
52:DT:128:GLU:O	52:DT:129:ARG:C	2.54	0.44
51:BS:103:GLU:O	51:BS:104:GLY:O	2.35	0.44
45:BK:18:THR:HG23	45:BK:38:VAL:CG1	2.45	0.44
35:DA:1210:A:C5'	35:DA:1210:A:C8	2.95	0.44
31:B6:32:ASN:O	31:B6:33:LYS:CB	2.65	0.44
48:BP:50:ARG:CG	48:BP:51:PHE:H	2.31	0.44
56:BX:12:VAL:CG1	56:BX:17:ALA:HB1	2.47	0.44
24:CY:19:ILE:N	24:CY:20:PRO:HD2	2.32	0.44
52:DT:33:LYS:NZ	52:DT:74:ARG:HH21	2.15	0.44
46:BN:57:ALA:O	46:BN:58:ASP:CG	2.56	0.44
58:BZ:100:VAL:HG11	58:BZ:137:ILE:CG1	2.47	0.44
24:CY:115:ASN:CB	24:CY:172:LYS:HA	2.46	0.44
35:BA:729:G:H5'	35:BA:730:C:H5''	1.99	0.44
33:B8:14:VAL:HG21	33:B8:22:VAL:CG1	2.38	0.44
48:BP:97:PRO:C	48:BP:99:LEU:N	2.70	0.44
17:AQ:59:ILE:CD1	17:AQ:73:VAL:HA	2.48	0.44
53:BU:12:ARG:C	53:BU:13:LYS:HE2	2.37	0.44
24:AY:72:LEU:HA	24:AY:87:LEU:HD21	2.00	0.44
35:BA:942:G:O2'	35:BA:943:U:H5'	2.18	0.44
35:BA:587:C:C5	48:BP:33:ARG:CD	3.01	0.44
12:AL:33:ARG:HG2	12:AL:60:LEU:HD12	1.99	0.44
56:DX:34:ALA:HA	56:DX:38:GLU:OE1	2.18	0.44
10:AJ:28:ARG:HH11	10:AJ:28:ARG:HG2	1.82	0.44
19:AS:48:THR:HG22	19:AS:61:TYR:HD1	1.83	0.44
19:CS:48:THR:CG2	19:CS:61:TYR:HD1	2.31	0.44
35:BA:2131:G:H5''	35:BA:2132:U:O5'	2.18	0.44
37:BC:30:VAL:HG11	37:BC:42:VAL:HG11	1.98	0.44
12:CL:48:PRO:C	12:CL:49:ASN:HD22	2.19	0.44
35:BA:861:A:N3	36:BB:79:C:O2'	2.45	0.44
35:DA:614(C):A:C8	40:DF:176:LEU:HD11	2.53	0.44
22:AV:77:PHA:HB2	35:BA:2063:C:H4'	2.00	0.44
56:BX:53:LYS:NZ	56:BX:55:ASN:HD21	2.16	0.44
48:DP:16:ARG:CB	48:DP:16:ARG:HH11	2.31	0.44
35:BA:2787:C:O2'	39:BE:61:ARG:HD3	2.17	0.44
39:DE:59:VAL:CG1	39:DE:63:LEU:HG	2.48	0.44
17:AQ:6:LEU:O	17:AQ:58:GLU:HA	2.18	0.44
13:CM:32:GLU:O	13:CM:36:LYS:HG2	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:AY:77:GLU:H	24:AY:84:ARG:HG2	1.81	0.44
5:CE:150:ARG:HG3	5:CE:153:LYS:HE3	2.00	0.44
1:AA:60:A:H4'	1:AA:61:G:O5'	2.18	0.44
4:AD:149:ALA:O	4:AD:152:SER:N	2.50	0.44
4:CD:120:LEU:HD23	4:CD:125:HIS:HD2	1.83	0.44
1:CA:1374:A:C4	1:CA:1375:A:C8	3.05	0.44
6:AF:43:LEU:HD23	6:AF:46:ARG:HH11	1.82	0.44
26:D1:29:GLY:O	26:D1:31:GLY:N	2.49	0.44
35:DA:548:A:H3'	35:DA:549:G:C5'	2.47	0.44
38:DD:210:GLY:O	38:DD:211:ARG:CB	2.61	0.44
35:DA:118:A:H1'	35:DA:178:G:O4'	2.17	0.44
35:DA:721:C:O2	35:DA:721:C:H2'	2.16	0.44
4:AD:3:ARG:O	4:AD:4:TYR:C	2.56	0.44
4:AD:206:PHE:HD2	4:AD:207:TYR:CE2	2.35	0.44
42:BH:109:PHE:C	42:BH:111:HIS:N	2.71	0.44
13:AM:58:GLU:O	13:AM:60:VAL:N	2.51	0.44
4:CD:100:ARG:HH12	4:CD:137:SER:CB	2.30	0.44
1:AA:867:G:H2'	1:AA:868:C:H6	1.83	0.44
35:BA:2195:C:O2'	35:BA:2196:C:H5'	2.17	0.44
44:DJ:81:UNK:O	44:DJ:83:UNK:N	2.50	0.44
5:CE:107:ARG:O	5:CE:108:ALA:C	2.55	0.44
24:CY:235:SER:HB2	35:DA:2553:G:O6	2.18	0.44
39:DE:27:LEU:HD12	39:DE:180:ASN:O	2.18	0.44
35:DA:443:A:OP1	40:DF:46:ARG:HB2	2.17	0.44
8:AH:24:THR:HG22	8:AH:63:LEU:HD21	1.99	0.44
35:BA:643:A:N1	35:BA:2369:A:O2'	2.41	0.44
35:DA:2064:C:H2'	35:DA:2065:C:C6	2.53	0.44
35:DA:583:G:OP2	53:DU:10:ARG:HD2	2.17	0.44
35:BA:2547:U:H2'	35:BA:2548:G:C8	2.53	0.44
35:BA:999:U:O2'	35:BA:1000:A:H5'	2.18	0.44
1:CA:160:A:H1'	1:CA:344:A:N7	2.33	0.44
29:B4:36:CYS:O	29:B4:38:LYS:N	2.49	0.44
35:BA:1917:U:O2'	35:BA:1918:A:H5'	2.18	0.44
35:BA:42:G:H2'	35:BA:43:A:O4'	2.17	0.44
13:AM:29:ARG:HD3	13:AM:64:TRP:CD2	2.53	0.44
35:BA:2405:G:HO2'	35:BA:2406:U:P	2.40	0.44
36:DB:25:A:C2	36:DB:26:A:H1'	2.53	0.44
37:DC:173:HIS:O	37:DC:174:ALA:HB3	2.17	0.44
4:CD:107:ARG:HH11	4:CD:107:ARG:HG2	1.82	0.44
12:CL:85:ILE:HA	12:CL:85:ILE:HD12	1.83	0.44
40:BF:165:ARG:HG3	40:BF:165:ARG:NH1	2.33	0.44
35:DA:828:U:H3'	35:DA:828:U:O2	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DV:28:GLU:HB2	54:DV:31:ALA:HB2	2.00	0.44
35:BA:247:G:H4'	35:BA:386:G:C5	2.53	0.44
35:DA:2702:U:H4'	35:DA:2703:C:OP1	2.17	0.44
24:CY:304:PRO:HD2	24:CY:309:SER:OG	2.18	0.44
31:D6:15:GLU:OE1	31:D6:18:ARG:CD	2.66	0.44
24:AY:180:LEU:O	24:AY:210:VAL:HG21	2.16	0.44
30:B5:50:GLY:O	30:B5:51:TYR:HD1	2.01	0.44
57:BY:14:LEU:HG	57:BY:15:VAL:N	2.32	0.44
57:DY:13:VAL:HG22	57:DY:73:ARG:C	2.38	0.44
48:BP:66:GLY:O	48:BP:67:MET:CB	2.64	0.44
45:DK:54:PRO:HD3	45:DK:72:PRO:HA	2.00	0.44
13:AM:97:PRO:O	13:AM:98:VAL:HA	2.16	0.44
38:BD:108:PRO:HG2	38:BD:111:LEU:HD23	1.99	0.44
51:BS:90:GLY:C	51:BS:92:TYR:H	2.22	0.44
22:CW:49:C:C2'	22:CW:50:U:H5'	2.47	0.44
41:DG:39:ILE:CD1	41:DG:39:ILE:C	2.84	0.44
41:DG:53:LEU:N	41:DG:53:LEU:HD22	2.32	0.44
38:BD:27:THR:CG2	38:BD:83:GLU:HG2	2.48	0.44
6:CF:3:ARG:HD3	6:CF:64:GLN:NE2	2.32	0.44
1:CA:409:G:H5'	4:CD:25:ARG:HB2	2.00	0.44
32:D7:8:ASN:HD21	32:D7:11:LYS:H	1.57	0.44
3:CC:152:ILE:O	3:CC:198:VAL:HA	2.17	0.44
35:DA:1529:G:N7	35:DA:1541:G:N2	2.58	0.44
36:BB:92:C:H5''	58:BZ:79:ARG:NH2	2.33	0.44
56:BX:39:ILE:O	56:BX:43:VAL:HG23	2.17	0.44
35:BA:1654:A:P	50:BR:3:HIS:HB3	2.58	0.44
35:BA:1448:G:H1'	35:BA:1528:A:H62	1.82	0.44
24:CY:164:ILE:CD1	24:CY:167:ALA:HB2	2.47	0.44
24:AY:30:GLU:OE1	45:BK:20:ALA:HB2	2.18	0.44
31:D6:26:ASN:N	31:D6:26:ASN:OD1	2.50	0.44
1:AA:191:G:C1'	20:AT:105:SER:HB3	2.44	0.44
1:AA:192:U:H4'	20:AT:57:ARG:HD2	2.00	0.44
48:BP:49:ARG:HH21	48:BP:50:ARG:HH22	1.65	0.44
52:BT:62:THR:CG2	52:BT:75:ILE:HG12	2.48	0.44
46:BN:128:HIS:HE1	46:BN:134:ARG:HH11	1.61	0.44
51:BS:61:ASN:OD1	51:BS:62:LYS:N	2.37	0.44
57:DY:88:LYS:HZ2	57:DY:93:GLY:CA	2.29	0.44
35:BA:480:A:OP2	57:BY:46:LYS:HE2	2.18	0.44
35:BA:2680:C:H5'	39:BE:189:PRO:HA	1.99	0.44
48:BP:38:GLN:HG3	48:BP:39:LYS:N	2.24	0.44
37:DC:4:HIS:HD1	37:DC:8:TYR:HE2	1.65	0.44
35:DA:15:G:O2'	35:DA:16:G:H5'	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:14:ARG:HA	4:AD:39:PRO:CB	2.48	0.44
35:BA:1948:G:O2'	35:BA:1949:G:H5'	2.18	0.44
1:AA:1320:C:C4	1:AA:1321:C:C4	3.06	0.44
43:BI:60:GLU:O	43:BI:64:GLU:HB3	2.18	0.44
47:DO:107:ARG:HH22	52:DT:35:LYS:HD2	1.83	0.44
35:BA:364:C:H2'	35:BA:365:C:C5'	2.48	0.44
3:CC:196:LEU:CD2	3:CC:196:LEU:H	2.31	0.44
57:BY:20:TYR:CD1	57:BY:20:TYR:N	2.85	0.44
52:BT:55:ASN:O	52:BT:57:PHE:N	2.51	0.44
35:DA:364:C:H2'	35:DA:365:C:C5'	2.48	0.44
1:CA:1456:G:H2'	1:CA:1457:G:O4'	2.17	0.44
13:AM:20:THR:C	13:AM:22:ILE:H	2.21	0.44
21:CU:10:ARG:HA	21:CU:13:ILE:HB	1.99	0.44
35:DA:650:C:C3'	35:DA:651:G:H5''	2.45	0.44
39:DE:34:VAL:CG1	39:DE:48:GLN:HE21	2.30	0.44
30:D5:16:ARG:HG2	30:D5:16:ARG:HH11	1.83	0.44
25:B0:24:LYS:HG3	25:B0:36:ILE:HD11	2.00	0.44
35:BA:2136:C:C4	35:BA:2155:G:N2	2.85	0.44
56:DX:73:ARG:HB3	56:DX:74:PRO:HD2	1.99	0.44
35:DA:847:U:H2'	35:DA:848:G:H5''	2.00	0.44
35:BA:819:A:OP2	35:BA:1187:G:N2	2.45	0.44
35:DA:287:C:H2'	35:DA:288:C:H6	1.83	0.44
27:B2:43:GLN:O	27:B2:44:LEU:CB	2.65	0.44
10:AJ:61:GLU:OE2	14:AN:45:ARG:HD2	2.17	0.44
35:DA:2123:G:H2'	35:DA:2124:G:H8	1.83	0.44
35:DA:2014:A:H2'	35:DA:2015:A:C8	2.53	0.44
1:CA:542:G:H2'	1:CA:543:C:H6	1.83	0.44
1:CA:1020:U:H2'	1:CA:1021:G:C8	2.53	0.44
1:CA:429:U:H1'	1:CA:430:A:H5''	1.99	0.44
35:BA:1308:A:H2'	35:BA:1309:G:O4'	2.18	0.44
52:BT:77:PRO:O	52:BT:78:LEU:CB	2.66	0.44
12:AL:82:VAL:HG12	12:AL:83:VAL:N	2.33	0.44
1:AA:712:A:O2'	1:AA:713:G:H5'	2.18	0.44
39:DE:97:LYS:O	39:DE:100:GLU:HG3	2.18	0.44
1:AA:740:U:H4'	15:AO:39:LEU:HD23	2.00	0.44
27:D2:28:LYS:CD	27:D2:56:GLN:NE2	2.80	0.44
35:DA:2328:A:H2'	35:DA:2329:G:C8	2.52	0.44
35:BA:66:C:O2'	35:BA:67:U:H5'	2.17	0.44
34:D9:17:ILE:HG22	34:D9:18:ARG:N	2.32	0.44
35:DA:1754:C:H5	52:DT:96:ARG:NH2	2.16	0.44
1:CA:81:U:H2'	1:CA:82:U:C5	2.53	0.44
1:CA:84:U:C2'	1:CA:88:A:H5'	2.48	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:B2:3:LEU:HD23	27:B2:3:LEU:C	2.38	0.44
53:BU:58:ARG:O	53:BU:62:ILE:HG13	2.18	0.44
54:DV:13:ARG:CG	54:DV:13:ARG:HH11	2.31	0.44
38:BD:50:THR:O	38:BD:51:VAL:HG23	2.18	0.44
43:DI:26:ALA:HB1	43:DI:31:LEU:CD1	2.48	0.44
25:B0:63:VAL:HG21	25:B0:83:PRO:HG3	2.00	0.44
35:BA:443:A:OP1	40:BF:46:ARG:HB2	2.17	0.44
7:AG:137:LYS:HE2	7:AG:141:VAL:HG23	1.99	0.44
4:AD:99:SER:HB3	4:AD:140:VAL:O	2.18	0.44
43:DI:114:LEU:C	43:DI:116:LEU:H	2.21	0.44
35:BA:2768:C:O2'	35:BA:2769:C:H5'	2.18	0.44
1:AA:572:A:N3	1:AA:917:G:H1'	2.33	0.44
55:DW:73:ALA:HB3	55:DW:106:ILE:HG12	2.00	0.44
35:BA:2887:U:H2'	35:BA:2888:C:C6	2.53	0.44
35:BA:1323:U:H2'	35:BA:1324:G:H5'	1.99	0.44
33:D8:57:ARG:HE	33:D8:57:ARG:HB2	1.54	0.44
38:BD:6:PHE:CD1	38:BD:6:PHE:N	2.85	0.44
35:BA:510:C:O2'	35:BA:511:U:H5'	2.18	0.44
52:DT:25:GLY:O	52:DT:48:ILE:HG23	2.18	0.44
57:BY:28:LYS:HE3	57:BY:28:LYS:HB2	1.75	0.44
33:D8:61:LEU:H	33:D8:61:LEU:CD2	2.29	0.44
33:B8:4:MET:HE2	35:BA:593:G:C1'	2.48	0.44
35:DA:158:U:H2'	35:DA:158:U:O2	2.18	0.44
35:DA:2661:G:N3	35:DA:2661:G:OP2	2.51	0.44
29:D4:33:VAL:HG11	41:DG:109:VAL:HG13	2.00	0.44
41:DG:49:ASP:C	41:DG:51:ARG:H	2.21	0.44
35:BA:1494:A:O2'	35:BA:1496:A:H2	2.00	0.44
6:CF:37:VAL:HG12	6:CF:38:GLU:N	2.31	0.44
4:CD:28:SER:HB2	4:CD:30:LYS:CE	2.48	0.44
4:CD:28:SER:HB3	4:CD:30:LYS:HE2	1.97	0.44
22:CW:39:U:C3'	22:CW:40:C:H5''	2.47	0.44
48:DP:63:PRO:C	48:DP:65:ARG:N	2.72	0.44
4:AD:16:GLY:HA2	4:AD:33:MET:HE1	1.98	0.44
43:BI:113:ARG:NH1	43:BI:132:PRO:HG3	2.33	0.44
15:AO:78:TYR:OH	15:AO:88:ARG:HG3	2.18	0.44
35:BA:251:A:H5''	48:BP:51:PHE:CZ	2.53	0.44
51:DS:34:HIS:NE2	51:DS:54:LEU:HB2	2.32	0.44
3:AC:71:ALA:HA	3:AC:106:VAL:H	1.82	0.44
1:AA:1372:U:OP1	9:AI:71:SER:HB3	2.18	0.44
27:D2:17:SER:O	27:D2:18:PRO:C	2.55	0.44
5:CE:7:GLU:HB3	5:CE:112:LEU:HD13	1.99	0.44
37:DC:42:VAL:HA	37:DC:217:THR:HA	2.00	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:AY:87:LEU:O	24:AY:91:LEU:HD23	2.18	0.44
48:BP:23:PRO:HB2	48:BP:33:ARG:CG	2.46	0.44
35:BA:1023:U:H2'	35:BA:1024:G:H5'	2.00	0.44
35:DA:1721:G:H2'	35:DA:1741:A:H61	1.83	0.44
10:CJ:26:ALA:HA	10:CJ:29:ARG:NH1	2.22	0.44
35:DA:2131:G:H4'	35:DA:2132:U:H5''	1.99	0.44
37:DC:7:ARG:NH2	37:DC:219:MET:HB3	2.33	0.44
10:AJ:23:ILE:HG23	10:AJ:85:LEU:HD22	2.00	0.44
24:AY:191:ARG:HE	24:AY:194:PRO:HD3	1.83	0.44
47:BO:107:ARG:CZ	52:BT:35:LYS:HD2	2.48	0.44
49:DQ:140:ALA:O	49:DQ:141:GLN:CB	2.64	0.44
17:CQ:45:HIS:HB2	17:CQ:65:ILE:CD1	2.45	0.44
17:CQ:5:VAL:HA	17:CQ:59:ILE:O	2.18	0.44
48:BP:16:ARG:NH2	48:BP:18:ARG:HG2	2.32	0.44
3:CC:156:ARG:HD3	3:CC:194:GLY:CA	2.48	0.44
1:AA:1309:G:C6	1:AA:1329:A:C2	3.05	0.44
1:CA:404:U:H2'	1:CA:405:U:C6	2.53	0.44
10:AJ:98:ILE:N	10:AJ:98:ILE:HD12	2.33	0.44
8:CH:16:ALA:O	8:CH:19:VAL:HG22	2.18	0.44
35:DA:2726:U:H6	47:DO:67:LYS:HZ3	1.66	0.44
19:CS:62:ILE:HA	19:CS:66:MET:HE1	2.00	0.44
1:CA:1179:A:O3'	9:CI:103:THR:HG23	2.16	0.44
39:DE:35:GLN:HA	39:DE:67:PHE:HE2	1.83	0.44
35:DA:2106:G:H1	35:DA:2183:C:H42	1.66	0.44
1:CA:1274:G:H2'	1:CA:1275:A:C8	2.53	0.44
3:CC:99:VAL:HG23	3:CC:99:VAL:O	2.18	0.44
1:AA:1378:C:C5	1:AA:1379:G:C4	3.05	0.44
1:CA:1079:G:C6	1:CA:1080:A:N6	2.86	0.44
6:AF:64:GLN:O	6:AF:65:VAL:HB	2.18	0.44
35:BA:548:A:H3'	35:BA:549:G:C5'	2.47	0.44
45:DK:108:ALA:O	45:DK:120:LEU:HG	2.18	0.44
1:AA:1452:C:H5'	1:AA:1456:G:C4	2.52	0.44
40:DF:117:ARG:HD3	40:DF:117:ARG:HA	1.78	0.44
1:CA:985:C:H2'	1:CA:986:A:C8	2.53	0.44
24:CY:224:PRO:CA	24:CY:227:LEU:HB2	2.47	0.44
42:BH:82:GLY:O	42:BH:83:TYR:O	2.36	0.44
24:AY:8:GLN:HG2	24:AY:98:LEU:HD13	1.99	0.44
1:AA:148:G:H1	1:AA:174:C:H42	1.66	0.44
28:B3:59:VAL:CG1	28:B3:60:GLU:N	2.79	0.44
16:AP:18:ARG:HD3	16:AP:35:LYS:CE	2.48	0.44
1:CA:1439:C:OP1	20:CT:38:LYS:HD2	2.17	0.44
35:DA:491:G:H2'	35:DA:492:A:C8	2.52	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:573:A:N3	1:AA:883:C:O2'	2.45	0.44
1:AA:868:C:H2'	1:AA:869:G:O4'	2.18	0.44
40:BF:170:LEU:HA	40:BF:171:PRO:HD2	1.81	0.44
35:DA:66:C:H2'	35:DA:67:U:C6	2.49	0.44
1:AA:629:G:H2'	1:AA:630:G:C8	2.53	0.44
20:AT:73:HIS:O	20:AT:74:LYS:O	2.36	0.44
28:D3:1:MET:O	28:D3:2:PRO:C	2.55	0.44
1:CA:1280:A:H5'	10:CJ:40:LEU:HD22	1.99	0.44
3:AC:29:TYR:HD2	3:AC:29:TYR:O	2.00	0.44
3:CC:29:TYR:O	3:CC:29:TYR:HD2	2.01	0.44
40:BF:136:THR:O	40:BF:137:LYS:C	2.57	0.44
7:AG:53:LYS:O	7:AG:54:THR:HB	2.17	0.44
35:BA:1666:G:O2'	35:BA:1667:G:H5'	2.18	0.44
37:DC:45:HIS:CE1	37:DC:173:HIS:HD1	2.36	0.44
1:AA:1360:A:H2'	1:AA:1361:G:O4'	2.17	0.44
11:CK:57:THR:HG23	11:CK:60:ALA:CB	2.48	0.44
1:AA:1216:G:O2'	1:AA:1217:C:H5'	2.18	0.44
35:DA:42:G:H2'	35:DA:43:A:O4'	2.18	0.44
58:DZ:180:VAL:HG13	58:DZ:180:VAL:O	2.18	0.44
1:AA:240:C:H2'	1:AA:241:C:C6	2.53	0.44
35:BA:341:G:O2'	35:BA:342:G:H5'	2.18	0.44
52:DT:78:LEU:O	52:DT:79:HIS:ND1	2.51	0.43
57:DY:14:LEU:CG	57:DY:15:VAL:N	2.81	0.43
45:DK:82:ALA:HB3	45:DK:84:LEU:CD2	2.48	0.43
40:DF:119:ARG:HH11	40:DF:119:ARG:HG2	1.82	0.43
58:BZ:144:LEU:HD12	58:BZ:150:LEU:H	1.83	0.43
35:DA:1203:G:H4'	48:DP:7:ARG:HG3	2.00	0.43
51:DS:88:ASP:CG	51:DS:89:ARG:H	2.18	0.43
41:DG:93:THR:HG22	41:DG:95:ARG:CD	2.47	0.43
41:DG:117:PHE:HA	41:DG:181:ARG:HH22	1.82	0.43
41:DG:111:LEU:HD13	41:DG:179:PRO:HG3	2.00	0.43
1:AA:975:A:H5'	1:AA:975:A:C8	2.51	0.43
41:BG:131:TYR:O	41:BG:132:ASN:CG	2.56	0.43
41:BG:159:VAL:HG22	41:BG:159:VAL:O	2.18	0.43
41:BG:4:ASP:HA	41:BG:8:LYS:NZ	2.33	0.43
49:BQ:108:GLY:CA	58:BZ:116:VAL:HG21	2.31	0.43
1:AA:973:G:C3'	1:AA:974:A:H5''	2.41	0.43
35:BA:654(H):G:H21	35:BA:654(N):G:N2	2.16	0.43
35:BA:654(Q):C:O2'	35:BA:654(R):C:H5'	2.18	0.43
52:DT:89:VAL:CB	52:DT:91:ARG:HG3	2.48	0.43
3:CC:14:ILE:HG23	3:CC:15:THR:N	2.33	0.43
24:CY:250:ARG:HG2	24:CY:252:VAL:HG23	2.00	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:1407:C:H5'	35:DA:1408:C:OP2	2.18	0.43
35:DA:272(H):C:N4	35:DA:363(A):A:H61	2.16	0.43
39:BE:110:GLY:HA3	39:BE:162:ALA:HB2	1.99	0.43
40:BF:68:LYS:HG2	40:BF:69:HIS:CE1	2.53	0.43
4:AD:29:PRO:C	4:AD:30:LYS:HG2	2.38	0.43
24:CY:139:MET:HE2	24:CY:341:LEU:HD11	2.00	0.43
56:DX:12:VAL:HG12	56:DX:27:THR:OG1	2.18	0.43
45:DK:38:VAL:CG2	45:DK:39:LYS:H	2.24	0.43
51:DS:35:ILE:H	51:DS:53:SER:CB	2.31	0.43
24:AY:345:ILE:HG22	24:AY:349:LEU:HG	1.99	0.43
48:DP:32:THR:O	48:DP:33:ARG:HB2	2.17	0.43
9:AI:17:VAL:HG22	9:AI:81:ILE:CD1	2.48	0.43
12:CL:60:LEU:C	12:CL:62:SER:N	2.70	0.43
3:AC:58:GLU:O	3:AC:59:ARG:CG	2.66	0.43
2:CB:46:LYS:HE3	2:CB:46:LYS:CA	2.47	0.43
35:DA:2131:G:H5''	35:DA:2132:U:O5'	2.18	0.43
2:CB:32:ILE:HA	2:CB:42:ILE:HA	2.00	0.43
41:BG:17:PRO:HA	41:BG:20:ILE:CG1	2.48	0.43
43:BI:26:ALA:O	43:BI:31:LEU:HD13	2.18	0.43
1:CA:594:G:C2'	1:CA:595:G:H5'	2.48	0.43
58:BZ:40:ASP:O	58:BZ:44:PHE:HB2	2.17	0.43
35:BA:661:C:O2'	48:BP:16:ARG:O	2.29	0.43
52:DT:38:ASN:CG	52:DT:39:ARG:N	2.70	0.43
7:CG:113:GLU:HB2	7:CG:119:ARG:CG	2.48	0.43
3:CC:156:ARG:HD3	3:CC:194:GLY:H	1.83	0.43
2:AB:96:ARG:O	2:AB:98:LEU:N	2.51	0.43
57:BY:50:ARG:O	57:BY:50:ARG:CD	2.67	0.43
2:AB:32:ILE:HA	2:AB:42:ILE:HA	1.99	0.43
3:AC:206:GLU:O	3:AC:207:VAL:C	2.56	0.43
14:AN:6:LEU:HD22	14:AN:23:ARG:HH22	1.81	0.43
21:AU:10:ARG:HA	21:AU:13:ILE:HB	2.00	0.43
42:DH:136:ILE:H	42:DH:136:ILE:CD1	2.27	0.43
1:AA:243:A:H4'	1:AA:244:U:H5''	2.00	0.43
1:CA:1158:C:H42	1:CA:1181:G:H1	1.65	0.43
3:AC:156:ARG:HD3	3:AC:194:GLY:N	2.33	0.43
8:AH:112:LEU:N	8:AH:112:LEU:HD23	2.33	0.43
1:AA:1317:C:P	14:AN:17:LYS:HE2	2.58	0.43
35:BA:847:U:H2'	35:BA:848:G:H5''	2.00	0.43
1:CA:123:C:OP1	1:CA:311:C:O2'	2.34	0.43
5:AE:139:LEU:C	5:AE:141:GLN:H	2.19	0.43
35:BA:2808:U:H5'	35:BA:2891:G:O6	2.17	0.43
1:AA:311:C:HO2'	1:AA:312:C:H5'	1.82	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:533:A:O2'	1:CA:534:U:H5''	2.18	0.43
35:DA:894:C:O2'	35:DA:895:U:H5'	2.19	0.43
49:DQ:21:THR:CG2	49:DQ:101:ARG:HD3	2.48	0.43
3:AC:138:VAL:HG12	3:AC:170:GLN:HE21	1.82	0.43
53:BU:78:THR:O	53:BU:81:HIS:N	2.50	0.43
8:AH:122:ARG:NH1	8:AH:122:ARG:CB	2.80	0.43
35:BA:1945:G:O2'	35:BA:1946:U:H5'	2.18	0.43
44:DJ:93:UNK:HA	44:DJ:96:UNK:CB	2.48	0.43
8:CH:17:THR:HB	8:CH:78:GLN:OE1	2.18	0.43
26:B1:35:THR:OG1	35:BA:2079:U:O3'	2.36	0.43
28:D3:46:ASN:O	28:D3:50:VAL:HG22	2.18	0.43
1:AA:125:U:H2'	1:AA:126:G:H8	1.82	0.43
58:DZ:18:LEU:HD22	58:DZ:23:LYS:CD	2.48	0.43
35:BA:2553:G:H2'	35:BA:2554:U:C4'	2.47	0.43
1:CA:125:U:H2'	1:CA:126:G:H8	1.83	0.43
56:DX:65:ARG:CG	56:DX:66:LEU:H	2.31	0.43
1:AA:19:C:H5''	5:AE:86:ALA:HB3	1.99	0.43
1:CA:19:C:H2'	1:CA:20:U:H6	1.83	0.43
35:DA:229:A:C5'	35:DA:230:U:H5'	2.47	0.43
56:DX:57:LEU:HD22	56:DX:57:LEU:C	2.38	0.43
35:DA:245:G:H2'	35:DA:246:C:H6	1.83	0.43
35:BA:2853:C:O2'	35:BA:2854:G:H5'	2.18	0.43
24:CY:100:GLU:O	24:CY:104:GLN:HB2	2.18	0.43
42:DH:37:VAL:HG12	42:DH:38:SER:N	2.33	0.43
36:BB:37:C:C2'	36:BB:38:C:H5'	2.48	0.43
1:AA:579:G:H2'	1:AA:580:U:C6	2.53	0.43
11:AK:100:ALA:O	11:AK:101:SER:HB3	2.18	0.43
13:AM:37:THR:O	13:AM:39:ILE:HG13	2.18	0.43
1:CA:291:C:O2'	1:CA:292:G:H5'	2.18	0.43
35:BA:2702:U:H4'	35:BA:2703:C:OP1	2.17	0.43
35:DA:927:G:H5'	35:DA:928:G:OP2	2.18	0.43
49:DQ:74:TYR:O	49:DQ:90:VAL:HA	2.17	0.43
3:AC:69:HIS:CD2	3:AC:69:HIS:N	2.85	0.43
31:D6:41:PRO:HG2	31:D6:47:THR:HG21	1.95	0.43
52:BT:90:GLN:O	52:BT:91:ARG:O	2.36	0.43
54:BV:20:LEU:N	54:BV:20:LEU:HD12	2.32	0.43
40:BF:4:VAL:HG22	40:BF:19:GLU:CD	2.38	0.43
42:DH:46:GLU:O	42:DH:49:VAL:O	2.37	0.43
35:DA:158:U:H3'	35:DA:158:U:O2	2.17	0.43
40:DF:133:ASN:HD22	40:DF:133:ASN:H	1.65	0.43
58:BZ:168:GLU:O	58:BZ:169:GLU:C	2.56	0.43
38:BD:48:ARG:NH1	38:BD:48:ARG:HG3	2.32	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:1054:A:C3'	35:DA:1055:G:H5''	2.49	0.43
35:DA:2603:G:O2'	35:DA:2604:U:H5'	2.18	0.43
24:AY:133:ALA:O	24:AY:137:LEU:HB2	2.18	0.43
45:BK:72:PRO:HB2	45:BK:77:LEU:HD21	1.99	0.43
41:BG:112:PRO:C	41:BG:114:ILE:N	2.71	0.43
35:BA:2305:A:H1'	41:BG:135:LEU:O	2.18	0.43
41:BG:56:ALA:CA	41:BG:153:ARG:HH22	2.18	0.43
10:AJ:50:ILE:CD1	10:AJ:50:ILE:H	2.07	0.43
35:DA:1409:C:H2'	35:DA:1410:G:C8	2.53	0.43
46:BN:1:MET:CG	46:BN:2:LYS:H	2.28	0.43
53:DU:90:VAL:HG22	54:DV:39:LEU:CB	2.49	0.43
13:CM:125:ARG:CZ	24:CY:165:ASP:OD2	2.66	0.43
35:BA:2394:C:P	48:BP:63:PRO:HD2	2.58	0.43
45:BK:10:LEU:HD13	45:BK:12:LEU:HG	2.00	0.43
31:D6:11:LEU:C	31:D6:11:LEU:HD22	2.38	0.43
35:DA:2287:A:N1	35:DA:2346:A:C2	2.87	0.43
20:AT:89:ARG:HB2	20:AT:104:LEU:CD1	2.49	0.43
43:BI:130:TYR:O	43:BI:131:LYS:HG3	2.18	0.43
43:BI:133:HIS:HB2	43:BI:134:PRO:HD3	1.93	0.43
43:BI:77:LEU:HD13	43:BI:140:LEU:HG	2.01	0.43
1:AA:15:G:C4'	5:AE:24:ARG:HH22	2.31	0.43
35:DA:625:G:O6	48:DP:107:LYS:HD3	2.18	0.43
10:CJ:42:THR:HG22	10:CJ:43:ARG:N	2.33	0.43
48:DP:33:ARG:O	48:DP:34:GLY:C	2.56	0.43
1:AA:1152:A:OP1	10:AJ:68:HIS:CD2	2.72	0.43
2:AB:51:LEU:O	2:AB:55:PHE:HD2	2.01	0.43
35:BA:1720:U:N3	35:BA:1742:G:O6	2.42	0.43
19:AS:29:ARG:CD	19:AS:30:LEU:N	2.72	0.43
5:CE:100:VAL:CG1	5:CE:118:ILE:HG22	2.42	0.43
4:AD:59:ARG:CA	4:AD:59:ARG:HE	2.18	0.43
1:AA:651:C:H2'	1:AA:652:U:C6	2.54	0.43
52:DT:41:ARG:O	52:DT:42:ILE:C	2.56	0.43
42:BH:30:LYS:HB2	42:BH:79:VAL:HA	2.00	0.43
7:CG:15:ASP:HB3	7:CG:20:ASP:H	1.83	0.43
26:B1:66:HIS:C	26:B1:68:PRO:HD2	2.38	0.43
33:B8:33:ASN:HD22	33:B8:36:LYS:CD	2.32	0.43
58:BZ:4:ARG:HD3	58:BZ:58:VAL:HB	2.00	0.43
57:DY:2:ARG:N	57:DY:5:MET:CG	2.76	0.43
35:DA:2632:A:C2	39:DE:61:ARG:HD2	2.53	0.43
1:AA:112:G:H4'	1:AA:389:A:H5''	2.00	0.43
1:CA:1514:C:H2'	1:CA:1515:C:H6	1.83	0.43
33:D8:33:ASN:O	35:DA:2420:C:OP1	2.35	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:389:G:C6	48:DP:70:GLN:HG3	2.53	0.43
7:AG:86:GLN:O	7:AG:86:GLN:HG3	2.19	0.43
45:DK:122:ALA:CB	45:DK:125:ARG:HH21	2.31	0.43
36:BB:90:A:N7	36:BB:91:C:H1'	2.33	0.43
31:B6:12:GLU:CG	31:B6:23:THR:HG22	2.46	0.43
1:AA:1287:A:H2	1:AA:1353:G:N3	2.16	0.43
41:BG:9:ARG:HH11	41:BG:9:ARG:CB	2.29	0.43
35:BA:89:G:OP1	57:BY:33:LYS:HE2	2.18	0.43
46:DN:42:TRP:CE3	46:DN:48:MET:HE1	2.52	0.43
18:AR:36:ASN:O	18:AR:39:VAL:HB	2.18	0.43
1:CA:1493:A:H4'	24:CY:126:GLY:HA2	2.00	0.43
45:BK:105:LEU:O	45:BK:108:ALA:HB3	2.18	0.43
20:CT:33:ILE:HG22	20:CT:34:LYS:N	2.33	0.43
49:BQ:130:LYS:HD2	58:BZ:80:ARG:NH1	2.32	0.43
49:BQ:76:LYS:CB	49:BQ:91:GLU:HG3	2.46	0.43
35:BA:2464:C:O2'	35:BA:2465:C:H6	2.00	0.43
4:AD:61:LYS:HD3	4:AD:206:PHE:CE2	2.53	0.43
4:AD:98:GLU:OE2	4:AD:103:ASN:ND2	2.51	0.43
24:AY:223:LYS:C	24:AY:225:GLU:N	2.69	0.43
1:AA:1519:A:C3'	1:AA:1520:G:H5'	2.48	0.43
49:BQ:42:ILE:CD1	49:BQ:42:ILE:N	2.81	0.43
27:D2:67:LYS:O	27:D2:71:ASN:HB3	2.17	0.43
1:CA:630:G:H2'	1:CA:631:G:H5''	2.00	0.43
50:BR:63:ARG:HA	50:BR:80:PHE:CZ	2.53	0.43
36:BB:29:A:H2'	36:BB:30:C:C6	2.53	0.43
37:DC:194:ILE:HD12	37:DC:227:PRO:HB2	1.99	0.43
22:AW:9:A:OP1	22:AW:9:A:H3'	2.18	0.43
35:BA:839:U:H2'	35:BA:840:C:C6	2.52	0.43
35:BA:1221:C:H2'	35:BA:1221(A):C:C6	2.53	0.43
1:CA:1476:G:H2'	1:CA:1477:C:C6	2.52	0.43
35:BA:71:A:C8	35:BA:71:A:H5'	2.53	0.43
22:CV:3:C:C2	22:CV:71:G:N2	2.86	0.43
1:CA:19:C:H5''	5:CE:86:ALA:HB3	1.99	0.43
35:BA:784:A:C5	38:BD:229:VAL:HG21	2.53	0.43
20:AT:96:GLY:O	20:AT:97:ALA:C	2.56	0.43
35:DA:751:A:H8	35:DA:751:A:O5'	2.01	0.43
35:DA:506:G:O3'	35:DA:507:A:H8	2.01	0.43
9:CI:33:PHE:C	9:CI:35:GLU:H	2.20	0.43
46:DN:51:PHE:CE2	46:DN:119:ARG:HD2	2.53	0.43
1:CA:1360:A:H2'	1:CA:1361:G:O4'	2.17	0.43
35:BA:533:G:H5'	53:BU:24:TYR:CE2	2.53	0.43
35:BA:2240:C:O2'	35:BA:2241:A:H5'	2.17	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:236:C:H2'	35:BA:237:C:H6	1.82	0.43
35:DA:2830:G:N3	35:DA:2883:A:H2	2.15	0.43
35:BA:1153:C:H2'	35:BA:1154:G:O4'	2.18	0.43
35:DA:2152:G:H2'	35:DA:2153:G:O4'	2.18	0.43
2:AB:66:GLY:HA2	2:AB:160:ASP:OD2	2.19	0.43
35:DA:1899:G:H21	35:DA:1902:C:N4	1.93	0.43
27:B2:10:LEU:HB3	27:B2:14:ARG:NH1	2.34	0.43
35:BA:1054:A:C3'	35:BA:1055:G:H5''	2.48	0.43
13:AM:94:ARG:NH1	19:AS:81:ARG:HG3	2.33	0.43
2:AB:93:VAL:HG21	2:AB:97:TRP:HD1	1.81	0.43
38:BD:79:VAL:CG2	38:BD:111:LEU:HD11	2.29	0.43
41:DG:166:ASP:N	41:DG:166:ASP:OD1	2.51	0.43
45:BK:107:ILE:HD12	45:BK:110:GLN:HB2	2.00	0.43
35:DA:654(U):A:N7	35:DA:654(V):A:N6	2.66	0.43
35:DA:1494:A:O2'	35:DA:1496:A:C2	2.68	0.43
41:BG:68:PRO:HA	41:BG:92:VAL:HB	1.99	0.43
39:BE:54:GLN:O	39:BE:75:VAL:HG23	2.18	0.43
54:BV:38:LEU:O	54:BV:51:VAL:HG13	2.18	0.43
43:DI:129:THR:CG2	43:DI:130:TYR:N	2.81	0.43
4:AD:18:LYS:HG3	4:AD:31:CYS:HB3	2.00	0.43
1:CA:656:C:H2'	1:CA:657:G:C8	2.53	0.43
2:CB:178:ARG:HA	2:CB:178:ARG:HD3	1.91	0.43
22:CV:39:U:O2'	22:CV:40:C:H5'	2.18	0.43
1:CA:1431:C:H2'	1:CA:1432:G:O4'	2.17	0.43
47:BO:17:ARG:HH12	47:BO:47:ILE:HD12	1.83	0.43
31:B6:37:ARG:O	31:B6:48:VAL:O	2.36	0.43
48:BP:96:THR:O	48:BP:99:LEU:HB3	2.18	0.43
57:BY:45:VAL:HG12	57:BY:60:PHE:CD2	2.53	0.43
12:CL:28:LYS:HG2	12:CL:28:LYS:O	2.17	0.43
54:DV:1:MET:HA	54:DV:1:MET:CE	2.48	0.43
35:BA:807:U:O2'	35:BA:808:G:H5'	2.18	0.43
35:BA:2468:G:N2	35:BA:2481:G:O2'	2.51	0.43
38:DD:35:LYS:O	38:DD:35:LYS:CG	2.65	0.43
1:CA:1293:G:O2'	1:CA:1294:G:C8	2.69	0.43
58:BZ:89:PHE:CE1	58:BZ:96:VAL:HG21	2.42	0.43
19:AS:16:LEU:O	19:AS:17:GLU:C	2.57	0.43
35:BA:271(L):U:H4'	35:BA:271(M):G:C2	2.54	0.43
24:AY:214:VAL:CG1	24:AY:215:ASP:H	2.16	0.43
36:BB:103:G:N2	58:BZ:73:GLN:HE22	2.16	0.43
22:AW:68:C:O2'	22:AW:69:G:H5'	2.18	0.43
1:CA:376:G:HO2'	1:CA:377:G:H5'	1.83	0.43
10:CJ:38:ILE:CG1	10:CJ:71:LEU:HB3	2.47	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:AY:84:ARG:N	24:AY:84:ARG:HD3	2.33	0.43
35:DA:626:U:H5'	35:DA:627:A:C5'	2.49	0.43
35:BA:2580:U:H4'	39:BE:130:GLY:CA	2.48	0.43
1:CA:36:C:O2'	1:CA:37:U:H5'	2.17	0.43
1:AA:1352:C:H2'	1:AA:1353:G:H8	1.78	0.43
10:CJ:8:LEU:C	10:CJ:16:LEU:HD21	2.39	0.43
1:CA:1179:A:O2'	1:CA:1180:A:H5'	2.18	0.43
1:CA:1275:A:H2'	1:CA:1276:G:H8	1.83	0.43
32:B7:24:THR:HG23	32:B7:27:GLY:CA	2.47	0.43
1:CA:796:C:O2'	1:CA:797:C:H5'	2.19	0.43
51:BS:107:GLU:O	51:BS:108:GLY:C	2.56	0.43
42:DH:138:LYS:C	42:DH:140:LYS:N	2.66	0.43
35:DA:1076:C:H2'	35:DA:1077:A:H8	1.81	0.43
1:CA:1168:A:H2'	1:CA:1169:A:C8	2.53	0.43
47:BO:10:VAL:CG2	47:BO:16:ALA:O	2.67	0.43
22:CW:70:G:O2'	22:CW:71:G:O5'	2.36	0.43
1:AA:1203:C:O2'	1:AA:1204:A:H5'	2.17	0.43
35:DA:271(V):G:H2'	35:DA:271(W):G:O4'	2.17	0.43
8:CH:29:SER:HB3	8:CH:32:LYS:HB2	2.00	0.43
35:DA:1608:A:H1'	35:DA:1610:A:OP2	2.17	0.43
1:CA:1298:C:C4	7:CG:114:ARG:HD2	2.53	0.43
49:DQ:58:PHE:CD1	49:DQ:58:PHE:O	2.72	0.43
55:BW:29:LEU:HD21	55:BW:33:ARG:NH2	2.34	0.43
35:DA:659:C:H2'	35:DA:660:G:H8	1.83	0.43
11:CK:34:ASP:HB2	11:CK:35:PRO:CD	2.48	0.43
7:AG:23:VAL:HG13	7:AG:43:PHE:CE2	2.53	0.43
35:DA:2688:U:H1'	35:DA:2721:A:N6	2.33	0.43
14:CN:53:LEU:HA	14:CN:53:LEU:HD23	1.88	0.43
8:AH:25:ASP:HA	8:AH:59:LEU:O	2.19	0.43
35:BA:464:U:H2'	35:BA:465:G:O4'	2.18	0.43
52:DT:137:LYS:HG2	52:DT:137:LYS:O	2.18	0.43
48:BP:136:GLU:O	48:BP:139:LYS:HB3	2.18	0.43
35:DA:712:G:O2'	35:DA:713:G:H5'	2.18	0.43
35:BA:579:G:H2'	35:BA:580:C:C6	2.52	0.43
46:DN:40:PRO:HB3	53:DU:68:ALA:HB2	2.01	0.43
37:BC:204:GLY:O	37:BC:206:LYS:N	2.51	0.43
1:AA:248:C:O2'	1:AA:249:U:H5'	2.18	0.43
35:DA:435:C:H2'	35:DA:436:C:H5'	1.99	0.43
37:BC:173:HIS:O	37:BC:174:ALA:HB3	2.19	0.43
3:CC:23:TYR:CG	3:CC:24:ALA:N	2.86	0.43
6:AF:22:GLU:C	6:AF:24:GLU:N	2.70	0.43
35:BA:506:G:O3'	35:BA:507:A:H8	2.00	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:2321:G:N3	35:DA:2321:G:H2'	2.33	0.43
35:DA:2532:G:O5'	35:DA:2532:G:H8	2.01	0.43
36:DB:111:G:O2'	36:DB:112:U:H5'	2.17	0.43
24:CY:304:PRO:C	24:CY:306:GLU:H	2.21	0.43
35:BA:1503:U:C4	35:BA:1504:C:N4	2.86	0.43
2:AB:74:LYS:HD2	2:AB:169:LYS:HG3	2.01	0.43
2:AB:77:ALA:O	2:AB:78:GLN:C	2.56	0.43
13:CM:88:ARG:HG2	13:CM:88:ARG:HH11	1.83	0.43
51:BS:35:ILE:H	51:BS:53:SER:CB	2.31	0.43
3:AC:152:ILE:O	3:AC:198:VAL:HA	2.17	0.43
41:BG:141:PHE:HA	41:BG:142:PRO:HD2	1.79	0.43
1:CA:976:G:OP1	14:CN:32:SER:N	2.50	0.43
32:D7:8:ASN:ND2	32:D7:8:ASN:C	2.72	0.43
40:DF:103:LYS:CA	40:DF:106:ARG:HG3	2.29	0.43
35:BA:654(S):G:H2'	35:BA:654(T):C:N1	2.33	0.43
35:BA:1999:C:O2'	35:BA:2000:G:H5'	2.18	0.43
4:CD:176:LEU:CG	4:CD:177:ASP:N	2.72	0.43
39:DE:111:ARG:CA	50:DR:2:ARG:HG2	2.35	0.43
50:DR:2:ARG:HB2	50:DR:5:LYS:CE	2.48	0.43
26:B1:89:GLU:O	26:B1:92:LYS:HB3	2.19	0.43
15:CO:81:LEU:CD1	15:CO:85:LEU:HD12	2.48	0.43
56:BX:12:VAL:HG12	56:BX:27:THR:OG1	2.18	0.43
35:DA:2544:G:H8	35:DA:2544:G:O5'	2.01	0.43
46:BN:55:VAL:CG2	46:BN:56:ASN:N	2.81	0.43
25:B0:14:ARG:O	25:B0:15:ASP:HB2	2.18	0.43
1:AA:16:A:N1	1:AA:919:A:H2	2.16	0.43
19:CS:78:ARG:HD2	19:CS:81:ARG:NH1	2.34	0.43
1:AA:1026:G:H2'	1:AA:1027:C:H5'	2.00	0.43
38:DD:8:PRO:C	38:DD:10:THR:H	2.21	0.43
17:AQ:59:ILE:HG22	17:AQ:71:PHE:HD1	1.83	0.43
9:AI:89:ASN:O	9:AI:92:TYR:HB2	2.18	0.43
50:BR:34:ILE:HA	50:BR:34:ILE:HD13	1.75	0.43
2:AB:80:ILE:O	2:AB:80:ILE:HG22	2.18	0.43
57:BY:45:VAL:HG13	57:BY:60:PHE:O	2.18	0.43
3:AC:58:GLU:HB2	3:AC:65:ALA:CB	2.48	0.43
9:CI:4:TYR:HB2	9:CI:19:LEU:CB	2.40	0.43
38:DD:35:LYS:C	38:DD:37:LEU:N	2.71	0.43
35:BA:861:A:C2	35:BA:917:A:C4	3.07	0.43
38:BD:31:LYS:HB3	38:BD:34:VAL:HG22	2.00	0.43
38:BD:267:SER:C	38:BD:269:PHE:N	2.71	0.43
43:BI:93:THR:H	43:BI:96:ASP:HB2	1.83	0.43
41:BG:25:TYR:CZ	41:BG:31:VAL:HA	2.53	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:592:G:O2'	1:CA:593:G:H5'	2.18	0.43
52:DT:35:LYS:C	52:DT:37:GLY:H	2.22	0.43
24:AY:124:ALA:HB3	24:AY:205:PHE:CD1	2.54	0.43
35:DA:484:C:H2'	35:DA:485:C:C6	2.53	0.43
39:BE:55:ASN:O	39:BE:57:LYS:N	2.49	0.43
37:BC:52:PRO:O	37:BC:54:ARG:N	2.51	0.43
10:CJ:38:ILE:HD11	10:CJ:71:LEU:CD2	2.43	0.43
35:BA:626:U:C5'	35:BA:627:A:H5'	2.48	0.43
1:CA:1452:C:O4'	1:CA:1456:G:C2	2.72	0.43
35:BA:2590:A:O2'	35:BA:2591:C:H5'	2.19	0.43
35:DA:2317:C:H2'	35:DA:2318:G:C5'	2.47	0.43
7:CG:86:GLN:O	7:CG:86:GLN:HG3	2.17	0.43
24:AY:315:VAL:CG1	24:AY:320:TYR:O	2.67	0.43
36:BB:87:G:C2'	36:BB:88:C:H5''	2.48	0.43
2:CB:84:GLU:HB3	2:CB:219:VAL:HG21	1.99	0.43
35:BA:2126:A:H61	35:BA:2163:C:C4'	2.31	0.43
25:B0:42:GLY:HA2	35:BA:2330:G:H21	1.82	0.43
1:AA:1317:C:OP1	14:AN:17:LYS:HE2	2.18	0.43
40:BF:160:ASN:HD22	40:BF:160:ASN:C	2.21	0.43
13:AM:115:LYS:C	13:AM:117:VAL:N	2.69	0.43
49:DQ:76:LYS:CB	49:DQ:91:GLU:HG3	2.46	0.43
42:BH:138:LYS:O	42:BH:139:GLN:C	2.57	0.43
6:AF:33:TYR:OH	6:AF:78:GLU:HB2	2.18	0.43
1:CA:1018:C:H2'	1:CA:1019:C:O4'	2.19	0.43
2:AB:19:HIS:CG	2:AB:20:GLU:N	2.86	0.43
35:DA:1518:U:H2'	35:DA:1519:G:O4'	2.18	0.43
1:CA:1463:C:C2'	1:CA:1464:G:H5'	2.49	0.43
1:CA:836:G:C6	1:CA:851:G:C6	3.06	0.43
1:CA:880:C:H2'	1:CA:881:G:H8	1.84	0.43
51:BS:40:ILE:HG22	51:BS:41:ASP:N	2.33	0.43
35:BA:2078:C:H2'	35:BA:2079:U:C6	2.53	0.43
54:BV:13:ARG:HH11	54:BV:13:ARG:CG	2.30	0.43
6:CF:42:GLU:C	6:CF:44:GLY:H	2.22	0.43
35:BA:2019:A:H5''	53:BU:27:LEU:CD1	2.48	0.43
35:DA:1230:C:H2'	35:DA:1231:G:H8	1.83	0.43
24:AY:256:THR:HG21	24:AY:258:ILE:CD1	2.48	0.43
35:BA:1602:U:H3'	35:BA:1603:A:H5''	2.00	0.43
52:BT:137:LYS:HG2	52:BT:137:LYS:O	2.19	0.43
35:BA:2410:G:C2	35:BA:2411:A:H1'	2.53	0.43
35:DA:2019:A:H5''	53:DU:27:LEU:CD1	2.48	0.43
35:BA:1819:A:H5''	38:BD:158:ALA:HB3	2.00	0.43
35:DA:2137:C:H2'	35:DA:2138:C:C6	2.52	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:1641:A:H2'	35:BA:1642:G:O4'	2.18	0.43
37:DC:226:ASN:C	37:DC:228:HIS:H	2.21	0.43
38:BD:18:VAL:CG1	38:BD:19:ALA:N	2.80	0.43
21:CU:5:ASP:O	21:CU:11:GLY:HA3	2.18	0.43
35:DA:2027:G:O2'	35:DA:2028:U:H5'	2.18	0.43
1:AA:690:G:C6	1:AA:691:G:C6	3.06	0.43
15:AO:54:ARG:HG2	15:AO:58:MET:HE2	2.01	0.43
53:DU:89:GLU:HG2	53:DU:89:GLU:O	2.19	0.43
38:DD:245:PRO:O	38:DD:246:PRO:C	2.56	0.43
57:BY:38:ILE:HG22	57:BY:39:VAL:H	1.84	0.43
35:BA:614(C):A:C8	40:BF:176:LEU:HD11	2.53	0.43
49:DQ:130:LYS:HD2	58:DZ:80:ARG:HH22	1.84	0.43
54:DV:20:LEU:HD12	54:DV:20:LEU:N	2.34	0.43
40:DF:24:LEU:HD12	40:DF:25:PRO:CD	2.49	0.43
38:DD:48:ARG:NH1	38:DD:48:ARG:HG3	2.34	0.43
58:BZ:163:LEU:N	58:BZ:163:LEU:CD2	2.79	0.43
35:DA:1047:G:H2'	35:DA:1110:G:N2	2.33	0.43
1:CA:960:U:O2	1:CA:960:U:H2'	2.18	0.43
51:DS:88:ASP:CG	51:DS:89:ARG:N	2.71	0.43
41:DG:60:LEU:HD23	41:DG:68:PRO:HG2	2.00	0.43
6:AF:30:LEU:N	6:AF:30:LEU:HD23	2.09	0.43
13:AM:123:ALA:HB1	24:AY:162:ALA:HB2	1.99	0.43
13:AM:125:ARG:HA	24:AY:160:PRO:N	2.34	0.43
52:DT:91:ARG:HG2	52:DT:116:ALA:HA	1.99	0.43
43:BI:130:TYR:O	43:BI:131:LYS:HB2	2.18	0.43
35:DA:1114:G:C3'	35:DA:1115:G:C5'	2.96	0.43
26:B1:86:SER:HB2	26:B1:89:GLU:CB	2.34	0.43
45:DK:10:LEU:HD13	45:DK:12:LEU:HG	2.00	0.43
33:D8:50:LEU:O	33:D8:51:ALA:HB3	2.19	0.43
10:AJ:3:LYS:N	10:AJ:74:ILE:O	2.51	0.43
46:BN:128:HIS:CE1	46:BN:134:ARG:NH1	2.84	0.43
13:CM:94:ARG:NH1	19:CS:81:ARG:HG3	2.34	0.43
2:AB:178:ARG:HD3	2:AB:178:ARG:HA	1.87	0.43
5:CE:76:ILE:HG13	5:CE:77:PRO:HD2	1.99	0.43
35:BA:74:A:H5'	35:BA:75:G:O4'	2.17	0.43
48:BP:102:ARG:HH21	48:BP:102:ARG:HB2	1.84	0.43
9:CI:40:LEU:C	9:CI:42:ARG:N	2.72	0.43
17:AQ:45:HIS:CB	17:AQ:65:ILE:HD13	2.47	0.43
12:AL:32:PHE:HB3	12:AL:84:LEU:HD22	2.00	0.43
46:BN:120:LEU:HD13	46:BN:121:LYS:N	2.34	0.43
38:DD:30:GLU:HG3	38:DD:63:ARG:NH2	2.32	0.43
2:AB:115:LEU:O	2:AB:118:LEU:HB2	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:88:ARG:HG2	3:AC:101:LEU:CB	2.48	0.43
4:AD:13:ARG:O	4:AD:14:ARG:HB3	2.18	0.43
43:BI:119:PRO:O	43:BI:120:ILE:C	2.57	0.43
36:BB:57:A:C4	41:BG:29:TRP:HB3	2.54	0.43
8:AH:39:LEU:HD22	8:AH:39:LEU:N	2.33	0.43
26:D1:68:PRO:C	26:D1:70:VAL:H	2.22	0.43
35:DA:2100:G:O2'	35:DA:2101:G:H5'	2.18	0.43
1:CA:532:A:H61	3:CC:156:ARG:NH1	2.14	0.43
33:D8:32:LEU:CD1	35:DA:2392:A:OP1	2.62	0.43
7:AG:15:ASP:HB3	7:AG:20:ASP:H	1.83	0.43
38:BD:80:ALA:O	38:BD:81:ALA:HB2	2.18	0.43
37:BC:23:ILE:HG13	37:BC:229:SER:O	2.19	0.43
1:CA:536:C:H2'	1:CA:537:G:H8	1.84	0.43
23:CX:21:A:N1	24:CX:201:ARG:HD3	2.34	0.43
35:BA:1317:A:H2'	35:BA:1318:C:H6	1.83	0.43
19:AS:40:ILE:HD13	19:AS:62:ILE:CD1	2.47	0.43
19:AS:62:ILE:HA	19:AS:66:MET:HE2	1.99	0.43
56:DX:64:LYS:HZ3	56:DX:73:ARG:HH21	1.67	0.43
1:AA:937:A:H1'	1:AA:1379:G:N2	2.33	0.43
1:AA:1452:C:H4'	1:AA:1456:G:C5'	2.46	0.43
1:AA:1077:G:N2	1:AA:1080:A:OP2	2.48	0.43
35:BA:2106:G:H1	35:BA:2183:C:H42	1.65	0.43
35:BA:2023:G:H4'	35:BA:2617:C:O3'	2.18	0.43
35:DA:1077:A:C2'	35:DA:1078:U:H5'	2.49	0.43
42:DH:109:PHE:O	42:DH:111:HIS:N	2.49	0.43
1:AA:134:A:H61	16:AP:25:ARG:HH12	1.65	0.43
35:BA:1131:G:O2'	35:BA:1132:A:H8	2.02	0.43
47:DO:22:ILE:HA	47:DO:22:ILE:HD13	1.82	0.43
1:AA:584:G:H2'	1:AA:585:G:C8	2.54	0.43
42:DH:26:VAL:HG11	42:DH:76:VAL:HA	2.01	0.43
2:AB:95:GLN:HA	2:AB:95:GLN:OE1	2.19	0.43
44:DJ:101:UNK:C	44:DJ:103:UNK:N	2.82	0.43
58:BZ:24:LEU:HD23	58:BZ:25:PRO:CD	2.48	0.43
1:AA:1298:C:C4	7:AG:114:ARG:HD2	2.54	0.43
9:AI:76:ALA:C	9:AI:78:LYS:H	2.22	0.43
35:DA:2410:G:C2	35:DA:2411:A:H1'	2.53	0.43
1:AA:932:C:H5''	7:AG:3:ARG:HD2	1.99	0.43
35:BA:1362:C:O2'	35:BA:1363:C:H5'	2.19	0.43
16:CP:52:ASP:OD2	16:CP:54:GLU:HB2	2.18	0.43
1:AA:1109:C:O2'	1:AA:1110:A:H5'	2.18	0.43
32:D7:40:TRP:CZ3	35:DA:459:U:H4'	2.54	0.43
35:BA:1111:A:O2'	35:BA:1112:G:H4'	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:108:VAL:O	9:CI:110:GLU:N	2.52	0.43
7:CG:92:SER:O	7:CG:93:PRO:C	2.57	0.43
35:DA:320:A:H2'	40:DF:136:THR:OG1	2.19	0.43
36:DB:37:C:C2'	36:DB:38:C:H5'	2.48	0.43
41:BG:166:ASP:O	41:BG:169:ALA:HB3	2.19	0.43
52:DT:26:ASP:C	52:DT:26:ASP:OD2	2.54	0.43
35:BA:794:G:H2'	35:BA:795:C:C6	2.53	0.43
24:CY:117:ILE:CG1	24:CY:170:LEU:HD13	2.48	0.43
52:DT:60:THR:HG22	52:DT:77:PRO:HA	2.00	0.43
28:B3:6:VAL:HG23	28:B3:28:LEU:HD11	2.01	0.43
36:DB:81:G:N3	36:DB:81:G:H5'	2.33	0.43
49:DQ:134:ARG:HG3	49:DQ:134:ARG:HH11	1.83	0.43
45:DK:104:VAL:HG12	45:DK:104:VAL:O	2.18	0.43
40:DF:4:VAL:HG22	40:DF:19:GLU:CD	2.37	0.43
35:BA:1105:U:H2'	35:BA:1106:G:H8	1.82	0.43
1:CA:1228:C:C5'	13:CM:108:ARG:HH22	2.30	0.43
35:DA:1888:G:N3	35:DA:1888:G:H5'	2.34	0.43
51:DS:89:ARG:O	51:DS:92:TYR:CG	2.72	0.43
22:CW:49:C:H2'	22:CW:49:C:O2	2.18	0.43
22:CW:19:G:C6	35:DA:2112:G:C6	3.06	0.43
36:BB:42:C:O2	41:BG:93:THR:N	2.38	0.43
14:CN:41:ARG:HH11	14:CN:41:ARG:HG2	1.84	0.43
35:BA:1826:G:H2'	35:BA:1827:C:H6	1.82	0.43
13:AM:126:LYS:N	24:AY:162:ALA:H	2.15	0.43
35:DA:1177:A:H5'	35:DA:1178:C:C6	2.54	0.43
1:AA:226:G:H2'	1:AA:227:G:H8	1.83	0.43
35:BA:676:A:H2	35:BA:802:A:N6	2.10	0.43
35:BA:1539:G:H2'	35:BA:1540:U:C4'	2.49	0.43
26:B1:92:LYS:HG3	26:B1:93:GLU:OE2	2.17	0.43
24:CY:326:THR:CG2	24:CY:328:LEU:HD22	2.46	0.43
20:CT:89:ARG:HB2	20:CT:104:LEU:CD1	2.49	0.43
35:DA:2564:A:OP1	35:DA:2648:C:H4'	2.18	0.43
38:BD:10:THR:HG23	38:BD:13:ARG:CB	2.37	0.43
52:BT:105:LEU:O	52:BT:107:ASP:OD1	2.36	0.43
1:AA:1004:A:H3'	1:AA:1036:G:O6	2.18	0.43
26:D1:49:VAL:O	26:D1:59:THR:HA	2.19	0.43
19:CS:48:THR:HG22	19:CS:61:TYR:HD1	1.83	0.43
1:CA:552:U:H4'	12:CL:86:ARG:HG2	2.00	0.43
19:CS:41:VAL:CG1	19:CS:42:PRO:HD2	2.47	0.43
38:BD:72:LYS:NZ	38:BD:75:ILE:CD1	2.78	0.43
27:D2:23:LYS:O	27:D2:26:ARG:HB3	2.18	0.43
35:DA:1403:C:H5''	35:DA:1471:A:C1'	2.39	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BI:99:GLU:HG2	43:BI:103:ARG:NH2	2.33	0.43
1:AA:624:C:O2'	16:AP:10:GLY:HA2	2.18	0.43
35:DA:271(L):U:H4'	35:DA:271(M):G:C2	2.53	0.43
57:DY:50:ARG:O	57:DY:50:ARG:CD	2.67	0.43
38:BD:165:ILE:HD13	38:BD:175:LEU:HD23	2.00	0.43
1:CA:1356:G:H2'	1:CA:1357:A:H8	1.80	0.43
48:BP:115:LEU:CD2	48:BP:115:LEU:N	2.81	0.43
33:D8:33:ASN:HD22	33:D8:36:LYS:CD	2.31	0.43
7:AG:15:ASP:OD1	7:AG:18:TYR:HB2	2.19	0.43
5:CE:146:ALA:O	5:CE:147:ASP:C	2.57	0.43
8:AH:134:ILE:O	8:AH:135:CYS:HB3	2.19	0.43
35:DA:2579:C:O2'	39:DE:131:ALA:HB3	2.18	0.43
35:DA:272(D):G:H1	35:DA:364:C:N4	2.15	0.43
35:DA:271(A):A:H1'	35:DA:365:C:O4'	2.18	0.43
20:CT:42:GLN:NE2	20:CT:42:GLN:HA	2.33	0.43
3:CC:83:ARG:C	3:CC:85:ARG:H	2.22	0.43
20:AT:41:ILE:HG13	20:AT:42:GLN:N	2.34	0.43
3:AC:83:ARG:C	3:AC:85:ARG:H	2.22	0.43
49:BQ:55:VAL:HG12	49:BQ:64:ILE:HD12	2.00	0.43
1:CA:503:C:C6	1:CA:504:C:H5	2.36	0.43
24:CY:140:TYR:OH	24:CY:187:HIS:NE2	2.46	0.43
39:DE:67:PHE:O	39:DE:70:ALA:CB	2.66	0.43
13:AM:66:LEU:O	13:AM:70:LEU:N	2.52	0.43
33:D8:30:ARG:NE	33:D8:30:ARG:HA	2.34	0.43
35:BA:178:G:O2'	35:BA:179:G:H5'	2.19	0.43
1:CA:142:G:H2'	1:CA:143:A:C8	2.54	0.43
51:DS:107:GLU:O	51:DS:108:GLY:C	2.57	0.43
35:DA:2052:G:O4'	39:DE:142:GLY:HA3	2.18	0.43
37:BC:46:ALA:HB1	37:BC:213:VAL:HG22	2.01	0.43
35:BA:1077:A:C2	35:BA:1088:A:H2'	2.53	0.43
24:CY:234:ALA:HB2	24:CY:247:SER:HG	1.82	0.43
38:DD:148:GLU:CB	38:DD:151:LYS:HD2	2.48	0.43
13:AM:58:GLU:C	13:AM:60:VAL:N	2.71	0.43
36:BB:94:C:O2'	36:BB:95:C:H5'	2.19	0.43
26:D1:3:LYS:HD2	35:DA:1364:G:OP2	2.17	0.43
2:AB:56:ARG:HG2	2:AB:56:ARG:HH11	1.84	0.43
1:CA:1429:C:H2'	1:CA:1430:C:C6	2.54	0.43
35:BA:2016:U:H2'	35:BA:2017:U:C6	2.54	0.43
35:DA:2223:G:O2'	35:DA:2224:G:H5'	2.18	0.43
35:DA:2689:U:H4'	35:DA:2690:C:H6	1.82	0.43
35:DA:637:A:N1	35:DA:652:C:H5'	2.34	0.43
35:BA:816:C:H2'	35:BA:817:C:H6	1.84	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:2461:C:H2'	35:DA:2462:U:H6	1.82	0.43
42:BH:26:VAL:HG11	42:BH:76:VAL:HA	2.00	0.43
1:CA:245:C:O2'	1:CA:246:A:H5'	2.18	0.43
42:DH:40:GLU:OE1	42:DH:61:HIS:NE2	2.51	0.43
2:CB:133:LYS:O	2:CB:137:ARG:HB2	2.19	0.43
35:BA:1480:G:C6	35:BA:1481:U:N3	2.86	0.43
2:AB:133:LYS:O	2:AB:137:ARG:HB2	2.18	0.43
35:BA:963:U:H2'	35:BA:964:C:C6	2.54	0.43
38:DD:89:SER:C	38:DD:159:ALA:HB2	2.39	0.43
4:CD:191:ARG:NE	4:CD:200:GLU:OE1	2.50	0.43
35:BA:2051:A:H5'	35:BA:2578:G:O4'	2.18	0.43
1:AA:291:C:O2'	1:AA:292:G:H5'	2.18	0.43
35:BA:553:G:O2'	35:BA:554:U:H5'	2.19	0.43
35:BA:2715:C:O2'	35:BA:2716:U:H5'	2.18	0.43
1:CA:276:G:C5	1:CA:277:C:C5	3.06	0.43
4:AD:153:ARG:HG2	4:AD:181:MET:SD	2.58	0.43
35:DA:1625:C:H2'	35:DA:1626:G:H5'	2.01	0.43
41:DG:55:LYS:C	41:DG:58:GLN:NE2	2.72	0.43
57:DY:6:HIS:HE1	57:DY:30:VAL:HG11	1.83	0.43
46:DN:74:ARG:NH2	46:DN:85:ILE:HD11	2.33	0.43
35:BA:412:A:H2'	35:BA:413:C:H5'	2.00	0.43
12:CL:54:LYS:N	12:CL:54:LYS:HD2	2.34	0.43
28:D3:3:ARG:H	28:D3:3:ARG:HG2	1.67	0.43
14:AN:13:THR:HG22	14:AN:13:THR:O	2.18	0.43
35:BA:1794:U:H2'	35:BA:1795:C:C6	2.53	0.43
31:D6:40:CYS:CB	31:D6:46:HIS:ND1	2.82	0.43
52:DT:78:LEU:HB3	52:DT:79:HIS:ND1	2.34	0.43
52:BT:90:GLN:HB3	52:BT:90:GLN:HE21	1.64	0.43
40:BF:116:ASP:OD1	40:BF:119:ARG:NH2	2.52	0.43
45:DK:92:GLY:HA3	58:DZ:112:ARG:HH22	1.84	0.43
57:BY:76:CYS:CB	57:BY:77:PRO:HD2	2.45	0.43
58:BZ:155:LEU:HD23	58:BZ:155:LEU:H	1.84	0.43
35:BA:1053:C:N4	35:BA:1107:G:N2	2.66	0.43
35:BA:158:U:H3'	35:BA:158:U:O2	2.19	0.43
35:BA:158:U:H2'	35:BA:158:U:O2	2.17	0.43
2:CB:77:ALA:O	2:CB:78:GLN:C	2.56	0.43
40:BF:133:ASN:N	40:BF:133:ASN:HD22	2.16	0.43
38:BD:112:GLN:O	38:BD:115:GLN:HB2	2.19	0.43
51:BS:15:ARG:C	51:BS:17:ARG:N	2.71	0.43
41:DG:47:LYS:HZ2	41:DG:81:LYS:HB2	1.84	0.43
51:DS:106:ARG:CZ	51:DS:106:ARG:HB3	2.46	0.43
22:AW:18:G:N1	22:AW:55:U:H1'	2.34	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:B4:15:ILE:HD13	29:B4:21:VAL:HG13	2.00	0.43
41:BG:102:PHE:C	41:BG:104:GLU:N	2.71	0.43
22:AW:77:PHA:CD2	35:BA:248:G:O3'	2.61	0.43
1:AA:1049:U:O2'	1:AA:1050:G:OP2	2.35	0.43
36:DB:48:A:H2'	36:DB:49:C:C6	2.54	0.43
35:DA:1539:G:H2'	35:DA:1540:U:C4'	2.48	0.43
35:BA:1348:G:C2'	35:BA:1349:A:C5'	2.91	0.43
35:BA:1541:G:H4'	35:BA:1542:A:O5'	2.18	0.43
48:BP:56:SER:O	48:BP:58:THR:N	2.52	0.43
45:BK:38:VAL:CG2	45:BK:39:LYS:N	2.82	0.43
1:AA:1134:G:N1	1:AA:1142:G:C6	2.87	0.43
46:DN:57:ALA:C	46:DN:58:ASP:O	2.57	0.43
35:BA:874:G:H1	35:BA:903:C:H42	1.65	0.43
35:BA:2476:A:C2	35:BA:2477:C:H6	2.36	0.43
9:AI:8:GLY:O	9:AI:14:VAL:HG13	2.19	0.43
26:B1:53:VAL:O	26:B1:54:ALA:HB3	2.18	0.43
9:AI:43:ALA:O	9:AI:45:ALA:N	2.44	0.43
48:BP:101:VAL:CB	48:BP:107:LYS:HA	2.36	0.43
35:DA:2680:C:H5'	39:DE:189:PRO:HA	2.00	0.43
37:DC:42:VAL:HG22	37:DC:217:THR:CG2	2.37	0.43
24:AY:71:GLY:O	24:AY:87:LEU:HD11	2.19	0.43
2:AB:142:LEU:HA	2:AB:145:LEU:CB	2.48	0.43
12:AL:93:LEU:O	12:AL:96:VAL:HG23	2.19	0.43
38:BD:35:LYS:CD	38:BD:35:LYS:O	2.67	0.43
38:DD:136:ILE:HA	38:DD:137:PRO:HD3	1.90	0.43
35:DA:528:A:H2	35:DA:2043:C:C5'	2.32	0.43
3:AC:40:ARG:O	3:AC:44:GLU:HB2	2.18	0.43
22:CW:36:A:H2'	22:CW:37:A:O4'	2.18	0.43
38:DD:239:ARG:NH2	38:DD:239:ARG:HG2	2.32	0.43
35:DA:1639:U:H2'	35:DA:1640:C:C5'	2.48	0.43
43:DI:72:LEU:CD1	43:DI:138:ILE:HD11	2.43	0.43
35:BA:629:G:H4'	35:BA:650:C:O2	2.19	0.43
35:BA:2787:C:H1'	39:BE:61:ARG:HD2	1.96	0.43
37:BC:57:GLN:HG3	37:BC:202:PRO:HB2	2.01	0.43
1:CA:1250:A:C2	1:CA:1370:G:H1'	2.54	0.43
1:AA:376:G:H5''	16:AP:5:ARG:HB2	2.00	0.43
13:CM:13:LYS:HA	13:CM:44:ARG:NH1	2.33	0.43
9:AI:118:LYS:HZ2	9:AI:118:LYS:CB	2.31	0.43
14:CN:4:LYS:HD3	14:CN:7:ILE:HD11	2.01	0.43
12:AL:88:GLY:O	12:AL:89:ARG:O	2.36	0.43
45:BK:122:ALA:CB	45:BK:125:ARG:HH21	2.32	0.43
43:BI:1:MET:N	43:BI:20:ASP:OD1	2.44	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BB:86:G:O2'	36:BB:87:G:H5'	2.19	0.43
3:AC:82:GLU:H	3:AC:82:GLU:CD	2.21	0.43
1:CA:1374:A:C5	1:CA:1375:A:N7	2.86	0.43
10:AJ:8:LEU:C	10:AJ:16:LEU:HD21	2.39	0.43
22:AV:20:U:C2'	22:AV:21:A:H4'	2.46	0.43
1:CA:32:A:H2'	1:CA:33:A:H8	1.81	0.43
35:DA:26:G:C6	35:DA:27:G:N1	2.87	0.43
1:CA:715:A:H2'	1:CA:716:A:C8	2.54	0.43
1:CA:186:C:H5'	20:CT:78:ALA:HB1	2.00	0.43
35:BA:2445:G:OP1	40:BF:74:ARG:NH2	2.52	0.43
49:DQ:109:VAL:HG13	49:DQ:113:GLN:OE1	2.17	0.43
39:DE:56:PRO:O	39:DE:57:LYS:O	2.36	0.43
1:AA:177:C:OP1	20:AT:65:LYS:HD3	2.19	0.43
35:DA:491:G:H2'	35:DA:492:A:H8	1.84	0.43
47:BO:2:ILE:HD11	47:BO:82:ASN:ND2	2.34	0.43
35:BA:562:U:C4	35:BA:2036:C:O4'	2.71	0.43
33:D8:23:VAL:HG12	33:D8:46:ARG:HH11	1.82	0.43
35:DA:1363:C:O2'	35:DA:1364:G:H5'	2.19	0.43
25:B0:51:VAL:HG22	25:B0:81:VAL:HG23	2.00	0.43
35:DA:1270:C:H5''	35:DA:1271:G:C5'	2.49	0.43
30:D5:6:VAL:HG13	30:D5:7:PRO:HD2	1.99	0.43
46:BN:34:LEU:O	46:BN:49:GLY:HA3	2.18	0.43
35:DA:346:A:C2'	35:DA:347:A:H5'	2.47	0.43
1:CA:9:G:H2'	1:CA:10:A:C8	2.53	0.43
1:AA:119:A:H4'	1:AA:120:A:O5'	2.19	0.43
41:BG:125:PHE:CD1	41:BG:125:PHE:N	2.86	0.43
55:BW:6:ILE:HG12	55:BW:104:THR:OG1	2.18	0.43
41:BG:58:GLN:NE2	41:BG:59:GLU:N	2.66	0.43
35:BA:2784:C:H4'	39:BE:41:LYS:O	2.17	0.43
35:BA:1579:A:H2'	35:BA:1580:A:O4'	2.19	0.43
35:DA:2267:A:H5''	35:DA:2268:A:C5'	2.48	0.43
36:BB:48:A:H2'	36:BB:49:C:C6	2.53	0.43
42:DH:105:LEU:H	42:DH:105:LEU:HD23	1.84	0.43
8:AH:1:MET:O	8:AH:2:LEU:O	2.37	0.43
35:DA:231:C:O2'	35:DA:232:G:H5'	2.18	0.43
7:CG:50:ILE:C	7:CG:52:GLU:N	2.72	0.43
35:DA:2143:C:C2'	35:DA:2144:U:H5'	2.48	0.43
53:DU:29:SER:O	53:DU:30:LYS:HD3	2.18	0.43
35:DA:2340:G:O2'	35:DA:2341:G:H5'	2.19	0.43
35:DA:794:G:H2'	35:DA:795:C:C6	2.54	0.43
1:CA:666:G:H5'	1:CA:726:C:H1'	1.99	0.43
50:BR:103:ARG:HH12	50:BR:110:PRO:HD3	1.83	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:AK:120:ARG:HA	11:AK:121:PRO:HD3	1.80	0.43
35:BA:2152:G:H2'	35:BA:2153:G:O4'	2.19	0.43
4:CD:153:ARG:HG2	4:CD:181:MET:SD	2.59	0.43
58:DZ:3:TYR:N	58:DZ:3:TYR:CD1	2.86	0.43
37:DC:28:ARG:CB	37:DC:28:ARG:NH1	2.81	0.43
35:BA:609:A:H2'	35:BA:610:G:O4'	2.19	0.43
33:B8:61:LEU:HD23	33:B8:61:LEU:H	1.84	0.43
35:DA:1503:U:C4	35:DA:1504:C:N4	2.87	0.43
45:DK:88:ALA:HB3	45:DK:134:MET:O	2.19	0.43
49:BQ:140:ALA:O	49:BQ:141:GLN:CB	2.64	0.43
48:DP:7:ARG:CA	48:DP:7:ARG:HH11	2.23	0.43
58:DZ:150:LEU:C	58:DZ:150:LEU:HD23	2.39	0.43
35:DA:1053:C:N4	35:DA:1107:G:N2	2.66	0.43
45:BK:95:LYS:HG3	45:BK:136:VAL:HA	2.00	0.43
24:AY:233:ARG:HB2	24:AY:233:ARG:HE	1.64	0.43
35:BA:2305:A:H2'	35:BA:2306:C:O4'	2.19	0.43
35:DA:2657:A:O2'	42:DH:160:LYS:HE2	2.18	0.43
52:BT:83:ILE:HD11	52:BT:84:GLN:HE21	1.82	0.43
38:DD:21:PHE:HB3	38:DD:24:ILE:HG21	1.99	0.43
52:BT:62:THR:HG22	52:BT:75:ILE:HG12	1.99	0.43
46:DN:128:HIS:HE1	46:DN:134:ARG:HH11	1.62	0.43
35:DA:2648:C:H2'	35:DA:2649:U:H6	1.83	0.43
35:BA:729:G:C5	38:BD:208:LYS:HB2	2.53	0.43
48:DP:101:VAL:HG13	48:DP:106:LEU:HD23	2.00	0.43
24:AY:305:ILE:O	24:AY:305:ILE:HG22	2.17	0.43
30:B5:36:CYS:SG	30:B5:48:GLU:O	2.76	0.43
35:DA:729:G:C5	38:DD:208:LYS:HB2	2.54	0.43
43:DI:75:LEU:O	43:DI:139:GLN:HB3	2.19	0.43
12:AL:27:LEU:HD12	12:AL:64:TYR:CE1	2.54	0.43
57:DY:62:GLU:OE1	57:DY:63:LYS:O	2.36	0.43
12:CL:32:PHE:HB3	12:CL:84:LEU:HD22	2.00	0.43
38:DD:30:GLU:CG	38:DD:63:ARG:NH2	2.82	0.43
2:CB:187:LEU:CD2	2:CB:201:ILE:O	2.64	0.43
35:BA:2134:A:H5''	35:BA:2156:G:H22	1.84	0.43
40:DF:125:LEU:HA	40:DF:194:MET:O	2.17	0.43
35:DA:1142:U:C5'	35:DA:1142(A):A:H5''	2.46	0.43
1:AA:1483:A:H1'	35:BA:1948:G:O4'	2.19	0.43
36:BB:56:G:H4'	36:BB:57:A:C8	2.54	0.43
24:CY:267:SER:OG	24:CY:270:LYS:HG3	2.19	0.43
58:BZ:71:VAL:HG22	58:BZ:88:PHE:HE2	1.84	0.43
27:D2:48:HIS:O	27:D2:52:ASP:CB	2.66	0.43
38:BD:136:ILE:HA	38:BD:137:PRO:HD3	1.92	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AG:113:GLU:HB2	7:AG:119:ARG:CG	2.48	0.43
7:CG:116:ALA:H	7:CG:118:VAL:HG22	1.84	0.43
1:AA:1327:C:H5''	21:AU:20:LYS:HB3	2.01	0.43
5:CE:144:THR:C	5:CE:146:ALA:N	2.72	0.43
25:B0:68:GLU:OE2	25:B0:82:ARG:HB2	2.19	0.43
57:BY:31:LEU:HD23	57:BY:36:ALA:C	2.39	0.43
48:BP:30:THR:HG22	48:BP:31:ALA:H	1.84	0.43
5:CE:73:ASN:ND2	5:CE:73:ASN:N	2.66	0.43
14:AN:21:TYR:OH	14:AN:23:ARG:NH2	2.51	0.43
31:D6:12:GLU:OE1	31:D6:52:VAL:HB	2.18	0.43
31:D6:35:GLU:HB3	31:D6:51:GLU:OE2	2.18	0.43
35:DA:2808:U:H5'	35:DA:2891:G:O6	2.19	0.43
24:CY:218:VAL:HG13	24:CY:218:VAL:O	2.19	0.43
3:AC:99:VAL:HG23	3:AC:99:VAL:O	2.18	0.43
13:CM:115:LYS:C	13:CM:117:VAL:N	2.69	0.43
1:AA:1062:U:H2'	1:AA:1063:C:C5	2.54	0.43
1:CA:1220:G:O3'	19:CS:36:ARG:HD3	2.19	0.43
1:CA:693:G:H2'	1:CA:694:A:O4'	2.18	0.43
49:BQ:130:LYS:HZ3	58:BZ:80:ARG:HD2	1.84	0.43
22:CV:12:U:C3'	22:CV:13:C:H5''	2.49	0.43
35:DA:2307:G:N3	35:DA:2307:G:H5''	2.34	0.43
11:CK:56:GLY:O	11:CK:89:ALA:HB3	2.19	0.43
22:CV:36:A:C2	23:CX:17:U:C2	3.06	0.43
35:BA:491:G:H2'	35:BA:492:A:C8	2.54	0.43
52:BT:78:LEU:O	52:BT:79:HIS:ND1	2.52	0.43
42:DH:109:PHE:C	42:DH:111:HIS:N	2.72	0.43
50:BR:65:LEU:HD12	50:BR:65:LEU:HA	1.89	0.43
1:CA:827:U:H2'	1:CA:870:U:O4	2.18	0.43
35:BA:1151:G:H5''	53:BU:81:HIS:CE1	2.54	0.43
35:BA:1518:U:H2'	35:BA:1519:G:O4'	2.17	0.43
11:CK:122:LYS:O	11:CK:126:ARG:HG3	2.19	0.43
48:BP:108:LYS:C	48:BP:110:TYR:N	2.72	0.43
46:DN:45:ASN:HD22	46:DN:45:ASN:N	2.15	0.43
1:AA:1280:A:H5'	10:AJ:40:LEU:HD22	2.00	0.43
35:BA:2784:C:H1'	39:BE:37:ARG:HH12	1.84	0.43
38:DD:3:VAL:HG12	38:DD:17:THR:HB	2.01	0.43
28:B3:1:MET:O	28:B3:2:PRO:C	2.56	0.43
35:BA:2688:U:H1'	35:BA:2721:A:N6	2.34	0.43
35:DA:494:G:N2	55:DW:57:ASN:HD21	2.17	0.43
35:BA:608:A:H2'	35:BA:609:A:C8	2.54	0.43
1:CA:240:C:H2'	1:CA:241:C:C6	2.54	0.43
21:AU:5:ASP:O	21:AU:11:GLY:HA3	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BI:3:VAL:HG12	43:BI:36:ALA:HB1	2.01	0.43
42:BH:105:LEU:HD23	42:BH:113:VAL:O	2.18	0.43
5:CE:84:PHE:CE2	5:CE:133:TYR:HD1	2.37	0.43
35:BA:1930:G:O2'	35:BA:1931:U:OP2	2.37	0.43
4:AD:191:ARG:NE	4:AD:200:GLU:OE1	2.49	0.43
54:BV:28:GLU:HB2	54:BV:31:ALA:HB2	2.00	0.43
40:DF:129:PHE:CZ	40:DF:156:LEU:HD11	2.53	0.43
35:DA:392:C:H5''	35:DA:409:C:H5''	2.00	0.43
37:DC:14:LYS:O	37:DC:15:VAL:HG13	2.18	0.43
35:DA:2593:U:H2'	35:DA:2594:C:C6	2.54	0.43
56:BX:57:LEU:HD22	56:BX:57:LEU:O	2.19	0.43
5:CE:64:ARG:HH11	5:CE:64:ARG:HG3	1.84	0.43
37:BC:28:ARG:CB	37:BC:28:ARG:NH1	2.81	0.43
57:BY:6:HIS:HE1	57:BY:30:VAL:HG11	1.83	0.43
35:DA:2320:A:C2	35:DA:2333:A:C8	3.07	0.43
54:BV:18:LEU:CG	54:BV:19:LYS:N	2.82	0.43
48:DP:66:GLY:O	48:DP:67:MET:CB	2.66	0.43
33:B8:61:LEU:CD2	33:B8:61:LEU:H	2.29	0.43
45:DK:72:PRO:HB2	45:DK:77:LEU:HD21	2.00	0.43
45:DK:95:LYS:HG3	45:DK:136:VAL:HA	2.00	0.43
57:BY:97:ARG:NH2	57:BY:98:VAL:CG2	2.81	0.43
2:CB:71:VAL:O	2:CB:164:VAL:HA	2.18	0.43
51:BS:18:ILE:C	51:BS:20:ARG:N	2.72	0.43
51:DS:26:LEU:HD23	51:DS:39:ILE:HG12	2.00	0.43
14:CN:24:CYS:SG	14:CN:40:CYS:N	2.85	0.43
3:CC:121:ALA:HB2	3:CC:198:VAL:CG2	2.45	0.43
39:DE:77:ILE:CG2	39:DE:78:LEU:N	2.62	0.43
4:CD:165:MET:HB3	4:CD:178:VAL:HG22	2.01	0.43
1:CA:1144:G:N2	1:CA:1146:A:H62	2.15	0.43
22:AV:76:8AN:H8	35:BA:2602:A:N1	2.33	0.43
20:AT:89:ARG:CZ	20:AT:104:LEU:HD21	2.49	0.43
24:CY:326:THR:OG1	24:CY:328:LEU:HD13	2.19	0.43
35:DA:902:C:H2'	35:DA:903:C:C6	2.54	0.43
52:BT:32:TYR:HD1	52:BT:33:LYS:H	1.60	0.43
29:D4:11:PRO:HA	29:D4:25:TYR:HA	2.01	0.43
5:AE:76:ILE:HG13	5:AE:142:LEU:CD1	2.47	0.43
24:CY:150:GLN:HB3	24:CY:172:LYS:HD3	2.01	0.43
11:AK:21:ILE:HA	11:AK:30:VAL:HG12	2.01	0.43
24:AY:345:ILE:O	24:AY:349:LEU:HG	2.19	0.43
48:BP:91:PHE:HZ	48:BP:100:LEU:CD2	2.32	0.43
22:AV:4:C:H2'	22:AV:5:G:C8	2.53	0.43
50:DR:7:GLY:CA	50:DR:8:ARG:HH21	2.23	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
57:BY:63:LYS:CG	57:BY:64:GLU:H	2.22	0.43
35:BA:1721:G:H2'	35:BA:1741:A:H61	1.83	0.43
4:CD:38:TYR:CD2	4:CD:45:GLN:HB3	2.53	0.43
1:CA:520:A:OP2	12:CL:51:ALA:HB1	2.18	0.43
18:CR:71:LYS:HA	18:CR:74:ARG:CD	2.48	0.43
38:BD:35:LYS:C	38:BD:37:LEU:N	2.72	0.43
35:BA:2148:G:O2'	35:BA:2149:G:H5'	2.18	0.43
43:BI:93:THR:O	43:BI:96:ASP:N	2.51	0.43
3:AC:52:LEU:CD2	3:AC:52:LEU:N	2.79	0.43
19:AS:11:VAL:CG1	19:AS:16:LEU:HD11	2.46	0.43
4:AD:46:LYS:O	4:AD:47:ARG:C	2.56	0.43
1:CA:389:A:H2'	1:CA:390:C:C5'	2.48	0.43
7:CG:100:ALA:C	7:CG:104:LEU:HD23	2.38	0.43
58:BZ:52:SER:OG	58:BZ:53:ILE:N	2.51	0.43
7:CG:15:ASP:OD1	7:CG:18:TYR:HB2	2.19	0.43
27:D2:47:ASN:OD1	35:DA:61:G:H1'	2.19	0.43
24:CY:78:GLU:O	24:CY:80:PRO:HD3	2.18	0.43
24:CY:85:GLU:HG2	24:CY:85:GLU:O	2.18	0.43
7:CG:113:GLU:HB2	7:CG:119:ARG:HG2	2.00	0.43
17:AQ:7:THR:HG22	17:AQ:58:GLU:HA	1.99	0.43
58:DZ:146:ILE:HG13	58:DZ:147:GLY:N	2.26	0.43
22:AW:8:U:C2'	22:AW:8:U:O2	2.60	0.43
3:CC:83:ARG:C	3:CC:85:ARG:N	2.72	0.43
37:DC:23:ILE:HG13	37:DC:229:SER:O	2.18	0.43
1:AA:1179:A:O2'	1:AA:1180:A:H5'	2.19	0.43
13:AM:66:LEU:N	13:AM:70:LEU:HD12	2.34	0.43
1:CA:1269:A:H2	1:CA:1312:G:N3	2.17	0.43
3:AC:155:GLY:O	3:AC:156:ARG:CB	2.66	0.43
50:DR:28:LEU:O	50:DR:29:LEU:C	2.57	0.43
43:DI:102:SER:HA	43:DI:107:VAL:H	1.84	0.43
40:DF:160:ASN:ND2	40:DF:160:ASN:C	2.72	0.43
35:DA:1188:U:C4'	54:DV:79:VAL:HG22	2.47	0.43
1:AA:986:A:H2'	1:AA:987:G:H8	1.81	0.43
35:BA:721:C:O2	35:BA:721:C:H2'	2.18	0.43
58:BZ:9:TYR:HD2	58:BZ:37:VAL:HG12	1.84	0.43
35:BA:1077:A:C2'	35:BA:1078:U:H5'	2.48	0.43
1:AA:1020:U:H2'	1:AA:1021:G:C8	2.54	0.43
12:CL:82:VAL:O	12:CL:83:VAL:HG23	2.19	0.43
49:BQ:118:LEU:CD1	49:BQ:131:ILE:HG23	2.48	0.43
4:AD:98:GLU:O	4:AD:100:ARG:N	2.52	0.43
49:BQ:136:ALA:C	49:BQ:138:ASP:N	2.70	0.43
8:CH:12:ARG:NH1	8:CH:27:PRO:CD	2.80	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BN:62:VAL:HG22	46:BN:66:LYS:HB2	2.00	0.43
58:DZ:105:VAL:O	58:DZ:105:VAL:HG13	2.18	0.43
35:BA:2033:A:H2'	35:BA:2035:G:OP2	2.19	0.43
4:AD:194:LEU:N	4:AD:194:LEU:HD22	2.34	0.43
35:DA:2373:G:H2'	35:DA:2374:C:C6	2.54	0.43
17:AQ:22:LEU:HD11	17:AQ:39:SER:HB2	2.01	0.43
1:CA:1402:C:H2'	1:CA:1403:C:O4'	2.19	0.43
26:B1:26:ARG:HG3	26:B1:26:ARG:NH1	2.33	0.43
35:BA:813:U:H2'	35:BA:814:C:C6	2.53	0.43
35:DA:1625:C:C2'	35:DA:1626:G:H5'	2.49	0.43
49:BQ:39:PRO:O	49:BQ:40:ALA:HB2	2.19	0.43
35:DA:1323:U:H2'	35:DA:1324:G:H5'	2.00	0.43
35:DA:2877:G:O2'	35:DA:2878:U:H5'	2.18	0.43
37:BC:14:LYS:O	37:BC:15:VAL:HG13	2.19	0.43
35:BA:911:A:H2'	49:BQ:9:TYR:OH	2.19	0.43
1:CA:278:G:OP2	17:CQ:41:LYS:HE2	2.18	0.43
7:AG:67:GLU:HA	7:AG:67:GLU:OE2	2.18	0.43
35:BA:845:G:H8	35:BA:845:G:OP2	2.02	0.43
48:DP:84:ASN:HD22	48:DP:84:ASN:N	2.16	0.43
35:DA:1914:C:H2'	35:DA:1915:U:H5'	2.01	0.43
57:BY:7:VAL:CB	57:BY:8:LYS:HZ1	2.32	0.43
40:BF:22:ALA:HB1	40:BF:26:ALA:CB	2.49	0.43
33:D8:62:LEU:C	33:D8:64:TYR:N	2.72	0.43
42:BH:24:VAL:CG1	42:BH:24:VAL:O	2.66	0.43
41:DG:46:ALA:HA	41:DG:53:LEU:HG	2.00	0.43
45:BK:88:ALA:HB3	45:BK:134:MET:O	2.19	0.43
38:BD:24:ILE:CD1	38:BD:25:THR:N	2.80	0.43
24:CY:283:LEU:C	24:CY:285:GLU:H	2.21	0.43
6:CF:3:ARG:NH1	6:CF:38:GLU:OE1	2.51	0.43
10:CJ:49:VAL:HG23	14:CN:41:ARG:HD3	2.00	0.43
52:DT:28:VAL:HG11	52:DT:46:GLU:CD	2.38	0.43
1:AA:227:G:O2'	1:AA:228:A:H5'	2.19	0.43
56:BX:34:ALA:HA	56:BX:38:GLU:OE1	2.19	0.43
35:DA:1826:G:H2'	35:DA:1827:C:H6	1.84	0.43
1:CA:1475:G:OP1	35:DA:1689:A:H1'	2.18	0.43
35:BA:272(H):C:N4	35:BA:363(A):A:H61	2.17	0.43
22:CV:29:G:H1	22:CV:41:C:H42	1.66	0.43
35:BA:2564:A:OP1	35:BA:2648:C:H4'	2.19	0.43
1:CA:192:U:H4'	20:CT:57:ARG:HD2	2.01	0.43
24:CY:341:LEU:HA	24:CY:344:LEU:HD21	2.01	0.43
29:D4:15:ILE:HA	29:D4:21:VAL:HG22	2.01	0.43
58:BZ:135:GLU:O	58:BZ:137:ILE:N	2.52	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CJ:3:LYS:N	10:CJ:74:ILE:O	2.51	0.43
35:DA:887:A:H1'	35:DA:889:C:C4	2.52	0.43
1:AA:418:C:H2'	1:AA:419:C:C6	2.52	0.43
1:CA:1152:A:OP1	10:CJ:68:HIS:CD2	2.71	0.43
9:AI:40:LEU:C	9:AI:42:ARG:N	2.71	0.43
35:BA:625:G:O6	48:BP:107:LYS:HD3	2.18	0.43
38:DD:9:TYR:CZ	38:DD:13:ARG:HD3	2.53	0.43
39:BE:51:PHE:CE1	39:BE:52:LEU:HD22	2.53	0.43
54:DV:6:LYS:HB3	54:DV:37:VAL:HG11	1.97	0.43
54:DV:1:MET:HB3	54:DV:99:ILE:HG13	2.01	0.43
2:CB:43:ASP:O	2:CB:46:LYS:HB2	2.19	0.43
1:CA:522:C:O2'	1:CA:523:A:H5'	2.18	0.43
1:AA:993:G:N3	1:AA:993:G:H2'	2.33	0.43
38:DD:181:GLU:OE2	38:DD:270:ILE:HG22	2.19	0.43
47:DO:122:LEU:CD2	52:DT:43:GLN:NE2	2.81	0.43
42:DH:92:ILE:O	42:DH:94:TYR:N	2.51	0.43
12:AL:48:PRO:C	12:AL:49:ASN:HD22	2.22	0.43
35:DA:92:A:H3'	35:DA:93:G:C8	2.51	0.43
35:BA:271(A):A:H1'	35:BA:365:C:O4'	2.19	0.43
33:B8:33:ASN:O	35:BA:2420:C:P	2.76	0.43
24:CY:72:LEU:HD13	24:CY:91:LEU:CG	2.48	0.43
24:AY:251:VAL:HG11	24:AY:276:LEU:HD23	2.01	0.43
1:AA:393:A:C2	1:AA:394:G:C8	3.07	0.43
2:CB:96:ARG:O	2:CB:98:LEU:N	2.52	0.43
16:CP:3:LYS:C	16:CP:4:ILE:HD12	2.39	0.43
14:CN:4:LYS:C	14:CN:6:LEU:H	2.22	0.43
48:DP:71:VAL:HG12	48:DP:72:PRO:HD3	1.98	0.43
3:CC:82:GLU:CD	3:CC:82:GLU:H	2.21	0.43
8:AH:119:LEU:HB2	8:AH:124:ALA:HB2	2.01	0.43
6:AF:45:LEU:HD23	6:AF:46:ARG:N	2.32	0.43
13:AM:80:ARG:HH22	19:AS:69:HIS:CE1	2.36	0.43
3:AC:156:ARG:CD	3:AC:194:GLY:HA3	2.48	0.43
3:AC:47:LEU:HD21	3:AC:68:VAL:CG1	2.48	0.43
3:CC:91:LEU:C	3:CC:93:LYS:N	2.71	0.43
50:BR:44:LEU:HD12	50:BR:114:VAL:HG11	2.01	0.43
14:AN:39:LEU:HD13	14:AN:47:LEU:HD12	2.01	0.43
42:DH:138:LYS:O	42:DH:139:GLN:C	2.55	0.43
42:DH:138:LYS:O	42:DH:141:VAL:N	2.52	0.43
36:BB:105:A:H2'	36:BB:106:G:O4'	2.19	0.43
30:D5:7:PRO:HA	35:DA:2615:U:C2	2.54	0.43
49:BQ:58:PHE:CD1	49:BQ:58:PHE:O	2.71	0.43
1:CA:9:G:O2'	1:CA:10:A:H5'	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:1231:G:H2'	35:DA:1232:G:H8	1.82	0.43
22:CW:21:A:N6	22:CW:46:G:C4	2.87	0.43
35:BA:1608:A:H1'	35:BA:1610:A:OP2	2.19	0.43
1:AA:19:C:H2'	1:AA:20:U:H6	1.84	0.43
7:CG:53:LYS:O	7:CG:54:THR:HB	2.19	0.43
8:CH:72:PRO:O	8:CH:73:ASP:HB3	2.19	0.43
41:DG:55:LYS:HA	41:DG:58:GLN:NE2	2.34	0.43
37:BC:28:ARG:HH11	37:BC:28:ARG:HB2	1.84	0.43
44:DJ:86:UNK:O	44:DJ:87:UNK:CB	2.66	0.43
29:D4:36:CYS:HB2	41:DG:108:ASN:O	2.19	0.43
3:AC:23:TYR:CG	3:AC:24:ALA:N	2.87	0.43
35:BA:912:C:O2'	35:BA:913:U:H5'	2.19	0.43
35:BA:565:C:H2'	35:BA:566:U:O4'	2.19	0.43
1:CA:572:A:N3	1:CA:917:G:H1'	2.34	0.43
35:BA:1668:A:H4'	35:BA:1669:A:O5'	2.19	0.43
39:DE:144:ARG:HB3	39:DE:145:LYS:H	1.49	0.43
15:AO:65:ARG:NH1	15:AO:65:ARG:HG2	2.33	0.43
24:CY:112:ALA:HA	24:CY:177:TYR:HB3	2.01	0.42
24:CY:304:PRO:O	24:CY:305:ILE:HB	2.19	0.42
54:BV:19:LYS:HZ3	54:BV:20:LEU:HB2	1.84	0.42
52:BT:48:ILE:HD12	52:BT:48:ILE:H	1.84	0.42
58:BZ:141:VAL:O	58:BZ:141:VAL:HG12	2.19	0.42
49:BQ:137:TYR:CZ	58:BZ:81:ARG:HD3	2.53	0.42
35:BA:1888:G:N3	35:BA:1888:G:H5'	2.34	0.42
41:BG:5:VAL:H	41:BG:8:LYS:CD	2.32	0.42
4:CD:18:LYS:HG3	4:CD:31:CYS:HB3	2.00	0.42
38:DD:23:GLU:O	38:DD:24:ILE:C	2.57	0.42
38:DD:83:GLU:OE1	38:DD:104:TYR:CE2	2.72	0.42
11:CK:116:HIS:O	11:CK:117:ASN:HB2	2.17	0.42
1:AA:409:G:H5'	4:AD:25:ARG:HB2	1.99	0.42
35:DA:1042:G:C2	35:DA:1043:C:H1'	2.54	0.42
1:CA:657:G:H4'	15:CO:28:GLN:HG2	2.01	0.42
35:BA:272(G):C:N4	35:BA:363(C):G:H1	2.17	0.42
35:BA:833:U:O2	48:BP:55:ARG:NH1	2.51	0.42
24:CY:27:LYS:HE3	24:CY:31:ARG:CZ	2.49	0.42
46:DN:118:LYS:O	46:DN:121:LYS:HE3	2.19	0.42
1:AA:253:U:H2'	1:AA:254:G:H8	1.84	0.42
12:CL:27:LEU:O	12:CL:28:LYS:HB3	2.19	0.42
48:BP:23:PRO:CB	48:BP:33:ARG:HG3	2.49	0.42
9:CI:17:VAL:HG22	9:CI:81:ILE:CD1	2.49	0.42
2:AB:46:LYS:HE3	2:AB:46:LYS:CA	2.47	0.42
35:BA:2132:U:H3	37:BC:6:LYS:HE2	1.84	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1400:C:H6	1:CA:1400:C:O5'	2.01	0.42
1:CA:1320:C:C4	1:CA:1321:C:C4	3.07	0.42
38:BD:35:LYS:HZ1	38:BD:35:LYS:HB3	1.84	0.42
1:AA:1293:G:O2'	1:AA:1294:G:P	2.78	0.42
43:BI:26:ALA:HA	43:BI:30:LEU:HB2	2.00	0.42
24:AY:336:VAL:HG13	24:AY:341:LEU:HD23	2.01	0.42
48:DP:18:ARG:CB	48:DP:18:ARG:NH1	2.74	0.42
22:AW:47:U:O2'	22:AW:48:C:C5'	2.61	0.42
21:CU:2:GLY:C	21:CU:4:GLY:N	2.71	0.42
26:B1:66:HIS:O	26:B1:67:ILE:C	2.57	0.42
22:AW:53:G:C2	22:AW:62:C:C4	3.07	0.42
16:AP:4:ILE:N	16:AP:4:ILE:HD12	2.34	0.42
31:D6:25:LYS:HZ1	35:DA:2284:C:N4	2.17	0.42
8:CH:134:ILE:O	8:CH:135:CYS:HB3	2.18	0.42
16:AP:12:LYS:C	16:AP:14:ASN:H	2.23	0.42
1:AA:1353:G:O2'	1:AA:1354:C:H5'	2.19	0.42
1:AA:1250:A:H61	1:AA:1354:C:H1'	1.84	0.42
35:BA:2166:G:H2'	35:BA:2167:U:C6	2.54	0.42
21:AU:12:LYS:HB3	21:AU:22:ARG:HD2	2.01	0.42
49:DQ:55:VAL:CG2	49:DQ:56:ARG:N	2.80	0.42
7:CG:72:ARG:O	7:CG:91:VAL:HG23	2.18	0.42
35:DA:2473:U:C5	35:DA:2474:C:C6	3.07	0.42
41:BG:162:THR:HG22	41:BG:162:THR:O	2.19	0.42
6:AF:37:VAL:HG12	6:AF:38:GLU:N	2.34	0.42
6:AF:5:GLU:HB3	6:AF:62:TRP:HE1	1.82	0.42
8:AH:83:ILE:HG23	8:AH:83:ILE:O	2.19	0.42
1:CA:355:C:C4	1:CA:356:A:N7	2.87	0.42
1:AA:197:A:C6	1:AA:221:C:H5'	2.54	0.42
37:BC:180:SER:O	37:BC:181:PHE:C	2.57	0.42
32:D7:9:ARG:NH2	35:DA:1310:G:OP2	2.48	0.42
38:BD:117:VAL:HG13	38:BD:128:GLY:O	2.19	0.42
18:CR:53:ARG:C	18:CR:55:ARG:N	2.72	0.42
26:D1:3:LYS:HG2	26:D1:4:VAL:HG12	2.01	0.42
3:AC:148:GLY:HA2	3:AC:172:ARG:H	1.84	0.42
49:BQ:21:THR:HG21	49:BQ:101:ARG:CD	2.48	0.42
3:AC:138:VAL:CG2	3:AC:151:VAL:HG23	2.49	0.42
4:CD:73:ARG:NH1	4:CD:73:ARG:HG2	2.34	0.42
8:AH:29:SER:HB3	8:AH:32:LYS:HB2	2.01	0.42
39:BE:14:ILE:CG1	39:BE:21:VAL:HG23	2.49	0.42
56:BX:44:GLU:O	56:BX:48:LYS:HA	2.19	0.42
22:AV:66:U:H2'	22:AV:67:C:H6	1.83	0.42
1:AA:341:C:O2'	1:AA:342:C:H5'	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:580:C:H2'	35:DA:581:C:C6	2.54	0.42
35:BA:442:G:O4'	40:BF:46:ARG:HG2	2.19	0.42
35:DA:1794:U:H2'	35:DA:1795:C:C6	2.54	0.42
1:AA:1109:C:C2'	1:AA:1110:A:H5'	2.49	0.42
35:DA:225:A:N6	35:DA:226:G:C2	2.87	0.42
40:BF:206:ILE:HG22	40:BF:207:GLY:N	2.33	0.42
35:DA:2533:A:C2'	35:DA:2534:A:H5'	2.49	0.42
46:BN:40:PRO:HB3	53:BU:68:ALA:HB2	2.00	0.42
46:BN:74:ARG:NH2	46:BN:85:ILE:HD11	2.34	0.42
35:BA:271(J):C:H2'	35:BA:271(K):U:H5''	2.00	0.42
35:BA:2027:G:O2'	35:BA:2028:U:H5'	2.19	0.42
35:BA:2593:U:H2'	35:BA:2594:C:C6	2.53	0.42
35:DA:1668:A:H4'	35:DA:1669:A:O5'	2.19	0.42
27:B2:56:GLN:O	27:B2:60:LEU:HG	2.19	0.42
35:BA:2179:C:O2	35:BA:2181:G:O6	2.37	0.42
3:CC:69:HIS:CD2	3:CC:69:HIS:N	2.85	0.42
2:CB:193:ASP:O	2:CB:193:ASP:OD2	2.37	0.42
44:BJ:130:UNK:C	44:BJ:132:UNK:N	2.79	0.42
42:BH:20:ALA:HB1	42:BH:21:PRO:HD2	2.01	0.42
24:AY:38:LEU:HD21	24:AY:48:VAL:HG21	2.01	0.42
30:B5:51:TYR:CD2	30:B5:52:TYR:OH	2.71	0.42
57:BY:7:VAL:CB	57:BY:8:LYS:NZ	2.82	0.42
54:DV:18:LEU:CG	54:DV:19:LYS:N	2.82	0.42
4:AD:145:GLU:HG2	4:AD:184:LYS:NZ	2.34	0.42
2:AB:97:TRP:CH2	2:AB:176:GLU:OE2	2.72	0.42
30:D5:51:TYR:HD2	30:D5:52:TYR:CE1	2.36	0.42
51:DS:12:PHE:O	51:DS:13:ARG:C	2.57	0.42
41:DG:109:VAL:C	41:DG:112:PRO:HD2	2.38	0.42
45:BK:110:GLN:HE21	45:BK:110:GLN:HB3	1.57	0.42
45:BK:54:PRO:HD3	45:BK:72:PRO:HA	2.01	0.42
58:BZ:42:VAL:HG22	58:BZ:43:GLU:N	2.33	0.42
48:BP:125:VAL:CG2	48:BP:125:VAL:O	2.68	0.42
41:BG:38:VAL:HG12	41:BG:39:ILE:N	2.34	0.42
6:CF:30:LEU:CD2	6:CF:30:LEU:H	2.04	0.42
6:CF:3:ARG:NH1	6:CF:3:ARG:HG3	2.30	0.42
6:CF:5:GLU:HB3	6:CF:62:TRP:HE1	1.84	0.42
39:DE:54:GLN:O	39:DE:75:VAL:HG23	2.19	0.42
35:BA:1349:A:N6	35:BA:1598:C:N4	2.66	0.42
43:BI:130:TYR:O	43:BI:131:LYS:CG	2.67	0.42
27:D2:43:GLN:O	27:D2:44:LEU:C	2.58	0.42
3:CC:71:ALA:HA	3:CC:106:VAL:H	1.83	0.42
34:B9:4:ARG:HD2	34:B9:34:GLN:HE21	1.84	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BN:134:ARG:H	46:BN:135:PRO:HD3	1.84	0.42
39:DE:51:PHE:C	39:DE:74:PRO:HB3	2.40	0.42
30:B5:36:CYS:SG	30:B5:38:ALA:HB3	2.59	0.42
5:CE:41:VAL:HG21	5:CE:113:ALA:CB	2.49	0.42
3:CC:58:GLU:O	3:CC:59:ARG:CG	2.67	0.42
27:B2:4:SER:O	27:B2:7:ARG:CG	2.68	0.42
2:CB:43:ASP:OD2	2:CB:46:LYS:HD2	2.19	0.42
24:AY:290:LYS:HB2	24:AY:294:GLU:OE1	2.20	0.42
10:CJ:23:ILE:HG23	10:CJ:85:LEU:HD22	2.00	0.42
35:BA:2291:U:OP1	35:BA:2381:C:H5'	2.19	0.42
1:AA:522:C:O2'	1:AA:523:A:H5'	2.19	0.42
35:BA:2302:G:O2'	41:BG:128:ARG:HG2	2.19	0.42
28:D3:40:THR:O	28:D3:44:ARG:HG3	2.19	0.42
19:AS:22:LEU:CD1	19:AS:27:GLU:HB2	2.48	0.42
39:BE:61:ARG:HB3	39:BE:62:PRO:CD	2.49	0.42
33:B8:32:LEU:CB	33:B8:36:LYS:HZ2	2.32	0.42
20:CT:13:LEU:O	20:CT:17:ARG:HG3	2.18	0.42
16:AP:20:VAL:HG21	16:AP:32:TYR:CB	2.49	0.42
40:BF:83:PHE:O	40:BF:84:VAL:HB	2.19	0.42
3:CC:206:GLU:O	3:CC:207:VAL:C	2.57	0.42
25:D0:36:ILE:C	25:D0:36:ILE:HD12	2.40	0.42
1:AA:353:A:H2'	1:AA:354:G:OP2	2.19	0.42
48:BP:25:SER:C	48:BP:30:THR:HG23	2.39	0.42
48:BP:41:ARG:HA	48:BP:41:ARG:HE	1.83	0.42
7:AG:139:GLU:O	7:AG:143:ARG:N	2.50	0.42
35:BA:2713:A:H3'	35:BA:2714:G:C5'	2.49	0.42
37:BC:49:GLY:HA3	37:BC:211:ARG:HH12	1.85	0.42
49:BQ:109:VAL:HG13	49:BQ:113:GLN:OE1	2.19	0.42
1:CA:1249:C:H4'	9:CI:36:TYR:OH	2.18	0.42
5:AE:110:LEU:CD2	5:AE:139:LEU:HD21	2.49	0.42
1:CA:186:C:H4'	20:CT:82:SER:HB3	2.00	0.42
43:BI:40:THR:C	43:BI:42:SER:H	2.22	0.42
1:CA:692:U:C5	11:CK:26:ASN:ND2	2.87	0.42
14:CN:39:LEU:CD1	14:CN:47:LEU:HD12	2.49	0.42
35:BA:234:C:H2'	35:BA:235:U:C6	2.55	0.42
6:AF:78:GLU:OE2	6:AF:78:GLU:HA	2.19	0.42
35:BA:286:C:H2'	35:BA:287:C:H6	1.83	0.42
35:DA:1088:A:H2'	35:DA:1088:A:N3	2.33	0.42
1:AA:542:G:H2'	1:AA:543:C:H6	1.83	0.42
4:AD:10:ARG:HG2	4:AD:10:ARG:O	2.18	0.42
1:AA:1281:U:H5'	1:AA:1282:C:H5	1.84	0.42
58:DZ:103:ARG:HB2	58:DZ:136:PHE:HB2	2.00	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CM:100:GLY:C	13:CM:101:GLN:HG3	2.40	0.42
34:D9:17:ILE:HG21	34:D9:19:ARG:HE	1.83	0.42
35:BA:80:G:C2'	35:BA:81:G:H5'	2.49	0.42
35:BA:898:C:O2'	35:BA:899:A:H5'	2.19	0.42
35:BA:898:C:H2'	35:BA:899:A:H5'	2.00	0.42
11:AK:88:GLY:C	11:AK:90:GLY:H	2.23	0.42
38:BD:28:GLU:HB2	38:BD:29:PRO:CD	2.48	0.42
37:BC:193:PHE:O	37:BC:197:LEU:HG	2.19	0.42
1:CA:560:U:H5'	1:CA:566:G:N2	2.34	0.42
48:DP:108:LYS:C	48:DP:110:TYR:N	2.72	0.42
12:AL:7:ILE:HD12	12:AL:7:ILE:HA	1.94	0.42
20:AT:73:HIS:O	20:AT:76:ALA:HB3	2.18	0.42
35:BA:1861:G:O2'	35:BA:1862:G:H5'	2.19	0.42
38:DD:158:ALA:HB3	38:DD:161:THR:CG2	2.49	0.42
42:BH:37:VAL:CG1	42:BH:38:SER:N	2.82	0.42
46:DN:51:PHE:CZ	46:DN:119:ARG:HD2	2.54	0.42
41:BG:167:GLU:C	41:BG:169:ALA:N	2.70	0.42
37:DC:204:GLY:O	37:DC:206:LYS:N	2.52	0.42
9:AI:99:LEU:HB3	9:AI:101:PHE:CE1	2.54	0.42
1:AA:52:G:O2'	1:AA:53:A:H5'	2.20	0.42
8:CH:1:MET:O	8:CH:2:LEU:O	2.36	0.42
44:DJ:10:UNK:C	44:DJ:12:UNK:N	2.81	0.42
35:DA:1354:A:H2'	35:DA:1355:G:O4'	2.18	0.42
35:BA:1499:C:C2'	35:BA:1500:G:H5'	2.49	0.42
42:BH:147:ASN:O	42:BH:150:ALA:HB3	2.19	0.42
26:B1:77:ALA:O	26:B1:78:LYS:C	2.57	0.42
35:BA:2340:G:O2'	35:BA:2341:G:H5'	2.19	0.42
2:AB:41:ILE:HD12	2:AB:41:ILE:N	2.34	0.42
7:CG:67:GLU:HA	7:CG:67:GLU:OE2	2.18	0.42
10:CJ:88:LEU:O	10:CJ:88:LEU:HG	2.20	0.42
37:BC:226:ASN:C	37:BC:228:HIS:H	2.21	0.42
35:DA:680:G:H2'	35:DA:681:G:C8	2.54	0.42
57:DY:10:GLY:O	57:DY:27:VAL:HG22	2.18	0.42
33:B8:62:LEU:O	33:B8:64:TYR:N	2.52	0.42
58:DZ:165:VAL:CG1	58:DZ:168:GLU:H	2.32	0.42
2:AB:168:THR:O	2:AB:171:ALA:N	2.53	0.42
38:BD:107:ALA:O	38:BD:196:VAL:O	2.37	0.42
22:CW:49:C:H2'	22:CW:50:U:H5'	2.00	0.42
35:DA:2313:C:H2'	35:DA:2314:C:H6	1.84	0.42
45:BK:104:VAL:O	45:BK:104:VAL:HG12	2.18	0.42
52:BT:129:ARG:CG	52:BT:129:ARG:O	2.65	0.42
10:AJ:50:ILE:HD11	14:AN:41:ARG:HH11	1.83	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:49:VAL:CG2	10:AJ:50:ILE:N	2.82	0.42
35:BA:654(U):A:H5''	35:BA:654(V):A:OP2	2.18	0.42
52:DT:91:ARG:O	52:DT:93:ARG:N	2.52	0.42
54:BV:39:LEU:O	54:BV:40:LEU:HB3	2.19	0.42
46:DN:4:TYR:OH	53:DU:61:TRP:NE1	2.39	0.42
26:D1:20:ARG:HA	26:D1:33:LYS:O	2.19	0.42
38:DD:24:ILE:HD13	38:DD:24:ILE:C	2.39	0.42
35:DA:1040:C:O2'	35:DA:1041:C:P	2.77	0.42
35:DA:1042:G:H1'	35:DA:1114:G:N2	2.34	0.42
51:DS:46:VAL:HG12	51:DS:47:THR:N	2.35	0.42
35:BA:874:G:H5'	58:BZ:118:GLN:HE22	1.84	0.42
1:AA:1505:G:H4'	1:AA:1506:U:C5'	2.48	0.42
1:CA:424:G:O2'	1:CA:425:G:H5'	2.20	0.42
9:AI:81:ILE:HG22	9:AI:81:ILE:O	2.18	0.42
39:BE:167:VAL:CG1	39:BE:189:PRO:HD3	2.49	0.42
35:DA:2476:A:C2	35:DA:2477:C:H6	2.35	0.42
19:CS:21:GLU:HG3	19:CS:22:LEU:HD22	2.02	0.42
19:AS:21:GLU:HG3	19:AS:22:LEU:HD22	2.01	0.42
12:AL:47:LYS:C	12:AL:49:ASN:H	2.21	0.42
11:CK:44:SER:H	11:CK:47:VAL:CG2	2.32	0.42
36:DB:90:A:N7	36:DB:91:C:H1'	2.34	0.42
2:AB:98:LEU:HB2	2:AB:101:MET:CE	2.50	0.42
12:CL:22:SER:C	12:CL:24:VAL:N	2.72	0.42
9:CI:118:LYS:CB	9:CI:118:LYS:HZ2	2.32	0.42
35:DA:2364:C:H2'	35:DA:2365:G:O4'	2.19	0.42
52:DT:57:PHE:C	52:DT:58:ASN:HD22	2.22	0.42
46:BN:21:LYS:HD3	46:BN:26:LEU:HB2	2.00	0.42
24:AY:319:ASN:HA	24:AY:333:PRO:HG3	2.01	0.42
20:AT:42:GLN:NE2	20:AT:42:GLN:HA	2.34	0.42
3:AC:83:ARG:C	3:AC:85:ARG:N	2.72	0.42
1:AA:1250:A:C2	1:AA:1370:G:H1'	2.54	0.42
1:CA:321:A:H62	1:CA:328:C:HO2'	1.64	0.42
49:BQ:59:ARG:O	49:BQ:59:ARG:HD3	2.19	0.42
10:CJ:8:LEU:HD23	10:CJ:96:ILE:HG21	2.00	0.42
50:BR:9:LYS:HE3	50:BR:9:LYS:HB2	1.83	0.42
19:CS:64:GLU:O	19:CS:65:ASN:C	2.58	0.42
1:AA:1055:A:H2	3:AC:194:GLY:CA	2.31	0.42
50:DR:9:LYS:HB3	50:DR:43:GLU:CD	2.39	0.42
49:BQ:109:VAL:CG1	49:BQ:113:GLN:CB	2.95	0.42
38:DD:211:ARG:O	38:DD:215:LEU:HG	2.19	0.42
1:CA:805:C:O2'	1:CA:806:C:H5'	2.19	0.42
19:CS:12:ASP:HB3	19:CS:14:HIS:CE1	2.54	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:CE:40:ARG:HG2	5:CE:40:ARG:NH1	2.31	0.42
4:CD:88:VAL:HG13	5:CE:97:GLY:CA	2.49	0.42
4:CD:175:SER:CB	4:CD:186:LEU:HD11	2.44	0.42
1:AA:693:G:H2'	1:AA:694:A:O4'	2.19	0.42
42:BH:138:LYS:C	42:BH:140:LYS:N	2.66	0.42
4:CD:3:ARG:O	4:CD:4:TYR:C	2.58	0.42
1:CA:197:A:C6	1:CA:221:C:H5'	2.54	0.42
35:DA:2762:G:H2'	35:DA:2763:G:C5'	2.49	0.42
1:CA:148:G:H1	1:CA:174:C:H42	1.66	0.42
49:DQ:21:THR:O	49:DQ:22:LYS:CB	2.63	0.42
52:BT:76:PHE:HA	52:BT:77:PRO:HD3	1.74	0.42
22:CV:19:G:H21	41:DG:78:SER:HB2	1.85	0.42
13:CM:58:GLU:O	13:CM:60:VAL:N	2.52	0.42
30:B5:43:HIS:HD2	35:BA:2815:C:O2'	1.99	0.42
1:CA:745:C:H1'	1:CA:836:G:O2'	2.19	0.42
1:AA:745:C:H1'	1:AA:836:G:O2'	2.19	0.42
35:BA:1996:C:H4'	35:BA:1997:G:OP1	2.19	0.42
24:AY:177:TYR:CZ	24:AY:212:PRO:HD3	2.54	0.42
58:DZ:143:GLY:O	58:DZ:144:LEU:HD22	2.19	0.42
3:AC:29:TYR:CE1	10:AJ:65:LEU:HD21	2.54	0.42
27:B2:33:MET:O	27:B2:36:ARG:HB2	2.18	0.42
35:DA:1861:G:O2'	35:DA:1862:G:H5'	2.19	0.42
35:BA:1525:G:H2'	35:BA:1526:G:C8	2.54	0.42
5:AE:57:LYS:HA	5:AE:60:TYR:HB3	2.00	0.42
42:DH:143:GLN:HE21	42:DH:143:GLN:C	2.22	0.42
35:BA:1499:C:H2'	35:BA:1500:G:H5'	2.01	0.42
1:AA:188:C:H2'	1:AA:189:G:H8	1.85	0.42
27:D2:59:ARG:HD3	35:DA:76:C:O3'	2.19	0.42
38:BD:230:ASP:O	38:BD:231:HIS:HB2	2.18	0.42
35:DA:223:A:O2'	35:DA:420:C:O2	2.37	0.42
35:BA:2709:G:O2'	35:BA:2710:C:H5'	2.19	0.42
35:DA:1153:C:H2'	35:DA:1154:G:O4'	2.19	0.42
7:AG:92:SER:O	7:AG:93:PRO:C	2.57	0.42
35:DA:2734:A:H5'	35:DA:2735:G:OP2	2.20	0.42
1:CA:188:C:H2'	1:CA:189:G:H8	1.85	0.42
35:DA:2567:G:H2'	35:DA:2568:C:C6	2.55	0.42
35:DA:438:G:O2'	35:DA:440:G:H5'	2.19	0.42
35:BA:2320:A:C2	35:BA:2333:A:C8	3.07	0.42
4:CD:104:VAL:O	4:CD:104:VAL:HG12	2.19	0.42
58:BZ:6:LYS:NZ	58:BZ:6:LYS:HB2	2.35	0.42
7:AG:9:VAL:O	7:AG:10:ARG:C	2.57	0.42
24:AY:118:LEU:HD23	24:AY:210:VAL:HG22	2.00	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:BT:91:ARG:HG2	52:BT:116:ALA:HA	2.01	0.42
40:BF:187:VAL:CG1	40:BF:187:VAL:O	2.67	0.42
33:B8:4:MET:HE2	35:BA:593:G:O4'	2.18	0.42
38:DD:52:ARG:HB2	38:DD:53:PHE:CD2	2.55	0.42
13:AM:88:ARG:HG2	13:AM:88:ARG:HH11	1.84	0.42
58:DZ:165:VAL:CG1	58:DZ:169:GLU:H	2.33	0.42
37:DC:57:GLN:HG3	37:DC:202:PRO:HB2	2.01	0.42
45:BK:135:GLY:O	45:BK:136:VAL:C	2.57	0.42
35:DA:1784:A:H4'	35:DA:1785:A:O5'	2.19	0.42
35:DA:654(U):A:H5''	35:DA:654(V):A:OP2	2.18	0.42
41:BG:107:LEU:HA	41:BG:111:LEU:CD1	2.49	0.42
41:BG:111:LEU:HA	41:BG:114:ILE:HD11	1.98	0.42
52:DT:125:ARG:O	52:DT:128:GLU:CG	2.65	0.42
43:DI:88:ILE:HD11	43:DI:122:GLU:O	2.18	0.42
35:BA:654(U):A:N7	35:BA:654(V):A:N6	2.68	0.42
1:CA:1442(B):A:H2'	52:DT:118:ARG:HH12	1.80	0.42
53:BU:91:ASP:O	53:BU:92:ARG:C	2.57	0.42
53:BU:88:ILE:CG2	54:BV:47:VAL:HG23	2.43	0.42
54:DV:38:LEU:O	54:DV:51:VAL:HG13	2.20	0.42
24:AY:30:GLU:HA	24:AY:33:LEU:CD1	2.49	0.42
43:DI:112:LYS:CD	43:DI:112:LYS:H	2.04	0.42
24:CY:345:ILE:O	24:CY:348:GLY:N	2.52	0.42
33:D8:59:LYS:CD	48:DP:50:ARG:HB3	2.46	0.42
29:D4:31:ILE:HG22	29:D4:32:TYR:N	2.34	0.42
41:DG:6:ALA:HB3	41:DG:104:GLU:OE2	2.20	0.42
9:AI:63:ILE:HD13	9:AI:77:ILE:CG2	2.49	0.42
9:CI:8:GLY:O	9:CI:14:VAL:HG13	2.19	0.42
54:BV:1:MET:HA	54:BV:1:MET:CE	2.49	0.42
26:D1:53:VAL:HG22	26:D1:74:VAL:HG13	2.00	0.42
38:DD:33:LEU:C	38:DD:33:LEU:HD23	2.40	0.42
38:DD:35:LYS:CG	38:DD:63:ARG:HD2	2.42	0.42
2:CB:47:THR:O	2:CB:50:GLU:HB2	2.20	0.42
35:DA:1021:A:OP2	46:DN:65:LYS:NZ	2.50	0.42
18:AR:66:LEU:O	18:AR:70:ILE:HG13	2.18	0.42
24:AY:312:ARG:CZ	24:AY:312:ARG:HB2	2.49	0.42
35:BA:1403:C:H5''	35:BA:1471:A:C1'	2.40	0.42
35:BA:152:G:H2'	35:BA:153:C:C6	2.55	0.42
4:CD:46:LYS:O	4:CD:47:ARG:C	2.58	0.42
35:BA:648:G:O4'	35:BA:2351:G:H5''	2.19	0.42
16:CP:12:LYS:C	16:CP:14:ASN:H	2.22	0.42
1:AA:1357:A:N6	1:AA:1363(A):A:H2	2.17	0.42
27:D2:8:LYS:O	27:D2:9:GLN:C	2.58	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1055:A:H2	3:CC:194:GLY:CA	2.32	0.42
36:DB:86:G:O2'	36:DB:87:G:H5'	2.20	0.42
13:AM:48:LEU:HG	13:AM:53:VAL:CG2	2.50	0.42
2:AB:187:LEU:HA	2:AB:201:ILE:O	2.18	0.42
43:DI:40:THR:HG23	43:DI:43:ASN:ND2	2.34	0.42
35:BA:2125:G:H21	35:BA:2173:A:H62	1.68	0.42
35:BA:389:G:H1	48:BP:71:VAL:HG12	1.84	0.42
55:DW:18:ARG:CG	55:DW:76:VAL:CG1	2.95	0.42
5:CE:139:LEU:C	5:CE:141:GLN:H	2.21	0.42
35:DA:719:C:H2'	35:DA:720:C:H6	1.84	0.42
2:CB:213:LEU:C	2:CB:213:LEU:HD23	2.40	0.42
35:BA:1188:U:C4'	54:BV:79:VAL:HG22	2.47	0.42
35:DA:2124:G:H5''	37:DC:175:PRO:HG3	2.00	0.42
25:D0:51:VAL:HG22	25:D0:81:VAL:HG23	1.99	0.42
4:AD:206:PHE:CD2	4:AD:207:TYR:CE2	3.08	0.42
38:BD:166:GLN:HA	38:BD:166:GLN:NE2	2.34	0.42
49:BQ:21:THR:CG2	49:BQ:101:ARG:HD3	2.49	0.42
1:CA:676:A:O2'	1:CA:677:U:H5'	2.20	0.42
54:BV:21:ARG:HG2	54:BV:91:TYR:CG	2.55	0.42
13:CM:58:GLU:C	13:CM:60:VAL:N	2.72	0.42
34:D9:18:ARG:NE	35:DA:1034:G:H5'	2.34	0.42
1:AA:448:A:P	1:AA:485:G:H22	2.43	0.42
35:DA:150:C:H2'	35:DA:151:C:C6	2.52	0.42
35:BA:1515:G:H2'	35:BA:1516:C:C6	2.54	0.42
43:BI:41:GLU:HA	43:BI:44:LEU:CB	2.50	0.42
1:CA:22:G:H4'	1:CA:885:G:C8	2.54	0.42
39:DE:37:ARG:O	39:DE:45:THR:HA	2.19	0.42
35:DA:962:G:C2'	35:DA:963:U:H5'	2.48	0.42
35:DA:963:U:H2'	35:DA:964:C:C6	2.55	0.42
1:AA:759:A:H2'	1:AA:760:G:H5'	2.01	0.42
35:DA:1480:G:C6	35:DA:1481:U:N3	2.88	0.42
1:CA:343:U:O2'	1:CA:344:A:H2'	2.19	0.42
35:BA:2768:C:C2'	35:BA:2769:C:H5'	2.50	0.42
37:DC:28:ARG:HB2	37:DC:28:ARG:HH11	1.84	0.42
39:BE:39:PRO:HA	39:BE:43:GLY:CA	2.50	0.42
8:AH:72:PRO:O	8:AH:73:ASP:HB3	2.19	0.42
32:D7:13:ALA:O	32:D7:17:GLY:HA3	2.19	0.42
44:DJ:16:UNK:O	44:DJ:17:UNK:CB	2.68	0.42
40:DF:206:ILE:HG22	40:DF:207:GLY:N	2.35	0.42
35:DA:1917:U:O2'	35:DA:1918:A:H5'	2.19	0.42
4:CD:171:GLY:HA2	4:CD:172:PRO:HD3	1.84	0.42
16:AP:82:GLN:OE1	16:AP:82:GLN:N	2.45	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BD:33:LEU:HD23	38:BD:33:LEU:C	2.39	0.42
50:DR:59:ASP:OD2	50:DR:59:ASP:N	2.51	0.42
54:DV:19:LYS:CG	54:DV:20:LEU:N	2.82	0.42
35:BA:1053:C:H2'	35:BA:1054:A:C8	2.54	0.42
1:AA:955:U:H2'	1:AA:956:U:O4'	2.20	0.42
42:DH:13:LYS:O	42:DH:15:VAL:HG22	2.18	0.42
51:BS:54:LEU:HD13	51:BS:58:LEU:H	1.84	0.42
48:DP:146:VAL:O	48:DP:148:LEU:N	2.52	0.42
41:DG:49:ASP:C	41:DG:51:ARG:N	2.73	0.42
41:DG:53:LEU:HD13	41:DG:53:LEU:HA	1.84	0.42
45:BK:99:ILE:HG23	45:BK:103:GLN:CG	2.50	0.42
45:BK:95:LYS:H	45:BK:95:LYS:HD2	1.82	0.42
24:AY:243:ASN:O	35:BA:2573:C:N4	2.53	0.42
35:DA:1494:A:O2'	35:DA:1496:A:H2	2.03	0.42
35:BA:2307:G:N3	35:BA:2307:G:H5''	2.35	0.42
36:BB:42:C:O2'	41:BG:66:GLN:HG2	2.19	0.42
1:AA:973:G:C1'	10:AJ:55:LYS:HE2	2.48	0.42
35:DA:1541:G:H4'	35:DA:1542:A:O5'	2.19	0.42
35:BA:605:C:H1'	35:BA:657:U:O2'	2.20	0.42
24:CY:137:LEU:HD12	24:CY:167:ALA:CB	2.49	0.42
35:DA:1654:A:OP2	50:DR:3:HIS:HB3	2.19	0.42
35:BA:2287:A:N6	35:BA:2344:U:N3	2.58	0.42
27:D2:43:GLN:HG3	27:D2:44:LEU:N	2.35	0.42
29:D4:12:ALA:HA	29:D4:29:PRO:HB3	2.02	0.42
46:BN:133:GLN:O	46:BN:134:ARG:HB3	2.19	0.42
46:BN:17:ASP:C	46:BN:19:GLU:H	2.22	0.42
13:CM:81:LEU:HB3	13:CM:89:GLY:HA2	2.01	0.42
47:DO:35:VAL:HA	47:DO:62:VAL:HG12	2.01	0.42
35:DA:941:A:H4'	48:DP:35:HIS:CE1	2.54	0.42
38:DD:102:LYS:C	38:DD:103:ARG:HG2	2.39	0.42
2:AB:58:ILE:O	2:AB:62:ALA:N	2.50	0.42
39:BE:52:LEU:C	39:BE:74:PRO:HB3	2.40	0.42
12:AL:27:LEU:C	12:AL:29:GLY:N	2.73	0.42
2:AB:43:ASP:OD2	2:AB:46:LYS:HD2	2.19	0.42
19:AS:29:ARG:HD3	19:AS:30:LEU:H	1.79	0.42
35:DA:1719:G:C6	35:DA:1720:U:C4	3.08	0.42
37:BC:42:VAL:HA	37:BC:217:THR:HA	2.00	0.42
2:AB:112:VAL:C	2:AB:114:ARG:N	2.71	0.42
19:CS:22:LEU:CD1	19:CS:27:GLU:HB2	2.49	0.42
48:DP:16:ARG:NH2	48:DP:18:ARG:HG2	2.34	0.42
48:DP:18:ARG:O	48:DP:20:GLY:N	2.53	0.42
24:CY:72:LEU:HG	24:CY:76:MET:CE	2.49	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:CY:81:ALA:CB	24:CY:84:ARG:NE	2.78	0.42
35:DA:152:G:H1	35:DA:174:C:N4	2.10	0.42
3:CC:182:ILE:HG12	3:CC:203:PHE:HD1	1.84	0.42
20:AT:13:LEU:O	20:AT:17:ARG:HG3	2.20	0.42
25:D0:23:VAL:HA	25:D0:38:VAL:HG22	2.01	0.42
1:AA:59:A:N3	1:AA:59:A:H2'	2.35	0.42
1:CA:1457:G:H2'	1:CA:1458:G:C8	2.53	0.42
1:CA:353:A:H2'	1:CA:354:G:OP2	2.20	0.42
35:DA:2298:A:H62	35:DA:2318:G:H8	1.66	0.42
1:AA:1346:A:H5''	9:AI:120:ARG:HH12	1.84	0.42
36:BB:87:G:H2'	36:BB:88:C:H5''	2.01	0.42
35:DA:649:G:H2'	35:DA:650:C:C6	2.54	0.42
39:DE:87:GLU:C	39:DE:89:ASP:N	2.72	0.42
50:BR:9:LYS:HB3	50:BR:43:GLU:CD	2.40	0.42
35:BA:2161:C:H2'	35:BA:2162:G:C8	2.50	0.42
35:DA:2126:A:O2'	35:DA:2127:G:OP2	2.34	0.42
46:DN:46:VAL:HG13	46:DN:48:MET:HG3	2.01	0.42
13:CM:68:GLY:O	13:CM:69:GLU:HB2	2.19	0.42
6:AF:3:ARG:NH1	6:AF:38:GLU:OE1	2.53	0.42
56:BX:8:ILE:H	56:BX:8:ILE:CD1	2.32	0.42
4:AD:88:VAL:HG13	5:AE:97:GLY:CA	2.50	0.42
35:BA:2789:C:H1'	35:BA:2892:A:C2	2.51	0.42
39:DE:55:ASN:O	39:DE:57:LYS:N	2.50	0.42
35:BA:2465:C:O2'	35:BA:2466:C:H5'	2.20	0.42
35:DA:880:G:C2	35:DA:881:G:C8	3.07	0.42
35:BA:2052:G:O4'	39:BE:142:GLY:HA3	2.19	0.42
35:BA:491:G:H2'	35:BA:492:A:H8	1.84	0.42
35:DA:589:C:O3'	40:DF:95:ARG:NH1	2.53	0.42
26:D1:41:ARG:NH1	35:DA:1365:A:OP1	2.51	0.42
4:CD:73:ARG:HH11	4:CD:73:ARG:HG2	1.83	0.42
40:DF:140:LEU:HD12	40:DF:140:LEU:HA	1.81	0.42
34:B9:17:ILE:CG2	34:B9:18:ARG:N	2.82	0.42
11:AK:126:ARG:O	11:AK:127:LYS:C	2.58	0.42
1:AA:836:G:C6	1:AA:851:G:C6	3.07	0.42
49:DQ:42:ILE:N	49:DQ:42:ILE:CD1	2.83	0.42
8:CH:122:ARG:NH1	8:CH:122:ARG:HB2	2.35	0.42
53:DU:57:PHE:O	53:DU:58:ARG:C	2.58	0.42
38:BD:121:PRO:HB3	38:BD:135:PHE:CE1	2.55	0.42
34:D9:24:TYR:CE2	34:D9:35:ARG:HG3	2.54	0.42
2:AB:95:GLN:NE2	2:AB:147:LYS:CE	2.83	0.42
35:BA:231:C:O2'	35:BA:232:G:H5'	2.20	0.42
40:BF:34:TRP:CZ2	48:BP:12:ALA:HB2	2.55	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:876:C:H2'	35:BA:877:U:O4'	2.20	0.42
43:BI:4:ILE:HD11	43:BI:44:LEU:CD1	2.49	0.42
35:BA:2267:A:H5''	35:BA:2268:A:C5'	2.49	0.42
35:DA:80:G:C2'	35:DA:81:G:H5'	2.49	0.42
1:AA:151:A:C2'	1:AA:152:A:H5'	2.50	0.42
1:AA:343:U:O2'	1:AA:344:A:H2'	2.19	0.42
29:D4:36:CYS:O	29:D4:38:LYS:N	2.50	0.42
42:BH:20:ALA:HB1	42:BH:21:PRO:CD	2.49	0.42
26:B1:77:ALA:O	26:B1:79:GLY:N	2.53	0.42
10:CJ:84:GLN:O	10:CJ:88:LEU:N	2.47	0.42
35:BA:717:G:H2'	35:BA:718:A:O4'	2.18	0.42
6:CF:50:TYR:CE1	18:CR:77:GLY:HA2	2.54	0.42
35:DA:412:A:H2'	35:DA:413:C:H5'	2.00	0.42
53:DU:97:ASP:OD1	53:DU:97:ASP:C	2.58	0.42
35:DA:754:C:H2'	35:DA:755:C:C6	2.55	0.42
35:BA:776:G:H4'	35:BA:777:A:O5'	2.19	0.42
1:AA:705:U:C5	1:AA:706:A:C5	3.07	0.42
1:AA:1527:C:O5'	1:AA:1527:C:H6	2.02	0.42
10:CJ:95:GLU:OE2	10:CJ:95:GLU:HA	2.19	0.42
41:DG:23:PHE:N	41:DG:23:PHE:CD1	2.87	0.42
1:AA:617:G:H1	1:AA:623:C:H42	1.66	0.42
12:AL:54:LYS:HD2	12:AL:54:LYS:N	2.34	0.42
47:DO:71:ARG:HG3	47:DO:71:ARG:HH11	1.84	0.42
7:CG:14:PRO:HG3	7:CG:21:VAL:CG1	2.50	0.42
36:BB:80:U:O2'	36:BB:81:G:H5''	2.20	0.42
54:BV:18:LEU:CD1	54:BV:18:LEU:N	2.82	0.42
49:DQ:130:LYS:NZ	58:DZ:80:ARG:NH1	2.61	0.42
4:AD:128:VAL:CG1	4:AD:129:ASN:ND2	2.82	0.42
45:DK:84:LEU:CB	45:DK:96:VAL:HG23	2.49	0.42
45:DK:9:LYS:HA	45:DK:56:GLU:HB2	2.02	0.42
58:BZ:127:LYS:O	58:BZ:162:GLU:HG3	2.20	0.42
35:BA:1049:C:H2'	35:BA:1050:A:C8	2.50	0.42
58:DZ:152:ALA:HB1	58:DZ:167:PRO:CB	2.50	0.42
2:CB:164:VAL:HG11	2:CB:170:GLU:HB2	2.01	0.42
2:CB:97:TRP:HH2	2:CB:176:GLU:HB2	1.84	0.42
35:DA:1056:G:OP1	44:DJ:34:UNK:HA	2.19	0.42
22:CW:51:U:H2'	22:CW:52:G:O4'	2.19	0.42
37:DC:52:PRO:C	37:DC:54:ARG:H	2.22	0.42
24:CY:242:VAL:O	24:CY:245:THR:HG22	2.19	0.42
24:CY:245:THR:O	24:CY:245:THR:HG23	2.19	0.42
24:AY:243:ASN:O	35:BA:2507:C:H4'	2.20	0.42
3:AC:173:VAL:N	3:AC:174:PRO:HD3	2.34	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:2207:G:O2'	35:BA:2208:A:H5''	2.20	0.42
4:CD:25:ARG:NH1	4:CD:30:LYS:O	2.52	0.42
4:CD:25:ARG:HH22	4:CD:35:ARG:HH12	1.68	0.42
3:CC:173:VAL:N	3:CC:174:PRO:HD3	2.34	0.42
10:AJ:58:ASP:O	10:AJ:60:ARG:N	2.52	0.42
7:CG:151:TYR:N	7:CG:151:TYR:CD1	2.87	0.42
52:DT:89:VAL:HB	52:DT:91:ARG:HG3	2.02	0.42
35:DA:1539:G:H2'	35:DA:1540:U:C5'	2.49	0.42
39:BE:49:LEU:O	39:BE:78:LEU:CB	2.67	0.42
35:DA:111:A:O2'	35:DA:112:U:H5'	2.19	0.42
54:BV:47:VAL:O	54:BV:48:GLY:C	2.57	0.42
52:BT:65:LYS:NZ	52:BT:66:VAL:N	2.44	0.42
2:CB:178:ARG:NH1	2:CB:178:ARG:CG	2.82	0.42
27:D2:41:ILE:HG22	56:DX:13:LEU:HD21	2.01	0.42
35:BA:2103:C:N4	35:BA:2186:G:H1	2.14	0.42
1:CA:1056:U:O2'	1:CA:1057:G:H5'	2.20	0.42
31:B6:15:GLU:HG2	31:B6:18:ARG:CZ	2.50	0.42
43:DI:77:LEU:O	43:DI:78:THR:HB	2.20	0.42
24:CY:196:ASP:OD1	24:CY:202:HIS:NE2	2.50	0.42
12:CL:27:LEU:HD12	12:CL:64:TYR:CE1	2.54	0.42
1:CA:1005:A:H62	1:CA:1025:U:H4'	1.82	0.42
2:CB:111:ARG:HH21	2:CB:114:ARG:HG2	1.84	0.42
38:DD:31:LYS:HB3	38:DD:34:VAL:HG22	2.01	0.42
42:DH:30:LYS:HB2	42:DH:79:VAL:HA	2.01	0.42
38:DD:267:SER:C	38:DD:269:PHE:H	2.23	0.42
40:DF:28:ILE:N	40:DF:28:ILE:CD1	2.76	0.42
3:CC:88:ARG:HG2	3:CC:101:LEU:HB3	2.00	0.42
24:AY:260:VAL:HG11	24:AY:278:ILE:HB	2.02	0.42
7:CG:113:GLU:O	7:CG:119:ARG:HD3	2.19	0.42
5:AE:93:PRO:CG	8:AH:105:ARG:HH21	2.27	0.42
1:AA:376:G:P	16:AP:67:THR:HG21	2.60	0.42
17:AQ:7:THR:HA	17:AQ:57:VAL:O	2.19	0.42
42:BH:89:ILE:HD11	42:BH:94:TYR:C	2.40	0.42
2:CB:76:GLN:H	2:CB:76:GLN:HG3	1.57	0.42
2:AB:50:GLU:OE1	2:AB:200:ILE:HB	2.19	0.42
11:CK:59:TYR:O	11:CK:63:LEU:HG	2.20	0.42
10:CJ:96:ILE:N	10:CJ:96:ILE:CD1	2.83	0.42
35:DA:2166:G:H2'	35:DA:2167:U:C6	2.54	0.42
41:BG:77:ILE:O	41:BG:81:LYS:O	2.38	0.42
35:BA:2126:A:O2'	35:BA:2127:G:OP2	2.32	0.42
1:AA:715:A:H2'	1:AA:716:A:C8	2.55	0.42
35:DA:2171:A:H5''	35:DA:2172:U:OP1	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
58:DZ:94:GLU:HG3	58:DZ:95:PRO:HD2	2.01	0.42
45:BK:108:ALA:O	45:BK:120:LEU:HG	2.20	0.42
11:AK:124:LYS:NZ	11:AK:124:LYS:CB	2.83	0.42
35:BA:271(D):G:O2'	35:BA:271(E):U:H5'	2.19	0.42
11:CK:124:LYS:HB3	11:CK:125:PHE:HD1	1.85	0.42
1:AA:149:A:O2'	1:AA:150:C:P	2.78	0.42
1:CA:556:C:C2'	1:CA:557:G:H5'	2.50	0.42
21:CU:25:LYS:CG	21:CU:26:LYS:N	2.82	0.42
56:BX:3:THR:O	56:BX:4:ALA:HB3	2.19	0.42
39:DE:55:ASN:HA	39:DE:55:ASN:HD22	1.60	0.42
42:DH:85:LYS:CD	42:DH:133:VAL:HB	2.49	0.42
28:D3:17:LYS:HA	28:D3:17:LYS:HD3	1.66	0.42
12:AL:82:VAL:O	12:AL:83:VAL:HG23	2.19	0.42
42:DH:111:HIS:CG	42:DH:112:PRO:HD2	2.55	0.42
35:BA:2199:A:H5''	35:BA:2200:C:H5	1.85	0.42
8:AH:122:ARG:NH1	8:AH:122:ARG:HB2	2.35	0.42
1:AA:216:G:C2	1:AA:217:C:N3	2.87	0.42
8:AH:63:LEU:N	8:AH:63:LEU:HD22	2.35	0.42
35:BA:1547:C:H2'	35:BA:1548:C:H6	1.84	0.42
35:DA:1996:C:H4'	35:DA:1997:G:OP1	2.19	0.42
35:DA:2784:C:H1'	39:DE:37:ARG:NH1	2.35	0.42
10:AJ:45:ARG:HB3	10:AJ:65:LEU:HB3	2.01	0.42
1:CA:818:G:C2'	1:CA:819:A:H5''	2.50	0.42
35:DA:302:C:H2'	35:DA:303:U:H6	1.85	0.42
51:DS:84:GLN:HB3	51:DS:105:ALA:HB3	2.02	0.42
9:CI:78:LYS:CB	9:CI:78:LYS:NZ	2.83	0.42
3:AC:141:VAL:HG11	3:AC:202:ILE:HG23	2.01	0.42
5:CE:94:ALA:O	5:CE:117:ASP:HB3	2.20	0.42
35:DA:1144:G:H2'	35:DA:1145:C:H6	1.85	0.42
1:AA:1109:C:H2'	1:AA:1110:A:O4'	2.19	0.42
35:DA:2222:G:H5'	38:DD:149:PRO:HG3	2.01	0.42
35:BA:697:C:H2'	35:BA:698:C:C6	2.54	0.42
1:CA:1419:G:O2'	1:CA:1420:C:H5'	2.20	0.42
35:BA:2008:C:H2'	35:BA:2009:G:H8	1.84	0.42
43:BI:2:LYS:HB2	43:BI:39:ALA:CB	2.50	0.42
47:DO:7:TYR:OH	47:DO:44:LYS:HG3	2.20	0.42
37:BC:10:ALA:O	37:BC:13:GLU:HG2	2.20	0.42
1:CA:1466:C:C2'	1:CA:1467:G:H5'	2.48	0.42
53:BU:21:ALA:HB2	53:BU:35:ALA:HB1	2.00	0.42
24:CY:222:LEU:HD22	24:CY:222:LEU:N	2.34	0.42
48:BP:62:LEU:N	48:BP:62:LEU:CD2	2.56	0.42
35:BA:1747:G:H2'	35:BA:1747(A):G:C8	2.54	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:BT:23:ARG:CB	52:BT:24:PRO:HD2	2.48	0.42
35:BA:1106:G:H2'	35:BA:1107:G:H5'	2.02	0.42
30:D5:55:ARG:NE	50:DR:33:ARG:NH1	2.67	0.42
51:BS:93:LYS:O	51:BS:94:TYR:C	2.57	0.42
51:DS:18:ILE:C	51:DS:20:ARG:N	2.73	0.42
3:AC:186:PHE:HZ	3:AC:188:LEU:HD11	1.83	0.42
1:CA:976:G:H22	1:CA:1362:C:H2'	1.80	0.42
35:BA:1778:U:H2'	35:BA:1784:A:N6	2.35	0.42
4:CD:18:LYS:HG3	4:CD:31:CYS:CB	2.50	0.42
13:AM:124:PRO:HB3	24:AY:158:PRO:HB3	2.02	0.42
53:BU:90:VAL:HG12	53:BU:91:ASP:N	2.35	0.42
55:DW:91:GLY:O	55:DW:93:ALA:N	2.52	0.42
35:BA:601:C:O2	35:BA:605:C:H4'	2.19	0.42
39:DE:110:GLY:HA3	39:DE:162:ALA:HB2	2.00	0.42
3:AC:16:ARG:CZ	3:AC:16:ARG:HB2	2.49	0.42
45:BK:53:VAL:CG2	45:BK:53:VAL:O	2.67	0.42
38:DD:92:ILE:HD13	38:DD:92:ILE:N	2.29	0.42
43:BI:94:ALA:O	43:BI:97:ILE:HB	2.19	0.42
20:CT:100:ILE:HG13	20:CT:100:ILE:O	2.20	0.42
24:CY:181:SER:N	24:CY:182:PRO:CD	2.83	0.42
33:D8:48:PHE:C	33:D8:49:VAL:CG2	2.88	0.42
1:AA:458:C:H2'	1:AA:460:G:O4'	2.20	0.42
10:CJ:4:ILE:HD11	10:CJ:77:PRO:CB	2.39	0.42
1:AA:424:G:N3	1:AA:425:G:C8	2.88	0.42
12:AL:60:LEU:C	12:AL:62:SER:N	2.72	0.42
3:CC:113:ALA:HB1	3:CC:185:GLY:N	2.35	0.42
1:CA:521:G:O5'	12:CL:73:GLU:HG2	2.20	0.42
38:BD:35:LYS:N	38:BD:36:PRO:HD2	2.33	0.42
38:BD:181:GLU:OE2	38:BD:270:ILE:HG22	2.20	0.42
35:DA:2148:G:O2'	35:DA:2149:G:H5'	2.19	0.42
19:AS:12:ASP:O	19:AS:16:LEU:HD12	2.20	0.42
43:BI:25:TYR:HE2	43:BI:29:TYR:CD2	2.38	0.42
35:DA:271(J):C:H2'	35:DA:271(K):U:H5''	2.01	0.42
52:BT:40:THR:O	52:BT:41:ARG:HB2	2.19	0.42
24:CY:270:LYS:HD3	25:D0:5:LYS:CD	2.50	0.42
39:BE:55:ASN:HB2	39:BE:72:VAL:HG11	2.01	0.42
3:CC:155:GLY:O	3:CC:196:LEU:HD13	2.19	0.42
37:DC:47:LYS:HD2	37:DC:170:GLY:O	2.19	0.42
35:DA:12:U:O2	35:DA:12:U:C2'	2.63	0.42
39:DE:65:GLY:HA2	39:DE:70:ALA:CB	2.49	0.42
1:CA:1317:C:OP1	14:CN:17:LYS:HE2	2.18	0.42
54:BV:22:VAL:O	54:BV:23:GLU:HG2	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1249:C:H4'	9:AI:36:TYR:OH	2.19	0.42
2:CB:136:VAL:HA	2:CB:139:LYS:HB2	2.02	0.42
51:BS:107:GLU:HG3	51:BS:108:GLY:N	2.35	0.42
42:BH:83:TYR:O	42:BH:84:SER:CB	2.68	0.42
12:AL:102:ARG:HH11	12:AL:102:ARG:HG2	1.85	0.42
24:AY:6:LEU:C	24:AY:8:GLN:H	2.23	0.42
1:AA:640:A:O2'	1:AA:641:U:H5'	2.20	0.42
20:AT:26:ASN:HB2	20:AT:71:THR:HG23	2.00	0.42
52:BT:60:THR:HG22	52:BT:77:PRO:HA	2.00	0.42
4:CD:98:GLU:OE2	4:CD:103:ASN:ND2	2.52	0.42
2:AB:37:ASN:O	2:AB:37:ASN:OD1	2.38	0.42
26:B1:48:LYS:HA	26:B1:60:PHE:O	2.19	0.42
1:AA:662:G:H2'	1:AA:663:A:C8	2.55	0.42
1:CA:1203:C:O2'	1:CA:1204:A:H5'	2.19	0.42
35:DA:1515:G:H2'	35:DA:1516:C:C6	2.55	0.42
35:BA:1270:C:H5''	35:BA:1271:G:C5'	2.50	0.42
1:CA:867:G:H2'	1:CA:868:C:H6	1.83	0.42
1:CA:216:G:C2	1:CA:217:C:N3	2.88	0.42
35:BA:2737:G:H2'	35:BA:2738:A:C8	2.52	0.42
35:DA:1221:C:H2'	35:DA:1221(A):C:C6	2.52	0.42
5:AE:135:THR:O	5:AE:136:MET:C	2.56	0.42
56:BX:65:ARG:CG	56:BX:66:LEU:H	2.33	0.42
11:CK:40:ILE:HG23	11:CK:75:TYR:CD2	2.55	0.42
4:CD:42:GLN:CG	4:CD:42:GLN:O	2.68	0.42
35:BA:858:U:O2	35:BA:2268:A:H2'	2.19	0.42
35:BA:2087:G:O2'	35:BA:2088:G:H5'	2.19	0.42
58:BZ:24:LEU:HD23	58:BZ:25:PRO:HD2	2.01	0.42
35:DA:302:C:H2'	35:DA:303:U:C6	2.55	0.42
3:AC:111:LEU:HD23	3:AC:141:VAL:HG13	2.00	0.42
7:AG:50:ILE:C	7:AG:52:GLU:N	2.73	0.42
37:BC:45:HIS:CE1	37:BC:173:HIS:HD1	2.37	0.42
35:DA:414:C:H4'	35:DA:1879:C:O2	2.19	0.42
56:BX:29:TRP:CZ3	56:BX:78:LYS:HB3	2.55	0.42
15:CO:62:GLN:O	15:CO:66:LEU:HD13	2.19	0.42
35:BA:1755:A:O2'	35:BA:1756:G:H5'	2.19	0.42
38:BD:147:LEU:HD12	38:BD:147:LEU:HA	1.89	0.42
1:AA:1438:G:H2'	1:AA:1439:C:C6	2.54	0.42
47:BO:43:VAL:HG21	47:BO:52:VAL:CG1	2.49	0.42
52:DT:24:PRO:HD3	52:DT:52:ILE:HD12	2.01	0.42
49:DQ:19:GLY:O	49:DQ:20:ALA:CB	2.66	0.42
35:BA:1055:G:H2'	35:BA:1056:G:H5'	2.00	0.42
35:DA:1243:G:HO2'	48:DP:9:ASN:HA	1.84	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AM:81:LEU:HB3	13:AM:89:GLY:HA2	2.01	0.42
41:DG:114:ILE:CG2	41:DG:115:ARG:N	2.83	0.42
41:DG:47:LYS:HB3	41:DG:82:LEU:HD12	2.01	0.42
45:BK:115:LEU:O	45:BK:116:ASN:CG	2.58	0.42
45:BK:79:ARG:HH11	45:BK:79:ARG:HG2	1.83	0.42
10:CJ:49:VAL:CG2	10:CJ:50:ILE:N	2.82	0.42
35:BA:686:G:N2	35:BA:788:A:H61	2.18	0.42
35:DA:1528:A:N1	35:DA:1542:A:C2	2.87	0.42
7:CG:108:ALA:C	7:CG:110:GLN:H	2.22	0.42
35:BA:607:U:N3	35:BA:621:A:C2	2.75	0.42
58:DZ:42:VAL:HG13	58:DZ:43:GLU:N	2.34	0.42
35:BA:1464:C:O2'	35:BA:1528:A:C8	2.48	0.42
58:DZ:69:THR:HG22	58:DZ:90:VAL:HG22	2.01	0.42
22:CW:77:PHA:O	35:DA:2395:C:H1'	2.20	0.42
20:AT:57:ARG:NH1	20:AT:100:ILE:CG1	2.82	0.42
35:BA:330:A:O2'	35:BA:331:A:C8	2.71	0.42
24:CY:326:THR:HG23	24:CY:328:LEU:HD13	2.02	0.42
15:AO:25:THR:O	15:AO:26:GLU:C	2.57	0.42
45:DK:18:THR:HG23	45:DK:38:VAL:CG1	2.46	0.42
45:DK:18:THR:OG1	45:DK:38:VAL:HB	2.19	0.42
51:DS:54:LEU:HD13	51:DS:58:LEU:H	1.84	0.42
48:DP:97:PRO:O	48:DP:99:LEU:N	2.44	0.42
35:BA:1042:G:C2	35:BA:1043:C:H1'	2.54	0.42
26:B1:74:VAL:O	26:B1:74:VAL:HG12	2.20	0.42
1:AA:418:C:N4	1:AA:426:G:N1	2.67	0.42
1:CA:458:C:H2'	1:CA:460:G:O4'	2.20	0.42
1:CA:424:G:N3	1:CA:425:G:C8	2.88	0.42
2:AB:83:MET:HB3	2:AB:234:PRO:HG2	2.02	0.42
52:BT:100:TYR:CD2	52:BT:103:ARG:NH2	2.79	0.42
54:BV:99:ILE:H	54:BV:99:ILE:HD13	1.84	0.42
53:DU:102:GLU:HG3	54:DV:2:PHE:CZ	2.55	0.42
38:BD:35:LYS:NZ	38:BD:35:LYS:CB	2.83	0.42
24:AY:54:ARG:HB3	24:AY:54:ARG:CZ	2.46	0.42
35:DA:1021:A:H2'	35:DA:1023:U:H5'	2.01	0.42
40:DF:83:PHE:O	40:DF:84:VAL:C	2.57	0.42
1:CA:445:G:H2'	1:CA:446:G:C8	2.54	0.42
35:BA:1657:C:H2'	35:BA:1658:C:C6	2.55	0.42
4:AD:68:TYR:N	4:AD:68:TYR:CD1	2.87	0.42
35:DA:1434:A:H2'	35:DA:1435:G:C8	2.55	0.42
12:AL:38:THR:HG23	12:AL:57:LYS:O	2.19	0.42
48:BP:16:ARG:CB	48:BP:16:ARG:HH11	2.32	0.42
35:BA:364:C:H2'	35:BA:365:C:H5''	2.01	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:AW:63:G:H4'	37:BC:54:ARG:NH2	2.35	0.42
1:CA:1354:C:H2'	1:CA:1355:G:H8	1.85	0.42
13:CM:16:ASP:OD2	13:CM:17:VAL:N	2.53	0.42
1:AA:1302:U:H5	13:AM:17:VAL:HG21	1.85	0.42
24:AY:55:LEU:O	24:AY:59:VAL:HB	2.20	0.42
1:CA:684:A:H2'	1:CA:685:G:H8	1.84	0.42
43:DI:38:LEU:O	43:DI:40:THR:CG2	2.68	0.42
15:AO:22:THR:OG1	15:AO:23:GLY:N	2.52	0.42
2:AB:220:ASP:C	2:AB:222:ILE:N	2.73	0.42
24:CY:138:ARG:CZ	24:CY:337:LEU:HB3	2.50	0.42
39:BE:103:ASP:OD2	39:BE:202:LYS:HD3	2.19	0.42
49:DQ:55:VAL:HG12	49:DQ:64:ILE:HD12	2.02	0.42
39:DE:101:ARG:HH11	39:DE:171:GLU:N	2.18	0.42
46:DN:9:VAL:CG1	46:DN:10:GLU:H	2.32	0.42
1:CA:382:A:C2	1:CA:383:A:C4	3.07	0.42
40:BF:162:LEU:HD12	40:BF:162:LEU:HA	1.85	0.42
55:BW:17:VAL:O	55:BW:18:ARG:C	2.58	0.42
6:CF:10:LEU:HD13	6:CF:61:LEU:CD1	2.50	0.42
1:AA:983:A:N1	1:AA:1222:G:N2	2.68	0.42
35:BA:894:C:O2'	35:BA:895:U:H5'	2.19	0.42
14:AN:39:LEU:CD1	14:AN:47:LEU:HD12	2.49	0.42
35:DA:2713:A:C3'	35:DA:2714:G:H5'	2.50	0.42
1:CA:950:U:H4'	1:CA:971:G:C2	2.54	0.42
37:BC:46:ALA:HB1	37:BC:212:SER:O	2.20	0.42
35:DA:2124:G:H5'	37:DC:175:PRO:HD3	2.01	0.42
1:AA:350:G:O2'	1:AA:351:G:H5'	2.20	0.42
36:BB:82:G:O2'	36:BB:83:G:H5'	2.20	0.42
1:CA:177:C:OP1	20:CT:65:LYS:HD3	2.20	0.42
42:DH:137:ASP:HB3	42:DH:138:LYS:H	1.61	0.42
35:BA:570:G:H2'	35:BA:2030:A:N7	2.34	0.42
14:CN:12:ARG:HB2	14:CN:12:ARG:CZ	2.50	0.42
1:CA:790:A:H2	1:CA:1497:G:OP1	2.02	0.42
7:CG:22:LEU:C	7:CG:22:LEU:HD23	2.40	0.42
35:BA:1385:G:H4'	35:BA:1386:C:OP1	2.19	0.42
35:DA:570:G:H2'	35:DA:2030:A:N7	2.35	0.42
5:AE:107:ARG:O	5:AE:108:ALA:C	2.56	0.42
3:AC:60:ALA:O	3:AC:61:ALA:CB	2.67	0.42
35:DA:1532:C:C2'	35:DA:1533:G:H5'	2.50	0.42
53:DU:73:GLY:O	53:DU:74:LEU:O	2.37	0.42
30:B5:42:PRO:HB2	30:B5:43:HIS:CD2	2.55	0.42
35:DA:1516:C:H2'	35:DA:1517:G:H8	1.83	0.42
40:BF:32:LEU:C	40:BF:32:LEU:HD23	2.39	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BB:28:C:OP1	51:BS:31:SER:OG	2.32	0.42
35:BA:1532:C:C2'	35:BA:1533:G:H5'	2.50	0.42
38:DD:28:GLU:HB2	38:DD:29:PRO:CD	2.49	0.42
40:DF:32:LEU:C	40:DF:32:LEU:HD23	2.40	0.42
35:DA:1547:C:H2'	35:DA:1548:C:H6	1.84	0.42
44:BJ:93:UNK:HA	44:BJ:96:UNK:CB	2.50	0.42
38:DD:134:ARG:HG3	38:DD:135:PHE:CE2	2.55	0.42
2:CB:95:GLN:HA	2:CB:95:GLN:OE1	2.20	0.42
20:CT:73:HIS:O	20:CT:74:LYS:O	2.37	0.42
43:BI:79:ILE:HG23	43:BI:80:PRO:HD2	2.01	0.42
35:DA:71:A:C2	56:DX:31:HIS:CE1	3.08	0.42
34:B9:13:LYS:HE3	34:B9:28:GLU:OE1	2.19	0.42
35:DA:336:C:HO2'	57:DY:35:TYR:HH	1.66	0.42
1:CA:19:C:H4'	1:CA:864:A:O4'	2.19	0.42
35:DA:1750:G:O2'	35:DA:1751:C:H5'	2.19	0.42
40:BF:129:PHE:HZ	40:BF:156:LEU:HD11	1.83	0.42
35:DA:1028:A:N6	35:DA:1125:G:H2'	2.34	0.42
1:CA:948:C:P	13:CM:109:THR:HG1	2.42	0.42
1:AA:287:U:O2'	1:AA:288:A:H5'	2.19	0.42
17:CQ:29:HIS:HA	17:CQ:30:PRO:HD2	1.82	0.42
42:BH:101:ARG:O	42:BH:117:PRO:HG3	2.19	0.42
1:CA:802:A:H3'	1:CA:803:G:H8	1.85	0.42
37:BC:167:ASP:OD2	37:BC:171:ALA:HB3	2.20	0.42
47:DO:101:PRO:HA	47:DO:120:GLU:O	2.20	0.42
40:BF:33:LEU:HA	40:BF:33:LEU:HD12	1.86	0.42
35:DA:999:U:O2'	35:DA:1000:A:H5'	2.20	0.42
8:CH:4:ASP:CG	8:CH:85:ARG:HH21	2.22	0.42
1:CA:141:A:H1'	1:CA:182:U:C2	2.55	0.42
24:CY:300:GLY:O	24:CY:301:GLU:HG3	2.20	0.42
55:BW:34:ASN:O	55:BW:37:ARG:HB3	2.19	0.42
35:BA:2704:C:H2'	35:BA:2705:A:O4'	2.19	0.42
3:AC:90:GLU:HA	3:AC:90:GLU:OE1	2.20	0.42
26:D1:83:GLU:CD	26:D1:83:GLU:N	2.73	0.42
46:BN:119:ARG:NH1	46:BN:119:ARG:HG3	2.35	0.42
24:CY:123:GLY:HA3	24:CY:305:ILE:HG23	2.02	0.42
52:BT:26:ASP:HB3	52:BT:89:VAL:O	2.19	0.42
40:BF:157:VAL:HG13	40:BF:194:MET:HG2	2.00	0.42
45:DK:107:ILE:HD12	45:DK:110:GLN:HB2	2.01	0.42
49:BQ:27:VAL:CG2	49:BQ:137:TYR:CD1	3.01	0.42
49:BQ:29:PHE:HB2	49:BQ:105:GLU:OE2	2.20	0.42
13:AM:108:ARG:H	13:AM:108:ARG:HD2	1.83	0.42
50:DR:33:ARG:NE	50:DR:115:GLU:HG3	2.31	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:BS:89:ARG:CG	51:BS:92:TYR:HA	2.47	0.42
24:CY:237:PRO:HD3	35:DA:2604:U:P	2.59	0.42
41:DG:118:ARG:N	41:DG:181:ARG:HH21	2.12	0.42
41:DG:76:SER:O	41:DG:77:ILE:HG12	2.20	0.42
38:BD:21:PHE:HB3	38:BD:24:ILE:HG21	2.02	0.42
41:BG:87:PRO:HB2	41:BG:88:ILE:H	1.65	0.42
32:B7:8:ASN:HD21	32:B7:11:LYS:H	1.55	0.42
56:BX:35:THR:HG22	56:BX:37:THR:H	1.84	0.42
54:BV:46:VAL:CG1	54:BV:47:VAL:H	2.32	0.42
7:CG:95:ARG:O	7:CG:96:GLN:C	2.58	0.42
54:DV:47:VAL:C	54:DV:49:THR:N	2.73	0.42
1:CA:1134:G:H2'	1:CA:1135:U:C5'	2.46	0.42
48:DP:58:THR:O	48:DP:61:ARG:HD2	2.19	0.42
1:AA:192:U:H1'	20:AT:103:GLY:HA2	2.01	0.42
52:BT:65:LYS:HG3	52:BT:66:VAL:N	2.34	0.42
26:B1:89:GLU:O	26:B1:90:ILE:C	2.56	0.42
1:AA:656:C:H2'	1:AA:657:G:C8	2.54	0.42
24:CY:312:ARG:HD2	24:CY:314:TYR:CE1	2.55	0.42
1:AA:926:G:H21	1:AA:1505:G:H2'	1.84	0.42
22:AV:71:G:C3'	22:AV:72:C:H5''	2.50	0.42
58:BZ:108:PRO:C	58:BZ:110:GLY:N	2.71	0.42
12:AL:84:LEU:HB3	12:AL:101:VAL:HB	2.01	0.42
16:AP:50:LYS:HD3	16:AP:50:LYS:C	2.40	0.42
19:CS:44:MET:HA	19:CS:44:MET:HE3	2.01	0.42
37:DC:6:LYS:O	37:DC:9:ARG:N	2.53	0.42
35:DA:528:A:C2	35:DA:2043:C:C4'	3.01	0.42
38:DD:266:SER:C	38:DD:267:SER:O	2.58	0.42
1:AA:1318:A:H1'	19:AS:37:ARG:NH2	2.31	0.42
43:BI:14:ASP:O	43:BI:15:VAL:O	2.38	0.42
11:AK:84:VAL:CG2	11:AK:110:ASP:HA	2.49	0.42
1:AA:1512:U:H2'	1:AA:1513:A:H8	1.84	0.42
26:D1:86:SER:HB2	26:D1:89:GLU:HB2	2.01	0.42
48:BP:85:LEU:O	48:BP:86:LYS:C	2.58	0.42
35:DA:2631:G:N2	39:DE:61:ARG:NH1	2.68	0.42
3:CC:155:GLY:O	3:CC:156:ARG:CB	2.66	0.42
1:AA:1328:C:H2'	1:AA:1329:A:H8	1.85	0.42
46:BN:9:VAL:CG1	46:BN:10:GLU:N	2.79	0.42
45:DK:69:THR:HG22	45:DK:70:LYS:N	2.35	0.42
13:AM:15:VAL:O	13:AM:19:LEU:CD2	2.68	0.42
2:CB:44:LEU:N	2:CB:44:LEU:CD1	2.81	0.42
24:AY:320:TYR:HB2	24:AY:330:ARG:O	2.20	0.42
49:BQ:55:VAL:CG2	49:BQ:56:ARG:N	2.82	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:B0:36:ILE:HG23	35:BA:2354:G:O2'	2.20	0.42
41:BG:161:THR:CG2	41:BG:162:THR:N	2.82	0.42
2:CB:12:GLU:O	2:CB:14:GLY:N	2.53	0.42
55:BW:10:VAL:HG12	55:BW:12:ILE:HG22	2.02	0.42
2:AB:136:VAL:HA	2:AB:139:LYS:HB2	2.01	0.42
39:BE:35:GLN:HB3	39:BE:48:GLN:HB3	2.02	0.42
20:CT:30:LYS:O	20:CT:33:ILE:HB	2.20	0.42
12:AL:102:ARG:NH1	12:AL:102:ARG:CG	2.83	0.42
1:AA:556:C:C2'	1:AA:557:G:H5'	2.50	0.42
1:AA:373:A:H2'	1:AA:374:A:H8	1.85	0.42
18:AR:19:LYS:O	18:AR:20:ALA:CB	2.67	0.42
1:CA:826:C:H5''	8:CH:12:ARG:HH21	1.84	0.42
2:CB:37:ASN:OD1	2:CB:37:ASN:O	2.37	0.42
4:CD:206:PHE:CD2	4:CD:207:TYR:CE2	3.08	0.42
1:AA:9:G:O2'	1:AA:10:A:H5'	2.19	0.42
35:DA:898:C:O2'	35:DA:899:A:H5'	2.20	0.42
35:BA:2777:G:H5''	35:BA:2778:A:C5'	2.50	0.42
1:CA:1528:U:O3'	1:CA:1529:G:H3'	2.19	0.42
35:DA:84:A:OP1	57:DY:9:LYS:HE3	2.20	0.42
1:CA:119:A:H4'	1:CA:120:A:O5'	2.19	0.42
38:BD:121:PRO:HA	38:BD:135:PHE:CD1	2.52	0.42
35:DA:876:C:H2'	35:DA:877:U:O4'	2.19	0.42
43:BI:79:ILE:HD13	43:BI:79:ILE:HA	1.86	0.42
10:CJ:45:ARG:HB3	10:CJ:65:LEU:HB3	2.01	0.42
35:BA:301:G:H1'	35:BA:302:C:C6	2.54	0.42
53:BU:24:TYR:HB2	53:BU:29:SER:HB3	2.00	0.42
53:DU:97:ASP:OD1	53:DU:98:LEU:N	2.53	0.42
35:BA:2001:A:H2'	35:BA:2002:G:C8	2.54	0.42
35:BA:1352:U:O2'	35:BA:1353:A:H5'	2.19	0.42
40:DF:33:LEU:HD12	40:DF:33:LEU:HA	1.87	0.42
35:DA:2637:U:O2'	35:DA:2638:G:H5'	2.18	0.42
56:DX:47:PHE:O	56:DX:48:LYS:C	2.58	0.42
2:AB:105:PHE:HZ	2:AB:156:LYS:HA	1.84	0.42
1:CA:1215:G:O2'	1:CA:1216:G:H5'	2.20	0.42
35:BA:664:C:H2'	35:BA:665:C:C6	2.55	0.42
1:CA:49:U:O2	1:CA:362:G:H1'	2.20	0.42
13:AM:5:ALA:O	13:AM:6:GLY:C	2.58	0.42
35:BA:1234:U:C2'	35:BA:1235:G:H5'	2.50	0.42
35:DA:2684:U:O2'	47:DO:68:GLU:HG3	2.20	0.42
35:BA:1313:U:H3'	35:BA:1314:C:H5'	2.00	0.42
24:AY:198:SER:HB2	24:AY:200:ARG:HG3	2.02	0.42
17:AQ:29:HIS:HA	17:AQ:30:PRO:HD2	1.81	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:BF:25:PRO:HB3	40:BF:119:ARG:HD3	2.01	0.42
45:DK:115:LEU:O	45:DK:116:ASN:CG	2.58	0.42
35:BA:2849:U:HO2'	35:BA:2866:U:H6	1.62	0.42
35:BA:1048:A:H4'	35:BA:1049:C:OP1	2.19	0.42
19:AS:78:ARG:HD2	19:AS:81:ARG:NH1	2.34	0.42
2:CB:168:THR:O	2:CB:171:ALA:N	2.52	0.42
35:DA:1106:G:H2'	35:DA:1107:G:H5'	2.02	0.42
22:CW:55:U:C4	22:CW:57:G:H5''	2.55	0.42
52:BT:125:ARG:O	52:BT:128:GLU:N	2.52	0.42
54:DV:60:GLU:O	54:DV:62:LEU:HD22	2.20	0.42
52:DT:19:LEU:HA	52:DT:20:PRO:HD3	1.96	0.42
48:BP:149:GLU:O	48:BP:150:ALA:HB2	2.20	0.42
41:BG:133:LEU:HD12	41:BG:133:LEU:C	2.39	0.42
41:BG:36:LYS:O	41:BG:159:VAL:HA	2.19	0.42
41:BG:5:VAL:CG1	41:BG:6:ALA:H	2.32	0.42
4:CD:17:VAL:O	4:CD:18:LYS:O	2.37	0.42
43:DI:86:THR:HG22	43:DI:122:GLU:OE2	2.20	0.42
43:DI:91:SER:C	43:DI:92:VAL:HG12	2.39	0.42
52:DT:90:GLN:O	52:DT:91:ARG:O	2.38	0.42
56:BX:35:THR:HG22	56:BX:36:LYS:N	2.34	0.42
50:BR:4:LEU:C	50:BR:5:LYS:HG2	2.40	0.42
52:BT:19:LEU:HD22	52:BT:85:LYS:HG3	2.02	0.42
1:CA:1134:G:N1	1:CA:1142:G:C6	2.88	0.42
1:CA:191:G:N9	20:CT:105:SER:HB3	2.34	0.42
46:DN:134:ARG:H	46:DN:135:PRO:HD3	1.85	0.42
45:DK:23:VAL:O	45:DK:27:LEU:HD23	2.20	0.42
47:DO:104:ARG:NE	52:DT:33:LYS:CE	2.82	0.42
30:B5:4:HIS:HD2	35:BA:2056:G:H1	1.67	0.42
46:BN:15:LEU:C	46:BN:15:LEU:HD13	2.40	0.42
38:BD:61:LEU:HA	38:BD:61:LEU:HD13	1.80	0.42
24:CY:150:GLN:NE2	24:CY:172:LYS:HZ1	2.13	0.42
48:DP:91:PHE:HZ	48:DP:100:LEU:CD2	2.33	0.42
5:CE:8:GLU:CA	5:CE:34:VAL:HG23	2.50	0.42
30:B5:47:PRO:O	30:B5:48:GLU:OE1	2.38	0.42
30:B5:47:PRO:C	30:B5:48:GLU:HG2	2.40	0.42
48:BP:97:PRO:O	48:BP:99:LEU:N	2.43	0.42
54:BV:1:MET:CB	54:BV:99:ILE:HG13	2.50	0.42
39:BE:51:PHE:C	39:BE:74:PRO:HB3	2.41	0.42
3:AC:58:GLU:H	3:AC:65:ALA:HB3	1.85	0.42
14:AN:53:LEU:HA	14:AN:54:PRO:HD3	1.88	0.42
9:CI:89:ASN:O	9:CI:92:TYR:HB2	2.19	0.42
10:AJ:28:ARG:NH1	10:AJ:28:ARG:HG2	2.34	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:AS:31:ILE:HG22	19:AS:48:THR:O	2.19	0.42
37:BC:6:LYS:O	37:BC:9:ARG:N	2.53	0.42
2:CB:50:GLU:OE1	2:CB:200:ILE:HB	2.20	0.42
12:CL:91:LYS:HE2	12:CL:91:LYS:HA	2.00	0.42
1:AA:991:U:O2	1:AA:993:G:C8	2.73	0.42
58:BZ:30:ASN:HA	58:BZ:89:PHE:CE2	2.54	0.42
24:AY:344:LEU:N	24:AY:344:LEU:HD23	2.35	0.42
3:AC:182:ILE:HG12	3:AC:203:PHE:HD1	1.84	0.42
48:BP:18:ARG:O	48:BP:20:GLY:N	2.53	0.42
1:CA:376:G:H5''	16:CP:5:ARG:HB2	2.01	0.42
42:BH:92:ILE:O	42:BH:94:TYR:N	2.53	0.42
8:CH:86:ILE:CG2	8:CH:133:LEU:HD22	2.44	0.42
1:AA:353:A:C2'	1:AA:354:G:OP2	2.67	0.42
20:CT:41:ILE:HG13	20:CT:42:GLN:N	2.34	0.42
57:BY:34:LYS:HE2	57:BY:34:LYS:HB3	1.71	0.42
16:AP:12:LYS:O	16:AP:13:HIS:HB2	2.19	0.42
37:DC:191:ARG:HG3	37:DC:191:ARG:NH1	2.33	0.42
57:DY:19:LYS:HE3	57:DY:19:LYS:HB2	1.82	0.42
3:AC:75:VAL:O	3:AC:75:VAL:HG12	2.19	0.42
35:DA:629:G:H4'	35:DA:650:C:O2	2.20	0.42
49:BQ:55:VAL:HG22	49:BQ:56:ARG:N	2.34	0.42
49:BQ:56:ARG:HH12	58:BZ:180:VAL:HG13	1.85	0.42
35:BA:2115:G:H4'	35:BA:2167:U:H1'	2.02	0.42
21:CU:12:LYS:N	21:CU:12:LYS:HD2	2.35	0.42
35:BA:2713:A:C3'	35:BA:2714:G:H5'	2.50	0.42
50:DR:9:LYS:HB2	50:DR:9:LYS:HE3	1.85	0.42
56:DX:64:LYS:HD2	56:DX:73:ARG:CZ	2.50	0.42
40:BF:160:ASN:ND2	40:BF:160:ASN:C	2.72	0.42
1:CA:833:U:H3	1:CA:853:G:H1	1.67	0.42
2:AB:139:LYS:C	2:AB:143:GLU:HG3	2.40	0.42
54:BV:82:ARG:NH1	54:BV:82:ARG:HG2	2.35	0.42
35:DA:2712(A):A:H5''	35:DA:2713:A:OP2	2.20	0.42
35:BA:1079:C:H1'	45:BK:132:ARG:HD3	2.00	0.42
35:DA:2124:G:C2'	35:DA:2125:G:H5'	2.48	0.42
35:BA:2740:A:C6	35:BA:2764:A:C8	3.08	0.42
35:BA:271(V):G:H2'	35:BA:271(W):G:O4'	2.19	0.42
53:BU:114:LYS:H	53:BU:114:LYS:HG2	1.69	0.42
14:CN:12:ARG:HH12	14:CN:14:PRO:HD3	1.85	0.42
44:BJ:81:UNK:O	44:BJ:83:UNK:N	2.52	0.42
35:DA:66:C:O2'	35:DA:67:U:H5'	2.20	0.42
24:CY:106:LEU:C	24:CY:108:ASN:N	2.72	0.42
57:DY:52:SER:O	57:DY:54:LYS:N	2.53	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:2861:G:C2'	35:BA:2862:G:H5'	2.49	0.42
7:AG:105:VAL:O	7:AG:108:ALA:HB3	2.20	0.42
1:CA:868:C:H2'	1:CA:869:G:O4'	2.19	0.42
35:DA:1339:G:N2	35:DA:1603:A:H1'	2.35	0.42
35:DA:466:A:C2'	35:DA:467:G:H5'	2.49	0.42
25:D0:10:THR:HG21	35:DA:2277:G:P	2.60	0.42
27:B2:33:MET:HG3	27:B2:37:PHE:HE1	1.85	0.42
55:DW:29:LEU:HD21	55:DW:33:ARG:NH2	2.35	0.42
35:DA:230:U:O2'	35:DA:231:C:H5'	2.19	0.42
6:AF:92:LYS:NZ	6:AF:92:LYS:HB2	2.34	0.42
40:BF:62:ARG:HH22	40:BF:64:ILE:HD12	1.85	0.42
40:BF:165:ARG:H	40:BF:165:ARG:HG2	1.51	0.42
1:AA:666:G:H5'	1:AA:726:C:H1'	2.02	0.42
35:BA:2559:C:O2'	35:BA:2560:C:H5'	2.20	0.42
7:CG:9:VAL:O	7:CG:10:ARG:C	2.58	0.42
8:CH:43:GLY:O	8:CH:79:VAL:HG11	2.20	0.42
2:CB:66:GLY:HA2	2:CB:160:ASP:OD2	2.19	0.42
1:AA:575:G:H4'	1:AA:576:G:H5'	2.02	0.42
8:AH:4:ASP:CG	8:AH:85:ARG:HH21	2.23	0.42
39:DE:137:HIS:HB3	39:DE:138:PRO:HD2	2.01	0.42
35:DA:1923:U:O2'	35:DA:1924:C:H5'	2.20	0.42
35:BA:2431:U:O2	35:BA:2433:A:C8	2.73	0.42
35:DA:565:C:H2'	35:DA:566:U:O4'	2.19	0.42
44:BJ:86:UNK:O	44:BJ:87:UNK:CB	2.67	0.42
24:AY:306:GLU:OE2	24:AY:306:GLU:HA	2.20	0.42
35:BA:2752:C:O5'	35:BA:2752:C:H6	2.03	0.42
13:CM:5:ALA:O	13:CM:6:GLY:C	2.58	0.42
52:DT:76:PHE:HA	52:DT:77:PRO:HD3	1.76	0.41
48:BP:66:GLY:O	48:BP:67:MET:HB3	2.19	0.41
33:D8:63:PRO:O	33:D8:64:TYR:O	2.38	0.41
51:DS:15:ARG:C	51:DS:17:ARG:N	2.73	0.41
41:DG:82:LEU:CD2	41:DG:83:ARG:N	2.79	0.41
45:BK:109:LYS:HZ2	45:BK:109:LYS:HB3	1.82	0.41
38:DD:108:PRO:CG	38:DD:111:LEU:HD23	2.50	0.41
38:BD:83:GLU:OE1	38:BD:104:TYR:CE2	2.72	0.41
52:BT:129:ARG:NH1	52:BT:131:ALA:HB3	2.29	0.41
35:BA:1494:A:HO2'	35:BA:1496:A:H2	1.60	0.41
43:DI:81:VAL:CG2	43:DI:88:ILE:HG21	2.48	0.41
42:DH:156:ALA:HB3	42:DH:159:GLU:CB	2.50	0.41
43:DI:10:GLU:O	43:DI:12:LEU:N	2.50	0.41
46:DN:2:LYS:HZ2	53:DU:95:LEU:CD2	2.18	0.41
54:DV:52:VAL:O	54:DV:52:VAL:CG2	2.68	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:1528:A:N1	35:BA:1542:A:C2	2.87	0.41
13:CM:125:ARG:HG3	24:CY:160:PRO:CD	2.35	0.41
43:DI:133:HIS:HB2	43:DI:134:PRO:HD2	1.94	0.41
1:AA:1131:G:C6	1:AA:1132:C:N4	2.88	0.41
35:BA:251:A:H2'	35:BA:252:G:O4'	2.20	0.41
47:BO:69:ILE:CD1	47:BO:69:ILE:N	2.83	0.41
10:AJ:4:ILE:CD1	10:AJ:4:ILE:N	2.79	0.41
10:AJ:4:ILE:HB	10:AJ:74:ILE:HD11	2.01	0.41
1:AA:15:G:H4'	5:AE:24:ARG:CZ	2.50	0.41
10:CJ:4:ILE:HD13	10:CJ:74:ILE:HG13	2.01	0.41
39:DE:51:PHE:CE1	39:DE:52:LEU:HD22	2.50	0.41
26:B1:53:VAL:HG12	26:B1:53:VAL:O	2.19	0.41
43:DI:99:GLU:C	43:DI:101:LEU:H	2.24	0.41
1:CA:1004:A:H3'	1:CA:1036:G:O6	2.20	0.41
38:BD:102:LYS:C	38:BD:103:ARG:HG2	2.39	0.41
26:B1:3:LYS:CG	26:B1:4:VAL:H	2.33	0.41
24:AY:122:PRO:HB3	24:AY:130:CYS:HA	2.01	0.41
43:DI:57:ARG:HG2	43:DI:61:ARG:NH1	2.26	0.41
31:B6:10:LEU:HD11	33:B8:34:TRP:CE2	2.55	0.41
58:BZ:56:VAL:C	58:BZ:57:ILE:HD12	2.41	0.41
1:CA:1250:A:H61	1:CA:1354:C:H1'	1.84	0.41
7:AG:113:GLU:HB2	7:AG:119:ARG:HG2	2.01	0.41
16:CP:59:TRP:CE3	16:CP:59:TRP:HA	2.55	0.41
1:CA:1111:A:O2'	1:CA:1112:C:H5'	2.20	0.41
4:AD:150:GLU:CG	4:AD:151:LYS:N	2.83	0.41
12:AL:22:SER:C	12:AL:24:VAL:N	2.73	0.41
45:BK:119:ASP:CG	45:BK:122:ALA:HB3	2.40	0.41
41:DG:28:VAL:O	41:DG:31:VAL:CG1	2.68	0.41
35:DA:1665:A:C2'	35:DA:1666:G:H5'	2.50	0.41
9:AI:104:ARG:HG3	9:AI:104:ARG:HH11	1.84	0.41
6:CF:55:ASP:C	6:CF:57:GLN:H	2.24	0.41
1:CA:1255:G:C2'	1:CA:1255:G:N3	2.82	0.41
39:BE:101:ARG:HD3	39:BE:171:GLU:HA	2.02	0.41
5:AE:151:LEU:HD11	8:AH:77:GLU:OE2	2.20	0.41
21:CU:12:LYS:HB3	21:CU:22:ARG:HD2	2.00	0.41
3:AC:155:GLY:O	3:AC:196:LEU:HD13	2.20	0.41
38:BD:186:HIS:HD2	38:BD:188:GLU:HB2	1.83	0.41
38:DD:118:VAL:CG2	38:DD:119:ALA:N	2.82	0.41
2:CB:15:VAL:C	2:CB:16:HIS:CG	2.93	0.41
1:AA:1015:A:O5'	1:AA:1015:A:H8	2.03	0.41
7:CG:153:HIS:O	7:CG:154:TYR:HD2	2.03	0.41
35:BA:234:C:H2'	35:BA:235:U:H6	1.85	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DH:83:TYR:O	42:DH:84:SER:CB	2.68	0.41
1:CA:336:C:H2'	1:CA:337:C:C6	2.53	0.41
58:DZ:136:PHE:CD1	58:DZ:136:PHE:O	2.73	0.41
49:BQ:42:ILE:HD13	49:BQ:97:VAL:CG2	2.50	0.41
40:DF:128:ALA:O	40:DF:130:ALA:N	2.53	0.41
35:BA:2862:G:H2'	35:BA:2863:C:H6	1.85	0.41
38:DD:69:ARG:NH2	38:DD:128:GLY:O	2.44	0.41
1:CA:629:G:H2'	1:CA:630:G:O4'	2.20	0.41
24:AY:25:ARG:HH12	24:AY:29:LEU:HD23	1.84	0.41
23:CX:15:A:H2'	23:CX:15:A:N3	2.34	0.41
5:CE:135:THR:O	5:CE:136:MET:C	2.58	0.41
36:BB:115:G:C4'	51:BS:47:THR:HB	2.50	0.41
35:BA:1516:C:H2'	35:BA:1517:G:C8	2.54	0.41
6:AF:42:GLU:C	6:AF:44:GLY:H	2.23	0.41
35:DA:1579:A:H2'	35:DA:1580:A:O4'	2.19	0.41
24:CY:254:LEU:N	24:CY:255:PRO:HD2	2.35	0.41
35:DA:2784:C:H1'	39:DE:37:ARG:HH12	1.85	0.41
53:BU:59:ARG:HH11	53:BU:59:ARG:HG2	1.85	0.41
26:B1:37:ILE:CG2	26:B1:38:SER:N	2.83	0.41
1:CA:767:A:H2'	1:CA:768:A:O4'	2.19	0.41
40:BF:165:ARG:CG	40:BF:165:ARG:HH11	2.31	0.41
20:AT:96:GLY:O	20:AT:97:ALA:O	2.38	0.41
35:BA:2320:A:H2'	35:BA:2320:A:N3	2.35	0.41
40:BF:33:LEU:O	40:BF:37:VAL:HG23	2.20	0.41
35:BA:664:C:H2'	35:BA:665:C:H6	1.85	0.41
35:BA:1234:U:H2'	35:BA:1235:G:H5'	2.02	0.41
35:BA:1314:C:H6	35:BA:1314:C:H5'	1.85	0.41
39:DE:137:HIS:CB	39:DE:138:PRO:HD2	2.50	0.41
38:BD:145:VAL:HG22	38:BD:191:ALA:HB1	2.01	0.41
9:AI:108:VAL:O	9:AI:110:GLU:N	2.53	0.41
35:DA:2179:C:O2	35:DA:2181:G:O6	2.38	0.41
10:CJ:79:ARG:HA	10:CJ:82:ILE:HG12	2.02	0.41
41:BG:70:VAL:HA	41:BG:89:GLY:O	2.21	0.41
1:AA:1417:G:N2	1:AA:1482:G:H2'	2.34	0.41
35:BA:1970:A:H5''	35:BA:1971:A:OP1	2.20	0.41
56:BX:18:TYR:O	56:BX:20:GLY:N	2.53	0.41
58:DZ:89:PHE:CD2	58:DZ:89:PHE:C	2.93	0.41
55:BW:99:ARG:HH11	55:BW:99:ARG:HG2	1.84	0.41
56:BX:41:ASN:O	56:BX:45:THR:HG23	2.20	0.41
11:CK:100:ALA:O	11:CK:101:SER:HB3	2.20	0.41
35:BA:154:G:O6	35:BA:172:C:N4	2.50	0.41
24:AY:118:LEU:HD11	24:AY:180:LEU:HD13	2.02	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
57:BY:8:LYS:N	57:BY:8:LYS:CD	2.76	0.41
35:DA:335:C:H4'	57:DY:73:ARG:CZ	2.50	0.41
33:D8:61:LEU:HD12	33:D8:62:LEU:H	1.85	0.41
33:D8:61:LEU:HD12	33:D8:62:LEU:HG	2.02	0.41
49:DQ:29:PHE:N	49:DQ:105:GLU:OE2	2.52	0.41
40:DF:25:PRO:HB3	40:DF:119:ARG:HD3	2.01	0.41
35:BA:156:U:C5'	35:BA:158:U:H5	2.32	0.41
58:DZ:139:VAL:CG2	58:DZ:155:LEU:HD12	2.50	0.41
2:AB:97:TRP:HH2	2:AB:176:GLU:HB2	1.84	0.41
51:DS:90:GLY:C	51:DS:92:TYR:H	2.23	0.41
24:CY:242:VAL:HA	24:CY:245:THR:HG22	2.02	0.41
24:AY:151:VAL:CG1	24:AY:169:ILE:HG21	2.50	0.41
29:D4:33:VAL:HG21	41:DG:109:VAL:HG13	2.02	0.41
54:BV:60:GLU:O	54:BV:62:LEU:HD22	2.20	0.41
41:BG:5:VAL:CG1	41:BG:6:ALA:N	2.80	0.41
1:CA:973:G:C1'	10:CJ:55:LYS:HE2	2.48	0.41
3:CC:186:PHE:HZ	3:CC:188:LEU:HD11	1.82	0.41
43:DI:120:ILE:O	43:DI:121:LYS:C	2.58	0.41
35:BA:803:U:O2'	35:BA:804:A:H5'	2.20	0.41
51:DS:74:ALA:HB1	51:DS:103:GLU:CG	2.49	0.41
40:DF:68:LYS:HB3	40:DF:69:HIS:H	1.52	0.41
40:BF:53:THR:C	40:BF:55:GLY:H	2.22	0.41
35:DA:1115:G:C2	35:DA:1116:C:H1'	2.56	0.41
15:CO:82:ILE:HD13	15:CO:83:GLU:N	2.35	0.41
30:D5:4:HIS:HD2	35:DA:2056:G:H1	1.67	0.41
45:BK:5:VAL:O	45:BK:5:VAL:HG13	2.19	0.41
15:AO:82:ILE:HD13	15:AO:83:GLU:N	2.35	0.41
20:CT:89:ARG:CZ	20:CT:104:LEU:HD21	2.50	0.41
46:DN:89:LYS:O	46:DN:93:THR:CG2	2.68	0.41
47:DO:77:ILE:CD1	52:DT:74:ARG:HD3	2.42	0.41
25:D0:68:GLU:OE2	25:D0:82:ARG:HB2	2.20	0.41
9:CI:9:ARG:HG2	9:CI:14:VAL:CG2	2.41	0.41
48:DP:102:ARG:HH21	48:DP:102:ARG:HB2	1.85	0.41
35:DA:1348:G:C2'	35:DA:1349:A:C5'	2.92	0.41
26:B1:45:ASN:C	26:B1:45:ASN:ND2	2.73	0.41
24:AY:72:LEU:C	24:AY:74:GLU:H	2.24	0.41
2:CB:115:LEU:O	2:CB:118:LEU:HB2	2.20	0.41
16:AP:45:THR:HG23	16:AP:46:PRO:CD	2.47	0.41
35:DA:16:G:O2'	35:DA:17:G:H5'	2.19	0.41
38:BD:35:LYS:CG	38:BD:63:ARG:HD2	2.47	0.41
10:CJ:28:ARG:NH1	10:CJ:28:ARG:HG2	2.34	0.41
41:BG:171:ALA:O	41:BG:172:LEU:C	2.59	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:AU:2:GLY:C	21:AU:4:GLY:N	2.72	0.41
39:BE:60:ASN:O	39:BE:63:LEU:HB2	2.19	0.41
35:BA:364:C:C2'	35:BA:365:C:H5''	2.51	0.41
37:BC:52:PRO:C	37:BC:54:ARG:H	2.23	0.41
35:DA:1281:G:C8	35:DA:1281:G:H5'	2.49	0.41
39:DE:61:ARG:HB3	39:DE:62:PRO:CD	2.50	0.41
1:AA:389:A:H2'	1:AA:390:C:C5'	2.50	0.41
18:AR:37:VAL:HG23	18:AR:38:GLU:N	2.26	0.41
1:AA:1111:A:O2'	1:AA:1112:C:H5'	2.19	0.41
7:CG:150:ALA:HB2	11:CK:50:TYR:OH	2.20	0.41
3:AC:81:GLY:O	3:AC:85:ARG:HB2	2.21	0.41
8:AH:35:ILE:HD13	8:AH:118:VAL:HG11	2.02	0.41
1:CA:659:U:OP1	15:CO:9:GLN:NE2	2.53	0.41
35:BA:2124:G:C2'	35:BA:2125:G:H5'	2.49	0.41
50:DR:44:LEU:HD12	50:DR:114:VAL:HG11	2.02	0.41
35:DA:819:A:OP2	35:DA:1187:G:N2	2.43	0.41
3:CC:47:LEU:HD21	3:CC:68:VAL:CG1	2.50	0.41
1:CA:271:C:O2'	1:CA:272:C:H5'	2.20	0.41
35:DA:234:C:O2'	35:DA:235:U:H5'	2.20	0.41
1:AA:950:U:H4'	1:AA:971:G:C2	2.55	0.41
24:CY:224:PRO:C	24:CY:227:LEU:HB2	2.40	0.41
42:BH:138:LYS:O	42:BH:141:VAL:N	2.53	0.41
57:DY:90:LEU:CD1	57:DY:91:GLU:HG2	2.50	0.41
39:BE:32:PRO:HA	39:BE:69:LYS:HE3	2.01	0.41
7:CG:129:GLU:HG2	7:CG:129:GLU:O	2.20	0.41
1:AA:1011:G:H1	1:AA:1018:C:N4	2.19	0.41
4:AD:73:ARG:NH1	4:AD:73:ARG:HG2	2.35	0.41
1:AA:1170:A:C2'	1:AA:1171:G:H5'	2.51	0.41
35:DA:2291:U:OP1	35:DA:2381:C:H5'	2.20	0.41
3:CC:138:VAL:CG2	3:CC:151:VAL:HG23	2.51	0.41
4:CD:61:LYS:HD3	4:CD:206:PHE:CE2	2.55	0.41
22:CV:18:G:H21	22:CV:58:A:C5'	2.32	0.41
1:AA:978:A:OP2	1:AA:1363:C:N4	2.46	0.41
47:DO:2:ILE:CD1	47:DO:6:THR:HG21	2.50	0.41
35:DA:2737:G:H2'	35:DA:2738:A:C8	2.53	0.41
26:B1:29:GLY:O	26:B1:30:VAL:HG22	2.20	0.41
35:BA:1683:C:H2'	35:BA:1684:C:H6	1.86	0.41
35:DA:2277:G:H2'	35:DA:2278:A:H5'	2.02	0.41
1:CA:151:A:C2'	1:CA:152:A:H5'	2.49	0.41
38:BD:198:ASN:CG	38:BD:198:ASN:O	2.59	0.41
4:AD:42:GLN:CG	4:AD:42:GLN:O	2.67	0.41
58:BZ:29:TYR:HB3	58:BZ:34:ASN:CB	2.50	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DF:34:TRP:CZ2	48:DP:12:ALA:HB2	2.55	0.41
35:BA:236:C:H2'	35:BA:237:C:C6	2.55	0.41
40:DF:136:THR:O	40:DF:137:LYS:C	2.59	0.41
35:DA:2572:A:N7	39:DE:145:LYS:HB2	2.35	0.41
35:BA:716:A:H3'	35:BA:717:G:H5''	2.02	0.41
1:CA:1216:G:O2'	1:CA:1217:C:H5'	2.19	0.41
1:AA:49:U:O2	1:AA:362:G:H1'	2.19	0.41
1:CA:1516:G:H2'	1:CA:1518:A:OP2	2.19	0.41
20:CT:96:GLY:O	20:CT:97:ALA:C	2.59	0.41
35:BA:352:G:H4'	35:BA:353:G:N7	2.35	0.41
1:AA:1376:U:H2'	1:AA:1377:A:C8	2.55	0.41
17:CQ:33:GLY:O	17:CQ:34:LYS:C	2.59	0.41
39:BE:137:HIS:HB3	39:BE:138:PRO:HD2	2.02	0.41
25:B0:26:TYR:O	25:B0:29:GLN:HB2	2.20	0.41
38:DD:76:PRO:O	38:DD:98:VAL:HG23	2.20	0.41
35:DA:341:G:C2'	35:DA:342:G:H5'	2.49	0.41
35:BA:1923:U:O2'	35:BA:1924:C:H5'	2.19	0.41
44:BJ:102:UNK:HA	44:BJ:106:UNK:CB	2.50	0.41
26:D1:17:SER:O	26:D1:37:ILE:HA	2.20	0.41
35:DA:2676:C:H2'	35:DA:2677:G:H8	1.85	0.41
5:AE:127:ASN:O	5:AE:128:PRO:C	2.58	0.41
24:CY:117:ILE:HG12	24:CY:170:LEU:HD13	2.02	0.41
49:DQ:27:VAL:CG2	49:DQ:137:TYR:CD1	3.02	0.41
58:DZ:79:ARG:O	58:DZ:79:ARG:HG3	2.20	0.41
54:DV:19:LYS:HZ3	54:DV:20:LEU:HB2	1.85	0.41
35:BA:1056:G:OP1	44:BJ:34:UNK:HA	2.20	0.41
58:DZ:150:LEU:HD23	58:DZ:171:ILE:HG13	2.02	0.41
2:CB:162:ILE:HD11	2:CB:184:VAL:HG13	2.02	0.41
2:AB:164:VAL:HG11	2:AB:170:GLU:HB2	2.01	0.41
5:CE:102:ALA:HB2	5:CE:120:THR:OG1	2.20	0.41
29:B4:31:ILE:HG22	29:B4:32:TYR:N	2.35	0.41
52:DT:129:ARG:O	52:DT:129:ARG:CG	2.64	0.41
39:BE:78:LEU:O	39:BE:78:LEU:HD12	2.19	0.41
35:BA:1409:C:H2'	35:BA:1410:G:C8	2.55	0.41
1:CA:939:G:O3'	7:CG:102:ARG:NH1	2.54	0.41
20:AT:57:ARG:HH12	20:AT:100:ILE:CG1	2.33	0.41
33:D8:56:GLU:HA	33:D8:59:LYS:CE	2.50	0.41
48:DP:47:ASP:CB	48:DP:48:PRO:CA	2.97	0.41
46:BN:93:THR:O	46:BN:94:HIS:CB	2.67	0.41
54:DV:43:GLU:O	54:DV:44:LYS:C	2.59	0.41
35:BA:1216:G:OP2	53:BU:12:ARG:NH2	2.53	0.41
50:DR:116:LEU:HA	50:DR:116:LEU:HD23	1.79	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:58:GLU:H	3:CC:65:ALA:HB3	1.84	0.41
1:CA:363:A:N7	12:CL:30:ALA:HB1	2.35	0.41
12:CL:35:GLY:HA3	12:CL:58:VAL:HG11	2.01	0.41
9:CI:81:ILE:HG22	9:CI:81:ILE:O	2.21	0.41
19:CS:31:ILE:HG22	19:CS:48:THR:O	2.20	0.41
38:DD:35:LYS:NZ	38:DD:35:LYS:CB	2.83	0.41
2:AB:145:LEU:O	2:AB:149:LEU:HB2	2.20	0.41
24:AY:270:LYS:CD	25:B0:5:LYS:HD3	2.50	0.41
55:DW:64:MET:HB3	55:DW:64:MET:HE2	1.93	0.41
3:CC:48:TYR:HA	3:CC:52:LEU:CD2	2.50	0.41
30:D5:45:VAL:HG23	50:DR:99:LYS:O	2.20	0.41
17:CQ:59:ILE:HG22	17:CQ:71:PHE:CD1	2.55	0.41
37:BC:7:ARG:NH2	37:BC:219:MET:HB3	2.35	0.41
1:CA:376:G:O3'	16:CP:5:ARG:HD2	2.20	0.41
31:D6:25:LYS:NZ	35:DA:2284:C:N4	2.66	0.41
35:DA:958:U:O2	36:DB:90:A:H4'	2.19	0.41
48:DP:105:LEU:HD12	48:DP:105:LEU:N	2.34	0.41
9:AI:113:LYS:H	9:AI:119:ALA:HA	1.85	0.41
14:AN:4:LYS:HD3	14:AN:7:ILE:HD11	2.02	0.41
22:AW:15:G:H22	22:AW:59:U:C2'	2.33	0.41
24:AY:320:TYR:CA	24:AY:333:PRO:HD3	2.49	0.41
24:AY:330:ARG:NH2	24:AY:343:ASP:OD1	2.54	0.41
35:DA:2757:A:N1	42:DH:67:LEU:HD22	2.35	0.41
48:DP:40:SER:O	48:DP:41:ARG:NH1	2.53	0.41
3:AC:74:GLY:O	3:AC:76:VAL:N	2.54	0.41
35:BA:2757:A:N1	42:BH:67:LEU:HD22	2.35	0.41
35:BA:2165:G:C2'	35:BA:2166:G:H5'	2.50	0.41
9:CI:104:ARG:HH11	9:CI:104:ARG:HG3	1.85	0.41
39:DE:35:GLN:HB3	39:DE:48:GLN:HB3	2.03	0.41
13:AM:66:LEU:O	13:AM:70:LEU:HB2	2.20	0.41
1:CA:153:C:O2'	1:CA:154:C:H5'	2.20	0.41
13:CM:65:LYS:O	13:CM:65:LYS:HG3	2.19	0.41
58:DZ:93:ASP:O	58:DZ:130:PRO:HD2	2.20	0.41
1:AA:1434:A:O2'	1:AA:1435:G:H5'	2.18	0.41
1:CA:142:G:H2'	1:CA:143:A:H8	1.85	0.41
35:BA:880:G:C2	35:BA:881:G:C8	3.07	0.41
35:BA:2463:C:C2'	35:BA:2464:C:H5'	2.50	0.41
35:DA:1078:U:H5''	45:DK:132:ARG:HH12	1.86	0.41
35:DA:1308:A:H2'	35:DA:1309:G:O4'	2.20	0.41
19:CS:33:THR:CG2	19:CS:51:VAL:HA	2.49	0.41
38:BD:116:GLN:HG3	38:BD:117:VAL:N	2.36	0.41
53:DU:78:THR:O	53:DU:81:HIS:N	2.53	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BN:82:LEU:HA	46:BN:82:LEU:HD12	1.85	0.41
1:AA:189(C):C:C2'	1:AA:189(D):C:H5'	2.50	0.41
52:DT:63:VAL:O	52:DT:73:GLU:HA	2.20	0.41
1:CA:134:A:H61	16:CP:25:ARG:HH12	1.67	0.41
35:DA:1386:C:OP2	35:DA:1396:U:H5	2.03	0.41
54:DV:21:ARG:HG2	54:DV:91:TYR:CG	2.55	0.41
1:CA:448:A:P	1:CA:485:G:H22	2.43	0.41
1:CA:978:A:OP2	1:CA:1363:C:N4	2.46	0.41
1:CA:559:A:H4'	1:CA:560:U:C5'	2.50	0.41
1:AA:1463:C:H2'	1:AA:1464:G:C8	2.54	0.41
51:BS:84:GLN:HB3	51:BS:105:ALA:HB3	2.02	0.41
32:B7:5:TRP:CD1	32:B7:7:PRO:HD3	2.55	0.41
35:BA:1057:A:H62	35:BA:1086:A:H2'	1.86	0.41
35:DA:1351:C:H2'	35:DA:1352:U:C6	2.55	0.41
36:DB:111:G:C2'	36:DB:112:U:H5'	2.51	0.41
5:CE:64:ARG:HB2	5:CE:64:ARG:CZ	2.51	0.41
1:CA:705:U:C5	1:CA:706:A:C5	3.09	0.41
1:CA:1407:C:O2'	35:DA:1912:A:N1	2.44	0.41
39:BE:182:LEU:O	39:BE:183:LEU:HD12	2.20	0.41
35:DA:2038:G:H2'	35:DA:2039:C:O4'	2.20	0.41
35:DA:247:G:H4'	35:DA:386:G:C5	2.55	0.41
38:DD:176:ARG:HH11	38:DD:176:ARG:HG2	1.85	0.41
40:DF:196:LEU:HD23	40:DF:196:LEU:HA	1.74	0.41
50:BR:59:ASP:OD2	50:BR:59:ASP:N	2.54	0.41
58:BZ:77:ASP:CG	58:BZ:77:ASP:O	2.58	0.41
51:DS:63:THR:O	51:DS:66:ALA:HB3	2.21	0.41
9:CI:99:LEU:HB3	9:CI:101:PHE:CE1	2.55	0.41
46:DN:24:GLY:HA2	46:DN:27:ALA:HB3	2.01	0.41
1:AA:890:G:O2'	1:AA:906:G:O6	2.37	0.41
49:DQ:29:PHE:HB2	49:DQ:105:GLU:OE2	2.21	0.41
4:AD:128:VAL:CG1	4:AD:129:ASN:N	2.59	0.41
36:BB:104:U:H5''	49:BQ:141:GLN:HE21	1.86	0.41
35:BA:1109:C:O2	35:BA:1109:C:C3'	2.69	0.41
35:DA:1049:C:C5	35:DA:1111:A:C2	3.08	0.41
38:BD:108:PRO:HA	38:BD:196:VAL:O	2.20	0.41
51:BS:12:PHE:O	51:BS:13:ARG:C	2.58	0.41
22:CW:62:C:C4'	37:DC:53:ARG:HG3	2.51	0.41
41:DG:92:VAL:HG22	41:DG:93:THR:N	2.35	0.41
41:DG:62:LEU:HD12	41:DG:62:LEU:O	2.20	0.41
41:BG:131:TYR:O	41:BG:159:VAL:HG12	2.20	0.41
41:BG:68:PRO:HB2	41:BG:90:LEU:CD1	2.50	0.41
6:CF:30:LEU:HD12	6:CF:37:VAL:CG2	2.50	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:20:TYR:HA	4:CD:26:CYS:SG	2.60	0.41
51:BS:85:VAL:O	51:BS:106:ARG:CG	2.65	0.41
43:DI:9:LEU:HD22	43:DI:12:LEU:HG	2.01	0.41
40:BF:68:LYS:O	40:BF:70:THR:N	2.49	0.41
53:DU:88:ILE:CG2	54:DV:47:VAL:HG23	2.43	0.41
1:CA:1128:C:O2'	1:CA:1130:A:C8	2.72	0.41
1:CA:1131:G:C6	1:CA:1132:C:N4	2.88	0.41
3:AC:14:ILE:O	3:AC:16:ARG:N	2.52	0.41
15:CO:25:THR:O	15:CO:26:GLU:C	2.58	0.41
48:BP:48:PRO:CG	48:BP:49:ARG:H	2.31	0.41
20:CT:57:ARG:NH1	20:CT:100:ILE:CG1	2.83	0.41
46:DN:126:PRO:O	46:DN:127:ASP:CB	2.67	0.41
46:DN:93:THR:O	46:DN:94:HIS:CB	2.68	0.41
33:D8:50:LEU:HA	33:D8:53:PRO:HG3	2.01	0.41
48:DP:48:PRO:CG	48:DP:49:ARG:N	2.84	0.41
48:DP:47:ASP:HB2	48:DP:51:PHE:HB2	2.03	0.41
47:BO:17:ARG:HH12	47:BO:47:ILE:CD1	2.33	0.41
35:BA:1170:G:H1	35:BA:1179:C:N4	1.99	0.41
53:DU:76:TYR:CZ	53:DU:80:ILE:HG13	2.56	0.41
33:B8:17:THR:OG1	33:B8:21:LYS:HB2	2.20	0.41
5:AE:8:GLU:CA	5:AE:34:VAL:HG23	2.50	0.41
10:CJ:25:GLU:C	10:CJ:27:ALA:H	2.24	0.41
26:D1:71:TYR:O	26:D1:74:VAL:HB	2.20	0.41
37:DC:6:LYS:O	37:DC:7:ARG:C	2.59	0.41
10:AJ:25:GLU:C	10:AJ:27:ALA:H	2.24	0.41
1:AA:521:G:O5'	12:AL:73:GLU:HG2	2.20	0.41
19:AS:12:ASP:HB3	19:AS:14:HIS:CE1	2.55	0.41
7:CG:15:ASP:OD2	7:CG:16:LEU:N	2.51	0.41
4:AD:196:LEU:CD1	4:AD:196:LEU:H	2.24	0.41
4:CD:119:GLN:CG	4:CD:123:HIS:CD2	3.04	0.41
1:CA:376:G:P	16:CP:67:THR:HG21	2.60	0.41
31:D6:25:LYS:HB2	33:D8:34:TRP:HE1	1.85	0.41
24:AY:83:GLU:CG	24:AY:83:GLU:O	2.68	0.41
25:D0:24:LYS:HG3	25:D0:36:ILE:HD11	2.02	0.41
1:AA:536:C:H2'	1:AA:537:G:C8	2.54	0.41
39:DE:70:ALA:O	39:DE:71:GLY:C	2.59	0.41
50:DR:11:ASN:O	50:DR:12:ARG:CB	2.68	0.41
38:DD:116:GLN:HG3	38:DD:117:VAL:N	2.35	0.41
54:DV:76:LYS:HB2	54:DV:81:TYR:HB3	2.03	0.41
56:BX:64:LYS:CD	56:BX:73:ARG:CZ	2.97	0.41
1:AA:1316:G:O3'	14:AN:18:VAL:HG13	2.20	0.41
55:BW:18:ARG:CG	55:BW:76:VAL:CG1	2.97	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:832:C:O2'	1:AA:833:U:P	2.77	0.41
20:CT:26:ASN:HB2	20:CT:71:THR:HG23	2.03	0.41
42:BH:85:LYS:O	42:BH:85:LYS:HD3	2.19	0.41
56:DX:8:ILE:H	56:DX:8:ILE:HD12	1.82	0.41
37:DC:46:ALA:HB1	37:DC:212:SER:O	2.20	0.41
1:AA:148:G:O2'	1:AA:149:A:H5'	2.20	0.41
1:AA:559:A:H4'	1:AA:560:U:C5'	2.49	0.41
42:DH:86:GLU:HA	42:DH:132:ARG:HA	2.02	0.41
14:AN:12:ARG:CZ	14:AN:12:ARG:HB2	2.49	0.41
35:BA:1386:C:OP2	35:BA:1396:U:H5	2.03	0.41
47:BO:115:VAL:CG1	47:BO:121:VAL:HG21	2.50	0.41
15:CO:43:LEU:HD11	15:CO:53:HIS:HA	2.03	0.41
1:AA:1206:G:O2'	3:AC:193:TYR:HA	2.20	0.41
35:DA:1027:A:C2	35:DA:2488:A:H5'	2.54	0.41
1:AA:629:G:H2'	1:AA:630:G:O4'	2.20	0.41
1:AA:355:C:C4	1:AA:356:A:N7	2.88	0.41
35:DA:2033:A:O2'	35:DA:2034:U:P	2.78	0.41
35:DA:2332:U:H5'	35:DA:2336:A:N6	2.34	0.41
11:AK:31:THR:O	11:AK:31:THR:HG23	2.20	0.41
7:AG:54:THR:OG1	7:AG:56:GLN:HG2	2.21	0.41
35:DA:605:C:H1'	35:DA:657:U:O2'	2.20	0.41
44:BJ:16:UNK:O	44:BJ:17:UNK:CB	2.68	0.41
1:CA:1076:C:C2'	1:CA:1077:G:H5'	2.50	0.41
13:CM:37:THR:O	13:CM:39:ILE:HG13	2.21	0.41
7:AG:95:ARG:O	7:AG:96:GLN:C	2.59	0.41
35:BA:387:U:H4'	35:BA:388:G:O5'	2.20	0.41
23:AX:17:U:O2'	23:AX:18:C:H5'	2.21	0.41
35:BA:107:C:O2'	35:BA:108:U:H5'	2.21	0.41
37:DC:10:ALA:O	37:DC:13:GLU:HG2	2.20	0.41
35:DA:375:C:H2'	35:DA:376:C:C6	2.55	0.41
2:AB:193:ASP:OD2	2:AB:193:ASP:O	2.38	0.41
22:AW:11:C:O5'	22:AW:11:C:H6	2.03	0.41
16:CP:82:GLN:N	16:CP:82:GLN:OE1	2.45	0.41
10:AJ:18:ALA:O	10:AJ:22:LYS:HB2	2.21	0.41
34:D9:8:LYS:HE3	35:DA:1032:A:OP1	2.20	0.41
24:CY:118:LEU:HD22	24:CY:208:VAL:HG13	2.01	0.41
4:CD:128:VAL:CG1	4:CD:129:ASN:ND2	2.82	0.41
49:DQ:65:PHE:HB2	49:DQ:105:GLU:HB2	2.02	0.41
49:BQ:65:PHE:HB2	49:BQ:105:GLU:HB2	2.02	0.41
22:CW:48:C:H3'	22:CW:50:U:C5	2.56	0.41
22:CV:76:8AN:H3'	24:CY:240:GLN:H	1.85	0.41
41:DG:125:PHE:HB3	41:DG:166:ASP:HB2	2.01	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BK:107:ILE:HD12	45:BK:110:GLN:HG3	2.03	0.41
45:BK:69:THR:HG22	45:BK:70:LYS:N	2.34	0.41
52:BT:128:GLU:CD	52:BT:129:ARG:N	2.73	0.41
35:BA:1490:A:H2'	38:BD:99:ASP:OD2	2.20	0.41
29:B4:12:ALA:HA	29:B4:29:PRO:HB3	2.02	0.41
1:AA:963:G:N2	10:AJ:55:LYS:HD2	2.36	0.41
35:DA:622:G:O2'	35:DA:623:G:H5'	2.20	0.41
39:DE:53:PRO:O	39:DE:54:GLN:C	2.59	0.41
27:D2:64:LEU:O	27:D2:68:ARG:HG3	2.21	0.41
35:BA:1539:G:H2'	35:BA:1540:U:C5'	2.50	0.41
35:BA:1541:G:C4'	35:BA:1542:A:O4'	2.65	0.41
45:BK:20:ALA:CB	45:BK:25:PRO:HD3	2.50	0.41
35:BA:330:A:HO2'	35:BA:331:A:H8	1.59	0.41
35:BA:1040:C:O2'	35:BA:1041:C:P	2.79	0.41
35:DA:904:C:H2'	35:DA:905:U:C6	2.56	0.41
35:BA:2287:A:N1	35:BA:2346:A:C2	2.89	0.41
48:BP:47:ASP:CB	48:BP:48:PRO:CA	2.95	0.41
27:D2:45:SER:O	27:D2:46:GLN:OE1	2.38	0.41
45:DK:23:VAL:O	45:DK:23:VAL:CG1	2.69	0.41
48:DP:48:PRO:CG	48:DP:49:ARG:H	2.31	0.41
46:BN:123:TYR:C	46:BN:125:GLY:H	2.23	0.41
11:AK:20:TYR:O	11:AK:30:VAL:HA	2.21	0.41
9:CI:15:ALA:CA	9:CI:65:VAL:HA	2.48	0.41
48:DP:100:LEU:CD1	48:DP:112:LEU:HD21	2.48	0.41
38:DD:101:GLU:HG2	38:DD:102:LYS:N	2.35	0.41
1:AA:253:U:H2'	1:AA:254:G:C8	2.55	0.41
1:AA:267:C:OP2	17:AQ:67:LYS:HD2	2.20	0.41
54:BV:1:MET:HB3	54:BV:99:ILE:HG13	2.01	0.41
54:DV:1:MET:CB	54:DV:99:ILE:HG13	2.50	0.41
2:CB:112:VAL:C	2:CB:114:ARG:N	2.71	0.41
2:CB:47:THR:HG22	2:CB:51:LEU:CD1	2.50	0.41
43:BI:88:ILE:HG22	43:BI:90:GLY:N	2.35	0.41
35:DA:271(K):U:O2	43:DI:50:ARG:HD3	2.20	0.41
3:AC:113:ALA:HB1	3:AC:185:GLY:N	2.36	0.41
52:BT:41:ARG:O	52:BT:42:ILE:C	2.59	0.41
43:BI:43:ASN:HA	43:BI:46:ALA:CB	2.42	0.41
48:BP:88:LEU:O	48:BP:89:ALA:C	2.58	0.41
22:AW:52:G:H1'	22:AW:63:G:O6	2.20	0.41
58:BZ:64:GLY:O	58:BZ:65:GLN:C	2.57	0.41
35:DA:2811:G:C2'	35:DA:2812:G:H5'	2.50	0.41
17:AQ:50:LYS:HG2	17:AQ:51:TYR:CE1	2.56	0.41
1:CA:1053:G:H3'	1:CA:1054:C:H5'	2.01	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:D8:33:ASN:O	35:DA:2420:C:P	2.79	0.41
17:CQ:6:LEU:O	17:CQ:58:GLU:HA	2.21	0.41
35:DA:2580:U:H5'	39:DE:131:ALA:N	2.36	0.41
25:B0:74:ARG:CG	36:BB:12:C:O2'	2.63	0.41
1:CA:59:A:H3'	1:CA:331:G:H22	1.85	0.41
16:CP:18:ARG:O	16:CP:19:ILE:C	2.59	0.41
1:AA:1374:A:C4	1:AA:1375:A:C8	3.08	0.41
4:AD:132:ARG:NH1	4:AD:132:ARG:CG	2.84	0.41
2:AB:119:GLU:C	2:AB:121:LEU:N	2.74	0.41
2:AB:119:GLU:O	2:AB:121:LEU:N	2.52	0.41
38:DD:257:LEU:C	38:DD:257:LEU:HD13	2.41	0.41
25:D0:42:GLY:HA2	35:DA:2330:G:H21	1.85	0.41
1:AA:1254:C:H2'	1:AA:1255:G:H8	1.85	0.41
1:AA:1269:A:H2	1:AA:1312:G:N3	2.17	0.41
21:AU:6:ARG:HG2	21:AU:15:ARG:NH1	2.35	0.41
13:AM:67:GLU:O	13:AM:69:GLU:N	2.54	0.41
13:AM:68:GLY:O	13:AM:69:GLU:HB2	2.20	0.41
54:DV:85:LYS:HB2	54:DV:85:LYS:HE2	1.88	0.41
22:AW:36:A:H2'	22:AW:37:A:O4'	2.20	0.41
35:DA:784:A:C8	35:DA:792:G:C5	3.08	0.41
2:AB:12:GLU:O	2:AB:14:GLY:N	2.53	0.41
6:CF:97:PHE:CB	18:CR:32:ARG:HH11	2.34	0.41
5:CE:110:LEU:CD2	5:CE:139:LEU:HD21	2.51	0.41
35:DA:642:G:H21	35:DA:646:A:H2	1.59	0.41
56:DX:8:ILE:N	56:DX:8:ILE:CD1	2.80	0.41
1:AA:1018:C:H2'	1:AA:1019:C:O4'	2.19	0.41
4:AD:61:LYS:HA	4:AD:203:VAL:HG22	2.01	0.41
42:BH:109:PHE:O	42:BH:111:HIS:N	2.50	0.41
7:AG:129:GLU:O	7:AG:129:GLU:HG2	2.19	0.41
37:DC:176:VAL:HB	37:DC:189:ASN:HD22	1.86	0.41
1:CA:1170:A:C2'	1:CA:1171:G:H5'	2.50	0.41
1:CA:1327:C:H5''	21:CU:20:LYS:HB3	2.02	0.41
1:CA:662:G:H2'	1:CA:663:A:C8	2.56	0.41
50:BR:63:ARG:NH1	50:BR:80:PHE:CD1	2.89	0.41
39:DE:181:LEU:HD21	52:DT:7:ILE:HG23	2.01	0.41
24:AY:235:SER:H	24:AY:263:GLN:NE2	2.18	0.41
35:DA:898:C:H2'	35:DA:899:A:H5'	2.00	0.41
35:BA:2784:C:H1'	39:BE:37:ARG:NH1	2.35	0.41
35:BA:1412:A:H2'	35:BA:1413:G:H8	1.85	0.41
1:AA:767:A:H2'	1:AA:768:A:O4'	2.21	0.41
49:BQ:116:GLU:O	49:BQ:120:ILE:HG12	2.20	0.41
35:BA:1860:G:O3'	37:BC:206:LYS:HB2	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DF:33:LEU:O	40:DF:37:VAL:HG23	2.21	0.41
1:AA:276:G:C5	1:AA:277:C:C5	3.08	0.41
35:BA:272(B):G:H2'	35:BA:272(C):G:H8	1.85	0.41
5:CE:127:ASN:O	5:CE:128:PRO:C	2.59	0.41
35:BA:2676:C:H2'	35:BA:2677:G:H8	1.85	0.41
1:AA:570:G:H2'	1:AA:571:U:C6	2.55	0.41
58:DZ:185:GLU:O	58:DZ:187:ALA:N	2.53	0.41
40:DF:108:LYS:O	40:DF:112:MET:HG3	2.20	0.41
35:DA:717:G:H2'	35:DA:718:A:O4'	2.20	0.41
35:DA:716:A:H3'	35:DA:717:G:H5''	2.03	0.41
35:DA:813:U:H2'	35:DA:814:C:C6	2.55	0.41
51:BS:63:THR:O	51:BS:66:ALA:HB3	2.21	0.41
1:CA:1109:C:H2'	1:CA:1110:A:O4'	2.21	0.41
1:AA:141:A:H1'	1:AA:182:U:O2	2.21	0.41
3:AC:122:GLU:C	3:AC:124:ILE:N	2.74	0.41
1:CA:764:C:O2'	1:CA:765:G:H5'	2.21	0.41
47:DO:8:LEU:N	47:DO:8:LEU:HD22	2.35	0.41
18:AR:85:LEU:HD12	18:AR:85:LEU:N	2.36	0.41
22:AW:2:C:O2	22:AW:2:C:H2'	2.19	0.41
50:DR:83:ILE:O	50:DR:84:ALA:C	2.59	0.41
52:DT:24:PRO:HA	52:DT:49:VAL:HG13	2.02	0.41
52:BT:28:VAL:HG11	52:BT:46:GLU:CD	2.40	0.41
40:BF:8:GLN:HG2	40:BF:126:VAL:CG1	2.48	0.41
40:DF:22:ALA:HB1	40:DF:26:ALA:CB	2.51	0.41
35:DA:1053:C:H2'	35:DA:1054:A:C8	2.54	0.41
35:DA:1055:G:H2'	35:DA:1056:G:H5'	2.01	0.41
51:DS:92:TYR:CG	51:DS:93:LYS:N	2.85	0.41
51:DS:93:LYS:O	51:DS:94:TYR:C	2.59	0.41
41:DG:107:LEU:HD11	41:DG:178:PHE:CE1	2.55	0.41
45:BK:54:PRO:O	45:BK:70:LYS:HD3	2.20	0.41
41:BG:60:LEU:C	41:BG:60:LEU:HD13	2.41	0.41
1:AA:972:C:OP2	10:AJ:57:LYS:HE2	2.21	0.41
52:DT:89:VAL:HG21	52:DT:91:ARG:CZ	2.51	0.41
35:DA:1540:U:C4	35:DA:1541:G:N7	2.89	0.41
54:BV:55:ALA:HA	54:BV:101:GLY:HA2	2.01	0.41
1:CA:939:G:P	7:CG:95:ARG:HH22	2.44	0.41
35:BA:1652:A:O2'	35:BA:1653:G:H5'	2.20	0.41
35:BA:259:G:H1'	35:BA:621:A:O2'	2.20	0.41
53:DU:95:LEU:HD13	54:DV:4:ILE:CG2	2.50	0.41
1:CA:1129:C:H41	1:CA:1135:U:H3	1.68	0.41
13:CM:122:LYS:O	13:CM:123:ALA:HB2	2.20	0.41
40:BF:53:THR:C	40:BF:55:GLY:N	2.74	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:B8:59:LYS:HE3	33:B8:59:LYS:HB2	1.90	0.41
1:CA:226:G:H2'	1:CA:227:G:H8	1.85	0.41
1:CA:192:U:H1'	20:CT:103:GLY:HA2	2.02	0.41
45:DK:39:LYS:C	45:DK:41:PHE:H	2.24	0.41
10:AJ:76:ASN:HA	10:AJ:77:PRO:HD2	1.92	0.41
46:BN:89:LYS:NZ	46:BN:89:LYS:CB	2.83	0.41
5:CE:41:VAL:HG21	5:CE:69:VAL:HG21	2.01	0.41
43:DI:140:LEU:HD23	43:DI:141:LYS:N	2.36	0.41
50:BR:7:GLY:CA	50:BR:8:ARG:HH21	2.23	0.41
5:AE:41:VAL:HG21	5:AE:113:ALA:CB	2.51	0.41
1:CA:926:G:C6	1:CA:1505:G:C6	3.09	0.41
12:CL:53:ARG:CB	12:CL:93:LEU:HD11	2.50	0.41
38:DD:139:GLY:H	38:DD:165:ILE:HB	1.85	0.41
52:DT:41:ARG:HD2	52:DT:41:ARG:O	2.20	0.41
50:DR:99:LYS:HA	50:DR:112:ALA:HA	2.02	0.41
31:B6:25:LYS:NZ	35:BA:2284:C:N4	2.65	0.41
7:AG:113:GLU:O	7:AG:119:ARG:HD3	2.20	0.41
48:BP:115:LEU:HG	48:BP:116:GLY:N	2.35	0.41
35:DA:2100:G:H1	35:DA:2189:U:H3	1.69	0.41
36:DB:87:G:C2'	36:DB:88:C:H5''	2.50	0.41
35:BA:626:U:H5''	35:BA:627:A:C5'	2.49	0.41
58:DZ:74:VAL:HG22	58:DZ:86:VAL:HG12	2.01	0.41
5:CE:45:PHE:CE2	5:CE:47:LYS:HD2	2.56	0.41
35:DA:364:C:C2'	35:DA:365:C:H5''	2.50	0.41
1:AA:328:C:HO2'	1:AA:329:A:P	2.42	0.41
16:CP:18:ARG:HD3	16:CP:35:LYS:CE	2.47	0.41
48:DP:24:GLY:O	48:DP:25:SER:CB	2.60	0.41
35:DA:1666:G:O2'	35:DA:1667:G:H5'	2.21	0.41
1:CA:1252:A:H2'	1:CA:1253:G:O4'	2.21	0.41
57:DY:20:TYR:N	57:DY:20:TYR:CD1	2.87	0.41
35:DA:2789:C:N3	35:DA:2894:G:O6	2.54	0.41
6:CF:20:ALA:O	6:CF:24:GLU:HB2	2.20	0.41
1:CA:937:A:H1'	1:CA:1379:G:N2	2.36	0.41
1:AA:1054:C:O2	1:AA:1054:C:C3'	2.65	0.41
48:BP:71:VAL:HG12	48:BP:72:PRO:HD3	2.00	0.41
13:CM:67:GLU:O	13:CM:69:GLU:N	2.54	0.41
18:CR:61:LYS:HG2	18:CR:65:ILE:HD11	2.02	0.41
2:CB:35:GLU:HA	2:CB:39:ILE:O	2.21	0.41
1:CA:1015:A:H8	1:CA:1015:A:O5'	2.03	0.41
1:AA:272:C:O2'	1:AA:273:A:H5'	2.21	0.41
35:BA:271(H):G:O2'	35:BA:271(I):G:P	2.79	0.41
37:DC:46:ALA:HB1	37:DC:213:VAL:HG22	2.02	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:640:A:O2'	1:CA:641:U:H5'	2.20	0.41
35:DA:2023:G:H4'	35:DA:2617:C:O3'	2.20	0.41
22:CV:36:A:C2	23:CX:17:U:O2	2.74	0.41
18:AR:53:ARG:NH2	18:AR:59:SER:HA	2.36	0.41
35:DA:271(F):C:H2'	35:DA:271(G):C:H6	1.83	0.41
4:AD:58:LEU:CD2	4:AD:62:GLN:CG	2.98	0.41
35:DA:394:A:C2'	35:DA:395:U:H5'	2.51	0.41
19:CS:58:VAL:HG21	19:CS:75:ALA:CB	2.51	0.41
6:CF:33:TYR:OH	6:CF:78:GLU:HB2	2.21	0.41
1:CA:1328:C:H2'	1:CA:1329:A:H8	1.86	0.41
35:DA:1151:G:H5"	53:DU:81:HIS:CE1	2.56	0.41
1:AA:827:U:H2'	1:AA:870:U:O4	2.20	0.41
36:DB:28:C:H2'	36:DB:29:A:C8	2.56	0.41
34:B9:17:ILE:CG1	34:B9:26:ILE:HD13	2.50	0.41
34:B9:18:ARG:NE	35:BA:1034:G:H5'	2.35	0.41
1:AA:851:G:H2'	1:AA:852:G:H8	1.85	0.41
1:AA:1224:G:H4'	13:AM:102:ARG:HH11	1.85	0.41
30:B5:6:VAL:CG1	35:BA:2016:U:H1'	2.51	0.41
27:D2:7:ARG:HG2	27:D2:7:ARG:NH1	2.36	0.41
35:BA:1230:C:H2'	35:BA:1231:G:H8	1.83	0.41
35:DA:1057:A:H62	35:DA:1086:A:H2'	1.84	0.41
35:BA:1366:A:H2'	35:BA:1367:A:C5'	2.50	0.41
35:DA:706:A:H2'	35:DA:707:G:O4'	2.20	0.41
53:DU:68:ALA:HB2	53:DU:99:ALA:HB1	2.02	0.41
1:AA:1416:G:C6	1:AA:1417:G:C4	3.09	0.41
10:CJ:18:ALA:O	10:CJ:22:LYS:HB2	2.21	0.41
33:B8:37:SER:O	33:B8:40:GLU:HB2	2.20	0.41
38:DD:18:VAL:CG1	38:DD:19:ALA:N	2.83	0.41
35:DA:387:U:H4'	35:DA:388:G:O5'	2.21	0.41
41:DG:26:GLN:CA	41:DG:26:GLN:HE21	2.33	0.41
35:BA:1601:G:OP2	56:BX:58:HIS:HD2	2.03	0.41
4:CD:11:LEU:HD13	4:CD:66:ARG:HD3	2.02	0.41
24:CY:112:ALA:HB1	24:CY:178:GLY:HA2	2.03	0.41
57:DY:8:LYS:HB2	57:DY:28:LYS:CE	2.51	0.41
28:B3:8:LEU:HD13	28:B3:31:LEU:CD2	2.24	0.41
42:DH:43:VAL:HG11	42:DH:52:VAL:HA	2.02	0.41
33:B8:62:LEU:C	33:B8:64:TYR:N	2.74	0.41
49:BQ:132:VAL:HG11	58:BZ:81:ARG:NE	2.17	0.41
38:BD:52:ARG:HB2	38:BD:53:PHE:CD2	2.55	0.41
1:CA:956:U:O2'	1:CA:957:U:H5'	2.20	0.41
19:AS:6:LYS:CD	19:AS:6:LYS:N	2.83	0.41
35:BA:1494:A:OP2	35:BA:1494:A:H4'	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:B4:15:ILE:HA	29:B4:21:VAL:HG22	2.01	0.41
24:AY:188:ARG:HB2	24:AY:310:GLN:CG	2.33	0.41
24:AY:188:ARG:HH21	24:AY:313:SER:HB3	1.86	0.41
35:BA:1882:C:O2	35:BA:1882:C:H2'	2.20	0.41
1:CA:963:G:N2	10:CJ:55:LYS:HD2	2.35	0.41
58:DZ:16:SER:O	58:DZ:20:ARG:CG	2.55	0.41
10:AJ:49:VAL:HG23	14:AN:41:ARG:HD3	2.01	0.41
35:BA:654(U):A:H2'	35:BA:654(V):A:C8	2.55	0.41
13:AM:125:ARG:CD	24:AY:165:ASP:HA	2.51	0.41
3:CC:14:ILE:O	3:CC:16:ARG:N	2.53	0.41
42:DH:159:GLU:HB3	42:DH:160:LYS:H	1.56	0.41
35:DA:1408:C:H2'	35:DA:1409:C:H6	1.85	0.41
35:DA:272(G):C:N4	35:DA:363(C):G:H1	2.17	0.41
35:BA:1654:A:C2	39:BE:113:PHE:CD1	3.08	0.41
45:BK:39:LYS:C	45:BK:41:PHE:H	2.24	0.41
38:DD:26:LYS:HD2	38:DD:26:LYS:HA	1.91	0.41
43:DI:132:PRO:HG2	43:DI:133:HIS:NE2	2.32	0.41
22:AV:76:8AN:O1P	22:AV:76:8AN:H4'	2.19	0.41
1:AA:1129:C:H41	1:AA:1135:U:H3	1.68	0.41
6:CF:91:VAL:HG12	6:CF:92:LYS:N	2.35	0.41
46:DN:133:GLN:CG	46:DN:134:ARG:H	2.19	0.41
46:DN:94:HIS:N	46:DN:95:PRO:CD	2.84	0.41
11:AK:30:VAL:HG21	11:AK:65:ALA:HA	2.03	0.41
18:AR:88:LYS:CD	18:AR:88:LYS:C	2.85	0.41
39:DE:52:LEU:O	39:DE:74:PRO:CB	2.69	0.41
33:B8:50:LEU:O	33:B8:51:ALA:HB3	2.21	0.41
9:AI:4:TYR:HB3	9:AI:84:ALA:HB1	2.03	0.41
48:BP:23:PRO:HB2	48:BP:33:ARG:HG3	2.02	0.41
24:AY:279:LEU:HD23	24:AY:283:LEU:HG	2.02	0.41
37:BC:2:PRO:HG2	37:BC:3:LYS:H	1.85	0.41
16:CP:45:THR:HG23	16:CP:46:PRO:CD	2.49	0.41
12:CL:86:ARG:HB2	12:CL:101:VAL:CG2	2.50	0.41
37:DC:3:LYS:O	37:DC:4:HIS:HD2	2.04	0.41
26:B1:81:LYS:C	26:B1:82:LEU:HD13	2.40	0.41
1:CA:921:U:O2'	5:CE:19:MET:O	2.38	0.41
38:DD:267:SER:O	38:DD:269:PHE:N	2.54	0.41
43:BI:6:LEU:HD23	43:BI:15:VAL:HG23	2.01	0.41
35:DA:661:C:H5''	48:DP:18:ARG:HD3	2.01	0.41
48:DP:17:LYS:C	48:DP:19:VAL:N	2.74	0.41
48:BP:18:ARG:HH11	48:BP:18:ARG:CA	2.34	0.41
7:AG:116:ALA:H	7:AG:118:VAL:HG22	1.86	0.41
16:CP:15:PRO:HB2	16:CP:41:PRO:CG	2.50	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:D6:10:LEU:HD11	33:D8:34:TRP:CE2	2.56	0.41
13:AM:13:LYS:HA	13:AM:44:ARG:NH1	2.32	0.41
13:AM:22:ILE:N	13:AM:22:ILE:HD12	2.34	0.41
4:AD:199:ASN:ND2	4:AD:202:LEU:HG	2.35	0.41
2:AB:44:LEU:CD1	2:AB:44:LEU:N	2.81	0.41
2:CB:130:ARG:HA	2:CB:131:PRO:HD2	1.80	0.41
35:BA:1276:A:O2'	50:BR:16:HIS:HE1	2.02	0.41
1:CA:1254:C:H2'	1:CA:1255:G:H8	1.84	0.41
39:DE:33:VAL:O	39:DE:33:VAL:HG13	2.20	0.41
39:DE:32:PRO:HA	39:DE:69:LYS:HE3	2.02	0.41
39:BE:33:VAL:HG13	39:BE:33:VAL:O	2.20	0.41
6:CF:21:LEU:O	6:CF:24:GLU:HB3	2.20	0.41
38:BD:211:ARG:O	38:BD:215:LEU:HG	2.20	0.41
1:AA:142:G:H2'	1:AA:143:A:C8	2.55	0.41
35:BA:2473:U:C5	35:BA:2474:C:C6	3.08	0.41
1:CA:386:C:O2'	1:CA:387:U:H5'	2.21	0.41
35:DA:512:G:O2'	35:DA:513:A:OP2	2.38	0.41
39:BE:67:PHE:O	39:BE:70:ALA:CB	2.67	0.41
6:AF:80:ARG:HG3	6:AF:88:VAL:CG2	2.51	0.41
12:AL:74:GLY:O	12:AL:102:ARG:NH2	2.54	0.41
24:AY:6:LEU:CD2	24:AY:9:ARG:HD2	2.51	0.41
35:BA:527:C:O2	35:BA:527:C:O4'	2.36	0.41
1:AA:557:G:H2'	1:AA:558:G:C8	2.56	0.41
43:DI:65:ALA:C	43:DI:67:ARG:N	2.74	0.41
1:CA:179:A:H2'	1:CA:180:U:C6	2.54	0.41
4:AD:73:ARG:HH11	4:AD:73:ARG:HG2	1.85	0.41
35:DA:1537:G:H2'	35:DA:1538:G:C8	2.52	0.41
35:DA:1385:G:H1'	35:DA:1386:C:C6	2.55	0.41
34:D9:17:ILE:CG2	34:D9:18:ARG:N	2.84	0.41
35:BA:1928:A:H2'	35:BA:1929:G:O4'	2.20	0.41
11:CK:88:GLY:C	11:CK:90:GLY:H	2.23	0.41
8:CH:9:MET:O	8:CH:13:ILE:HG12	2.19	0.41
1:CA:577:G:C8	1:CA:816:A:C6	3.08	0.41
28:D3:46:ASN:HA	28:D3:46:ASN:HD22	1.77	0.41
1:AA:598:U:H4'	8:AH:94:TYR:CD2	2.55	0.41
2:CB:95:GLN:NE2	2:CB:147:LYS:HE2	2.35	0.41
11:AK:32:ILE:HD12	11:AK:68:ALA:O	2.21	0.41
11:AK:40:ILE:HG23	11:AK:75:TYR:CD2	2.55	0.41
48:BP:132:LYS:O	48:BP:136:GLU:HG2	2.21	0.41
35:DA:751:A:C6	35:DA:789:A:C6	3.09	0.41
40:DF:129:PHE:HZ	40:DF:156:LEU:HD11	1.85	0.41
47:DO:26:LYS:HB3	47:DO:27:GLY:H	1.68	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:DO:1:MET:HE2	47:DO:32:TYR:CE2	2.56	0.41
35:DA:236:C:H2'	35:DA:237:C:H6	1.86	0.41
56:DX:41:ASN:O	56:DX:45:THR:HG23	2.21	0.41
50:BR:42:LYS:O	50:BR:45:ARG:HB2	2.21	0.41
35:DA:803:U:O2'	35:DA:804:A:H5'	2.21	0.41
35:BA:2533:A:C2'	35:BA:2534:A:H5'	2.51	0.41
46:DN:14:VAL:HG22	46:DN:137:LYS:HE3	2.02	0.41
5:AE:116:THR:HG22	5:AE:116:THR:O	2.20	0.41
53:BU:89:GLU:O	53:BU:89:GLU:HG2	2.20	0.41
45:DK:67:PHE:CD1	45:DK:67:PHE:N	2.81	0.41
7:AG:47:CYS:HB3	7:AG:58:PRO:HG3	2.02	0.41
3:CC:19:GLU:O	3:CC:19:GLU:HG2	2.21	0.41
52:BT:1:MET:O	52:BT:1:MET:HG3	2.20	0.41
24:CY:220:VAL:O	24:CY:220:VAL:HG12	2.19	0.41
11:CK:109:VAL:HG13	18:CR:85:LEU:O	2.20	0.41
46:DN:28:THR:HG22	46:DN:29:LYS:N	2.35	0.41
35:BA:585:G:H2'	35:BA:1251:C:H42	1.86	0.41
35:BA:613:G:C5'	35:BA:613:G:C8	2.97	0.41
57:BY:14:LEU:CD1	57:BY:15:VAL:H	2.32	0.41
57:DY:38:ILE:HD12	57:DY:66:PRO:HA	2.02	0.41
35:BA:2491:U:C4'	35:BA:2570:G:OP1	2.63	0.41
2:AB:174:VAL:HG13	2:AB:184:VAL:HG11	2.03	0.41
24:AY:115:ASN:HB3	24:AY:172:LYS:HA	2.01	0.41
35:BA:1059:G:H2'	35:BA:1060:U:C6	2.55	0.41
24:AY:233:ARG:NH2	35:BA:2508:G:OP1	2.53	0.41
41:BG:111:LEU:O	41:BG:114:ILE:HD12	2.21	0.41
41:BG:40:ASN:HB3	41:BG:156:ASP:HB2	2.02	0.41
39:BE:50:GLY:HA2	39:BE:78:LEU:HB3	2.02	0.41
27:D2:65:ASN:ND2	27:D2:69:ARG:NH2	2.68	0.41
53:DU:95:LEU:HA	53:DU:95:LEU:HD23	1.70	0.41
5:AE:103:GLY:C	5:AE:105:VAL:H	2.23	0.41
13:CM:124:PRO:HB2	24:CY:163:GLY:O	2.20	0.41
45:BK:18:THR:OG1	45:BK:38:VAL:HB	2.20	0.41
26:B1:93:GLU:O	26:B1:94:LEU:C	2.57	0.41
15:CO:63:ARG:HH12	15:CO:87:ILE:HG21	1.86	0.41
24:CY:323:ASP:HB3	24:CY:326:THR:CG2	2.35	0.41
35:DA:671:C:H2'	35:DA:672:C:C6	2.56	0.41
1:CA:194:C:O2'	20:CT:68:LYS:HD3	2.21	0.41
56:BX:12:VAL:CG1	56:BX:27:THR:O	2.64	0.41
46:DN:123:TYR:C	46:DN:125:GLY:N	2.74	0.41
24:CY:50:GLN:HE21	24:CY:51:GLU:N	2.19	0.41
1:CA:15:G:C4'	5:CE:24:ARG:HH22	2.34	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
58:DZ:28:MET:CE	58:DZ:37:VAL:HG11	2.50	0.41
11:AK:108:ILE:HG22	18:AR:88:LYS:HB3	2.02	0.41
19:CS:78:ARG:NH1	19:CS:81:ARG:HH12	1.98	0.41
48:DP:21:ARG:HD3	48:DP:29:LYS:HE3	2.03	0.41
38:DD:73:VAL:O	38:DD:75:ILE:N	2.53	0.41
54:BV:6:LYS:HB3	54:BV:37:VAL:HG11	2.02	0.41
2:CB:45:GLN:HE21	2:CB:46:LYS:NZ	2.18	0.41
48:BP:35:HIS:C	48:BP:36:LYS:HG3	2.41	0.41
35:DA:2199:A:N3	35:DA:2199:A:H2'	2.35	0.41
12:CL:84:LEU:HG	12:CL:105:TYR:CE1	2.56	0.41
37:DC:6:LYS:C	37:DC:8:TYR:H	2.24	0.41
40:BF:107:LYS:N	40:BF:107:LYS:HZ3	2.19	0.41
12:AL:91:LYS:HE2	12:AL:91:LYS:HA	2.03	0.41
1:CA:992:U:O2'	1:CA:993:G:P	2.79	0.41
39:BE:115:GLY:C	39:BE:116:VAL:O	2.54	0.41
48:DP:18:ARG:HH11	48:DP:18:ARG:CA	2.33	0.41
17:CQ:45:HIS:CD2	17:CQ:47:PRO:HD3	2.56	0.41
22:CV:14:A:N6	22:CV:21:A:H2	2.19	0.41
24:CY:76:MET:O	24:CY:77:GLU:HG2	2.21	0.41
58:BZ:56:VAL:CG1	58:BZ:57:ILE:N	2.83	0.41
1:CA:1357:A:N6	1:CA:1363(A):A:H2	2.18	0.41
22:CW:27:G:H1	22:CW:43:C:H42	1.68	0.41
7:AG:15:ASP:OD2	7:AG:16:LEU:N	2.51	0.41
35:DA:271(Q):G:HO2'	35:DA:271(R):G:H8	1.65	0.41
1:AA:59:A:H3'	1:AA:331:G:H22	1.86	0.41
3:CC:75:VAL:O	3:CC:75:VAL:HG12	2.20	0.41
4:AD:101:LEU:HD23	4:AD:121:VAL:CG1	2.51	0.41
1:CA:243:A:H4'	1:CA:244:U:H5''	2.03	0.41
39:DE:69:LYS:HE3	39:DE:90:THR:OG1	2.20	0.41
49:DQ:1:MET:HE1	49:DQ:48:GLU:CB	2.46	0.41
35:DA:548:A:C3'	35:DA:549:G:C5'	2.98	0.41
37:DC:49:GLY:HA3	37:DC:211:ARG:HH12	1.85	0.41
1:CA:1316:G:O3'	14:CN:18:VAL:HG13	2.21	0.41
35:DA:1317:A:H2'	35:DA:1318:C:H6	1.85	0.41
35:BA:709:U:H2'	35:BA:710:G:C8	2.56	0.41
1:AA:1221:G:H4'	19:AS:77:THR:HG21	2.03	0.41
2:AB:35:GLU:HA	2:AB:39:ILE:O	2.21	0.41
35:BA:2808:U:C2'	35:BA:2809:A:H5'	2.51	0.41
39:DE:98:PRO:HD3	39:DE:175:VAL:CG1	2.51	0.41
35:BA:869:G:C2'	35:BA:870:A:H5'	2.50	0.41
11:AK:92:GLU:HG3	11:AK:96:ARG:CD	2.50	0.41
10:AJ:87:THR:C	10:AJ:89:ASP:N	2.74	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:335:C:H2'	1:AA:336:C:H6	1.86	0.41
44:BJ:81:UNK:C	44:BJ:83:UNK:N	2.81	0.41
35:DA:1945:G:O2'	35:DA:1946:U:H5'	2.20	0.41
35:DA:748:G:OP1	35:DA:2612:C:N4	2.53	0.41
35:DA:1131:G:HO2'	35:DA:1132:A:H8	1.64	0.41
34:B9:17:ILE:HG21	34:B9:19:ARG:HE	1.85	0.41
35:BA:1945:G:H2'	35:BA:1946:U:H6	1.83	0.41
35:BA:2819:G:H2'	35:BA:2821:A:N7	2.35	0.41
35:BA:1682:G:H2'	35:BA:1683:C:C6	2.56	0.41
50:BR:72:ASP:O	50:BR:76:VAL:HG12	2.20	0.41
1:CA:817:C:H1'	1:CA:819:A:H5'	2.03	0.41
1:AA:28:G:O2'	1:AA:296:U:H5''	2.20	0.41
7:CG:54:THR:OG1	7:CG:56:GLN:HG2	2.21	0.41
5:AE:94:ALA:O	5:AE:117:ASP:HB3	2.21	0.41
35:BA:696:G:O2'	35:BA:697:C:H5'	2.20	0.41
56:BX:29:TRP:CE3	56:BX:78:LYS:HB3	2.56	0.41
22:CV:24:G:H21	35:DA:1923:U:H4'	1.86	0.41
35:DA:814:C:O2'	35:DA:815:C:H5'	2.21	0.41
44:BJ:10:UNK:C	44:BJ:12:UNK:N	2.82	0.41
46:BN:70:LYS:HE3	46:BN:72:TYR:CZ	2.56	0.41
35:DA:693:C:O2'	35:DA:694:U:H5'	2.20	0.41
44:DJ:102:UNK:HA	44:DJ:106:UNK:CB	2.51	0.41
32:D7:37:LYS:HE2	35:DA:469:G:O6	2.20	0.41
15:AO:11:VAL:O	15:AO:14:GLU:HB3	2.21	0.41
35:BA:2248:C:H2'	35:BA:2249:U:O4'	2.21	0.41
35:BA:1144:G:H2'	35:BA:1145:C:C6	2.54	0.41
26:D1:75:GLU:HA	26:D1:75:GLU:OE2	2.19	0.41
35:BA:751:A:H8	35:BA:751:A:O5'	2.03	0.41
22:AV:1:G:N3	22:AV:1:G:H2'	2.36	0.41
38:DD:145:VAL:HG22	38:DD:191:ALA:HB1	2.02	0.41
35:DA:1902:C:H2'	35:DA:1903:G:O5'	2.20	0.41
1:AA:1442(A):G:H22	52:BT:119:LYS:HB2	1.86	0.41
57:DY:37:VAL:HG23	57:DY:38:ILE:N	2.36	0.41
42:DH:44:VAL:O	42:DH:46:GLU:N	2.54	0.41
54:DV:18:LEU:HD22	54:DV:19:LYS:HA	2.03	0.41
35:DA:1059:G:H2'	35:DA:1060:U:C6	2.56	0.41
45:DK:109:LYS:HB3	45:DK:109:LYS:HZ3	1.85	0.41
45:DK:79:ARG:HG2	45:DK:79:ARG:HH11	1.85	0.41
36:BB:104:U:H5''	49:BQ:141:GLN:NE2	2.36	0.41
49:BQ:27:VAL:CG2	49:BQ:137:TYR:HD1	2.33	0.41
1:AA:960:U:O2'	1:AA:1223:C:H4'	2.21	0.41
2:CB:97:TRP:HH2	2:CB:176:GLU:CG	2.34	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:1109:C:O2	35:DA:1109:C:C3'	2.69	0.41
35:DA:1049:C:H2'	35:DA:1050:A:C8	2.50	0.41
35:DA:1108:U:C3'	35:DA:1109:C:C5'	2.99	0.41
51:BS:58:LEU:HD23	51:BS:65:VAL:CG1	2.50	0.41
19:CS:6:LYS:N	19:CS:6:LYS:CD	2.81	0.41
37:DC:200:HIS:O	37:DC:202:PRO:HD3	2.21	0.41
45:BK:107:ILE:HG21	45:BK:127:ILE:HD12	2.03	0.41
38:BD:23:GLU:O	38:BD:24:ILE:C	2.58	0.41
35:DA:654(P):C:O2'	35:DA:654(Q):C:H5'	2.21	0.41
35:DA:654(S):G:H2'	35:DA:654(T):C:N1	2.34	0.41
35:DA:1494:A:H4'	35:DA:1494:A:OP2	2.19	0.41
48:BP:111:ARG:NH1	48:BP:149:GLU:CD	2.74	0.41
48:BP:146:VAL:O	48:BP:148:LEU:N	2.54	0.41
6:CF:26:ILE:O	6:CF:30:LEU:HD23	2.20	0.41
6:CF:26:ILE:O	6:CF:30:LEU:CD2	2.69	0.41
14:AN:41:ARG:HG2	14:AN:41:ARG:HH11	1.86	0.41
1:CA:1442:G:C6	1:CA:1442(B):A:H2	2.39	0.41
35:DA:1541:G:C4'	35:DA:1542:A:O4'	2.66	0.41
3:CC:11:ARG:O	3:CC:12:LEU:C	2.59	0.41
3:CC:14:ILE:CG1	3:CC:15:THR:N	2.72	0.41
58:BZ:90:VAL:O	58:BZ:91:LEU:HD23	2.20	0.41
58:BZ:90:VAL:HG12	58:BZ:91:LEU:N	2.36	0.41
35:BA:143:G:C1'	56:BX:37:THR:HG21	2.47	0.41
35:BA:622:G:O2'	35:BA:623:G:H5'	2.21	0.41
35:BA:1171:G:H1	35:BA:1178:C:N4	2.19	0.41
35:BA:802:A:H2'	35:BA:803:U:C6	2.56	0.41
35:BA:1540:U:C4	35:BA:1541:G:N7	2.89	0.41
35:DA:1653:G:H3'	50:DR:4:LEU:HD23	2.03	0.41
33:B8:13:ARG:CB	48:BP:63:PRO:HB3	2.41	0.41
49:DQ:16:ARG:C	49:DQ:17:LEU:HD23	2.40	0.41
3:AC:11:ARG:O	3:AC:12:LEU:C	2.59	0.41
43:DI:136:VAL:HG13	43:DI:136:VAL:O	2.21	0.41
43:DI:132:PRO:O	43:DI:133:HIS:C	2.59	0.41
35:BA:2506:U:OP2	39:BE:144:ARG:NH2	2.54	0.41
4:AD:17:VAL:CG1	4:AD:17:VAL:O	2.67	0.41
4:AD:25:ARG:NH1	4:AD:30:LYS:O	2.54	0.41
35:DA:1688:U:O2	35:DA:1700:A:H8	2.03	0.41
1:AA:1128:C:O2'	1:AA:1130:A:C8	2.73	0.41
6:CF:91:VAL:HG11	18:CR:72:ARG:NH1	2.17	0.41
15:CO:26:GLU:HA	15:CO:81:LEU:HD22	2.02	0.41
35:BA:275:G:N3	35:BA:275:G:C2'	2.84	0.41
15:AO:33:THR:CG2	15:AO:85:LEU:HD21	2.37	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DN:123:TYR:C	46:DN:125:GLY:H	2.24	0.41
27:D2:43:GLN:HG3	27:D2:44:LEU:H	1.85	0.41
24:CY:12:GLY:O	24:CY:16:TYR:N	2.54	0.41
35:DA:251:A:H5''	48:DP:51:PHE:CZ	2.55	0.41
48:DP:50:ARG:CG	48:DP:51:PHE:H	2.33	0.41
1:CA:1432:G:O2'	1:CA:1468:A:N6	2.52	0.41
35:BA:671:C:H2'	35:BA:672:C:C6	2.56	0.41
11:AK:21:ILE:CD1	11:AK:21:ILE:N	2.81	0.41
48:DP:101:VAL:C	48:DP:103:ALA:N	2.74	0.41
48:DP:35:HIS:C	48:DP:36:LYS:HG3	2.40	0.41
48:BP:101:VAL:C	48:BP:103:ALA:N	2.74	0.41
43:DI:126:TYR:O	43:DI:140:LEU:O	2.39	0.41
10:AJ:13:HIS:NE2	10:AJ:14:LYS:HG3	2.36	0.41
35:BA:1038:C:N4	35:BA:1117:G:H1	2.15	0.41
54:DV:14:VAL:HG21	54:DV:57:VAL:HG21	2.02	0.41
1:CA:1036:G:H5''	1:CA:1037:C:C5	2.56	0.41
9:CI:5:TYR:HA	9:CI:17:VAL:O	2.21	0.41
9:CI:19:LEU:C	9:CI:20:ARG:HG3	2.41	0.41
12:AL:27:LEU:O	12:AL:28:LYS:HB3	2.20	0.41
12:AL:28:LYS:NZ	12:AL:33:ARG:HH22	2.19	0.41
12:AL:35:GLY:HA3	12:AL:58:VAL:HG11	2.02	0.41
58:BZ:146:ILE:O	58:BZ:174:VAL:HG12	2.21	0.41
46:BN:120:LEU:HD11	46:BN:122:VAL:CG2	2.40	0.41
2:CB:111:ARG:HG2	2:CB:111:ARG:HH11	1.86	0.41
12:CL:84:LEU:HD12	12:CL:104:VAL:CG1	2.41	0.41
2:CB:83:MET:HB3	2:CB:234:PRO:HG2	2.03	0.41
2:CB:80:ILE:HG22	2:CB:80:ILE:O	2.20	0.41
35:DA:2132:U:H3	37:DC:6:LYS:HE2	1.86	0.41
19:AS:41:VAL:O	19:AS:44:MET:SD	2.79	0.41
10:AJ:26:ALA:HA	10:AJ:29:ARG:NH1	2.23	0.41
43:BI:99:GLU:HG2	43:BI:103:ARG:HH21	1.86	0.41
43:BI:71:ILE:HG13	43:BI:72:LEU:HG	2.03	0.41
6:CF:1:MET:HA	6:CF:67:MET:O	2.21	0.41
24:AY:336:VAL:O	24:AY:338:ASP:N	2.54	0.41
24:AY:312:ARG:CZ	24:AY:344:LEU:HD12	2.51	0.41
58:DZ:125:LEU:HD23	58:DZ:125:LEU:C	2.42	0.41
4:CD:47:ARG:NE	4:CD:49:ARG:NH2	2.68	0.41
12:AL:38:THR:O	12:AL:79:GLU:HG2	2.21	0.41
48:BP:17:LYS:C	48:BP:19:VAL:N	2.73	0.41
11:CK:22:HIS:O	11:CK:28:THR:HA	2.21	0.41
2:CB:91:PRO:CG	2:CB:155:LEU:HD23	2.51	0.41
31:B6:9:LEU:HD22	31:B6:10:LEU:N	2.36	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:AW:52:G:C2	22:AW:62:C:N4	2.89	0.41
38:BD:139:GLY:H	38:BD:165:ILE:HB	1.86	0.41
24:AY:276:LEU:C	24:AY:278:ILE:H	2.25	0.41
1:AA:782:A:H4'	1:AA:1514:C:O2'	2.20	0.41
1:CA:1300:G:HO2'	1:CA:1301:U:P	2.43	0.41
8:AH:91:ARG:CG	8:AH:91:ARG:NH1	2.80	0.41
42:BH:88:LEU:CD2	42:BH:130:ARG:HG2	2.47	0.41
42:BH:94:TYR:N	42:BH:94:TYR:HD1	2.19	0.41
57:BY:19:LYS:HE3	57:BY:19:LYS:HB2	1.83	0.41
35:DA:2386:C:H2'	35:DA:2387:U:C6	2.55	0.41
1:CA:1350:A:P	9:CI:121:ARG:HG3	2.61	0.41
9:CI:113:LYS:H	9:CI:119:ALA:HA	1.85	0.41
13:CM:48:LEU:HG	13:CM:53:VAL:CG2	2.51	0.41
1:CA:59:A:H2'	1:CA:59:A:N3	2.36	0.41
24:AY:76:MET:HG3	24:AY:88:LYS:HZ3	1.84	0.41
2:AB:200:ILE:CG2	2:AB:201:ILE:N	2.84	0.41
57:DY:31:LEU:HD23	57:DY:36:ALA:C	2.41	0.41
41:BG:9:ARG:NH1	41:BG:9:ARG:CB	2.82	0.41
10:AJ:16:LEU:HD23	10:AJ:94:VAL:HG11	2.02	0.41
24:CY:138:ARG:NH2	24:CY:337:LEU:CB	2.84	0.41
35:BA:1317:A:H2'	35:BA:1318:C:C6	2.56	0.41
6:AF:45:LEU:C	6:AF:45:LEU:CD2	2.88	0.41
35:DA:2807:G:C2'	35:DA:2808:U:H5''	2.50	0.41
5:AE:144:THR:C	5:AE:146:ALA:N	2.74	0.41
8:CH:119:LEU:HB2	8:CH:124:ALA:HB2	2.02	0.41
24:CY:119:THR:HG22	24:CY:121:GLN:HG3	2.01	0.41
35:DA:1186:G:H2'	35:DA:1187:G:O4'	2.21	0.41
58:BZ:109:ALA:HB3	58:BZ:145:GLU:HA	2.03	0.41
55:DW:17:VAL:O	55:DW:18:ARG:C	2.59	0.41
1:CA:1014:A:H4'	19:CS:14:HIS:CD2	2.56	0.41
1:AA:971:G:H3'	1:AA:971:G:OP1	2.21	0.41
51:DS:107:GLU:HG3	51:DS:108:GLY:N	2.36	0.41
1:CA:356:A:H2'	1:CA:357:G:C8	2.53	0.41
35:BA:2808:U:N3	35:BA:2892:A:N7	2.62	0.41
30:D5:42:PRO:HB2	30:D5:43:HIS:CD2	2.56	0.41
20:AT:30:LYS:O	20:AT:33:ILE:HB	2.21	0.41
35:BA:1076:C:H1'	45:BK:91:PRO:HD2	2.03	0.41
35:BA:1078:U:H5''	45:BK:132:ARG:HH12	1.86	0.41
6:AF:10:LEU:HD13	6:AF:61:LEU:HD13	2.03	0.41
43:DI:66:GLU:OE1	43:DI:69:LYS:HD2	2.20	0.41
35:DA:1820:U:O2	38:DD:201:HIS:HB3	2.21	0.41
35:BA:1396:U:O2	35:BA:1396:U:C2'	2.68	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:2870:C:C5'	50:BR:65:LEU:HD21	2.51	0.41
2:CB:235:SER:OG	2:CB:236:TYR:HD1	2.04	0.41
1:AA:1410:G:N2	1:AA:1490:C:O2	2.53	0.41
1:AA:1058:G:C5	1:AA:1059:C:C4	3.09	0.41
1:CA:1058:G:C5	1:CA:1059:C:C4	3.09	0.41
15:CO:50:HIS:O	15:CO:53:HIS:HB3	2.21	0.41
53:DU:78:THR:O	53:DU:79:PHE:C	2.58	0.41
24:CY:11:GLU:HB3	24:CY:98:LEU:HD21	2.02	0.41
40:BF:9:ILE:HG12	40:BF:14:PRO:HA	2.03	0.41
1:CA:563:A:C6	1:CA:567:G:C2	3.08	0.41
46:DN:62:VAL:HG22	46:DN:66:LYS:HB2	2.01	0.41
35:DA:2552:U:H2'	35:DA:2554:U:OP2	2.21	0.41
7:AG:108:ALA:C	7:AG:110:GLN:H	2.23	0.41
39:DE:181:LEU:HD11	52:DT:7:ILE:HG21	2.02	0.41
35:DA:1131:G:O2'	35:DA:1132:A:H8	2.04	0.41
24:AY:25:ARG:NH1	24:AY:29:LEU:HD23	2.35	0.41
24:AY:50:GLN:C	24:AY:50:GLN:HE21	2.22	0.41
36:DB:105:A:H2'	36:DB:106:G:O4'	2.21	0.41
1:AA:1525:G:O2'	1:AA:1526:G:H5'	2.20	0.41
39:BE:181:LEU:HD11	52:BT:7:ILE:HG21	2.02	0.41
51:BS:46:VAL:HG12	51:BS:47:THR:N	2.36	0.41
5:AE:140:ARG:CG	5:AE:140:ARG:O	2.68	0.41
38:DD:45:ASN:CG	38:DD:46:GLN:H	2.24	0.41
11:CK:126:ARG:O	11:CK:127:LYS:C	2.58	0.41
17:AQ:90:ILE:HA	17:AQ:93:GLN:HB3	2.02	0.41
53:BU:73:GLY:O	53:BU:74:LEU:O	2.39	0.41
1:AA:818:G:C2'	1:AA:819:A:H5''	2.51	0.41
1:AA:1065:U:HO2'	1:AA:1066:C:P	2.44	0.41
9:AI:78:LYS:NZ	9:AI:78:LYS:CB	2.83	0.41
40:DF:31:HIS:O	40:DF:34:TRP:HB3	2.21	0.41
35:BA:2277:G:H2'	35:BA:2278:A:H5'	2.03	0.41
35:BA:71:A:C2	56:BX:31:HIS:CE1	3.09	0.41
9:CI:76:ALA:C	9:CI:78:LYS:H	2.24	0.41
37:BC:44:VAL:HG13	37:BC:214:TYR:O	2.20	0.41
3:CC:29:TYR:CE1	10:CJ:65:LEU:HD21	2.55	0.41
37:DC:44:VAL:HG13	37:DC:214:TYR:O	2.21	0.41
11:CK:37:GLY:O	11:CK:39:PRO:HD3	2.21	0.41
24:AY:92:GLU:OE2	24:AY:93:GLU:HB2	2.21	0.41
32:D7:5:TRP:O	35:DA:1612:C:H4'	2.21	0.41
46:BN:65:LYS:HD2	46:BN:69:GLN:NE2	2.35	0.41
47:BO:18:LYS:HB2	47:BO:45:GLU:CG	2.51	0.41
3:CC:111:LEU:HD23	3:CC:141:VAL:HG13	2.03	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AE:57:LYS:O	5:AE:61:TYR:HD2	2.03	0.41
35:BA:2716:U:O2'	35:BA:2717:G:H5'	2.20	0.41
46:BN:51:PHE:CE2	46:BN:119:ARG:HD2	2.56	0.41
35:DA:154:G:O6	35:DA:172:C:N4	2.50	0.41
38:DD:230:ASP:O	38:DD:231:HIS:HB2	2.20	0.41
3:AC:19:GLU:O	3:AC:19:GLU:HG2	2.21	0.41
16:CP:76:GLN:HG2	16:CP:76:GLN:O	2.21	0.41
35:BA:1425:G:H2'	35:BA:1426:G:O4'	2.21	0.41
42:DH:147:ASN:O	42:DH:150:ALA:HB3	2.21	0.41
15:AO:74:ASP:HA	15:AO:75:PRO:HD2	1.94	0.41
1:AA:547:A:H4'	1:AA:548:G:O5'	2.21	0.41
44:DJ:130:UNK:C	44:DJ:132:UNK:N	2.79	0.41
36:BB:25:A:C2	36:BB:26:A:H1'	2.56	0.41
1:CA:1376:U:H2'	1:CA:1377:A:C8	2.56	0.41
1:CA:927:G:O2'	1:CA:928:G:H5'	2.21	0.41
32:D7:47:ARG:CZ	56:DX:60:ARG:NH2	2.84	0.41
35:DA:272(B):G:H2'	35:DA:272(C):G:H8	1.86	0.41
25:D0:26:TYR:O	25:D0:29:GLN:HB2	2.21	0.41
5:CE:116:THR:HG22	5:CE:116:THR:O	2.21	0.41
35:BA:828:U:O2	35:BA:828:U:H3'	2.20	0.41
38:DD:125:ILE:HG22	38:DD:125:ILE:O	2.19	0.41
27:D2:30:ARG:HB2	56:DX:5:TYR:CZ	2.56	0.41
52:BT:91:ARG:O	52:BT:93:ARG:N	2.54	0.41
57:BY:39:VAL:C	57:BY:40:GLU:OE1	2.60	0.41
45:DK:84:LEU:HD21	45:DK:136:VAL:HG12	2.03	0.41
40:DF:24:LEU:CD1	40:DF:118:ALA:HB1	2.51	0.41
58:BZ:168:GLU:O	58:BZ:170:THR:N	2.54	0.41
58:BZ:151:HIS:HA	58:BZ:171:ILE:CG1	2.50	0.41
2:AB:165:VAL:CG2	2:AB:166:ASP:N	2.81	0.41
36:BB:7:G:H2'	36:BB:8:U:O4'	2.21	0.41
51:BS:89:ARG:HG2	51:BS:92:TYR:CA	2.44	0.41
6:AF:26:ILE:O	6:AF:30:LEU:CD2	2.69	0.41
41:BG:152:LEU:HD23	41:BG:152:LEU:N	2.11	0.41
41:BG:44:GLY:HA2	41:BG:88:ILE:CG1	2.50	0.41
41:BG:4:ASP:HA	41:BG:8:LYS:HZ2	1.86	0.41
22:CW:38:A:H3'	22:CW:39:U:C5'	2.47	0.41
35:BA:1410:G:H1	35:BA:1592:C:H42	1.68	0.41
35:BA:1542:A:C8	35:BA:1544:A:H5'	2.55	0.41
41:BG:48:GLU:O	41:BG:49:ASP:CB	2.67	0.41
11:CK:21:ILE:HA	11:CK:30:VAL:HG12	2.02	0.41
35:BA:902:C:H2'	35:BA:903:C:H6	1.86	0.41
52:DT:62:THR:HA	52:DT:74:ARG:O	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BN:19:GLU:O	46:BN:60:ILE:HA	2.21	0.41
9:CI:63:ILE:HD13	9:CI:77:ILE:CG2	2.51	0.41
38:BD:9:TYR:CZ	38:BD:13:ARG:HD3	2.56	0.41
31:B6:15:GLU:O	31:B6:16:CYS:C	2.59	0.41
5:AE:63:ARG:C	5:AE:65:ASN:H	2.24	0.41
9:AI:19:LEU:C	9:AI:20:ARG:HG3	2.41	0.41
58:BZ:111:VAL:O	58:BZ:111:VAL:HG23	2.21	0.41
57:DY:62:GLU:OE2	57:DY:63:LYS:O	2.39	0.41
57:DY:63:LYS:CG	57:DY:64:GLU:H	2.24	0.41
35:BA:9:U:O2'	35:BA:10:G:P	2.79	0.41
2:AB:111:ARG:HG2	2:AB:111:ARG:HH11	1.86	0.41
1:CA:924:C:O2'	1:CA:1502:A:N6	2.54	0.41
1:CA:926:G:C2	1:CA:1505:G:C8	3.09	0.41
1:CA:1505:G:H4'	1:CA:1506:U:H5'	2.03	0.41
12:CL:42:THR:HG23	12:CL:42:THR:O	2.21	0.41
12:CL:44:THR:HA	12:CL:45:PRO:HD3	1.78	0.41
26:B1:44:PRO:HB2	26:B1:46:LEU:HD12	2.03	0.41
8:CH:11:THR:CG2	8:CH:14:ARG:HH12	2.33	0.41
35:DA:1657:C:H2'	35:DA:1658:C:C6	2.56	0.41
43:BI:31:LEU:N	43:BI:32:PRO:CD	2.84	0.41
8:CH:88:LYS:HB3	8:CH:89:PRO:CD	2.45	0.41
3:CC:88:ARG:HG2	3:CC:101:LEU:CB	2.51	0.41
56:BX:55:ASN:HB2	56:BX:80:ILE:HG23	2.03	0.41
11:AK:44:SER:H	11:AK:47:VAL:CG2	2.33	0.41
2:AB:91:PRO:CG	2:AB:155:LEU:HD23	2.52	0.41
42:DH:89:ILE:HD11	42:DH:94:TYR:C	2.40	0.41
35:BA:2811:G:C2'	35:BA:2812:G:H5'	2.51	0.41
38:BD:125:ILE:HG13	38:BD:137:PRO:CD	2.51	0.41
7:AG:145:ALA:O	7:AG:146:GLU:HB3	2.21	0.41
16:AP:59:TRP:HA	16:AP:59:TRP:CE3	2.55	0.41
3:CC:156:ARG:CD	3:CC:194:GLY:HA3	2.51	0.41
33:D8:32:LEU:HG	33:D8:36:LYS:HZ3	1.86	0.41
31:D6:25:LYS:HZ1	35:DA:2284:C:H41	1.68	0.41
10:CJ:6:ILE:HA	10:CJ:97:GLU:O	2.21	0.41
25:B0:70:GLN:NE2	25:B0:80:HIS:NE2	2.61	0.41
39:BE:11:MET:HE1	39:BE:187:ALA:H	1.86	0.41
10:CJ:32:ALA:HB1	10:CJ:75:ILE:HD11	2.02	0.41
14:AN:4:LYS:C	14:AN:6:LEU:H	2.23	0.41
48:BP:45:LEU:HD23	48:BP:45:LEU:HA	1.87	0.41
15:CO:11:VAL:O	15:CO:14:GLU:HB3	2.21	0.41
53:DU:31:SER:C	53:DU:33:ARG:N	2.75	0.41
3:AC:76:VAL:O	3:AC:84:ILE:HB	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CF:45:LEU:HD23	6:CF:46:ARG:N	2.36	0.41
2:CB:223:ILE:H	2:CB:223:ILE:HG13	1.76	0.41
35:BA:389:G:N1	48:BP:70:GLN:CG	2.84	0.41
1:AA:382:A:C2	1:AA:383:A:C4	3.09	0.41
49:BQ:61:GLY:O	49:BQ:62:GLY:O	2.39	0.41
2:CB:13:ALA:O	2:CB:14:GLY:C	2.59	0.41
41:DG:131:TYR:HB3	41:DG:159:VAL:CG2	2.51	0.41
58:BZ:128:VAL:CG2	58:BZ:132:ASN:HB3	2.51	0.41
35:DA:2713:A:C3'	35:DA:2714:G:C5'	2.98	0.41
6:AF:14:LEU:HB3	6:AF:18:GLN:HB2	2.03	0.41
13:CM:40:ASN:HA	13:CM:41:PRO:HD3	1.88	0.41
42:BH:137:ASP:O	42:BH:138:LYS:HB2	2.21	0.41
2:CB:24:TRP:CG	2:CB:25:ASN:N	2.88	0.41
1:AA:175:C:H2'	1:AA:176:C:C6	2.56	0.41
35:DA:893:C:O2'	35:DA:894:C:H5'	2.21	0.41
6:CF:78:GLU:HA	6:CF:78:GLU:OE2	2.21	0.41
22:CV:19:G:H21	41:DG:78:SER:CB	2.34	0.41
49:DQ:115:MET:O	49:DQ:116:GLU:C	2.58	0.41
8:CH:12:ARG:HH12	8:CH:27:PRO:HD2	1.81	0.41
1:CA:743:U:O2'	1:CA:744:C:H5'	2.22	0.41
35:DA:211:A:H2'	35:DA:212:G:O4'	2.21	0.41
35:DA:2862:G:H2'	35:DA:2863:C:H6	1.86	0.41
37:BC:197:LEU:C	37:BC:199:ALA:N	2.74	0.41
1:CA:1206:G:O2'	3:CC:193:TYR:HA	2.21	0.41
2:CB:95:GLN:NE2	2:CB:147:LYS:CE	2.84	0.41
39:BE:44:TYR:O	39:BE:45:THR:HB	2.21	0.41
24:CY:282:ARG:HB2	24:CY:282:ARG:NH2	2.36	0.41
4:CD:194:LEU:N	4:CD:194:LEU:HD22	2.36	0.41
56:BX:83:VAL:CG1	56:BX:87:GLN:HB2	2.51	0.41
1:AA:763:G:O2'	1:AA:764:C:H5'	2.21	0.41
42:BH:38:SER:HA	42:BH:39:PRO:HD3	1.93	0.41
1:AA:1215:G:O2'	1:AA:1216:G:H5'	2.21	0.41
53:DU:68:ALA:O	53:DU:71:GLN:HB2	2.20	0.41
42:BH:105:LEU:HD23	42:BH:105:LEU:H	1.86	0.41
35:DA:2684:U:O5'	35:DA:2684:U:H6	2.02	0.41
35:BA:107:C:H2'	35:BA:108:U:H6	1.86	0.41
35:BA:271(Z):C:H1'	35:BA:272(C):G:H1'	2.03	0.41
1:CA:1109:C:O2'	1:CA:1110:A:H5'	2.20	0.41
35:DA:2431:U:O2	35:DA:2433:A:C8	2.74	0.41
47:DO:100:GLY:O	47:DO:119:PRO:HD2	2.20	0.41
37:BC:39:ASP:OD1	37:BC:178:LYS:HB3	2.20	0.41
35:DA:1805:U:H5"	38:DD:250:TRP:CD2	2.56	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:2700:C:O2'	35:BA:2701:C:H5'	2.21	0.41
16:AP:80:PHE:CD1	16:AP:80:PHE:N	2.89	0.41
9:AI:128:ARG:HG2	9:AI:128:ARG:OXT	2.21	0.41
35:BA:2321:G:H2'	35:BA:2321:G:N3	2.35	0.41
1:AA:524:G:C6	1:AA:525:C:N4	2.89	0.41
39:DE:39:PRO:HA	39:DE:43:GLY:CA	2.50	0.41
57:DY:97:ARG:NH2	57:DY:98:VAL:CG2	2.84	0.40
2:CB:97:TRP:CH2	2:CB:176:GLU:OE2	2.74	0.40
51:DS:28:VAL:HG13	51:DS:99:LYS:HZ3	1.85	0.40
29:D4:34:GLU:O	29:D4:35:VAL:HB	2.21	0.40
41:DG:165:THR:OG1	41:DG:166:ASP:N	2.53	0.40
48:BP:127:ALA:O	48:BP:148:LEU:HG	2.20	0.40
29:B4:25:TYR:O	41:BG:101:ILE:HG23	2.20	0.40
35:BA:654(P):C:O2'	35:BA:654(Q):C:H5'	2.20	0.40
52:DT:89:VAL:CG1	52:DT:91:ARG:CG	2.96	0.40
35:DA:1173:G:H2'	35:DA:1175:U:C5	2.56	0.40
35:BA:1408:C:O2'	35:BA:1409:C:H5'	2.21	0.40
43:DI:9:LEU:CD1	43:DI:9:LEU:N	2.84	0.40
54:BV:4:ILE:HG22	54:BV:39:LEU:CD2	2.50	0.40
54:BV:52:VAL:CG2	54:BV:52:VAL:O	2.68	0.40
35:BA:1173:G:H2'	35:BA:1175:U:C5	2.56	0.40
35:BA:2394:C:OP1	48:BP:63:PRO:CD	2.53	0.40
1:AA:193:C:H2'	1:AA:194:C:C6	2.55	0.40
7:AG:102:ARG:HG2	7:AG:106:GLN:NE2	2.24	0.40
1:AA:656:C:O2'	15:AO:28:GLN:OE1	2.38	0.40
15:AO:26:GLU:HA	15:AO:81:LEU:HD22	2.02	0.40
1:CA:193:C:H2'	1:CA:194:C:C6	2.56	0.40
24:CY:26:LEU:HB2	24:CY:55:LEU:CD2	2.45	0.40
46:BN:123:TYR:C	46:BN:125:GLY:N	2.74	0.40
53:BU:65:ILE:CD1	53:BU:93:LYS:HA	2.50	0.40
27:B2:47:ASN:ND2	35:BA:94(A):G:N2	2.61	0.40
1:AA:1056:U:O2'	1:AA:1057:G:H5'	2.21	0.40
5:CE:63:ARG:C	5:CE:65:ASN:H	2.24	0.40
1:CA:418:C:N4	1:CA:426:G:N1	2.69	0.40
1:AA:1289:A:H3'	1:AA:1290:G:H8	1.87	0.40
3:AC:32:LEU:CB	3:AC:59:ARG:HH22	2.23	0.40
5:AE:101:ILE:H	5:AE:101:ILE:CD1	2.29	0.40
35:DA:1721:G:C2	35:DA:1739:U:OP2	2.74	0.40
2:CB:109:SER:C	2:CB:111:ARG:H	2.25	0.40
38:DD:31:LYS:O	38:DD:33:LEU:N	2.54	0.40
1:CA:509:A:H8	1:CA:509:A:O5'	2.04	0.40
4:CD:13:ARG:O	4:CD:14:ARG:HB3	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:991:U:O2	1:CA:993:G:C8	2.74	0.40
6:AF:68:PRO:HG2	6:AF:71:ARG:CG	2.39	0.40
41:DG:33:ARG:HG2	41:DG:33:ARG:H	1.78	0.40
16:CP:9:PHE:HB3	16:CP:10:GLY:H	1.73	0.40
24:AY:311:ILE:HD12	24:AY:325:ARG:HH21	1.87	0.40
47:DO:3:GLN:HB2	47:DO:4:PRO:HD2	2.03	0.40
47:BO:122:LEU:CD2	52:BT:43:GLN:NE2	2.83	0.40
30:B5:45:VAL:HG23	50:BR:99:LYS:O	2.21	0.40
39:DE:11:MET:HB3	39:DE:24:THR:HA	2.03	0.40
36:BB:103:G:N2	58:BZ:73:GLN:NE2	2.70	0.40
22:AW:51:U:C4	22:AW:52:G:C2	3.09	0.40
2:AB:76:GLN:H	2:AB:76:GLN:HG3	1.57	0.40
16:AP:67:THR:HG22	16:AP:68:ASP:N	2.36	0.40
5:CE:27:ARG:HD3	5:CE:47:LYS:HB3	2.04	0.40
24:AY:61:THR:C	24:AY:63:ARG:H	2.24	0.40
1:CA:1000:U:H2'	1:CA:1001:A:C8	2.56	0.40
1:AA:320:C:H2'	1:AA:321:A:O4'	2.21	0.40
10:AJ:6:ILE:HA	10:AJ:97:GLU:O	2.21	0.40
35:BA:958:U:H5''	49:BQ:14:ARG:CD	2.51	0.40
1:CA:1346:A:H5''	9:CI:120:ARG:HH12	1.86	0.40
6:AF:55:ASP:C	6:AF:57:GLN:H	2.25	0.40
5:AE:146:ALA:O	5:AE:147:ASP:C	2.59	0.40
37:BC:41:THR:HG22	37:BC:175:PRO:HB2	2.02	0.40
1:AA:659:U:HO2'	1:AA:660:G:H5'	1.86	0.40
3:AC:196:LEU:N	3:AC:196:LEU:HD22	2.37	0.40
36:BB:117:G:H5'	51:BS:55:ALA:HB1	2.02	0.40
55:DW:18:ARG:HG2	55:DW:18:ARG:NH1	2.34	0.40
8:CH:83:ILE:CD1	8:CH:137:VAL:HG22	2.51	0.40
1:AA:951:G:H1'	1:AA:970:C:O2'	2.21	0.40
41:BG:178:PHE:O	41:BG:180:PHE:CE1	2.73	0.40
39:DE:55:ASN:HB2	39:DE:72:VAL:HG11	2.03	0.40
35:DA:1076:C:H1'	45:DK:91:PRO:HD2	2.04	0.40
2:AB:25:ASN:HA	2:AB:26:PRO:HD2	1.83	0.40
35:BA:2199:A:N3	35:BA:2199:A:H2'	2.35	0.40
15:AO:43:LEU:HD11	15:AO:53:HIS:HA	2.01	0.40
15:CO:32:LEU:O	15:CO:36:ILE:HG13	2.20	0.40
35:DA:1816:G:H8	38:DD:62:TYR:OH	2.05	0.40
35:DA:1313:U:H3'	35:DA:1314:C:H5'	2.03	0.40
58:BZ:45:ASP:O	58:BZ:46:LYS:C	2.58	0.40
35:DA:2278:A:C2'	35:DA:2279:G:O5'	2.69	0.40
35:DA:581:C:H2'	35:DA:582:G:C8	2.57	0.40
35:BA:398:G:H2'	35:BA:399:G:H8	1.84	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:99:SER:HB2	4:CD:139:ARG:HG3	2.03	0.40
35:BA:341:G:C2'	35:BA:342:G:H5'	2.51	0.40
53:BU:68:ALA:HB2	53:BU:99:ALA:HB1	2.02	0.40
8:CH:1:MET:HE2	8:CH:1:MET:N	2.36	0.40
1:CA:141:A:H1'	1:CA:182:U:O2	2.20	0.40
35:DA:2128:C:OP1	37:DC:37:LYS:HG3	2.20	0.40
35:BA:191:A:O2'	35:BA:192:C:H5'	2.21	0.40
25:B0:31:VAL:HG22	25:B0:65:GLY:O	2.21	0.40
43:BI:110:ASP:HA	43:BI:111:PRO:HD2	1.94	0.40
35:DA:265:A:H1'	35:DA:266:G:O4'	2.21	0.40
10:AJ:79:ARG:HA	10:AJ:82:ILE:HG12	2.03	0.40
40:DF:88:VAL:HG21	40:DF:91:GLY:HA3	2.04	0.40
35:BA:311:A:C6	35:BA:328:U:C4	3.09	0.40
53:BU:111:GLU:OE2	53:BU:111:GLU:HA	2.20	0.40
1:CA:910:C:O5'	1:CA:910:C:H6	2.04	0.40
35:DA:1899:G:H2'	35:DA:1900:A:OP2	2.21	0.40
57:DY:97:ARG:O	57:DY:97:ARG:HG3	2.21	0.40
57:DY:13:VAL:CB	57:DY:28:LYS:HD3	2.51	0.40
28:B3:31:LEU:HD23	28:B3:31:LEU:HA	1.93	0.40
33:B8:4:MET:HE2	35:BA:593:G:H1'	2.03	0.40
45:DK:107:ILE:HG21	45:DK:127:ILE:HD12	2.03	0.40
35:BA:1045:A:H4'	35:BA:1047:G:C1'	2.52	0.40
2:CB:71:VAL:HG13	2:CB:93:VAL:CB	2.31	0.40
13:CM:88:ARG:HD3	19:CS:73:GLU:OE1	2.22	0.40
38:BD:108:PRO:CG	38:BD:111:LEU:HD23	2.51	0.40
45:BK:82:ALA:HB3	45:BK:84:LEU:CD2	2.51	0.40
38:BD:92:ILE:HD13	38:BD:92:ILE:N	2.27	0.40
52:BT:3:ARG:HB2	52:BT:6:LEU:HB2	1.98	0.40
35:DA:654(U):A:H2'	35:DA:654(V):A:C8	2.56	0.40
13:AM:7:VAL:CG1	41:BG:139:LEU:HD21	2.51	0.40
10:CJ:56:HIS:C	10:CJ:58:ASP:H	2.25	0.40
3:CC:175:LEU:HD12	3:CC:175:LEU:N	2.37	0.40
13:AM:123:ALA:CB	24:AY:162:ALA:HB2	2.51	0.40
1:CA:1442(B):A:C4	52:DT:118:ARG:CZ	3.04	0.40
27:D2:21:LEU:HA	27:D2:21:LEU:HD23	1.90	0.40
27:D2:66:GLU:C	27:D2:68:ARG:H	2.25	0.40
43:DI:15:VAL:C	43:DI:17:GLN:N	2.74	0.40
53:BU:95:LEU:HD13	54:BV:4:ILE:CG2	2.49	0.40
7:CG:106:GLN:O	7:CG:110:GLN:HG3	2.21	0.40
35:BA:624:C:H1'	35:BA:657:U:H5'	2.03	0.40
35:DA:197:A:H2'	35:DA:198:C:H5'	2.02	0.40
35:DA:1826:G:H2'	35:DA:1827:C:C6	2.56	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:BP:59:LEU:HD12	48:BP:61:ARG:HH12	1.85	0.40
35:DA:1209:G:N2	35:DA:1210:A:H62	2.16	0.40
11:CK:30:VAL:HG21	11:CK:65:ALA:HA	2.03	0.40
52:BT:80:SER:CB	52:BT:81:PRO:HD3	2.41	0.40
10:AJ:3:LYS:HD2	10:AJ:77:PRO:CG	2.38	0.40
48:DP:96:THR:O	48:DP:99:LEU:HB3	2.22	0.40
24:AY:106:LEU:HD13	24:AY:106:LEU:C	2.40	0.40
5:AE:6:PHE:CB	5:AE:34:VAL:HG22	2.44	0.40
48:DP:35:HIS:O	48:DP:36:LYS:CB	2.69	0.40
35:DA:1695:G:N7	38:DD:14:ARG:NH2	2.69	0.40
42:DH:98:LEU:HD12	42:DH:125:VAL:HG23	2.03	0.40
50:DR:116:LEU:O	50:DR:117:VAL:HB	2.21	0.40
23:CX:20:A:N6	24:CY:193:SER:OG	2.53	0.40
35:BA:1721:G:C2	35:BA:1739:U:OP2	2.74	0.40
19:CS:41:VAL:O	19:CS:44:MET:SD	2.79	0.40
38:BD:72:LYS:NZ	38:BD:72:LYS:HB3	2.36	0.40
27:D2:25:VAL:O	27:D2:26:ARG:C	2.60	0.40
8:AH:88:LYS:HB3	8:AH:89:PRO:CD	2.44	0.40
1:AA:624:C:O2'	1:AA:625:G:H5'	2.22	0.40
36:BB:55:U:H4'	41:BG:27:ASN:HD21	1.87	0.40
35:BA:2811:G:OP1	39:BE:60:ASN:CB	2.68	0.40
22:AW:63:G:H2'	22:AW:64:A:C5'	2.48	0.40
16:CP:67:THR:HG22	16:CP:68:ASP:N	2.37	0.40
35:DA:626:U:C5'	35:DA:627:A:H5'	2.50	0.40
1:CA:353:A:C2'	1:CA:354:G:OP2	2.70	0.40
3:CC:76:VAL:O	3:CC:84:ILE:HB	2.21	0.40
35:BA:26:G:C6	35:BA:27:G:N1	2.89	0.40
1:AA:684:A:H2'	1:AA:685:G:H8	1.86	0.40
1:AA:1374:A:C5	1:AA:1375:A:N7	2.89	0.40
38:DD:80:ALA:O	38:DD:81:ALA:HB2	2.21	0.40
26:B1:25:LYS:O	26:B1:27:GLU:N	2.55	0.40
49:BQ:59:ARG:NH2	49:BQ:60:ARG:HD3	2.37	0.40
25:D0:43:THR:CG2	25:D0:43:THR:O	2.62	0.40
35:DA:2115:G:H4'	35:DA:2167:U:H1'	2.02	0.40
1:AA:503:C:C6	1:AA:504:C:H5	2.39	0.40
2:CB:86:GLU:C	2:CB:88:ALA:N	2.74	0.40
39:BE:87:GLU:C	39:BE:89:ASP:N	2.73	0.40
21:CU:22:ARG:N	21:CU:23:PRO:HD3	2.36	0.40
35:DA:2126:A:H61	35:DA:2163:C:C4'	2.32	0.40
38:DD:68:LYS:HB2	38:DD:70:TRP:CZ2	2.56	0.40
1:AA:142:G:H2'	1:AA:143:A:H8	1.87	0.40
1:AA:383:A:H2'	1:AA:384:G:C4'	2.52	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:384:G:O2'	1:CA:385:C:H5'	2.22	0.40
2:AB:15:VAL:C	2:AB:16:HIS:CG	2.94	0.40
5:CE:37:ARG:HA	5:CE:114:GLY:CA	2.51	0.40
47:DO:15:GLY:O	47:DO:46:ALA:HB1	2.21	0.40
6:CF:58:GLY:O	6:CF:60:PHE:CD1	2.75	0.40
45:BK:132:ARG:NH1	45:BK:132:ARG:CB	2.83	0.40
38:DD:130:ALA:HB2	38:DD:192:THR:HB	2.03	0.40
42:BH:111:HIS:CG	42:BH:112:PRO:HD2	2.56	0.40
37:BC:181:PHE:CD2	37:BC:185:LYS:HB3	2.54	0.40
2:AB:19:HIS:CD2	2:AB:20:GLU:OE1	2.74	0.40
7:AG:60:LYS:C	7:AG:62:PHE:H	2.25	0.40
35:DA:2494:G:O2'	49:DQ:80:GLU:HA	2.21	0.40
35:DA:1533:G:H1'	35:DA:1537:G:N1	2.37	0.40
1:CA:1332:A:H2'	1:CA:1333:A:H8	1.87	0.40
4:AD:156:GLU:O	4:AD:159:ARG:N	2.49	0.40
1:CA:630:G:H3'	1:CA:631:G:H5'	2.03	0.40
24:AY:46:ARG:NH1	24:AY:50:GLN:HB2	2.36	0.40
1:CA:1478:C:H2'	1:CA:1479:C:C6	2.55	0.40
37:DC:193:PHE:O	37:DC:197:LEU:HG	2.20	0.40
17:AQ:22:LEU:HD12	17:AQ:23:VAL:N	2.35	0.40
7:CG:43:PHE:O	7:CG:46:ALA:HB3	2.20	0.40
47:DO:43:VAL:HG12	47:DO:54:GLU:HA	2.03	0.40
5:AE:64:ARG:CZ	5:AE:64:ARG:HB2	2.51	0.40
4:AD:182:LYS:HB3	4:AD:183:GLY:H	1.74	0.40
46:DN:51:PHE:CZ	46:DN:119:ARG:CD	3.04	0.40
50:BR:103:ARG:HD3	55:BW:40:ASN:ND2	2.35	0.40
35:DA:2320:A:N3	35:DA:2320:A:H2'	2.36	0.40
4:CD:170:VAL:CG1	4:CD:171:GLY:N	2.84	0.40
1:CA:1109:C:C2'	1:CA:1110:A:H5'	2.51	0.40
3:CC:122:GLU:C	3:CC:124:ILE:N	2.74	0.40
35:DA:2639:A:H2'	35:DA:2640:G:O4'	2.21	0.40
46:BN:96:GLU:O	46:BN:100:GLU:HG3	2.21	0.40
35:BA:732:C:H2'	35:BA:733:G:O4'	2.21	0.40
35:BA:2128:C:OP1	37:BC:37:LYS:HG3	2.21	0.40
35:BA:55:G:H2'	35:BA:56:A:H8	1.86	0.40
35:BA:754:C:H2'	35:BA:755:C:C6	2.56	0.40
39:BE:12:THR:HB	39:BE:13:ARG:H	1.72	0.40
35:BA:209:C:H2'	35:BA:210:C:H6	1.87	0.40
22:CV:27:G:H1	22:CV:43:C:H42	1.69	0.40
47:BO:8:LEU:N	47:BO:8:LEU:HD22	2.36	0.40
25:B0:12:ASN:HA	25:B0:12:ASN:HD22	1.69	0.40
25:D0:19:LYS:HD2	25:D0:19:LYS:N	2.36	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:41:ILE:N	2:CB:41:ILE:HD12	2.36	0.40
27:B2:59:ARG:O	27:B2:62:THR:HB	2.22	0.40
35:DA:2240:C:O2'	35:DA:2241:A:H5'	2.21	0.40
30:B5:51:TYR:HD2	30:B5:52:TYR:OH	2.04	0.40
57:BY:28:LYS:C	57:BY:38:ILE:HG22	2.41	0.40
57:DY:95:LYS:CD	57:DY:99:CYS:O	2.69	0.40
35:DA:613:G:C8	35:DA:613:G:C5'	2.98	0.40
40:BF:125:LEU:HD13	40:BF:199:TRP:CD2	2.56	0.40
57:DY:37:VAL:O	57:DY:38:ILE:HB	2.20	0.40
35:DA:1746:G:C2	35:DA:1747:G:C8	3.09	0.40
42:BH:46:GLU:O	42:BH:49:VAL:O	2.38	0.40
35:BA:1053:C:H2'	35:BA:1054:A:H8	1.86	0.40
35:BA:1054:A:H2'	35:BA:1055:G:O4'	2.21	0.40
13:AM:90:LEU:O	13:AM:91:ARG:HB2	2.21	0.40
40:BF:132:VAL:HG13	40:BF:133:ASN:N	2.36	0.40
30:D5:50:GLY:HA3	30:D5:56:LYS:HB3	2.02	0.40
48:BP:8:PRO:C	48:BP:10:PRO:CD	2.90	0.40
51:BS:59:LYS:CG	51:BS:60:GLY:N	2.83	0.40
41:DG:119:GLY:H	41:DG:181:ARG:NH2	2.15	0.40
41:DG:163:ALA:HB1	41:DG:168:GLU:HG3	2.04	0.40
38:DD:108:PRO:HA	38:DD:196:VAL:O	2.21	0.40
29:B4:11:PRO:HA	29:B4:25:TYR:HA	2.03	0.40
3:CC:175:LEU:HD12	3:CC:175:LEU:H	1.86	0.40
22:AW:77:PHA:CE1	35:BA:2395:C:H4'	2.51	0.40
56:BX:36:LYS:HD3	56:BX:56:THR:HG23	2.02	0.40
46:BN:2:LYS:NZ	54:BV:12:TYR:HA	2.36	0.40
39:BE:111:ARG:CZ	50:BR:2:ARG:HH21	2.34	0.40
53:DU:88:ILE:C	53:DU:90:VAL:H	2.24	0.40
35:BA:1528(A):A:C5	35:BA:1529:G:H8	2.40	0.40
43:BI:133:HIS:CB	43:BI:134:PRO:HD2	2.45	0.40
43:BI:77:LEU:HD13	43:BI:140:LEU:CG	2.51	0.40
35:BA:1114:G:C3'	35:BA:1115:G:C5'	2.96	0.40
20:CT:57:ARG:HH12	20:CT:100:ILE:CG1	2.34	0.40
52:DT:65:LYS:HG3	52:DT:66:VAL:N	2.35	0.40
46:DN:19:GLU:O	46:DN:60:ILE:HA	2.21	0.40
35:BA:904:C:H2'	35:BA:905:U:C6	2.56	0.40
48:DP:49:ARG:HH21	48:DP:50:ARG:HH22	1.70	0.40
35:DA:2649:U:H2'	35:DA:2650:U:C6	2.57	0.40
23:AX:14:A:H2	23:AX:15:A:N6	2.16	0.40
46:BN:128:HIS:HD2	46:BN:130:HIS:N	2.10	0.40
52:BT:105:LEU:HD22	52:BT:109:GLU:OE1	2.22	0.40
10:CJ:13:HIS:NE2	10:CJ:14:LYS:HG3	2.37	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:DU:65:ILE:CD1	53:DU:93:LYS:HA	2.50	0.40
1:AA:1030(B):C:C2'	1:AA:1030(C):G:H5'	2.51	0.40
9:CI:47:LEU:N	9:CI:47:LEU:HD12	2.37	0.40
54:BV:57:VAL:HB	54:BV:99:ILE:HG22	2.04	0.40
12:CL:27:LEU:C	12:CL:29:GLY:N	2.75	0.40
50:DR:34:ILE:HA	50:DR:34:ILE:HD13	1.70	0.40
48:DP:88:LEU:O	48:DP:89:ALA:C	2.59	0.40
1:CA:1399:C:C2	1:CA:1401:G:C5	3.09	0.40
35:BA:2345:G:N3	35:BA:2381:C:H2'	2.36	0.40
58:BZ:14:LYS:O	58:BZ:15:PRO:C	2.59	0.40
58:BZ:51:ALA:O	58:BZ:52:SER:HB2	2.21	0.40
31:B6:25:LYS:HB2	33:B8:34:TRP:HE1	1.86	0.40
1:CA:1354:C:H2'	1:CA:1355:G:C8	2.56	0.40
1:AA:1343:G:C1'	9:AI:121:ARG:HH12	2.34	0.40
3:CC:74:GLY:O	3:CC:76:VAL:N	2.54	0.40
12:CL:7:ILE:HG23	12:CL:8:ASN:N	2.36	0.40
39:DE:31:CYS:HA	39:DE:32:PRO:HD3	1.78	0.40
39:DE:47:VAL:HG13	39:DE:47:VAL:O	2.20	0.40
50:BR:9:LYS:O	50:BR:10:LEU:CD2	2.67	0.40
2:CB:7:VAL:HA	2:CB:217:ARG:HH22	1.85	0.40
18:CR:36:ASN:O	18:CR:39:VAL:HB	2.20	0.40
35:DA:819:A:C4	35:DA:1189:A:C2	3.09	0.40
2:AB:7:VAL:HA	2:AB:217:ARG:HH22	1.86	0.40
22:AV:44:G:H2'	22:AV:45:U:C5'	2.49	0.40
35:DA:234:C:H2'	35:DA:235:U:C6	2.55	0.40
53:BU:45:TYR:O	53:BU:49:HIS:N	2.51	0.40
24:CY:319:ASN:HA	24:CY:333:PRO:HG3	2.02	0.40
35:DA:2306:C:H5'	35:DA:2307:G:O5'	2.22	0.40
35:DA:2307:G:N3	35:DA:2307:G:H3'	2.37	0.40
1:CA:148:G:O2'	1:CA:149:A:H5'	2.21	0.40
4:AD:58:LEU:CD2	4:AD:62:GLN:HG2	2.50	0.40
22:CV:55:U:C2	22:CV:57:G:H5''	2.55	0.40
35:DA:2463:C:C2'	35:DA:2464:C:H5'	2.50	0.40
35:DA:2464:C:O2'	35:DA:2465:C:P	2.79	0.40
35:BA:1385:G:H1'	35:BA:1386:C:C6	2.56	0.40
1:AA:1401:G:H2'	1:AA:1402:C:O4'	2.21	0.40
58:DZ:136:PHE:O	58:DZ:138:GLU:N	2.54	0.40
49:BQ:72:LYS:HA	49:BQ:73:PRO:HD3	1.86	0.40
36:BB:28:C:P	51:BS:31:SER:HG	2.45	0.40
35:DA:2195:C:O2'	35:DA:2196:C:H5'	2.22	0.40
1:CA:851:G:H2'	1:CA:852:G:H8	1.86	0.40
1:AA:80:G:N1	1:AA:88:A:OP2	2.55	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:56:ARG:HH11	2:CB:56:ARG:HG2	1.85	0.40
45:BK:9:LYS:HA	45:BK:56:GLU:HB2	2.02	0.40
1:AA:1060:C:O2'	1:AA:1061:G:H5'	2.21	0.40
39:BE:181:LEU:HD21	52:BT:7:ILE:HG23	2.03	0.40
38:BD:45:ASN:CG	38:BD:46:GLN:H	2.25	0.40
7:AG:46:ALA:O	7:AG:49:ILE:N	2.52	0.40
8:AH:61:VAL:O	8:AH:63:LEU:HD22	2.21	0.40
35:BA:2352:A:C2'	35:BA:2353:G:H5'	2.50	0.40
37:DC:197:LEU:C	37:DC:199:ALA:N	2.75	0.40
43:DI:125:GLU:CA	43:DI:125:GLU:OE1	2.69	0.40
1:AA:1207:G:H2'	1:AA:1208:C:C6	2.56	0.40
1:AA:1414:U:H2'	1:AA:1415:G:H8	1.86	0.40
1:AA:817:C:H1'	1:AA:819:A:H5'	2.03	0.40
35:BA:2552:U:H2'	35:BA:2554:U:OP2	2.21	0.40
1:CA:818:G:C3'	1:CA:819:A:C5'	2.99	0.40
35:DA:2092:U:H4'	35:DA:2093:G:O5'	2.21	0.40
1:AA:295:C:H2'	1:AA:296:U:H6	1.87	0.40
35:BA:1750:G:O2'	35:BA:1751:C:H5'	2.21	0.40
35:BA:244:A:C2	35:BA:255:A:C4	3.09	0.40
35:DA:1819:A:H5''	38:DD:161:THR:HG21	2.02	0.40
53:DU:21:ALA:CB	53:DU:35:ALA:HB1	2.52	0.40
5:AE:57:LYS:HB3	5:AE:61:TYR:HE2	1.85	0.40
8:CH:116:LYS:HE2	8:CH:127:LEU:HD12	2.03	0.40
37:DC:226:ASN:HD21	37:DC:228:HIS:HB2	1.86	0.40
1:AA:141:A:H1'	1:AA:182:U:C2	2.56	0.40
18:CR:85:LEU:N	18:CR:85:LEU:HD12	2.35	0.40
35:BA:693:C:O2'	35:BA:694:U:H5'	2.21	0.40
3:AC:25:GLY:C	3:AC:27:LYS:H	2.24	0.40
35:DA:1425:G:H2'	35:DA:1426:G:O4'	2.21	0.40
56:DX:53:LYS:NZ	56:DX:55:ASN:HD21	2.19	0.40
13:AM:73:GLU:O	13:AM:76:ALA:HB3	2.20	0.40
1:CA:269:C:H2'	1:CA:270:A:C8	2.56	0.40
3:AC:3:ASN:HB2	3:AC:4:LYS:H	1.75	0.40
2:CB:181:PHE:CD1	8:CH:70:GLN:HB3	2.55	0.40
8:AH:127:LEU:N	8:AH:127:LEU:HD22	2.37	0.40
35:BA:2453:A:O2'	35:BA:2454:G:H5'	2.21	0.40
30:B5:51:TYR:HD2	30:B5:52:TYR:CE1	2.39	0.40
54:BV:19:LYS:C	54:BV:20:LEU:HD12	2.42	0.40
40:BF:157:VAL:HG13	40:BF:157:VAL:O	2.22	0.40
57:DY:7:VAL:C	57:DY:8:LYS:HD2	2.41	0.40
42:BH:43:VAL:HG11	42:BH:52:VAL:HA	2.03	0.40
52:BT:48:ILE:CD1	52:BT:48:ILE:N	2.84	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:955:U:H2'	1:CA:956:U:O4'	2.20	0.40
22:CW:18:G:N2	22:CW:55:U:H1'	2.36	0.40
37:DC:52:PRO:HG2	37:DC:53:ARG:H	1.86	0.40
41:DG:166:ASP:HA	41:DG:169:ALA:CB	2.47	0.40
45:BK:79:ARG:NH1	45:BK:79:ARG:HG2	2.37	0.40
35:BA:2661:G:N3	35:BA:2661:G:OP2	2.54	0.40
22:AW:17:C:C2'	22:AW:17:C:O2	2.67	0.40
35:DA:1495:A:N3	35:DA:1495:A:H2'	2.37	0.40
22:AW:77:PHA:HD2	35:BA:249:C:OP2	2.20	0.40
52:DT:131:ALA:O	52:DT:133:GLU:N	2.53	0.40
13:AM:122:LYS:O	13:AM:123:ALA:HB2	2.21	0.40
27:D2:21:LEU:HD13	27:D2:64:LEU:CA	2.52	0.40
35:DA:272(G):C:C2'	35:DA:272(H):C:H5''	2.52	0.40
35:BA:621:A:C2'	35:BA:622:G:H5'	2.46	0.40
35:DA:2820:A:O4'	50:DR:5:LYS:HD2	2.21	0.40
50:DR:2:ARG:CD	50:DR:5:LYS:NZ	2.85	0.40
49:DQ:16:ARG:CB	49:DQ:18:LYS:NZ	2.75	0.40
22:CW:76:8AN:O2'	35:DA:2394:C:N3	2.46	0.40
51:BS:95:HIS:O	51:BS:96:GLY:C	2.60	0.40
4:AD:12:CYS:HA	4:AD:19:LEU:N	2.27	0.40
45:BK:4:VAL:CG2	45:BK:5:VAL:H	2.14	0.40
24:CY:46:ARG:NH1	24:CY:50:GLN:HB2	2.36	0.40
33:D8:59:LYS:HE3	33:D8:59:LYS:HB2	1.88	0.40
29:D4:15:ILE:HD13	29:D4:21:VAL:HG13	2.03	0.40
43:DI:79:ILE:O	43:DI:143:SER:N	2.54	0.40
53:BU:9:VAL:O	53:BU:13:LYS:HE3	2.22	0.40
57:BY:62:GLU:OE2	57:BY:63:LYS:O	2.39	0.40
35:BA:2847:U:OP1	52:BT:98:LYS:HD3	2.22	0.40
54:BV:14:VAL:HG21	54:BV:57:VAL:HG21	2.02	0.40
54:DV:99:ILE:H	54:DV:99:ILE:HD13	1.85	0.40
1:AA:363:A:N7	12:AL:30:ALA:HB1	2.36	0.40
35:DA:143:G:C1'	56:DX:37:THR:HG21	2.44	0.40
35:DA:1948:G:O2'	35:DA:1949:G:H5'	2.22	0.40
35:BA:1719:G:C6	35:BA:1720:U:C4	3.09	0.40
19:CS:28:LYS:HZ1	19:CS:29:ARG:NH2	2.19	0.40
1:CA:1104:G:C4	1:CA:1105:A:C8	3.09	0.40
9:CI:10:ARG:HD2	9:CI:105:ASP:N	2.36	0.40
19:AS:44:MET:HA	19:AS:44:MET:HE3	2.03	0.40
1:CA:1293:G:O2'	1:CA:1294:G:P	2.79	0.40
19:CS:11:VAL:HG13	19:CS:11:VAL:O	2.22	0.40
19:CS:16:LEU:O	19:CS:18:LYS:N	2.54	0.40
41:BG:16:ARG:NH2	41:BG:33:ARG:HG3	2.28	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BI:12:LEU:CD1	43:BI:19:VAL:HG21	2.52	0.40
3:AC:113:ALA:O	3:AC:115:LEU:N	2.54	0.40
36:DB:104:U:H5''	49:DQ:141:GLN:NE2	2.36	0.40
1:AA:770:C:O2'	1:AA:771:G:H5'	2.21	0.40
35:DA:2787:C:O2'	39:DE:61:ARG:HD3	2.21	0.40
3:CC:156:ARG:HD3	3:CC:194:GLY:N	2.36	0.40
58:DZ:116:VAL:O	58:DZ:174:VAL:HA	2.21	0.40
13:AM:28:ALA:C	13:AM:30:ALA:N	2.74	0.40
1:CA:1456:G:N3	1:CA:1456:G:H3'	2.37	0.40
43:DI:44:LEU:HA	43:DI:44:LEU:HD12	1.88	0.40
3:AC:127:ARG:CD	3:AC:127:ARG:N	2.80	0.40
4:AD:101:LEU:HD23	4:AD:121:VAL:HG11	2.03	0.40
53:BU:8:VAL:HG23	53:BU:11:ARG:NH2	2.29	0.40
2:AB:86:GLU:C	2:AB:88:ALA:N	2.74	0.40
1:CA:439:A:H2'	1:CA:441:A:O5'	2.22	0.40
5:AE:150:ARG:HA	5:AE:153:LYS:CE	2.45	0.40
21:AU:12:LYS:N	21:AU:12:LYS:HD2	2.37	0.40
30:D5:41:PRO:CG	30:D5:44:THR:HG21	2.48	0.40
38:DD:70:TRP:CZ3	38:DD:146:GLU:CD	2.95	0.40
35:BA:848:G:H5'	35:BA:848:G:C8	2.56	0.40
39:BE:34:VAL:HG13	39:BE:48:GLN:NE2	2.33	0.40
6:CF:14:LEU:HB3	6:CF:18:GLN:HB2	2.03	0.40
5:AE:139:LEU:C	5:AE:141:GLN:N	2.75	0.40
19:AS:33:THR:CG2	19:AS:51:VAL:HA	2.51	0.40
11:AK:124:LYS:HB3	11:AK:124:LYS:HZ3	1.86	0.40
1:CA:357:G:C2	1:CA:358:U:C5	3.10	0.40
35:BA:1709:U:H1'	35:BA:2860:A:N3	2.37	0.40
7:AG:151:TYR:CD1	7:AG:151:TYR:N	2.90	0.40
2:AB:213:LEU:C	2:AB:213:LEU:HD23	2.41	0.40
37:BC:48:LEU:HD13	37:BC:172:ILE:HB	2.03	0.40
41:BG:180:PHE:CB	41:BG:182:LYS:HG3	2.50	0.40
1:CA:177:C:O2'	1:CA:178:C:H5'	2.21	0.40
1:CA:180:U:C2'	1:CA:181:G:H5''	2.51	0.40
35:BA:2498:C:O2'	35:BA:2499:C:H5'	2.21	0.40
14:AN:15:LYS:HB3	14:AN:16:PHE:CE2	2.57	0.40
1:CA:374:A:C6	1:CA:375:U:C4	3.09	0.40
36:DB:94:C:O2'	36:DB:95:C:H5'	2.22	0.40
2:CB:19:HIS:CD2	2:CB:20:GLU:OE1	2.74	0.40
10:CJ:87:THR:C	10:CJ:89:ASP:N	2.74	0.40
35:DA:970:C:H2'	35:DA:971:C:C6	2.56	0.40
1:CA:826:C:C5'	8:CH:12:ARG:HH21	2.35	0.40
27:D2:28:LYS:O	27:D2:32:LEU:HB2	2.20	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:1532:C:O2'	35:DA:1533:G:H5'	2.22	0.40
58:DZ:138:GLU:O	58:DZ:156:LYS:HB2	2.22	0.40
39:BE:27:LEU:HD12	39:BE:180:ASN:O	2.22	0.40
8:AH:121:ASP:OD2	8:AH:122:ARG:HG3	2.21	0.40
1:CA:1428:A:H2'	1:CA:1429:C:C6	2.55	0.40
8:CH:100:ILE:HG21	8:CH:121:ASP:HA	2.03	0.40
27:D2:55:ARG:NH1	35:DA:75:G:H4'	2.36	0.40
58:DZ:183:LEU:HD13	58:DZ:184:ALA:N	2.36	0.40
26:D1:27:GLU:CG	26:D1:28:GLY:H	2.32	0.40
17:CQ:90:ILE:HA	17:CQ:93:GLN:HB3	2.03	0.40
26:B1:19:GLN:HB2	26:B1:35:THR:CG2	2.51	0.40
5:CE:140:ARG:CG	5:CE:140:ARG:O	2.68	0.40
39:BE:37:ARG:O	39:BE:45:THR:HA	2.21	0.40
39:DE:200:GLU:N	39:DE:200:GLU:OE2	2.50	0.40
1:CA:760:G:H2'	1:CA:761:G:C5'	2.51	0.40
40:BF:143:ALA:HB1	40:BF:148:LEU:HB2	2.03	0.40
35:DA:657:U:OP2	35:DA:657:U:H6	2.04	0.40
21:CU:5:ASP:C	21:CU:7:ARG:H	2.25	0.40
58:DZ:185:GLU:HB3	58:DZ:186:GLU:H	1.63	0.40
46:DN:29:LYS:O	46:DN:33:LEU:HB2	2.21	0.40
1:AA:554:C:H2'	1:AA:555:C:C6	2.56	0.40
1:CA:78:G:H2'	1:CA:79:G:O4'	2.22	0.40
35:BA:2399:G:H2'	35:BA:2400:G:O4'	2.21	0.40
42:DH:32:GLU:O	42:DH:33:LEU:HD23	2.22	0.40
35:DA:664:C:H2'	35:DA:665:C:C6	2.56	0.40
49:DQ:39:PRO:O	49:DQ:40:ALA:HB2	2.22	0.40
1:CA:952:U:O2'	1:CA:953:G:H5'	2.22	0.40
8:CH:113:SER:O	8:CH:131:GLY:HA3	2.21	0.40
46:DN:96:GLU:O	46:DN:100:GLU:HG3	2.21	0.40
35:BA:2356:C:H2'	35:BA:2357:U:O4'	2.21	0.40
35:DA:732:C:H2'	35:DA:733:G:O4'	2.21	0.40
1:CA:570:G:H2'	1:CA:571:U:C6	2.56	0.40
17:CQ:83:ASP:O	17:CQ:87:LYS:HG2	2.21	0.40
41:DG:133:LEU:C	41:DG:133:LEU:HD12	2.41	0.40
43:DI:84:GLY:O	43:DI:85:GLU:HB3	2.22	0.40
11:CK:120:ARG:HA	11:CK:121:PRO:HD3	1.81	0.40
24:CY:169:ILE:HG22	24:CY:171:VAL:HG23	2.04	0.40
31:D6:43:CYS:O	31:D6:44:ARG:O	2.39	0.40
52:BT:89:VAL:CB	52:BT:91:ARG:HG3	2.51	0.40
33:D8:4:MET:HE2	35:DA:593:G:H1'	2.02	0.40
33:D8:61:LEU:HD23	33:D8:61:LEU:H	1.86	0.40
58:DZ:79:ARG:O	58:DZ:80:ARG:CB	2.60	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:B8:63:PRO:O	33:B8:64:TYR:O	2.38	0.40
57:BY:76:CYS:O	57:BY:77:PRO:C	2.60	0.40
58:BZ:166:SER:HB2	58:BZ:167:PRO:CA	2.51	0.40
35:BA:2801(A):A:H5'	35:BA:2802:G:H8	1.86	0.40
35:DA:1054:A:H2'	35:DA:1055:G:O4'	2.21	0.40
51:DS:16:ASN:OD1	51:DS:17:ARG:N	2.55	0.40
35:DA:2555:U:C2'	35:DA:2556:C:H5'	2.52	0.40
5:CE:103:GLY:C	5:CE:105:VAL:H	2.24	0.40
41:DG:47:LYS:HB2	41:DG:82:LEU:HD12	2.02	0.40
41:DG:47:LYS:HZ2	41:DG:81:LYS:CB	2.35	0.40
1:AA:976:G:H22	1:AA:1362:C:H2'	1.80	0.40
52:DT:19:LEU:HD22	52:DT:85:LYS:HG3	2.02	0.40
41:BG:132:ASN:OD1	41:BG:158:ALA:HA	2.22	0.40
32:D7:12:ARG:HG3	35:DA:686:G:O6	2.22	0.40
52:DT:128:GLU:CD	52:DT:129:ARG:N	2.75	0.40
35:DA:621:A:C2'	35:DA:622:G:H5'	2.46	0.40
39:DE:50:GLY:HA2	39:DE:78:LEU:HB3	2.03	0.40
49:BQ:18:LYS:O	49:BQ:19:GLY:O	2.40	0.40
54:BV:47:VAL:HG12	54:BV:52:VAL:HG13	2.03	0.40
35:BA:1653:G:H3'	50:BR:4:LEU:HD23	2.03	0.40
54:DV:55:ALA:HA	54:DV:101:GLY:HA2	2.04	0.40
50:DR:2:ARG:HG3	50:DR:2:ARG:HH11	1.87	0.40
58:DZ:45:ASP:O	58:DZ:49:ARG:HG2	2.20	0.40
36:DB:114:C:O2'	51:DS:46:VAL:HG13	2.22	0.40
42:BH:159:GLU:HB3	42:BH:160:LYS:H	1.57	0.40
35:DA:2110:G:O2'	35:DA:2120:G:H5'	2.22	0.40
35:DA:942:G:O2'	35:DA:943:U:H5'	2.22	0.40
48:DP:34:GLY:O	48:DP:35:HIS:CB	2.69	0.40
1:AA:1120:G:H1	1:AA:1153:C:H42	1.69	0.40
9:AI:10:ARG:HD2	9:AI:105:ASP:N	2.36	0.40
58:DZ:53:ILE:HG13	58:DZ:53:ILE:O	2.21	0.40
35:BA:1141:U:H4'	35:BA:1142(A):A:O4'	2.21	0.40
37:BC:3:LYS:O	37:BC:4:HIS:HD2	2.05	0.40
30:D5:11:THR:CG2	35:DA:1263:U:O3'	2.66	0.40
38:DD:35:LYS:N	38:DD:36:PRO:HD2	2.36	0.40
37:DC:2:PRO:HG2	37:DC:3:LYS:H	1.86	0.40
2:CB:200:ILE:CG2	2:CB:201:ILE:N	2.84	0.40
38:BD:97:TYR:CE1	38:BD:103:ARG:HG3	2.56	0.40
35:BA:1947:C:H2'	35:BA:1948:G:C5'	2.48	0.40
41:BG:172:LEU:C	41:BG:172:LEU:CD2	2.90	0.40
43:BI:64:GLU:HG2	43:BI:67:ARG:HD2	2.03	0.40
39:BE:57:LYS:HD2	39:BE:59:VAL:HG12	2.04	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:152:G:H2'	35:DA:153:C:C6	2.55	0.40
8:AH:105:ARG:O	8:AH:105:ARG:HG3	2.21	0.40
35:BA:2562:U:C1'	47:BO:23:ARG:HH11	2.28	0.40
16:CP:4:ILE:HD12	16:CP:4:ILE:N	2.37	0.40
13:AM:14:ARG:C	13:AM:16:ASP:H	2.25	0.40
1:AA:491:G:O2'	1:AA:492:G:H5'	2.22	0.40
48:BP:105:LEU:HD12	48:BP:105:LEU:N	2.32	0.40
39:DE:129:HIS:O	39:DE:130:GLY:O	2.40	0.40
35:BA:2298:A:H62	35:BA:2318:G:H8	1.68	0.40
52:DT:57:PHE:O	52:DT:59:THR:HG22	2.22	0.40
3:CC:81:GLY:O	3:CC:85:ARG:HB2	2.21	0.40
48:DP:30:THR:HG22	48:DP:31:ALA:H	1.85	0.40
48:BP:25:SER:O	48:BP:30:THR:HG23	2.21	0.40
37:BC:191:ARG:NH1	37:BC:191:ARG:HG3	2.36	0.40
37:BC:23:ILE:CG2	37:BC:191:ARG:HH12	2.35	0.40
15:CO:10:LYS:O	15:CO:14:GLU:HB2	2.22	0.40
1:AA:439:A:H2'	1:AA:441:A:O5'	2.22	0.40
35:DA:1091:G:H2'	35:DA:1092:C:C6	2.57	0.40
35:BA:2112:G:P	35:BA:2112:G:O4'	2.80	0.40
54:DV:82:ARG:O	54:DV:83:ARG:HD3	2.21	0.40
1:AA:1479:C:H2'	1:AA:1480:G:C8	2.48	0.40
2:AB:13:ALA:O	2:AB:14:GLY:C	2.59	0.40
1:AA:153:C:O2'	1:AA:154:C:H5'	2.21	0.40
35:BA:1186:G:H2'	35:BA:1187:G:O4'	2.21	0.40
42:DH:86:GLU:OE1	42:DH:86:GLU:N	2.52	0.40
35:DA:1506:C:O2	35:DA:1506:C:C2'	2.68	0.40
10:AJ:86:MET:HG3	10:AJ:87:THR:HG23	2.03	0.40
37:DC:181:PHE:CD2	37:DC:185:LYS:HB3	2.54	0.40
1:AA:1332:A:H2'	1:AA:1333:A:H8	1.87	0.40
44:BJ:80:UNK:O	44:BJ:81:UNK:C	2.70	0.40
35:BA:852:G:C2'	35:BA:853:G:H5'	2.52	0.40
1:CA:189(C):C:C2'	1:CA:189(D):C:H5'	2.51	0.40
1:CA:1409:C:H2'	1:CA:1410:G:C8	2.55	0.40
1:CA:1412:C:H2'	1:CA:1413:A:C8	2.56	0.40
1:CA:563:A:C2	1:CA:567:G:C6	3.10	0.40
39:BE:93:VAL:HG21	39:BE:180:ASN:CA	2.52	0.40
57:BY:52:SER:O	57:BY:54:LYS:N	2.54	0.40
35:BA:1532:C:O2'	35:BA:1533:G:H5'	2.22	0.40
35:BA:1533:G:H1'	35:BA:1537:G:N1	2.36	0.40
35:DA:2819:G:H2'	35:DA:2821:A:N7	2.36	0.40
35:BA:2615:U:H2'	35:BA:2616:C:C6	2.57	0.40
35:BA:1926:U:H2'	35:BA:1928:A:OP2	2.22	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:DR:67:LEU:CD2	50:DR:76:VAL:HG11	2.51	0.40
38:DD:28:GLU:N	38:DD:29:PRO:CD	2.85	0.40
8:CH:63:LEU:N	8:CH:63:LEU:HD22	2.37	0.40
24:CY:263:GLN:HA	24:CY:271:ASN:HD22	1.86	0.40
35:BA:78:A:H2'	35:BA:79:G:C8	2.56	0.40
7:CG:27:ILE:HG21	7:CG:40:ALA:HB2	2.04	0.40
1:AA:760:G:H2'	1:AA:761:G:C5'	2.51	0.40
56:DX:65:ARG:CG	56:DX:66:LEU:N	2.85	0.40
35:BA:962:G:C2'	35:BA:963:U:H5'	2.52	0.40
10:AJ:88:LEU:HG	10:AJ:88:LEU:O	2.21	0.40
1:AA:764:C:O2'	1:AA:765:G:H5'	2.22	0.40
53:DU:24:TYR:HB2	53:DU:29:SER:HB3	2.03	0.40
20:AT:97:ALA:HA	20:AT:98:PRO:HD2	1.93	0.40
46:DN:119:ARG:HG3	46:DN:119:ARG:HH11	1.87	0.40
35:DA:413:C:O5'	35:DA:413:C:H6	2.04	0.40
35:DA:341:G:O2'	35:DA:342:G:H5'	2.22	0.40
13:CM:37:THR:HA	13:CM:55:ARG:NH2	2.37	0.40
50:BR:45:ARG:HB3	50:BR:46:GLY:H	1.75	0.40
35:DA:2709:G:O2'	35:DA:2710:C:H5'	2.22	0.40
33:B8:8:LYS:O	33:B8:12:LYS:HG3	2.21	0.40
35:BA:271(R):G:O2'	35:BA:271(S):G:H5'	2.21	0.40
35:DA:1511:C:H2'	35:DA:1512:U:O4'	2.22	0.40
31:D6:27:LYS:O	31:D6:29:ASN:N	2.54	0.40
53:BU:80:ILE:HD13	53:BU:80:ILE:HA	1.89	0.40
27:B2:24:LEU:HD12	27:B2:24:LEU:HA	1.92	0.40
47:DO:73:ASP:C	47:DO:73:ASP:OD1	2.59	0.40
35:DA:2887:U:H2'	35:DA:2888:C:C6	2.57	0.40
1:CA:1048:G:OP2	14:CN:3:ARG:NH2	2.55	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	233/256 (91%)	127 (54%)	71 (30%)	35 (15%)	0	1
2	CB	233/256 (91%)	128 (55%)	70 (30%)	35 (15%)	0	1
3	AC	205/239 (86%)	129 (63%)	40 (20%)	36 (18%)	0	0
3	CC	205/239 (86%)	129 (63%)	42 (20%)	34 (17%)	0	0
4	AD	206/209 (99%)	139 (68%)	45 (22%)	22 (11%)	1	5
4	CD	206/209 (99%)	139 (68%)	44 (21%)	23 (11%)	1	5
5	AE	149/162 (92%)	115 (77%)	23 (15%)	11 (7%)	2	11
5	CE	149/162 (92%)	114 (76%)	24 (16%)	11 (7%)	2	11
6	AF	99/101 (98%)	70 (71%)	21 (21%)	8 (8%)	1	10
6	CF	99/101 (98%)	73 (74%)	18 (18%)	8 (8%)	1	10
7	AG	153/156 (98%)	117 (76%)	26 (17%)	10 (6%)	2	15
7	CG	153/156 (98%)	117 (76%)	27 (18%)	9 (6%)	2	17
8	AH	136/138 (99%)	106 (78%)	23 (17%)	7 (5%)	3	22
8	CH	136/138 (99%)	104 (76%)	24 (18%)	8 (6%)	2	17
9	AI	121/128 (94%)	86 (71%)	24 (20%)	11 (9%)	1	8
9	CI	121/128 (94%)	86 (71%)	24 (20%)	11 (9%)	1	8
10	AJ	97/105 (92%)	70 (72%)	22 (23%)	5 (5%)	3	21
10	CJ	97/105 (92%)	71 (73%)	21 (22%)	5 (5%)	3	21
11	AK	117/129 (91%)	86 (74%)	27 (23%)	4 (3%)	6	32
11	CK	117/129 (91%)	87 (74%)	26 (22%)	4 (3%)	6	32
12	AL	123/132 (93%)	84 (68%)	21 (17%)	18 (15%)	0	2
12	CL	123/132 (93%)	84 (68%)	21 (17%)	18 (15%)	0	2
13	AM	113/126 (90%)	71 (63%)	25 (22%)	17 (15%)	0	1
13	CM	113/126 (90%)	70 (62%)	26 (23%)	17 (15%)	0	1
14	AN	58/61 (95%)	40 (69%)	13 (22%)	5 (9%)	1	9
14	CN	58/61 (95%)	40 (69%)	12 (21%)	6 (10%)	1	6
15	AO	86/89 (97%)	66 (77%)	18 (21%)	2 (2%)	10	45
15	CO	86/89 (97%)	66 (77%)	18 (21%)	2 (2%)	10	45
16	AP	82/88 (93%)	58 (71%)	17 (21%)	7 (8%)	1	9
16	CP	82/88 (93%)	58 (71%)	16 (20%)	8 (10%)	1	6
17	AQ	98/105 (93%)	76 (78%)	13 (13%)	9 (9%)	1	7
17	CQ	98/105 (93%)	76 (78%)	12 (12%)	10 (10%)	1	6

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
18	AR	68/88 (77%)	45 (66%)	16 (24%)	7 (10%)	1	6
18	CR	68/88 (77%)	45 (66%)	15 (22%)	8 (12%)	1	4
19	AS	77/93 (83%)	44 (57%)	22 (29%)	11 (14%)	0	2
19	CS	77/93 (83%)	44 (57%)	22 (29%)	11 (14%)	0	2
20	AT	97/106 (92%)	63 (65%)	26 (27%)	8 (8%)	1	10
20	CT	97/106 (92%)	63 (65%)	24 (25%)	10 (10%)	1	6
21	AU	23/27 (85%)	16 (70%)	5 (22%)	2 (9%)	1	9
21	CU	23/27 (85%)	16 (70%)	5 (22%)	2 (9%)	1	9
24	AY	349/351 (99%)	263 (75%)	65 (19%)	21 (6%)	2	17
24	CY	349/351 (99%)	272 (78%)	55 (16%)	22 (6%)	2	16
25	B0	81/85 (95%)	69 (85%)	11 (14%)	1 (1%)	19	62
25	D0	81/85 (95%)	69 (85%)	11 (14%)	1 (1%)	19	62
26	B1	92/98 (94%)	64 (70%)	16 (17%)	12 (13%)	0	3
26	D1	92/98 (94%)	72 (78%)	12 (13%)	8 (9%)	1	9
27	B2	69/72 (96%)	46 (67%)	12 (17%)	11 (16%)	0	1
27	D2	69/72 (96%)	42 (61%)	16 (23%)	11 (16%)	0	1
28	B3	58/60 (97%)	52 (90%)	6 (10%)	0	100	100
28	D3	58/60 (97%)	52 (90%)	6 (10%)	0	100	100
29	B4	29/71 (41%)	16 (55%)	10 (34%)	3 (10%)	1	6
29	D4	29/71 (41%)	16 (55%)	10 (34%)	3 (10%)	1	6
30	B5	57/60 (95%)	41 (72%)	5 (9%)	11 (19%)	0	0
30	D5	57/60 (95%)	41 (72%)	5 (9%)	11 (19%)	0	0
31	B6	41/54 (76%)	18 (44%)	7 (17%)	16 (39%)	0	0
31	D6	43/54 (80%)	17 (40%)	9 (21%)	17 (40%)	0	0
32	B7	47/49 (96%)	47 (100%)	0	0	100	100
32	D7	47/49 (96%)	46 (98%)	1 (2%)	0	100	100
33	B8	62/65 (95%)	43 (69%)	11 (18%)	8 (13%)	0	3
33	D8	62/65 (95%)	44 (71%)	9 (14%)	9 (14%)	0	2
34	B9	34/37 (92%)	31 (91%)	2 (6%)	1 (3%)	7	38
34	D9	34/37 (92%)	31 (91%)	2 (6%)	1 (3%)	7	38
37	BC	116/229 (51%)	88 (76%)	19 (16%)	9 (8%)	1	11

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
37	DC	116/229 (51%)	88 (76%)	19 (16%)	9 (8%)	1	11
38	BD	270/276 (98%)	203 (75%)	37 (14%)	30 (11%)	1	5
38	DD	270/276 (98%)	205 (76%)	37 (14%)	28 (10%)	1	5
39	BE	203/206 (98%)	146 (72%)	34 (17%)	23 (11%)	1	4
39	DE	203/206 (98%)	149 (73%)	32 (16%)	22 (11%)	1	5
40	BF	206/210 (98%)	149 (72%)	33 (16%)	24 (12%)	1	4
40	DF	206/210 (98%)	149 (72%)	34 (16%)	23 (11%)	1	5
41	BG	177/182 (97%)	98 (55%)	50 (28%)	29 (16%)	0	0
41	DG	179/182 (98%)	123 (69%)	26 (14%)	30 (17%)	0	0
42	BH	158/180 (88%)	105 (66%)	27 (17%)	26 (16%)	0	0
42	DH	158/180 (88%)	105 (66%)	28 (18%)	25 (16%)	0	1
43	BI	144/148 (97%)	86 (60%)	34 (24%)	24 (17%)	0	0
43	DI	144/148 (97%)	90 (62%)	40 (28%)	14 (10%)	1	6
45	BK	139/147 (95%)	78 (56%)	37 (27%)	24 (17%)	0	0
45	DK	139/147 (95%)	78 (56%)	37 (27%)	24 (17%)	0	0
46	BN	137/140 (98%)	105 (77%)	24 (18%)	8 (6%)	3	18
46	DN	137/140 (98%)	103 (75%)	26 (19%)	8 (6%)	3	18
47	BO	120/122 (98%)	101 (84%)	14 (12%)	5 (4%)	4	27
47	DO	120/122 (98%)	102 (85%)	12 (10%)	6 (5%)	3	22
48	BP	144/150 (96%)	71 (49%)	32 (22%)	41 (28%)	0	0
48	DP	144/150 (96%)	71 (49%)	33 (23%)	40 (28%)	0	0
49	BQ	139/141 (99%)	108 (78%)	25 (18%)	6 (4%)	4	26
49	DQ	139/141 (99%)	109 (78%)	23 (16%)	7 (5%)	3	22
50	BR	115/118 (98%)	92 (80%)	15 (13%)	8 (7%)	2	13
50	DR	115/118 (98%)	93 (81%)	14 (12%)	8 (7%)	2	13
51	BS	97/112 (87%)	51 (53%)	29 (30%)	17 (18%)	0	0
51	DS	97/112 (87%)	51 (53%)	28 (29%)	18 (19%)	0	0
52	BT	136/146 (93%)	84 (62%)	33 (24%)	19 (14%)	0	2
52	DT	136/146 (93%)	85 (62%)	32 (24%)	19 (14%)	0	2
53	BU	115/118 (98%)	97 (84%)	11 (10%)	7 (6%)	2	16
53	DU	115/118 (98%)	98 (85%)	9 (8%)	8 (7%)	2	13

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
54	BV	99/101 (98%)	72 (73%)	12 (12%)	15 (15%)	0	1
54	DV	99/101 (98%)	72 (73%)	11 (11%)	16 (16%)	0	0
55	BW	111/113 (98%)	93 (84%)	10 (9%)	8 (7%)	2	12
55	DW	111/113 (98%)	93 (84%)	10 (9%)	8 (7%)	2	12
56	BX	91/96 (95%)	73 (80%)	10 (11%)	8 (9%)	1	8
56	DX	91/96 (95%)	73 (80%)	10 (11%)	8 (9%)	1	8
57	BY	99/110 (90%)	55 (56%)	17 (17%)	27 (27%)	0	0
57	DY	99/110 (90%)	54 (54%)	18 (18%)	27 (27%)	0	0
58	BZ	183/206 (89%)	107 (58%)	45 (25%)	31 (17%)	0	0
58	DZ	183/206 (89%)	127 (69%)	38 (21%)	18 (10%)	1	6
All	All	12522/13582 (92%)	8790 (70%)	2335 (19%)	1397 (11%)	1	5

All (1397) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	12	GLU
2	AB	15	VAL
2	AB	19	HIS
2	AB	20	GLU
2	AB	64	ARG
2	AB	97	TRP
2	AB	123	ALA
2	AB	135	GLN
2	AB	194	PRO
2	AB	195	ASP
3	AC	15	THR
3	AC	47	LEU
3	AC	52	LEU
3	AC	79	ARG
3	AC	165	THR
3	AC	167	TRP
3	AC	207	VAL
4	AD	3	ARG
4	AD	4	TYR
4	AD	5	ILE
4	AD	30	LYS
4	AD	44	GLY
4	AD	110	PHE

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Mol	Chain	Res	Type
4	AD	129	ASN
4	AD	156	GLU
4	AD	177	ASP
5	AE	11	ILE
5	AE	21	ALA
5	AE	153	LYS
6	AF	40	VAL
7	AG	115	ARG
8	AH	2	LEU
9	AI	41	VAL
9	AI	44	VAL
9	AI	89	ASN
10	AJ	57	LYS
11	AK	25	TYR
12	AL	18	VAL
12	AL	27	LEU
12	AL	46	LYS
12	AL	89	ARG
12	AL	91	LYS
12	AL	92	ASP
12	AL	115	LYS
13	AM	4	ILE
13	AM	63	THR
13	AM	107	ALA
13	AM	116	THR
13	AM	117	VAL
16	AP	52	ASP
18	AR	20	ALA
18	AR	37	VAL
19	AS	10	PHE
19	AS	28	LYS
20	AT	11	SER
20	AT	74	LYS
21	AU	3	LYS
24	AY	160	PRO
24	AY	217	GLU
24	AY	303	ARG
24	AY	317	ASP
26	B1	52	ARG
26	B1	58	ILE
26	B1	78	LYS
26	B1	95	LEU

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Mol	Chain	Res	Type
27	B2	10	LEU
27	B2	20	GLU
27	B2	47	ASN
27	B2	70	GLN
29	B4	26	SER
30	B5	4	HIS
30	B5	36	CYS
30	B5	49	CYS
30	B5	53	ALA
30	B5	57	VAL
31	B6	17	LYS
31	B6	19	ARG
31	B6	20	ASN
31	B6	23	THR
31	B6	28	ARG
31	B6	31	PRO
31	B6	33	LYS
31	B6	49	HIS
33	B8	33	ASN
33	B8	34	TRP
33	B8	64	TYR
38	BD	24	ILE
38	BD	25	THR
38	BD	27	THR
38	BD	123	ALA
38	BD	169	GLU
38	BD	239	ARG
38	BD	271	ILE
39	BE	18	ASP
39	BE	72	VAL
39	BE	87	GLU
39	BE	90	THR
39	BE	118	LYS
39	BE	203	LYS
40	BF	21	ALA
40	BF	59	TYR
40	BF	68	LYS
40	BF	132	VAL
41	BG	43	LEU
41	BG	47	LYS
41	BG	49	ASP
41	BG	84	LYS

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Mol	Chain	Res	Type
41	BG	126	ASP
41	BG	143	GLU
41	BG	146	TYR
41	BG	159	VAL
42	BH	42	ARG
42	BH	45	VAL
42	BH	80	SER
42	BH	83	TYR
42	BH	92	ILE
42	BH	137	ASP
42	BH	138	LYS
42	BH	156	ALA
42	BH	159	GLU
42	BH	165	ALA
43	BI	5	LEU
43	BI	6	LEU
43	BI	15	VAL
43	BI	73	GLU
43	BI	85	GLU
43	BI	120	ILE
43	BI	122	GLU
43	BI	127	VAL
43	BI	131	LYS
43	BI	133	HIS
43	BI	145	VAL
45	BK	6	ALA
45	BK	19	PRO
45	BK	113	PRO
45	BK	136	VAL
45	BK	139	VAL
46	BN	4	TYR
46	BN	57	ALA
46	BN	59	LYS
47	BO	48	PRO
48	BP	11	GLY
48	BP	17	LYS
48	BP	18	ARG
48	BP	19	VAL
48	BP	25	SER
48	BP	35	HIS
48	BP	40	SER
48	BP	47	ASP

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Mol	Chain	Res	Type
48	BP	49	ARG
48	BP	83	VAL
48	BP	111	ARG
48	BP	144	GLU
48	BP	147	LEU
49	BQ	2	LEU
50	BR	8	ARG
50	BR	45	ARG
51	BS	13	ARG
51	BS	59	LYS
51	BS	97	ARG
51	BS	102	ALA
51	BS	103	GLU
51	BS	104	GLY
51	BS	108	GLY
52	BT	24	PRO
52	BT	28	VAL
52	BT	30	VAL
52	BT	33	LYS
52	BT	39	ARG
52	BT	42	ILE
52	BT	58	ASN
52	BT	80	SER
52	BT	91	ARG
53	BU	32	PHE
53	BU	74	LEU
53	BU	90	VAL
53	BU	91	ASP
53	BU	93	LYS
54	BV	2	PHE
54	BV	19	LYS
54	BV	23	GLU
54	BV	31	ALA
54	BV	46	VAL
54	BV	79	VAL
55	BW	11	ARG
55	BW	92	ARG
55	BW	111	HIS
56	BX	12	VAL
56	BX	48	LYS
56	BX	66	LEU
57	BY	3	VAL

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Mol	Chain	Res	Type
57	BY	17	SER
57	BY	38	ILE
57	BY	39	VAL
57	BY	42	VAL
57	BY	53	PRO
57	BY	60	PHE
57	BY	77	PRO
57	BY	78	ALA
57	BY	96	ILE
58	BZ	42	VAL
58	BZ	51	ALA
58	BZ	52	SER
58	BZ	65	GLN
58	BZ	92	SER
58	BZ	98	MET
58	BZ	120	ILE
58	BZ	136	PHE
58	BZ	150	LEU
58	BZ	163	LEU
58	BZ	185	GLU
2	CB	12	GLU
2	CB	15	VAL
2	CB	19	HIS
2	CB	20	GLU
2	CB	24	TRP
2	CB	64	ARG
2	CB	97	TRP
2	CB	123	ALA
2	CB	135	GLN
2	CB	194	PRO
2	CB	195	ASP
3	CC	15	THR
3	CC	18	TRP
3	CC	47	LEU
3	CC	52	LEU
3	CC	79	ARG
3	CC	165	THR
3	CC	167	TRP
3	CC	207	VAL
4	CD	3	ARG
4	CD	4	TYR
4	CD	5	ILE

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Mol	Chain	Res	Type
4	CD	30	LYS
4	CD	44	GLY
4	CD	110	PHE
4	CD	129	ASN
4	CD	177	ASP
5	CE	11	ILE
5	CE	21	ALA
5	CE	153	LYS
6	CF	40	VAL
7	CG	115	ARG
8	CH	2	LEU
9	CI	41	VAL
9	CI	44	VAL
9	CI	89	ASN
9	CI	109	VAL
10	CJ	57	LYS
10	CJ	59	SER
11	CK	25	TYR
12	CL	18	VAL
12	CL	27	LEU
12	CL	46	LYS
12	CL	89	ARG
12	CL	91	LYS
12	CL	92	ASP
12	CL	115	LYS
13	CM	4	ILE
13	CM	107	ALA
13	CM	116	THR
13	CM	117	VAL
16	CP	52	ASP
18	CR	20	ALA
18	CR	37	VAL
19	CS	10	PHE
19	CS	28	LYS
20	CT	11	SER
20	CT	74	LYS
21	CU	3	LYS
24	CY	110	PRO
24	CY	218	VAL
24	CY	237	PRO
24	CY	263	GLN
24	CY	305	ILE

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Mol	Chain	Res	Type
26	D1	95	LEU
27	D2	17	SER
27	D2	44	LEU
27	D2	48	HIS
27	D2	71	ASN
29	D4	26	SER
30	D5	4	HIS
30	D5	36	CYS
30	D5	49	CYS
30	D5	53	ALA
30	D5	57	VAL
31	D6	17	LYS
31	D6	19	ARG
31	D6	20	ASN
31	D6	23	THR
31	D6	28	ARG
31	D6	31	PRO
31	D6	33	LYS
31	D6	46	HIS
31	D6	48	VAL
31	D6	49	HIS
33	D8	33	ASN
33	D8	34	TRP
38	DD	24	ILE
38	DD	25	THR
38	DD	27	THR
38	DD	123	ALA
38	DD	169	GLU
38	DD	239	ARG
38	DD	271	ILE
39	DE	18	ASP
39	DE	72	VAL
39	DE	87	GLU
39	DE	90	THR
39	DE	118	LYS
39	DE	203	LYS
40	DF	21	ALA
40	DF	59	TYR
40	DF	68	LYS
40	DF	132	VAL
41	DG	3	LEU
41	DG	4	ASP

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Mol	Chain	Res	Type
41	DG	47	LYS
41	DG	52	ILE
41	DG	82	LEU
41	DG	87	PRO
41	DG	96	ARG
41	DG	110	ALA
41	DG	115	ARG
41	DG	125	PHE
41	DG	127	GLY
41	DG	130	ASN
41	DG	149	VAL
41	DG	150	ASP
42	DH	42	ARG
42	DH	45	VAL
42	DH	80	SER
42	DH	81	GLU
42	DH	83	TYR
42	DH	92	ILE
42	DH	137	ASP
42	DH	138	LYS
42	DH	156	ALA
42	DH	159	GLU
42	DH	165	ALA
43	DI	7	GLU
43	DI	8	PRO
43	DI	15	VAL
43	DI	133	HIS
43	DI	145	VAL
45	DK	6	ALA
45	DK	19	PRO
45	DK	113	PRO
45	DK	136	VAL
45	DK	139	VAL
46	DN	4	TYR
46	DN	57	ALA
46	DN	59	LYS
47	DO	48	PRO
48	DP	11	GLY
48	DP	17	LYS
48	DP	18	ARG
48	DP	19	VAL
48	DP	35	HIS

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Mol	Chain	Res	Type
48	DP	40	SER
48	DP	47	ASP
48	DP	49	ARG
48	DP	52	GLU
48	DP	83	VAL
48	DP	144	GLU
48	DP	147	LEU
49	DQ	2	LEU
50	DR	8	ARG
50	DR	45	ARG
51	DS	13	ARG
51	DS	59	LYS
51	DS	97	ARG
51	DS	102	ALA
51	DS	103	GLU
51	DS	104	GLY
51	DS	108	GLY
52	DT	24	PRO
52	DT	28	VAL
52	DT	30	VAL
52	DT	33	LYS
52	DT	39	ARG
52	DT	42	ILE
52	DT	58	ASN
52	DT	80	SER
52	DT	91	ARG
53	DU	32	PHE
53	DU	74	LEU
53	DU	90	VAL
53	DU	91	ASP
53	DU	93	LYS
54	DV	2	PHE
54	DV	19	LYS
54	DV	23	GLU
54	DV	31	ALA
54	DV	46	VAL
54	DV	79	VAL
55	DW	11	ARG
55	DW	92	ARG
55	DW	111	HIS
56	DX	12	VAL
56	DX	48	LYS

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Mol	Chain	Res	Type
56	DX	66	LEU
57	DY	3	VAL
57	DY	17	SER
57	DY	38	ILE
57	DY	39	VAL
57	DY	42	VAL
57	DY	53	PRO
57	DY	60	PHE
57	DY	77	PRO
57	DY	78	ALA
57	DY	96	ILE
58	DZ	80	ARG
58	DZ	93	ASP
58	DZ	120	ILE
58	DZ	137	ILE
58	DZ	146	ILE
58	DZ	158	PRO
58	DZ	165	VAL
58	DZ	166	SER
2	AB	24	TRP
2	AB	26	PRO
2	AB	66	GLY
2	AB	84	GLU
2	AB	154	LEU
2	AB	165	VAL
2	AB	181	PHE
2	AB	204	ASN
2	AB	230	VAL
3	AC	4	LYS
3	AC	18	TRP
3	AC	45	LYS
3	AC	61	ALA
3	AC	73	PRO
3	AC	74	GLY
3	AC	156	ARG
4	AD	18	LYS
4	AD	24	GLU
4	AD	99	SER
4	AD	176	LEU
4	AD	178	VAL
6	AF	29	ALA
6	AF	80	ARG

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Mol	Chain	Res	Type
6	AF	81	ILE
7	AG	7	ALA
7	AG	17	VAL
7	AG	54	THR
8	AH	41	ARG
8	AH	91	ARG
9	AI	95	LYS
9	AI	98	PRO
9	AI	109	VAL
10	AJ	32	ALA
10	AJ	36	GLY
10	AJ	59	SER
11	AK	89	ALA
11	AK	101	SER
12	AL	19	ARG
12	AL	22	SER
12	AL	26	ALA
12	AL	47	LYS
12	AL	66	VAL
12	AL	121	GLY
13	AM	3	ARG
13	AM	12	ASN
13	AM	15	VAL
13	AM	59	TYR
13	AM	68	GLY
13	AM	100	GLY
13	AM	124	PRO
14	AN	15	LYS
14	AN	36	PHE
14	AN	60	SER
16	AP	50	LYS
16	AP	63	GLY
17	AQ	34	LYS
17	AQ	66	SER
17	AQ	68	ARG
17	AQ	74	LEU
17	AQ	99	SER
18	AR	52	PRO
18	AR	61	LYS
19	AS	29	ARG
19	AS	30	LEU
19	AS	64	GLU

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Mol	Chain	Res	Type
20	AT	25	ARG
20	AT	103	GLY
21	AU	25	LYS
24	AY	7	ALA
24	AY	114	LYS
24	AY	158	PRO
24	AY	174	GLU
24	AY	237	PRO
24	AY	305	ILE
24	AY	337	LEU
25	B0	6	GLY
26	B1	27	GLU
26	B1	28	GLY
26	B1	30	VAL
27	B2	14	ARG
27	B2	41	ILE
29	B4	35	VAL
30	B5	46	CYS
30	B5	51	TYR
30	B5	52	TYR
31	B6	16	CYS
31	B6	18	ARG
31	B6	29	ASN
31	B6	34	LEU
31	B6	45	LYS
33	B8	31	HIS
33	B8	43	GLN
33	B8	49	VAL
33	B8	61	LEU
34	B9	31	LYS
37	BC	52	PRO
37	BC	167	ASP
38	BD	58	HIS
38	BD	122	ASP
38	BD	127	VAL
38	BD	238	GLY
38	BD	266	SER
38	BD	267	SER
39	BE	54	GLN
39	BE	57	LYS
39	BE	70	ALA
39	BE	74	PRO

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Mol	Chain	Res	Type
39	BE	77	ILE
39	BE	88	GLY
39	BE	130	GLY
39	BE	186	GLY
40	BF	8	GLN
40	BF	16	GLY
40	BF	27	GLU
40	BF	84	VAL
40	BF	89	VAL
40	BF	133	ASN
40	BF	134	GLY
41	BG	6	ALA
41	BG	27	ASN
41	BG	50	ALA
41	BG	87	PRO
41	BG	117	PHE
41	BG	120	LEU
41	BG	129	GLY
41	BG	148	MET
41	BG	171	ALA
42	BH	14	GLY
42	BH	81	GLU
42	BH	154	PRO
42	BH	155	SER
43	BI	60	GLU
43	BI	97	ILE
43	BI	114	LEU
43	BI	123	LEU
45	BK	5	VAL
45	BK	13	PRO
45	BK	18	THR
45	BK	88	ALA
45	BK	112	MET
45	BK	116	ASN
47	BO	5	GLN
47	BO	14	THR
47	BO	29	ASN
48	BP	9	ASN
48	BP	14	LYS
48	BP	23	PRO
48	BP	31	ALA
48	BP	33	ARG

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Mol	Chain	Res	Type
48	BP	34	GLY
48	BP	51	PHE
48	BP	52	GLU
48	BP	58	THR
48	BP	88	LEU
48	BP	103	ALA
48	BP	107	LYS
48	BP	116	GLY
49	BQ	19	GLY
49	BQ	62	GLY
49	BQ	135	ASP
50	BR	107	ASP
50	BR	117	VAL
51	BS	53	SER
51	BS	92	TYR
51	BS	94	TYR
51	BS	96	GLY
52	BT	38	ASN
52	BT	90	GLN
52	BT	107	ASP
54	BV	44	LYS
55	BW	63	ASP
56	BX	19	ALA
57	BY	27	VAL
57	BY	29	GLU
57	BY	33	LYS
57	BY	37	VAL
57	BY	57	GLN
57	BY	80	GLY
57	BY	90	LEU
57	BY	99	CYS
57	BY	101	LYS
58	BZ	5	LEU
58	BZ	40	ASP
58	BZ	147	GLY
58	BZ	151	HIS
58	BZ	169	GLU
58	BZ	183	LEU
58	BZ	184	ALA
2	CB	26	PRO
2	CB	66	GLY
2	CB	83	MET

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Mol	Chain	Res	Type
2	CB	84	GLU
2	CB	120	ALA
2	CB	154	LEU
2	CB	165	VAL
2	CB	181	PHE
2	CB	204	ASN
2	CB	230	VAL
3	CC	4	LYS
3	CC	45	LYS
3	CC	61	ALA
3	CC	73	PRO
3	CC	74	GLY
3	CC	156	ARG
4	CD	18	LYS
4	CD	24	GLU
4	CD	99	SER
4	CD	156	GLU
4	CD	176	LEU
4	CD	178	VAL
6	CF	29	ALA
6	CF	80	ARG
7	CG	7	ALA
7	CG	17	VAL
7	CG	54	THR
8	CH	41	ARG
8	CH	91	ARG
9	CI	95	LYS
9	CI	98	PRO
10	CJ	36	GLY
11	CK	89	ALA
11	CK	101	SER
12	CL	19	ARG
12	CL	22	SER
12	CL	26	ALA
12	CL	47	LYS
12	CL	66	VAL
12	CL	121	GLY
13	CM	3	ARG
13	CM	12	ASN
13	CM	15	VAL
13	CM	59	TYR
13	CM	63	THR

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Mol	Chain	Res	Type
13	CM	68	GLY
13	CM	100	GLY
13	CM	124	PRO
14	CN	15	LYS
14	CN	36	PHE
14	CN	60	SER
16	CP	50	LYS
16	CP	63	GLY
17	CQ	34	LYS
17	CQ	68	ARG
17	CQ	74	LEU
19	CS	29	ARG
19	CS	30	LEU
19	CS	64	GLU
20	CT	25	ARG
20	CT	103	GLY
21	CU	25	LYS
24	CY	7	ALA
24	CY	80	PRO
24	CY	106	LEU
24	CY	160	PRO
24	CY	164	ILE
25	D0	6	GLY
26	D1	53	VAL
26	D1	58	ILE
26	D1	85	LEU
26	D1	86	SER
27	D2	43	GLN
27	D2	47	ASN
27	D2	51	ARG
27	D2	69	ARG
29	D4	35	VAL
30	D5	46	CYS
30	D5	51	TYR
30	D5	52	TYR
31	D6	16	CYS
31	D6	18	ARG
31	D6	29	ASN
31	D6	34	LEU
31	D6	44	ARG
31	D6	45	LYS
33	D8	43	GLN

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Mol	Chain	Res	Type
33	D8	49	VAL
33	D8	61	LEU
33	D8	64	TYR
34	D9	31	LYS
37	DC	52	PRO
37	DC	167	ASP
38	DD	58	HIS
38	DD	122	ASP
38	DD	127	VAL
38	DD	238	GLY
38	DD	245	PRO
38	DD	266	SER
38	DD	267	SER
39	DE	54	GLN
39	DE	57	LYS
39	DE	74	PRO
39	DE	77	ILE
39	DE	88	GLY
39	DE	130	GLY
39	DE	186	GLY
40	DF	8	GLN
40	DF	16	GLY
40	DF	27	GLU
40	DF	69	HIS
40	DF	84	VAL
40	DF	89	VAL
40	DF	133	ASN
40	DF	134	GLY
41	DG	14	GLU
41	DG	24	GLY
41	DG	45	GLU
41	DG	48	GLU
41	DG	70	VAL
41	DG	81	LYS
41	DG	84	LYS
41	DG	97	ASP
41	DG	128	ARG
41	DG	146	TYR
41	DG	155	MET
42	DH	14	GLY
42	DH	98	LEU
42	DH	154	PRO

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Mol	Chain	Res	Type
42	DH	155	SER
43	DI	16	GLY
43	DI	68	LEU
43	DI	119	PRO
45	DK	5	VAL
45	DK	13	PRO
45	DK	18	THR
45	DK	88	ALA
45	DK	112	MET
45	DK	116	ASN
47	DO	5	GLN
47	DO	29	ASN
48	DP	9	ASN
48	DP	14	LYS
48	DP	23	PRO
48	DP	25	SER
48	DP	31	ALA
48	DP	33	ARG
48	DP	34	GLY
48	DP	51	PHE
48	DP	58	THR
48	DP	88	LEU
48	DP	103	ALA
48	DP	107	LYS
48	DP	111	ARG
48	DP	116	GLY
48	DP	136	GLU
49	DQ	19	GLY
49	DQ	62	GLY
49	DQ	135	ASP
50	DR	107	ASP
50	DR	117	VAL
51	DS	53	SER
51	DS	92	TYR
51	DS	94	TYR
51	DS	96	GLY
52	DT	38	ASN
52	DT	56	GLY
52	DT	90	GLN
52	DT	107	ASP
54	DV	44	LYS
55	DW	63	ASP

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Mol	Chain	Res	Type
56	DX	19	ALA
57	DY	27	VAL
57	DY	29	GLU
57	DY	33	LYS
57	DY	37	VAL
57	DY	57	GLN
57	DY	80	GLY
57	DY	90	LEU
57	DY	99	CYS
57	DY	101	LYS
58	DZ	31	ARG
58	DZ	81	ARG
58	DZ	111	VAL
2	AB	18	GLY
2	AB	52	GLU
2	AB	62	ALA
2	AB	83	MET
2	AB	120	ALA
2	AB	153	ARG
2	AB	232	PRO
3	AC	29	TYR
3	AC	81	GLY
3	AC	91	LEU
3	AC	94	LEU
3	AC	206	GLU
4	AD	157	LEU
5	AE	7	GLU
5	AE	20	GLN
5	AE	27	ARG
7	AG	58	PRO
7	AG	116	ALA
7	AG	149	ARG
8	AH	27	PRO
8	AH	50	ARG
8	AH	133	LEU
9	AI	102	LEU
12	AL	23	LYS
13	AM	106	ASN
16	AP	49	LEU
17	AQ	12	SER
19	AS	26	GLY
20	AT	73	HIS

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Mol	Chain	Res	Type
24	AY	127	THR
24	AY	214	VAL
24	AY	220	VAL
24	AY	281	ALA
27	B2	21	LEU
27	B2	44	LEU
27	B2	48	HIS
29	B4	29	PRO
30	B5	56	LYS
37	BC	53	ARG
37	BC	205	ALA
38	BD	32	SER
38	BD	156	ALA
38	BD	246	PRO
39	BE	68	ALA
39	BE	69	LYS
39	BE	185	LYS
40	BF	5	ALA
40	BF	7	TYR
40	BF	17	ARG
40	BF	24	LEU
40	BF	58	ALA
40	BF	69	HIS
40	BF	128	ALA
40	BF	167	ALA
41	BG	68	PRO
41	BG	110	ALA
41	BG	145	THR
42	BH	98	LEU
43	BI	62	LYS
43	BI	134	PRO
46	BN	47	ALA
46	BN	125	GLY
46	BN	134	ARG
48	BP	39	LYS
48	BP	106	LEU
48	BP	108	LYS
48	BP	115	LEU
48	BP	136	GLU
49	BQ	134	ARG
50	BR	88	ARG
51	BS	57	LYS

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Mol	Chain	Res	Type
52	BT	32	TYR
52	BT	56	GLY
54	BV	18	LEU
54	BV	49	THR
56	BX	13	LEU
56	BX	40	LYS
57	BY	48	ALA
57	BY	56	PRO
58	BZ	101	PRO
58	BZ	111	VAL
58	BZ	134	PRO
58	BZ	166	SER
2	CB	18	GLY
2	CB	52	GLU
2	CB	62	ALA
2	CB	113	HIS
2	CB	153	ARG
2	CB	232	PRO
3	CC	29	TYR
3	CC	46	GLU
3	CC	81	GLY
3	CC	91	LEU
3	CC	94	LEU
3	CC	181	ASN
3	CC	206	GLU
4	CD	157	LEU
5	CE	7	GLU
5	CE	20	GLN
5	CE	27	ARG
6	CF	65	VAL
6	CF	70	ASP
7	CG	58	PRO
7	CG	116	ALA
8	CH	27	PRO
8	CH	50	ARG
8	CH	86	ILE
9	CI	102	LEU
10	CJ	32	ALA
12	CL	23	LYS
13	CM	106	ASN
16	CP	49	LEU
17	CQ	12	SER

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Mol	Chain	Res	Type
17	CQ	66	SER
17	CQ	99	SER
18	CR	52	PRO
18	CR	61	LYS
19	CS	26	GLY
20	CT	28	ALA
20	CT	73	HIS
24	CY	42	PRO
24	CY	200	ARG
24	CY	354	GLY
26	D1	24	ALA
26	D1	57	GLU
27	D2	67	LYS
29	D4	29	PRO
30	D5	56	LYS
33	D8	31	HIS
37	DC	53	ARG
37	DC	198	GLU
37	DC	205	ALA
38	DD	32	SER
38	DD	74	GLY
38	DD	156	ALA
38	DD	246	PRO
39	DE	68	ALA
39	DE	69	LYS
39	DE	70	ALA
39	DE	185	LYS
40	DF	5	ALA
40	DF	7	TYR
40	DF	17	ARG
40	DF	24	LEU
40	DF	58	ALA
40	DF	128	ALA
40	DF	167	ALA
41	DG	126	ASP
42	DH	84	SER
43	DI	115	ALA
43	DI	131	LYS
45	DK	67	PHE
46	DN	47	ALA
46	DN	125	GLY
47	DO	14	THR

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Mol	Chain	Res	Type
48	DP	106	LEU
48	DP	108	LYS
48	DP	115	LEU
49	DQ	134	ARG
51	DS	42	ASP
51	DS	57	LYS
52	DT	31	SER
54	DV	18	LEU
54	DV	49	THR
56	DX	13	LEU
56	DX	40	LYS
57	DY	56	PRO
57	DY	69	ALA
57	DY	82	PRO
58	DZ	34	ASN
58	DZ	78	LYS
58	DZ	108	PRO
58	DZ	180	VAL
2	AB	113	HIS
2	AB	130	ARG
2	AB	227	GLY
3	AC	20	SER
3	AC	46	GLU
3	AC	127	ARG
3	AC	180	ALA
3	AC	181	ASN
3	AC	196	LEU
4	AD	29	PRO
4	AD	34	GLU
4	AD	104	VAL
4	AD	108	LEU
4	AD	162	LEU
5	AE	72	GLN
5	AE	105	VAL
6	AF	65	VAL
6	AF	70	ASP
8	AH	86	ILE
9	AI	10	ARG
9	AI	117	HIS
10	AJ	84	GLN
11	AK	102	GLY
12	AL	51	ALA

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Mol	Chain	Res	Type
13	AM	21	TYR
13	AM	28	ALA
15	AO	23	GLY
16	AP	44	THR
18	AR	38	GLU
18	AR	54	ARG
19	AS	17	GLU
20	AT	28	ALA
20	AT	97	ALA
24	AY	37	SER
24	AY	340	ASP
26	B1	54	ALA
27	B2	19	VAL
31	B6	44	ARG
37	BC	15	VAL
37	BC	198	GLU
38	BD	12	SER
38	BD	36	PRO
38	BD	45	ASN
38	BD	74	GLY
38	BD	242	ARG
38	BD	244	ARG
38	BD	245	PRO
39	BE	4	ILE
39	BE	55	ASN
39	BE	129	HIS
39	BE	187	ALA
40	BF	22	ALA
41	BG	7	LEU
41	BG	42	GLY
41	BG	86	MET
41	BG	176	LEU
42	BH	47	GLU
42	BH	84	SER
42	BH	110	SER
42	BH	158	HIS
43	BI	14	ASP
43	BI	72	LEU
43	BI	103	ARG
43	BI	121	LYS
43	BI	129	THR
45	BK	21	PRO

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Mol	Chain	Res	Type
45	BK	67	PHE
45	BK	114	ASP
48	BP	57	THR
48	BP	63	PRO
48	BP	110	TYR
50	BR	14	SER
51	BS	35	ILE
51	BS	42	ASP
51	BS	100	ALA
52	BT	31	SER
52	BT	41	ARG
54	BV	16	PRO
55	BW	6	ILE
57	BY	82	PRO
58	BZ	45	ASP
58	BZ	80	ARG
58	BZ	148	ASP
58	BZ	164	ALA
2	CB	130	ARG
2	CB	227	GLY
3	CC	20	SER
3	CC	26	LYS
3	CC	127	ARG
3	CC	180	ALA
4	CD	34	GLU
4	CD	104	VAL
4	CD	108	LEU
4	CD	162	LEU
5	CE	72	GLN
5	CE	105	VAL
6	CF	81	ILE
7	CG	149	ARG
8	CH	133	LEU
9	CI	10	ARG
9	CI	117	HIS
10	CJ	84	GLN
13	CM	21	TYR
13	CM	28	ALA
13	CM	67	GLU
14	CN	16	PHE
15	CO	23	GLY
16	CP	44	THR

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Mol	Chain	Res	Type
18	CR	25	THR
18	CR	54	ARG
19	CS	17	GLU
19	CS	65	ASN
20	CT	97	ALA
24	CY	243	ASN
27	D2	14	ARG
33	D8	48	PHE
37	DC	15	VAL
38	DD	12	SER
38	DD	36	PRO
38	DD	242	ARG
38	DD	244	ARG
39	DE	4	ILE
39	DE	55	ASN
39	DE	129	HIS
39	DE	187	ALA
40	DF	22	ALA
41	DG	117	PHE
41	DG	139	LEU
42	DH	47	GLU
42	DH	158	HIS
43	DI	78	THR
43	DI	103	ARG
45	DK	21	PRO
45	DK	114	ASP
46	DN	134	ARG
48	DP	39	LYS
48	DP	57	THR
48	DP	63	PRO
48	DP	87	ASP
48	DP	110	TYR
50	DR	88	ARG
50	DR	106	GLY
51	DS	35	ILE
51	DS	100	ALA
52	DT	32	TYR
52	DT	41	ARG
52	DT	68	TYR
53	DU	33	ARG
54	DV	16	PRO
54	DV	40	LEU

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Mol	Chain	Res	Type
54	DV	53	GLU
55	DW	6	ILE
58	DZ	14	LYS
58	DZ	142	SER
58	DZ	148	ASP
2	AB	8	LYS
2	AB	13	ALA
2	AB	76	GLN
2	AB	131	PRO
3	AC	14	ILE
3	AC	26	LYS
3	AC	54	ARG
3	AC	168	ALA
3	AC	193	TYR
4	AD	7	PRO
5	AE	8	GLU
7	AG	100	ALA
9	AI	121	ARG
12	AL	71	PRO
12	AL	90	VAL
14	AN	16	PHE
16	AP	64	ALA
17	AQ	30	PRO
18	AR	25	THR
19	AS	42	PRO
19	AS	65	ASN
20	AT	71	THR
24	AY	200	ARG
24	AY	231	VAL
26	B1	26	ARG
26	B1	85	LEU
26	B1	94	LEU
31	B6	15	GLU
33	B8	3	LYS
38	BD	3	VAL
38	BD	236	GLY
38	BD	241	PRO
41	BG	3	LEU
41	BG	82	LEU
41	BG	105	LYS
41	BG	133	LEU
42	BH	13	LYS

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Mol	Chain	Res	Type
42	BH	49	VAL
42	BH	169	VAL
43	BI	12	LEU
47	BO	91	LEU
48	BP	55	ARG
48	BP	67	MET
48	BP	87	ASP
50	BR	102	GLU
50	BR	106	GLY
52	BT	68	TYR
52	BT	92	GLY
53	BU	33	ARG
54	BV	35	LEU
54	BV	40	LEU
54	BV	42	GLY
54	BV	53	GLU
55	BW	93	ALA
57	BY	69	ALA
57	BY	81	LYS
58	BZ	15	PRO
58	BZ	131	ARG
58	BZ	165	VAL
2	CB	8	LYS
2	CB	13	ALA
2	CB	76	GLN
2	CB	131	PRO
2	CB	229	VAL
3	CC	14	ILE
3	CC	54	ARG
3	CC	141	VAL
3	CC	168	ALA
3	CC	179	ARG
3	CC	193	TYR
3	CC	196	LEU
4	CD	7	PRO
4	CD	29	PRO
4	CD	47	ARG
5	CE	8	GLU
6	CF	16	GLN
7	CG	100	ALA
9	CI	121	ARG
12	CL	51	ALA

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Mol	Chain	Res	Type
12	CL	71	PRO
12	CL	90	VAL
13	CM	31	LYS
14	CN	23	ARG
16	CP	59	TRP
16	CP	64	ALA
17	CQ	30	PRO
17	CQ	77	VAL
18	CR	38	GLU
19	CS	42	PRO
20	CT	71	THR
24	CY	158	PRO
27	D2	40	SER
30	D5	48	GLU
31	D6	47	THR
33	D8	3	LYS
38	DD	3	VAL
38	DD	45	ASN
38	DD	236	GLY
38	DD	241	PRO
39	DE	45	THR
40	DF	12	LEU
41	DG	17	PRO
41	DG	46	ALA
42	DH	13	LYS
42	DH	49	VAL
42	DH	110	SER
42	DH	169	VAL
43	DI	71	ILE
45	DK	42	ASN
48	DP	55	ARG
48	DP	67	MET
49	DQ	60	ARG
50	DR	102	GLU
51	DS	19	LYS
51	DS	89	ARG
52	DT	92	GLY
54	DV	3	ALA
54	DV	35	LEU
55	DW	65	LEU
55	DW	93	ALA
57	DY	48	ALA

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Mol	Chain	Res	Type
57	DY	81	LYS
2	AB	229	VAL
3	AC	141	VAL
3	AC	179	ARG
6	AF	43	LEU
7	AG	90	GLU
9	AI	77	ILE
13	AM	31	LYS
13	AM	67	GLU
17	AQ	47	PRO
17	AQ	77	VAL
19	AS	18	LYS
27	B2	67	LYS
30	B5	48	GLU
37	BC	174	ALA
39	BE	45	THR
40	BF	12	LEU
40	BF	66	PRO
43	BI	39	ALA
45	BK	20	ALA
45	BK	22	PRO
45	BK	23	VAL
45	BK	42	ASN
45	BK	77	LEU
46	BN	58	ASP
48	BP	146	VAL
49	BQ	27	VAL
51	BS	89	ARG
53	BU	102	GLU
54	BV	3	ALA
55	BW	65	LEU
56	BX	94	GLY
57	BY	98	VAL
5	CE	104	ALA
9	CI	77	ILE
11	CK	102	GLY
14	CN	14	PRO
16	CP	65	GLN
17	CQ	47	PRO
18	CR	60	ALA
19	CS	18	LYS
20	CT	34	LYS

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Mol	Chain	Res	Type
24	CY	71	GLY
24	CY	303	ARG
37	DC	174	ALA
38	DD	11	PRO
43	DI	92	VAL
45	DK	20	ALA
45	DK	22	PRO
45	DK	23	VAL
45	DK	77	LEU
46	DN	58	ASP
47	DO	91	LEU
48	DP	109	GLY
48	DP	146	VAL
50	DR	14	SER
53	DU	102	GLU
54	DV	42	GLY
56	DX	94	GLY
57	DY	98	VAL
4	AD	105	VAL
14	AN	14	PRO
16	AP	65	GLN
19	AS	45	VAL
24	AY	333	PRO
37	BC	176	VAL
38	BD	35	LYS
40	BF	14	PRO
45	BK	12	LEU
51	BS	14	VAL
52	BT	88	ILE
56	BX	32	PRO
57	BY	31	LEU
19	CS	45	VAL
37	DC	176	VAL
38	DD	35	LYS
40	DF	14	PRO
45	DK	12	LEU
51	DS	14	VAL
52	DT	88	ILE
57	DY	31	LEU
3	AC	75	VAL
6	AF	88	VAL
15	AO	87	ILE

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Mol	Chain	Res	Type
38	BD	11	PRO
42	BH	168	PRO
48	BP	109	GLY
58	BZ	146	ILE
3	CC	75	VAL
4	CD	105	VAL
6	CF	88	VAL
15	CO	87	ILE
24	CY	224	PRO
24	CY	339	GLY
42	DH	168	PRO
49	DQ	27	VAL
56	DX	32	PRO
57	DY	7	VAL
2	AB	239	VAL
3	AC	55	VAL
3	AC	96	GLY
5	AE	148	VAL
26	B1	53	VAL
30	B5	50	GLY
40	BF	25	PRO
41	BG	142	PRO
45	BK	38	VAL
45	BK	54	PRO
45	BK	96	VAL
2	CB	239	VAL
3	CC	55	VAL
5	CE	148	VAL
12	CL	101	VAL
17	CQ	33	GLY
24	CY	181	SER
24	CY	242	VAL
26	D1	28	GLY
30	D5	50	GLY
40	DF	25	PRO
42	DH	93	GLY
42	DH	151	ILE
45	DK	38	VAL
45	DK	54	PRO
45	DK	96	VAL
47	DO	27	GLY
24	AY	224	PRO

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Mol	Chain	Res	Type
31	B6	41	PRO
38	BD	10	THR
38	BD	125	ILE
42	BH	93	GLY
45	BK	25	PRO
46	BN	135	PRO
48	BP	122	PRO
57	BY	7	VAL
58	BZ	177	PRO
45	DK	25	PRO
48	DP	122	PRO
3	AC	145	GLY
5	AE	128	PRO
7	AG	130	GLY
12	AL	101	VAL
37	BC	221	PRO
39	BE	33	VAL
42	BH	55	PRO
42	BH	151	ILE
55	BW	112	GLY
7	CG	130	GLY
8	CH	51	VAL
20	CT	33	ILE
24	CY	333	PRO
37	DC	221	PRO
46	DN	11	PRO
53	DU	7	GLY
54	DV	22	VAL
55	DW	112	GLY
48	BP	48	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	202/220 (92%)	185 (92%)	17 (8%)	16	52
2	CB	202/220 (92%)	185 (92%)	17 (8%)	16	52

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	AC	160/188 (85%)	146 (91%)	14 (9%)	14	49
3	CC	160/188 (85%)	146 (91%)	14 (9%)	14	49
4	AD	180/181 (99%)	160 (89%)	20 (11%)	9	33
4	CD	180/181 (99%)	159 (88%)	21 (12%)	8	29
5	AE	115/123 (94%)	110 (96%)	5 (4%)	40	80
5	CE	115/123 (94%)	110 (96%)	5 (4%)	40	80
6	AF	90/90 (100%)	87 (97%)	3 (3%)	50	86
6	CF	90/90 (100%)	87 (97%)	3 (3%)	50	86
7	AG	126/127 (99%)	121 (96%)	5 (4%)	42	82
7	CG	126/127 (99%)	121 (96%)	5 (4%)	42	82
8	AH	119/119 (100%)	115 (97%)	4 (3%)	49	86
8	CH	119/119 (100%)	114 (96%)	5 (4%)	40	81
9	AI	98/99 (99%)	89 (91%)	9 (9%)	13	45
9	CI	98/99 (99%)	89 (91%)	9 (9%)	13	45
10	AJ	88/92 (96%)	82 (93%)	6 (7%)	22	62
10	CJ	88/92 (96%)	82 (93%)	6 (7%)	22	62
11	AK	90/99 (91%)	86 (96%)	4 (4%)	39	79
11	CK	90/99 (91%)	86 (96%)	4 (4%)	39	79
12	AL	104/109 (95%)	90 (86%)	14 (14%)	6	22
12	CL	104/109 (95%)	90 (86%)	14 (14%)	6	22
13	AM	99/101 (98%)	92 (93%)	7 (7%)	21	61
13	CM	99/101 (98%)	91 (92%)	8 (8%)	17	53
14	AN	49/50 (98%)	45 (92%)	4 (8%)	17	53
14	CN	49/50 (98%)	45 (92%)	4 (8%)	17	53
15	AO	79/80 (99%)	73 (92%)	6 (8%)	19	58
15	CO	79/80 (99%)	73 (92%)	6 (8%)	19	58
16	AP	72/74 (97%)	68 (94%)	4 (6%)	30	70
16	CP	72/74 (97%)	68 (94%)	4 (6%)	30	70
17	AQ	94/97 (97%)	92 (98%)	2 (2%)	66	92
17	CQ	94/97 (97%)	92 (98%)	2 (2%)	66	92
18	AR	61/77 (79%)	59 (97%)	2 (3%)	50	86

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
18	CR	61/77 (79%)	59 (97%)	2 (3%)	50	86
19	AS	69/80 (86%)	60 (87%)	9 (13%)	6	23
19	CS	69/80 (86%)	59 (86%)	10 (14%)	5	18
20	AT	76/82 (93%)	70 (92%)	6 (8%)	18	55
20	CT	76/82 (93%)	69 (91%)	7 (9%)	13	45
21	AU	19/22 (86%)	17 (90%)	2 (10%)	10	35
21	CU	19/22 (86%)	17 (90%)	2 (10%)	10	35
24	AY	298/298 (100%)	267 (90%)	31 (10%)	10	36
24	CY	298/298 (100%)	265 (89%)	33 (11%)	9	33
25	B0	66/67 (98%)	61 (92%)	5 (8%)	19	58
25	D0	66/67 (98%)	61 (92%)	5 (8%)	19	58
26	B1	78/83 (94%)	69 (88%)	9 (12%)	8	31
26	D1	78/83 (94%)	68 (87%)	10 (13%)	6	24
27	B2	66/67 (98%)	64 (97%)	2 (3%)	53	87
27	D2	66/67 (98%)	56 (85%)	10 (15%)	4	16
28	B3	51/52 (98%)	49 (96%)	2 (4%)	43	83
28	D3	51/52 (98%)	49 (96%)	2 (4%)	43	83
29	B4	27/63 (43%)	25 (93%)	2 (7%)	20	59
29	D4	27/63 (43%)	25 (93%)	2 (7%)	20	59
30	B5	51/52 (98%)	43 (84%)	8 (16%)	4	14
30	D5	51/52 (98%)	43 (84%)	8 (16%)	4	14
31	B6	43/52 (83%)	34 (79%)	9 (21%)	1	7
31	D6	43/52 (83%)	33 (77%)	10 (23%)	1	5
32	B7	41/42 (98%)	39 (95%)	2 (5%)	35	76
32	D7	41/42 (98%)	39 (95%)	2 (5%)	35	76
33	B8	53/55 (96%)	43 (81%)	10 (19%)	2	9
33	D8	53/55 (96%)	43 (81%)	10 (19%)	2	9
34	B9	33/34 (97%)	32 (97%)	1 (3%)	53	87
34	D9	33/34 (97%)	32 (97%)	1 (3%)	53	87
37	BC	99/181 (55%)	96 (97%)	3 (3%)	53	87
37	DC	99/181 (55%)	96 (97%)	3 (3%)	53	87

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
38	BD	213/218 (98%)	183 (86%)	30 (14%)	5	20
38	DD	213/218 (98%)	184 (86%)	29 (14%)	5	21
39	BE	165/166 (99%)	140 (85%)	25 (15%)	4	16
39	DE	165/166 (99%)	141 (86%)	24 (14%)	5	18
40	BF	165/166 (99%)	149 (90%)	16 (10%)	12	41
40	DF	165/166 (99%)	149 (90%)	16 (10%)	12	41
41	BG	155/156 (99%)	138 (89%)	17 (11%)	9	34
41	DG	155/156 (99%)	133 (86%)	22 (14%)	5	20
42	BH	132/148 (89%)	116 (88%)	16 (12%)	7	27
42	DH	132/148 (89%)	116 (88%)	16 (12%)	7	27
43	BI	122/124 (98%)	112 (92%)	10 (8%)	17	53
43	DI	122/124 (98%)	101 (83%)	21 (17%)	3	11
45	BK	106/111 (96%)	91 (86%)	15 (14%)	5	20
45	DK	106/111 (96%)	92 (87%)	14 (13%)	6	23
46	BN	117/119 (98%)	107 (92%)	10 (8%)	15	51
46	DN	117/119 (98%)	107 (92%)	10 (8%)	15	51
47	BO	100/100 (100%)	94 (94%)	6 (6%)	27	67
47	DO	100/100 (100%)	94 (94%)	6 (6%)	27	67
48	BP	112/116 (97%)	89 (80%)	23 (20%)	2	8
48	DP	112/116 (97%)	89 (80%)	23 (20%)	2	8
49	BQ	111/111 (100%)	101 (91%)	10 (9%)	14	47
49	DQ	111/111 (100%)	100 (90%)	11 (10%)	11	39
50	BR	100/101 (99%)	84 (84%)	16 (16%)	3	13
50	DR	100/101 (99%)	84 (84%)	16 (16%)	3	13
51	BS	77/88 (88%)	66 (86%)	11 (14%)	5	19
51	DS	77/88 (88%)	66 (86%)	11 (14%)	5	19
52	BT	120/127 (94%)	97 (81%)	23 (19%)	2	9
52	DT	120/127 (94%)	98 (82%)	22 (18%)	2	10
53	BU	92/94 (98%)	84 (91%)	8 (9%)	15	49
53	DU	92/94 (98%)	84 (91%)	8 (9%)	15	49
54	BV	82/82 (100%)	64 (78%)	18 (22%)	1	6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
54	DV	82/82 (100%)	64 (78%)	18 (22%)	1	6
55	BW	91/92 (99%)	81 (89%)	10 (11%)	9	34
55	DW	91/92 (99%)	81 (89%)	10 (11%)	9	34
56	BX	74/78 (95%)	63 (85%)	11 (15%)	4	17
56	DX	74/78 (95%)	63 (85%)	11 (15%)	4	17
57	BY	84/91 (92%)	70 (83%)	14 (17%)	3	11
57	DY	84/91 (92%)	70 (83%)	14 (17%)	3	11
58	BZ	162/179 (90%)	152 (94%)	10 (6%)	26	66
58	DZ	162/179 (90%)	140 (86%)	22 (14%)	5	21
All	All	10552/11246 (94%)	9458 (90%)	1094 (10%)	10	36

All (1094) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	15	VAL
2	AB	17	PHE
2	AB	24	TRP
2	AB	36	ARG
2	AB	46	LYS
2	AB	69	LEU
2	AB	119	GLU
2	AB	137	ARG
2	AB	140	HIS
2	AB	145	LEU
2	AB	172	ILE
2	AB	178	ARG
2	AB	195	ASP
2	AB	196	LEU
2	AB	204	ASN
2	AB	206	ASP
2	AB	232	PRO
3	AC	3	ASN
3	AC	5	ILE
3	AC	16	ARG
3	AC	29	TYR
3	AC	34	LEU
3	AC	52	LEU
3	AC	82	GLU
3	AC	104	GLN

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Mol	Chain	Res	Type
3	AC	107	GLN
3	AC	108	ASN
3	AC	127	ARG
3	AC	156	ARG
3	AC	193	TYR
3	AC	196	LEU
4	AD	3	ARG
4	AD	9	CYS
4	AD	10	ARG
4	AD	13	ARG
4	AD	15	GLU
4	AD	20	TYR
4	AD	35	ARG
4	AD	38	TYR
4	AD	59	ARG
4	AD	86	LYS
4	AD	97	LEU
4	AD	107	ARG
4	AD	110	PHE
4	AD	129	ASN
4	AD	131	ARG
4	AD	132	ARG
4	AD	135	LEU
4	AD	158	ILE
4	AD	170	VAL
4	AD	200	GLU
5	AE	12	LEU
5	AE	16	THR
5	AE	20	GLN
5	AE	79	GLU
5	AE	101	ILE
6	AF	16	GLN
6	AF	30	LEU
6	AF	69	GLU
7	AG	57	GLU
7	AG	62	PHE
7	AG	72	ARG
7	AG	113	GLU
7	AG	137	LYS
8	AH	1	MET
8	AH	27	PRO
8	AH	65	TYR

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Mol	Chain	Res	Type
8	AH	102	ARG
9	AI	10	ARG
9	AI	48	GLU
9	AI	91	ASP
9	AI	92	TYR
9	AI	95	LYS
9	AI	114	TYR
9	AI	121	ARG
9	AI	125	TYR
9	AI	128	ARG
10	AJ	22	LYS
10	AJ	46	ARG
10	AJ	50	ILE
10	AJ	62	HIS
10	AJ	63	PHE
10	AJ	96	ILE
11	AK	103	LEU
11	AK	117	ASN
11	AK	124	LYS
11	AK	125	PHE
12	AL	20	LYS
12	AL	27	LEU
12	AL	38	THR
12	AL	40	VAL
12	AL	41	ARG
12	AL	47	LYS
12	AL	53	ARG
12	AL	80	HIS
12	AL	83	VAL
12	AL	84	LEU
12	AL	85	ILE
12	AL	89	ARG
12	AL	102	ARG
12	AL	110	VAL
13	AM	47	ASP
13	AM	64	TRP
13	AM	79	LYS
13	AM	92	HIS
13	AM	93	ARG
13	AM	108	ARG
13	AM	115	LYS
14	AN	6	LEU

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Mol	Chain	Res	Type
14	AN	16	PHE
14	AN	33	VAL
14	AN	41	ARG
15	AO	7	GLU
15	AO	22	THR
15	AO	39	LEU
15	AO	41	GLU
15	AO	65	ARG
15	AO	82	ILE
16	AP	1	MET
16	AP	17	TYR
16	AP	55	ARG
16	AP	69	THR
17	AQ	38	ARG
17	AQ	52	LYS
18	AR	31	LEU
18	AR	32	ARG
19	AS	5	LEU
19	AS	6	LYS
19	AS	7	LYS
19	AS	15	LEU
19	AS	27	GLU
19	AS	29	ARG
19	AS	37	ARG
19	AS	44	MET
19	AS	65	ASN
20	AT	26	ASN
20	AT	30	LYS
20	AT	73	HIS
20	AT	75	ASN
20	AT	93	GLU
20	AT	100	ILE
21	AU	9	ARG
21	AU	12	LYS
24	AY	16	TYR
24	AY	21	GLN
24	AY	25	ARG
24	AY	30	GLU
24	AY	41	ASP
24	AY	46	ARG
24	AY	50	GLN
24	AY	66	GLU

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Mol	Chain	Res	Type
24	AY	68	ASP
24	AY	75	LEU
24	AY	84	ARG
24	AY	92	GLU
24	AY	93	GLU
24	AY	102	TYR
24	AY	132	TRP
24	AY	191	ARG
24	AY	195	PHE
24	AY	209	GLU
24	AY	219	GLU
24	AY	233	ARG
24	AY	240	GLN
24	AY	243	ASN
24	AY	246	ASP
24	AY	265	THR
24	AY	274	LEU
24	AY	291	ARG
24	AY	295	LEU
24	AY	317	ASP
24	AY	318	LYS
24	AY	335	ASN
24	AY	344	LEU
25	B0	5	LYS
25	B0	19	LYS
25	B0	36	ILE
25	B0	41	ARG
25	B0	64	ASP
26	B1	27	GLU
26	B1	39	LYS
26	B1	40	ARG
26	B1	45	ASN
26	B1	46	LEU
26	B1	58	ILE
26	B1	61	ARG
26	B1	78	LYS
26	B1	82	LEU
27	B2	50	ILE
27	B2	64	LEU
28	B3	8	LEU
28	B3	40	THR
29	B4	20	ASN

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Mol	Chain	Res	Type
29	B4	32	TYR
30	B5	4	HIS
30	B5	11	THR
30	B5	29	THR
30	B5	36	CYS
30	B5	49	CYS
30	B5	52	TYR
30	B5	56	LYS
30	B5	60	VAL
31	B6	11	LEU
31	B6	18	ARG
31	B6	19	ARG
31	B6	31	PRO
31	B6	33	LYS
31	B6	37	ARG
31	B6	41	PRO
31	B6	42	TRP
31	B6	46	HIS
32	B7	1	MET
32	B7	8	ASN
33	B8	6	THR
33	B8	8	LYS
33	B8	16	ILE
33	B8	30	ARG
33	B8	31	HIS
33	B8	33	ASN
33	B8	34	TRP
33	B8	44	LYS
33	B8	49	VAL
33	B8	61	LEU
34	B9	9	ARG
37	BC	53	ARG
37	BC	54	ARG
37	BC	185	LYS
38	BD	10	THR
38	BD	14	ARG
38	BD	24	ILE
38	BD	35	LYS
38	BD	43	ARG
38	BD	46	GLN
38	BD	49	ILE
38	BD	64	ILE

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Mol	Chain	Res	Type
38	BD	65	ILE
38	BD	72	LYS
38	BD	92	ILE
38	BD	94	LEU
38	BD	95	LEU
38	BD	99	ASP
38	BD	103	ARG
38	BD	106	ILE
38	BD	111	LEU
38	BD	131	LEU
38	BD	166	GLN
38	BD	173	VAL
38	BD	192	THR
38	BD	198	ASN
38	BD	200	ASP
38	BD	211	ARG
38	BD	221	VAL
38	BD	229	VAL
38	BD	242	ARG
38	BD	260	ARG
38	BD	268	ARG
38	BD	271	ILE
39	BE	7	VAL
39	BE	12	THR
39	BE	16	ARG
39	BE	18	ASP
39	BE	24	THR
39	BE	52	LEU
39	BE	55	ASN
39	BE	63	LEU
39	BE	67	PHE
39	BE	79	ARG
39	BE	82	ARG
39	BE	92	THR
39	BE	94	GLU
39	BE	111	ARG
39	BE	113	PHE
39	BE	119	ARG
39	BE	144	ARG
39	BE	152	LYS
39	BE	167	VAL
39	BE	175	VAL

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Mol	Chain	Res	Type
39	BE	179	GLU
39	BE	181	LEU
39	BE	197	ILE
39	BE	202	LYS
39	BE	203	LYS
40	BF	2	LYS
40	BF	28	ILE
40	BF	57	VAL
40	BF	66	PRO
40	BF	74	ARG
40	BF	88	VAL
40	BF	107	LYS
40	BF	125	LEU
40	BF	160	ASN
40	BF	164	ARG
40	BF	165	ARG
40	BF	183	VAL
40	BF	192	LEU
40	BF	196	LEU
40	BF	199	TRP
40	BF	200	GLU
41	BG	31	VAL
41	BG	40	ASN
41	BG	43	LEU
41	BG	48	GLU
41	BG	52	ILE
41	BG	54	GLU
41	BG	66	GLN
41	BG	70	VAL
41	BG	74	LYS
41	BG	80	PHE
41	BG	121	ASN
41	BG	125	PHE
41	BG	126	ASP
41	BG	133	LEU
41	BG	147	ASP
41	BG	150	ASP
41	BG	152	LEU
42	BH	13	LYS
42	BH	42	ARG
42	BH	53	GLU
42	BH	71	LEU

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Mol	Chain	Res	Type
42	BH	83	TYR
42	BH	85	LYS
42	BH	86	GLU
42	BH	88	LEU
42	BH	89	ILE
42	BH	94	TYR
42	BH	105	LEU
42	BH	111	HIS
42	BH	143	GLN
42	BH	153	LYS
42	BH	159	GLU
42	BH	162	ILE
43	BI	25	TYR
43	BI	38	LEU
43	BI	61	ARG
43	BI	92	VAL
43	BI	93	THR
43	BI	123	LEU
43	BI	125	GLU
43	BI	127	VAL
43	BI	128	LEU
43	BI	134	PRO
45	BK	5	VAL
45	BK	10	LEU
45	BK	11	GLN
45	BK	16	LYS
45	BK	35	MET
45	BK	37	PHE
45	BK	41	PHE
45	BK	79	ARG
45	BK	84	LEU
45	BK	90	LYS
45	BK	95	LYS
45	BK	109	LYS
45	BK	110	GLN
45	BK	112	MET
45	BK	121	GLU
46	BN	4	TYR
46	BN	28	THR
46	BN	34	LEU
46	BN	43	THR
46	BN	45	ASN

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Mol	Chain	Res	Type
46	BN	48	MET
46	BN	56	ASN
46	BN	61	ARG
46	BN	109	LYS
46	BN	121	LYS
47	BO	7	TYR
47	BO	17	ARG
47	BO	32	TYR
47	BO	48	PRO
47	BO	49	ARG
47	BO	98	VAL
48	BP	13	ASN
48	BP	16	ARG
48	BP	18	ARG
48	BP	27	HIS
48	BP	29	LYS
48	BP	30	THR
48	BP	32	THR
48	BP	39	LYS
48	BP	41	ARG
48	BP	42	SER
48	BP	47	ASP
48	BP	59	LEU
48	BP	61	ARG
48	BP	62	LEU
48	BP	64	LYS
48	BP	67	MET
48	BP	70	GLN
48	BP	84	ASN
48	BP	91	PHE
48	BP	95	VAL
48	BP	108	LYS
48	BP	114	ILE
48	BP	115	LEU
49	BQ	18	LYS
49	BQ	26	TYR
49	BQ	45	GLN
49	BQ	55	VAL
49	BQ	59	ARG
49	BQ	67	ARG
49	BQ	75	THR
49	BQ	110	THR

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Mol	Chain	Res	Type
49	BQ	134	ARG
49	BQ	139	GLU
50	BR	2	ARG
50	BR	8	ARG
50	BR	18	LEU
50	BR	28	LEU
50	BR	29	LEU
50	BR	34	ILE
50	BR	49	ASP
50	BR	54	LEU
50	BR	65	LEU
50	BR	67	LEU
50	BR	73	VAL
50	BR	74	LYS
50	BR	79	LEU
50	BR	81	ASP
50	BR	99	LYS
50	BR	100	LEU
51	BS	11	LYS
51	BS	12	PHE
51	BS	36	TYR
51	BS	41	ASP
51	BS	56	LEU
51	BS	73	LEU
51	BS	89	ARG
51	BS	92	TYR
51	BS	97	ARG
51	BS	103	GLU
51	BS	106	ARG
52	BT	3	ARG
52	BT	6	LEU
52	BT	13	ARG
52	BT	14	TYR
52	BT	24	PRO
52	BT	32	TYR
52	BT	36	GLU
52	BT	38	ASN
52	BT	41	ARG
52	BT	42	ILE
52	BT	51	ARG
52	BT	58	ASN
52	BT	59	THR

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Mol	Chain	Res	Type
52	BT	65	LYS
52	BT	74	ARG
52	BT	78	LEU
52	BT	82	LEU
52	BT	89	VAL
52	BT	90	GLN
52	BT	93	ARG
52	BT	96	ARG
52	BT	99	LEU
52	BT	123	GLN
53	BU	16	LYS
53	BU	60	LEU
53	BU	66	ASN
53	BU	70	ARG
53	BU	74	LEU
53	BU	88	ILE
53	BU	108	GLU
53	BU	117	GLN
54	BV	1	MET
54	BV	13	ARG
54	BV	16	PRO
54	BV	18	LEU
54	BV	19	LYS
54	BV	21	ARG
54	BV	22	VAL
54	BV	35	LEU
54	BV	37	VAL
54	BV	39	LEU
54	BV	40	LEU
54	BV	49	THR
54	BV	66	ARG
54	BV	79	VAL
54	BV	82	ARG
54	BV	89	GLN
54	BV	95	LEU
54	BV	99	ILE
55	BW	11	ARG
55	BW	15	ARG
55	BW	23	LEU
55	BW	51	LEU
55	BW	52	GLU
55	BW	59	VAL

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Mol	Chain	Res	Type
55	BW	92	ARG
55	BW	95	ILE
55	BW	106	ILE
55	BW	107	LEU
56	BX	15	GLU
56	BX	27	THR
56	BX	49	VAL
56	BX	53	LYS
56	BX	57	LEU
56	BX	68	ARG
56	BX	75	ASP
56	BX	76	ARG
56	BX	80	ILE
56	BX	81	VAL
56	BX	87	GLN
57	BY	2	ARG
57	BY	4	LYS
57	BY	6	HIS
57	BY	7	VAL
57	BY	13	VAL
57	BY	29	GLU
57	BY	32	PRO
57	BY	40	GLU
57	BY	53	PRO
57	BY	60	PHE
57	BY	76	CYS
57	BY	77	PRO
57	BY	90	LEU
57	BY	97	ARG
58	BZ	9	TYR
58	BZ	11	GLU
58	BZ	20	ARG
58	BZ	44	PHE
58	BZ	80	ARG
58	BZ	99	TYR
58	BZ	101	PRO
58	BZ	140	ASP
58	BZ	150	LEU
58	BZ	168	GLU
2	CB	15	VAL
2	CB	17	PHE
2	CB	24	TRP

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Mol	Chain	Res	Type
2	CB	36	ARG
2	CB	46	LYS
2	CB	69	LEU
2	CB	119	GLU
2	CB	137	ARG
2	CB	140	HIS
2	CB	145	LEU
2	CB	172	ILE
2	CB	178	ARG
2	CB	195	ASP
2	CB	196	LEU
2	CB	204	ASN
2	CB	206	ASP
2	CB	232	PRO
3	CC	3	ASN
3	CC	5	ILE
3	CC	16	ARG
3	CC	29	TYR
3	CC	34	LEU
3	CC	52	LEU
3	CC	82	GLU
3	CC	104	GLN
3	CC	107	GLN
3	CC	108	ASN
3	CC	127	ARG
3	CC	156	ARG
3	CC	193	TYR
3	CC	196	LEU
4	CD	3	ARG
4	CD	9	CYS
4	CD	10	ARG
4	CD	13	ARG
4	CD	15	GLU
4	CD	20	TYR
4	CD	35	ARG
4	CD	38	TYR
4	CD	42	GLN
4	CD	59	ARG
4	CD	86	LYS
4	CD	97	LEU
4	CD	107	ARG
4	CD	110	PHE

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Mol	Chain	Res	Type
4	CD	129	ASN
4	CD	131	ARG
4	CD	132	ARG
4	CD	135	LEU
4	CD	158	ILE
4	CD	170	VAL
4	CD	200	GLU
5	CE	12	LEU
5	CE	16	THR
5	CE	20	GLN
5	CE	79	GLU
5	CE	101	ILE
6	CF	16	GLN
6	CF	30	LEU
6	CF	69	GLU
7	CG	57	GLU
7	CG	62	PHE
7	CG	72	ARG
7	CG	113	GLU
7	CG	137	LYS
8	CH	1	MET
8	CH	27	PRO
8	CH	65	TYR
8	CH	102	ARG
8	CH	137	VAL
9	CI	10	ARG
9	CI	48	GLU
9	CI	91	ASP
9	CI	92	TYR
9	CI	95	LYS
9	CI	114	TYR
9	CI	121	ARG
9	CI	125	TYR
9	CI	128	ARG
10	CJ	22	LYS
10	CJ	46	ARG
10	CJ	50	ILE
10	CJ	62	HIS
10	CJ	63	PHE
10	CJ	96	ILE
11	CK	103	LEU
11	CK	117	ASN

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Mol	Chain	Res	Type
11	CK	124	LYS
11	CK	125	PHE
12	CL	20	LYS
12	CL	27	LEU
12	CL	38	THR
12	CL	40	VAL
12	CL	41	ARG
12	CL	47	LYS
12	CL	53	ARG
12	CL	80	HIS
12	CL	83	VAL
12	CL	84	LEU
12	CL	85	ILE
12	CL	89	ARG
12	CL	102	ARG
12	CL	110	VAL
13	CM	47	ASP
13	CM	48	LEU
13	CM	64	TRP
13	CM	79	LYS
13	CM	92	HIS
13	CM	93	ARG
13	CM	108	ARG
13	CM	115	LYS
14	CN	6	LEU
14	CN	16	PHE
14	CN	33	VAL
14	CN	41	ARG
15	CO	7	GLU
15	CO	22	THR
15	CO	39	LEU
15	CO	41	GLU
15	CO	65	ARG
15	CO	82	ILE
16	CP	1	MET
16	CP	17	TYR
16	CP	55	ARG
16	CP	69	THR
17	CQ	38	ARG
17	CQ	52	LYS
18	CR	31	LEU
18	CR	32	ARG

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Mol	Chain	Res	Type
19	CS	5	LEU
19	CS	6	LYS
19	CS	7	LYS
19	CS	15	LEU
19	CS	16	LEU
19	CS	27	GLU
19	CS	29	ARG
19	CS	37	ARG
19	CS	44	MET
19	CS	65	ASN
20	CT	26	ASN
20	CT	30	LYS
20	CT	45	GLN
20	CT	73	HIS
20	CT	75	ASN
20	CT	93	GLU
20	CT	100	ILE
21	CU	9	ARG
21	CU	12	LYS
24	CY	8	GLN
24	CY	16	TYR
24	CY	23	GLU
24	CY	26	LEU
24	CY	29	LEU
24	CY	46	ARG
24	CY	50	GLN
24	CY	60	ASP
24	CY	66	GLU
24	CY	68	ASP
24	CY	84	ARG
24	CY	92	GLU
24	CY	93	GLU
24	CY	104	GLN
24	CY	115	ASN
24	CY	132	TRP
24	CY	147	GLN
24	CY	191	ARG
24	CY	240	GLN
24	CY	261	THR
24	CY	265	THR
24	CY	266	ARG
24	CY	291	ARG

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Mol	Chain	Res	Type
24	CY	314	TYR
24	CY	315	VAL
24	CY	316	LEU
24	CY	323	ASP
24	CY	328	LEU
24	CY	335	ASN
24	CY	340	ASP
24	CY	344	LEU
24	CY	346	TRP
24	CY	355	ARG
25	D0	5	LYS
25	D0	19	LYS
25	D0	36	ILE
25	D0	41	ARG
25	D0	64	ASP
26	D1	14	VAL
26	D1	30	VAL
26	D1	35	THR
26	D1	40	ARG
26	D1	45	ASN
26	D1	48	LYS
26	D1	57	GLU
26	D1	72	GLU
26	D1	80	LEU
26	D1	95	LEU
27	D2	3	LEU
27	D2	28	LYS
27	D2	32	LEU
27	D2	41	ILE
27	D2	46	GLN
27	D2	51	ARG
27	D2	53	LEU
27	D2	61	LEU
27	D2	64	LEU
27	D2	70	GLN
28	D3	8	LEU
28	D3	40	THR
29	D4	20	ASN
29	D4	32	TYR
30	D5	4	HIS
30	D5	11	THR
30	D5	29	THR

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Mol	Chain	Res	Type
30	D5	36	CYS
30	D5	49	CYS
30	D5	52	TYR
30	D5	56	LYS
30	D5	60	VAL
31	D6	11	LEU
31	D6	18	ARG
31	D6	19	ARG
31	D6	31	PRO
31	D6	33	LYS
31	D6	37	ARG
31	D6	41	PRO
31	D6	42	TRP
31	D6	45	LYS
31	D6	47	THR
32	D7	1	MET
32	D7	8	ASN
33	D8	6	THR
33	D8	8	LYS
33	D8	16	ILE
33	D8	30	ARG
33	D8	31	HIS
33	D8	33	ASN
33	D8	34	TRP
33	D8	44	LYS
33	D8	49	VAL
33	D8	61	LEU
34	D9	9	ARG
37	DC	53	ARG
37	DC	54	ARG
37	DC	185	LYS
38	DD	10	THR
38	DD	14	ARG
38	DD	24	ILE
38	DD	35	LYS
38	DD	43	ARG
38	DD	46	GLN
38	DD	49	ILE
38	DD	64	ILE
38	DD	65	ILE
38	DD	92	ILE
38	DD	94	LEU

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Mol	Chain	Res	Type
38	DD	95	LEU
38	DD	99	ASP
38	DD	103	ARG
38	DD	106	ILE
38	DD	111	LEU
38	DD	131	LEU
38	DD	166	GLN
38	DD	173	VAL
38	DD	192	THR
38	DD	198	ASN
38	DD	200	ASP
38	DD	211	ARG
38	DD	221	VAL
38	DD	229	VAL
38	DD	242	ARG
38	DD	260	ARG
38	DD	268	ARG
38	DD	271	ILE
39	DE	7	VAL
39	DE	12	THR
39	DE	16	ARG
39	DE	18	ASP
39	DE	24	THR
39	DE	52	LEU
39	DE	55	ASN
39	DE	63	LEU
39	DE	67	PHE
39	DE	79	ARG
39	DE	82	ARG
39	DE	92	THR
39	DE	94	GLU
39	DE	111	ARG
39	DE	113	PHE
39	DE	119	ARG
39	DE	144	ARG
39	DE	167	VAL
39	DE	175	VAL
39	DE	179	GLU
39	DE	181	LEU
39	DE	197	ILE
39	DE	202	LYS
39	DE	203	LYS

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Mol	Chain	Res	Type
40	DF	2	LYS
40	DF	28	ILE
40	DF	57	VAL
40	DF	66	PRO
40	DF	74	ARG
40	DF	88	VAL
40	DF	107	LYS
40	DF	125	LEU
40	DF	160	ASN
40	DF	164	ARG
40	DF	165	ARG
40	DF	183	VAL
40	DF	192	LEU
40	DF	196	LEU
40	DF	199	TRP
40	DF	200	GLU
41	DG	26	GLN
41	DG	28	VAL
41	DG	33	ARG
41	DG	39	ILE
41	DG	51	ARG
41	DG	58	GLN
41	DG	63	ILE
41	DG	67	LYS
41	DG	70	VAL
41	DG	82	LEU
41	DG	84	LYS
41	DG	88	ILE
41	DG	113	ARG
41	DG	121	ASN
41	DG	128	ARG
41	DG	130	ASN
41	DG	133	LEU
41	DG	138	GLN
41	DG	139	LEU
41	DG	147	ASP
41	DG	152	LEU
41	DG	166	ASP
42	DH	13	LYS
42	DH	42	ARG
42	DH	53	GLU
42	DH	71	LEU

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Mol	Chain	Res	Type
42	DH	83	TYR
42	DH	85	LYS
42	DH	86	GLU
42	DH	88	LEU
42	DH	89	ILE
42	DH	94	TYR
42	DH	105	LEU
42	DH	111	HIS
42	DH	143	GLN
42	DH	153	LYS
42	DH	159	GLU
42	DH	162	ILE
43	DI	6	LEU
43	DI	8	PRO
43	DI	9	LEU
43	DI	12	LEU
43	DI	14	ASP
43	DI	21	VAL
43	DI	31	LEU
43	DI	40	THR
43	DI	47	LEU
43	DI	52	ARG
43	DI	58	LEU
43	DI	61	ARG
43	DI	82	ARG
43	DI	89	TYR
43	DI	95	LYS
43	DI	101	LEU
43	DI	108	THR
43	DI	112	LYS
43	DI	117	GLU
43	DI	128	LEU
43	DI	138	ILE
45	DK	5	VAL
45	DK	10	LEU
45	DK	16	LYS
45	DK	35	MET
45	DK	37	PHE
45	DK	41	PHE
45	DK	79	ARG
45	DK	84	LEU
45	DK	90	LYS

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Mol	Chain	Res	Type
45	DK	95	LYS
45	DK	109	LYS
45	DK	110	GLN
45	DK	112	MET
45	DK	121	GLU
46	DN	4	TYR
46	DN	28	THR
46	DN	34	LEU
46	DN	43	THR
46	DN	45	ASN
46	DN	48	MET
46	DN	56	ASN
46	DN	61	ARG
46	DN	109	LYS
46	DN	121	LYS
47	DO	7	TYR
47	DO	17	ARG
47	DO	32	TYR
47	DO	48	PRO
47	DO	49	ARG
47	DO	98	VAL
48	DP	13	ASN
48	DP	16	ARG
48	DP	18	ARG
48	DP	27	HIS
48	DP	29	LYS
48	DP	30	THR
48	DP	32	THR
48	DP	39	LYS
48	DP	41	ARG
48	DP	42	SER
48	DP	47	ASP
48	DP	59	LEU
48	DP	61	ARG
48	DP	62	LEU
48	DP	64	LYS
48	DP	67	MET
48	DP	70	GLN
48	DP	84	ASN
48	DP	91	PHE
48	DP	95	VAL
48	DP	108	LYS

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Mol	Chain	Res	Type
48	DP	114	ILE
48	DP	115	LEU
49	DQ	18	LYS
49	DQ	26	TYR
49	DQ	45	GLN
49	DQ	55	VAL
49	DQ	58	PHE
49	DQ	59	ARG
49	DQ	67	ARG
49	DQ	75	THR
49	DQ	110	THR
49	DQ	134	ARG
49	DQ	139	GLU
50	DR	2	ARG
50	DR	8	ARG
50	DR	18	LEU
50	DR	28	LEU
50	DR	29	LEU
50	DR	34	ILE
50	DR	49	ASP
50	DR	54	LEU
50	DR	65	LEU
50	DR	67	LEU
50	DR	73	VAL
50	DR	74	LYS
50	DR	79	LEU
50	DR	81	ASP
50	DR	99	LYS
50	DR	100	LEU
51	DS	11	LYS
51	DS	12	PHE
51	DS	36	TYR
51	DS	41	ASP
51	DS	56	LEU
51	DS	73	LEU
51	DS	89	ARG
51	DS	92	TYR
51	DS	97	ARG
51	DS	103	GLU
51	DS	106	ARG
52	DT	3	ARG
52	DT	6	LEU

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Mol	Chain	Res	Type
52	DT	13	ARG
52	DT	14	TYR
52	DT	24	PRO
52	DT	32	TYR
52	DT	36	GLU
52	DT	38	ASN
52	DT	41	ARG
52	DT	42	ILE
52	DT	51	ARG
52	DT	58	ASN
52	DT	59	THR
52	DT	65	LYS
52	DT	74	ARG
52	DT	78	LEU
52	DT	82	LEU
52	DT	89	VAL
52	DT	90	GLN
52	DT	93	ARG
52	DT	99	LEU
52	DT	123	GLN
53	DU	16	LYS
53	DU	60	LEU
53	DU	66	ASN
53	DU	70	ARG
53	DU	74	LEU
53	DU	88	ILE
53	DU	108	GLU
53	DU	117	GLN
54	DV	1	MET
54	DV	13	ARG
54	DV	16	PRO
54	DV	18	LEU
54	DV	19	LYS
54	DV	21	ARG
54	DV	22	VAL
54	DV	33	VAL
54	DV	35	LEU
54	DV	37	VAL
54	DV	39	LEU
54	DV	49	THR
54	DV	66	ARG
54	DV	79	VAL

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Mol	Chain	Res	Type
54	DV	82	ARG
54	DV	89	GLN
54	DV	95	LEU
54	DV	99	ILE
55	DW	11	ARG
55	DW	15	ARG
55	DW	23	LEU
55	DW	51	LEU
55	DW	52	GLU
55	DW	59	VAL
55	DW	92	ARG
55	DW	95	ILE
55	DW	106	ILE
55	DW	107	LEU
56	DX	15	GLU
56	DX	27	THR
56	DX	49	VAL
56	DX	53	LYS
56	DX	57	LEU
56	DX	68	ARG
56	DX	75	ASP
56	DX	76	ARG
56	DX	80	ILE
56	DX	81	VAL
56	DX	87	GLN
57	DY	2	ARG
57	DY	4	LYS
57	DY	6	HIS
57	DY	7	VAL
57	DY	13	VAL
57	DY	29	GLU
57	DY	32	PRO
57	DY	40	GLU
57	DY	53	PRO
57	DY	60	PHE
57	DY	76	CYS
57	DY	77	PRO
57	DY	90	LEU
57	DY	97	ARG
58	DZ	3	TYR
58	DZ	6	LYS
58	DZ	11	GLU

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Mol	Chain	Res	Type
58	DZ	20	ARG
58	DZ	37	VAL
58	DZ	41	LEU
58	DZ	44	PHE
58	DZ	49	ARG
58	DZ	71	VAL
58	DZ	81	ARG
58	DZ	87	ASP
58	DZ	89	PHE
58	DZ	97	GLU
58	DZ	119	GLU
58	DZ	121	HIS
58	DZ	132	ASN
58	DZ	140	ASP
58	DZ	145	GLU
58	DZ	150	LEU
58	DZ	154	ASP
58	DZ	155	LEU
58	DZ	166	SER

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (365) such sidechains are listed below:

Mol	Chain	Res	Type
2	AB	37	ASN
2	AB	40	HIS
2	AB	45	GLN
2	AB	78	GLN
2	AB	95	GLN
2	AB	110	GLN
2	AB	135	GLN
2	AB	146	GLN
2	AB	204	ASN
2	AB	212	GLN
3	AC	37	GLN
3	AC	69	HIS
3	AC	107	GLN
3	AC	170	GLN
4	AD	42	GLN
4	AD	62	GLN
4	AD	77	ASN
4	AD	123	HIS
4	AD	129	ASN

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Mol	Chain	Res	Type
4	AD	161	ASN
4	AD	199	ASN
5	AE	20	GLN
5	AE	72	GLN
5	AE	73	ASN
5	AE	141	GLN
6	AF	16	GLN
6	AF	18	GLN
6	AF	27	GLN
6	AF	32	ASN
6	AF	94	GLN
6	AF	100	ASN
7	AG	13	GLN
7	AG	28	ASN
7	AG	37	ASN
7	AG	68	ASN
7	AG	84	ASN
7	AG	97	GLN
7	AG	106	GLN
7	AG	109	ASN
7	AG	148	ASN
8	AH	15	ASN
9	AI	31	GLN
9	AI	124	GLN
10	AJ	56	HIS
10	AJ	84	GLN
11	AK	62	GLN
11	AK	78	GLN
12	AL	8	ASN
12	AL	9	GLN
12	AL	49	ASN
12	AL	75	HIS
13	AM	40	ASN
13	AM	77	ASN
13	AM	101	GLN
14	AN	52	GLN
15	AO	9	GLN
15	AO	37	ASN
15	AO	46	HIS
16	AP	14	ASN
16	AP	16	HIS
16	AP	76	GLN

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Mol	Chain	Res	Type
17	AQ	16	GLN
17	AQ	93	GLN
18	AR	36	ASN
19	AS	23	ASN
20	AT	16	HIS
20	AT	26	ASN
20	AT	42	GLN
20	AT	75	ASN
24	AY	8	GLN
24	AY	50	GLN
24	AY	115	ASN
24	AY	168	GLN
24	AY	202	HIS
24	AY	240	GLN
24	AY	253	HIS
24	AY	263	GLN
24	AY	310	GLN
24	AY	319	ASN
24	AY	335	ASN
25	B0	12	ASN
25	B0	70	GLN
26	B1	45	ASN
26	B1	47	GLN
27	B2	46	GLN
27	B2	47	ASN
27	B2	71	ASN
28	B3	19	GLN
28	B3	33	GLN
28	B3	46	ASN
28	B3	52	HIS
29	B4	20	ASN
30	B5	43	HIS
32	B7	8	ASN
32	B7	36	GLN
33	B8	31	HIS
33	B8	33	ASN
34	B9	34	GLN
37	BC	189	ASN
37	BC	226	ASN
38	BD	58	HIS
38	BD	96	HIS
38	BD	166	GLN

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Mol	Chain	Res	Type
38	BD	186	HIS
38	BD	198	ASN
38	BD	201	HIS
38	BD	253	GLN
39	BE	48	GLN
39	BE	54	GLN
39	BE	55	ASN
39	BE	132	HIS
39	BE	192	ASN
40	BF	29	ASN
40	BF	69	HIS
40	BF	75	HIS
40	BF	133	ASN
40	BF	160	ASN
40	BF	169	ASN
40	BF	204	ASN
41	BG	40	ASN
41	BG	58	GLN
42	BH	65	HIS
42	BH	74	ASN
42	BH	147	ASN
42	BH	158	HIS
43	BI	104	GLN
43	BI	105	HIS
43	BI	133	HIS
43	BI	139	GLN
45	BK	11	GLN
45	BK	33	ASN
45	BK	89	HIS
45	BK	110	GLN
45	BK	116	ASN
46	BN	45	ASN
46	BN	56	ASN
46	BN	69	GLN
46	BN	128	HIS
46	BN	130	HIS
46	BN	131	GLN
47	BO	82	ASN
48	BP	13	ASN
48	BP	35	HIS
48	BP	68	GLN
48	BP	84	ASN

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Mol	Chain	Res	Type
48	BP	128	HIS
49	BQ	12	GLN
49	BQ	45	GLN
49	BQ	89	ASN
50	BR	16	HIS
50	BR	23	ASN
50	BR	24	GLN
50	BR	61	HIS
50	BR	71	GLN
51	BS	34	HIS
51	BS	84	GLN
52	BT	38	ASN
52	BT	84	GLN
52	BT	90	GLN
53	BU	49	HIS
53	BU	66	ASN
53	BU	71	GLN
53	BU	94	ASN
53	BU	117	GLN
54	BV	11	GLN
55	BW	34	ASN
55	BW	57	ASN
55	BW	60	ASN
55	BW	61	ASN
55	BW	62	HIS
55	BW	102	HIS
56	BX	31	HIS
56	BX	41	ASN
56	BX	55	ASN
58	BZ	32	HIS
58	BZ	73	GLN
58	BZ	118	GLN
2	CB	37	ASN
2	CB	40	HIS
2	CB	45	GLN
2	CB	78	GLN
2	CB	95	GLN
2	CB	110	GLN
2	CB	135	GLN
2	CB	146	GLN
2	CB	204	ASN
2	CB	212	GLN

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Mol	Chain	Res	Type
3	CC	37	GLN
3	CC	69	HIS
3	CC	107	GLN
3	CC	170	GLN
4	CD	42	GLN
4	CD	62	GLN
4	CD	77	ASN
4	CD	123	HIS
4	CD	129	ASN
4	CD	161	ASN
4	CD	199	ASN
5	CE	20	GLN
5	CE	72	GLN
5	CE	73	ASN
5	CE	141	GLN
6	CF	16	GLN
6	CF	18	GLN
6	CF	27	GLN
6	CF	32	ASN
6	CF	94	GLN
6	CF	100	ASN
7	CG	13	GLN
7	CG	28	ASN
7	CG	37	ASN
7	CG	64	GLN
7	CG	84	ASN
7	CG	86	GLN
7	CG	97	GLN
7	CG	106	GLN
7	CG	109	ASN
7	CG	148	ASN
9	CI	31	GLN
9	CI	124	GLN
10	CJ	13	HIS
10	CJ	56	HIS
10	CJ	69	ASN
10	CJ	84	GLN
11	CK	62	GLN
11	CK	78	GLN
12	CL	8	ASN
12	CL	9	GLN
12	CL	49	ASN

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Mol	Chain	Res	Type
12	CL	75	HIS
13	CM	40	ASN
13	CM	77	ASN
13	CM	101	GLN
14	CN	52	GLN
15	CO	9	GLN
15	CO	37	ASN
16	CP	14	ASN
16	CP	16	HIS
16	CP	76	GLN
17	CQ	16	GLN
17	CQ	93	GLN
18	CR	36	ASN
19	CS	23	ASN
20	CT	16	HIS
20	CT	26	ASN
20	CT	42	GLN
20	CT	75	ASN
24	CY	50	GLN
24	CY	147	GLN
24	CY	150	GLN
24	CY	168	GLN
24	CY	240	GLN
24	CY	243	ASN
24	CY	324	HIS
24	CY	335	ASN
25	D0	12	ASN
25	D0	70	GLN
26	D1	45	ASN
26	D1	56	GLN
27	D2	9	GLN
27	D2	38	GLN
27	D2	43	GLN
27	D2	47	ASN
27	D2	56	GLN
27	D2	65	ASN
27	D2	70	GLN
27	D2	71	ASN
28	D3	19	GLN
28	D3	33	GLN
28	D3	46	ASN
28	D3	52	HIS

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Mol	Chain	Res	Type
29	D4	20	ASN
30	D5	4	HIS
30	D5	43	HIS
32	D7	8	ASN
32	D7	36	GLN
33	D8	31	HIS
33	D8	33	ASN
34	D9	34	GLN
37	DC	189	ASN
37	DC	226	ASN
38	DD	58	HIS
38	DD	96	HIS
38	DD	166	GLN
38	DD	186	HIS
38	DD	198	ASN
38	DD	201	HIS
38	DD	253	GLN
39	DE	48	GLN
39	DE	54	GLN
39	DE	55	ASN
39	DE	132	HIS
39	DE	192	ASN
40	DF	29	ASN
40	DF	69	HIS
40	DF	75	HIS
40	DF	133	ASN
40	DF	160	ASN
40	DF	169	ASN
40	DF	204	ASN
41	DG	26	GLN
41	DG	58	GLN
41	DG	66	GLN
41	DG	79	ASN
41	DG	121	ASN
42	DH	65	HIS
42	DH	74	ASN
42	DH	147	ASN
42	DH	158	HIS
43	DI	17	GLN
43	DI	43	ASN
43	DI	133	HIS
43	DI	139	GLN

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Mol	Chain	Res	Type
45	DK	11	GLN
45	DK	29	GLN
45	DK	33	ASN
45	DK	89	HIS
45	DK	110	GLN
45	DK	116	ASN
46	DN	45	ASN
46	DN	56	ASN
46	DN	69	GLN
46	DN	128	HIS
46	DN	130	HIS
46	DN	131	GLN
47	DO	82	ASN
48	DP	13	ASN
48	DP	35	HIS
48	DP	68	GLN
48	DP	84	ASN
48	DP	128	HIS
49	DQ	12	GLN
49	DQ	45	GLN
49	DQ	89	ASN
49	DQ	123	HIS
49	DQ	141	GLN
50	DR	16	HIS
50	DR	23	ASN
50	DR	24	GLN
50	DR	61	HIS
50	DR	71	GLN
51	DS	34	HIS
51	DS	84	GLN
51	DS	95	HIS
52	DT	38	ASN
52	DT	84	GLN
52	DT	90	GLN
53	DU	49	HIS
53	DU	66	ASN
53	DU	71	GLN
53	DU	94	ASN
53	DU	117	GLN
54	DV	11	GLN
55	DW	34	ASN
55	DW	57	ASN

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Mol	Chain	Res	Type
55	DW	60	ASN
55	DW	61	ASN
55	DW	62	HIS
55	DW	102	HIS
56	DX	31	HIS
56	DX	41	ASN
56	DX	55	ASN
56	DX	58	HIS
58	DZ	73	GLN
58	DZ	118	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1503/1522 (98%)	203 (13%)	32 (2%)
1	CA	1503/1522 (98%)	207 (13%)	31 (2%)
22	AV	74/77 (96%)	18 (24%)	0
22	AW	74/77 (96%)	17 (22%)	0
22	CV	74/77 (96%)	19 (25%)	0
22	CW	74/77 (96%)	17 (22%)	1 (1%)
23	AX	7/8 (87%)	3 (42%)	0
23	CX	7/8 (87%)	2 (28%)	1 (14%)
35	BA	2900/2915 (99%)	503 (17%)	54 (1%)
35	DA	2900/2915 (99%)	509 (17%)	56 (1%)
36	BB	118/122 (96%)	13 (11%)	1 (0%)
36	DB	118/122 (96%)	13 (11%)	1 (0%)
All	All	9352/9442 (99%)	1524 (16%)	177 (1%)

All (1524) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	9	G
1	AA	31	G
1	AA	32	A
1	AA	39	G
1	AA	47	C
1	AA	48	C
1	AA	51	A
1	AA	61	G
1	AA	79	G
1	AA	80	G

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Mol	Chain	Res	Type
1	AA	81	U
1	AA	89	C
1	AA	90	U
1	AA	92	C
1	AA	97	G
1	AA	98	G
1	AA	101	A
1	AA	116	A
1	AA	120	A
1	AA	121	C
1	AA	131	C
1	AA	137	C
1	AA	144	G
1	AA	150	C
1	AA	189(H)	G
1	AA	195	A
1	AA	197	A
1	AA	203	U
1	AA	204	U
1	AA	244	U
1	AA	247	G
1	AA	251	G
1	AA	266	G
1	AA	267	C
1	AA	289	G
1	AA	321	A
1	AA	328	C
1	AA	329	A
1	AA	332	G
1	AA	345	C
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	367	U
1	AA	372	C
1	AA	373	A
1	AA	397	A
1	AA	398	C
1	AA	412	A
1	AA	413	G
1	AA	414	A
1	AA	422	C

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Mol	Chain	Res	Type
1	AA	428	G
1	AA	429	U
1	AA	430	A
1	AA	435	C
1	AA	436	C
1	AA	437	U
1	AA	439	A
1	AA	452	A
1	AA	461	A
1	AA	484	G
1	AA	485	G
1	AA	496	A
1	AA	498	U
1	AA	509	A
1	AA	510	A
1	AA	511	C
1	AA	512	U
1	AA	518	C
1	AA	527	G
1	AA	532	A
1	AA	533	A
1	AA	534	U
1	AA	547	A
1	AA	559	A
1	AA	561	U
1	AA	572	A
1	AA	573	A
1	AA	575	G
1	AA	576	G
1	AA	577	G
1	AA	630	G
1	AA	631	G
1	AA	632	A
1	AA	653	A
1	AA	687	A
1	AA	688	G
1	AA	724	G
1	AA	731	G
1	AA	749	C
1	AA	755	G
1	AA	777	A
1	AA	794	A

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Mol	Chain	Res	Type
1	AA	816	A
1	AA	817	C
1	AA	818	G
1	AA	819	A
1	AA	828	A
1	AA	833	U
1	AA	839	U
1	AA	840	C
1	AA	841	U
1	AA	848	C
1	AA	859	A
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	966	G
1	AA	968	A
1	AA	969	A
1	AA	971	G
1	AA	974	A
1	AA	975	A
1	AA	976	G
1	AA	977	A
1	AA	978	A
1	AA	980	C
1	AA	991	U
1	AA	992	U
1	AA	993	G
1	AA	1001(A)	G
1	AA	1009	G
1	AA	1027	C
1	AA	1030	C
1	AA	1050	G
1	AA	1054	C
1	AA	1055	A
1	AA	1065	U
1	AA	1066	C
1	AA	1068	G

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Mol	Chain	Res	Type
1	AA	1094	G
1	AA	1095	U
1	AA	1101	A
1	AA	1108	G
1	AA	1117	G
1	AA	1124	G
1	AA	1126	U
1	AA	1129	C
1	AA	1130	A
1	AA	1131	G
1	AA	1136	U
1	AA	1137	C
1	AA	1138	G
1	AA	1139	G
1	AA	1146	A
1	AA	1152	A
1	AA	1159	U
1	AA	1182	G
1	AA	1196	U
1	AA	1197	G
1	AA	1202	G
1	AA	1212	U
1	AA	1213	A
1	AA	1214	C
1	AA	1225	A
1	AA	1238	A
1	AA	1249	C
1	AA	1255	G
1	AA	1256	A
1	AA	1257	U
1	AA	1280	A
1	AA	1281	U
1	AA	1282	C
1	AA	1286	A
1	AA	1287	A
1	AA	1294	G
1	AA	1299	A
1	AA	1300	G
1	AA	1301	U
1	AA	1302	U
1	AA	1305	G
1	AA	1317	C

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Mol	Chain	Res	Type
1	AA	1322	C
1	AA	1323	G
1	AA	1331	G
1	AA	1347	G
1	AA	1363	C
1	AA	1364	U
1	AA	1416	G
1	AA	1419	G
1	AA	1442	G
1	AA	1442(A)	G
1	AA	1442(B)	A
1	AA	1443	G
1	AA	1447	A
1	AA	1452	C
1	AA	1492	A
1	AA	1493	A
1	AA	1497	G
1	AA	1499	A
1	AA	1504	G
1	AA	1505	G
1	AA	1506	U
1	AA	1507	A
1	AA	1517	G
1	AA	1529	G
1	AA	1530	G
22	AV	2	C
22	AV	6	G
22	AV	8	U
22	AV	17	C
22	AV	18	G
22	AV	19	G
22	AV	20	U
22	AV	21	A
22	AV	22	G
22	AV	32	U
22	AV	41	C
22	AV	42	C
22	AV	46	G
22	AV	47	U
22	AV	48	C
22	AV	72	C
22	AV	73	A

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Mol	Chain	Res	Type
22	AV	75	C
22	AW	8	U
22	AW	16	U
22	AW	17	C
22	AW	18	G
22	AW	19	G
22	AW	20	U
22	AW	21	A
22	AW	22	G
22	AW	39	U
22	AW	40	C
22	AW	43	C
22	AW	47	U
22	AW	51	U
22	AW	52	G
22	AW	57	G
22	AW	71	G
22	AW	73	A
23	AX	15	A
23	AX	19	U
23	AX	21	A
35	BA	10	G
35	BA	34	C
35	BA	35	G
35	BA	45	C
35	BA	49	A
35	BA	50	U
35	BA	55	G
35	BA	71	A
35	BA	72	U
35	BA	74	A
35	BA	75	G
35	BA	88	G
35	BA	90	U
35	BA	94	C
35	BA	95	G
35	BA	100	G
35	BA	102	G
35	BA	118	A
35	BA	119	A
35	BA	120	U
35	BA	129	C

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Mol	Chain	Res	Type
35	BA	139(A)	G
35	BA	141	A
35	BA	142(A)	C
35	BA	146	G
35	BA	154	G
35	BA	154(A)	C
35	BA	155	U
35	BA	157	U
35	BA	171	G
35	BA	174	C
35	BA	175	G
35	BA	196	A
35	BA	197	A
35	BA	199	A
35	BA	200	U
35	BA	204	A
35	BA	205	G
35	BA	215	G
35	BA	216	A
35	BA	221	A
35	BA	222	A
35	BA	228	A
35	BA	229	A
35	BA	230	U
35	BA	233	A
35	BA	248	G
35	BA	252	G
35	BA	261	G
35	BA	271(I)	G
35	BA	271(J)	C
35	BA	271(K)	U
35	BA	271(N)	U
35	BA	271(O)	C
35	BA	271(P)	C
35	BA	271(R)	G
35	BA	272(A)	U
35	BA	272(B)	G
35	BA	272(H)	C
35	BA	272(I)	U
35	BA	275	G
35	BA	276	A
35	BA	278	A

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Mol	Chain	Res	Type
35	BA	279	C
35	BA	280	C
35	BA	299	A
35	BA	311	A
35	BA	329	G
35	BA	330	A
35	BA	332	A
35	BA	333	G
35	BA	352	G
35	BA	353	G
35	BA	356	G
35	BA	362	U
35	BA	363(B)	G
35	BA	363(E)	U
35	BA	363(F)	A
35	BA	365	C
35	BA	372	G
35	BA	386	G
35	BA	388	G
35	BA	396	G
35	BA	405	U
35	BA	406	G
35	BA	411	G
35	BA	428	A
35	BA	444	C
35	BA	448	U
35	BA	456	C
35	BA	457	A
35	BA	470	A
35	BA	475	U
35	BA	481	G
35	BA	494	G
35	BA	505	A
35	BA	508	G
35	BA	509	C
35	BA	513	A
35	BA	528	A
35	BA	529	A
35	BA	530	G
35	BA	531	C
35	BA	532	A
35	BA	533	G

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Mol	Chain	Res	Type
35	BA	563	G
35	BA	573	G
35	BA	575	A
35	BA	588	U
35	BA	603	A
35	BA	604	G
35	BA	607	U
35	BA	613	G
35	BA	614(B)	G
35	BA	615	G
35	BA	622	G
35	BA	627	A
35	BA	637	A
35	BA	645	C
35	BA	646	A
35	BA	651	G
35	BA	653	A
35	BA	654(A)	G
35	BA	654(I)	C
35	BA	654(J)	A
35	BA	654(K)	C
35	BA	654(L)	G
35	BA	655	A
35	BA	656	G
35	BA	657	U
35	BA	673	C
35	BA	686	G
35	BA	708	C
35	BA	717	G
35	BA	722	A
35	BA	730	C
35	BA	753	C
35	BA	764	A
35	BA	776	G
35	BA	782	A
35	BA	784	A
35	BA	785	G
35	BA	790	C
35	BA	791	C
35	BA	792	G
35	BA	805	G
35	BA	812	C

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Mol	Chain	Res	Type
35	BA	819	A
35	BA	827	U
35	BA	828	U
35	BA	830	G
35	BA	845	G
35	BA	848	G
35	BA	856	C
35	BA	859	G
35	BA	866	A
35	BA	878	A
35	BA	890	A
35	BA	896	A
35	BA	897	C
35	BA	904	C
35	BA	910	A
35	BA	917	A
35	BA	932	G
35	BA	941	A
35	BA	945	A
35	BA	946	G
35	BA	958	U
35	BA	959	A
35	BA	961	C
35	BA	965	C
35	BA	974	G
35	BA	975	C
35	BA	983	A
35	BA	991	C
35	BA	996	A
35	BA	1012	U
35	BA	1013	C
35	BA	1022	G
35	BA	1023	U
35	BA	1025	G
35	BA	1026	U
35	BA	1033	U
35	BA	1039	G
35	BA	1041	C
35	BA	1045	A
35	BA	1046	A
35	BA	1047	G
35	BA	1049	C

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Mol	Chain	Res	Type
35	BA	1055	G
35	BA	1067	A
35	BA	1070	A
35	BA	1088	A
35	BA	1108	U
35	BA	1109	C
35	BA	1112	G
35	BA	1113	U
35	BA	1114	G
35	BA	1115	G
35	BA	1122	G
35	BA	1129	A
35	BA	1130	U
35	BA	1135	C
35	BA	1136	G
35	BA	1142	U
35	BA	1143	A
35	BA	1155	A
35	BA	1170	G
35	BA	1173	G
35	BA	1174	A
35	BA	1175	U
35	BA	1176	G
35	BA	1178	C
35	BA	1195	G
35	BA	1204	A
35	BA	1205	U
35	BA	1210	A
35	BA	1211	U
35	BA	1221	C
35	BA	1253	A
35	BA	1256	G
35	BA	1265	A
35	BA	1271	G
35	BA	1272	A
35	BA	1273	U
35	BA	1276	A
35	BA	1281	G
35	BA	1300	U
35	BA	1301	A
35	BA	1302	A
35	BA	1307	A

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Mol	Chain	Res	Type
35	BA	1314	C
35	BA	1321	A
35	BA	1332	G
35	BA	1345	C
35	BA	1349	A
35	BA	1352	U
35	BA	1359	A
35	BA	1379	A
35	BA	1380	G
35	BA	1384	A
35	BA	1385	G
35	BA	1386	C
35	BA	1407	C
35	BA	1416	G
35	BA	1417	C
35	BA	1419	A
35	BA	1420	U
35	BA	1427	A
35	BA	1428	C
35	BA	1437	C
35	BA	1445	A
35	BA	1449	A
35	BA	1450	G
35	BA	1460	A
35	BA	1461	G
35	BA	1467	C
35	BA	1471	A
35	BA	1475	G
35	BA	1481	U
35	BA	1482	G
35	BA	1485	G
35	BA	1488	G
35	BA	1490	A
35	BA	1491	G
35	BA	1493	C
35	BA	1494	A
35	BA	1495	A
35	BA	1497	U
35	BA	1502	C
35	BA	1505	C
35	BA	1509	C
35	BA	1509(A)	A

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Mol	Chain	Res	Type
35	BA	1520	G
35	BA	1529	G
35	BA	1530	C
35	BA	1534	U
35	BA	1541	G
35	BA	1542	A
35	BA	1544	A
35	BA	1554	A
35	BA	1558	A
35	BA	1559	G
35	BA	1569	A
35	BA	1578	U
35	BA	1579	A
35	BA	1584	C
35	BA	1586	A
35	BA	1587	A
35	BA	1588	C
35	BA	1591	G
35	BA	1598	C
35	BA	1603	A
35	BA	1608	A
35	BA	1609	A
35	BA	1617	C
35	BA	1618	A
35	BA	1640	C
35	BA	1648	C
35	BA	1654	A
35	BA	1674	G
35	BA	1694	C
35	BA	1695	G
35	BA	1696	G
35	BA	1718	G
35	BA	1721	G
35	BA	1722	A
35	BA	1739	U
35	BA	1740	G
35	BA	1742	G
35	BA	1748	G
35	BA	1763	G
35	BA	1764	G
35	BA	1773	A
35	BA	1780	A

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Mol	Chain	Res	Type
35	BA	1791	A
35	BA	1800	C
35	BA	1801	G
35	BA	1802	A
35	BA	1816	G
35	BA	1820	U
35	BA	1821	A
35	BA	1835	G
35	BA	1846	G
35	BA	1847	A
35	BA	1848	A
35	BA	1858	G
35	BA	1865	G
35	BA	1866	C
35	BA	1878	G
35	BA	1881	C
35	BA	1882	C
35	BA	1885	A
35	BA	1888	G
35	BA	1889	A
35	BA	1900	A
35	BA	1906	G
35	BA	1912	A
35	BA	1914	C
35	BA	1929	G
35	BA	1936	A
35	BA	1938	A
35	BA	1948	G
35	BA	1955	U
35	BA	1963	U
35	BA	1967	C
35	BA	1969	A
35	BA	1970	A
35	BA	1971	A
35	BA	1972	A
35	BA	1982	C
35	BA	1987	G
35	BA	1993	U
35	BA	1997	G
35	BA	2023	G
35	BA	2031	A
35	BA	2033	A

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Mol	Chain	Res	Type
35	BA	2034	U
35	BA	2036	C
35	BA	2043	C
35	BA	2055	C
35	BA	2056	G
35	BA	2060	A
35	BA	2061	G
35	BA	2062	A
35	BA	2069	G
35	BA	2093	G
35	BA	2099	U
35	BA	2103	C
35	BA	2104	G
35	BA	2108	C
35	BA	2110	G
35	BA	2111	C
35	BA	2112	G
35	BA	2116	G
35	BA	2118	U
35	BA	2127	G
35	BA	2130	U
35	BA	2131	G
35	BA	2132	U
35	BA	2133	G
35	BA	2134	A
35	BA	2159	G
35	BA	2172	U
35	BA	2173	A
35	BA	2177	C
35	BA	2179	C
35	BA	2187	G
35	BA	2190	G
35	BA	2193	G
35	BA	2198	A
35	BA	2199	A
35	BA	2200	C
35	BA	2207	G
35	BA	2208	A
35	BA	2219	G
35	BA	2225	A
35	BA	2226	C
35	BA	2239	G

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Mol	Chain	Res	Type
35	BA	2268	A
35	BA	2273	A
35	BA	2275	C
35	BA	2283	C
35	BA	2287	A
35	BA	2288	A
35	BA	2305	A
35	BA	2307	G
35	BA	2308	G
35	BA	2311	A
35	BA	2313	C
35	BA	2319	G
35	BA	2320	A
35	BA	2336	A
35	BA	2347	C
35	BA	2350	C
35	BA	2360	A
35	BA	2361	A
35	BA	2383	G
35	BA	2385	C
35	BA	2402	C
35	BA	2406	U
35	BA	2423	U
35	BA	2425	A
35	BA	2429	G
35	BA	2430	A
35	BA	2431	U
35	BA	2435	A
35	BA	2439	A
35	BA	2441	C
35	BA	2448	A
35	BA	2459	A
35	BA	2465	C
35	BA	2469	A
35	BA	2470	G
35	BA	2476	A
35	BA	2477	C
35	BA	2478	A
35	BA	2482	G
35	BA	2484	G
35	BA	2491	U
35	BA	2502	G

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Mol	Chain	Res	Type
35	BA	2505	G
35	BA	2506	U
35	BA	2518	A
35	BA	2524	G
35	BA	2529	G
35	BA	2542	A
35	BA	2543	G
35	BA	2554	U
35	BA	2566	A
35	BA	2567	G
35	BA	2573	C
35	BA	2602	A
35	BA	2609	U
35	BA	2611	U
35	BA	2612	C
35	BA	2615	U
35	BA	2630	G
35	BA	2654	A
35	BA	2657	A
35	BA	2659	G
35	BA	2660	A
35	BA	2661	G
35	BA	2662	A
35	BA	2673	G
35	BA	2690	C
35	BA	2691	C
35	BA	2703	C
35	BA	2712	U
35	BA	2712(A)	A
35	BA	2713	A
35	BA	2726	U
35	BA	2733	A
35	BA	2757	A
35	BA	2758	A
35	BA	2762	G
35	BA	2765	A
35	BA	2766	G
35	BA	2778	A
35	BA	2779	U
35	BA	2780	G
35	BA	2789	C
35	BA	2790	A

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Mol	Chain	Res	Type
35	BA	2791	C
35	BA	2794	C
35	BA	2796	U
35	BA	2799	C
35	BA	2801(A)	A
35	BA	2802	G
35	BA	2803	C
35	BA	2808	U
35	BA	2820	A
35	BA	2821	A
35	BA	2833	G
35	BA	2834	G
35	BA	2835	A
35	BA	2836	U
35	BA	2849	U
35	BA	2872	G
35	BA	2892	A
35	BA	2893	G
35	BA	2894	G
35	BA	2895	U
36	BB	8	U
36	BB	15	A
36	BB	22	U
36	BB	41	U
36	BB	42	C
36	BB	44	G
36	BB	45	A
36	BB	53	A
36	BB	67	G
36	BB	73	A
36	BB	81	G
36	BB	88	C
36	BB	110	G
1	CA	9	G
1	CA	31	G
1	CA	32	A
1	CA	39	G
1	CA	47	C
1	CA	48	C
1	CA	51	A
1	CA	61	G
1	CA	79	G

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Mol	Chain	Res	Type
1	CA	80	G
1	CA	81	U
1	CA	89	C
1	CA	90	U
1	CA	92	C
1	CA	97	G
1	CA	98	G
1	CA	101	A
1	CA	116	A
1	CA	120	A
1	CA	121	C
1	CA	131	C
1	CA	137	C
1	CA	144	G
1	CA	150	C
1	CA	189(H)	G
1	CA	195	A
1	CA	197	A
1	CA	203	U
1	CA	204	U
1	CA	244	U
1	CA	247	G
1	CA	251	G
1	CA	266	G
1	CA	267	C
1	CA	289	G
1	CA	321	A
1	CA	328	C
1	CA	329	A
1	CA	332	G
1	CA	345	C
1	CA	352	C
1	CA	353	A
1	CA	354	G
1	CA	367	U
1	CA	372	C
1	CA	373	A
1	CA	397	A
1	CA	398	C
1	CA	412	A
1	CA	413	G
1	CA	414	A

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Mol	Chain	Res	Type
1	CA	422	C
1	CA	428	G
1	CA	429	U
1	CA	430	A
1	CA	435	C
1	CA	436	C
1	CA	437	U
1	CA	439	A
1	CA	452	A
1	CA	461	A
1	CA	484	G
1	CA	485	G
1	CA	496	A
1	CA	498	U
1	CA	509	A
1	CA	510	A
1	CA	511	C
1	CA	512	U
1	CA	518	C
1	CA	527	G
1	CA	532	A
1	CA	533	A
1	CA	534	U
1	CA	547	A
1	CA	559	A
1	CA	561	U
1	CA	572	A
1	CA	573	A
1	CA	575	G
1	CA	576	G
1	CA	577	G
1	CA	630	G
1	CA	631	G
1	CA	632	A
1	CA	653	A
1	CA	687	A
1	CA	688	G
1	CA	724	G
1	CA	731	G
1	CA	749	C
1	CA	755	G
1	CA	777	A

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Mol	Chain	Res	Type
1	CA	794	A
1	CA	816	A
1	CA	817	C
1	CA	818	G
1	CA	819	A
1	CA	828	A
1	CA	833	U
1	CA	839	U
1	CA	840	C
1	CA	841	U
1	CA	848	C
1	CA	859	A
1	CA	902	G
1	CA	914	A
1	CA	926	G
1	CA	927	G
1	CA	934	C
1	CA	935	A
1	CA	960	U
1	CA	961	U
1	CA	966	G
1	CA	968	A
1	CA	969	A
1	CA	971	G
1	CA	974	A
1	CA	975	A
1	CA	976	G
1	CA	977	A
1	CA	978	A
1	CA	980	C
1	CA	991	U
1	CA	992	U
1	CA	993	G
1	CA	1001(A)	G
1	CA	1009	G
1	CA	1027	C
1	CA	1030	C
1	CA	1050	G
1	CA	1054	C
1	CA	1055	A
1	CA	1065	U
1	CA	1066	C

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Mol	Chain	Res	Type
1	CA	1068	G
1	CA	1094	G
1	CA	1095	U
1	CA	1101	A
1	CA	1108	G
1	CA	1117	G
1	CA	1124	G
1	CA	1126	U
1	CA	1129	C
1	CA	1130	A
1	CA	1131	G
1	CA	1136	U
1	CA	1137	C
1	CA	1138	G
1	CA	1139	G
1	CA	1146	A
1	CA	1152	A
1	CA	1159	U
1	CA	1182	G
1	CA	1196	U
1	CA	1197	G
1	CA	1202	G
1	CA	1212	U
1	CA	1213	A
1	CA	1214	C
1	CA	1225	A
1	CA	1238	A
1	CA	1249	C
1	CA	1255	G
1	CA	1256	A
1	CA	1257	U
1	CA	1280	A
1	CA	1281	U
1	CA	1282	C
1	CA	1286	A
1	CA	1287	A
1	CA	1294	G
1	CA	1299	A
1	CA	1300	G
1	CA	1301	U
1	CA	1302	U
1	CA	1305	G

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Mol	Chain	Res	Type
1	CA	1317	C
1	CA	1322	C
1	CA	1323	G
1	CA	1331	G
1	CA	1347	G
1	CA	1363	C
1	CA	1364	U
1	CA	1401	G
1	CA	1419	G
1	CA	1442	G
1	CA	1442(A)	G
1	CA	1442(B)	A
1	CA	1443	G
1	CA	1447	A
1	CA	1452	C
1	CA	1492	A
1	CA	1493	A
1	CA	1497	G
1	CA	1498	U
1	CA	1499	A
1	CA	1502	A
1	CA	1504	G
1	CA	1505	G
1	CA	1506	U
1	CA	1507	A
1	CA	1517	G
1	CA	1520	G
1	CA	1529	G
1	CA	1530	G
1	CA	1531	A
22	CV	8	U
22	CV	13	C
22	CV	17	C
22	CV	18	G
22	CV	19	G
22	CV	20	U
22	CV	21	A
22	CV	22	G
22	CV	37	A
22	CV	42	C
22	CV	44	G
22	CV	46	G

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Mol	Chain	Res	Type
22	CV	47	U
22	CV	48	C
22	CV	52	G
22	CV	61	C
22	CV	72	C
22	CV	73	A
22	CV	75	C
22	CW	8	U
22	CW	16	U
22	CW	17	C
22	CW	18	G
22	CW	19	G
22	CW	21	A
22	CW	22	G
22	CW	23	A
22	CW	39	U
22	CW	40	C
22	CW	43	C
22	CW	44	G
22	CW	47	U
22	CW	51	U
22	CW	52	G
22	CW	61	C
22	CW	71	G
23	CX	15	A
23	CX	21	A
35	DA	10	G
35	DA	34	C
35	DA	35	G
35	DA	45	C
35	DA	49	A
35	DA	50	U
35	DA	55	G
35	DA	71	A
35	DA	72	U
35	DA	74	A
35	DA	75	G
35	DA	88	G
35	DA	90	U
35	DA	94	C
35	DA	100	G
35	DA	102	G

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Mol	Chain	Res	Type
35	DA	118	A
35	DA	119	A
35	DA	120	U
35	DA	129	C
35	DA	139(A)	G
35	DA	141	A
35	DA	142(A)	C
35	DA	146	G
35	DA	154	G
35	DA	154(A)	C
35	DA	155	U
35	DA	157	U
35	DA	171	G
35	DA	174	C
35	DA	175	G
35	DA	196	A
35	DA	197	A
35	DA	199	A
35	DA	200	U
35	DA	204	A
35	DA	205	G
35	DA	215	G
35	DA	216	A
35	DA	221	A
35	DA	222	A
35	DA	228	A
35	DA	229	A
35	DA	230	U
35	DA	233	A
35	DA	248	G
35	DA	252	G
35	DA	261	G
35	DA	271(I)	G
35	DA	271(J)	C
35	DA	271(K)	U
35	DA	271(N)	U
35	DA	271(O)	C
35	DA	271(P)	C
35	DA	271(R)	G
35	DA	272(A)	U
35	DA	272(B)	G
35	DA	272(H)	C

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Mol	Chain	Res	Type
35	DA	272(I)	U
35	DA	275	G
35	DA	276	A
35	DA	278	A
35	DA	279	C
35	DA	280	C
35	DA	299	A
35	DA	311	A
35	DA	329	G
35	DA	330	A
35	DA	332	A
35	DA	333	G
35	DA	352	G
35	DA	353	G
35	DA	356	G
35	DA	362	U
35	DA	363(B)	G
35	DA	363(E)	U
35	DA	363(F)	A
35	DA	365	C
35	DA	372	G
35	DA	386	G
35	DA	388	G
35	DA	396	G
35	DA	405	U
35	DA	406	G
35	DA	411	G
35	DA	428	A
35	DA	444	C
35	DA	448	U
35	DA	456	C
35	DA	457	A
35	DA	470	A
35	DA	475	U
35	DA	481	G
35	DA	494	G
35	DA	505	A
35	DA	508	G
35	DA	509	C
35	DA	513	A
35	DA	528	A
35	DA	529	A

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Mol	Chain	Res	Type
35	DA	530	G
35	DA	531	C
35	DA	532	A
35	DA	533	G
35	DA	556	G
35	DA	563	G
35	DA	573	G
35	DA	575	A
35	DA	588	U
35	DA	603	A
35	DA	604	G
35	DA	607	U
35	DA	613	G
35	DA	614	U
35	DA	614(B)	G
35	DA	615	G
35	DA	622	G
35	DA	627	A
35	DA	637	A
35	DA	645	C
35	DA	646	A
35	DA	651	G
35	DA	653	A
35	DA	654(A)	G
35	DA	654(I)	C
35	DA	654(J)	A
35	DA	654(K)	C
35	DA	654(L)	G
35	DA	654(M)	C
35	DA	655	A
35	DA	656	G
35	DA	657	U
35	DA	673	C
35	DA	686	G
35	DA	708	C
35	DA	717	G
35	DA	722	A
35	DA	730	C
35	DA	753	C
35	DA	764	A
35	DA	776	G
35	DA	782	A

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Mol	Chain	Res	Type
35	DA	784	A
35	DA	785	G
35	DA	790	C
35	DA	791	C
35	DA	792	G
35	DA	805	G
35	DA	812	C
35	DA	819	A
35	DA	827	U
35	DA	828	U
35	DA	830	G
35	DA	845	G
35	DA	848	G
35	DA	856	C
35	DA	859	G
35	DA	866	A
35	DA	878	A
35	DA	890	A
35	DA	896	A
35	DA	897	C
35	DA	904	C
35	DA	910	A
35	DA	917	A
35	DA	932	G
35	DA	941	A
35	DA	945	A
35	DA	946	G
35	DA	958	U
35	DA	959	A
35	DA	961	C
35	DA	965	C
35	DA	974	G
35	DA	975	C
35	DA	983	A
35	DA	991	C
35	DA	996	A
35	DA	1012	U
35	DA	1013	C
35	DA	1022	G
35	DA	1023	U
35	DA	1025	G
35	DA	1026	U

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Mol	Chain	Res	Type
35	DA	1033	U
35	DA	1039	G
35	DA	1041	C
35	DA	1045	A
35	DA	1046	A
35	DA	1047	G
35	DA	1049	C
35	DA	1055	G
35	DA	1067	A
35	DA	1070	A
35	DA	1088	A
35	DA	1108	U
35	DA	1109	C
35	DA	1112	G
35	DA	1113	U
35	DA	1114	G
35	DA	1115	G
35	DA	1122	G
35	DA	1129	A
35	DA	1130	U
35	DA	1135	C
35	DA	1136	G
35	DA	1142	U
35	DA	1143	A
35	DA	1155	A
35	DA	1170	G
35	DA	1173	G
35	DA	1174	A
35	DA	1175	U
35	DA	1176	G
35	DA	1178	C
35	DA	1195	G
35	DA	1204	A
35	DA	1205	U
35	DA	1210	A
35	DA	1211	U
35	DA	1221	C
35	DA	1253	A
35	DA	1256	G
35	DA	1265	A
35	DA	1271	G
35	DA	1272	A

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Mol	Chain	Res	Type
35	DA	1273	U
35	DA	1276	A
35	DA	1281	G
35	DA	1300	U
35	DA	1301	A
35	DA	1302	A
35	DA	1307	A
35	DA	1314	C
35	DA	1321	A
35	DA	1332	G
35	DA	1345	C
35	DA	1349	A
35	DA	1352	U
35	DA	1359	A
35	DA	1379	A
35	DA	1380	G
35	DA	1384	A
35	DA	1385	G
35	DA	1386	C
35	DA	1407	C
35	DA	1416	G
35	DA	1417	C
35	DA	1419	A
35	DA	1420	U
35	DA	1427	A
35	DA	1428	C
35	DA	1437	C
35	DA	1445	A
35	DA	1449	A
35	DA	1450	G
35	DA	1460	A
35	DA	1461	G
35	DA	1471	A
35	DA	1475	G
35	DA	1478	G
35	DA	1481	U
35	DA	1482	G
35	DA	1485	G
35	DA	1488	G
35	DA	1490	A
35	DA	1491	G
35	DA	1493	C

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Mol	Chain	Res	Type
35	DA	1494	A
35	DA	1495	A
35	DA	1497	U
35	DA	1502	C
35	DA	1505	C
35	DA	1509	C
35	DA	1509(A)	A
35	DA	1520	G
35	DA	1529	G
35	DA	1530	C
35	DA	1534	U
35	DA	1541	G
35	DA	1542	A
35	DA	1544	A
35	DA	1554	A
35	DA	1558	A
35	DA	1559	G
35	DA	1569	A
35	DA	1578	U
35	DA	1579	A
35	DA	1584	C
35	DA	1586	A
35	DA	1587	A
35	DA	1588	C
35	DA	1591	G
35	DA	1598	C
35	DA	1603	A
35	DA	1608	A
35	DA	1609	A
35	DA	1617	C
35	DA	1618	A
35	DA	1640	C
35	DA	1648	C
35	DA	1654	A
35	DA	1674	G
35	DA	1694	C
35	DA	1695	G
35	DA	1696	G
35	DA	1703	G
35	DA	1718	G
35	DA	1721	G
35	DA	1722	A

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Mol	Chain	Res	Type
35	DA	1739	U
35	DA	1740	G
35	DA	1742	G
35	DA	1746	G
35	DA	1748	G
35	DA	1763	G
35	DA	1764	G
35	DA	1773	A
35	DA	1780	A
35	DA	1791	A
35	DA	1800	C
35	DA	1801	G
35	DA	1802	A
35	DA	1816	G
35	DA	1820	U
35	DA	1821	A
35	DA	1835	G
35	DA	1846	G
35	DA	1847	A
35	DA	1848	A
35	DA	1858	G
35	DA	1865	G
35	DA	1866	C
35	DA	1878	G
35	DA	1881	C
35	DA	1882	C
35	DA	1885	A
35	DA	1888	G
35	DA	1889	A
35	DA	1900	A
35	DA	1906	G
35	DA	1912	A
35	DA	1914	C
35	DA	1929	G
35	DA	1936	A
35	DA	1938	A
35	DA	1948	G
35	DA	1955	U
35	DA	1963	U
35	DA	1967	C
35	DA	1969	A
35	DA	1970	A

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Mol	Chain	Res	Type
35	DA	1971	A
35	DA	1972	A
35	DA	1982	C
35	DA	1987	G
35	DA	1993	U
35	DA	1997	G
35	DA	2023	G
35	DA	2031	A
35	DA	2033	A
35	DA	2034	U
35	DA	2036	C
35	DA	2043	C
35	DA	2055	C
35	DA	2056	G
35	DA	2060	A
35	DA	2061	G
35	DA	2062	A
35	DA	2069	G
35	DA	2099	U
35	DA	2103	C
35	DA	2104	G
35	DA	2108	C
35	DA	2110	G
35	DA	2111	C
35	DA	2112	G
35	DA	2116	G
35	DA	2118	U
35	DA	2127	G
35	DA	2130	U
35	DA	2131	G
35	DA	2132	U
35	DA	2133	G
35	DA	2134	A
35	DA	2159	G
35	DA	2172	U
35	DA	2173	A
35	DA	2177	C
35	DA	2179	C
35	DA	2187	G
35	DA	2189	U
35	DA	2190	G
35	DA	2193	G

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Mol	Chain	Res	Type
35	DA	2198	A
35	DA	2199	A
35	DA	2200	C
35	DA	2207	G
35	DA	2208	A
35	DA	2219	G
35	DA	2225	A
35	DA	2226	C
35	DA	2239	G
35	DA	2268	A
35	DA	2273	A
35	DA	2275	C
35	DA	2283	C
35	DA	2287	A
35	DA	2288	A
35	DA	2305	A
35	DA	2307	G
35	DA	2308	G
35	DA	2311	A
35	DA	2313	C
35	DA	2319	G
35	DA	2320	A
35	DA	2334	G
35	DA	2336	A
35	DA	2347	C
35	DA	2350	C
35	DA	2360	A
35	DA	2361	A
35	DA	2383	G
35	DA	2385	C
35	DA	2402	C
35	DA	2406	U
35	DA	2423	U
35	DA	2425	A
35	DA	2429	G
35	DA	2430	A
35	DA	2431	U
35	DA	2435	A
35	DA	2439	A
35	DA	2441	C
35	DA	2448	A
35	DA	2459	A

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Mol	Chain	Res	Type
35	DA	2465	C
35	DA	2469	A
35	DA	2470	G
35	DA	2476	A
35	DA	2477	C
35	DA	2478	A
35	DA	2482	G
35	DA	2484	G
35	DA	2491	U
35	DA	2502	G
35	DA	2505	G
35	DA	2506	U
35	DA	2518	A
35	DA	2524	G
35	DA	2529	G
35	DA	2542	A
35	DA	2543	G
35	DA	2554	U
35	DA	2566	A
35	DA	2567	G
35	DA	2573	C
35	DA	2602	A
35	DA	2609	U
35	DA	2611	U
35	DA	2612	C
35	DA	2615	U
35	DA	2630	G
35	DA	2654	A
35	DA	2657	A
35	DA	2658	C
35	DA	2659	G
35	DA	2660	A
35	DA	2661	G
35	DA	2662	A
35	DA	2673	G
35	DA	2690	C
35	DA	2691	C
35	DA	2703	C
35	DA	2712	U
35	DA	2712(A)	A
35	DA	2713	A
35	DA	2726	U

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Mol	Chain	Res	Type
35	DA	2733	A
35	DA	2757	A
35	DA	2758	A
35	DA	2762	G
35	DA	2765	A
35	DA	2766	G
35	DA	2778	A
35	DA	2779	U
35	DA	2780	G
35	DA	2789	C
35	DA	2790	A
35	DA	2791	C
35	DA	2794	C
35	DA	2796	U
35	DA	2799	C
35	DA	2801(A)	A
35	DA	2802	G
35	DA	2803	C
35	DA	2808	U
35	DA	2820	A
35	DA	2821	A
35	DA	2833	G
35	DA	2834	G
35	DA	2835	A
35	DA	2836	U
35	DA	2849	U
35	DA	2872	G
35	DA	2892	A
35	DA	2893	G
35	DA	2894	G
35	DA	2895	U
36	DB	8	U
36	DB	15	A
36	DB	22	U
36	DB	41	U
36	DB	42	C
36	DB	44	G
36	DB	45	A
36	DB	53	A
36	DB	67	G
36	DB	73	A
36	DB	81	G

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Mol	Chain	Res	Type
36	DB	88	C
36	DB	110	G

All (177) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	30	U
1	AA	60	A
1	AA	115	G
1	AA	119	A
1	AA	243	A
1	AA	250	A
1	AA	266	G
1	AA	328	C
1	AA	366	C
1	AA	428	G
1	AA	429	U
1	AA	438	G
1	AA	484	G
1	AA	509	A
1	AA	533	A
1	AA	560	U
1	AA	575	G
1	AA	687	A
1	AA	748	C
1	AA	793	U
1	AA	819	A
1	AA	913	A
1	AA	992	U
1	AA	1049	U
1	AA	1065	U
1	AA	1067	A
1	AA	1201	A
1	AA	1281	U
1	AA	1285	A
1	AA	1300	G
1	AA	1498	U
1	AA	1504	G
35	BA	49	A
35	BA	71	A
35	BA	74	A
35	BA	128	C

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Mol	Chain	Res	Type
35	BA	146	G
35	BA	199	A
35	BA	221	A
35	BA	331	A
35	BA	332	A
35	BA	363(E)	U
35	BA	387	U
35	BA	474	G
35	BA	512	G
35	BA	587	C
35	BA	603	A
35	BA	614(C)	A
35	BA	673	C
35	BA	685	A
35	BA	752	A
35	BA	764	A
35	BA	790	C
35	BA	1022	G
35	BA	1210	A
35	BA	1275	A
35	BA	1300	U
35	BA	1301	A
35	BA	1378	A
35	BA	1427	A
35	BA	1558	A
35	BA	1608	A
35	BA	1653	G
35	BA	1694	C
35	BA	1799	G
35	BA	1819	A
35	BA	1820	U
35	BA	1846	G
35	BA	1912	A
35	BA	1948	G
35	BA	1970	A
35	BA	1992	G
35	BA	2033	A
35	BA	2126	A
35	BA	2171	A
35	BA	2225	A
35	BA	2282	G
35	BA	2360	A

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Mol	Chain	Res	Type
35	BA	2422	A
35	BA	2439	A
35	BA	2464	C
35	BA	2481	G
35	BA	2611	U
35	BA	2682	U
35	BA	2689	U
35	BA	2756	U
36	BB	66	A
1	CA	30	U
1	CA	60	A
1	CA	115	G
1	CA	119	A
1	CA	243	A
1	CA	250	A
1	CA	266	G
1	CA	328	C
1	CA	366	C
1	CA	428	G
1	CA	429	U
1	CA	438	G
1	CA	484	G
1	CA	509	A
1	CA	533	A
1	CA	560	U
1	CA	575	G
1	CA	687	A
1	CA	748	C
1	CA	793	U
1	CA	913	A
1	CA	992	U
1	CA	1049	U
1	CA	1065	U
1	CA	1067	A
1	CA	1201	A
1	CA	1281	U
1	CA	1285	A
1	CA	1300	G
1	CA	1498	U
1	CA	1504	G
22	CW	70	G
23	CX	15	A

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Mol	Chain	Res	Type
35	DA	49	A
35	DA	71	A
35	DA	74	A
35	DA	128	C
35	DA	146	G
35	DA	199	A
35	DA	221	A
35	DA	331	A
35	DA	332	A
35	DA	363(E)	U
35	DA	387	U
35	DA	474	G
35	DA	512	G
35	DA	587	C
35	DA	603	A
35	DA	613	G
35	DA	614(C)	A
35	DA	685	A
35	DA	752	A
35	DA	764	A
35	DA	790	C
35	DA	848	G
35	DA	1022	G
35	DA	1210	A
35	DA	1275	A
35	DA	1300	U
35	DA	1301	A
35	DA	1365	A
35	DA	1378	A
35	DA	1427	A
35	DA	1558	A
35	DA	1603	A
35	DA	1608	A
35	DA	1653	G
35	DA	1694	C
35	DA	1799	G
35	DA	1819	A
35	DA	1820	U
35	DA	1846	G
35	DA	1948	G
35	DA	1970	A
35	DA	1992	G

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Mol	Chain	Res	Type
35	DA	2033	A
35	DA	2126	A
35	DA	2171	A
35	DA	2225	A
35	DA	2282	G
35	DA	2360	A
35	DA	2422	A
35	DA	2439	A
35	DA	2464	C
35	DA	2481	G
35	DA	2611	U
35	DA	2682	U
35	DA	2689	U
35	DA	2756	U
36	DB	66	A

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

8 non-standard protein/DNA/RNA residues are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
22	8AN	AV	76	59,22	24,24,25	0.69	1 (4%)	34,35,38	1.27	3 (8%)
22	PHA	AV	77	22	11,11,11	1.79	1 (9%)	13,13,13	1.19	1 (7%)
22	8AN	AW	76	22	24,24,25	0.81	1 (4%)	34,35,38	1.11	3 (8%)
22	PHA	AW	77	22	11,11,11	2.03	1 (9%)	13,13,13	0.80	1 (7%)
22	8AN	CV	76	59,22	24,24,25	0.69	1 (4%)	34,35,38	1.08	4 (11%)
22	PHA	CV	77	22	11,11,11	1.88	1 (9%)	13,13,13	1.24	1 (7%)
22	8AN	CW	76	22	24,24,25	0.65	0	34,35,38	1.15	2 (5%)
22	PHA	CW	77	22	11,11,11	2.23	1 (9%)	13,13,13	0.81	1 (7%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the chemical

component dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
22	8AN	AV	76	59,22	-	0/9/25/26	0/3/3/3
22	PHA	AV	77	22	-	1/5/6/6	0/1/1/1
22	8AN	AW	76	22	-	0/9/25/26	0/3/3/3
22	PHA	AW	77	22	-	0/5/6/6	0/1/1/1
22	8AN	CV	76	59,22	-	0/9/25/26	0/3/3/3
22	PHA	CV	77	22	-	0/5/6/6	0/1/1/1
22	8AN	CW	76	22	-	0/9/25/26	0/3/3/3
22	PHA	CW	77	22	-	0/5/6/6	0/1/1/1

All (7) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	CW	77	PHA	CA-C	6.71	1.56	1.49
22	AW	77	PHA	CA-C	5.71	1.55	1.49
22	CV	77	PHA	CA-C	5.51	1.55	1.49
22	AV	77	PHA	CA-C	5.00	1.54	1.49
22	AV	76	8AN	C3'-N3'	-2.14	1.43	1.47
22	AW	76	8AN	C3'-N3'	-2.03	1.44	1.47
22	CV	76	8AN	C3'-N3'	-2.00	1.44	1.47

All (16) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	AV	76	8AN	C4'-C3'-N3'	-4.43	105.02	114.04
22	CV	77	PHA	C-CA-N	3.63	117.11	109.91
22	AV	77	PHA	C-CA-N	3.57	117.00	109.91
22	CW	76	8AN	C2'-C1'-N9	3.29	122.30	113.35
22	AW	76	8AN	C2'-C1'-N9	2.74	120.82	113.35
22	AV	76	8AN	C5'-C4'-C3'	2.60	119.63	115.95
22	CW	77	PHA	O-C-CA	-2.44	119.41	125.62
22	AW	76	8AN	O1P-P-O5'	-2.40	105.84	113.42
22	CV	76	8AN	C4'-C3'-N3'	-2.38	109.18	114.04
22	AW	77	PHA	O-C-CA	-2.36	119.62	125.62
22	CV	76	8AN	C2'-C3'-N3'	-2.32	109.72	113.90
22	AV	76	8AN	O4'-C4'-C3'	2.20	107.36	103.99
22	AW	76	8AN	C4'-C3'-N3'	-2.16	109.63	114.04
22	CV	76	8AN	O1P-P-O5'	-2.09	106.80	113.42
22	CV	76	8AN	O4'-C4'-C3'	2.05	107.13	103.99
22	CW	76	8AN	O1P-P-O5'	-2.04	106.97	113.42

There are no chirality outliers.

All (1) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
22	AV	77	PHA	O-C-CA-CB

There are no ring outliers.

5.5 Carbohydrates

There are no carbohydrates in this entry.

5.6 Ligand geometry

Of 1100 ligands modelled in this entry, 1100 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

The following chains have linkage breaks:

Mol	Chain	Number of breaks
13	CM	5
13	AM	5
9	AI	2
9	CI	2
41	BG	1
31	B6	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	B6	46:HIS	C	47:THR	N	7.42
1	AI	104:ARG	C	105:ASP	N	4.76
1	CI	104:ARG	C	105:ASP	N	4.74
1	AM	112:GLY	C	113:PRO	N	4.66
1	CM	112:GLY	C	113:PRO	N	4.66
1	BG	112:PRO	C	113:ARG	N	4.32
1	AM	69:GLU	C	70:LEU	N	4.17
1	CM	69:GLU	C	70:LEU	N	4.16
1	AM	65:LYS	C	66:LEU	N	3.15
1	CM	65:LYS	C	66:LEU	N	3.11
1	CM	118:ALA	C	119:GLY	N	2.99
1	AM	118:ALA	C	119:GLY	N	2.98
1	AM	97:PRO	C	98:VAL	N	2.81
1	CM	97:PRO	C	98:VAL	N	2.81
1	AI	53:VAL	C	54:ASP	N	2.79
1	CI	53:VAL	C	54:ASP	N	2.79

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	1504/1522 (98%)	-0.05	31 (2%) 60 11	44, 101, 185, 201	0
1	CA	1504/1522 (98%)	-0.11	33 (2%) 59 11	34, 96, 178, 201	0
2	AB	235/256 (91%)	0.34	3 (1%) 74 19	81, 138, 188, 201	0
2	CB	235/256 (91%)	0.17	5 (2%) 60 11	34, 118, 174, 201	0
3	AC	207/239 (86%)	0.37	3 (1%) 72 17	73, 133, 173, 201	0
3	CC	207/239 (86%)	0.04	0 100 100	62, 113, 157, 198	0
4	AD	208/209 (99%)	-0.08	0 100 100	50, 93, 140, 190	0
4	CD	208/209 (99%)	0.06	0 100 100	63, 108, 157, 201	0
5	AE	151/162 (93%)	0.06	0 100 100	51, 97, 147, 177	0
5	CE	151/162 (93%)	-0.06	0 100 100	52, 84, 132, 163	0
6	AF	101/101 (100%)	-0.04	1 (0%) 79 23	63, 105, 149, 201	0
6	CF	101/101 (100%)	-0.13	0 100 100	51, 88, 141, 168	0
7	AG	155/156 (99%)	0.39	9 (5%) 22 3	65, 130, 177, 191	0
7	CG	155/156 (99%)	0.18	6 (3%) 37 5	60, 106, 163, 201	0
8	AH	138/138 (100%)	0.05	0 100 100	53, 105, 151, 172	0
8	CH	138/138 (100%)	-0.03	0 100 100	48, 83, 125, 157	0
9	AI	127/128 (99%)	0.88	15 (11%) 5 1	82, 148, 193, 201	0
9	CI	127/128 (99%)	0.44	4 (3%) 47 7	57, 123, 185, 200	0
10	AJ	99/105 (94%)	0.84	12 (12%) 5 1	62, 148, 189, 201	0
10	CJ	99/105 (94%)	0.65	4 (4%) 36 5	66, 133, 186, 201	0
11	AK	119/129 (92%)	0.21	4 (3%) 43 6	50, 109, 158, 185	0
11	CK	119/129 (92%)	-0.04	4 (3%) 43 6	38, 81, 138, 181	0
12	AL	125/132 (94%)	0.05	1 (0%) 83 28	46, 86, 126, 188	0
12	CL	125/132 (94%)	0.14	3 (2%) 56 9	40, 90, 142, 200	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	AM	125/126 (99%)	0.81	15 (12%) 5 1	83, 152, 196, 201	0
13	CM	125/126 (99%)	0.35	8 (6%) 19 3	40, 112, 176, 201	0
14	AN	60/61 (98%)	0.67	7 (11%) 5 1	72, 143, 178, 201	0
14	CN	60/61 (98%)	0.07	1 (1%) 67 15	63, 102, 144, 167	0
15	AO	88/89 (98%)	0.09	0 100 100	59, 101, 135, 182	0
15	CO	88/89 (98%)	-0.07	0 100 100	45, 82, 126, 162	0
16	AP	84/88 (95%)	0.02	0 100 100	45, 83, 143, 196	0
16	CP	84/88 (95%)	0.27	1 (1%) 75 20	63, 105, 145, 168	0
17	AQ	100/105 (95%)	-0.05	0 100 100	43, 89, 133, 153	0
17	CQ	100/105 (95%)	0.04	0 100 100	49, 86, 121, 161	0
18	AR	70/88 (79%)	0.55	5 (7%) 16 3	74, 104, 159, 191	0
18	CR	70/88 (79%)	0.13	2 (2%) 49 7	61, 85, 129, 150	0
19	AS	79/93 (84%)	0.93	9 (11%) 6 1	102, 156, 194, 200	0
19	CS	79/93 (84%)	0.55	3 (3%) 38 5	69, 126, 187, 201	0
20	AT	99/106 (93%)	0.26	1 (1%) 79 23	54, 96, 158, 201	0
20	CT	99/106 (93%)	0.17	1 (1%) 79 23	49, 101, 152, 192	0
21	AU	25/27 (92%)	1.99	12 (48%) 1 0	92, 133, 184, 200	0
21	CU	25/27 (92%)	0.89	2 (8%) 12 2	77, 106, 145, 200	0
22	AV	77/77 (100%)	0.18	3 (3%) 37 5	64, 131, 176, 185	0
22	AW	77/77 (100%)	0.37	4 (5%) 26 4	77, 175, 200, 201	0
22	CV	77/77 (100%)	0.12	2 (2%) 53 8	61, 106, 152, 192	0
22	CW	77/77 (100%)	0.49	11 (14%) 3 1	64, 163, 200, 201	0
23	AX	8/8 (100%)	0.05	0 100 100	77, 106, 136, 153	0
23	CX	8/8 (100%)	0.33	1 (12%) 5 1	46, 77, 146, 167	0
24	AY	351/351 (100%)	0.82	43 (12%) 5 1	68, 137, 194, 201	0
24	CY	351/351 (100%)	0.95	55 (15%) 3 1	66, 142, 191, 201	0
25	B0	83/85 (97%)	0.30	4 (4%) 29 4	55, 90, 160, 185	0
25	D0	83/85 (97%)	-0.13	3 (3%) 41 6	17, 43, 119, 176	0
26	B1	94/98 (95%)	-0.11	0 100 100	32, 69, 121, 148	0
26	D1	94/98 (95%)	-0.24	0 100 100	18, 50, 99, 171	0
27	B2	71/72 (98%)	0.12	0 100 100	53, 93, 147, 185	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
27	D2	71/72 (98%)	-0.28	0 100 100	23, 48, 119, 154	0
28	B3	60/60 (100%)	0.43	2 (3%) 44 6	53, 82, 125, 183	0
28	D3	60/60 (100%)	-0.30	1 (1%) 67 15	13, 40, 82, 179	0
29	B4	31/71 (43%)	0.45	1 (3%) 45 7	86, 154, 187, 200	0
29	D4	31/71 (43%)	-0.01	0 100 100	77, 111, 160, 187	0
30	B5	59/60 (98%)	0.12	3 (5%) 27 4	30, 69, 181, 201	0
30	D5	59/60 (98%)	-0.07	3 (5%) 27 4	10, 35, 157, 163	0
31	B6	45/54 (83%)	1.08	8 (17%) 2 0	71, 128, 178, 200	0
31	D6	45/54 (83%)	0.49	1 (2%) 59 11	40, 83, 144, 186	0
32	B7	49/49 (100%)	0.04	1 (2%) 62 12	25, 52, 117, 184	0
32	D7	49/49 (100%)	-0.16	1 (2%) 62 12	12, 26, 103, 200	0
33	B8	64/65 (98%)	0.19	0 100 100	38, 78, 141, 201	0
33	D8	64/65 (98%)	-0.21	0 100 100	14, 45, 102, 180	0
34	B9	36/37 (97%)	0.93	3 (8%) 11 2	61, 94, 137, 149	0
34	D9	36/37 (97%)	0.03	0 100 100	29, 48, 106, 125	0
35	BA	2901/2915 (99%)	-0.17	73 (2%) 54 9	31, 70, 183, 201	0
35	DA	2901/2915 (99%)	-0.33	52 (1%) 65 14	10, 41, 178, 201	0
36	BB	119/122 (97%)	0.14	0 100 100	76, 144, 190, 200	0
36	DB	119/122 (97%)	-0.43	0 100 100	29, 59, 101, 171	0
37	BC	120/229 (52%)	1.56	39 (32%) 1 0	107, 177, 201, 201	0
37	DC	120/229 (52%)	1.51	31 (25%) 1 0	91, 170, 200, 201	0
38	BD	272/276 (98%)	-0.18	0 100 100	24, 63, 111, 158	0
38	DD	272/276 (98%)	-0.34	0 100 100	15, 40, 84, 154	0
39	BE	205/206 (99%)	0.00	4 (1%) 62 12	29, 67, 136, 201	0
39	DE	205/206 (99%)	-0.20	2 (0%) 79 23	10, 41, 138, 200	0
40	BF	208/210 (99%)	-0.08	3 (1%) 72 17	33, 77, 161, 201	0
40	DF	208/210 (99%)	-0.25	2 (0%) 79 23	9, 44, 158, 196	0
41	BG	181/182 (99%)	0.36	6 (3%) 44 6	67, 137, 182, 201	0
41	DG	181/182 (99%)	-0.09	0 100 100	34, 79, 147, 181	0
42	BH	160/180 (88%)	0.72	13 (8%) 12 2	70, 132, 180, 201	0
42	DH	160/180 (88%)	-0.03	5 (3%) 47 7	29, 69, 139, 201	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
43	BI	146/148 (98%)	0.24	1 (0%) 84 32	53, 112, 152, 186	0
43	DI	146/148 (98%)	0.08	0 100 100	36, 94, 142, 187	0
44	BJ	0/130	-	-	-	-
44	DJ	0/130	-	-	-	-
45	BK	141/147 (95%)	1.69	41 (29%) 1 0	122, 170, 201, 201	0
45	DK	141/147 (95%)	1.81	53 (37%) 1 0	117, 178, 201, 201	0
46	BN	139/140 (99%)	0.05	0 100 100	43, 85, 141, 201	0
46	DN	139/140 (99%)	-0.34	0 100 100	18, 42, 104, 201	0
47	BO	122/122 (100%)	-0.31	0 100 100	36, 62, 91, 112	0
47	DO	122/122 (100%)	-0.37	0 100 100	20, 43, 81, 130	0
48	BP	146/150 (97%)	0.31	5 (3%) 43 6	37, 100, 161, 198	0
48	DP	146/150 (97%)	0.00	1 (0%) 84 32	16, 58, 135, 188	0
49	BQ	141/141 (100%)	0.12	1 (0%) 84 32	46, 91, 143, 179	0
49	DQ	141/141 (100%)	-0.28	1 (0%) 84 32	21, 46, 101, 181	0
50	BR	117/118 (99%)	-0.09	0 100 100	36, 66, 109, 152	0
50	DR	117/118 (99%)	-0.31	0 100 100	14, 39, 82, 142	0
51	BS	99/112 (88%)	0.59	3 (3%) 48 7	64, 131, 182, 191	0
51	DS	99/112 (88%)	0.02	2 (2%) 62 12	31, 67, 128, 181	0
52	BT	138/146 (94%)	0.12	5 (3%) 41 6	40, 81, 169, 201	0
52	DT	138/146 (94%)	-0.17	0 100 100	22, 61, 150, 201	0
53	BU	117/118 (99%)	-0.13	0 100 100	33, 73, 134, 191	0
53	DU	117/118 (99%)	-0.39	0 100 100	11, 32, 85, 147	0
54	BV	101/101 (100%)	0.08	1 (0%) 79 23	33, 96, 143, 201	0
54	DV	101/101 (100%)	-0.33	0 100 100	7, 45, 101, 201	0
55	BW	113/113 (100%)	-0.16	0 100 100	31, 62, 117, 193	0
55	DW	113/113 (100%)	-0.36	1 (0%) 81 25	9, 32, 68, 201	0
56	BX	93/96 (96%)	-0.08	0 100 100	45, 79, 118, 158	0
56	DX	93/96 (96%)	-0.34	0 100 100	12, 43, 80, 121	0
57	BY	101/110 (91%)	0.51	7 (6%) 17 3	52, 102, 172, 201	0
57	DY	101/110 (91%)	0.09	2 (1%) 62 12	18, 73, 156, 191	0
58	BZ	185/206 (89%)	0.28	2 (1%) 77 22	64, 120, 168, 201	0
58	DZ	185/206 (89%)	-0.13	3 (1%) 68 15	36, 75, 154, 201	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
All	All	22138/23284 (95%)	0.04	714 (3%) 45 7	7, 85, 180, 201	0

All (714) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	AA	82	U	12.4
45	BK	3	LYS	11.2
1	CA	89	C	9.0
13	CM	126	LYS	8.6
1	AA	89	C	8.6
42	BH	170	ARG	8.6
1	AA	81	U	8.0
45	BK	2	LYS	8.0
13	CM	123	ALA	7.9
35	BA	654(F)	C	7.7
35	BA	654(G)	C	7.6
45	DK	3	LYS	7.4
1	AA	83	U	7.4
35	DA	2802	G	7.4
45	DK	16	LYS	7.4
22	CW	17	C	7.3
52	BT	138	ALA	7.1
24	AY	82	GLU	7.0
37	DC	177	GLY	6.9
1	AA	84	U	6.9
35	BA	2802	G	6.7
35	BA	654(E)	G	6.6
24	CY	79	LEU	6.6
13	AM	123	ALA	6.5
11	AK	128	ALA	6.5
35	DA	1534	U	6.3
35	DA	2801	A	6.2
35	BA	654(V)	A	6.1
58	BZ	113	ALA	5.9
30	D5	59	GLU	5.8
35	BA	654(I)	C	5.7
35	DA	2795	G	5.6
1	CA	80	G	5.6
45	BK	31	GLY	5.6
35	BA	2795	G	5.6
1	CA	81	U	5.6
1	AA	80	G	5.6

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Mol	Chain	Res	Type	RSRZ
35	DA	654(E)	G	5.4
24	AY	47	LYS	5.4
35	BA	1536	C	5.3
35	BA	654(H)	G	5.3
35	DA	654(I)	C	5.3
35	BA	1535	A	5.3
24	AY	79	LEU	5.3
42	DH	44	VAL	5.3
2	AB	130	ARG	5.2
37	BC	4	HIS	5.2
35	BA	2801(A)	A	5.2
35	DA	654(G)	C	5.2
37	DC	40	GLU	5.1
1	AA	88	A	5.1
1	AA	1030(A)	G	5.1
35	DA	654(K)	C	5.1
25	B0	5	LYS	5.1
35	BA	1534	U	5.1
30	B5	59	GLU	5.1
42	BH	171	LEU	5.1
49	DQ	141	GLN	5.0
24	AY	76	MET	5.0
24	CY	80	PRO	5.0
10	AJ	33	GLN	4.9
1	AA	1030(B)	C	4.9
37	DC	44	VAL	4.9
1	AA	1257	U	4.8
45	BK	7	VAL	4.8
13	AM	120	LYS	4.8
22	CW	34	G	4.8
35	DA	654(H)	G	4.8
19	CS	82	GLY	4.8
13	AM	121	LYS	4.8
42	DH	170	ARG	4.8
22	CW	35	A	4.7
35	BA	654(L)	G	4.7
45	DK	137	GLU	4.7
35	BA	654	A	4.7
45	DK	30	HIS	4.7
37	DC	2	PRO	4.7
1	CA	1001(A)	G	4.7
35	BA	654(K)	C	4.7

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Mol	Chain	Res	Type	RSRZ
58	BZ	114	GLY	4.7
19	CS	81	ARG	4.6
24	CY	74	GLU	4.6
45	BK	57	ILE	4.6
45	BK	141	ALA	4.6
45	BK	84	LEU	4.6
30	D5	60	VAL	4.6
35	BA	654(S)	G	4.6
1	CA	88	A	4.5
45	BK	21	PRO	4.5
10	CJ	33	GLN	4.5
35	DA	1535	A	4.5
1	CA	90	U	4.5
35	DA	277	C	4.4
45	BK	4	VAL	4.4
1	CA	82	U	4.4
35	DA	654(V)	A	4.4
35	DA	2801(A)	A	4.4
24	AY	299	ARG	4.4
24	CY	78	GLU	4.4
37	DC	178	LYS	4.4
24	AY	77	GLU	4.4
45	DK	84	LEU	4.3
35	BA	2796	U	4.3
45	BK	124	ALA	4.3
1	AA	1002	G	4.2
35	BA	1509	C	4.2
10	AJ	34	VAL	4.2
37	BC	181	PHE	4.2
45	DK	29	GLN	4.2
35	BA	2803	C	4.2
1	CA	84	U	4.1
45	DK	111	LYS	4.1
35	BA	2794	C	4.1
45	BK	8	VAL	4.1
21	CU	26	LYS	4.1
39	DE	76	ARG	4.1
37	DC	176	VAL	4.1
1	CA	1002	G	4.1
45	DK	17	ALA	4.1
9	AI	36	TYR	4.1
37	BC	8	TYR	4.0

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Mol	Chain	Res	Type	RSRZ
1	AA	1001(A)	G	4.0
37	DC	170	GLY	4.0
24	CY	22	LYS	4.0
42	BH	128	PRO	4.0
11	AK	12	ARG	4.0
24	CY	40	ASN	4.0
35	BA	156	U	4.0
35	BA	2132	U	4.0
37	DC	172	ILE	4.0
24	AY	301	GLU	4.0
13	CM	122	LYS	4.0
11	CK	127	LYS	3.9
24	CY	47	LYS	3.9
24	CY	77	GLU	3.9
11	AK	129	SER	3.9
21	CU	25	LYS	3.9
35	DA	654(L)	G	3.9
13	AM	124	PRO	3.9
35	BA	2793	G	3.9
37	DC	14	LYS	3.8
11	CK	129	SER	3.8
1	CA	204	U	3.8
1	CA	1030	C	3.8
45	DK	31	GLY	3.8
45	BK	29	GLN	3.8
1	AA	1039	C	3.8
37	DC	174	ALA	3.8
21	AU	8	THR	3.8
45	BK	69	THR	3.8
37	BC	171	ALA	3.8
35	BA	654(M)	C	3.8
37	BC	35	THR	3.8
24	AY	72	LEU	3.8
45	DK	59	ILE	3.8
9	CI	4	TYR	3.8
24	AY	75	LEU	3.7
19	AS	82	GLY	3.7
43	BI	61	ARG	3.7
45	DK	89	HIS	3.7
34	B9	15	LYS	3.7
45	BK	140	GLY	3.7
37	DC	36	ALA	3.7

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Mol	Chain	Res	Type	RSRZ
24	AY	258	ILE	3.7
24	AY	172	LYS	3.7
45	BK	93	ARG	3.7
21	AU	9	ARG	3.7
57	BY	50	ARG	3.7
37	DC	42	VAL	3.7
7	AG	79	ARG	3.7
37	BC	3	LYS	3.7
25	B0	4	LYS	3.7
35	BA	508	G	3.7
9	AI	127	LYS	3.6
35	BA	1084	A	3.6
45	BK	22	PRO	3.6
9	AI	9	ARG	3.6
35	DA	1509	C	3.6
24	AY	80	PRO	3.6
42	DH	169	VAL	3.6
9	AI	4	TYR	3.6
25	D0	5	LYS	3.6
35	DA	654(J)	A	3.6
24	AY	70	GLN	3.6
22	CW	36	A	3.6
25	D0	4	LYS	3.6
37	DC	171	ALA	3.6
1	AA	1001	A	3.6
11	AK	127	LYS	3.5
13	AM	125	ARG	3.5
45	DK	77	LEU	3.5
24	AY	303	ARG	3.5
45	BK	1	MET	3.5
45	DK	50	ASP	3.5
7	AG	82	GLY	3.5
1	CA	1030(D)	A	3.5
25	D0	3	HIS	3.5
35	BA	2799	C	3.5
19	AS	47	HIS	3.5
45	BK	35	MET	3.5
30	B5	54	GLY	3.5
35	DA	2799	C	3.5
21	AU	22	ARG	3.5
45	BK	85	GLU	3.5
22	AW	47	U	3.5

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Mol	Chain	Res	Type	RSRZ
37	BC	221	PRO	3.4
35	BA	2894	G	3.4
45	DK	33	ASN	3.4
21	AU	24	ARG	3.4
35	BA	654(N)	G	3.4
35	BA	1087	G	3.4
37	BC	197	LEU	3.4
42	BH	18	GLU	3.4
2	CB	133	LYS	3.4
35	BA	654(T)	C	3.4
12	CL	129	ALA	3.4
37	BC	174	ALA	3.4
22	AV	47	U	3.4
37	BC	11	LEU	3.4
45	BK	59	ILE	3.4
1	AA	1030(D)	A	3.4
24	CY	42	PRO	3.4
41	BG	2	PRO	3.4
35	BA	654(C)	G	3.4
35	DA	654(F)	C	3.4
52	BT	1	MET	3.4
21	AU	18	TYR	3.4
45	BK	90	LYS	3.4
24	AY	86	ALA	3.4
35	BA	2165	G	3.4
45	DK	121	GLU	3.4
21	AU	25	LYS	3.4
21	AU	23	PRO	3.3
35	BA	2179	C	3.3
19	AS	81	ARG	3.3
13	AM	84	ILE	3.3
24	CY	162	ALA	3.3
40	BF	1	MET	3.3
35	BA	654(J)	A	3.3
35	BA	275	G	3.3
35	BA	2164	C	3.3
24	CY	41	ASP	3.3
22	AW	34	G	3.3
24	CY	297	ALA	3.3
45	BK	58	THR	3.3
58	DZ	114	GLY	3.3
18	AR	54	ARG	3.2

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Mol	Chain	Res	Type	RSRZ
24	CY	30	GLU	3.2
7	CG	83	ALA	3.2
24	AY	162	ALA	3.2
22	CW	47	U	3.2
24	CY	161	GLU	3.2
24	AY	268	GLN	3.2
37	BC	37	LYS	3.2
22	CW	20	U	3.2
1	AA	1035	A	3.2
35	BA	2154	G	3.2
45	DK	93	ARG	3.2
1	CA	1030(A)	G	3.2
35	BA	2131	G	3.2
35	DA	2805	G	3.2
57	BY	57	GLN	3.2
35	DA	2113	U	3.2
24	CY	71	GLY	3.2
22	CV	17	C	3.2
22	CW	33	U	3.2
45	DK	141	ALA	3.2
45	DK	19	PRO	3.2
45	DK	136	VAL	3.2
31	B6	13	CYS	3.1
45	BK	120	LEU	3.1
45	BK	30	HIS	3.1
58	DZ	113	ALA	3.1
45	BK	32	ALA	3.1
35	DA	654(C)	G	3.1
45	BK	115	LEU	3.1
45	DK	2	LYS	3.1
24	AY	81	ALA	3.1
45	DK	120	LEU	3.1
1	CA	1447	A	3.1
35	DA	156	U	3.1
13	AM	69	GLU	3.1
37	BC	40	GLU	3.1
45	DK	96	VAL	3.1
35	BA	229	A	3.1
45	DK	76	TYR	3.1
24	CY	90	GLU	3.1
1	AA	90	U	3.0
35	DA	1065	U	3.0

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Mol	Chain	Res	Type	RSRZ
58	DZ	112	ARG	3.0
24	AY	298	LEU	3.0
24	CY	259	THR	3.0
24	CY	83	GLU	3.0
1	AA	1117	G	3.0
31	B6	49	HIS	3.0
1	CA	1030(B)	C	3.0
24	CY	6	LEU	3.0
21	AU	26	LYS	3.0
13	CM	124	PRO	3.0
13	AM	108	ARG	3.0
45	BK	128	ALA	3.0
51	BS	104	GLY	3.0
37	BC	211	ARG	3.0
45	DK	15	GLY	3.0
57	BY	28	LYS	3.0
12	CL	128	ALA	3.0
37	DC	209	PHE	3.0
1	AA	1036	G	3.0
10	AJ	38	ILE	3.0
37	DC	41	THR	3.0
1	CA	1003	G	3.0
45	BK	94	GLU	3.0
45	DK	22	PRO	3.0
14	AN	12	ARG	3.0
28	B3	1	MET	3.0
35	BA	2791	C	3.0
19	AS	13	ASP	2.9
37	BC	178	LYS	2.9
37	DC	210	LEU	2.9
37	BC	12	LEU	2.9
40	DF	208	GLY	2.9
1	CA	1030(C)	G	2.9
35	DA	1067	A	2.9
45	DK	70	LYS	2.9
1	CA	1026	G	2.9
31	B6	45	LYS	2.9
37	BC	41	THR	2.9
52	BT	39	ARG	2.9
24	AY	33	LEU	2.9
14	AN	2	ALA	2.9
35	BA	2139	C	2.9

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Mol	Chain	Res	Type	RSRZ
37	DC	173	HIS	2.9
11	CK	11	LYS	2.9
24	CY	16	TYR	2.9
49	BQ	141	GLN	2.9
32	D7	49	ARG	2.9
24	AY	34	GLU	2.9
1	CA	1257	U	2.9
9	AI	115	GLY	2.9
24	AY	73	LEU	2.9
31	B6	12	GLU	2.9
37	DC	43	GLU	2.9
42	BH	24	VAL	2.9
35	BA	2896	C	2.9
37	DC	219	MET	2.8
1	CA	83	U	2.8
24	CY	51	GLU	2.8
51	DS	54	LEU	2.8
16	CP	1	MET	2.8
35	DA	1087	G	2.8
45	DK	129	GLY	2.8
24	CY	17	LEU	2.8
28	B3	2	PRO	2.8
31	B6	20	ASN	2.8
35	BA	2140	C	2.8
31	B6	42	TRP	2.8
9	CI	102	LEU	2.8
24	CY	32	ARG	2.8
18	AR	23	LYS	2.8
24	AY	199	GLY	2.8
35	DA	888	C	2.8
40	BF	208	GLY	2.8
57	DY	63	LYS	2.8
24	AY	253	HIS	2.8
48	BP	110	TYR	2.8
35	BA	1060	U	2.8
45	DK	13	PRO	2.8
52	BT	115	ARG	2.8
19	CS	69	HIS	2.8
45	DK	39	LYS	2.8
51	BS	94	TYR	2.8
24	CY	84	ARG	2.8
10	AJ	3	LYS	2.8

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Mol	Chain	Res	Type	RSRZ
41	BG	47	LYS	2.8
40	DF	1	MET	2.8
24	CY	66	GLU	2.8
41	BG	98	ARG	2.7
55	DW	112	GLY	2.7
18	AR	31	LEU	2.7
9	AI	10	ARG	2.7
45	DK	35	MET	2.7
24	CY	62	PHE	2.7
35	DA	654(N)	G	2.7
7	AG	85	TYR	2.7
35	BA	654(R)	C	2.7
45	BK	127	ILE	2.7
9	AI	7	THR	2.7
24	CY	48	VAL	2.7
24	CY	15	GLY	2.7
35	BA	545	C	2.7
35	DA	2794	C	2.7
10	CJ	10	GLY	2.7
37	BC	193	PHE	2.7
37	BC	10	ALA	2.7
21	AU	6	ARG	2.7
35	DA	2796	U	2.7
13	AM	112	GLY	2.7
35	DA	2112	G	2.7
10	AJ	74	ILE	2.7
24	CY	76	MET	2.7
45	DK	6	ALA	2.7
24	CY	82	GLU	2.7
45	BK	95	LYS	2.7
45	BK	111	LYS	2.7
39	BE	69	LYS	2.7
57	BY	59	GLY	2.7
12	AL	127	GLU	2.7
1	AA	1286	A	2.7
35	BA	2138	C	2.6
35	DA	654(T)	C	2.6
35	DA	1536	C	2.6
51	BS	43	GLU	2.6
1	AA	1031	G	2.6
35	BA	2125	G	2.6
37	BC	175	PRO	2.6

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Mol	Chain	Res	Type	RSRZ
7	CG	79	ARG	2.6
37	BC	39	ASP	2.6
24	AY	16	TYR	2.6
35	DA	2115	G	2.6
24	AY	87	LEU	2.6
3	AC	189	ALA	2.6
37	BC	210	LEU	2.6
24	CY	298	LEU	2.6
45	BK	63	ARG	2.6
35	BA	1046	A	2.6
13	AM	117	VAL	2.6
1	CA	1033	G	2.6
35	BA	2127	G	2.6
10	AJ	99	LYS	2.6
57	BY	46	LYS	2.6
57	DY	28	LYS	2.6
35	BA	2792	G	2.6
35	DA	2896	C	2.6
45	BK	89	HIS	2.6
13	AM	7	VAL	2.6
37	DC	190	ILE	2.6
24	AY	78	GLU	2.6
22	CW	16	U	2.6
35	BA	1537	G	2.5
19	AS	76	PRO	2.5
45	DK	94	GLU	2.5
37	DC	48	LEU	2.5
42	DH	45	VAL	2.5
37	BC	33	LEU	2.5
1	CA	202	U	2.5
31	B6	31	PRO	2.5
35	BA	2173	A	2.5
1	CA	1027	C	2.5
37	BC	219	MET	2.5
45	DK	18	THR	2.5
45	DK	48	MET	2.5
45	DK	32	ALA	2.5
45	DK	125	ARG	2.5
35	BA	2801	A	2.5
24	CY	88	LYS	2.5
24	CY	39	TRP	2.5
34	B9	9	ARG	2.5

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Mol	Chain	Res	Type	RSRZ
21	AU	7	ARG	2.5
35	DA	2132	U	2.5
7	AG	78	ARG	2.5
9	AI	128	ARG	2.5
31	B6	44	ARG	2.5
19	AS	71	LEU	2.5
24	AY	69	LEU	2.5
2	CB	90	MET	2.5
24	CY	10	LEU	2.5
45	BK	66	THR	2.5
24	AY	260	VAL	2.5
42	BH	43	VAL	2.5
14	AN	39	LEU	2.5
24	CY	20	PRO	2.5
35	DA	2804	C	2.5
37	BC	176	VAL	2.4
35	DA	2894	G	2.4
57	BY	44	ILE	2.4
37	BC	32	GLU	2.4
12	CL	114	LYS	2.4
39	BE	204	ALA	2.4
45	DK	131	ALA	2.4
24	CY	9	ARG	2.4
35	BA	2310	A	2.4
45	DK	37	PHE	2.4
37	DC	39	ASP	2.4
13	AM	102	ARG	2.4
18	CR	56	THR	2.4
41	BG	128	ARG	2.4
39	BE	54	GLN	2.4
24	CY	81	ALA	2.4
1	AA	470	C	2.4
1	CA	1032	G	2.4
45	DK	58	THR	2.4
45	DK	104	VAL	2.4
24	CY	151	VAL	2.4
24	CY	296	LYS	2.4
45	BK	38	VAL	2.4
24	CY	244	THR	2.4
35	BA	2893	G	2.4
45	DK	112	MET	2.4
24	AY	259	THR	2.4

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Mol	Chain	Res	Type	RSRZ
24	CY	219	GLU	2.4
25	B0	85	ALA	2.4
1	CA	1035	A	2.4
13	CM	120	LYS	2.4
35	DA	1076	C	2.4
37	BC	2	PRO	2.4
35	BA	155	U	2.4
45	DK	132	ARG	2.4
6	AF	101	ALA	2.4
9	AI	61	ALA	2.4
24	CY	306	GLU	2.4
42	DH	42	ARG	2.4
22	CW	55	U	2.4
13	AM	122	LYS	2.4
30	B5	60	VAL	2.4
35	BA	2155	G	2.4
37	BC	228	HIS	2.4
24	CY	93	GLU	2.4
45	BK	131	ALA	2.4
13	AM	98	VAL	2.3
57	BY	56	PRO	2.3
24	CY	94	ALA	2.3
35	BA	6	A	2.3
1	AA	1161	C	2.3
2	AB	116	GLU	2.3
13	CM	121	LYS	2.3
28	D3	1	MET	2.3
24	AY	10	LEU	2.3
14	AN	25	VAL	2.3
22	CV	47	U	2.3
1	AA	1041	A	2.3
9	AI	81	ILE	2.3
24	CY	46	ARG	2.3
39	BE	76	ARG	2.3
35	DA	1046	A	2.3
37	DC	28	ARG	2.3
24	CY	8	GLN	2.3
42	BH	158	HIS	2.3
21	AU	11	GLY	2.3
7	CG	154	TYR	2.3
24	AY	8	GLN	2.3
1	CA	1031	G	2.3

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Mol	Chain	Res	Type	RSRZ
10	CJ	71	LEU	2.3
35	BA	1176	G	2.3
37	BC	34	ALA	2.3
37	BC	57	GLN	2.3
41	BG	34	LEU	2.3
2	CB	126	GLU	2.3
31	D6	46	HIS	2.3
1	AA	1027	C	2.3
7	AG	5	ARG	2.3
7	CG	78	ARG	2.3
35	DA	2793	G	2.3
37	DC	45	HIS	2.3
7	AG	83	ALA	2.3
20	CT	106	ALA	2.3
13	CM	125	ARG	2.3
7	AG	86	GLN	2.3
37	DC	168	LYS	2.3
18	CR	54	ARG	2.3
45	BK	78	ILE	2.3
45	DK	92	GLY	2.3
1	AA	1030	C	2.3
25	B0	74	ARG	2.3
48	BP	126	VAL	2.3
37	BC	203	GLU	2.3
37	BC	220	GLY	2.2
45	BK	136	VAL	2.2
10	AJ	36	GLY	2.2
14	AN	38	GLY	2.2
22	CW	32	U	2.2
1	AA	1026	G	2.2
10	CJ	43	ARG	2.2
35	DA	1173	G	2.2
37	BC	42	VAL	2.2
24	AY	257	GLY	2.2
35	DA	1081	U	2.2
42	BH	95	ARG	2.2
10	AJ	60	ARG	2.2
24	AY	17	LEU	2.2
9	AI	46	ALA	2.2
24	CY	329	MET	2.2
54	BV	36	PRO	2.2
35	BA	157	U	2.2

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Mol	Chain	Res	Type	RSRZ
45	DK	49	GLY	2.2
14	CN	2	ALA	2.2
7	CG	85	TYR	2.2
19	AS	61	TYR	2.2
42	BH	52	VAL	2.2
19	AS	14	HIS	2.2
19	AS	15	LEU	2.2
37	DC	188	ASP	2.2
37	DC	211	ARG	2.2
3	AC	194	GLY	2.2
24	AY	51	GLU	2.2
9	AI	125	TYR	2.2
7	CG	156	TRP	2.2
11	CK	12	ARG	2.2
10	AJ	5	ARG	2.2
14	AN	11	LYS	2.2
24	AY	329	MET	2.2
24	CY	264	THR	2.2
1	CA	203	U	2.2
1	CA	1005	A	2.2
35	BA	896	A	2.2
45	DK	97	GLY	2.2
20	AT	89	ARG	2.2
35	DA	2119	A	2.2
35	DA	2131	G	2.2
7	AG	4	ARG	2.2
42	BH	169	VAL	2.2
35	BA	1104	C	2.2
24	CY	124	ALA	2.2
35	BA	654(D)	G	2.2
35	BA	1083	U	2.2
35	BA	2120	G	2.2
45	DK	47	ASN	2.2
2	CB	132	LYS	2.2
51	DS	108	GLY	2.2
1	CA	71	C	2.1
37	DC	181	PHE	2.1
13	AM	88	ARG	2.1
3	AC	205	GLY	2.1
35	DA	1176	G	2.1
24	AY	42	PRO	2.1
7	AG	156	TRP	2.1

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Mol	Chain	Res	Type	RSRZ
37	DC	31	LYS	2.1
35	DA	1088	A	2.1
35	DA	2116	G	2.1
45	BK	55	VAL	2.1
24	AY	197	ALA	2.1
35	BA	2804	C	2.1
42	BH	96	ALA	2.1
9	CI	81	ILE	2.1
24	AY	256	THR	2.1
39	DE	69	LYS	2.1
29	B4	25	TYR	2.1
37	BC	182	PRO	2.1
45	DK	122	ALA	2.1
48	BP	105	LEU	2.1
48	BP	107	LYS	2.1
2	AB	127	ILE	2.1
10	AJ	75	ILE	2.1
22	AV	49	C	2.1
24	CY	75	LEU	2.1
24	CY	217	GLU	2.1
37	BC	5	GLY	2.1
24	AY	220	VAL	2.1
24	AY	226	GLU	2.1
40	BF	10	PRO	2.1
9	AI	100	GLY	2.1
45	BK	74	ALA	2.1
48	DP	150	ALA	2.1
1	CA	1286	A	2.1
45	DK	27	LEU	2.1
35	DA	1541	G	2.1
37	BC	45	HIS	2.1
24	AY	150	GLN	2.1
24	CY	97	LYS	2.1
32	B7	46	VAL	2.1
45	DK	51	ALA	2.1
22	AW	7	A	2.1
52	BT	137	LYS	2.1
35	BA	645	C	2.1
35	DA	2179	C	2.1
1	CA	65	U	2.1
22	CW	50	U	2.1
34	B9	25	VAL	2.1

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Mol	Chain	Res	Type	RSRZ
24	CY	86	ALA	2.1
1	CA	1036	G	2.1
2	CB	28	PHE	2.1
35	BA	2805	G	2.1
37	DC	175	PRO	2.1
45	DK	56	GLU	2.1
9	AI	87	GLN	2.1
21	AU	5	ASP	2.1
48	BP	150	ALA	2.1
23	CX	14	A	2.0
37	BC	177	GLY	2.0
22	AV	70	G	2.0
35	BA	654(A)	G	2.0
35	DA	508	G	2.0
1	AA	1020	U	2.0
22	AW	17	C	2.0
35	DA	2803	C	2.0
37	BC	200	HIS	2.0
37	DC	37	LYS	2.0
42	BH	30	LYS	2.0
18	AR	22	VAL	2.0
24	CY	89	PRO	2.0
24	AY	74	GLU	2.0
37	BC	229	SER	2.0
41	BG	50	ALA	2.0
1	AA	1033	G	2.0
1	CA	1137	C	2.0
35	BA	2402	C	2.0
37	BC	23	ILE	2.0
9	CI	19	LEU	2.0
14	AN	14	PRO	2.0
24	CY	70	GLN	2.0
35	DA	887	A	2.0
45	BK	138	VAL	2.0
1	AA	1032	G	2.0
45	DK	128	ALA	2.0
9	AI	56	LEU	2.0
30	D5	58	LEU	2.0
10	AJ	28	ARG	2.0
1	AA	1021	G	2.0
18	AR	21	LYS	2.0
35	BA	1047	G	2.0

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Mol	Chain	Res	Type	RSRZ
10	AJ	100	THR	2.0
45	DK	79	ARG	2.0
13	CM	102	ARG	2.0
42	BH	97	ARG	2.0
45	DK	98	ARG	2.0

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

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
22	8AN	AW	76	22/23	0.16	-	71,74,82,82	0
22	PHA	CV	77	11/11	0.48	-	70,70,72,73	0
22	8AN	AV	76	22/23	0.20	-	59,59,59,104	0
22	8AN	CV	76	22/23	0.26	-	59,59,59,104	0
22	PHA	CW	77	11/11	0.55	-	77,77,79,80	0
22	PHA	AV	77	11/11	0.43	-	70,70,72,73	0
22	8AN	CW	76	22/23	0.21	-	71,74,82,82	0
22	PHA	AW	77	11/11	0.79	-	77,77,79,80	0

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
59	MG	DA	3119	1/1	0.54	-	40,40,40,40	0
59	MG	DA	3243	1/1	0.27	-	54,54,54,54	1

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	DA	3242	1/1	0.17	-	11,11,11,11	1
59	MG	BA	3337	1/1	0.25	-	55,55,55,55	0
59	MG	CA	1722	1/1	0.29	-	74,74,74,74	1
59	MG	CA	1700	1/1	0.31	-	58,58,58,58	0
59	MG	AA	1740	1/1	0.52	-	75,75,75,75	0
59	MG	DP	201	1/1	1.10	-	1,1,1,1	1
59	MG	DA	3311	1/1	0.17	-	75,75,75,75	0
59	MG	BA	3182	1/1	0.23	-	70,70,70,70	0
59	MG	DA	3192	1/1	0.10	-	35,35,35,35	0
59	MG	BA	3061	1/1	0.42	-	21,21,21,21	0
59	MG	DA	3349	1/1	0.32	-	18,18,18,18	1
59	MG	CA	1646	1/1	0.19	-	37,37,37,37	0
59	MG	DA	3100	1/1	0.32	-	3,3,3,3	0
59	MG	BA	3177	1/1	0.24	-	77,77,77,77	0
59	MG	DA	3159	1/1	0.32	-	68,68,68,68	0
59	MG	DA	3102	1/1	0.09	-	1,1,1,1	0
59	MG	BA	3173	1/1	0.38	-	51,51,51,51	0
59	MG	AA	1735	1/1	0.35	-	74,74,74,74	0
59	MG	DA	3270	1/1	0.22	-	30,30,30,30	0
59	MG	AW	102	1/1	0.15	-	25,25,25,25	1
59	MG	BA	3119	1/1	0.53	-	39,39,39,39	0
59	MG	AA	1609	1/1	0.13	-	38,38,38,38	1
59	MG	CA	1610	1/1	0.15	-	60,60,60,60	0
59	MG	DA	3350	1/1	0.34	-	37,37,37,37	0
59	MG	CA	1668	1/1	0.39	-	50,50,50,50	0
59	MG	DA	3058	1/1	0.35	-	23,23,23,23	0
59	MG	AA	1642	1/1	0.29	-	55,55,55,55	0
59	MG	DA	3342	1/1	0.49	-	61,61,61,61	0
59	MG	BA	3058	1/1	0.33	-	30,30,30,30	0
59	MG	DA	3331	1/1	0.14	-	30,30,30,30	0
59	MG	DA	3292	1/1	0.23	-	40,40,40,40	0
59	MG	AA	1706	1/1	0.33	-	69,69,69,69	0
59	MG	BA	3199	1/1	0.29	-	60,60,60,60	0
59	MG	AA	1708	1/1	0.11	-	76,76,76,76	1
59	MG	AA	1676	1/1	0.12	-	21,21,21,21	1
59	MG	DA	3271	1/1	0.43	-	58,58,58,58	0
59	MG	AA	1630	1/1	0.41	-	72,72,72,72	0
59	MG	DA	3067	1/1	0.10	-	13,13,13,13	0
59	MG	BA	3073	1/1	0.36	-	46,46,46,46	0
59	MG	AA	1628	1/1	0.21	-	50,50,50,50	0
59	MG	AA	1643	1/1	0.23	-	93,93,93,93	0
59	MG	DA	3001	1/1	0.20	-	29,29,29,29	1

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	DA	3039	1/1	0.34	-	97,97,97,97	0
59	MG	D1	101	1/1	0.15	-	22,22,22,22	1
59	MG	BA	3032	1/1	0.13	-	49,49,49,49	0
59	MG	AX	101	1/1	0.36	-	27,27,27,27	1
59	MG	AA	1753	1/1	0.34	-	16,16,16,16	1
59	MG	DA	3084	1/1	0.25	-	13,13,13,13	0
59	MG	BA	3314	1/1	0.43	-	45,45,45,45	0
59	MG	BA	3121	1/1	0.72	-	92,92,92,92	0
59	MG	CA	1675	1/1	0.40	-	64,64,64,64	0
59	MG	DA	3164	1/1	0.43	-	44,44,44,44	0
59	MG	BA	3190	1/1	0.16	-	47,47,47,47	0
59	MG	BA	3296	1/1	0.25	-	83,83,83,83	0
59	MG	BA	3234	1/1	0.33	-	26,26,26,26	0
59	MG	DA	3183	1/1	0.14	-	45,45,45,45	0
59	MG	AV	107	1/1	0.20	-	65,65,65,65	1
59	MG	DA	3337	1/1	0.36	-	102,102,102,102	0
59	MG	DA	3040	1/1	0.23	-	27,27,27,27	0
59	MG	BA	3089	1/1	0.26	-	28,28,28,28	0
59	MG	BA	3049	1/1	0.51	-	46,46,46,46	0
59	MG	BA	3213	1/1	0.22	-	80,80,80,80	1
59	MG	AA	1637	1/1	0.18	-	63,63,63,63	0
59	MG	DA	3034	1/1	0.32	-	32,32,32,32	0
59	MG	AA	1761	1/1	0.16	-	88,88,88,88	0
59	MG	AA	1698	1/1	0.27	-	25,25,25,25	1
59	MG	AA	1693	1/1	0.20	-	41,41,41,41	0
59	MG	BA	3033	1/1	0.27	-	35,35,35,35	0
59	MG	BA	3236	1/1	0.23	-	54,54,54,54	0
59	MG	AA	1616	1/1	0.19	-	36,36,36,36	1
59	MG	CA	1637	1/1	0.43	-	65,65,65,65	0
59	MG	DA	3020	1/1	0.26	-	11,11,11,11	0
59	MG	DA	3172	1/1	0.18	-	3,3,3,3	0
59	MG	DB	203	1/1	0.24	-	20,20,20,20	0
59	MG	AA	1615	1/1	0.47	-	50,50,50,50	0
59	MG	DA	3141	1/1	0.26	-	56,56,56,56	0
59	MG	BA	3176	1/1	0.16	-	59,59,59,59	0
59	MG	BA	3224	1/1	0.09	-	37,37,37,37	0
59	MG	AA	1653	1/1	0.34	-	44,44,44,44	0
59	MG	CA	1745	1/1	0.29	-	37,37,37,37	0
59	MG	DA	3265	1/1	0.09	-	27,27,27,27	0
59	MG	DA	3228	1/1	0.34	-	41,41,41,41	0
59	MG	BA	3009	1/1	0.32	-	21,21,21,21	0
59	MG	BA	3062	1/1	0.34	-	16,16,16,16	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	AA	1720	1/1	0.48	-	55,55,55,55	0
59	MG	BA	3322	1/1	0.29	-	52,52,52,52	0
59	MG	DA	3217	1/1	0.16	-	7,7,7,7	0
59	MG	CA	1743	1/1	0.27	-	61,61,61,61	0
59	MG	BA	3050	1/1	0.20	-	36,36,36,36	0
59	MG	DA	3258	1/1	0.40	-	58,58,58,58	0
59	MG	BA	3187	1/1	0.36	-	18,18,18,18	0
59	MG	BA	3170	1/1	0.29	-	38,38,38,38	0
59	MG	DA	3194	1/1	0.25	-	32,32,32,32	0
59	MG	DA	3259	1/1	0.31	-	31,31,31,31	0
59	MG	BA	3350	1/1	0.69	-	69,69,69,69	0
59	MG	BA	3153	1/1	0.23	-	48,48,48,48	0
59	MG	DA	3092	1/1	0.28	-	18,18,18,18	0
59	MG	DA	3310	1/1	0.21	-	51,51,51,51	0
59	MG	BA	3133	1/1	0.27	-	118,118,118,118	0
59	MG	BA	3080	1/1	0.26	-	42,42,42,42	0
59	MG	CA	1655	1/1	0.31	-	37,37,37,37	0
59	MG	DA	3045	1/1	0.42	-	34,34,34,34	0
59	MG	CA	1711	1/1	0.23	-	40,40,40,40	0
59	MG	AA	1650	1/1	0.22	-	40,40,40,40	0
59	MG	DA	3068	1/1	0.20	-	6,6,6,6	0
59	MG	AA	1631	1/1	0.05	-	45,45,45,45	0
59	MG	AA	1602	1/1	0.17	-	53,53,53,53	1
59	MG	BA	3022	1/1	0.38	-	22,22,22,22	0
59	MG	BA	3249	1/1	0.47	-	103,103,103,103	0
59	MG	DA	3107	1/1	0.26	-	31,31,31,31	0
59	MG	BA	3014	1/1	0.29	-	45,45,45,45	0
59	MG	CA	1713	1/1	0.28	-	94,94,94,94	0
59	MG	BA	3340	1/1	0.08	-	73,73,73,73	0
59	MG	AA	1670	1/1	0.17	-	34,34,34,34	0
59	MG	AA	1737	1/1	0.18	-	42,42,42,42	0
59	MG	DA	3199	1/1	0.39	-	14,14,14,14	0
59	MG	DA	3326	1/1	0.53	-	35,35,35,35	0
59	MG	CA	1653	1/1	0.07	-	44,44,44,44	0
59	MG	CA	1746	1/1	0.11	-	10,10,10,10	1
59	MG	BA	3346	1/1	0.19	-	69,69,69,69	0
59	MG	DA	3052	1/1	0.25	-	25,25,25,25	0
59	MG	CA	1724	1/1	0.30	-	58,58,58,58	0
59	MG	AA	1687	1/1	0.27	-	51,51,51,51	0
59	MG	BA	3145	1/1	0.11	-	60,60,60,60	0
59	MG	BA	3276	1/1	0.39	-	60,60,60,60	0
59	MG	DA	3138	1/1	0.31	-	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	AA	1619	1/1	0.29	-	39,39,39,39	0
59	MG	BA	3196	1/1	0.29	-	52,52,52,52	0
59	MG	CA	1651	1/1	0.32	-	40,40,40,40	0
59	MG	DA	3122	1/1	0.61	-	73,73,73,73	0
59	MG	BG	201	1/1	0.41	-	1,1,1,1	1
59	MG	BA	3323	1/1	0.28	-	49,49,49,49	1
59	MG	AA	1679	1/1	0.24	-	82,82,82,82	0
59	MG	DA	3106	1/1	0.37	-	23,23,23,23	0
59	MG	BA	3090	1/1	0.26	-	33,33,33,33	0
59	MG	CA	1751	1/1	0.12	-	62,62,62,62	0
59	MG	DA	3081	1/1	0.23	-	16,16,16,16	0
59	MG	AA	1604	1/1	0.15	-	57,57,57,57	0
59	MG	BA	3309	1/1	0.18	-	51,51,51,51	0
59	MG	BA	3215	1/1	0.08	-	26,26,26,26	0
59	MG	DA	3182	1/1	0.23	-	42,42,42,42	0
59	MG	AA	1729	1/1	0.33	-	88,88,88,88	0
59	MG	DA	3090	1/1	0.23	-	20,20,20,20	0
59	MG	BA	3128	1/1	0.18	-	60,60,60,60	0
59	MG	BA	3242	1/1	0.15	-	106,106,106,106	0
59	MG	DA	3237	1/1	0.37	-	39,39,39,39	0
59	MG	CA	1623	1/1	0.26	-	51,51,51,51	0
59	MG	AA	1663	1/1	0.15	-	50,50,50,50	0
59	MG	AV	104	1/1	0.08	-	109,109,109,109	0
59	MG	DA	3171	1/1	0.14	-	3,3,3,3	0
59	MG	BA	3291	1/1	0.12	-	42,42,42,42	0
59	MG	DA	3304	1/1	0.22	-	18,18,18,18	1
59	MG	BA	3286	1/1	0.39	-	71,71,71,71	0
59	MG	BA	3353	1/1	0.28	-	61,61,61,61	0
59	MG	CA	1666	1/1	0.42	-	59,59,59,59	0
59	MG	BA	3202	1/1	0.17	-	42,42,42,42	0
59	MG	CA	1742	1/1	0.22	-	32,32,32,32	1
59	MG	CA	1662	1/1	0.11	-	49,49,49,49	0
59	MG	DA	3290	1/1	0.43	-	1,1,1,1	1
59	MG	AA	1611	1/1	0.47	-	74,74,74,74	0
59	MG	DA	3005	1/1	0.33	-	21,21,21,21	0
59	MG	DA	3130	1/1	0.36	-	45,45,45,45	0
59	MG	DA	3303	1/1	0.26	-	25,25,25,25	0
59	MG	DA	3025	1/1	0.27	-	29,29,29,29	0
59	MG	DA	3224	1/1	0.47	-	44,44,44,44	0
59	MG	BA	3189	1/1	0.17	-	41,41,41,41	0
59	MG	BA	3294	1/1	0.33	-	32,32,32,32	0
59	MG	BD	301	1/1	0.23	-	22,22,22,22	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	AA	1625	1/1	0.30	-	53,53,53,53	0
59	MG	BB	204	1/1	0.25	-	22,22,22,22	1
59	MG	DA	3220	1/1	0.54	-	51,51,51,51	0
59	MG	CA	1707	1/1	0.18	-	65,65,65,65	0
59	MG	BA	3077	1/1	0.23	-	74,74,74,74	0
59	MG	AA	1701	1/1	0.20	-	61,61,61,61	0
59	MG	BA	3330	1/1	0.41	-	49,49,49,49	0
59	MG	DA	3154	1/1	0.21	-	31,31,31,31	0
59	MG	CA	1721	1/1	0.16	-	74,74,74,74	0
59	MG	BA	3301	1/1	0.21	-	36,36,36,36	0
59	MG	BA	3001	1/1	0.20	-	62,62,62,62	0
59	MG	DA	3144	1/1	0.19	-	56,56,56,56	0
59	MG	BA	3120	1/1	0.20	-	25,25,25,25	0
59	MG	AA	1656	1/1	0.07	-	30,30,30,30	0
59	MG	DA	3302	1/1	0.11	-	1,1,1,1	0
59	MG	DA	3017	1/1	0.20	-	22,22,22,22	0
59	MG	BA	3137	1/1	0.14	-	38,38,38,38	0
59	MG	DA	3260	1/1	0.33	-	43,43,43,43	0
59	MG	DA	3347	1/1	0.34	-	24,24,24,24	1
59	MG	BA	3095	1/1	0.31	-	73,73,73,73	0
59	MG	BA	3043	1/1	0.25	-	22,22,22,22	0
59	MG	CA	1755	1/1	0.19	-	97,97,97,97	1
59	MG	BA	3126	1/1	0.09	-	21,21,21,21	0
59	MG	DA	3283	1/1	0.10	-	35,35,35,35	0
59	MG	AA	1739	1/1	0.12	-	54,54,54,54	0
60	ZN	CD	302	1/1	0.23	-	80,80,80,80	0
59	MG	AA	1721	1/1	0.42	-	87,87,87,87	0
59	MG	AA	1669	1/1	0.28	-	34,34,34,34	0
59	MG	DA	3030	1/1	0.32	-	34,34,34,34	0
59	MG	DA	3015	1/1	0.23	-	9,9,9,9	0
59	MG	AA	1741	1/1	0.30	-	44,44,44,44	0
59	MG	DA	3094	1/1	0.28	-	9,9,9,9	0
59	MG	DA	3208	1/1	0.13	-	26,26,26,26	0
59	MG	BA	3162	1/1	0.30	-	96,96,96,96	0
59	MG	BA	3270	1/1	0.26	-	49,49,49,49	0
59	MG	DA	3026	1/1	0.19	-	21,21,21,21	0
59	MG	DA	3273	1/1	0.28	-	1,1,1,1	1
59	MG	AV	101	1/1	0.18	-	72,72,72,72	0
59	MG	DA	3177	1/1	0.21	-	53,53,53,53	0
59	MG	CA	1649	1/1	0.19	-	22,22,22,22	0
59	MG	DA	3082	1/1	0.22	-	56,56,56,56	0
59	MG	AA	1746	1/1	0.40	-	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	BA	3127	1/1	0.53	-	75,75,75,75	0
59	MG	CA	1678	1/1	0.18	-	101,101,101,101	0
59	MG	DA	3049	1/1	0.28	-	15,15,15,15	0
59	MG	CA	1667	1/1	0.15	-	57,57,57,57	0
59	MG	DA	3078	1/1	0.22	-	33,33,33,33	0
59	MG	BA	3351	1/1	0.39	-	82,82,82,82	0
59	MG	DD	301	1/1	0.26	-	37,37,37,37	0
59	MG	BA	3115	1/1	0.45	-	43,43,43,43	0
59	MG	AA	1607	1/1	0.28	-	57,57,57,57	0
59	MG	BT	201	1/1	0.19	-	49,49,49,49	0
59	MG	CA	1616	1/1	0.48	-	65,65,65,65	0
59	MG	AA	1743	1/1	0.08	-	49,49,49,49	1
59	MG	DA	3150	1/1	0.25	-	48,48,48,48	0
59	MG	CA	1703	1/1	0.09	-	62,62,62,62	0
59	MG	DA	3113	1/1	0.20	-	16,16,16,16	0
59	MG	DA	3210	1/1	0.54	-	95,95,95,95	0
59	MG	BA	3228	1/1	0.10	-	48,48,48,48	1
59	MG	BA	3313	1/1	0.40	-	86,86,86,86	0
59	MG	DA	3024	1/1	0.33	-	10,10,10,10	0
59	MG	DA	3095	1/1	0.80	-	111,111,111,111	0
59	MG	DA	3230	1/1	0.18	-	42,42,42,42	0
59	MG	CA	1705	1/1	0.20	-	47,47,47,47	0
59	MG	BA	3312	1/1	0.12	-	93,93,93,93	0
59	MG	DA	3299	1/1	0.39	-	49,49,49,49	0
59	MG	BA	3355	1/1	0.18	-	9,9,9,9	1
59	MG	DA	3163	1/1	0.14	-	27,27,27,27	0
59	MG	AA	1707	1/1	0.15	-	58,58,58,58	0
59	MG	BA	3076	1/1	0.17	-	28,28,28,28	0
59	MG	AA	1684	1/1	0.30	-	59,59,59,59	0
60	ZN	D9	101	1/1	0.10	-	59,59,59,59	0
59	MG	BA	3201	1/1	0.15	-	37,37,37,37	0
59	MG	CA	1681	1/1	0.10	-	58,58,58,58	0
59	MG	DA	3355	1/1	0.37	-	68,68,68,68	0
59	MG	CA	1712	1/1	0.42	-	67,67,67,67	0
59	MG	BA	3347	1/1	0.18	-	30,30,30,30	0
59	MG	AA	1635	1/1	0.08	-	50,50,50,50	0
59	MG	BA	3293	1/1	0.56	-	83,83,83,83	0
59	MG	DA	3148	1/1	0.26	-	7,7,7,7	0
59	MG	AA	1688	1/1	0.26	-	52,52,52,52	0
59	MG	BA	3099	1/1	0.21	-	43,43,43,43	0
59	MG	DA	3324	1/1	0.29	-	25,25,25,25	1
59	MG	BA	3071	1/1	0.10	-	28,28,28,28	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	CA	1704	1/1	0.43	-	75,75,75,75	0
59	MG	AA	1632	1/1	0.57	-	56,56,56,56	0
59	MG	BA	3151	1/1	0.15	-	52,52,52,52	0
59	MG	AA	1682	1/1	0.68	-	77,77,77,77	0
59	MG	BA	3109	1/1	0.26	-	37,37,37,37	1
59	MG	DA	3057	1/1	0.34	-	10,10,10,10	0
59	MG	CX	101	1/1	0.39	-	79,79,79,79	0
59	MG	BA	3034	1/1	0.17	-	39,39,39,39	0
59	MG	DA	3135	1/1	0.15	-	33,33,33,33	0
59	MG	CA	1694	1/1	0.12	-	37,37,37,37	1
59	MG	CA	1691	1/1	0.32	-	33,33,33,33	0
59	MG	CA	1648	1/1	0.38	-	72,72,72,72	0
59	MG	BA	3093	1/1	0.25	-	38,38,38,38	0
59	MG	DA	3340	1/1	0.14	-	25,25,25,25	0
59	MG	DA	3035	1/1	0.24	-	19,19,19,19	0
59	MG	BA	3078	1/1	0.26	-	58,58,58,58	0
59	MG	BA	3222	1/1	0.40	-	29,29,29,29	0
59	MG	AV	106	1/1	0.08	-	77,77,77,77	0
59	MG	DA	3044	1/1	0.67	-	62,62,62,62	0
59	MG	AA	1760	1/1	0.24	-	27,27,27,27	1
59	MG	BA	3259	1/1	0.17	-	80,80,80,80	0
59	MG	BA	3143	1/1	0.35	-	90,90,90,90	0
59	MG	AA	1732	1/1	0.47	-	72,72,72,72	0
59	MG	BA	3031	1/1	0.28	-	37,37,37,37	0
59	MG	AA	1705	1/1	0.14	-	43,43,43,43	0
59	MG	DA	3143	1/1	0.24	-	48,48,48,48	0
59	MG	AA	1675	1/1	0.13	-	35,35,35,35	0
59	MG	DA	3229	1/1	0.21	-	56,56,56,56	0
59	MG	BA	3021	1/1	0.20	-	32,32,32,32	0
59	MG	BA	3181	1/1	0.29	-	60,60,60,60	0
59	MG	BA	3036	1/1	0.13	-	44,44,44,44	0
59	MG	BA	3004	1/1	0.36	-	118,118,118,118	1
59	MG	CA	1676	1/1	0.16	-	46,46,46,46	1
59	MG	DA	3251	1/1	0.19	-	18,18,18,18	1
59	MG	DA	3133	1/1	0.18	-	13,13,13,13	1
59	MG	DA	3023	1/1	0.44	-	20,20,20,20	0
59	MG	CV	107	1/1	0.13	-	51,51,51,51	0
59	MG	BA	3214	1/1	0.15	-	55,55,55,55	0
59	MG	DA	3021	1/1	0.22	-	20,20,20,20	0
59	MG	CA	1625	1/1	0.17	-	36,36,36,36	0
59	MG	DA	3308	1/1	0.19	-	41,41,41,41	0
59	MG	BA	3250	1/1	0.25	-	50,50,50,50	1

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	CA	1640	1/1	0.28	-	37,37,37,37	0
59	MG	BA	3284	1/1	0.18	-	31,31,31,31	0
59	MG	BA	3135	1/1	0.41	-	53,53,53,53	0
59	MG	BA	3283	1/1	0.16	-	49,49,49,49	0
59	MG	DA	3286	1/1	0.33	-	41,41,41,41	0
59	MG	AA	1754	1/1	0.10	-	51,51,51,51	0
59	MG	CA	1673	1/1	0.08	-	15,15,15,15	0
59	MG	BA	3103	1/1	0.42	-	28,28,28,28	0
59	MG	BA	3186	1/1	0.30	-	28,28,28,28	0
59	MG	DA	3245	1/1	0.17	-	38,38,38,38	0
59	MG	CA	1606	1/1	0.39	-	58,58,58,58	0
59	MG	DA	3007	1/1	0.23	-	4,4,4,4	0
59	MG	DA	3041	1/1	0.29	-	17,17,17,17	0
59	MG	BA	3321	1/1	0.14	-	73,73,73,73	0
59	MG	DA	3223	1/1	0.39	-	32,32,32,32	0
59	MG	DH	201	1/1	0.18	-	44,44,44,44	0
59	MG	DA	3261	1/1	0.16	-	33,33,33,33	0
59	MG	CA	1687	1/1	0.13	-	64,64,64,64	0
59	MG	CA	1739	1/1	0.20	-	94,94,94,94	1
59	MG	BY	201	1/1	0.11	-	42,42,42,42	0
59	MG	CA	1749	1/1	0.22	-	65,65,65,65	0
59	MG	BA	3295	1/1	0.18	-	81,81,81,81	1
59	MG	BA	3352	1/1	0.40	-	62,62,62,62	0
59	MG	DA	3128	1/1	0.33	-	56,56,56,56	0
59	MG	DA	3155	1/1	0.21	-	50,50,50,50	0
59	MG	BA	3194	1/1	0.43	-	70,70,70,70	0
59	MG	DA	3029	1/1	0.28	-	49,49,49,49	0
59	MG	AA	1606	1/1	0.42	-	65,65,65,65	0
59	MG	BA	3165	1/1	0.41	-	40,40,40,40	0
59	MG	CA	1639	1/1	0.27	-	51,51,51,51	0
59	MG	BF	302	1/1	0.31	-	63,63,63,63	0
59	MG	DA	3250	1/1	0.43	-	68,68,68,68	0
59	MG	BA	3045	1/1	0.55	-	44,44,44,44	0
59	MG	BA	3204	1/1	0.37	-	35,35,35,35	1
59	MG	BA	3065	1/1	0.34	-	67,67,67,67	0
59	MG	BA	3320	1/1	0.28	-	57,57,57,57	0
59	MG	DA	3240	1/1	0.35	-	50,50,50,50	1
59	MG	AA	1665	1/1	0.25	-	61,61,61,61	0
59	MG	DA	3132	1/1	0.15	-	62,62,62,62	0
59	MG	AA	1742	1/1	0.78	-	72,72,72,72	0
59	MG	CA	1608	1/1	0.15	-	35,35,35,35	0
59	MG	DA	3062	1/1	0.24	-	1,1,1,1	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	BA	3348	1/1	0.52	-	48,48,48,48	1
59	MG	DA	3080	1/1	0.30	-	32,32,32,32	0
59	MG	BA	3010	1/1	0.60	-	63,63,63,63	0
59	MG	DA	3202	1/1	0.31	-	35,35,35,35	0
59	MG	BA	3303	1/1	0.34	-	57,57,57,57	0
59	MG	DA	3254	1/1	0.16	-	50,50,50,50	1
59	MG	BA	3114	1/1	0.28	-	37,37,37,37	0
59	MG	AA	1695	1/1	0.18	-	56,56,56,56	0
59	MG	DA	3293	1/1	0.76	-	63,63,63,63	0
59	MG	BA	3232	1/1	0.49	-	59,59,59,59	0
59	MG	BA	3113	1/1	0.30	-	33,33,33,33	0
59	MG	AA	1700	1/1	0.36	-	77,77,77,77	0
59	MG	DA	3236	1/1	0.29	-	43,43,43,43	0
59	MG	DA	3356	1/1	0.62	-	74,74,74,74	0
59	MG	DA	3089	1/1	0.28	-	5,5,5,5	0
59	MG	AA	1757	1/1	0.15	-	49,49,49,49	0
59	MG	BA	3319	1/1	0.57	-	77,77,77,77	0
59	MG	DA	3008	1/1	0.23	-	10,10,10,10	0
59	MG	BA	3052	1/1	0.13	-	28,28,28,28	0
59	MG	BA	3335	1/1	0.21	-	173,173,173,173	0
59	MG	BA	3148	1/1	0.08	-	44,44,44,44	0
59	MG	BA	3125	1/1	0.30	-	19,19,19,19	0
59	MG	DA	3246	1/1	0.22	-	45,45,45,45	0
59	MG	BA	3203	1/1	0.27	-	43,43,43,43	0
59	MG	DA	3201	1/1	0.39	-	29,29,29,29	0
59	MG	AA	1726	1/1	0.19	-	2,2,2,2	1
59	MG	DA	3219	1/1	0.15	-	32,32,32,32	0
59	MG	CA	1615	1/1	0.33	-	26,26,26,26	0
59	MG	AA	1751	1/1	0.23	-	11,11,11,11	1
59	MG	BA	3046	1/1	0.24	-	22,22,22,22	0
59	MG	BA	3105	1/1	0.14	-	9,9,9,9	0
59	MG	BA	3272	1/1	0.48	-	44,44,44,44	0
59	MG	AA	1724	1/1	0.42	-	1,1,1,1	1
59	MG	BA	3238	1/1	0.09	-	17,17,17,17	0
59	MG	CA	1669	1/1	0.27	-	33,33,33,33	0
59	MG	CA	1627	1/1	0.08	-	51,51,51,51	0
59	MG	BA	3094	1/1	0.22	-	36,36,36,36	0
59	MG	BA	3174	1/1	0.27	-	29,29,29,29	0
59	MG	DS	201	1/1	0.24	-	30,30,30,30	0
59	MG	BA	3357	1/1	0.45	-	68,68,68,68	1
59	MG	CA	1698	1/1	0.40	-	20,20,20,20	1
59	MG	DA	3112	1/1	0.13	-	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	BA	3207	1/1	0.18	-	68,68,68,68	0
59	MG	CA	1752	1/1	0.09	-	84,84,84,84	0
59	MG	CA	1715	1/1	0.38	-	50,50,50,50	1
59	MG	DA	3233	1/1	0.33	-	37,37,37,37	0
59	MG	DA	3274	1/1	0.38	-	69,69,69,69	0
59	MG	DA	3284	1/1	0.21	-	1,1,1,1	0
59	MG	BA	3068	1/1	0.25	-	30,30,30,30	0
59	MG	CA	1617	1/1	0.32	-	61,61,61,61	0
59	MG	BA	3235	1/1	0.20	-	42,42,42,42	0
59	MG	CA	1604	1/1	0.16	-	51,51,51,51	0
59	MG	DA	3345	1/1	0.23	-	46,46,46,46	0
59	MG	BA	3263	1/1	0.33	-	54,54,54,54	0
59	MG	BF	301	1/1	0.13	-	33,33,33,33	0
59	MG	DA	3013	1/1	0.17	-	16,16,16,16	0
59	MG	CA	1660	1/1	0.25	-	69,69,69,69	0
59	MG	BA	3179	1/1	0.47	-	43,43,43,43	0
59	MG	BA	3083	1/1	0.23	-	25,25,25,25	0
59	MG	CA	1702	1/1	0.26	-	57,57,57,57	0
59	MG	BA	3271	1/1	0.35	-	55,55,55,55	0
59	MG	DA	3002	1/1	0.18	-	39,39,39,39	1
59	MG	CA	1692	1/1	0.59	-	73,73,73,73	0
59	MG	DA	3134	1/1	0.16	-	28,28,28,28	0
59	MG	BA	3051	1/1	0.20	-	25,25,25,25	0
59	MG	AS	101	1/1	0.08	-	115,115,115,115	0
59	MG	CA	1744	1/1	0.29	-	38,38,38,38	0
59	MG	DA	3234	1/1	0.39	-	69,69,69,69	0
59	MG	DA	3140	1/1	0.22	-	57,57,57,57	0
59	MG	BA	3048	1/1	0.24	-	32,32,32,32	0
59	MG	DF	301	1/1	0.10	-	9,9,9,9	0
59	MG	DA	3114	1/1	0.18	-	15,15,15,15	0
59	MG	CA	1638	1/1	0.62	-	77,77,77,77	0
59	MG	BA	3274	1/1	0.11	-	57,57,57,57	0
59	MG	DA	3323	1/1	0.39	-	45,45,45,45	0
59	MG	AA	1617	1/1	0.09	-	44,44,44,44	0
59	MG	BA	3037	1/1	0.23	-	23,23,23,23	0
59	MG	DA	3248	1/1	0.12	-	2,2,2,2	1
59	MG	DA	3279	1/1	0.23	-	16,16,16,16	0
59	MG	BA	3258	1/1	0.31	-	48,48,48,48	0
59	MG	BA	3265	1/1	0.07	-	32,32,32,32	0
59	MG	BA	3247	1/1	0.13	-	66,66,66,66	0
59	MG	DA	3247	1/1	0.13	-	44,44,44,44	0
59	MG	DA	3263	1/1	0.43	-	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	CA	1663	1/1	0.23	-	57,57,57,57	0
59	MG	BA	3130	1/1	0.08	-	29,29,29,29	0
59	MG	BA	3070	1/1	0.21	-	37,37,37,37	0
59	MG	DA	3256	1/1	0.19	-	49,49,49,49	0
59	MG	CA	1664	1/1	0.16	-	28,28,28,28	0
59	MG	BA	3349	1/1	0.34	-	45,45,45,45	0
59	MG	AA	1651	1/1	0.30	-	49,49,49,49	0
59	MG	AA	1749	1/1	0.26	-	48,48,48,48	0
59	MG	DA	3162	1/1	0.18	-	1,1,1,1	0
59	MG	BA	3229	1/1	0.12	-	37,37,37,37	0
59	MG	DA	3093	1/1	0.25	-	11,11,11,11	0
59	MG	CA	1632	1/1	0.71	-	88,88,88,88	0
59	MG	DA	3165	1/1	0.32	-	45,45,45,45	0
59	MG	AA	1672	1/1	0.06	-	55,55,55,55	0
59	MG	BA	3219	1/1	0.32	-	46,46,46,46	0
59	MG	BA	3279	1/1	0.27	-	39,39,39,39	0
59	MG	DA	3294	1/1	0.31	-	33,33,33,33	0
59	MG	BA	3123	1/1	0.63	-	72,72,72,72	0
59	MG	BA	3209	1/1	0.69	-	66,66,66,66	0
59	MG	CA	1630	1/1	0.32	-	68,68,68,68	0
59	MG	DA	3169	1/1	0.16	-	47,47,47,47	0
59	MG	DA	3309	1/1	0.11	-	61,61,61,61	0
59	MG	DA	3010	1/1	0.30	-	54,54,54,54	0
59	MG	BA	3053	1/1	0.12	-	45,45,45,45	1
59	MG	DA	3048	1/1	0.27	-	22,22,22,22	0
59	MG	DA	3088	1/1	0.40	-	8,8,8,8	0
59	MG	BA	3331	1/1	0.30	-	47,47,47,47	0
59	MG	BA	3040	1/1	0.23	-	36,36,36,36	0
59	MG	CA	1710	1/1	0.10	-	120,120,120,120	0
59	MG	DA	3318	1/1	0.36	-	49,49,49,49	0
59	MG	BA	3160	1/1	0.10	-	36,36,36,36	0
59	MG	BA	3211	1/1	0.22	-	44,44,44,44	0
59	MG	DA	3043	1/1	0.26	-	2,2,2,2	0
59	MG	DG	201	1/1	0.48	-	1,1,1,1	1
59	MG	BA	3267	1/1	0.21	-	25,25,25,25	0
59	MG	CA	1629	1/1	0.48	-	55,55,55,55	0
59	MG	BA	3225	1/1	0.48	-	73,73,73,73	0
59	MG	DA	3187	1/1	0.51	-	44,44,44,44	0
59	MG	BA	3042	1/1	0.43	-	43,43,43,43	0
59	MG	DA	3051	1/1	0.34	-	23,23,23,23	0
59	MG	BA	3005	1/1	0.35	-	27,27,27,27	0
59	MG	DA	3033	1/1	0.22	-	16,16,16,16	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	DA	3117	1/1	0.13	-	16,16,16,16	0
59	MG	DA	3149	1/1	0.16	-	43,43,43,43	0
59	MG	DA	3343	1/1	0.30	-	48,48,48,48	0
59	MG	BA	3311	1/1	0.20	-	75,75,75,75	0
59	MG	DA	3036	1/1	0.14	-	39,39,39,39	0
59	MG	DA	3330	1/1	0.20	-	23,23,23,23	0
59	MG	DA	3238	1/1	0.36	-	47,47,47,47	0
59	MG	DA	3296	1/1	0.06	-	34,34,34,34	0
59	MG	BA	3002	1/1	0.39	-	80,80,80,80	0
59	MG	DA	3099	1/1	0.25	-	12,12,12,12	0
59	MG	DA	3338	1/1	0.32	-	58,58,58,58	0
59	MG	AA	1712	1/1	0.20	-	47,47,47,47	0
59	MG	AA	1661	1/1	0.14	-	52,52,52,52	0
59	MG	AA	1718	1/1	0.26	-	71,71,71,71	0
59	MG	BA	3112	1/1	0.15	-	44,44,44,44	0
59	MG	DA	3327	1/1	0.23	-	38,38,38,38	0
59	MG	AA	1756	1/1	0.10	-	64,64,64,64	0
59	MG	BA	3124	1/1	0.37	-	65,65,65,65	0
59	MG	BA	3088	1/1	0.46	-	38,38,38,38	0
59	MG	BA	3184	1/1	0.30	-	27,27,27,27	0
59	MG	BA	3141	1/1	0.27	-	42,42,42,42	0
59	MG	DA	3166	1/1	0.14	-	29,29,29,29	0
59	MG	AA	1681	1/1	0.20	-	60,60,60,60	0
59	MG	BA	3007	1/1	0.29	-	39,39,39,39	0
59	MG	BA	3057	1/1	0.28	-	21,21,21,21	0
59	MG	BA	3168	1/1	0.11	-	37,37,37,37	0
59	MG	DA	3061	1/1	0.23	-	10,10,10,10	0
59	MG	DA	3285	1/1	0.30	-	48,48,48,48	0
59	MG	DA	3332	1/1	0.24	-	26,26,26,26	1
59	MG	DA	3086	1/1	0.23	-	18,18,18,18	0
59	MG	CA	1731	1/1	0.18	-	69,69,69,69	0
59	MG	BA	3171	1/1	0.17	-	30,30,30,30	0
59	MG	CA	1737	1/1	0.53	-	59,59,59,59	0
59	MG	BA	3156	1/1	0.13	-	58,58,58,58	0
59	MG	AA	1752	1/1	0.64	-	57,57,57,57	1
59	MG	DA	3063	1/1	0.18	-	17,17,17,17	0
59	MG	DA	3212	1/1	0.19	-	59,59,59,59	0
59	MG	CA	1728	1/1	0.29	-	53,53,53,53	0
59	MG	DA	3156	1/1	0.24	-	31,31,31,31	0
59	MG	CL	201	1/1	0.12	-	8,8,8,8	1
59	MG	CV	106	1/1	0.17	-	96,96,96,96	0
59	MG	AA	1601	1/1	0.34	-	58,58,58,58	1

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	CA	1642	1/1	0.29	-	67,67,67,67	1
59	MG	DA	3353	1/1	0.20	-	43,43,43,43	0
59	MG	BA	3206	1/1	0.14	-	85,85,85,85	0
59	MG	CA	1671	1/1	0.14	-	44,44,44,44	0
59	MG	AA	1654	1/1	0.14	-	78,78,78,78	0
59	MG	AA	1725	1/1	0.09	-	94,94,94,94	0
59	MG	BA	3205	1/1	0.20	-	75,75,75,75	0
59	MG	BA	3067	1/1	0.11	-	30,30,30,30	0
59	MG	BA	3111	1/1	0.40	-	65,65,65,65	0
59	MG	BA	3025	1/1	0.22	-	40,40,40,40	0
59	MG	AA	1638	1/1	0.11	-	43,43,43,43	0
59	MG	CA	1665	1/1	0.44	-	46,46,46,46	0
59	MG	DA	3321	1/1	0.47	-	85,85,85,85	0
59	MG	DA	3137	1/1	0.27	-	11,11,11,11	0
59	MG	CA	1654	1/1	0.35	-	48,48,48,48	0
59	MG	CA	1633	1/1	0.22	-	69,69,69,69	0
59	MG	BA	3107	1/1	0.21	-	25,25,25,25	1
59	MG	DA	3038	1/1	0.23	-	20,20,20,20	0
59	MG	DA	3069	1/1	0.23	-	19,19,19,19	0
59	MG	DA	3322	1/1	0.15	-	38,38,38,38	0
59	MG	CA	1657	1/1	0.18	-	52,52,52,52	0
59	MG	CA	1618	1/1	0.13	-	38,38,38,38	0
59	MG	BA	3023	1/1	0.41	-	52,52,52,52	0
59	MG	DA	3315	1/1	0.16	-	15,15,15,15	0
59	MG	AA	1717	1/1	0.57	-	110,110,110,110	0
59	MG	BA	3305	1/1	0.35	-	54,54,54,54	0
59	MG	AA	1689	1/1	0.17	-	37,37,37,37	0
59	MG	BA	3028	1/1	0.26	-	40,40,40,40	0
59	MG	DA	3125	1/1	0.38	-	18,18,18,18	0
59	MG	CA	1754	1/1	0.45	-	68,68,68,68	1
59	MG	BA	3019	1/1	0.34	-	26,26,26,26	0
59	MG	AA	1747	1/1	0.30	-	81,81,81,81	0
59	MG	BA	3261	1/1	0.26	-	60,60,60,60	0
59	MG	BA	3329	1/1	0.48	-	58,58,58,58	0
59	MG	DA	3317	1/1	0.27	-	63,63,63,63	0
59	MG	BA	3064	1/1	0.60	-	61,61,61,61	0
59	MG	BA	3087	1/1	0.20	-	13,13,13,13	0
59	MG	DA	3064	1/1	0.28	-	18,18,18,18	0
59	MG	DA	3075	1/1	0.28	-	26,26,26,26	0
59	MG	CA	1622	1/1	0.14	-	53,53,53,53	0
59	MG	BA	3316	1/1	0.25	-	74,74,74,74	0
59	MG	BA	3216	1/1	0.21	-	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	DA	3065	1/1	0.58	-	65,65,65,65	0
59	MG	CW	104	1/1	0.14	-	37,37,37,37	1
59	MG	DA	3003	1/1	0.30	-	35,35,35,35	0
59	MG	DA	3316	1/1	0.15	-	33,33,33,33	1
59	MG	AA	1702	1/1	0.20	-	51,51,51,51	0
59	MG	CA	1693	1/1	0.45	-	56,56,56,56	0
59	MG	AA	1678	1/1	0.34	-	56,56,56,56	0
59	MG	DA	3083	1/1	0.24	-	11,11,11,11	0
59	MG	DA	3277	1/1	0.29	-	37,37,37,37	0
59	MG	BA	3281	1/1	0.34	-	51,51,51,51	1
59	MG	DA	3344	1/1	0.13	-	43,43,43,43	0
59	MG	BA	3285	1/1	0.25	-	37,37,37,37	1
59	MG	DA	3146	1/1	0.10	-	27,27,27,27	0
59	MG	DA	3205	1/1	0.28	-	46,46,46,46	0
59	MG	DA	3115	1/1	0.26	-	44,44,44,44	0
59	MG	DA	3074	1/1	0.25	-	24,24,24,24	0
59	MG	DA	3180	1/1	0.30	-	11,11,11,11	0
59	MG	BA	3075	1/1	0.30	-	32,32,32,32	0
59	MG	BA	3333	1/1	0.38	-	23,23,23,23	1
59	MG	BA	3185	1/1	0.27	-	46,46,46,46	0
59	MG	CA	1680	1/1	0.60	-	67,67,67,67	0
59	MG	BA	3345	1/1	0.35	-	63,63,63,63	0
59	MG	DA	3160	1/1	0.33	-	18,18,18,18	0
59	MG	DA	3196	1/1	0.18	-	41,41,41,41	0
59	MG	DA	3198	1/1	0.38	-	52,52,52,52	0
59	MG	AA	1734	1/1	0.27	-	51,51,51,51	0
59	MG	BA	3132	1/1	0.18	-	80,80,80,80	0
59	MG	CA	1732	1/1	0.41	-	70,70,70,70	0
59	MG	CA	1748	1/1	1.04	-	1,1,1,1	1
59	MG	BA	3255	1/1	0.27	-	73,73,73,73	0
59	MG	DA	3221	1/1	0.26	-	63,63,63,63	0
59	MG	DA	3011	1/1	0.22	-	10,10,10,10	0
59	MG	AA	1666	1/1	0.73	-	70,70,70,70	0
59	MG	BA	3245	1/1	0.21	-	43,43,43,43	0
59	MG	DA	3319	1/1	0.36	-	71,71,71,71	0
59	MG	DA	3006	1/1	0.60	-	52,52,52,52	0
59	MG	CA	1641	1/1	0.46	-	43,43,43,43	0
59	MG	DA	3213	1/1	0.23	-	17,17,17,17	0
60	ZN	CN	102	1/1	0.12	-	101,101,101,101	0
59	MG	CA	1601	1/1	0.27	-	59,59,59,59	0
59	MG	AA	1748	1/1	0.58	-	81,81,81,81	0
59	MG	BA	3253	1/1	0.09	-	65,65,65,65	1

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	BA	3047	1/1	0.17	-	18,18,18,18	0
59	MG	BA	3266	1/1	0.35	-	35,35,35,35	0
59	MG	DA	3066	1/1	0.36	-	14,14,14,14	0
59	MG	BA	3164	1/1	0.38	-	52,52,52,52	0
59	MG	DA	3118	1/1	0.24	-	15,15,15,15	0
59	MG	BA	3218	1/1	0.52	-	89,89,89,89	0
59	MG	CD	301	1/1	0.13	-	84,84,84,84	0
59	MG	CN	101	1/1	0.09	-	69,69,69,69	0
59	MG	BA	3012	1/1	0.21	-	25,25,25,25	0
59	MG	DA	3262	1/1	0.10	-	32,32,32,32	0
59	MG	AA	1634	1/1	0.45	-	39,39,39,39	0
59	MG	DA	3325	1/1	0.25	-	48,48,48,48	0
59	MG	DA	3193	1/1	0.18	-	61,61,61,61	0
59	MG	AA	1620	1/1	0.22	-	54,54,54,54	0
59	MG	AA	1667	1/1	0.31	-	85,85,85,85	0
59	MG	DA	3227	1/1	0.23	-	22,22,22,22	0
59	MG	DA	3314	1/1	0.52	-	31,31,31,31	0
60	ZN	B9	101	1/1	0.05	-	77,77,77,77	1
59	MG	BA	3356	1/1	0.23	-	68,68,68,68	0
59	MG	BA	3244	1/1	0.22	-	51,51,51,51	0
59	MG	DA	3231	1/1	0.21	-	27,27,27,27	0
59	MG	BA	3108	1/1	0.37	-	15,15,15,15	0
59	MG	AA	1618	1/1	0.09	-	30,30,30,30	1
59	MG	DA	3028	1/1	0.25	-	24,24,24,24	0
59	MG	DA	3098	1/1	0.14	-	6,6,6,6	0
59	MG	BA	3327	1/1	0.19	-	52,52,52,52	0
59	MG	DA	3077	1/1	0.29	-	9,9,9,9	0
59	MG	BA	3006	1/1	0.45	-	73,73,73,73	0
59	MG	DA	3354	1/1	0.19	-	21,21,21,21	0
59	MG	BA	3017	1/1	0.28	-	45,45,45,45	0
59	MG	BA	3280	1/1	0.14	-	56,56,56,56	0
59	MG	BA	3230	1/1	0.18	-	40,40,40,40	0
59	MG	BA	3116	1/1	0.28	-	45,45,45,45	0
59	MG	BA	3157	1/1	0.21	-	36,36,36,36	1
59	MG	DA	3157	1/1	0.23	-	26,26,26,26	0
59	MG	AA	1719	1/1	0.20	-	63,63,63,63	0
59	MG	CA	1690	1/1	0.27	-	54,54,54,54	0
59	MG	BA	3188	1/1	0.32	-	14,14,14,14	0
59	MG	DA	3170	1/1	0.18	-	25,25,25,25	0
59	MG	CV	101	1/1	0.16	-	29,29,29,29	0
59	MG	DA	3336	1/1	0.36	-	48,48,48,48	0
59	MG	DA	3244	1/1	0.56	-	1,1,1,1	1

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	CA	1679	1/1	0.28	-	60,60,60,60	0
59	MG	BA	3310	1/1	0.27	-	68,68,68,68	0
59	MG	AA	1639	1/1	0.34	-	73,73,73,73	0
59	MG	CA	1688	1/1	0.10	-	56,56,56,56	0
59	MG	DA	3209	1/1	0.21	-	47,47,47,47	0
59	MG	BA	3054	1/1	0.30	-	19,19,19,19	0
59	MG	DA	3073	1/1	0.26	-	15,15,15,15	0
59	MG	DA	3127	1/1	0.10	-	6,6,6,6	0
59	MG	AA	1736	1/1	0.15	-	43,43,43,43	1
59	MG	AA	1704	1/1	0.29	-	56,56,56,56	0
59	MG	BA	3096	1/1	0.32	-	59,59,59,59	0
59	MG	BA	3055	1/1	0.31	-	25,25,25,25	0
59	MG	AA	1710	1/1	0.26	-	61,61,61,61	0
59	MG	CA	1683	1/1	0.14	-	35,35,35,35	0
59	MG	AA	1657	1/1	0.44	-	46,46,46,46	0
59	MG	CA	1734	1/1	0.30	-	72,72,72,72	1
59	MG	AA	1697	1/1	0.17	-	60,60,60,60	0
59	MG	BA	3217	1/1	0.46	-	54,54,54,54	0
59	MG	AA	1677	1/1	0.49	-	68,68,68,68	0
59	MG	BA	3306	1/1	0.34	-	29,29,29,29	0
59	MG	DA	3278	1/1	0.41	-	40,40,40,40	0
59	MG	BA	3154	1/1	0.22	-	44,44,44,44	0
59	MG	CV	103	1/1	0.08	-	57,57,57,57	0
59	MG	AA	1608	1/1	0.15	-	48,48,48,48	0
59	MG	CA	1685	1/1	0.39	-	53,53,53,53	0
59	MG	DA	3288	1/1	0.23	-	61,61,61,61	0
59	MG	DA	3186	1/1	0.28	-	17,17,17,17	0
59	MG	DA	3357	1/1	0.36	-	55,55,55,55	0
59	MG	BA	3343	1/1	0.12	-	75,75,75,75	0
59	MG	CA	1659	1/1	0.27	-	69,69,69,69	0
59	MG	DA	3298	1/1	0.30	-	78,78,78,78	0
59	MG	BA	3192	1/1	0.29	-	65,65,65,65	0
59	MG	BA	3134	1/1	0.17	-	52,52,52,52	0
59	MG	DA	3181	1/1	0.29	-	26,26,26,26	0
59	MG	AA	1699	1/1	0.28	-	83,83,83,83	0
59	MG	AA	1685	1/1	0.12	-	57,57,57,57	0
59	MG	AA	1709	1/1	0.22	-	50,50,50,50	0
59	MG	BA	3024	1/1	0.35	-	36,36,36,36	0
59	MG	BA	3300	1/1	0.25	-	17,17,17,17	0
59	MG	BA	3169	1/1	0.22	-	45,45,45,45	0
59	MG	AA	1686	1/1	0.30	-	64,64,64,64	0
59	MG	AA	1722	1/1	0.15	-	46,46,46,46	1

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	CA	1740	1/1	0.47	-	56,56,56,56	0
59	MG	DA	3329	1/1	0.51	-	47,47,47,47	0
59	MG	DB	204	1/1	0.22	-	1,1,1,1	1
59	MG	BA	3273	1/1	0.63	-	12,12,12,12	1
59	MG	BA	3140	1/1	0.30	-	77,77,77,77	0
59	MG	DA	3352	1/1	0.19	-	46,46,46,46	0
59	MG	DA	3126	1/1	0.28	-	6,6,6,6	0
59	MG	BA	3302	1/1	0.21	-	20,20,20,20	0
59	MG	AA	1750	1/1	0.32	-	54,54,54,54	0
59	MG	AA	1664	1/1	0.30	-	65,65,65,65	0
59	MG	DA	3348	1/1	0.16	-	18,18,18,18	0
59	MG	B5	101	1/1	0.25	-	38,38,38,38	0
59	MG	DA	3050	1/1	0.14	-	13,13,13,13	0
59	MG	DA	3123	1/1	0.53	-	76,76,76,76	0
59	MG	DA	3312	1/1	0.14	-	65,65,65,65	0
59	MG	DA	3104	1/1	0.32	-	35,35,35,35	0
59	MG	DA	3188	1/1	0.24	-	7,7,7,7	0
59	MG	DA	3071	1/1	0.19	-	18,18,18,18	0
59	MG	CA	1736	1/1	0.38	-	55,55,55,55	0
59	MG	AA	1694	1/1	0.33	-	54,54,54,54	0
59	MG	BA	3035	1/1	0.17	-	21,21,21,21	0
59	MG	DA	3203	1/1	0.22	-	37,37,37,37	0
59	MG	BA	3102	1/1	0.12	-	20,20,20,20	0
59	MG	CA	1747	1/1	0.17	-	21,21,21,21	1
59	MG	CA	1634	1/1	0.40	-	35,35,35,35	0
59	MG	BA	3163	1/1	0.32	-	67,67,67,67	0
59	MG	AA	1621	1/1	0.17	-	93,93,93,93	0
59	MG	BA	3079	1/1	0.30	-	36,36,36,36	0
59	MG	DA	3108	1/1	0.36	-	16,16,16,16	0
59	MG	DA	3116	1/1	0.14	-	7,7,7,7	0
59	MG	BA	3339	1/1	0.08	-	21,21,21,21	1
59	MG	CA	1706	1/1	0.20	-	53,53,53,53	0
59	MG	DA	3009	1/1	0.28	-	15,15,15,15	0
59	MG	CA	1719	1/1	0.23	-	98,98,98,98	0
59	MG	BA	3328	1/1	0.21	-	32,32,32,32	0
59	MG	DA	3178	1/1	0.16	-	51,51,51,51	0
59	MG	AA	1649	1/1	0.27	-	67,67,67,67	0
59	MG	DA	3351	1/1	0.65	-	70,70,70,70	0
59	MG	AA	1633	1/1	0.27	-	73,73,73,73	0
59	MG	BA	3336	1/1	0.34	-	40,40,40,40	0
59	MG	BA	3200	1/1	0.30	-	36,36,36,36	0
59	MG	D5	101	1/1	0.25	-	25,25,25,25	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	BA	3139	1/1	0.73	-	84,84,84,84	0
59	MG	BA	3231	1/1	0.23	-	25,25,25,25	1
59	MG	DA	3218	1/1	0.30	-	29,29,29,29	0
59	MG	BA	3166	1/1	0.12	-	42,42,42,42	0
59	MG	DA	3131	1/1	0.13	-	18,18,18,18	0
59	MG	DA	3300	1/1	0.17	-	10,10,10,10	0
59	MG	DA	3359	1/1	0.17	-	1,1,1,1	1
59	MG	BA	3288	1/1	0.17	-	52,52,52,52	0
59	MG	DA	3191	1/1	0.24	-	34,34,34,34	0
59	MG	DA	3266	1/1	0.21	-	27,27,27,27	0
59	MG	CA	1652	1/1	0.47	-	71,71,71,71	0
59	MG	BA	3298	1/1	0.23	-	68,68,68,68	0
59	MG	DA	3241	1/1	0.11	-	69,69,69,69	0
59	MG	DA	3272	1/1	0.24	-	19,19,19,19	0
59	MG	BA	3197	1/1	0.32	-	12,12,12,12	0
59	MG	AA	1629	1/1	0.20	-	61,61,61,61	0
59	MG	BA	3252	1/1	0.21	-	32,32,32,32	1
59	MG	BA	3152	1/1	0.20	-	104,104,104,104	0
59	MG	AA	1696	1/1	0.10	-	57,57,57,57	1
59	MG	AA	1711	1/1	0.19	-	63,63,63,63	0
59	MG	AA	1673	1/1	0.23	-	72,72,72,72	0
59	MG	AA	1727	1/1	0.82	-	20,20,20,20	1
59	MG	CW	103	1/1	0.33	-	15,15,15,15	1
59	MG	DA	3101	1/1	0.37	-	16,16,16,16	0
59	MG	BX	101	1/1	0.28	-	47,47,47,47	0
59	MG	CA	1636	1/1	0.30	-	52,52,52,52	0
59	MG	BA	3254	1/1	0.28	-	62,62,62,62	0
59	MG	BA	3029	1/1	0.53	-	66,66,66,66	0
59	MG	BA	3082	1/1	0.23	-	60,60,60,60	0
59	MG	DA	3249	1/1	0.13	-	27,27,27,27	1
59	MG	BA	3299	1/1	0.26	-	55,55,55,55	0
59	MG	DA	3053	1/1	0.27	-	50,50,50,50	0
59	MG	BA	3290	1/1	0.50	-	11,11,11,11	1
59	MG	DA	3012	1/1	0.34	-	19,19,19,19	0
59	MG	BA	3146	1/1	0.19	-	58,58,58,58	0
59	MG	BA	3269	1/1	0.38	-	34,34,34,34	0
59	MG	DA	3145	1/1	0.22	-	43,43,43,43	0
59	MG	DA	3129	1/1	0.19	-	46,46,46,46	0
59	MG	DA	3281	1/1	0.33	-	59,59,59,59	0
59	MG	B1	101	1/1	0.27	-	6,6,6,6	1
59	MG	CA	1647	1/1	0.30	-	44,44,44,44	0
59	MG	DA	3346	1/1	0.20	-	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	CA	1725	1/1	0.17	-	72,72,72,72	0
59	MG	AY	401	1/1	0.25	-	74,74,74,74	0
59	MG	CA	1644	1/1	0.09	-	64,64,64,64	0
59	MG	DA	3004	1/1	0.22	-	25,25,25,25	0
59	MG	CA	1611	1/1	0.36	-	51,51,51,51	0
59	MG	DA	3109	1/1	0.19	-	6,6,6,6	1
59	MG	DA	3287	1/1	0.15	-	28,28,28,28	0
59	MG	BA	3013	1/1	0.19	-	54,54,54,54	0
59	MG	CA	1682	1/1	0.20	-	60,60,60,60	0
59	MG	DA	3136	1/1	0.29	-	38,38,38,38	0
59	MG	AA	1614	1/1	0.18	-	68,68,68,68	0
59	MG	BA	3227	1/1	0.30	-	56,56,56,56	0
59	MG	DA	3328	1/1	0.15	-	32,32,32,32	0
59	MG	D5	102	1/1	0.42	-	28,28,28,28	0
59	MG	DA	3179	1/1	0.22	-	49,49,49,49	0
59	MG	AA	1692	1/1	0.33	-	50,50,50,50	0
59	MG	BA	3317	1/1	0.23	-	1,1,1,1	1
59	MG	DA	3046	1/1	0.28	-	11,11,11,11	0
59	MG	BA	3183	1/1	0.22	-	59,59,59,59	1
59	MG	DA	3214	1/1	0.38	-	117,117,117,117	0
59	MG	B5	102	1/1	0.45	-	78,78,78,78	0
59	MG	BA	3178	1/1	0.34	-	22,22,22,22	0
59	MG	CA	1733	1/1	0.20	-	50,50,50,50	0
59	MG	BA	3104	1/1	0.36	-	57,57,57,57	0
59	MG	AA	1627	1/1	0.13	-	40,40,40,40	0
59	MG	DA	3215	1/1	0.48	-	129,129,129,129	0
59	MG	CA	1686	1/1	0.14	-	21,21,21,21	0
59	MG	BA	3118	1/1	0.44	-	38,38,38,38	0
59	MG	DA	3197	1/1	0.40	-	94,94,94,94	0
59	MG	CL	202	1/1	0.54	-	80,80,80,80	0
59	MG	BA	3129	1/1	0.41	-	59,59,59,59	0
59	MG	BA	3289	1/1	0.21	-	59,59,59,59	0
59	MG	DA	3111	1/1	0.29	-	33,33,33,33	0
59	MG	DX	101	1/1	0.62	-	58,58,58,58	0
59	MG	BB	203	1/1	0.15	-	69,69,69,69	0
59	MG	CA	1612	1/1	0.20	-	65,65,65,65	0
59	MG	CS	101	1/1	0.17	-	52,52,52,52	1
59	MG	BA	3059	1/1	0.20	-	30,30,30,30	0
59	MG	CA	1718	1/1	0.14	-	44,44,44,44	1
59	MG	BA	3161	1/1	0.20	-	54,54,54,54	0
59	MG	DA	3121	1/1	0.33	-	14,14,14,14	1
59	MG	DA	3335	1/1	0.34	-	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	BB	201	1/1	0.46	-	38,38,38,38	1
59	MG	BA	3097	1/1	0.11	-	45,45,45,45	0
59	MG	DA	3253	1/1	0.51	-	18,18,18,18	1
59	MG	DA	3124	1/1	0.34	-	20,20,20,20	1
59	MG	BA	3191	1/1	0.16	-	84,84,84,84	0
59	MG	BA	3138	1/1	0.11	-	31,31,31,31	0
59	MG	AA	1655	1/1	0.16	-	57,57,57,57	0
59	MG	BA	3149	1/1	0.78	-	75,75,75,75	0
59	MG	BA	3341	1/1	0.35	-	61,61,61,61	0
59	MG	BA	3237	1/1	0.35	-	64,64,64,64	0
59	MG	AA	1605	1/1	0.10	-	58,58,58,58	0
59	MG	CA	1603	1/1	0.97	-	130,130,130,130	0
59	MG	BA	3243	1/1	0.22	-	10,10,10,10	1
59	MG	CA	1720	1/1	0.32	-	93,93,93,93	1
59	MG	BA	3066	1/1	0.49	-	25,25,25,25	0
59	MG	BA	3063	1/1	0.15	-	56,56,56,56	0
59	MG	BA	3264	1/1	0.17	-	64,64,64,64	0
59	MG	AA	1680	1/1	0.17	-	91,91,91,91	0
59	MG	DA	3027	1/1	0.16	-	1,1,1,1	0
59	MG	BA	3003	1/1	0.21	-	56,56,56,56	0
59	MG	BA	3287	1/1	0.16	-	65,65,65,65	0
59	MG	BA	3110	1/1	0.17	-	51,51,51,51	0
59	MG	DA	3019	1/1	0.31	-	17,17,17,17	0
59	MG	AA	1731	1/1	0.25	-	68,68,68,68	0
59	MG	CA	1714	1/1	0.52	-	62,62,62,62	0
59	MG	DA	3055	1/1	0.29	-	23,23,23,23	0
59	MG	AA	1738	1/1	0.11	-	85,85,85,85	0
59	MG	BA	3275	1/1	0.35	-	27,27,27,27	1
59	MG	DA	3320	1/1	0.30	-	56,56,56,56	0
59	MG	BA	3246	1/1	0.35	-	60,60,60,60	0
59	MG	DA	3195	1/1	0.15	-	102,102,102,102	0
59	MG	AA	1658	1/1	0.30	-	66,66,66,66	0
59	MG	DA	3269	1/1	0.19	-	7,7,7,7	0
59	MG	DA	3275	1/1	0.31	-	28,28,28,28	1
59	MG	BA	3131	1/1	0.61	-	67,67,67,67	0
59	MG	CW	102	1/1	0.31	-	51,51,51,51	1
59	MG	DA	3189	1/1	0.49	-	21,21,21,21	0
59	MG	BA	3241	1/1	0.19	-	1,1,1,1	1
59	MG	DB	201	1/1	0.38	-	27,27,27,27	1
59	MG	BA	3081	1/1	0.27	-	21,21,21,21	0
59	MG	DA	3056	1/1	0.39	-	26,26,26,26	0
59	MG	BA	3044	1/1	0.41	-	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	CA	1661	1/1	0.48	-	83,83,83,83	0
59	MG	DA	3037	1/1	0.24	-	7,7,7,7	0
59	MG	BA	3039	1/1	0.47	-	111,111,111,111	0
59	MG	DA	3313	1/1	0.22	-	74,74,74,74	0
59	MG	CA	1614	1/1	0.12	-	44,44,44,44	0
59	MG	BA	3122	1/1	0.64	-	62,62,62,62	0
59	MG	CA	1750	1/1	0.16	-	76,76,76,76	0
59	MG	DA	3085	1/1	0.13	-	5,5,5,5	0
59	MG	BA	3172	1/1	0.21	-	58,58,58,58	0
59	MG	CA	1709	1/1	0.08	-	40,40,40,40	1
59	MG	AA	1671	1/1	0.32	-	66,66,66,66	0
59	MG	CV	105	1/1	0.30	-	66,66,66,66	0
59	MG	BA	3175	1/1	0.11	-	65,65,65,65	0
59	MG	DA	3079	1/1	0.30	-	10,10,10,10	0
59	MG	BA	3041	1/1	0.31	-	17,17,17,17	0
59	MG	DA	3341	1/1	0.24	-	36,36,36,36	1
59	MG	CA	1624	1/1	0.33	-	52,52,52,52	0
59	MG	BA	3334	1/1	0.11	-	55,55,55,55	0
59	MG	BA	3098	1/1	0.09	-	15,15,15,15	0
59	MG	DA	3042	1/1	0.27	-	12,12,12,12	0
59	MG	AA	1622	1/1	0.27	-	81,81,81,81	0
59	MG	CA	1631	1/1	0.13	-	24,24,24,24	0
59	MG	AA	1683	1/1	0.09	-	63,63,63,63	0
59	MG	BA	3324	1/1	0.36	-	19,19,19,19	1
59	MG	BA	3092	1/1	0.29	-	40,40,40,40	0
59	MG	DA	3153	1/1	0.46	-	94,94,94,94	0
59	MG	BA	3354	1/1	0.74	-	91,91,91,91	0
59	MG	CA	1729	1/1	0.28	-	33,33,33,33	1
59	MG	BA	3072	1/1	0.42	-	41,41,41,41	0
59	MG	BA	3167	1/1	0.28	-	70,70,70,70	0
59	MG	BA	3008	1/1	0.29	-	58,58,58,58	0
59	MG	DA	3267	1/1	0.21	-	13,13,13,13	0
59	MG	DA	3139	1/1	0.28	-	23,23,23,23	0
59	MG	BA	3297	1/1	0.38	-	75,75,75,75	1
59	MG	DA	3096	1/1	0.33	-	50,50,50,50	0
59	MG	BA	3325	1/1	0.08	-	62,62,62,62	0
59	MG	AA	1662	1/1	0.31	-	56,56,56,56	0
59	MG	DA	3059	1/1	0.23	-	13,13,13,13	0
59	MG	DA	3110	1/1	0.29	-	46,46,46,46	0
59	MG	CA	1677	1/1	0.12	-	46,46,46,46	1
59	MG	DA	3307	1/1	0.30	-	14,14,14,14	0
59	MG	CA	1697	1/1	0.11	-	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	BA	3262	1/1	0.08	-	49,49,49,49	0
59	MG	BA	3056	1/1	0.40	-	33,33,33,33	0
59	MG	BA	3084	1/1	0.17	-	27,27,27,27	0
59	MG	CA	1605	1/1	0.12	-	44,44,44,44	0
59	MG	DA	3334	1/1	0.12	-	63,63,63,63	0
59	MG	CA	1602	1/1	0.27	-	16,16,16,16	1
59	MG	DA	3257	1/1	0.10	-	35,35,35,35	0
59	MG	AA	1640	1/1	0.25	-	47,47,47,47	0
59	MG	CA	1723	1/1	0.34	-	45,45,45,45	1
60	ZN	AD	301	1/1	0.21	-	67,67,67,67	0
59	MG	AV	103	1/1	0.10	-	74,74,74,74	0
59	MG	CA	1645	1/1	0.19	-	45,45,45,45	1
59	MG	DA	3301	1/1	0.20	-	21,21,21,21	0
59	MG	CA	1717	1/1	0.19	-	63,63,63,63	1
59	MG	CA	1650	1/1	0.24	-	46,46,46,46	0
59	MG	AA	1647	1/1	0.16	-	66,66,66,66	0
59	MG	AA	1660	1/1	0.11	-	69,69,69,69	0
59	MG	BA	3268	1/1	0.32	-	66,66,66,66	0
59	MG	CA	1620	1/1	0.18	-	48,48,48,48	0
59	MG	BA	3226	1/1	0.53	-	58,58,58,58	0
59	MG	DA	3161	1/1	0.28	-	44,44,44,44	0
59	MG	DA	3339	1/1	0.60	-	89,89,89,89	0
59	MG	DA	3032	1/1	0.15	-	32,32,32,32	0
59	MG	AA	1691	1/1	0.16	-	69,69,69,69	0
59	MG	AA	1612	1/1	0.10	-	47,47,47,47	0
59	MG	BA	3221	1/1	0.42	-	53,53,53,53	0
59	MG	DA	3232	1/1	0.26	-	37,37,37,37	1
59	MG	CV	104	1/1	0.07	-	2,2,2,2	1
59	MG	DA	3190	1/1	0.26	-	16,16,16,16	0
59	MG	BA	3027	1/1	0.20	-	19,19,19,19	0
59	MG	BA	3198	1/1	0.24	-	38,38,38,38	0
59	MG	CA	1626	1/1	0.18	-	75,75,75,75	0
59	MG	AA	1690	1/1	0.08	-	64,64,64,64	0
59	MG	CA	1727	1/1	0.25	-	44,44,44,44	0
59	MG	DA	3291	1/1	0.11	-	49,49,49,49	0
59	MG	AA	1624	1/1	0.33	-	62,62,62,62	0
59	MG	DA	3268	1/1	0.16	-	30,30,30,30	0
59	MG	DA	3207	1/1	0.17	-	40,40,40,40	0
59	MG	BA	3257	1/1	0.16	-	45,45,45,45	0
59	MG	CA	1741	1/1	0.34	-	34,34,34,34	0
59	MG	DA	3175	1/1	0.29	-	59,59,59,59	0
59	MG	AA	1728	1/1	0.30	-	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	AA	1613	1/1	0.15	-	60,60,60,60	0
59	MG	DA	3070	1/1	0.21	-	11,11,11,11	0
59	MG	DA	3358	1/1	0.43	-	50,50,50,50	0
59	MG	AL	201	1/1	0.09	-	15,15,15,15	1
59	MG	CA	1674	1/1	0.11	-	35,35,35,35	1
59	MG	BA	3144	1/1	0.17	-	46,46,46,46	0
59	MG	DA	3239	1/1	0.14	-	29,29,29,29	0
59	MG	BA	3106	1/1	0.22	-	34,34,34,34	0
59	MG	BA	3332	1/1	0.19	-	54,54,54,54	0
59	MG	CA	1730	1/1	0.26	-	72,72,72,72	0
59	MG	BA	3282	1/1	0.08	-	68,68,68,68	0
59	MG	DA	3333	1/1	0.16	-	55,55,55,55	0
59	MG	CA	1708	1/1	0.36	-	104,104,104,104	0
59	MG	CA	1684	1/1	0.50	-	50,50,50,50	0
59	MG	AA	1641	1/1	0.13	-	38,38,38,38	0
59	MG	BA	3278	1/1	0.25	-	59,59,59,59	0
59	MG	DA	3280	1/1	0.39	-	54,54,54,54	0
59	MG	DA	3060	1/1	0.21	-	17,17,17,17	0
59	MG	BA	3069	1/1	0.26	-	32,32,32,32	0
59	MG	DA	3235	1/1	0.29	-	18,18,18,18	0
59	MG	BA	3100	1/1	0.25	-	29,29,29,29	0
59	MG	DA	3255	1/1	0.17	-	13,13,13,13	0
59	MG	AA	1713	1/1	0.21	-	49,49,49,49	1
59	MG	DA	3142	1/1	0.41	-	17,17,17,17	0
59	MG	CA	1607	1/1	0.28	-	32,32,32,32	0
59	MG	BA	3180	1/1	0.31	-	46,46,46,46	1
59	MG	CA	1753	1/1	0.12	-	67,67,67,67	0
59	MG	CA	1658	1/1	0.21	-	53,53,53,53	0
59	MG	DA	3103	1/1	0.26	-	12,12,12,12	0
59	MG	BA	3326	1/1	0.31	-	42,42,42,42	0
59	MG	BA	3015	1/1	0.25	-	28,28,28,28	0
59	MG	DA	3204	1/1	0.28	-	59,59,59,59	0
59	MG	DA	3185	1/1	0.11	-	39,39,39,39	0
59	MG	CA	1619	1/1	0.26	-	41,41,41,41	0
59	MG	BA	3147	1/1	0.24	-	35,35,35,35	0
59	MG	AV	102	1/1	0.11	-	61,61,61,61	0
59	MG	DA	3158	1/1	0.29	-	37,37,37,37	0
59	MG	BA	3060	1/1	0.25	-	14,14,14,14	0
59	MG	CA	1701	1/1	0.49	-	55,55,55,55	1
59	MG	DA	3147	1/1	0.18	-	52,52,52,52	0
59	MG	AA	1626	1/1	0.54	-	61,61,61,61	0
59	MG	CA	1689	1/1	0.14	-	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	DA	3120	1/1	0.26	-	9,9,9,9	0
59	MG	BA	3074	1/1	0.28	-	37,37,37,37	0
59	MG	BA	3344	1/1	0.51	-	63,63,63,63	0
59	MG	AW	101	1/1	0.14	-	58,58,58,58	1
59	MG	AA	1733	1/1	0.38	-	79,79,79,79	0
59	MG	DA	3276	1/1	0.47	-	57,57,57,57	0
59	MG	DA	3226	1/1	0.57	-	64,64,64,64	0
59	MG	DA	3176	1/1	0.27	-	7,7,7,7	0
59	MG	DA	3097	1/1	0.13	-	15,15,15,15	0
59	MG	BA	3142	1/1	0.27	-	97,97,97,97	0
59	MG	BA	3240	1/1	0.14	-	73,73,73,73	0
59	MG	DA	3054	1/1	0.40	-	22,22,22,22	0
59	MG	BA	3030	1/1	0.31	-	59,59,59,59	0
59	MG	BA	3304	1/1	0.74	-	64,64,64,64	0
59	MG	AA	1645	1/1	0.35	-	88,88,88,88	0
59	MG	DA	3151	1/1	0.27	-	25,25,25,25	0
59	MG	DA	3018	1/1	0.23	-	16,16,16,16	0
59	MG	BA	3338	1/1	0.42	-	54,54,54,54	0
59	MG	AA	1674	1/1	0.15	-	69,69,69,69	0
59	MG	DA	3076	1/1	0.22	-	11,11,11,11	0
59	MG	CA	1613	1/1	0.31	-	58,58,58,58	0
59	MG	DA	3222	1/1	0.28	-	15,15,15,15	0
59	MG	BA	3155	1/1	0.18	-	53,53,53,53	0
59	MG	BA	3020	1/1	0.42	-	37,37,37,37	0
59	MG	DA	3047	1/1	0.20	-	20,20,20,20	0
59	MG	CA	1735	1/1	0.10	-	21,21,21,21	0
59	MG	DE	301	1/1	0.20	-	41,41,41,41	0
59	MG	DA	3297	1/1	0.38	-	42,42,42,42	1
59	MG	BA	3136	1/1	0.22	-	42,42,42,42	0
59	MG	AA	1716	1/1	0.20	-	66,66,66,66	1
59	MG	BA	3018	1/1	0.21	-	35,35,35,35	0
59	MG	BA	3251	1/1	0.28	-	55,55,55,55	0
59	MG	AA	1745	1/1	0.32	-	62,62,62,62	0
59	MG	DA	3225	1/1	0.11	-	34,34,34,34	0
59	MG	BA	3318	1/1	0.21	-	42,42,42,42	0
59	MG	AA	1610	1/1	0.13	-	80,80,80,80	1
59	MG	BA	3085	1/1	0.17	-	38,38,38,38	0
59	MG	CA	1726	1/1	0.73	-	48,48,48,48	0
59	MG	CA	1672	1/1	0.17	-	52,52,52,52	1
59	MG	BA	3292	1/1	0.24	-	55,55,55,55	0
59	MG	DA	3022	1/1	0.40	-	16,16,16,16	0
59	MG	AA	1668	1/1	0.24	-	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	DA	3200	1/1	0.31	-	18,18,18,18	0
59	MG	BA	3091	1/1	0.17	-	58,58,58,58	0
59	MG	DA	3206	1/1	0.18	-	57,57,57,57	0
59	MG	BA	3117	1/1	0.23	-	30,30,30,30	0
59	MG	CA	1716	1/1	0.31	-	50,50,50,50	0
59	MG	DA	3211	1/1	0.36	-	69,69,69,69	0
59	MG	CA	1670	1/1	0.32	-	77,77,77,77	0
59	MG	AA	1703	1/1	0.33	-	71,71,71,71	0
59	MG	AA	1744	1/1	0.23	-	1,1,1,1	1
59	MG	DA	3184	1/1	0.20	-	46,46,46,46	0
59	MG	BA	3248	1/1	0.07	-	62,62,62,62	0
59	MG	BA	3308	1/1	0.12	-	39,39,39,39	0
59	MG	DA	3105	1/1	0.09	-	1,1,1,1	0
59	MG	DA	3216	1/1	0.13	-	11,11,11,11	1
59	MG	BA	3208	1/1	0.53	-	100,100,100,100	0
59	MG	CW	101	1/1	0.20	-	46,46,46,46	1
59	MG	AA	1715	1/1	0.27	-	59,59,59,59	0
59	MG	DA	3174	1/1	0.13	-	46,46,46,46	0
59	MG	BA	3233	1/1	0.21	-	50,50,50,50	0
59	MG	BA	3220	1/1	0.20	-	79,79,79,79	0
59	MG	AA	1730	1/1	0.92	-	78,78,78,78	0
59	MG	BA	3086	1/1	0.32	-	25,25,25,25	0
59	MG	BA	3256	1/1	0.04	-	25,25,25,25	0
59	MG	AW	104	1/1	0.23	-	67,67,67,67	1
59	MG	CA	1609	1/1	0.24	-	58,58,58,58	0
59	MG	DA	3168	1/1	0.07	-	18,18,18,18	0
59	MG	BA	3277	1/1	0.61	-	68,68,68,68	0
59	MG	DA	3167	1/1	0.45	-	46,46,46,46	0
59	MG	BB	202	1/1	0.23	-	51,51,51,51	0
59	MG	DB	202	1/1	0.26	-	23,23,23,23	0
59	MG	BA	3011	1/1	0.37	-	43,43,43,43	0
59	MG	AA	1659	1/1	0.18	-	78,78,78,78	0
59	MG	DA	3173	1/1	0.22	-	12,12,12,12	0
59	MG	DA	3014	1/1	0.27	-	20,20,20,20	0
59	MG	BA	3159	1/1	0.37	-	55,55,55,55	0
59	MG	CA	1643	1/1	0.14	-	10,10,10,10	1
59	MG	BA	3016	1/1	0.37	-	18,18,18,18	0
59	MG	AA	1758	1/1	0.21	-	99,99,99,99	0
59	MG	AA	1623	1/1	0.29	-	60,60,60,60	0
59	MG	BA	3342	1/1	0.36	-	64,64,64,64	0
59	MG	DA	3091	1/1	0.29	-	21,21,21,21	1
59	MG	BA	3193	1/1	0.44	-	5,5,5,5	1

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	BA	3158	1/1	0.43	-	23,23,23,23	0
59	MG	AA	1652	1/1	0.39	-	50,50,50,50	0
59	MG	BD	302	1/1	0.17	-	29,29,29,29	0
59	MG	BA	3315	1/1	0.08	-	45,45,45,45	0
59	MG	AV	105	1/1	0.51	-	88,88,88,88	0
59	MG	CA	1699	1/1	0.57	-	84,84,84,84	0
59	MG	DA	3264	1/1	0.24	-	58,58,58,58	1
59	MG	AW	103	1/1	0.16	-	84,84,84,84	0
59	MG	BA	3038	1/1	0.24	-	44,44,44,44	0
59	MG	DA	3087	1/1	0.19	-	1,1,1,1	0
59	MG	AA	1755	1/1	0.05	-	51,51,51,51	0
59	MG	DA	3305	1/1	0.15	-	39,39,39,39	0
59	MG	AA	1644	1/1	0.15	-	54,54,54,54	0
59	MG	BA	3150	1/1	0.12	-	44,44,44,44	0
59	MG	BA	3101	1/1	0.36	-	27,27,27,27	0
59	MG	DA	3072	1/1	0.22	-	20,20,20,20	0
59	MG	DA	3306	1/1	0.38	-	15,15,15,15	0
59	MG	BA	3026	1/1	0.20	-	8,8,8,8	0
59	MG	CA	1695	1/1	0.38	-	46,46,46,46	1
59	MG	BA	3223	1/1	0.33	-	38,38,38,38	0
59	MG	AA	1603	1/1	0.13	-	60,60,60,60	0
59	MG	AA	1648	1/1	0.10	-	69,69,69,69	0
59	MG	BA	3307	1/1	0.28	-	14,14,14,14	0
59	MG	BA	3239	1/1	0.28	-	4,4,4,4	1
59	MG	DA	3031	1/1	0.24	-	52,52,52,52	0
59	MG	CV	102	1/1	0.11	-	43,43,43,43	0
59	MG	DA	3016	1/1	0.45	-	16,16,16,16	0
59	MG	BA	3260	1/1	0.33	-	53,53,53,53	0
60	ZN	AN	101	1/1	0.11	-	104,104,104,104	0
59	MG	DA	3289	1/1	0.12	-	17,17,17,17	0
59	MG	BA	3212	1/1	0.41	-	74,74,74,74	0
59	MG	AA	1759	1/1	0.10	-	139,139,139,139	0
59	MG	CA	1635	1/1	0.09	-	31,31,31,31	0
59	MG	CA	1656	1/1	0.42	-	29,29,29,29	0
59	MG	AA	1646	1/1	0.35	-	48,48,48,48	0
59	MG	DA	3282	1/1	0.16	-	41,41,41,41	0
59	MG	AA	1714	1/1	0.18	-	21,21,21,21	1
59	MG	DA	3295	1/1	0.18	-	13,13,13,13	1
59	MG	BA	3195	1/1	0.12	-	62,62,62,62	0
59	MG	BA	3210	1/1	0.51	-	70,70,70,70	0
59	MG	AA	1636	1/1	0.12	-	21,21,21,21	0
59	MG	CA	1621	1/1	0.14	-	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	AA	1723	1/1	0.25	-	54,54,54,54	1
59	MG	CA	1696	1/1	0.47	-	17,17,17,17	1
59	MG	CA	1738	1/1	0.22	-	15,15,15,15	1
59	MG	CA	1628	1/1	0.24	-	49,49,49,49	0
59	MG	DA	3252	1/1	0.30	-	51,51,51,51	0
59	MG	DA	3152	1/1	0.23	-	38,38,38,38	0

6.5 Other polymers ⓘ

There are no such residues in this entry.