



Full wwPDB X-ray Structure Validation Report ⓘ

Jun 16, 2014 – 08:23 PM BST

PDB ID : 4V7Z
Title : Structure of the *Thermus thermophilus* 70S ribosome complexed with telithromycin.
Authors : Bulkley, D.P.; Innis, C.A.; Blaha, G.; Steitz, T.A.
Deposited on : 2010-08-18
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>

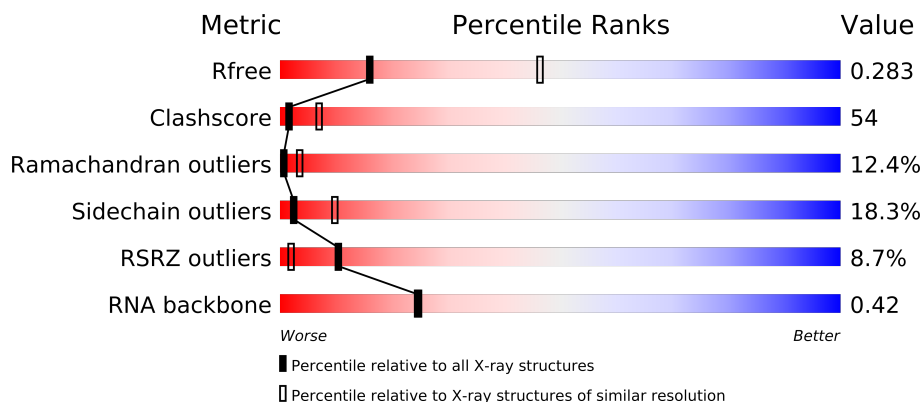
The following versions of software and data (see [references](#)) were used in the production of this report:

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	135	
12	CL	135	
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	B0	85	
22	D0	85	
23	B1	98	
23	D1	98	
24	B2	72	
24	D2	72	
25	B3	60	
25	D3	60	
26	B4	71	
26	D4	71	
27	B5	60	
27	D5	60	

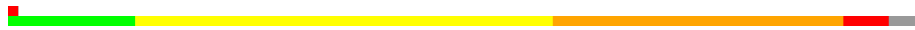
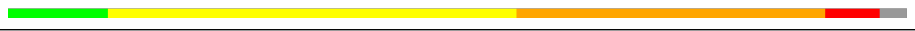
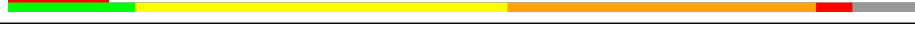

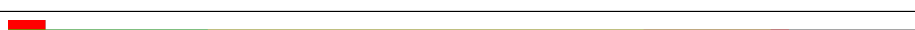

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Mol	Chain	Length	Quality of chain
28	B6	54	
28	D6	54	
29	B7	49	
29	D7	49	
30	B8	65	
30	D8	65	
31	BA	2787	
31	DA	2787	
32	BB	122	
32	DB	122	
33	BD	276	
33	DD	276	
34	BE	206	
34	DE	206	
35	BF	210	
35	DF	210	
36	BG	182	
36	DG	182	
37	BH	180	
37	DH	180	
38	BI	148	
38	DI	148	
39	BN	140	
39	DN	140	
40	BO	122	
40	DO	122	
41	BP	150	
41	DP	150	
42	BQ	141	
42	DQ	141	
43	BR	118	
43	DR	118	
44	BS	112	
44	DS	112	
45	BT	146	
45	DT	146	
46	BU	118	
46	DU	118	
47	BV	101	
47	DV	101	
48	BW	113	
48	DW	113	

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Mol	Chain	Length	Quality of chain
49	BX	96	
49	DX	96	
50	BY	110	
50	DY	110	
51	BZ	206	
51	DZ	206	

2 Entry composition

There are 55 unique types of molecules in this entry. The entry contains 278037 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			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AI	58	ARG	HIS	CONFLICT	UNP P80374
CI	58	ARG	HIS	CONFLICT	UNP P80374

- 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			
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			

There are 6 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AL	2	VAL	-	INSERTION	UNP Q5SHN3
AL	3	ALA	-	INSERTION	UNP Q5SHN3
AL	4	LEU	-	INSERTION	UNP Q5SHN3
CL	2	VAL	-	INSERTION	UNP Q5SHN3
CL	3	ALA	-	INSERTION	UNP Q5SHN3
CL	4	LEU	-	INSERTION	UNP Q5SHN3

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	AM	115	Total	C	N	O	S	0	0	0
			921	569	190	160	2			
13	CM	115	Total	C	N	O	S	0	0	0
			921	569	190	160	2			

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

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

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
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 protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	B0	85	Total	C	N	O	S	0	0	0
			650	401	137	111	1			
22	D0	85	Total	C	N	O	S	0	0	0
			650	401	137	111	1			

- Molecule 23 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
23	B1	89	Total	C	N	O	0	0	1
			693	435	140	118			
23	D1	89	Total	C	N	O	0	0	1
			693	435	140	118			

- Molecule 24 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	B2	51	Total	C	N	O	S	0	0	1
			421	263	85	72	1			
24	D2	51	Total	C	N	O	S	0	0	1
			421	263	85	72	1			

- Molecule 25 is a protein called 50S ribosomal protein L30.

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

- Molecule 26 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
26	B4	32	Total	C	N	O	0	0	0
			157	93	32	32			
26	D4	32	Total	C	N	O	0	0	0
			157	93	32	32			

- Molecule 27 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	B5	59	Total	C	N	O	S	9	0	0
			459	288	90	76	5			
27	D5	59	Total	C	N	O	S	9	0	0
			459	288	90	76	5			

- Molecule 28 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	B6	45	Total	C	N	O	S	0	0	1
			381	235	78	64	4			
28	D6	45	Total	C	N	O	S	0	0	1
			381	235	78	64	4			

- Molecule 29 is a protein called 50S ribosomal protein L34.

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

- Molecule 30 is a protein called 50S ribosomal protein L35.

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

- Molecule 31 is a RNA chain called 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	BA	2725	Total	C	N	O	P	0	0	0
			58698	26124	10986	18864	2724			
31	DA	2725	Total	C	N	O	P	0	0	0
			58698	26124	10986	18864	2724			

- Molecule 32 is a RNA chain called 5S ribosomal RNA.

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

- Molecule 33 is a protein called 50S ribosomal protein L2.

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

- Molecule 34 is a protein called 50S ribosomal protein L3.

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

- Molecule 35 is a protein called 50S ribosomal protein L4.

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

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

- Molecule 36 is a protein called 50S ribosomal protein L5.

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

- Molecule 37 is a protein called 50S ribosomal protein L6.

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

- Molecule 38 is a protein called 50S ribosomal protein L9.

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

- Molecule 39 is a protein called 50S ribosomal protein L13.

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

- Molecule 40 is a protein called 50S ribosomal protein L14.

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

- Molecule 41 is a protein called 50S ribosomal protein L15.

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

- Molecule 42 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	BQ	136	Total	C	N	O	S	0	0	0
			1080	688	204	183	5			
42	DQ	136	Total	C	N	O	S	0	0	0
			1080	688	204	183	5			

- Molecule 43 is a protein called 50S ribosomal protein L17.

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

- Molecule 44 is a protein called 50S ribosomal protein L18.

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

- Molecule 45 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	BT	132	Total	C	N	O	S	0	0	0
			1100	686	227	186	1			
45	DT	132	Total	C	N	O	S	0	0	0
			1100	686	227	186	1			

- Molecule 46 is a protein called 50S ribosomal protein L20.

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

- Molecule 47 is a protein called 50S ribosomal protein L21.

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

- Molecule 48 is a protein called 50S ribosomal protein L22.

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

- Molecule 49 is a protein called 50S ribosomal protein L23.

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

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

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

- Molecule 51 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	BZ	177	Total	C	N	O	S	0	0	1
			1404	897	253	252	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	DZ	177	Total	C	N	O	S	0	0	1
			1404	897	253	252	2			

- Molecule 52 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
52	BA	360	Total	Mg	0	0
			360	360		
52	CA	50	Total	Mg	0	0
			50	50		
52	DQ	1	Total	Mg	0	0
			1	1		
52	DF	1	Total	Mg	0	0
			1	1		
52	DU	1	Total	Mg	0	0
			1	1		
52	B1	1	Total	Mg	0	0
			1	1		
52	BP	3	Total	Mg	0	0
			3	3		
52	DR	2	Total	Mg	0	0
			2	2		
52	B5	2	Total	Mg	0	0
			2	2		
52	BB	7	Total	Mg	0	0
			7	7		
52	BF	1	Total	Mg	0	0
			1	1		
52	BX	1	Total	Mg	0	0
			1	1		
52	D8	1	Total	Mg	0	0
			1	1		
52	AA	52	Total	Mg	0	0
			52	52		
52	BQ	2	Total	Mg	0	0
			2	2		
52	D7	1	Total	Mg	0	0
			1	1		
52	BU	1	Total	Mg	0	0
			1	1		
52	DD	2	Total	Mg	0	0
			2	2		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
52	BR	1	Total Mg 1 1	0	0
52	DA	318	Total Mg 318 318	0	0
52	B7	1	Total Mg 1 1	0	0
52	DE	1	Total Mg 1 1	0	0
52	DX	1	Total Mg 1 1	0	0
52	DP	1	Total Mg 1 1	0	0
52	D5	1	Total Mg 1 1	0	0
52	BD	2	Total Mg 2 2	0	0
52	B0	1	Total Mg 1 1	0	0
52	DB	3	Total Mg 3 3	0	0

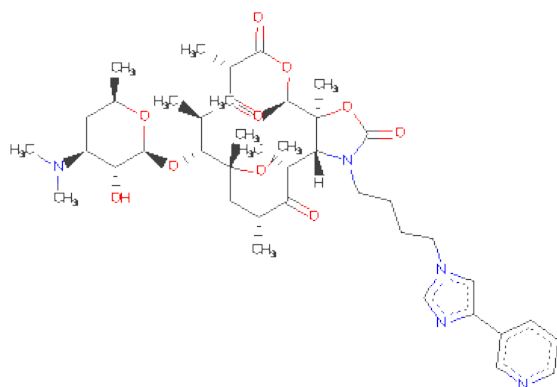
- Molecule 53 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
53	CN	1	Total Zn 1 1	0	0
53	AD	1	Total Zn 1 1	0	0
53	CD	1	Total Zn 1 1	0	0
53	AN	1	Total Zn 1 1	0	0

- Molecule 54 is POTASSIUM ION (three-letter code: K) (formula: K).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
54	BA	1	Total K 1 1	0	0
54	DA	1	Total K 1 1	0	0

- Molecule 55 is TELITHROMYCIN (three-letter code: TEL) (formula: C₄₃H₆₅N₅O₁₀).

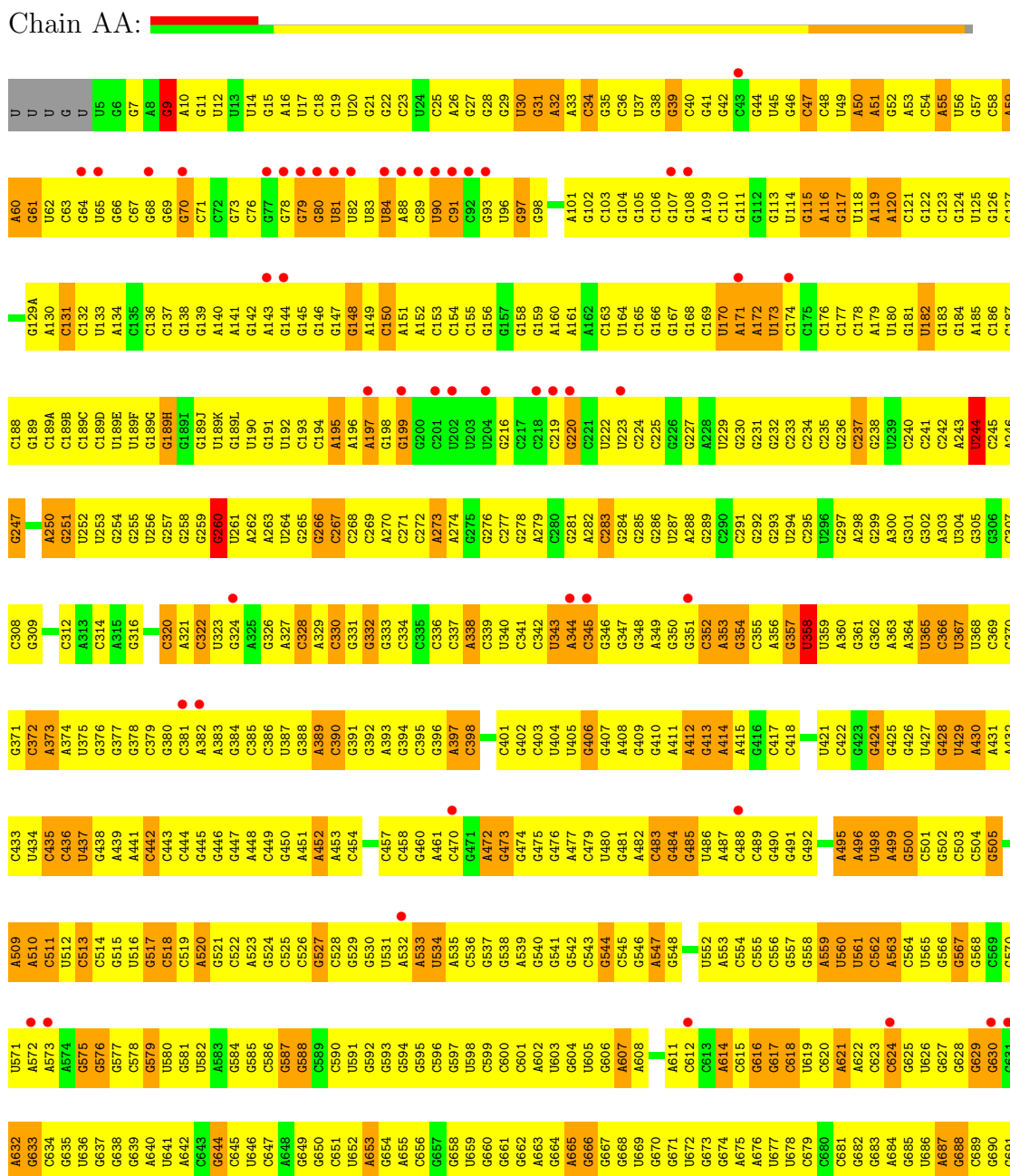


Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
55	BA	1	Total	C	N	O	0	0
			58	43	5	10		
55	DA	1	Total	C	N	O	0	0
			58	43	5	10		

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.

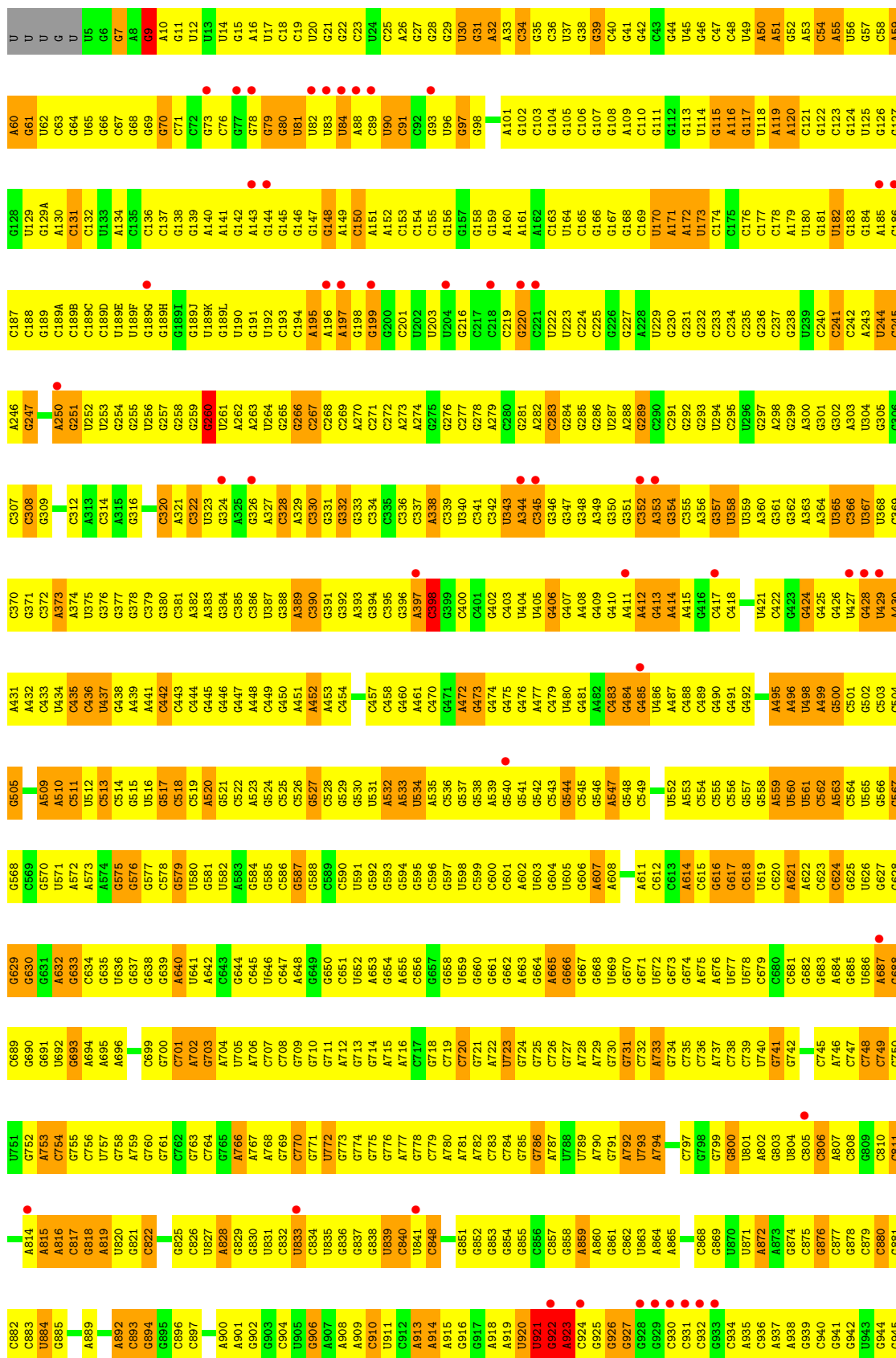
• Molecule 1: 16S rRNA

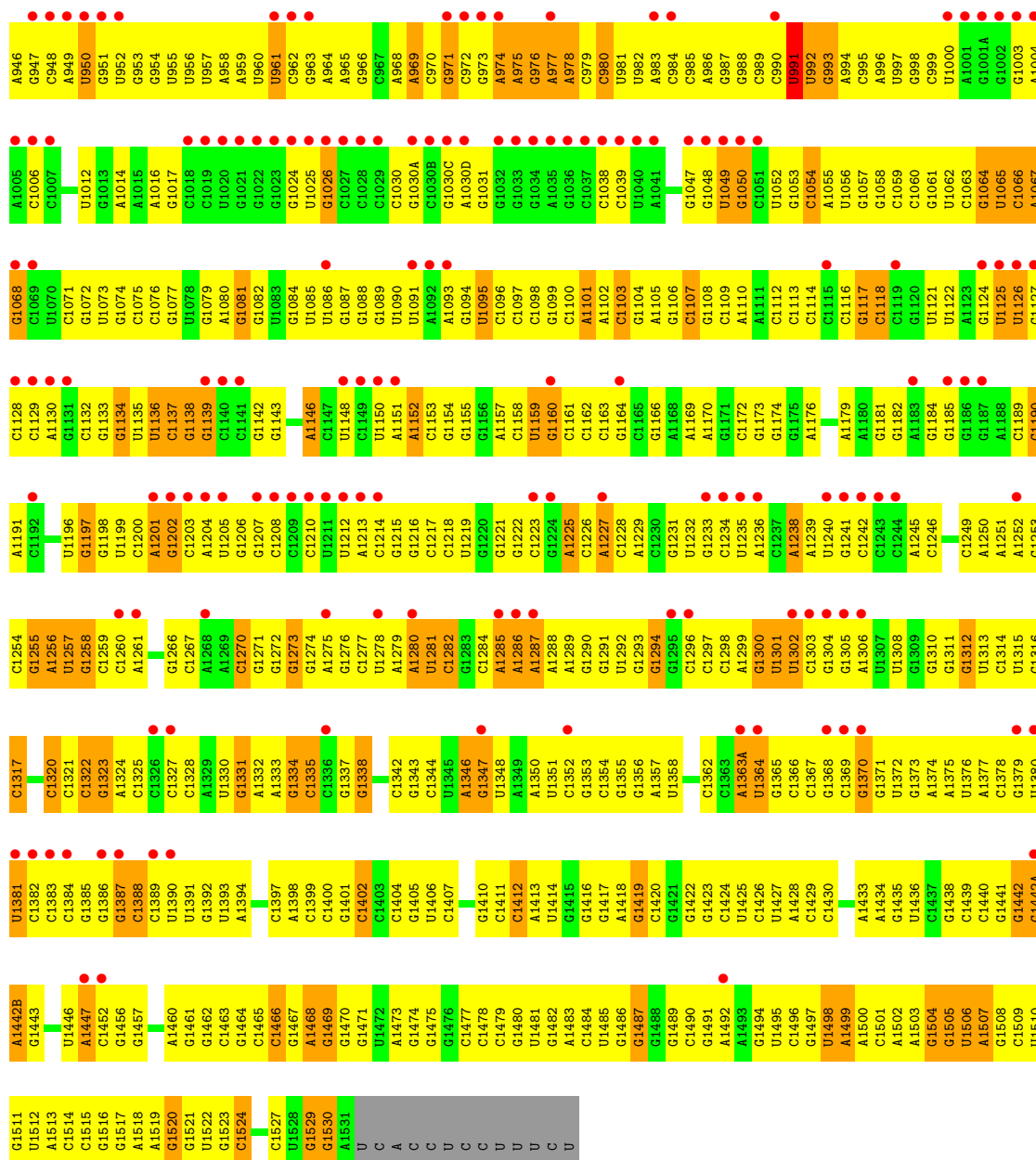


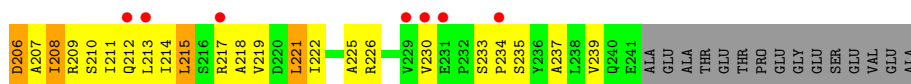
G1505	G1437	A1377	C1317	U1196	G1068	C1006	G947	C882	A814	A753	U692
U1506	G1438	C1378	U1257	G1197	C1069	U1012	C948	C883	A815	C754	G693
A1507	C1439	G1379	U1258	G1198	U1070	G1013	A949	U884	A816	G755	A694
G1508	C1440	U1380	C1259	U1199	C1071	A1014	U950	C885	C817	G756	A695
C1509	G1441	U1381	C1260	G1200	G1072	A1015	G951	G889	A818	U757	A696
U1510	C1442	C1382	A1261	A1201	U1073	A1016	U952	G890	G819	G758	U697
G1511	G1442A	C1383	U1264	G1202	G1074	G1017	G953	U891	U820	A759	G698
A1512	A1442B	C1384	G1265	C1203	C1075	G1018	G954	G892	C821	G760	C699
U1513	G1443	G1385	G1266	A1204	C1076	U1019	U955	C893	G822	G761	G700
C1514	G1444	C1386	C1267	U1205	G1077	U1020	U956	C894	C824	G762	C701
G1515	U1446	G1387	C1268	G1206	U1078	U1021	U957	G895	G825	G763	A702
U1516	A1447	C1388	A1268	G1207	G1079	G1022	A958	G896	C826	G764	G703
G1517	C1452	U1330	A1269	C1208	A1080	G1023	A959	C897	U827	G765	A704
A1518	G1456	G1331	C1270	G1209	G1081	G1024	U960	U898	U828	A766	U705
U1519	G1457	A1332	G1271	C1210	U1082	U1025	U961	A900	G829	A767	A706
G1520	U1528	A1333	G1272	U1211	U1083	G1026	G962	A901	A828	A768	C707
U1521	G1460	G1334	G1273	A1212	U1084	C1027	G963	A902	G830	A769	G708
A1522	G1461	C1335	A1274	A1213	U1085	C1028	A964	G903	U831	C770	G709
G1523	G1462	C1336	A1275	C1214	U1086	C1029	A965	G904	C832	G771	G710
C1524	C1463	G1337	G1276	G1215	G1087	C1030	G966	G905	U833	U772	G711
U1527	A1464	U1338	C1277	G1216	G1088	G1030A	C967	G906	C834	G773	A712
G1528	C1465	A1339	C1278	C1217	G1089	C1030B	A968	A907	U835	G774	G713
A1529	C1466	C1340	A1279	C1218	U1090	G1030C	A969	A908	G836	G775	G714
G1530	G1467	A1341	U1280	U1219	U1091	A1030D	A970	A909	G837	G776	A715
U1531	A1468	C1342	U1281	G1220	A1092	G1031	G971	C910	G838	A777	A716
C	G1469	G1343	C1282	G1221	A1093	G1032	C972	U911	U839	G778	C717
U	G1470	C1344	G1283	G1222	A1094	G1033	G973	C912	C840	C779	G718
C	A1471	U1345	C1284	C1223	U1095	U1034	A974	A913	G841	A780	C719
A	G1472	A1346	A1285	G1224	C1096	A1035	A975	A914	C848	A781	C720
C	A1473	G1347	A1286	A1225	C1097	G1036	A976	A915	G849	A782	G721
U	G1474	U1348	A1287	C1226	C1098	C1037	A977	G916	G851	C783	A722
C	U1408	A1349	A1288	A1227	G1099	C1038	A978	G917	G852	C784	U723
C	C1409	A1350	A1289	C1228	C1100	C1039	C979	A918	G853	G785	U724
C	G1478	U1351	G1290	A1229	A1101	U1040	C980	A919	G854	G786	G725
U	C1479	C1352	G1291	C1230	A1102	A1041	U981	U920	G855	A787	C726
U	G1480	G1353	A1285	G1231	C1103	C1044	U982	U921	C856	U788	G727
U	U1481	C1354	G1293	U1232	G1104	A1045	A983	G922	G857	U789	A728
C	G1482	G1355	G1294	G1233	A1105	C1046	C984	A923	G858	A790	A729
C	A1483	G1356	G1295	C1234	G1106	A1047	C985	C924	A859	G791	G730
U	G1484	A1357	C1296	U1235	C1107	G1048	A986	G925	A860	U792	C731
U	U1485	U1358	C1297	A1236	G1108	U1049	G987	G926	C861	U793	C732
U	G1486	C1359	C1298	G1237	C1109	U1050	G988	G927	C862	A794	A733
U	G1487	A1360	A1299	A1238	A1110	G1051	C989	G930	U863	G734	G734
U	G1488	G1361	G1300	U1239	A1111	C1052	C990	C931	A864	C735	C735
U	G1489	C1362	U1301	U1240	C1112	U1053	U991	C932	A865	C736	C736
U	C1490	C1363	U1302	G1241	C1113	G1054	U992	C933	C868	A737	A737
U	G1491	A1363A	C1303	C1242	C1114	A1055	G993	G934	G869	G800	C738
U	A1492	U1364	G1304	C1243	C1115	A1056	A994	C935	U870	U801	C739
U	A1493	G1365	G1305	C1244	C1116	U1057	C995	C936	A802	A802	U740
U	G1494	C1366	A1306	A1245	G1117	G1058	A996	A937	U871	G803	G741
U	U1495	C1367	U1307	C1246	C1118	G1059	U997	A938	A872	U804	G742
U	G1496	G1368	U1308	U1247	C1119	C1060	G998	G939	A873	C805	C745
U	C1497	C1369	G1309	A1248	G1120	U1061	C999	G940	G874	A806	A746
U	U1498	G1370	G1310	C1249	U1121	G1062	U1000	C941	C875	C807	C747
U	A1499	G1371	G1311	A1250	U1122	U1063	G942	G943	G876	G808	G748
U	A1500	U1372	C1312	A1251	A1123	G1064	U1001	U944	C877	C809	C749
U	C1501	G1373	U1313	A1252	G1124	G1065	G945	G946	G878	C810	C750
U	A1502	A1374	C1314	G1253	U1125	U1066	A1003	G947	C879	C811	U751
U	A1503	A1375	U1315	C1254	U1126	A1067	A1004	G948	C880	C812	G752
U	G1504	U1376	G1316	G1255	G1127		A1005	A949	G881	U813	

• Molecule 1: 16S rRNA

Chain CA:

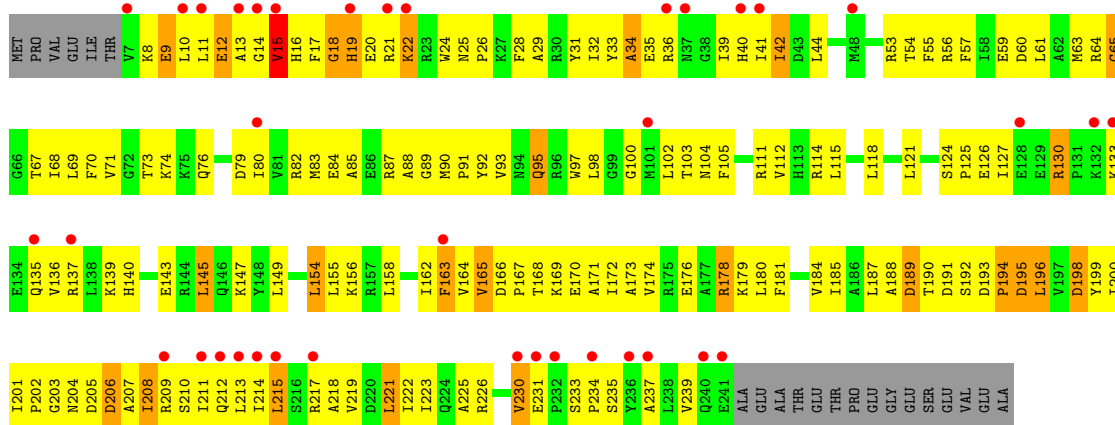






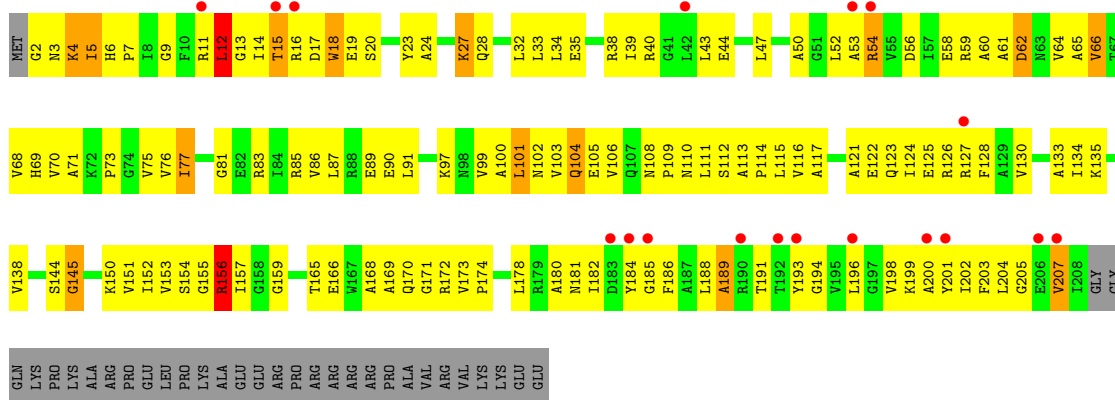
• Molecule 2: 30S ribosomal protein S2

Chain CB:



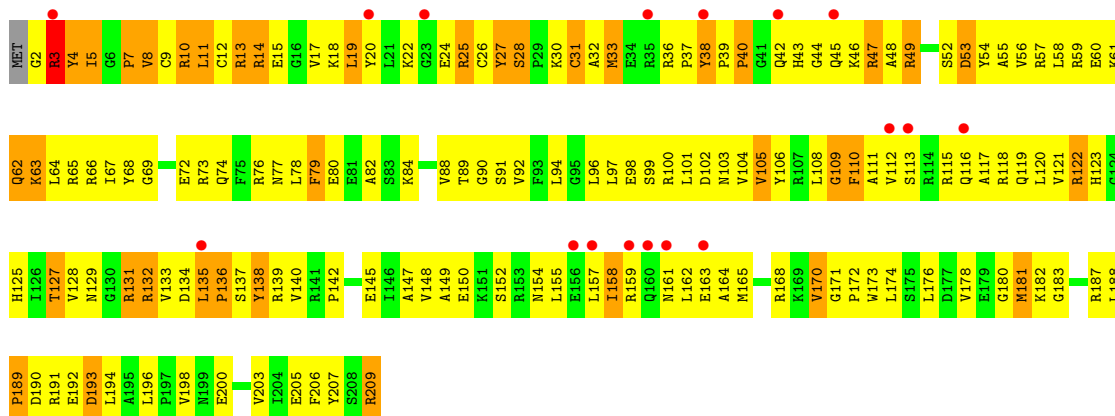
• Molecule 3: 30S ribosomal protein S3

Chain AC:



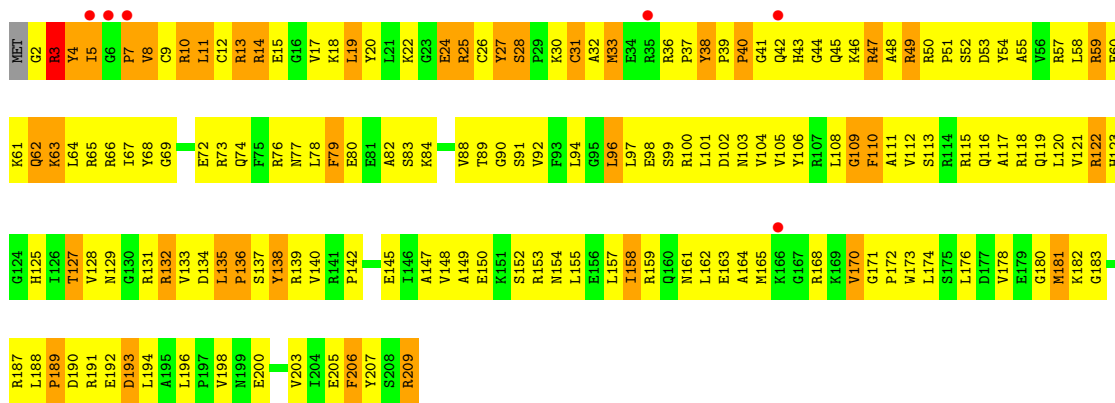
- Molecule 4: 30S ribosomal protein S4

Chain AD:



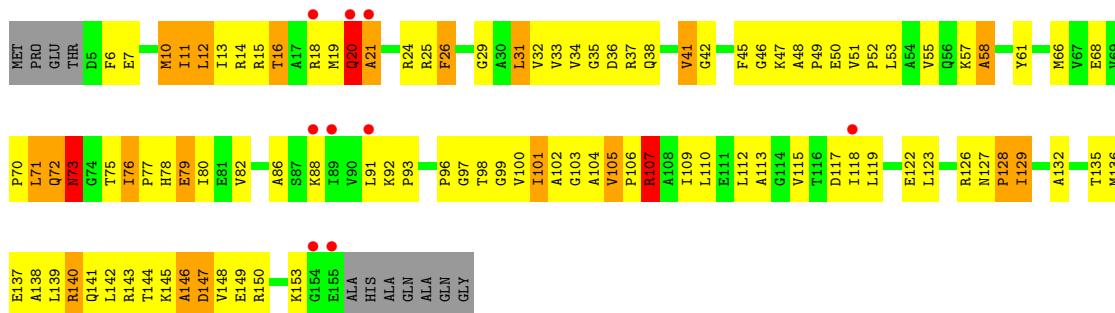
- Molecule 4: 30S ribosomal protein S4

Chain CD:



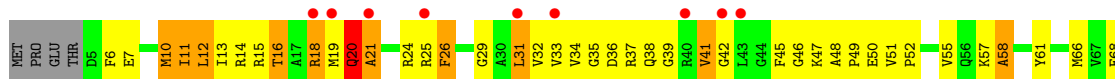
- Molecule 5: 30S ribosomal protein S5

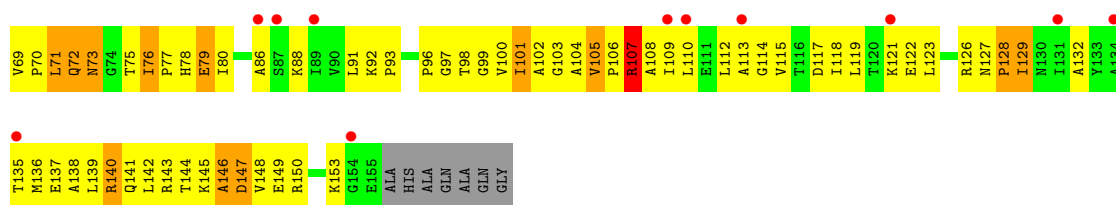
Chain AE:



- Molecule 5: 30S ribosomal protein S5

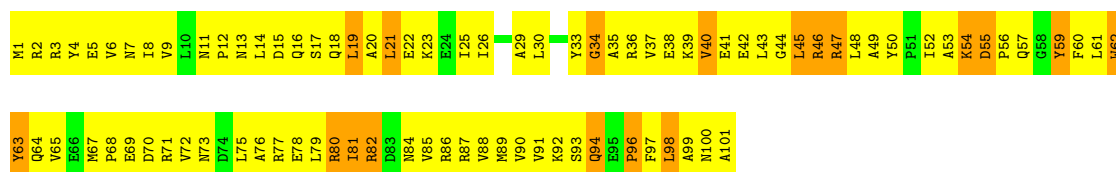
Chain CE:





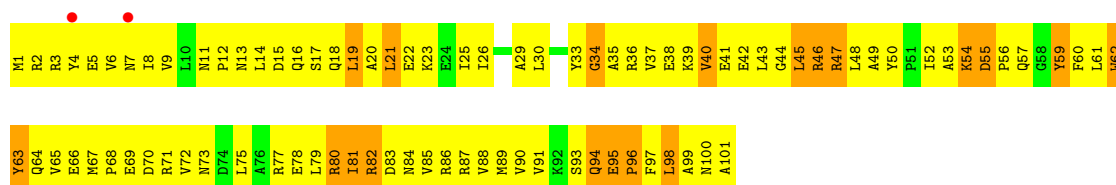
• Molecule 6: 30S ribosomal protein S6

Chain AF:



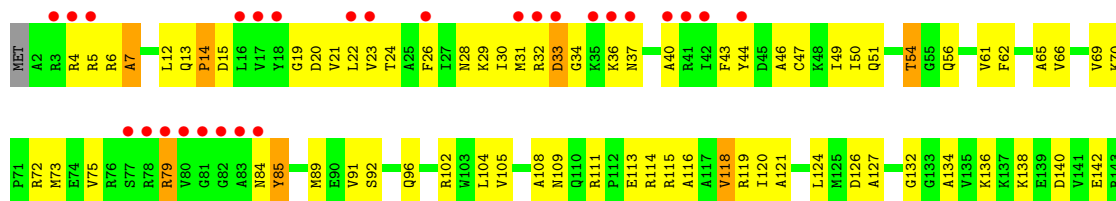
• Molecule 6: 30S ribosomal protein S6

Chain CF:



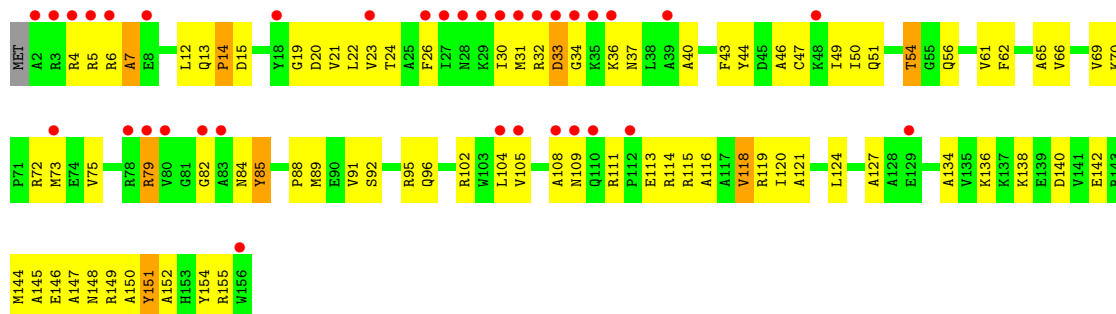
• Molecule 7: 30S ribosomal protein S7

Chain AG:



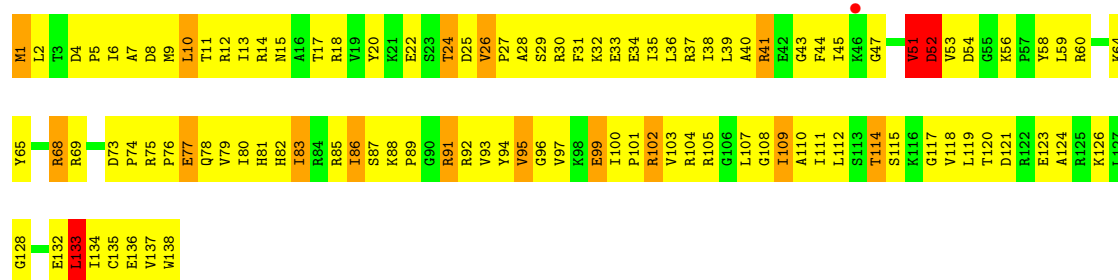
• Molecule 7: 30S ribosomal protein S7

Chain CG:



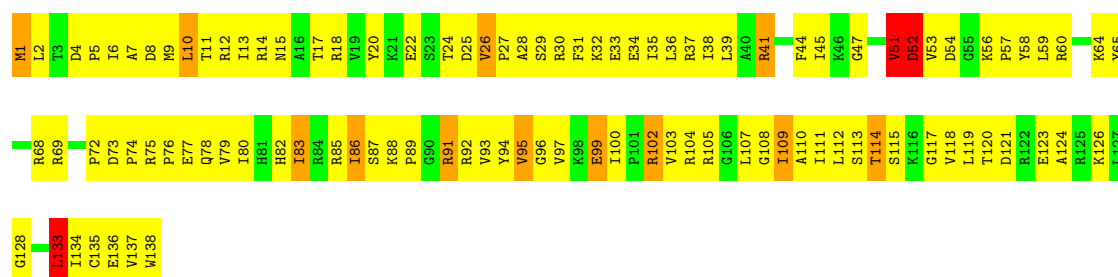
- Molecule 8: 30S ribosomal protein S8

Chain AH:



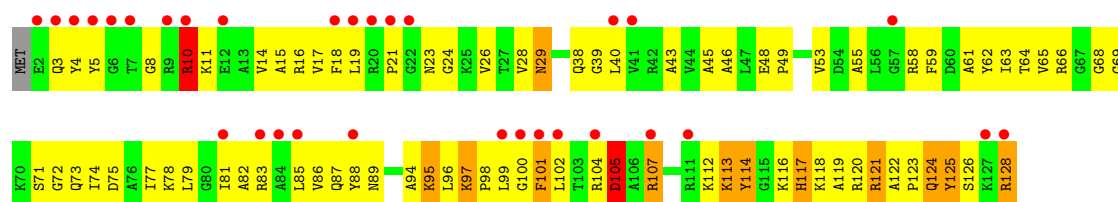
- Molecule 8: 30S ribosomal protein S8

Chain CH:



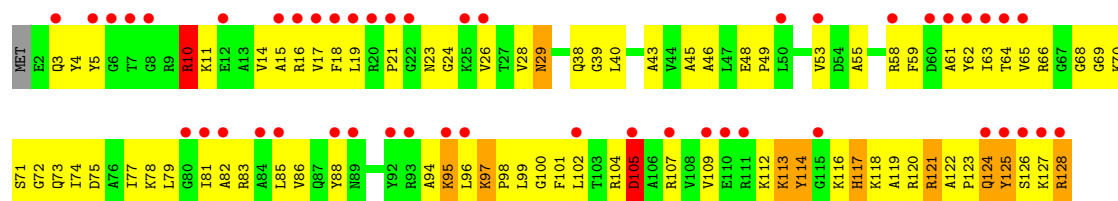
- Molecule 9: 30S ribosomal protein S9

Chain AI:



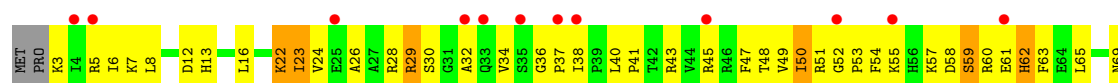
- Molecule 9: 30S ribosomal protein S9

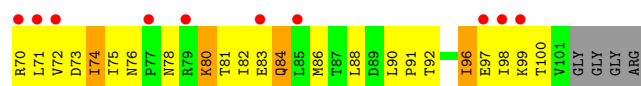
Chain CI:



- Molecule 10: 30S ribosomal protein S10

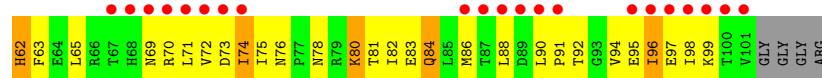
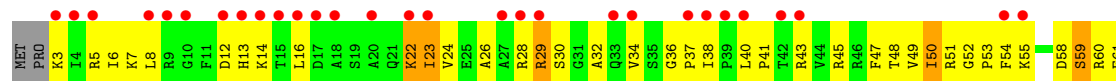
Chain AJ:





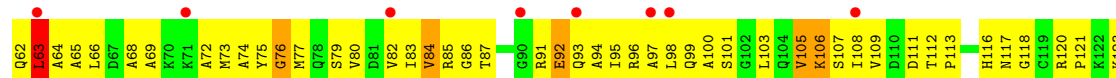
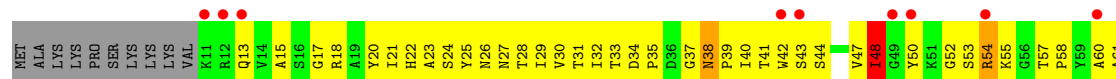
- Molecule 10: 30S ribosomal protein S10

Chain CJ:



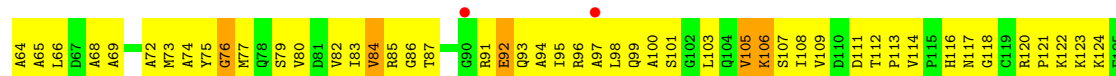
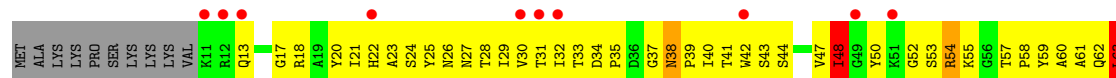
- Molecule 11: 30S ribosomal protein S11

Chain AK:



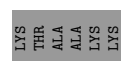
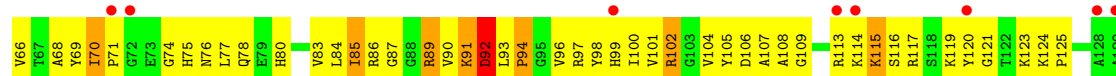
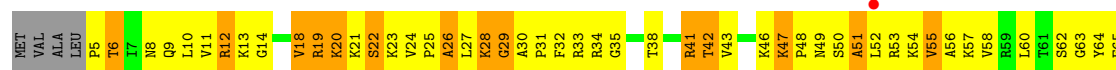
- Molecule 11: 30S ribosomal protein S11

Chain CK:



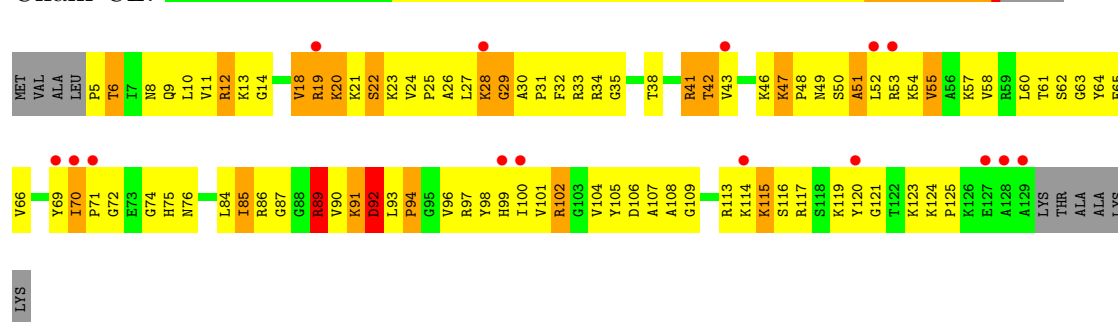
- Molecule 12: 30S ribosomal protein S12

Chain AL:



- Molecule 12: 30S ribosomal protein S12

Chain CL:



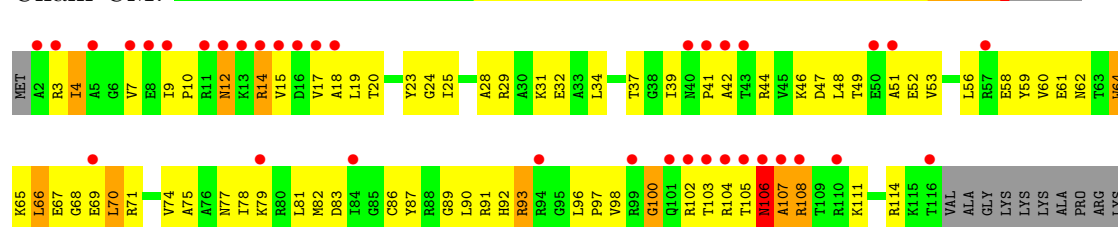
- Molecule 13: 30S ribosomal protein S13

Chain AM:



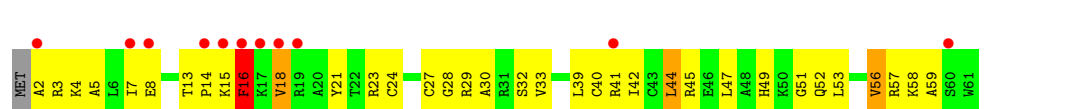
- Molecule 13: 30S ribosomal protein S13

Chain CM:



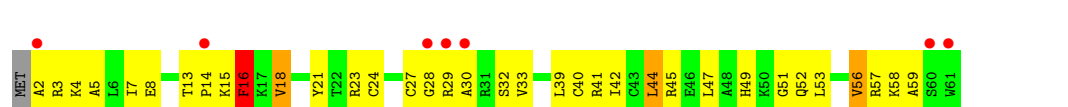
- Molecule 14: 30S ribosomal protein S14

Chain AN:



- Molecule 14: 30S ribosomal protein S14

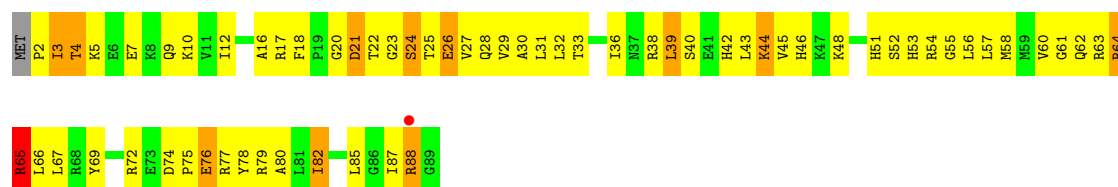
Chain CN:



- Molecule 15: 30S ribosomal protein S15

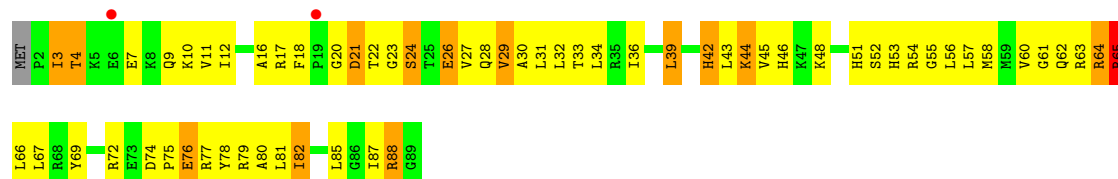
Chain AO:





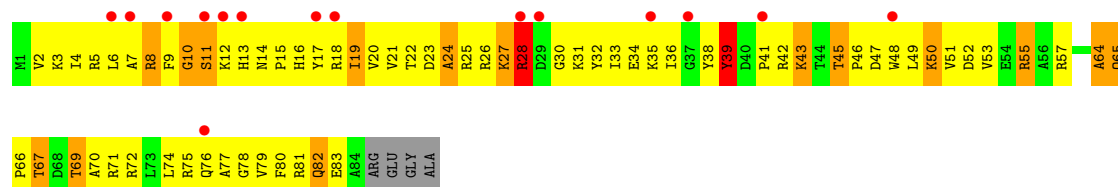
• Molecule 15: 30S ribosomal protein S15

Chain CO:



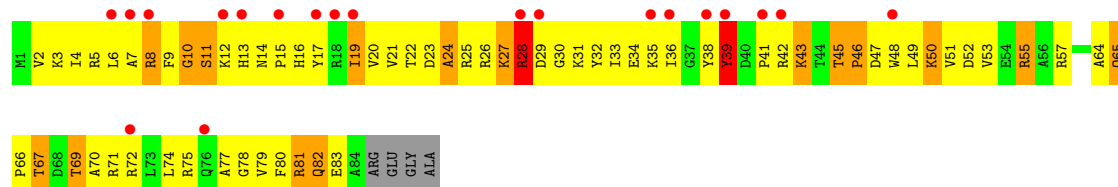
• Molecule 16: 30S ribosomal protein S16

Chain AP:



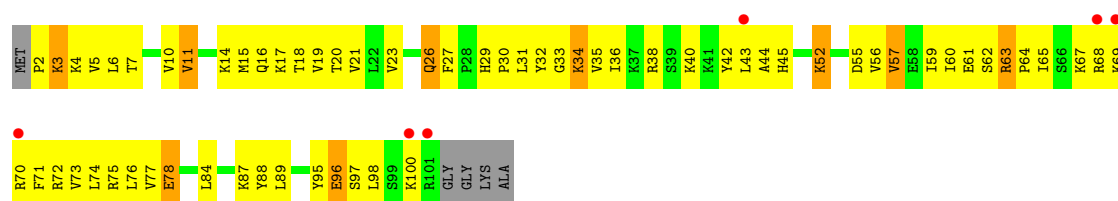
• Molecule 16: 30S ribosomal protein S16

Chain CP:



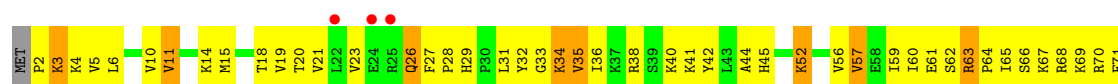
• Molecule 17: 30S ribosomal protein S17

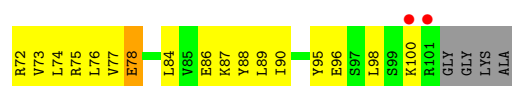
Chain AQ:



• Molecule 17: 30S ribosomal protein S17

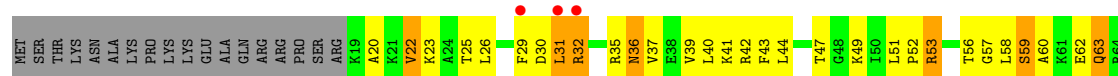
Chain CQ:





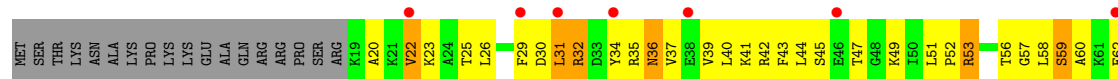
• Molecule 18: 30S ribosomal protein S18

Chain AR:



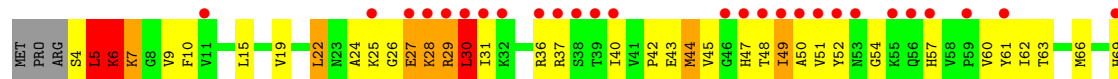
• Molecule 18: 30S ribosomal protein S18

Chain CR:



• Molecule 19: 30S ribosomal protein S19

Chain AS:



• Molecule 19: 30S ribosomal protein S19

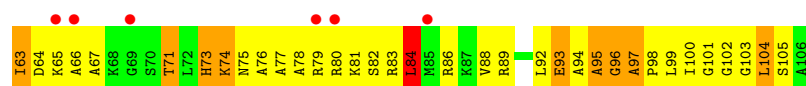
Chain CS:



• Molecule 20: 30S ribosomal protein S20

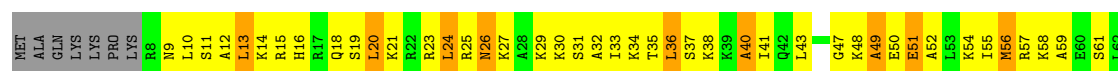
Chain AT:





- Molecule 20: 30S ribosomal protein S20

Chain CT:



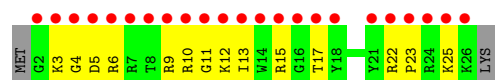
- Molecule 21: 30S ribosomal protein Thx

Chain AU:



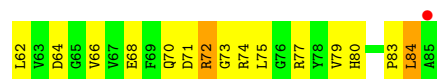
- Molecule 21: 30S ribosomal protein Thx

Chain CU:



- Molecule 22: 50S ribosomal protein L27

Chain B0:



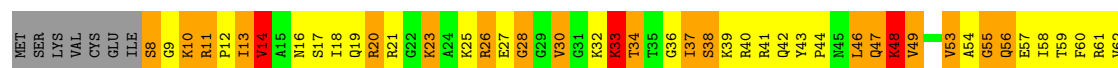
- Molecule 22: 50S ribosomal protein L27

Chain D0:



- Molecule 23: 50S ribosomal protein L28

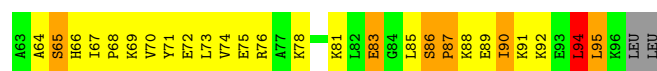
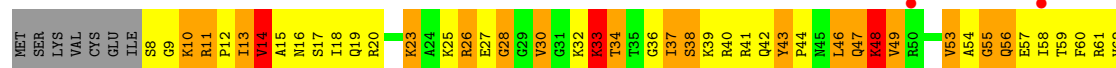
Chain B1:





- Molecule 23: 50S ribosomal protein L28

Chain D1:



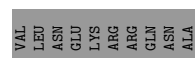
- Molecule 24: 50S ribosomal protein L29

Chain B2:



- Molecule 24: 50S ribosomal protein L29

Chain D2:



- Molecule 25: 50S ribosomal protein L30

Chain B3:



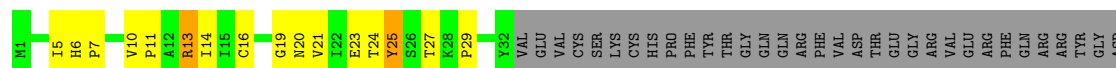
- Molecule 25: 50S ribosomal protein L30

Chain D3:



- Molecule 26: 50S ribosomal protein L31


Chain B4:



SER
TYR
ARG
LYS
GLY
ARG

- Molecule 26: 50S ribosomal protein L31


Chain D4: 



ARG
TYR
GLY
ASP
SER
ARG
LYS
GLY
ARG

- Molecule 27: 50S ribosomal protein L32

Chain B5: 



- Molecule 27: 50S ribosomal protein L32

Chain D5: 



- Molecule 28: 50S ribosomal protein L33

Chain B6: 



- Molecule 28: 50S ribosomal protein L33

Chain D6: 



- Molecule 29: 50S ribosomal protein L34

Chain B7: 



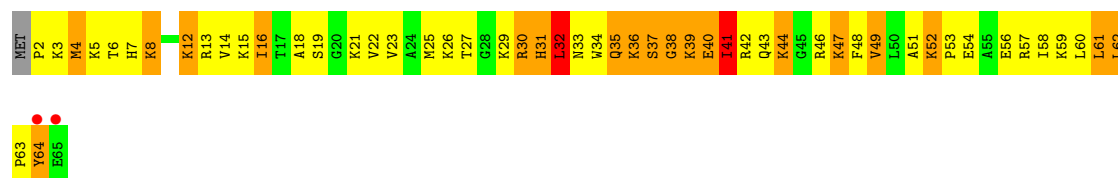
- Molecule 29: 50S ribosomal protein L34

Chain D7: 



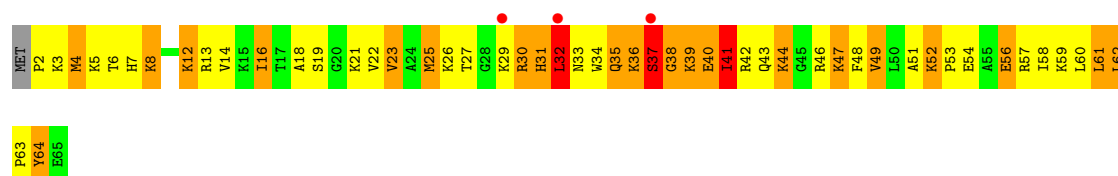
- Molecule 30: 50S ribosomal protein L35

Chain B8:



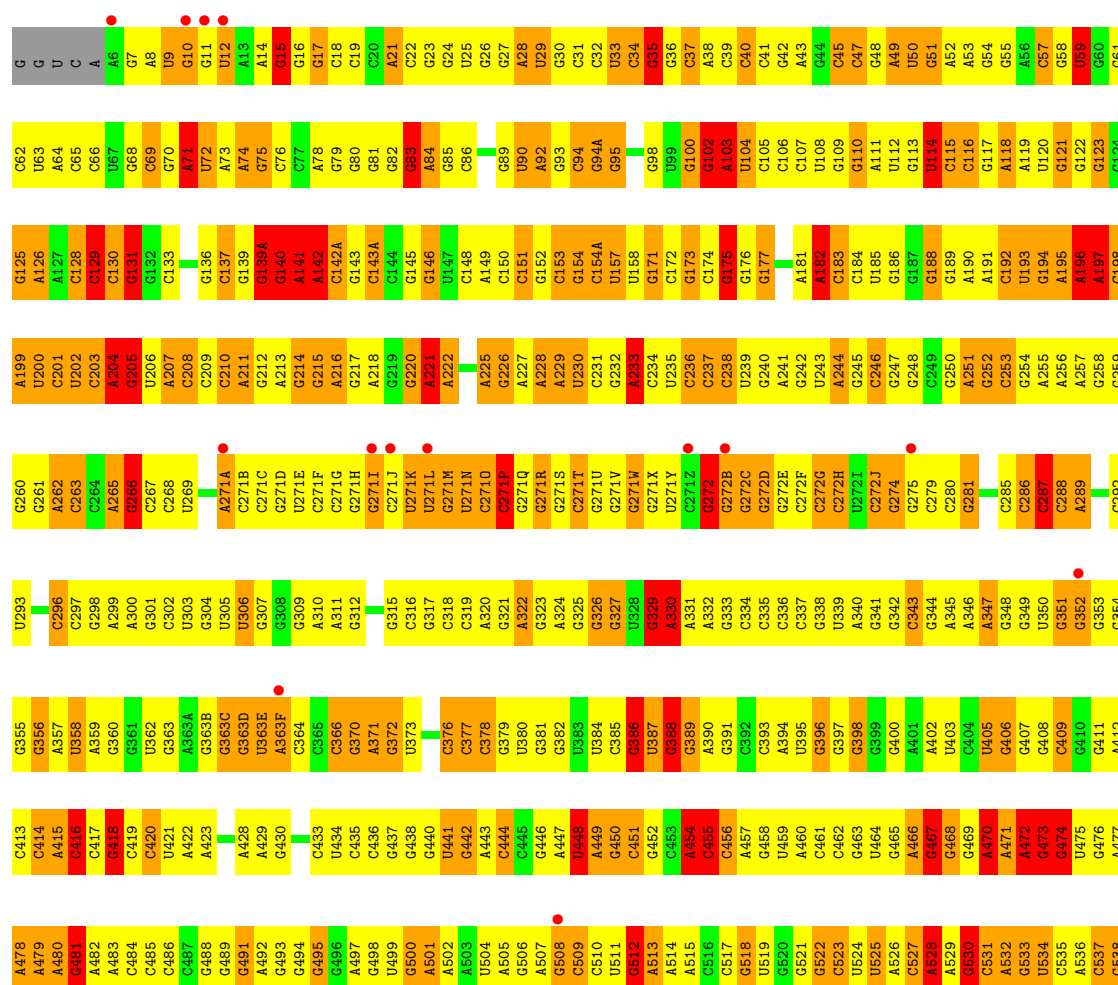
- Molecule 30: 50S ribosomal protein L35

Chain D8:



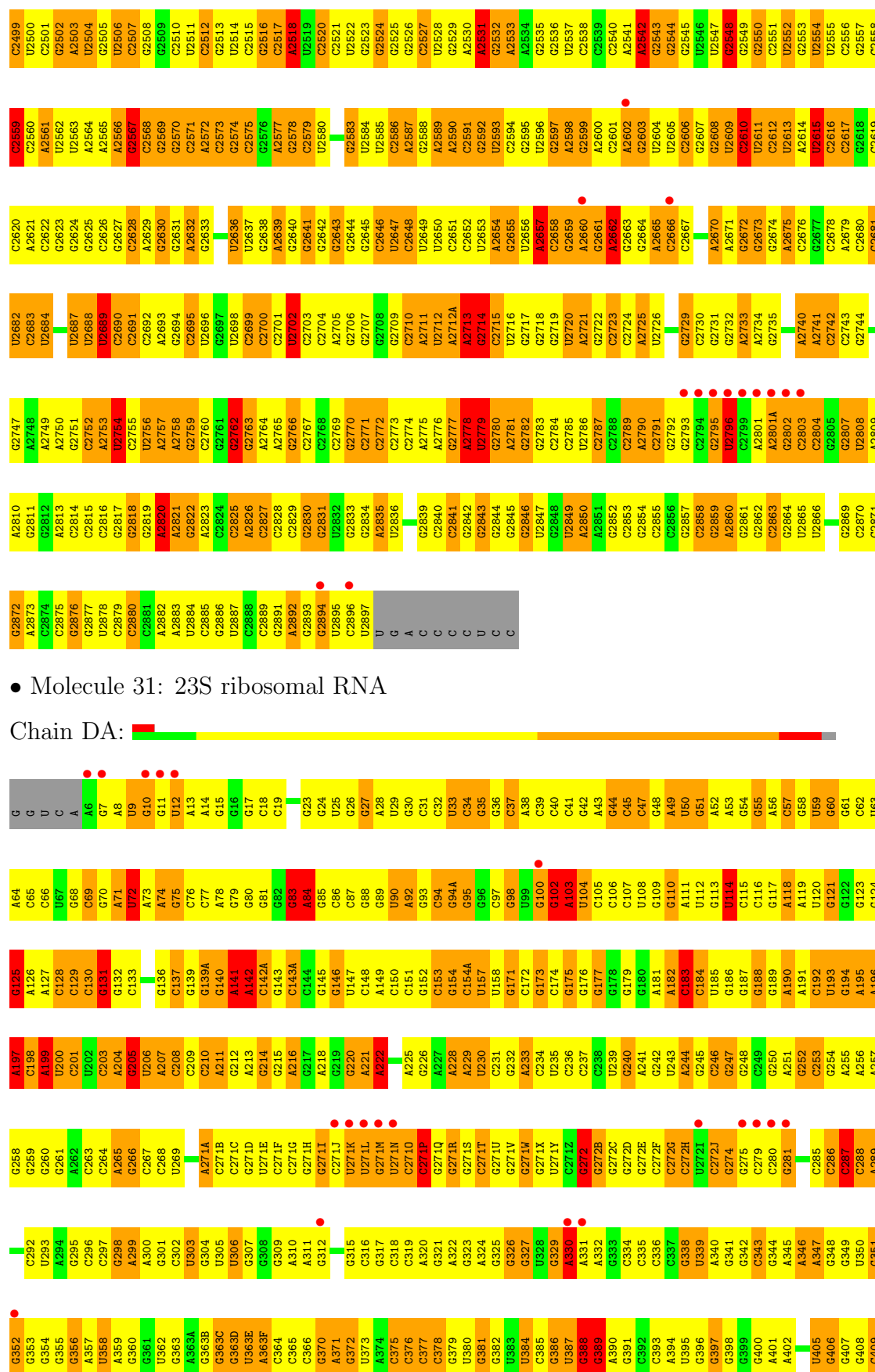
- Molecule 31: 23S ribosomal RNA

Chain BA:



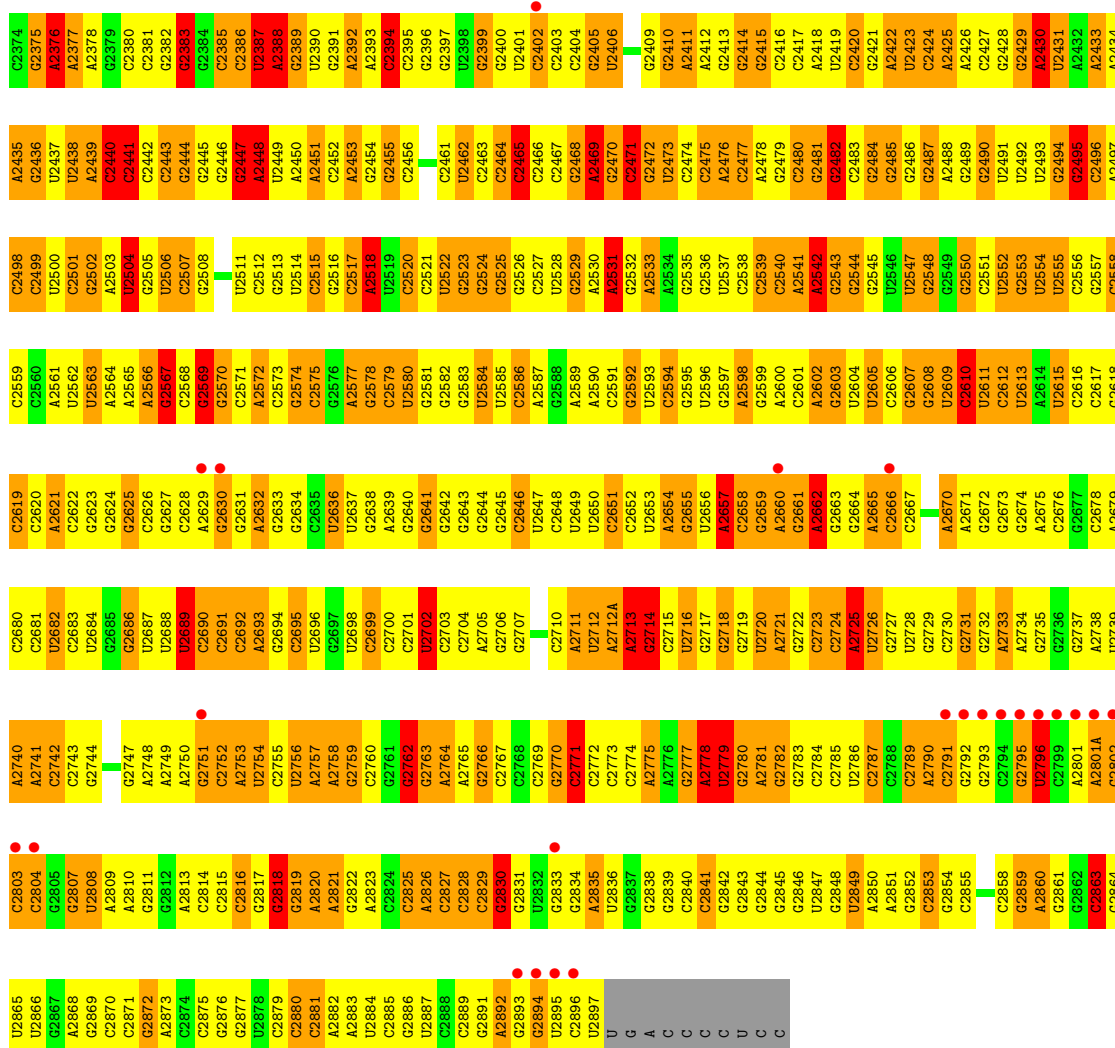
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G1485	A1395	C1333	G1212	G1151	G1037	G977	A917	C850	C790	C730	U667	G604	C640
G1456	U1396	U1334	A1213	C1152	C1038	G978	A918	U851	C791	C731	G668	G605	C541
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C1458	C1398	U1336	G1215	G1154	C1040	A980	G920	G853	A794	C733	A670	U607	C543
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C1463	C1403	U1279	A1220	U1159	A1045	C985	C925	U858	C798	G738	A675	G613	G652
C1464	C1404	G1280	C1221	G1160	A1046	C986	A926	G859	C799	G739	A676	U614	G653
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A1969	A1970	A1971	A1972	A1973	A1974	A1975	A1976	A1977	A1978	A1979	A1980	A1981	A1982	A1983	A1984	A1985	A1986	A1987	A1988	A1989	A1990	A1991	A1992	A1993	A1994	A1995	A1996	A1997	A1998	A1999	A2000	A2001	A2002	A2003	A2004	A2005	A2006	A2007	A2008	A2009	A2010	A2011	A2012	A2013	A2014	A2015	A2016	A2017	A2018	A2019	A2020	A2021	A2022	A2023	A2024	A2025	A2026	A2027	A2028	A2029	A2030	A2031	A2032	A2033	A2034	A2035	A2036	A2037	A2038	A2039	A2040	A2041	A2042	A2043	A2044	A2045	A2046	A2047	A2048	A2049	A2050	A2051	A2052	A2053	A2054	A2055	A2056	A2057	A2058	A2059	A2060	A2061	A2062	A2063	A2064	A2065	A2066	A2067	A2068	A2069	A2070	A2071	A2072	A2073	A2074	A2075	A2076	A2077	A2078	A2079	A2080	A2081	A2082	A2083	A2084	A2085	A2086	A2087	A2088	A2089	A2090	A2091	A2092	A2093	A2094	A2095	A2096	A2097	A2098	A2099	A2100	A2101	A2102	A2103	A2104	A2105	A2106	A2107	A2108	A2109	A2110	A2111	A2112	A2113	A2114	A2115	A2116	A2117	A2118	A2119	A2120	A2121	A2122	A2123	A2124	A2125	A2126	A2127	A2128	A2129	A2130	A2131	A2132	A2133	A2134	A2135	A2136	A2137	A2138	A2139	A2140	A2141	A2142	A2143	A2144	A2145	A2146	A2147	A2148	A2149	A2150	A2151	A2152	A2153	A2154	A2155	A2156	A2157	A2158	A2159	A2160	A2161	A2162	A2163	A2164	A2165	A2166	A2167	A2168	A2169	A2170	A2171	A2172	A2173	A2174	A2175	A2176	A2177	A2178	A2179	A2180	A2181	A2182	A2183	A2184	A2185	A2186	A2187	A2188	A2189	A2190	A2191	A2192	A2193	A2194	A2195	A2196	A2197	A2198	A2199	A2200	A2201	A2202	A2203	A2204	A2205	A2206	A2207	A2208	A2209	A2210	A2211	A2212	A2213	A2214	A2215	A2216	A2217	A2218	A2219	A2220	A2221	A2222	A2223	A2224	A2225	A2226	A2227	A2228	A2229	A2230	A2231	A2232	A2233	A2234	A2235	A2236	A2237	A2238	A2239	A2240	A2241	A2242	A2243	A2244	A2245	A2246	A2247	A2248	A2249	A2250	A2251	A2252	A2253	A2254	A2255	A2256	A2257	A2258	A2259	A2260	A2261	A2262	A2263	A2264	A2265	A2266	A2267	A2268	A2269	A2270	A2271	A2272	A2273	A2274	A2275	A2276	A2277	A2278	A2279	A2280	A2281	A2282	A2283	A2284	A2285	A2286	A2287	A2288	A2289	A2290	A2291	A2292	A2293	A2294	A2295	A2296	A2297	A2298	A2299	A2300	A2301	A2302	A2303	A2304	A2305	A2306	A2307	A2308	A2309	A2310	A2311	A2312	A2313	A2314	A2315	A2316	A2317	A2318	A2319	A2320	A2321	A2322	A2323	A2324	A2325	A2326	A2327	A2328	A2329	A2330	A2331	A2332	A2333	A2334	A2335	A2336	A2337	A2338	A2339	A2340	A2341	A2342	A2343	A2344	A2345	A2346	A2347	A2348	A2349	A2350	A2351	A2352	A2353	A2354	A2355	A2356	A2357	A2358	A2359	A2360	A2361	A2362	A2363	A2364	A2365	A2366	A2367	A2368	A2369	A2370	A2371	A2372	A2373	A2374	A2375	A2376	A2377	A2378	A2379	A2380	A2381	A2382	A2383	A2384	A2385	A2386	A2387	A2388	A2389	A2390	A2391	A2392	A2393	A2394	A2395	A2396	A2397	A2398	A2399	A2400	A2401	A2402	A2403	A2404	A2405	A2406	A2407	A2408	A2409	A2410	A2411	A2412	A2413	A2414	A2415	A2416	A2417	A2418	A2419	A2420	A2421	A2422	A2423	A2424	A2425	A2426	A2427	A2428	A2429	A2430	A2431	A2432	A2433	A2434	A2435	A2436	A2437	A2438	A2439	A2440	A2441	A2442	A2443	A2444	A2445	A2446	A2447	A2448	A2449	A2450	A2451	A2452	A2453	A2454	A2455	A2456	A2457	A2458	A2459	A2460	A2461	A2462	A2463	A2464	A2465	A2466	A2467	A2468	A2469	A2470	A2471	A2472	A2473	A2474	A2475	A2476	A2477	A2478	A2479	A2480	A2481	A2482	A2483	A2484	A2485	A2486	A2487	A2488	A2489	A2490	A2491	A2492	A2493	A2494	A2495	A2496	A2497	A2498	A2499
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G1328	A1268	C1146	U1033	G974	U913	C846	G785	G725	C661	G600	C535	G473	G410
U1329	A1269	C1147	G1034	G975	C914	U847	C786	G726	G662	C801	A536	G474	G411
C1330	G1270	A1148	U1035	G976A	C915	G848	U787	A727	G663	G602	C537	U475	A412
A1331	G1271	G1149	U1036	G976	C916	A849	U788	G728	G664	A603	G538	U476	C413
C1332	A1272	G1150	G1037	G977	A917	C850	U789	G729	G665	G604	C540	A477	C414
G1333	U1273	C1151	U1038	G978	A918	U851	C790	G730	G666	C605	C541	A478	A415
U1334	A1274	C1152	G1039	G979	G919	G852	C791	G731	U667	U606	C542	A479	C416
G1335	A1275	C1153	U1040	A980	G920	G853	G792	G732	G668	U607	C543	A480	C417
A1336	A1276	G1154	C1041	A981	G921	G854	G793	G733	G669	A608	C544	G481	G418
G1337	G1277	A1155	U1042	G982	U922	G855	G794	A734	A670	A609	A547	A482	C419
G1338	A1278	A1156	C1043	G983	C923	C856	C795	A735	C671	A610	A548	A483	C420
G1339	G1279	G1157	U1044	G984	C924	C857	C796	G736	G672	C611	G549	A484	U421
U1340	A1280	C1158	G1045	G985	C925	U858	C797	C737	C673	C612	G551	C485	A422
U1341	G1281	U1159	A1046	C986	A926	C859	G798	G738	G674	G613	G552	A423	A423
A1342	U1282	G1160	G1047	G987	G927	U860	A675	G739	G675	U614	G553	C426	C426
G1343	G1283	C1161	A1048	A988	G928	U861	A676	U740	A676	U614A	U554	U427	U427
G1344	A1284	G1162	C1049	G989	U930	G862	A802	G741	A677	G614B	U555	A491	A491
C1345	G1285	G1163	A1050	A990	G931	A863	U803	G742	G678	A614C	G556	A492	A428
G1346	A1286	G1164	G1051	G991	G932	G864	A804	G743	G679	G615	U557	A493	A429
G1347	A1287	U1165	C1052	G992	A933	C865	G806	G744	G680	G616	G558	A494	G430
G1348	U1288	C1166	C1053	G993	G934	A866	C806	G745	G681	C818	G559	G495	G495
A1349	C1289	U1167	A1106	U1067	C935	C867	U807	A746	G683	G619	C560	G496	G496
C1350	G1168	C994	G1107	C994	C936	U868	G808	A752	G684	G620	C561	A497	U434
C1351	U1291	A996	G1108	A996	U937	G869	C809	G748	A685	A621	U562	G498	C435
U1352	G1291	G1170	U1109	G997	G938	A870	U810	G749	G686	G622	G563	U499	C436
C1353	C1293	G1171	G1110	C998	C939	U871	U811	A750	C687	G623	C564	G500	G437
A1354	U1294	G1173	A1111	U999	G940	A872	C812	G745	U688	C624	C565	A501	G438
G1355	G1295	A1174	U1112	A1000	A941	G873	U813	A752	G689	G625	U566	A502	G440
G1356	G1296	U1175	U1113	A1001	G942	C874	C814	C753	G690	A631	C567	G508	G446
U1357	C1297	G1176	U1114	G1002	U943	G875	C815	C754	C691	A632	C574	C509	A447
G1358	C1298	A1177	G1115	G1003	G944	C876	C816	G755	G692	A633	A575	U511	U448
A1359	G1299	C1178	C1116	C1004	A945	U877	C817	C756	C693	G628	G570	A505	A443
U1360	U1300	G1179	U1117	C1005	G946	A878	C818	C757	G694	G629	A571	G506	C444
A1361	A1301	C1180	C1118	C1006	G947	G879	A819	C758	G695	G630	A572	A507	C445
G1363	G1302	C1181	G1121	C1007	G948	G880	A820	G759	G696	A632	C573	G508	G446
A1364	C1303	G1182	C1122	C1008	C949	G881	A821	G760	C697	A633	C574	C509	A447
A1365	G1304	G1183	C1123	A1009	G950	G882	U822	A761	C698	C634	U576	U511	U449
A1366	C1305	C1185	C1124	A1010	C951	C883	G823	U762	A699	C635	G577	G512	G450
A1367	G1306	G1186	G1125	G1011	G952	C884	A824	G763	G700	G636	A578	A513	C451
G1368	A1247	G1187	C1126	U1012	A953	C892	C825	A764	G701	A637	G579	A514	C452
G1369	G1248	U1188	A1126	C1013	G954	C893	U826	G765	G702	G638	C580	A515	C453
C1370	U1249	A1189	A1127	U1014	C955	C894	U827	C766	G703	U639	C581	C516	A454
G1371	G1310	G1190	A1128	G1015	G956	U895	U828	U767	G704	C640	G582	C517	C455
U1372	G1311	G1191	A1129	G1016	A957	A896	A829	G768	G705	C641	G583	G518	C456
A1373	U1312	G1192	U1130	G1017	U958	C897	G830	G769	A706	G642	C584	U519	A457
G1374	C1313	A1193	G1131	U1018	A959	C898	G831	G770	G707	A643	G585	G520	G458
C1375	A1254	G1194	A1132	U1019	A960	A899	G832	G771	C708	A644	G521	G521	U459
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C1377	G1256	C1196	C1135	A1021	G962	A901	C834	U773	G710	A646	U588	C523	C461
G1378	A1317	G1197	G1136	G1022	U963	C902	A835	A774	G711	G647	C589	U524	G462
A1379	C1318	U1198	G1137	U1023	C964	C903	G836	G775	G712	G648	A590	U525	G463
G1380	G1319	U1199	G1138	G1024	C965	C904	G837	G776	G591	G649	A526	A526	U464
G1381	C1320	G1200	G1139	G1025	G966	U905	C838	A777	G717	C650	G592	C527	G465
C1382	A1321	C1201	C1140	U1026	G967	G906	U839	G778	A718	G651	G593	A528	A466
G1383	U1262	C1202	U1141	A1027	G968	U907	C840	U779	C652	G652	U594	A529	G467
A1384	G1263	G1203	U1142	A1028	U969	C908	A841	G780	C720	G653	C595	G530	G468
G1385	G1324	A1204	A1142A	A1029	C970	A909	G842	A781	C721	U657	G596	C531	G469
C1386	U1325	U1205	A1143	G1030	C971	A910	G843	A782	A722	C658	U597	A532	A470
C1387	G1266	G1206	G1144	U1031	G972	A911	C844	A783	G723	C659	G533	A471	A471
G1388	C1327	C1207	C1145	A1032	A973	C912	G845	A784	U724	G660	G599	U534	A472

C2313	U2349	C	G2090	A2030	G1968	C1836	G1776	A1700	C1840	U1578	C1509	G1448	G1389
C2314	G2250	U	U2091	A2031	A1969	C1837	U1777	A1701	A1641	A1579	A1509A	A1449	U1390
G2315	G2251	G	U2092	G2032	A1970	G1838	U1778	G1702	G1642	A1580	A1509B	G1450	U1391
G2316	G2252	G	G2093	A2033	A1971	G1839	U1779	G1703	G1643	G1581	G1509	G1450A	A1392
G2317	G2253		G2094	A1972	A1972		A1780	G1704	G1644	G1582	C1511	C1451	A1393
G2318			C2095	G2035	G1973	G1843	C1781	G1705	G1645	A1583	U1512	A1452	U1394
G2319			U2096	G2036	C1974	C1844	C1782	U1706	G1646	C1584	C1513	U1453	A1395
A2320	U2257		C2097	G2037	G1975	G1845	A1783	G1707	G1647	A1586	U1514	G1456	U1396
G2321	G2258		U2098	G2038	U1976	G1846	A1784	C1708	G1648	A1587	U1515	G1457	U1397
A2322	G2259		G2099	G2039	A1977	G1847	A1785	U1709	G1649	C1588	G1516	A1457	C1398
G2323	C2261		G2100	C2040	U1917	A1848	A1786	C1710	G1650	C1589	G1517	C1399	C1399
G2324	U2262		G2101	A2041	G1980	G1849	A1787	G1711	G1651	U1590	U1518	G1460	G1401
G2325	U2263		U2102	A2042	A1981	G1850	C1788	C1712	A1852	G1591	G1519	A1460	G1401
C2326	C2264		C2103	C2043	C1982	U1851	A1789	U1713	C1853	C1592	G1520	G1461	G1402
A2327	U2265		G2104	C2044	C1983	C1852	C1790	G1714	A1654	G1593		C1462	C1403
A2328	U2266		C2105	C2045	G1984	A1853	A1791	G1717	A1655	G1594		G1463	C1404
G2329	A2267		G2106	G2046	G1987	G1854	C1792	G1718	A1656	G1595		G1464	U1405
G2330	A2268			U2047	C1988	G1855	C1793	G1719	C1657	A1596		G1465	U1406
G2331	A2269			G2048	G1989	G1856	U1794	U1720	C1658	A1597		G1466	C1407
U2332	G2270			G2049	G1990	G1857	C1795	G1721	U1659	C1598		G1467	C1408
A2333	G2271			C2050	A1992	G1858	C1796	A1722	C1660	C1599		G1468	C1409
G2334	U2272			G2051	U1991	G1859	U1797	U1739	G1661	C1600		A1469	G1410
A2335	A2273			C2052	G1992	G1860	U1798	G1740	C1662	G1601		G1470	C1411
A2336	A2274			G2053	U1993	G1861	G1799	A1741	C1663	U1602		G1471	A1412
G2337	C2275			A2054	C1994	G1862	G1800	G1742	A1664	G1603		A1472	G1413
G2338	G2276			C2055	U1995	G1863	G1801	C1743	A1665	C1604		G1473	G1414
G2339	G2277			G2056	C1996	G1864	A1802	C1744	C1666	C1605		G1474	U1415
A2340	A2278			A2057	G1997	G1865	A1803	C1745	G1667	A1545		G1475	G1416
G2341	G2279			G2058	G1998	G1866	C1804	G1746A	A1668	C1606		G1476	C1417
G2342	U2280			A2059	C1999	A1876	U1805	G1746	A1669	C1607		G1477	C1418
G2343	G2281			G2060	G2000	A1877	C1806	G1747	A1809	C1547		G1478	A1419
U2344	G2282			C2061	A2001	G1878	G1807	G1747A	C1670	A1609		G1479	U1420
G2345	C2283			A2062	G2002	C1879	U1808	G1748	C1672	A1610		G1480	G1421
A2346	C2284			C2063	G2003	C1880	A1809	A1749	U1673	C1611		G1481	G1422
G2347	C2285			G2064	C1881	G1882	A1810	G1750	G1674	G1612		G1482	G1423
U2348	A2286			C2065	A2005	G1883	G1811	C1751	C1675	G1613		G1484	G1424
G2349	A2287			G2066	C2006	G1884	A1812	G1752	A1676	C1615		G1485	G1425
C2350	A2288			G2067	C2007	A1884	G1813	G1753	A1677	A1616		G1486	G1426
G2351	G2289			C2068	C2008	A1885	G1814	C1754	C1678	C1617		G1487	A1427
	G2290			U2069	G2009	C1886	A1815	A1755	U1679	A1618		G1488	C1428
G2354	U2291			G2070	G2010	C1887	G1816	G1756	U1680	G1489		G1490	C1429
C2355	C2292			A2071	U2011	G1888	G1817	U1757	G1681	A1490		G1491	U1430
U2356	C2293			G2072	G2012	A1889	U1818	G1758	G1682	G1492		G1492	U1431
G2357	U2232			C2073	A2013	A1890	A1819	A1759	C1683	G1560		G1493	G1432
G2358	U2233			U2074	A2014	G1891	U1820	A1760	C1684	G1561		C1493	U1433
A2359	G2234			C2075	A2015	C1892	A1821	C1761	C1685	C1625		A1494	A1434
G2360	G2235			U2076	U2016	C1893	G1822	A1762	C1686	G1626		A1495	G1435
A2361	G2236			A2077	G2017	C1894	G1823	G1763	G1687	G1627		A1496	G1436
G2362	C2301			C2078	G2018	C1895	G1824	G1764	U1688	U1629		U1497	G1437
G2363	G2302			U2079	A2019	G1896	A1825	C1765	A1689	G1630		C1498	U1438
G2364	G2303			G2080	A2020	G1897	G1826	U1766	A1690	C1631		C1499	A1439
G2365	G2304			C2081	C2021	U1898	C1827	C1767	C1691	A1631A		G1500	G1440
A2366	A2241			U2082	U2022	C1899	A1828	U1768	U1692	A1632		C1501	G1441
G2367	G2305			A2083	G2023	A1900	G1829	G1769	U1693	A1571		C1502	G1442
G2368	G2307			C2084	G2024	A1901	C1830	G1770	C1694	A1634		U1503	G1443
A2369	U2244			C2085	G2025	C1902	G1831	C1771	G1695	G1573		C1504	G1444
G2370	U2245			U2086	C2026	G1903	C1832	G1772	G1696	C1574		C1505	A1445
G2371	G2246			G2087	C2027	G1904	C1833	G1773	C1697	C1575		C1506	C1445A
A2372	A2247			C2088	U2028	C1905	U1834	C1774	A1698	C1638		A1507	G1446
G2373	C2248			U2089	C2029	G1906	G1835	U1775	G1699	U1639		A1508	G1447



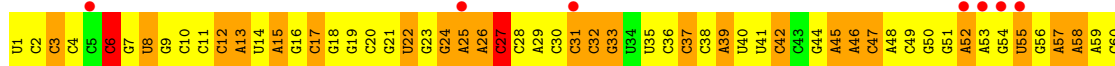
• Molecule 32: 5S ribosomal RNA

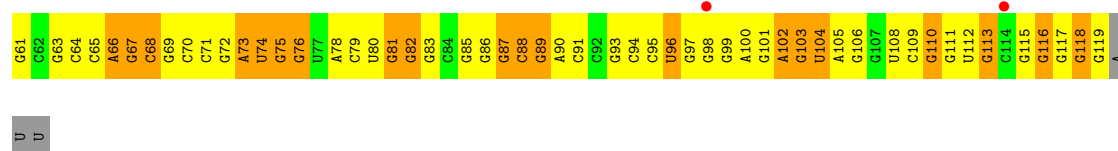
Chain BB:



• Molecule 32: 5S ribosomal RNA

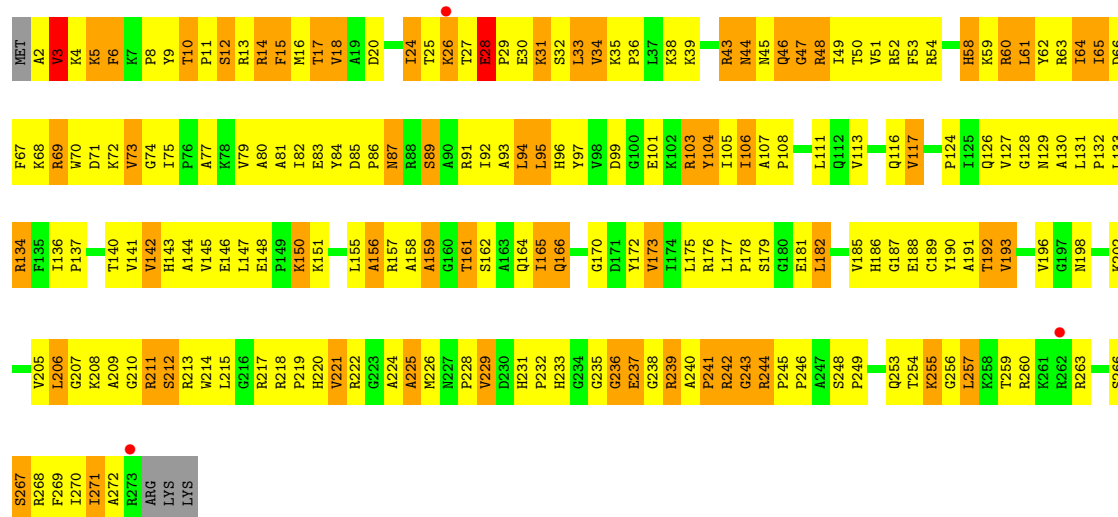
Chain DB:





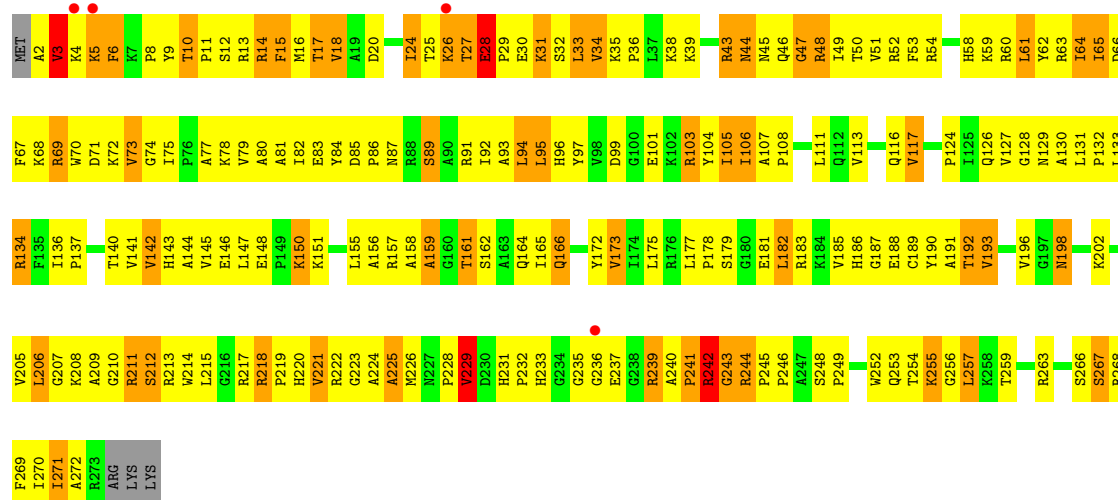
• Molecule 33: 50S ribosomal protein L2

Chain BD:



• Molecule 33: 50S ribosomal protein L2

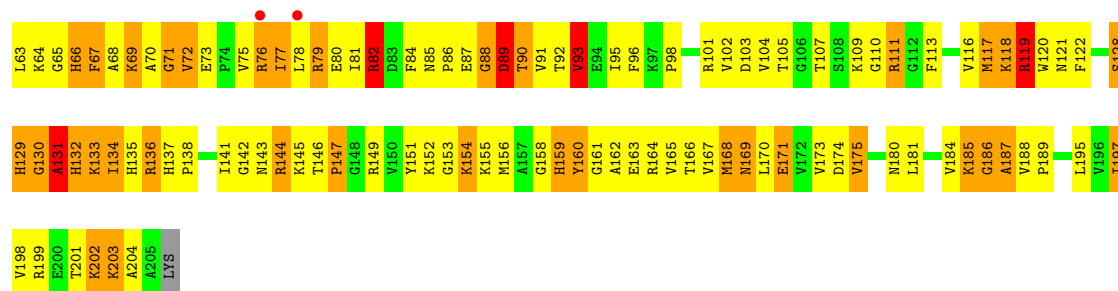
Chain DD:



• Molecule 34: 50S ribosomal protein L3

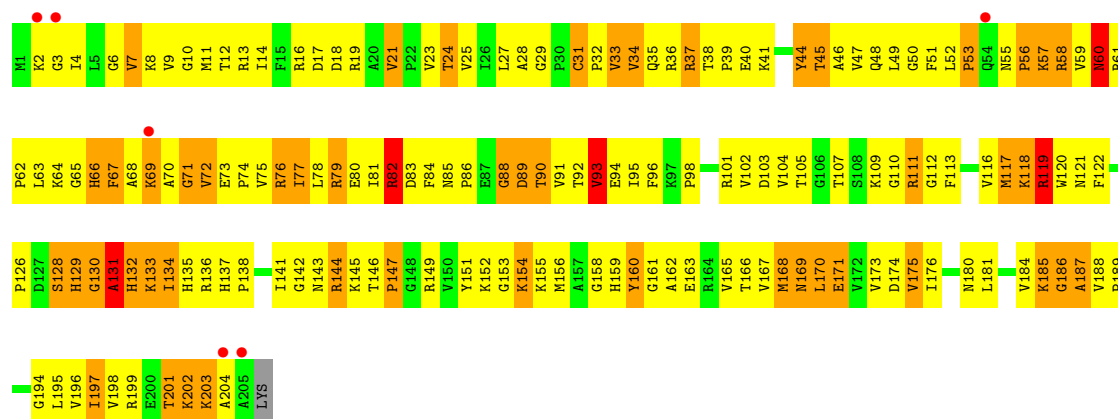
Chain BE:





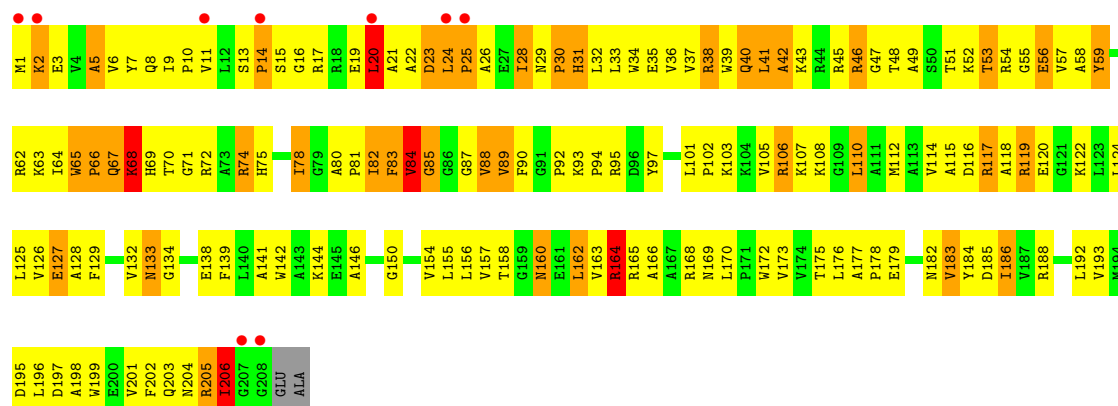
• Molecule 34: 50S ribosomal protein L3

Chain DE:



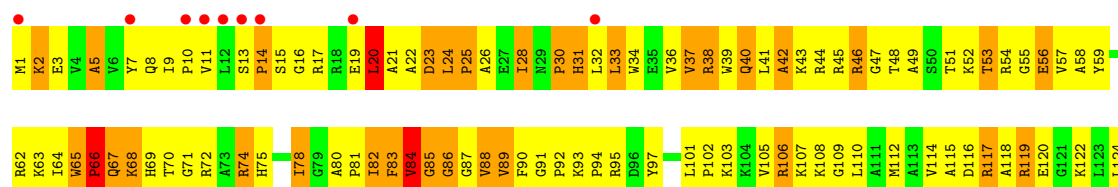
• Molecule 35: 50S ribosomal protein L4

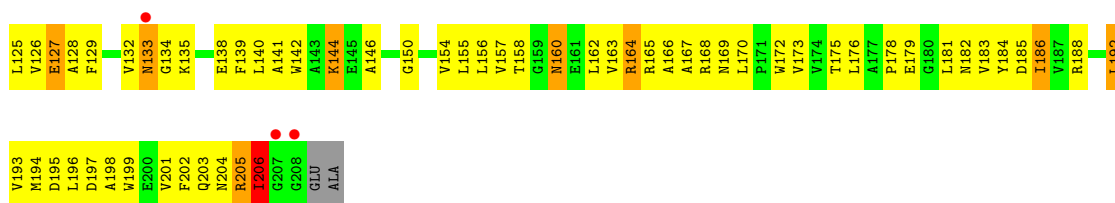
Chain BF:



• Molecule 35: 50S ribosomal protein L4

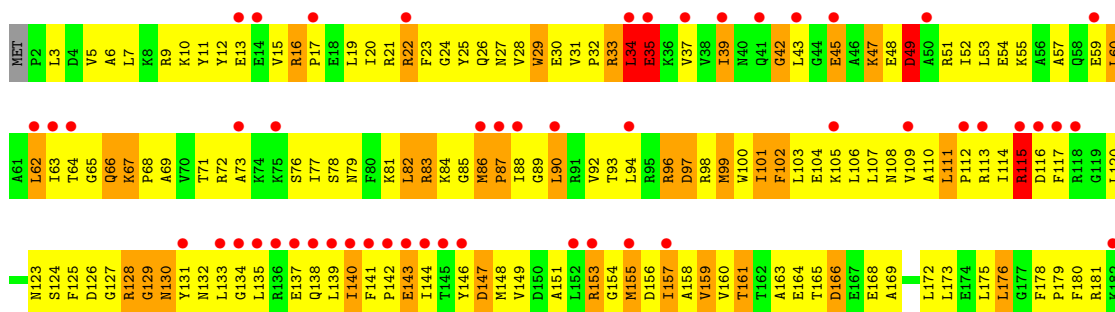
Chain DF:





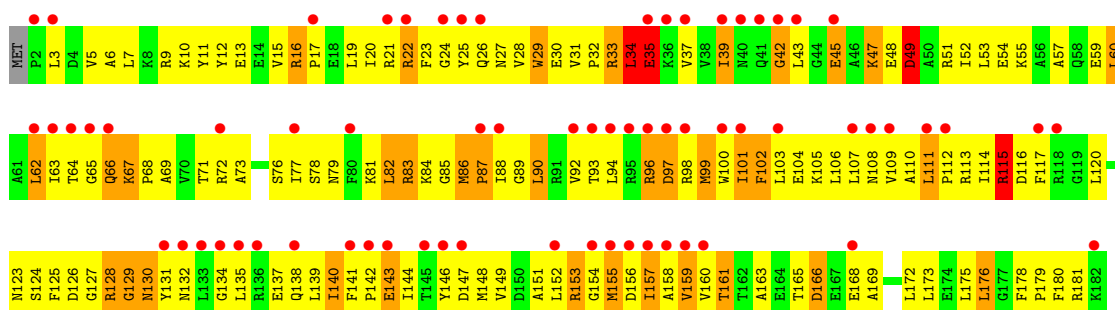
• Molecule 36: 50S ribosomal protein L5

Chain BG:



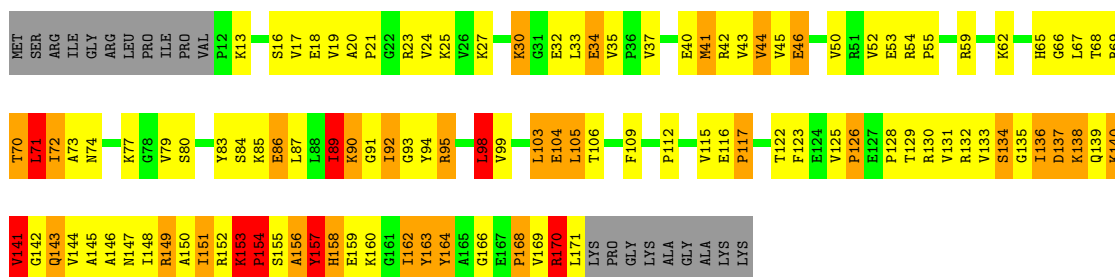
• Molecule 36: 50S ribosomal protein L5

Chain DG:



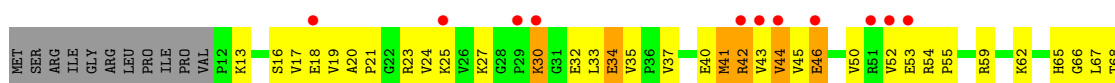
• Molecule 37: 50S ribosomal protein L6

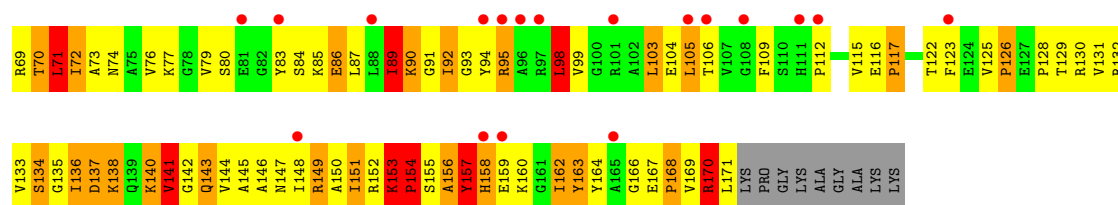
Chain BH:



• Molecule 37: 50S ribosomal protein L6

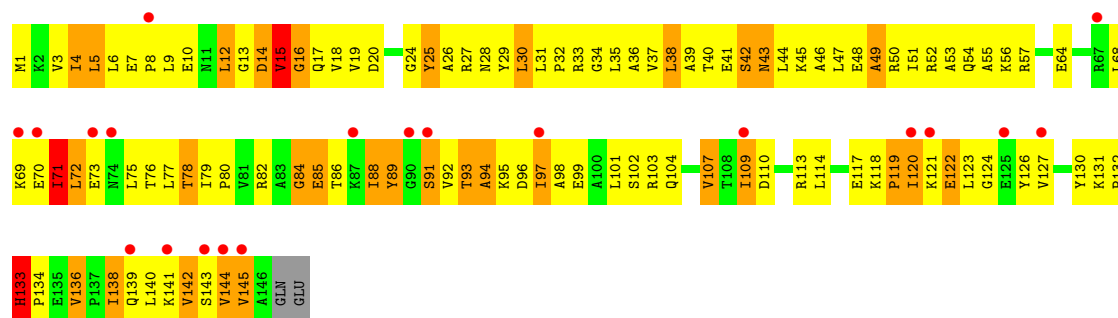
Chain DH:





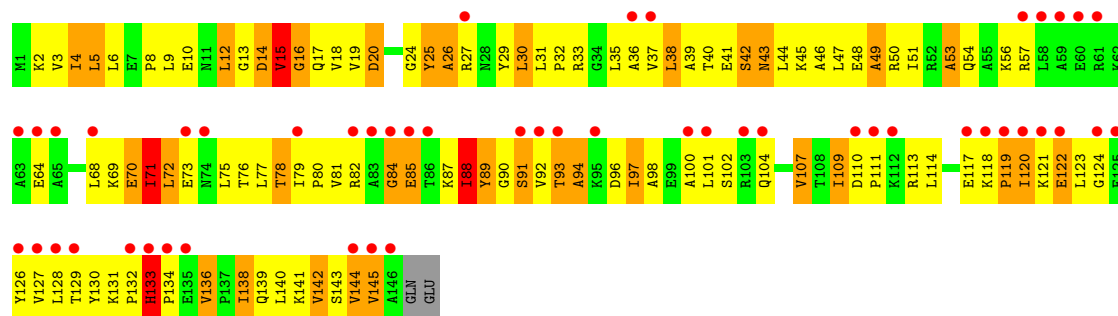
• Molecule 38: 50S ribosomal protein L9

Chain BI:



• Molecule 38: 50S ribosomal protein L9

Chain DI:



• Molecule 39: 50S ribosomal protein L13

Chain BN:



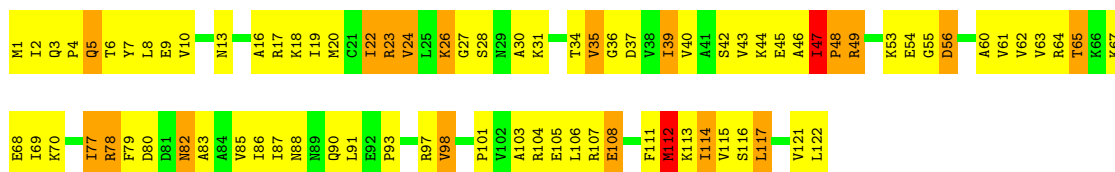
• Molecule 39: 50S ribosomal protein L13

Chain DN:



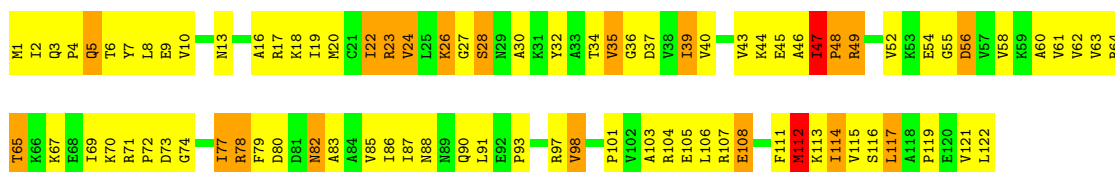
- Molecule 40: 50S ribosomal protein L14

Chain BO:



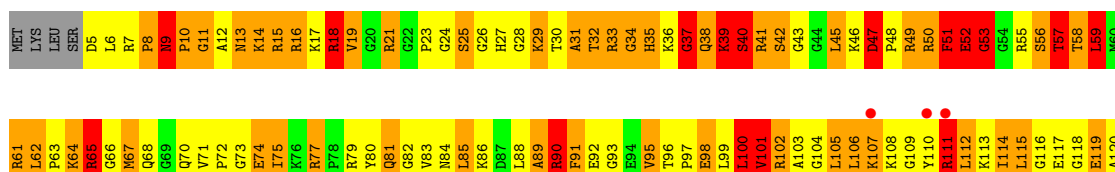
- Molecule 40: 50S ribosomal protein L14

Chain DO:



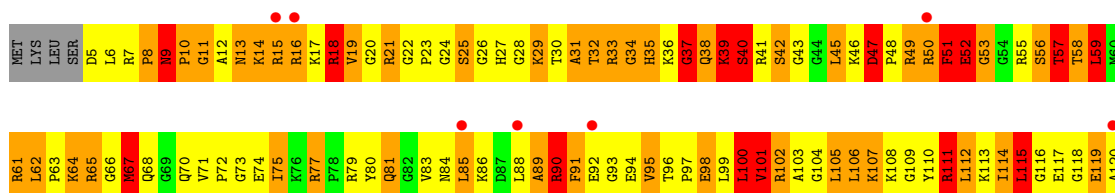
- Molecule 41: 50S ribosomal protein L15

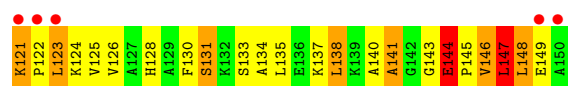
Chain BP:



- Molecule 41: 50S ribosomal protein L15

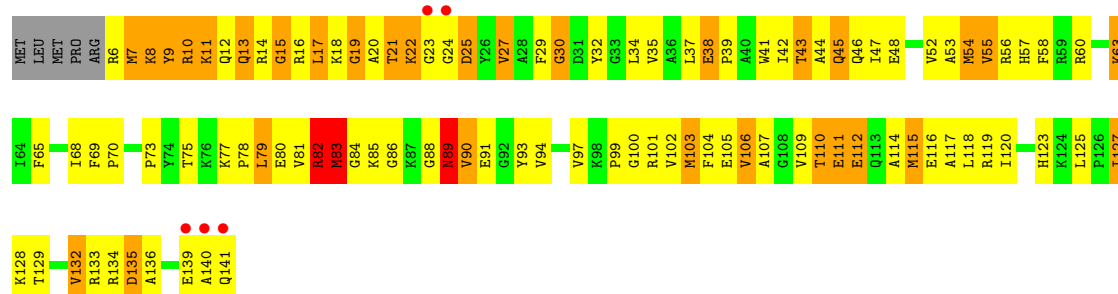
Chain DP:





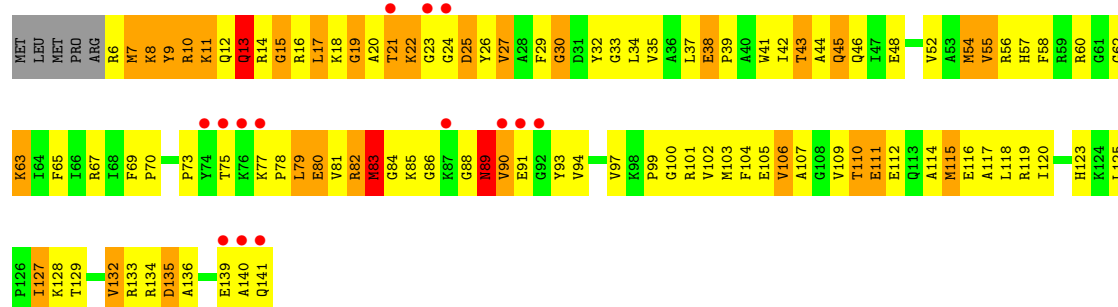
- Molecule 42: 50S ribosomal protein L16

Chain BQ:



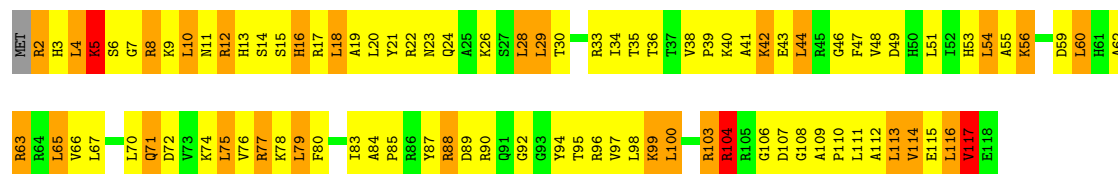
- Molecule 42: 50S ribosomal protein L16

Chain DQ:



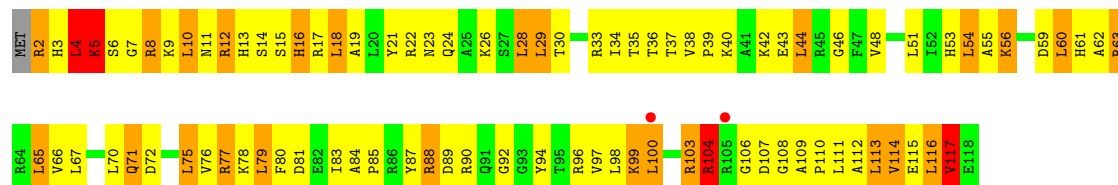
- Molecule 43: 50S ribosomal protein L17

Chain BR:



- Molecule 43: 50S ribosomal protein L17

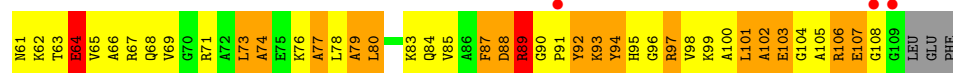
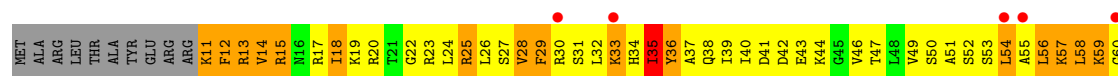
Chain DR:



- Molecule 44: 50S ribosomal protein L18

Chain BS:





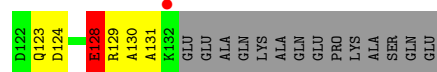
• Molecule 44: 50S ribosomal protein L18

Chain DS:



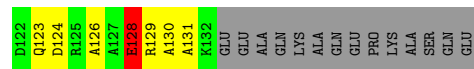
• Molecule 45: 50S ribosomal protein L19

Chain BT:



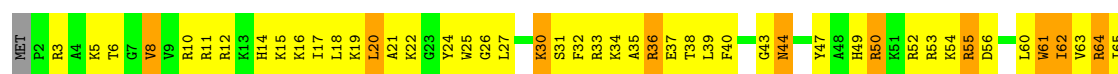
• Molecule 45: 50S ribosomal protein L19

Chain DT:



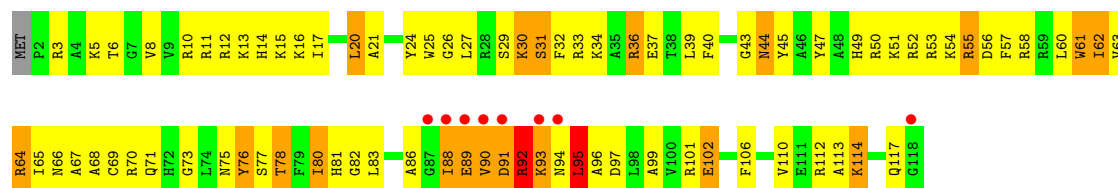
• Molecule 46: 50S ribosomal protein L20

Chain BU:



- Molecule 46: 50S ribosomal protein L20

Chain DU:



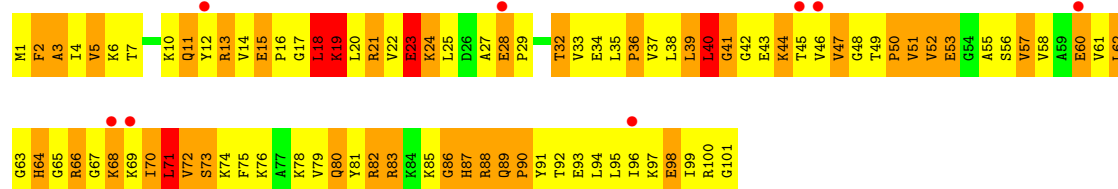
- Molecule 47: 50S ribosomal protein L21

Chain BV:



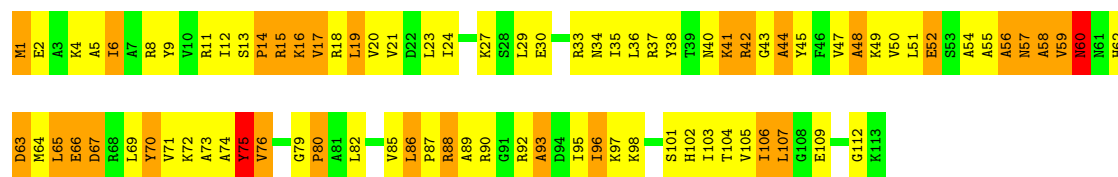
- Molecule 47: 50S ribosomal protein L21

Chain DV:



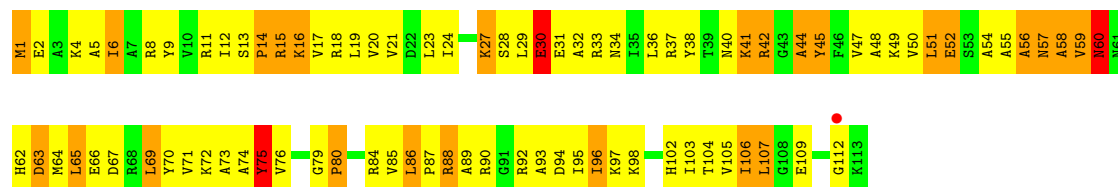
- Molecule 48: 50S ribosomal protein L22

Chain BW:



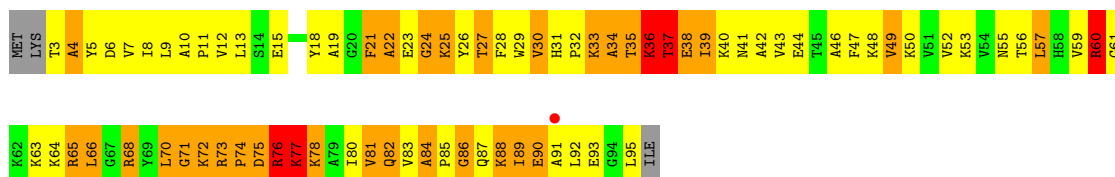
- Molecule 48: 50S ribosomal protein L22

Chain DW:



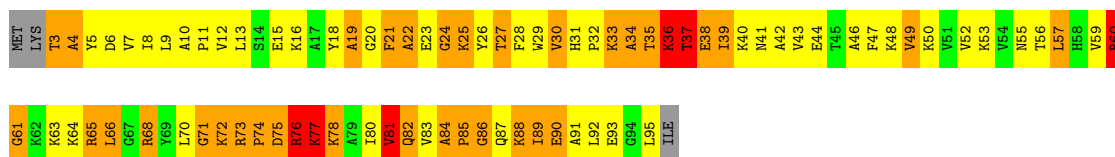
- Molecule 49: 50S ribosomal protein L23

Chain BX:



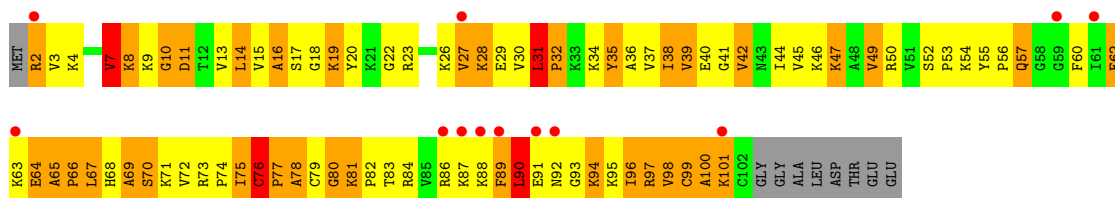
• Molecule 49: 50S ribosomal protein L23

Chain DX:



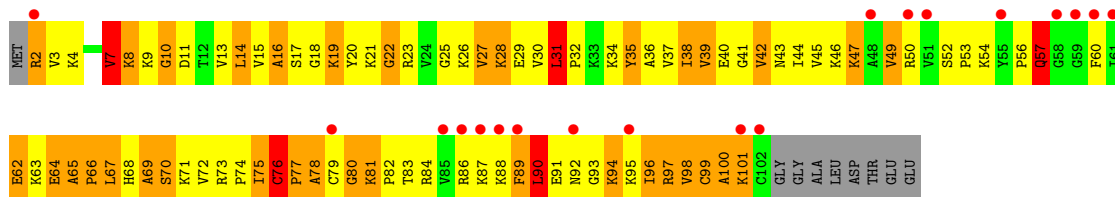
• Molecule 50: 50S ribosomal protein L24

Chain BY:



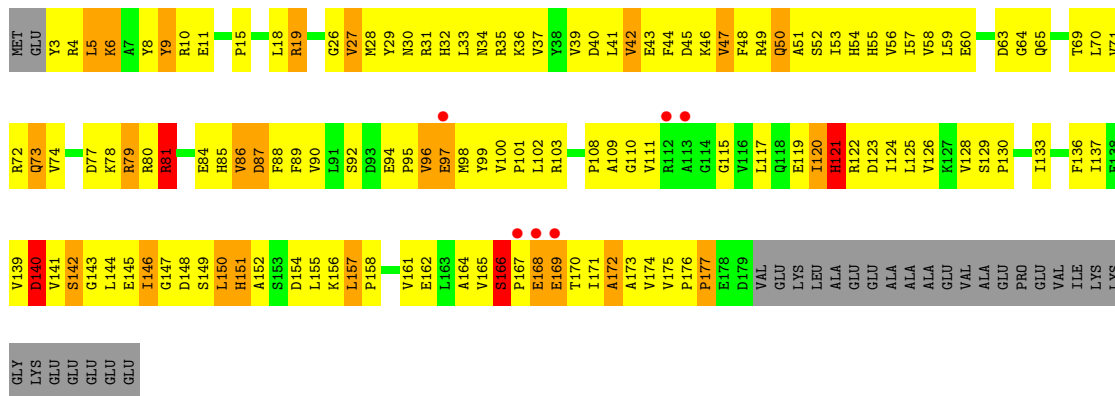
• Molecule 50: 50S ribosomal protein L24

Chain DY:



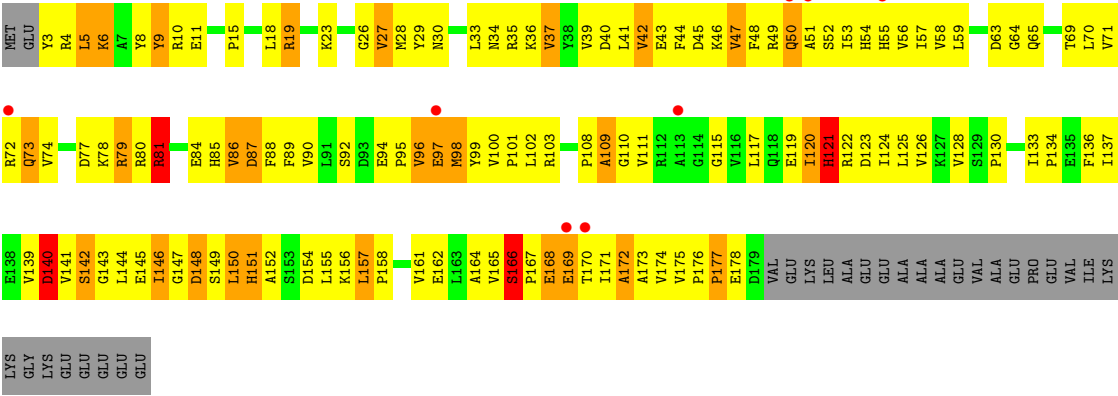
• Molecule 51: 50S ribosomal protein L25

Chain BZ:



• Molecule 51: 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	207.32Å 437.99Å 614.66Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	48.97 – 3.10 48.97 – 3.10	Depositor EDS
% Data completeness (in resolution range)	(Not available) (48.97-3.10) 91.4 (48.97-3.10)	Depositor EDS
R_{merge}	0.18	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.30 (at 3.12Å)	Xtriage
Refinement program	Phenix	Depositor
R, R_{free}	0.246 , 0.284 0.247 , 0.283	Depositor DCC
R_{free} test set	45921 reflections (5.29%)	DCC
Wilson B-factor (Å ²)	88.4	Xtriage
Anisotropy	0.168	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.28 , 64.4	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning	$\langle L \rangle = 0.44$, $\langle L^2 \rangle = 0.26$	Xtriage
Outliers	0 of 914156 reflections	Xtriage
F_o, F_c correlation	0.90	EDS
Total number of atoms	278037	wwPDB-VP
Average B, all atoms (Å ²)	110.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.68% 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: K, MG, TEL, ZN

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	AA	0.54	2/36190 (0.0%)	0.91	51/56486 (0.1%)
1	CA	0.52	2/36190 (0.0%)	0.92	61/56486 (0.1%)
2	AB	0.28	0/1936	0.49	0/2611
2	CB	0.28	0/1936	0.48	0/2611
3	AC	0.27	0/1637	0.45	0/2207
3	CC	0.27	0/1637	0.44	0/2207
4	AD	0.32	0/1733	0.54	0/2318
4	CD	0.34	0/1733	0.55	0/2318
5	AE	0.36	0/1163	0.55	0/1566
5	CE	0.34	0/1163	0.55	0/1566
6	AF	0.35	0/856	0.57	0/1154
6	CF	0.35	0/856	0.56	0/1154
7	AG	0.26	0/1276	0.43	0/1709
7	CG	0.26	0/1276	0.43	0/1709
8	AH	0.36	0/1136	0.56	0/1527
8	CH	0.35	0/1136	0.56	0/1527
9	AI	0.28	0/1028	0.44	0/1375
9	CI	0.28	0/1028	0.44	0/1375
10	AJ	0.27	0/808	0.48	0/1087
10	CJ	0.27	0/808	0.48	0/1087
11	AK	0.34	0/900	0.55	0/1213
11	CK	0.33	0/900	0.55	0/1213
12	AL	0.40	0/987	0.65	0/1322
12	CL	0.40	0/987	0.66	0/1322
13	AM	0.28	0/928	0.48	0/1238
13	CM	0.28	0/928	0.48	0/1238
14	AN	0.28	0/501	0.46	0/664
14	CN	0.29	0/501	0.46	0/664
15	AO	0.35	0/745	0.55	0/992
15	CO	0.34	0/745	0.54	0/992
16	AP	0.34	0/717	0.55	0/965
16	CP	0.34	0/717	0.56	0/965

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	AQ	0.35	0/837	0.56	0/1119
17	CQ	0.35	0/837	0.55	0/1119
18	AR	0.35	0/579	0.57	0/768
18	CR	0.34	0/579	0.57	0/768
19	AS	0.28	0/643	0.45	0/867
19	CS	0.29	0/643	0.45	0/867
20	AT	0.34	0/765	0.53	0/1007
20	CT	0.34	0/765	0.54	0/1007
21	AU	0.26	0/213	0.42	0/279
21	CU	0.28	0/213	0.43	0/279
22	B0	0.60	0/658	0.75	0/878
22	D0	0.54	0/658	0.73	0/878
23	B1	0.69	0/700	0.97	0/931
23	D1	0.61	0/700	0.92	1/931 (0.1%)
24	B2	0.61	0/423	0.92	1/560 (0.2%)
24	D2	0.55	0/423	0.88	1/560 (0.2%)
25	B3	0.62	0/473	0.71	0/636
25	D3	0.45	0/473	0.66	0/636
26	B4	0.26	0/156	0.53	0/215
26	D4	0.28	0/156	0.52	0/215
27	B5	0.83	2/473 (0.4%)	1.04	3/639 (0.5%)
27	D5	0.67	0/473	1.01	3/639 (0.5%)
28	B6	0.73	0/387	0.91	2/517 (0.4%)
28	D6	0.60	0/387	0.85	1/517 (0.2%)
29	B7	0.67	0/427	0.83	0/563
29	D7	0.61	0/427	0.81	0/563
30	B8	0.72	0/516	0.98	1/681 (0.1%)
30	D8	0.61	0/516	0.94	1/681 (0.1%)
31	BA	1.17	111/65745 (0.2%)	1.49	1343/102639 (1.3%)
31	DA	0.89	28/65745 (0.0%)	1.45	1209/102639 (1.2%)
32	BB	0.87	0/2853	1.26	35/4451 (0.8%)
32	DB	0.63	0/2853	1.18	25/4451 (0.6%)
33	BD	0.63	0/2155	0.85	3/2907 (0.1%)
33	DD	0.58	0/2155	0.82	2/2907 (0.1%)
34	BE	0.69	0/1597	0.87	2/2155 (0.1%)
34	DE	0.58	0/1597	0.83	0/2155
35	BF	0.65	2/1659 (0.1%)	0.77	0/2246
35	DF	0.53	1/1659 (0.1%)	0.74	0/2246
36	BG	0.37	0/1498	0.61	1/2013 (0.0%)
36	DG	0.35	0/1498	0.59	1/2013 (0.0%)
37	BH	0.57	0/1246	0.71	0/1684
37	DH	0.41	0/1246	0.66	0/1684
38	BI	0.40	0/1147	0.65	0/1553

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	DI	0.43	0/1147	0.66	1/1553 (0.1%)
39	BN	0.71	0/1132	0.83	0/1527
39	DN	0.56	0/1132	0.76	0/1527
40	BO	0.62	0/943	0.74	0/1269
40	DO	0.53	0/943	0.73	0/1269
41	BP	0.65	0/1131	0.98	5/1504 (0.3%)
41	DP	0.56	0/1131	0.94	4/1504 (0.3%)
42	BQ	0.66	0/1100	0.80	1/1470 (0.1%)
42	DQ	0.55	0/1100	0.74	0/1470
43	BR	0.69	0/974	0.82	1/1302 (0.1%)
43	DR	0.57	0/974	0.80	2/1302 (0.2%)
44	BS	0.52	0/779	0.75	0/1038
44	DS	0.43	0/779	0.72	0/1038
45	BT	0.58	0/1114	0.82	0/1488
45	DT	0.52	0/1114	0.79	0/1488
46	BU	0.70	0/975	0.80	2/1297 (0.2%)
46	DU	0.56	0/975	0.74	1/1297 (0.1%)
47	BV	0.69	0/789	0.89	0/1054
47	DV	0.54	0/789	0.84	1/1054 (0.1%)
48	BW	0.76	0/907	0.91	1/1216 (0.1%)
48	DW	0.61	0/907	0.88	0/1216
49	BX	0.72	0/740	0.92	0/995
49	DX	0.63	0/740	0.90	0/995
50	BY	0.65	0/789	0.86	0/1053
50	DY	0.53	0/789	0.81	0/1053
51	BZ	0.46	0/1436	0.62	1/1951 (0.1%)
51	DZ	0.40	0/1436	0.61	1/1951 (0.1%)
All	All	0.79	148/301000 (0.0%)	1.17	2768/449812 (0.6%)

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	CA	1	0
22	B0	0	1
22	D0	0	1
23	B1	0	1
23	D1	0	1
24	B2	0	1
24	D2	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
27	B5	0	1
27	D5	0	1
31	BA	18	0
31	DA	18	0
33	BD	0	4
33	DD	0	2
34	BE	0	2
34	DE	0	2
37	BH	0	1
37	DH	0	1
41	BP	0	5
41	DP	0	3
42	BQ	0	1
42	DQ	0	1
43	BR	0	1
43	DR	0	1
45	BT	0	1
45	DT	0	1
47	BV	0	1
47	DV	0	2
49	BX	0	2
49	DX	0	3
All	All	37	42

All (148) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
31	BA	1142(A)	A	N9-C4	-11.15	1.31	1.37
31	BA	783	A	N9-C4	-10.64	1.31	1.37
31	BA	669	G	C4'-C3'	-10.15	1.42	1.53
31	BA	774	A	N9-C4	-9.61	1.32	1.37
31	DA	1142(A)	A	N9-C4	-9.23	1.32	1.37
31	DA	1694	C	C4'-C3'	-9.11	1.43	1.53
31	BA	1142(A)	A	N3-C4	-8.55	1.29	1.34
31	DA	669	G	C4'-C3'	-8.53	1.43	1.53
31	DA	1332	G	N9-C4	-8.29	1.31	1.38
31	BA	1021	A	N9-C4	-8.25	1.32	1.37
31	BA	1694	C	C4'-C3'	-8.16	1.44	1.53
31	BA	2346	A	N3-C4	-7.96	1.30	1.34
31	BA	676	A	N9-C4	-7.90	1.33	1.37
31	BA	933	A	N9-C4	-7.60	1.33	1.37
31	BA	528	A	N9-C4	-7.49	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
31	BA	2376	A	N3-C4	7.42	1.39	1.34
31	BA	330	A	N9-C4	-7.38	1.33	1.37
31	DA	774	A	N9-C4	-7.36	1.33	1.37
31	BA	1332	G	N9-C4	-7.30	1.32	1.38
31	BA	2713	A	N9-C4	-7.19	1.33	1.37
31	DA	2725	A	N9-C4	-7.04	1.33	1.37
31	DA	1300	U	C4'-C3'	-6.96	1.45	1.53
31	DA	783	A	N9-C4	-6.91	1.33	1.37
31	BA	652	C	O3'-P	6.87	1.69	1.61
31	BA	2430	A	N7-C5	-6.71	1.35	1.39
31	BA	1300	U	C4'-C3'	-6.63	1.45	1.53
31	BA	2034	U	P-OP2	-6.57	1.37	1.49
31	BA	197	A	N9-C4	-6.56	1.33	1.37
31	BA	751	A	N9-C4	-6.47	1.33	1.37
31	DA	2346	A	N3-C4	-6.47	1.30	1.34
31	BA	2589	A	N9-C4	-6.42	1.34	1.37
31	BA	1616	A	N9-C4	-6.34	1.34	1.37
31	BA	2561	A	N9-C4	-6.33	1.34	1.37
35	BF	65	TRP	CB-CG	-6.33	1.38	1.50
31	BA	751	A	N3-C4	-6.31	1.31	1.34
31	BA	2376	A	C6-N1	6.31	1.40	1.35
31	DA	528	A	N9-C4	-6.31	1.34	1.37
31	DA	656	G	P-O5'	6.29	1.66	1.59
31	BA	652	C	C3'-O3'	6.29	1.50	1.42
31	BA	2518	A	N9-C4	-6.28	1.34	1.37
31	BA	2616	C	N3-C4	-6.28	1.29	1.33
31	DA	2589	A	N9-C4	-6.28	1.34	1.37
31	BA	1677	A	N9-C4	-6.27	1.34	1.37
31	BA	783	A	N3-C4	-6.25	1.31	1.34
31	BA	2531	A	N9-C4	-6.24	1.34	1.37
31	BA	189	G	N9-C4	-6.23	1.32	1.38
31	DA	652	C	O3'-P	6.23	1.68	1.61
31	BA	1132	A	N3-C4	-6.21	1.31	1.34
31	BA	1021	A	N7-C5	-6.19	1.35	1.39
31	BA	990	A	N9-C4	-6.14	1.34	1.37
31	BA	774	A	N3-C4	-6.13	1.31	1.34
1	AA	889	A	N9-C4	-6.10	1.34	1.37
31	BA	1189	A	C5-C6	-6.03	1.35	1.41
31	DA	652	C	P-O5'	6.02	1.65	1.59
31	BA	2575	C	N1-C6	-6.00	1.33	1.37
31	BA	2287	A	N3-C4	-5.99	1.31	1.34
31	BA	752	A	N7-C5	-5.97	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
31	BA	676	A	N3-C4	-5.96	1.31	1.34
31	BA	2061	G	C5-C4	-5.95	1.34	1.38
31	BA	2448	A	N3-C4	-5.93	1.31	1.34
31	BA	1021	A	N3-C4	-5.93	1.31	1.34
31	BA	525	U	N1-C2	-5.91	1.33	1.38
31	BA	197	A	N3-C4	-5.91	1.31	1.34
31	BA	567	A	N7-C5	-5.90	1.35	1.39
31	DA	671	C	N1-C6	-5.89	1.33	1.37
31	BA	2346	A	N9-C4	-5.87	1.34	1.37
31	BA	2287	A	N9-C4	-5.85	1.34	1.37
31	DA	222	A	N9-C4	-5.84	1.34	1.37
31	DA	652	C	C3'-O3'	5.83	1.50	1.42
31	BA	580	C	N1-C6	-5.82	1.33	1.37
31	BA	652	C	P-O5'	5.82	1.65	1.59
31	BA	656	G	P-O5'	5.81	1.65	1.59
27	B5	49	CYS	CB-SG	-5.76	1.72	1.81
31	DA	2518	A	N9-C4	-5.75	1.34	1.37
31	BA	1241	A	N9-C4	-5.75	1.34	1.37
31	BA	1570	A	N9-C4	-5.71	1.34	1.37
31	BA	2826	A	N9-C4	-5.70	1.34	1.37
31	BA	2017	U	C2-N3	-5.69	1.33	1.37
31	BA	980	A	N7-C5	-5.67	1.35	1.39
31	BA	528	A	N3-C4	-5.66	1.31	1.34
31	BA	2052	G	N7-C5	-5.65	1.35	1.39
31	BA	980	A	C5-C6	-5.62	1.35	1.41
31	BA	1254	A	P-O5'	-5.58	1.54	1.59
31	DA	1758	G	N9-C4	-5.56	1.33	1.38
31	DA	1608	A	N9-C4	-5.53	1.34	1.37
31	BA	783	A	N7-C5	-5.49	1.35	1.39
31	BA	1275	A	C5-C6	-5.46	1.36	1.41
31	BA	664	C	N1-C6	-5.46	1.33	1.37
31	BA	1210	A	C6-N6	-5.46	1.29	1.33
31	BA	832	G	C2-N3	-5.45	1.28	1.32
31	BA	1303	G	N9-C8	-5.44	1.34	1.37
31	BA	1784	A	N3-C4	-5.44	1.31	1.34
31	DA	197	A	N3-C4	-5.42	1.31	1.34
31	BA	1934	C	C4'-C3'	-5.42	1.47	1.52
31	BA	1252	G	C5-C4	-5.41	1.34	1.38
31	BA	198	C	N1-C6	-5.39	1.33	1.37
31	BA	2245	U	C4-O4	5.39	1.27	1.23
31	BA	1982	C	N1-C6	-5.37	1.33	1.37
27	B5	33	CYS	CB-SG	5.36	1.91	1.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
31	BA	616	G	N3-C4	-5.35	1.31	1.35
31	BA	470	A	N3-C4	-5.32	1.31	1.34
31	BA	2548	G	N3-C4	-5.32	1.31	1.35
31	BA	2613	U	C2-N3	-5.31	1.34	1.37
35	DF	65	TRP	CB-CG	-5.31	1.40	1.50
31	BA	2822	G	N9-C4	-5.30	1.33	1.38
31	DA	1791	A	N9-C4	-5.30	1.34	1.37
31	DA	2572	A	N9-C4	-5.29	1.34	1.37
31	BA	1966	A	N9-C4	-5.28	1.34	1.37
31	BA	914	C	N3-C4	-5.27	1.30	1.33
31	BA	2361	A	N9-C4	-5.26	1.34	1.37
31	BA	495	G	N9-C8	-5.24	1.34	1.37
31	BA	2346	A	N7-C5	-5.24	1.36	1.39
31	BA	805	G	C5-C6	-5.22	1.37	1.42
31	BA	1256	G	C8-N7	-5.20	1.27	1.30
31	BA	2639	A	N9-C4	-5.20	1.34	1.37
31	BA	671	C	N1-C6	-5.18	1.34	1.37
1	AA	55	A	N7-C5	-5.18	1.36	1.39
31	BA	2274	A	N9-C4	-5.18	1.34	1.37
31	BA	2778	A	C6-N1	-5.18	1.31	1.35
31	DA	1899	G	N9-C4	-5.17	1.33	1.38
35	BF	59	TYR	CD2-CE2	-5.16	1.31	1.39
31	DA	1495	A	N9-C4	5.15	1.41	1.37
31	BA	777	A	N3-C4	-5.14	1.31	1.34
31	DA	1968	G	N9-C4	-5.14	1.33	1.38
31	BA	2590	A	N9-C4	-5.11	1.34	1.37
31	BA	1616	A	N7-C5	-5.11	1.36	1.39
31	BA	669	G	C4'-O4'	-5.09	1.39	1.45
31	DA	272	G	N9-C4	5.09	1.42	1.38
31	BA	1495	A	N9-C4	5.09	1.41	1.37
31	DA	1332	G	N3-C4	-5.09	1.31	1.35
31	BA	2436	G	C6-O6	5.08	1.28	1.24
31	BA	2061	G	P-OP2	-5.08	1.40	1.49
31	BA	21	A	N9-C4	-5.08	1.34	1.37
31	BA	1771	C	N3-C4	-5.08	1.30	1.33
31	BA	2711	A	N9-C4	-5.07	1.34	1.37
31	BA	699	A	N9-C4	-5.07	1.34	1.37
31	BA	832	G	N3-C4	-5.07	1.31	1.35
31	BA	751	A	C6-N1	-5.06	1.32	1.35
31	BA	2461	C	N1-C6	-5.05	1.34	1.37
31	BA	2675	A	N7-C5	-5.04	1.36	1.39
31	BA	2542	A	C5-C6	-5.04	1.36	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	CA	889	A	N9-C4	-5.04	1.34	1.37
31	BA	1827	C	N3-C4	-5.03	1.30	1.33
31	BA	786	C	N3-C4	-5.03	1.30	1.33
31	BA	955	C	N1-C6	-5.03	1.34	1.37
31	BA	1674	G	N7-C5	-5.02	1.36	1.39
1	CA	1468	A	N9-C4	-5.00	1.34	1.37
31	BA	2019	A	N9-C4	-5.00	1.34	1.37

All (2768) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	55	A	C8-N9-C4	-18.55	98.38	105.80
1	AA	55	A	N7-C8-N9	17.45	122.53	113.80
31	BA	1332	G	N3-C4-C5	16.73	136.96	128.60
31	BA	1332	G	N3-C4-N9	-16.73	115.96	126.00
31	BA	814	C	C6-N1-C2	15.82	126.63	120.30
31	DA	1332	G	N3-C4-C5	15.46	136.33	128.60
31	BA	1142(A)	A	C2-N3-C4	-14.50	103.35	110.60
31	DA	1332	G	N3-C4-N9	-14.37	117.38	126.00
31	BA	1332	G	C2-N3-C4	-13.77	105.01	111.90
31	DA	1779	U	C5-C6-N1	-13.74	115.83	122.70
31	BA	676	A	C5-N7-C8	-13.58	97.11	103.90
31	BA	2376	A	N1-C6-N6	13.20	126.52	118.60
31	DA	679	C	N1-C2-O2	-12.95	111.13	118.90
31	DA	2828	C	C6-N1-C2	12.89	125.46	120.30
31	DA	679	C	N3-C2-O2	12.52	130.66	121.90
31	BA	856	C	C6-N1-C2	-12.42	115.33	120.30
31	BA	1779	U	C5-C6-N1	-12.39	116.50	122.70
31	BA	2061	G	N1-C6-O6	-12.38	112.47	119.90
31	DA	678	C	C6-N1-C2	12.16	125.16	120.30
31	BA	142	A	N1-C6-N6	12.15	125.89	118.60
31	BA	2447	G	C6-N1-C2	-12.15	117.81	125.10
31	DA	1786	A	C5-N7-C8	-12.06	97.87	103.90
31	BA	2544	G	N1-C6-O6	12.04	127.12	119.90
31	BA	1258	C	C6-N1-C2	11.85	125.04	120.30
31	BA	676	A	N7-C8-N9	11.84	119.72	113.80
31	BA	774	A	C5-N7-C8	-11.77	98.02	103.90
31	DA	679	C	C6-N1-C2	11.68	124.97	120.30
31	BA	2346	A	C2-N3-C4	-11.65	104.77	110.60
31	DA	664	C	C6-N1-C2	11.61	124.94	120.30
31	BA	678	C	C6-N1-C2	11.52	124.91	120.30
31	BA	201	C	C6-N1-C2	11.38	124.85	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	2376	A	N9-C4-C5	-11.28	101.29	105.80
31	BA	409	C	C6-N1-C2	11.19	124.78	120.30
31	DA	201	C	C6-N1-C2	11.18	124.77	120.30
31	BA	2084	C	C6-N1-C2	11.02	124.71	120.30
31	DA	1258	C	C6-N1-C2	11.01	124.70	120.30
31	BA	330	A	C2-N3-C4	-10.96	105.12	110.60
31	BA	208	C	C6-N1-C2	10.91	124.67	120.30
31	DA	1899	G	N3-C4-N9	-10.85	119.49	126.00
31	DA	2231	C	C6-N1-C2	10.83	124.63	120.30
31	BA	796	C	C6-N1-C2	10.81	124.62	120.30
31	DA	1142(A)	A	C2-N3-C4	-10.79	105.20	110.60
31	DA	1332	G	C2-N3-C4	-10.78	106.51	111.90
31	BA	2430	A	C2-N3-C4	-10.74	105.23	110.60
31	DA	2619	C	C6-N1-C2	10.73	124.59	120.30
31	DA	2346	A	C2-N3-C4	-10.73	105.24	110.60
31	DA	1006	C	C6-N1-C2	10.33	124.43	120.30
31	DA	1322	A	C8-N9-C4	10.32	109.93	105.80
31	BA	450	G	C8-N9-C4	-10.21	102.31	106.40
31	BA	2518	A	C5-N7-C8	-10.21	98.80	103.90
31	DA	130	C	C6-N1-C2	10.19	124.37	120.30
31	DA	1261	C	C6-N1-C2	10.18	124.37	120.30
31	BA	141	A	C5-N7-C8	-10.17	98.81	103.90
31	DA	1786	A	N7-C8-N9	10.15	118.88	113.80
31	BA	774	A	C2-N3-C4	-10.14	105.53	110.60
31	BA	678	C	C5-C6-N1	-10.11	115.95	121.00
31	BA	676	A	C2-N3-C4	-10.10	105.55	110.60
31	BA	2447	G	C5-C6-O6	-10.09	122.55	128.60
31	BA	679	C	N1-C2-O2	-9.97	112.92	118.90
31	DA	1899	G	N3-C4-C5	9.96	133.58	128.60
31	DA	1608	A	C2-N3-C4	-9.93	105.63	110.60
31	DA	2042	A	C8-N9-C4	9.93	109.77	105.80
31	BA	814	C	C5-C6-N1	-9.84	116.08	121.00
31	BA	1275	A	N1-C6-N6	9.80	124.48	118.60
31	DA	1784	A	C8-N9-C4	9.77	109.71	105.80
31	DA	1999	C	C6-N1-C2	9.72	124.19	120.30
31	BA	584	C	C6-N1-C2	9.71	124.18	120.30
31	DA	2544	G	C5-C6-O6	-9.69	122.79	128.60
31	BA	783	A	C5-N7-C8	-9.57	99.11	103.90
31	DA	2424	C	C6-N1-C2	9.56	124.12	120.30
31	BA	774	A	N7-C8-N9	9.53	118.57	113.80
31	DA	1786	A	N1-C6-N6	9.53	124.31	118.60
31	DA	1786	A	C4-C5-N7	9.51	115.45	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	1899	G	N3-C4-N9	-9.50	120.30	126.00
31	DA	2763	G	C8-N9-C4	9.49	110.20	106.40
31	BA	2447	G	C8-N9-C4	9.48	110.19	106.40
31	DA	1638	C	C6-N1-C2	9.48	124.09	120.30
31	DA	2044	C	C6-N1-C2	9.47	124.09	120.30
31	DA	1332	G	C5-N7-C8	-9.47	99.56	104.30
31	BA	1658	C	N1-C2-O2	-9.46	113.22	118.90
31	BA	1261	C	C5-C6-N1	-9.44	116.28	121.00
31	BA	528	A	C2-N3-C4	-9.43	105.89	110.60
1	AA	358	U	C5-C6-N1	9.38	127.39	122.70
31	BA	420	C	C6-N1-C2	9.37	124.05	120.30
31	BA	2503	A	N1-C2-N3	-9.37	124.62	129.30
31	BA	991	C	C6-N1-C2	9.35	124.04	120.30
31	DA	774	A	C2-N3-C4	-9.35	105.93	110.60
31	BA	652	C	C6-N1-C2	-9.29	116.58	120.30
31	BA	739	G	C8-N9-C4	9.28	110.11	106.40
32	DB	64	C	C6-N1-C2	9.28	124.01	120.30
31	BA	148	C	C6-N1-C2	9.26	124.00	120.30
31	BA	1204	A	C2-N3-C4	-9.22	105.99	110.60
31	DA	2827	C	C6-N1-C2	9.21	123.99	120.30
31	BA	1779	U	C2-N1-C1'	-9.21	106.65	117.70
31	DA	2531	A	C8-N9-C4	9.20	109.48	105.80
31	BA	676	A	C4-C5-N7	9.20	115.30	110.70
31	DA	2827	C	C5-C6-N1	-9.18	116.41	121.00
31	DA	1322	A	N7-C8-N9	-9.16	109.22	113.80
31	BA	1021	A	C2-N3-C4	-9.15	106.02	110.60
31	BA	1204	A	C6-C5-N7	-9.12	125.92	132.30
1	CA	921	U	N3-C2-O2	-9.11	115.82	122.20
31	BA	1495	A	N1-C6-N6	9.11	124.07	118.60
31	DA	676	A	N7-C8-N9	9.11	118.36	113.80
31	BA	2713	A	N1-C6-N6	9.08	124.05	118.60
31	BA	1261	C	C6-N1-C2	9.07	123.93	120.30
31	BA	2575	C	C6-N1-C2	9.06	123.93	120.30
31	BA	2447	G	N1-C2-N3	9.06	129.34	123.90
31	BA	945	A	N1-C6-N6	9.03	124.02	118.60
31	BA	2544	G	C5-C6-O6	-9.03	123.18	128.60
31	DA	1204	A	N1-C6-N6	9.03	124.02	118.60
31	BA	2436	G	C5-C6-N1	-9.02	106.99	111.50
31	BA	2447	G	N3-C4-N9	9.02	131.41	126.00
31	DA	2023	G	C5-C6-O6	-9.00	123.20	128.60
31	DA	2575	C	C6-N1-C2	8.99	123.90	120.30
31	BA	272	G	N3-C4-C5	-8.97	124.11	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	DA	945	A	N1-C6-N6	8.97	123.98	118.60
31	BA	1131	G	C8-N9-C4	8.97	109.99	106.40
31	DA	2030	A	N1-C6-N6	8.97	123.98	118.60
31	BA	1241	A	C2-N3-C4	-8.96	106.12	110.60
31	BA	141	A	N7-C8-N9	8.94	118.27	113.80
31	BA	2447	G	N7-C8-N9	-8.92	108.64	113.10
31	BA	130	C	C6-N1-C2	8.91	123.87	120.30
31	DA	676	A	C5-N7-C8	-8.90	99.45	103.90
31	DA	1573	G	C8-N9-C4	8.88	109.95	106.40
31	BA	182	A	N1-C6-N6	8.86	123.91	118.60
31	DA	97	C	C6-N1-C2	8.85	123.84	120.30
31	BA	2061	G	C5-C6-N1	8.82	115.91	111.50
31	DA	805	G	N1-C6-O6	8.82	125.19	119.90
31	BA	47	C	C6-N1-C2	8.82	123.83	120.30
31	BA	2061	G	N3-C2-N2	8.79	126.06	119.90
31	DA	244	A	C8-N9-C4	8.80	109.32	105.80
31	BA	528	A	N3-C4-N9	-8.79	120.37	127.40
31	BA	2822	G	N1-C6-O6	8.78	125.17	119.90
31	DA	330	A	C2-N3-C4	-8.78	106.21	110.60
31	DA	1698	A	C2-N3-C4	-8.78	106.21	110.60
31	BA	2518	A	N7-C8-N9	8.78	118.19	113.80
31	DA	2084	C	C6-N1-C2	8.74	123.79	120.30
31	DA	1974	C	C6-N1-C2	8.73	123.79	120.30
31	DA	148	C	C6-N1-C2	8.73	123.79	120.30
31	DA	2498	C	N1-C2-O2	-8.72	113.67	118.90
31	DA	786	C	C5-C6-N1	-8.72	116.64	121.00
31	BA	1326	U	C5-C6-N1	-8.70	118.35	122.70
31	DA	130	C	C5-C6-N1	-8.70	116.65	121.00
31	DA	991	C	C6-N1-C2	8.69	123.78	120.30
31	BA	238	C	N1-C2-O2	-8.69	113.69	118.90
31	DA	1201	C	C6-N1-C2	8.68	123.77	120.30
31	DA	739	G	C8-N9-C4	8.68	109.87	106.40
31	BA	1204	A	N1-C6-N6	8.67	123.81	118.60
31	BA	2662	A	O4'-C1'-N9	8.67	115.14	108.20
31	DA	1779	U	C2-N1-C1'	-8.65	107.32	117.70
1	AA	55	A	C5-N7-C8	-8.65	99.58	103.90
31	DA	2544	G	N1-C6-O6	8.65	125.09	119.90
31	DA	771	G	C8-N9-C4	8.64	109.86	106.40
31	DA	2713	A	N1-C6-N6	8.64	123.78	118.60
31	BA	771	G	C8-N9-C4	8.61	109.84	106.40
31	DA	693	C	C5-C6-N1	-8.61	116.69	121.00
31	DA	2542	A	N1-C6-N6	8.59	123.76	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	2503	A	C2-N3-C4	8.58	114.89	110.60
31	BA	783	A	N1-C6-N6	8.58	123.75	118.60
31	DA	1657	C	N1-C2-O2	-8.57	113.76	118.90
31	DA	612	C	C6-N1-C2	8.56	123.72	120.30
31	BA	1678	G	C4-C5-N7	8.55	114.22	110.80
31	DA	2742	C	C6-N1-C2	8.55	123.72	120.30
31	DA	2253	G	C8-N9-C4	8.54	109.82	106.40
31	BA	1142(A)	A	C5-C6-N1	-8.54	113.43	117.70
31	DA	2033	A	C8-N9-C4	8.50	109.20	105.80
31	BA	1820	U	C5-C6-N1	-8.50	118.45	122.70
31	DA	2253	G	N9-C4-C5	-8.49	102.00	105.40
31	DA	840	C	C6-N1-C2	8.47	123.69	120.30
31	DA	1565	C	C6-N1-C2	8.47	123.69	120.30
31	BA	2713	A	C5-N7-C8	-8.45	99.67	103.90
31	DA	2518	A	C5-N7-C8	-8.44	99.68	103.90
31	DA	2436	G	C5-C6-N1	-8.43	107.28	111.50
31	DA	1685	C	C6-N1-C2	8.42	123.67	120.30
31	BA	1142(A)	A	N1-C2-N3	8.41	133.51	129.30
31	DA	1126	A	C8-N9-C4	8.41	109.17	105.80
31	BA	1201	C	N1-C2-O2	-8.41	113.86	118.90
31	DA	693	C	C2-N3-C4	-8.40	115.70	119.90
31	DA	1786	A	C6-C5-N7	-8.38	126.43	132.30
31	DA	1790	C	C6-N1-C2	8.38	123.65	120.30
31	DA	1830	C	C6-N1-C2	8.37	123.65	120.30
31	BA	676	A	C6-C5-N7	-8.36	126.45	132.30
31	DA	1204	A	C6-C5-N7	-8.35	126.45	132.30
31	DA	1772	G	C8-N9-C4	8.33	109.73	106.40
31	DA	1899	G	C8-N9-C1'	8.32	137.82	127.00
31	DA	1784	A	C2-N3-C4	-8.31	106.44	110.60
31	DA	2013	A	C8-N9-C4	8.31	109.12	105.80
31	DA	2662	A	O4'-C1'-N9	8.30	114.84	108.20
31	BA	2346	A	N1-C2-N3	8.29	133.44	129.30
31	DA	1266	G	C8-N9-C4	8.28	109.71	106.40
31	BA	840	C	C6-N1-C2	8.27	123.61	120.30
31	BA	142	A	C5-N7-C8	-8.27	99.77	103.90
31	DA	2488	A	C8-N9-C4	8.27	109.11	105.80
31	BA	2687	U	C5-C6-N1	-8.24	118.58	122.70
31	DA	980	A	C8-N9-C4	8.23	109.09	105.80
31	BA	2084	C	C5-C6-N1	-8.22	116.89	121.00
31	DA	817	C	C6-N1-C2	8.22	123.59	120.30
31	BA	948	G	N1-C6-O6	8.21	124.83	119.90
31	BA	2711	A	C8-N9-C4	8.21	109.08	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	DA	2678	C	C6-N1-C2	8.21	123.58	120.30
31	DA	2502	G	C4-C5-N7	8.21	114.08	110.80
31	DA	2061	G	N3-C2-N2	8.20	125.64	119.90
1	CA	893	C	C6-N1-C2	8.18	123.57	120.30
31	DA	630	G	C8-N9-C4	8.18	109.67	106.40
31	DA	580	C	N1-C2-O2	-8.18	113.99	118.90
31	DA	856	C	C6-N1-C2	-8.17	117.03	120.30
31	DA	1790	C	C5-C6-N1	-8.17	116.91	121.00
31	DA	927	G	N1-C6-O6	8.17	124.80	119.90
31	DA	2017	U	C5-C6-N1	-8.17	118.62	122.70
31	BA	474	G	C8-N9-C4	-8.16	103.13	106.40
31	BA	488	G	C5-C6-O6	8.16	133.50	128.60
31	BA	1253	A	C8-N9-C4	8.16	109.06	105.80
31	BA	1899	G	C8-N9-C1'	8.16	137.60	127.00
31	DA	94(A)	G	N1-C6-O6	8.15	124.79	119.90
31	BA	2542	A	N1-C6-N6	8.15	123.49	118.60
31	DA	211	A	C8-N9-C4	8.14	109.06	105.80
31	DA	1678	G	C4-C5-N7	8.14	114.06	110.80
31	BA	1256	G	N1-C6-O6	8.13	124.78	119.90
31	BA	664	C	C6-N1-C2	8.12	123.55	120.30
31	DA	2326	C	C6-N1-C2	-8.12	117.05	120.30
31	BA	142	A	C6-C5-N7	-8.12	126.62	132.30
31	DA	676	A	N1-C6-N6	8.12	123.47	118.60
31	DA	1192	G	C8-N9-C4	8.12	109.65	106.40
32	DB	104	U	C6-N1-C2	8.12	125.87	121.00
31	DA	2622	C	C6-N1-C2	8.11	123.55	120.30
31	DA	450	G	C8-N9-C4	-8.11	103.16	106.40
31	DA	2841	C	C6-N1-C2	8.09	123.53	120.30
31	BA	2066	C	C6-N1-C2	8.08	123.53	120.30
31	BA	2059	A	C2-N3-C4	-8.08	106.56	110.60
31	BA	236	C	C6-N1-C2	8.07	123.53	120.30
31	DA	805	G	C5-C6-O6	-8.07	123.76	128.60
31	BA	262	A	C8-N9-C4	8.06	109.03	105.80
31	BA	528	A	C5-C6-N1	-8.06	113.67	117.70
31	BA	2466	C	C6-N1-C2	8.06	123.52	120.30
31	DA	1021	A	C2-N3-C4	-8.05	106.58	110.60
31	DA	2763	G	N7-C8-N9	-8.04	109.08	113.10
31	DA	528	A	N3-C4-N9	-8.03	120.98	127.40
31	BA	2376	A	C5-C6-N6	-8.02	117.28	123.70
31	BA	2779	U	C5-C6-N1	-8.02	118.69	122.70
31	BA	1616	A	N7-C8-N9	8.02	117.81	113.80
31	BA	2056	G	C5-C6-O6	-8.01	123.79	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	DA	1614	A	N1-C6-N6	8.00	123.40	118.60
31	BA	2723	C	C6-N1-C2	8.00	123.50	120.30
31	BA	1899	G	C4-N9-C1'	-7.99	116.11	126.50
31	BA	1977	A	C2-N3-C4	-7.99	106.61	110.60
32	DB	17	C	C6-N1-C2	-7.99	117.10	120.30
31	DA	1899	G	C4-N9-C1'	-7.97	116.14	126.50
31	DA	652	C	C6-N1-C2	-7.97	117.11	120.30
31	BA	2070	G	C8-N9-C4	7.96	109.59	106.40
31	BA	577	G	N1-C6-O6	7.95	124.67	119.90
31	DA	753	C	C6-N1-C2	7.94	123.48	120.30
31	BA	2242	G	N1-C6-O6	7.94	124.66	119.90
31	DA	2330	G	C8-N9-C4	7.94	109.58	106.40
31	BA	2017	U	C5-C6-N1	-7.93	118.73	122.70
31	DA	512	G	C4-N9-C1'	-7.93	116.18	126.50
31	BA	2002	G	N1-C6-O6	7.93	124.66	119.90
31	DA	948	G	N3-C4-C5	7.93	132.56	128.60
31	BA	1616	A	C5-N7-C8	-7.93	99.94	103.90
31	DA	2252	G	C8-N9-C4	7.93	109.57	106.40
31	BA	94(A)	G	N1-C6-O6	7.92	124.65	119.90
31	DA	2742	C	C5-C6-N1	-7.91	117.05	121.00
31	BA	622	G	C8-N9-C4	7.90	109.56	106.40
31	BA	1021	A	N1-C6-N6	7.90	123.34	118.60
31	BA	201	C	N3-C4-C5	7.90	125.06	121.90
31	DA	1677	A	C8-N9-C4	7.89	108.96	105.80
31	BA	2672	G	N1-C6-O6	7.87	124.62	119.90
31	BA	581	C	C6-N1-C2	7.86	123.44	120.30
31	DA	1653	G	N3-C4-C5	-7.86	124.67	128.60
31	BA	450	G	N7-C8-N9	7.85	117.03	113.10
31	DA	577	G	N3-C4-C5	7.85	132.52	128.60
31	BA	2002	G	C5-C6-O6	-7.84	123.90	128.60
31	BA	1021	A	C5-N7-C8	-7.83	99.98	103.90
31	DA	945	A	C2-N3-C4	-7.83	106.69	110.60
31	BA	581	C	C5-C6-N1	-7.83	117.09	121.00
31	DA	1308	A	C2-N3-C4	-7.82	106.69	110.60
31	BA	558	G	C8-N9-C4	7.81	109.52	106.40
31	DA	1252	G	C8-N9-C4	7.81	109.52	106.40
31	DA	1528	A	C8-N9-C4	-7.80	102.68	105.80
31	BA	2713	A	C2-N3-C4	-7.80	106.70	110.60
31	DA	2619	C	C5-C6-N1	-7.79	117.11	121.00
31	DA	2881	C	N1-C2-O2	-7.79	114.23	118.90
31	DA	208	C	C6-N1-C2	7.79	123.42	120.30
1	CA	810	C	C6-N1-C2	7.78	123.41	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	2689	U	C5-C4-O4	7.78	130.57	125.90
31	DA	1210	A	N1-C6-N6	7.78	123.27	118.60
32	BB	103	G	N3-C4-C5	7.78	132.49	128.60
31	BA	783	A	N7-C8-N9	7.77	117.69	113.80
31	DA	683	C	N3-C4-C5	7.76	125.00	121.90
31	BA	2014	A	N1-C6-N6	7.75	123.25	118.60
31	BA	2710	C	C6-N1-C2	7.74	123.40	120.30
31	BA	1193	G	C8-N9-C4	7.74	109.49	106.40
31	BA	599	G	C8-N9-C4	7.73	109.49	106.40
31	BA	2676	C	C5-C6-N1	-7.73	117.13	121.00
31	BA	676	A	C8-N9-C4	-7.73	102.71	105.80
31	DA	618	C	C6-N1-C2	7.73	123.39	120.30
31	DA	2023	G	N1-C6-O6	7.73	124.54	119.90
31	BA	190	A	N1-C6-N6	7.70	123.22	118.60
31	DA	2598	A	C8-N9-C4	7.70	108.88	105.80
31	BA	2430	A	C6-C5-N7	-7.70	126.91	132.30
31	DA	2329	G	C8-N9-C4	7.69	109.48	106.40
31	DA	1794	U	C5-C6-N1	-7.68	118.86	122.70
31	BA	221	A	C8-N9-C4	-7.68	102.73	105.80
31	BA	1021	A	C6-C5-N7	-7.67	126.93	132.30
31	BA	142	A	C4-C5-N7	7.67	114.54	110.70
1	CA	55	A	C8-N9-C4	-7.67	102.73	105.80
31	DA	244	A	N9-C4-C5	-7.67	102.73	105.80
31	DA	1241	A	C2-N3-C4	-7.67	106.77	110.60
31	BA	1653	G	C4-N9-C1'	7.67	136.46	126.50
31	BA	2283	C	C6-N1-C2	7.67	123.37	120.30
31	DA	460	A	C8-N9-C4	7.66	108.87	105.80
31	DA	2828	C	C5-C6-N1	-7.66	117.17	121.00
31	DA	678	C	C5-C6-N1	-7.66	117.17	121.00
31	BA	2014	A	N9-C4-C5	-7.66	102.74	105.80
31	DA	2447	G	C8-N9-C4	7.65	109.46	106.40
31	BA	2260	C	C6-N1-C2	7.64	123.36	120.30
31	BA	2346	A	C5-C6-N1	-7.64	113.88	117.70
31	DA	1638	C	C5-C6-N1	-7.64	117.18	121.00
31	DA	2253	G	N1-C6-O6	7.64	124.48	119.90
31	BA	762	U	N1-C2-N3	-7.63	110.32	114.90
31	BA	1678	G	C5-N7-C8	-7.63	100.48	104.30
31	BA	2253	G	N9-C4-C5	-7.63	102.35	105.40
31	BA	466	A	C2-N3-C4	-7.62	106.79	110.60
31	BA	2689	U	N3-C4-O4	-7.62	114.06	119.40
31	DA	2061	G	N3-C4-N9	7.62	130.57	126.00
31	BA	1620	G	C8-N9-C4	7.62	109.45	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	922	G	C8-N9-C4	-7.61	103.36	106.40
31	BA	1266	G	C8-N9-C4	7.60	109.44	106.40
31	BA	202	U	C6-N1-C2	7.60	125.56	121.00
31	BA	828	U	N3-C4-O4	-7.60	114.08	119.40
31	BA	2702	U	C5-C6-N1	-7.60	118.90	122.70
31	BA	2247	A	C2-N3-C4	-7.60	106.80	110.60
31	BA	1189	A	N1-C6-N6	7.58	123.15	118.60
31	BA	783	A	C2-N3-C4	-7.58	106.81	110.60
31	BA	1899	G	N3-C4-C5	7.57	132.39	128.60
31	DA	330	A	N9-C4-C5	-7.57	102.77	105.80
31	DA	1673	U	C5-C6-N1	-7.57	118.92	122.70
31	DA	2598	A	N9-C4-C5	-7.57	102.77	105.80
31	BA	1614	A	C4-C5-N7	7.57	114.48	110.70
31	BA	2232	U	C5-C6-N1	-7.56	118.92	122.70
31	BA	2067	G	N9-C4-C5	7.56	108.42	105.40
31	DA	1573	G	N7-C8-N9	-7.56	109.32	113.10
31	DA	2818	G	C8-N9-C4	7.56	109.42	106.40
31	DA	2394	C	C5-C6-N1	-7.55	117.22	121.00
31	BA	125	G	N1-C6-O6	7.55	124.43	119.90
31	DA	1617	C	C6-N1-C2	7.55	123.32	120.30
31	DA	2430	A	N1-C2-N3	7.55	133.07	129.30
31	BA	2083	G	C8-N9-C4	7.54	109.42	106.40
31	DA	2232	U	C5-C6-N1	-7.54	118.93	122.70
31	DA	783	A	C2-N3-C4	-7.54	106.83	110.60
31	DA	786	C	C6-N1-C2	7.54	123.31	120.30
1	CA	1524	C	C6-N1-C2	7.53	123.31	120.30
31	BA	739	G	N7-C8-N9	-7.53	109.33	113.10
31	BA	1616	A	C2-N3-C4	-7.52	106.84	110.60
31	DA	272	G	N3-C4-C5	-7.52	124.84	128.60
31	BA	679	C	N3-C2-O2	7.51	127.16	121.90
31	BA	2063	C	N3-C4-C5	-7.51	118.89	121.90
31	DA	2293	C	C6-N1-C2	7.51	123.31	120.30
31	BA	2485	G	N1-C6-O6	7.50	124.40	119.90
31	DA	611	C	C6-N1-C2	7.50	123.30	120.30
31	BA	589	C	N1-C2-O2	-7.50	114.40	118.90
31	BA	1558	A	C2-N3-C4	-7.48	106.86	110.60
41	BP	37	GLY	N-CA-C	7.48	131.81	113.10
31	BA	1616	A	N1-C6-N6	7.48	123.09	118.60
31	DA	498	G	C8-N9-C4	7.47	109.39	106.40
31	BA	512	G	C4-N9-C1'	-7.46	116.80	126.50
31	BA	272(D)	G	C8-N9-C4	7.46	109.39	106.40
31	BA	2531	A	C8-N9-C4	7.46	108.78	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	1958	C	N1-C2-O2	-7.46	114.42	118.90
32	BB	85	G	N1-C6-O6	7.46	124.37	119.90
31	DA	1280	G	C8-N9-C4	7.45	109.38	106.40
31	BA	210	C	C6-N1-C2	7.45	123.28	120.30
31	BA	1614	A	C5-N7-C8	-7.45	100.18	103.90
31	DA	2430	A	C2-N3-C4	-7.44	106.88	110.60
31	DA	1323	U	N3-C2-O2	7.44	127.41	122.20
31	DA	2502	G	N1-C6-O6	7.44	124.36	119.90
31	BA	1820	U	C6-N1-C2	7.44	125.46	121.00
31	DA	1032	A	C8-N9-C4	7.44	108.78	105.80
31	DA	1820	U	C5-C6-N1	-7.43	118.98	122.70
31	BA	1142(A)	A	N3-C4-C5	7.43	132.00	126.80
31	BA	1678	G	C2-N3-C4	-7.43	108.19	111.90
31	BA	1790	C	C6-N1-C2	7.42	123.27	120.30
31	DA	1185	C	N1-C2-O2	-7.42	114.45	118.90
31	DA	566	U	C6-N1-C2	7.42	125.45	121.00
31	DA	1126	A	N7-C8-N9	-7.42	110.09	113.80
31	BA	675	A	C8-N9-C4	7.41	108.77	105.80
31	BA	1676	A	C8-N9-C4	7.41	108.77	105.80
31	DA	2502	G	C5-C6-O6	-7.41	124.15	128.60
31	DA	2731	G	N1-C6-O6	7.40	124.34	119.90
31	DA	577	G	C8-N9-C4	7.40	109.36	106.40
31	BA	1899	G	N3-C2-N2	-7.39	114.73	119.90
31	BA	2030	A	N1-C6-N6	7.38	123.03	118.60
31	BA	57	C	C6-N1-C2	7.38	123.25	120.30
31	BA	788	A	N1-C6-N6	7.37	123.02	118.60
31	DA	2713	A	N9-C4-C5	-7.37	102.85	105.80
31	BA	2283	C	N3-C2-O2	7.36	127.06	121.90
31	DA	1653	G	C4-N9-C1'	7.36	136.07	126.50
31	BA	828	U	C5-C4-O4	7.35	130.31	125.90
31	DA	678	C	N3-C4-C5	7.35	124.84	121.90
31	DA	376	C	C6-N1-C2	7.35	123.24	120.30
31	BA	1332	G	C8-N9-C1'	7.35	136.55	127.00
31	DA	2778	A	C2-N3-C4	-7.34	106.93	110.60
31	DA	783	A	C5-N7-C8	-7.34	100.23	103.90
31	BA	678	C	N3-C4-C5	7.33	124.83	121.90
31	BA	2021	C	C6-N1-C2	7.32	123.23	120.30
31	DA	1350	C	N1-C2-O2	-7.32	114.51	118.90
31	DA	203	C	C6-N1-C2	7.31	123.22	120.30
31	DA	450	G	N9-C4-C5	7.31	108.33	105.40
31	BA	2430	A	N1-C2-N3	7.31	132.96	129.30
31	DA	528	A	C2-N3-C4	-7.31	106.94	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	DP	37	GLY	N-CA-C	7.31	131.37	113.10
31	BA	1229	G	N3-C4-C5	7.31	132.25	128.60
1	CA	822	C	C6-N1-C2	7.31	123.22	120.30
31	DA	1557	C	C6-N1-C2	7.31	123.22	120.30
31	BA	624	C	C6-N1-C2	7.30	123.22	120.30
31	BA	2082	A	C8-N9-C4	7.30	108.72	105.80
31	DA	2059	A	C2-N3-C4	-7.30	106.95	110.60
31	BA	125	G	C5-C6-O6	-7.30	124.22	128.60
31	BA	1779	U	C4-C5-C6	7.30	124.08	119.70
31	BA	377	C	C6-N1-C2	7.29	123.22	120.30
1	AA	810	C	C6-N1-C2	7.29	123.22	120.30
31	DA	1216	G	N1-C6-O6	7.29	124.27	119.90
31	DA	1611	C	C6-N1-C2	7.29	123.21	120.30
31	BA	265	A	C2-N3-C4	-7.28	106.96	110.60
31	DA	2081	C	C6-N1-C2	7.28	123.21	120.30
31	BA	980	A	N1-C6-N6	7.28	122.97	118.60
1	CA	483	C	C6-N1-C2	7.26	123.20	120.30
31	BA	774	A	C8-N9-C4	-7.26	102.89	105.80
31	BA	1204	A	C5-C6-N1	-7.26	114.07	117.70
32	BB	6	C	C6-N1-C2	7.26	123.20	120.30
31	DA	2539	C	C6-N1-C2	7.26	123.20	120.30
31	DA	1790	C	C2-N3-C4	-7.25	116.27	119.90
31	DA	564	C	N1-C2-O2	-7.25	114.55	118.90
31	DA	2283	C	C6-N1-C2	7.25	123.20	120.30
31	BA	2589	A	C8-N9-C4	7.25	108.70	105.80
32	BB	101	G	C8-N9-C4	7.25	109.30	106.40
31	BA	673	C	C6-N1-C2	7.24	123.20	120.30
31	BA	844	C	C6-N1-C2	7.24	123.20	120.30
31	BA	2687	U	C6-N1-C2	7.24	125.34	121.00
31	DA	2324	C	C6-N1-C2	7.23	123.19	120.30
31	BA	455	C	C6-N1-C2	7.23	123.19	120.30
31	BA	1543	C	C6-N1-C1'	-7.22	112.13	120.80
31	DA	1210	A	C5-N7-C8	-7.22	100.29	103.90
31	BA	1323	U	N1-C2-O2	-7.22	117.75	122.80
31	DA	1784	A	N9-C4-C5	-7.21	102.91	105.80
31	BA	2253	G	C8-N9-C4	7.21	109.28	106.40
31	BA	142	A	C2-N3-C4	-7.21	106.99	110.60
31	BA	16	G	C2-N3-C4	-7.21	108.30	111.90
31	DA	2017	U	N1-C2-O2	-7.21	117.76	122.80
31	DA	2346	A	N1-C2-N3	7.20	132.90	129.30
31	BA	1638	C	C6-N1-C2	7.20	123.18	120.30
31	DA	2346	A	C5-C6-N1	-7.20	114.10	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	672	C	C4-C5-C6	7.20	121.00	117.40
31	BA	1698	A	C2-N3-C4	-7.19	107.00	110.60
31	DA	2326	C	N3-C4-C5	-7.19	119.03	121.90
31	BA	732	C	N1-C2-O2	-7.18	114.59	118.90
31	DA	2481	G	C8-N9-C4	7.17	109.27	106.40
31	DA	2522	U	C5-C6-N1	-7.17	119.11	122.70
31	DA	2000	G	N3-C4-C5	7.17	132.19	128.60
31	DA	2231	C	C5-C6-N1	-7.17	117.42	121.00
31	BA	2827	C	C6-N1-C2	7.16	123.17	120.30
31	DA	2376	A	N1-C6-N6	7.16	122.90	118.60
31	BA	217	G	C8-N9-C4	7.15	109.26	106.40
31	DA	577	G	N1-C6-O6	7.15	124.19	119.90
31	BA	1495	A	N7-C8-N9	7.15	117.38	113.80
31	DA	1241	A	N1-C6-N6	7.15	122.89	118.60
31	BA	1183	G	N1-C6-O6	7.14	124.19	119.90
31	BA	665	C	C6-N1-C2	7.14	123.16	120.30
31	DA	201	C	C5-C6-N1	-7.14	117.43	121.00
31	BA	2061	G	N1-C2-N2	-7.14	109.78	116.20
31	BA	2014	A	C4-C5-N7	7.13	114.26	110.70
31	DA	287	C	C6-N1-C2	7.13	123.15	120.30
31	DA	1698	A	N1-C6-N6	7.12	122.88	118.60
31	DA	1201	C	C5-C6-N1	-7.12	117.44	121.00
31	BA	679	C	C6-N1-C2	7.12	123.15	120.30
31	DA	1244	G	C8-N9-C4	7.12	109.25	106.40
31	DA	1998	G	N3-C4-C5	7.12	132.16	128.60
31	BA	1992	G	N3-C4-C5	-7.12	125.04	128.60
31	BA	2610	C	C6-N1-C2	7.12	123.15	120.30
31	DA	131	G	C8-N9-C4	7.12	109.25	106.40
31	DA	1678	G	C6-C5-N7	-7.12	126.13	130.40
31	BA	729	G	N3-C2-N2	-7.11	114.92	119.90
31	DA	739	G	N7-C8-N9	-7.11	109.54	113.10
31	BA	2023	G	N3-C2-N2	-7.11	114.92	119.90
32	BB	103	G	C8-N9-C4	7.10	109.24	106.40
31	DA	2392	A	C2-N3-C4	-7.10	107.05	110.60
31	DA	1204	A	C4-C5-N7	7.10	114.25	110.70
31	BA	602	G	N1-C6-O6	7.10	124.16	119.90
31	DA	2329	G	N7-C8-N9	-7.10	109.55	113.10
31	DA	2014	A	C8-N9-C4	7.10	108.64	105.80
31	DA	2446	G	C8-N9-C4	7.09	109.24	106.40
31	BA	528	A	N3-C4-C5	7.09	131.76	126.80
31	BA	2061	G	C6-N1-C2	-7.08	120.85	125.10
31	BA	945	A	C2-N3-C4	-7.08	107.06	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	DA	2030	A	C5-C6-N6	-7.08	118.03	123.70
31	BA	2014	A	C5-C6-N6	-7.08	118.04	123.70
31	DA	1597	A	N7-C8-N9	-7.08	110.26	113.80
31	DA	2469	A	C8-N9-C4	-7.08	102.97	105.80
31	BA	933	A	C5-N7-C8	-7.08	100.36	103.90
31	DA	1671	U	C5-C4-O4	-7.07	121.66	125.90
31	DA	797	C	C6-N1-C2	7.07	123.13	120.30
31	BA	527	C	N3-C4-N4	-7.06	113.06	118.00
1	AA	893	C	C6-N1-C2	7.06	123.12	120.30
31	BA	728	G	C8-N9-C4	7.06	109.22	106.40
31	BA	2742	C	C6-N1-C2	7.06	123.12	120.30
31	BA	37	C	C6-N1-C2	7.05	123.12	120.30
31	BA	2364	C	C6-N1-C2	7.05	123.12	120.30
31	DA	1758	G	N3-C4-C5	7.05	132.13	128.60
31	BA	2700	C	C6-N1-C2	7.05	123.12	120.30
1	AA	320	C	C6-N1-C2	7.04	123.12	120.30
31	DA	1698	A	C5-N7-C8	-7.04	100.38	103.90
31	DA	512	G	C8-N9-C4	7.04	109.22	106.40
31	BA	1022	G	N9-C4-C5	7.04	108.21	105.40
31	BA	2672	G	C4-C5-N7	7.04	113.61	110.80
31	DA	659	C	C6-N1-C2	7.04	123.11	120.30
31	BA	530	G	N1-C6-O6	-7.03	115.68	119.90
31	BA	783	A	C6-C5-N7	-7.03	127.38	132.30
31	BA	15	G	N3-C2-N2	-7.03	114.98	119.90
31	BA	1397	U	C6-N1-C2	-7.03	116.78	121.00
31	DA	2387	U	C5-C6-N1	-7.02	119.19	122.70
31	BA	786	C	C5-C6-N1	-7.02	117.49	121.00
31	BA	970	C	C5-C6-N1	-7.02	117.49	121.00
1	CA	117	G	N1-C6-O6	7.02	124.11	119.90
31	DA	948	G	C2-N3-C4	-7.01	108.39	111.90
31	BA	208	C	N3-C4-C5	7.01	124.70	121.90
31	DA	786	C	N3-C4-C5	7.01	124.70	121.90
31	BA	1204	A	C4-C5-C6	7.01	120.50	117.00
31	BA	2447	G	C3'-C2'-C1'	-7.01	95.89	101.50
31	BA	774	A	N1-C6-N6	7.00	122.80	118.60
31	BA	2676	C	C2-N3-C4	-7.00	116.40	119.90
1	AA	117	G	N1-C6-O6	7.00	124.10	119.90
31	BA	210	C	C5-C6-N1	-6.99	117.50	121.00
31	BA	2497	A	C8-N9-C4	6.99	108.60	105.80
31	BA	203	C	N1-C2-O2	-6.99	114.71	118.90
31	DA	1779	U	C2-N3-C4	-6.99	122.81	127.00
31	DA	562	U	C5-C4-O4	-6.99	121.71	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	2497	A	N9-C4-C5	-6.98	103.01	105.80
1	AA	892	A	N1-C6-N6	6.98	122.79	118.60
31	DA	672	C	C5-C6-N1	-6.98	117.51	121.00
31	BA	1614	A	N1-C6-N6	6.97	122.78	118.60
31	BA	1653	G	C8-N9-C1'	-6.97	117.93	127.00
31	DA	1596	A	C8-N9-C4	6.97	108.59	105.80
31	DA	1758	G	N3-C4-N9	-6.97	121.82	126.00
31	DA	1698	A	C4-C5-N7	6.97	114.19	110.70
31	BA	1379	A	O4'-C1'-N9	6.97	113.77	108.20
31	BA	2282	G	N3-C4-C5	-6.96	125.12	128.60
31	BA	2054	A	C2-N3-C4	-6.96	107.12	110.60
31	DA	62	C	C6-N1-C2	6.96	123.08	120.30
31	BA	2518	A	C8-N9-C4	-6.95	103.02	105.80
1	CA	910	C	N1-C2-O2	-6.95	114.73	118.90
31	DA	2594	C	N1-C2-O2	-6.95	114.73	118.90
31	DA	673	C	C5-C6-N1	-6.95	117.53	121.00
31	BA	1519	G	C8-N9-C4	-6.95	103.62	106.40
31	DA	184	C	C6-N1-C2	6.94	123.08	120.30
31	BA	201	C	C2-N1-C1'	-6.94	111.17	118.80
31	DA	870	A	C8-N9-C4	6.94	108.58	105.80
31	DA	2042	A	N9-C4-C5	-6.94	103.03	105.80
31	BA	676	A	N1-C2-N3	6.93	132.77	129.30
31	BA	2481	G	C8-N9-C4	6.93	109.17	106.40
31	BA	16	G	N1-C6-O6	6.93	124.06	119.90
31	BA	1495	A	C6-C5-N7	-6.92	127.45	132.30
31	DA	514	A	C8-N9-C4	6.92	108.57	105.80
31	DA	1403	C	C2-N1-C1'	-6.92	111.19	118.80
32	BB	48	A	C8-N9-C4	6.92	108.57	105.80
31	DA	1570	A	C8-N9-C4	6.92	108.57	105.80
31	BA	1403	C	C2-N1-C1'	-6.92	111.19	118.80
31	BA	207	A	N1-C6-N6	6.92	122.75	118.60
31	DA	2424	C	C5-C6-N1	-6.92	117.54	121.00
31	DA	84	A	C8-N9-C4	6.91	108.56	105.80
1	AA	358	U	C6-N1-C2	-6.91	116.85	121.00
31	BA	2345	G	C5-C6-O6	6.91	132.75	128.60
31	BA	133	C	N1-C2-O2	-6.91	114.76	118.90
31	BA	865	C	C6-N1-C2	6.91	123.06	120.30
1	CA	1469	G	N1-C6-O6	6.91	124.04	119.90
31	DA	2563	U	C5-C6-N1	-6.91	119.25	122.70
31	BA	678	C	C2-N3-C4	-6.90	116.45	119.90
31	BA	727	A	C8-N9-C4	6.90	108.56	105.80
32	BB	37	C	C5-C6-N1	6.90	124.45	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	859	G	N3-C4-N9	-6.90	121.86	126.00
31	DA	130	C	C2-N3-C4	-6.90	116.45	119.90
31	BA	1270	C	C5-C6-N1	-6.89	117.55	121.00
31	BA	451	C	N1-C2-O2	-6.89	114.77	118.90
31	BA	1203	G	C8-N9-C4	-6.89	103.64	106.40
31	DA	774	A	C5-N7-C8	-6.89	100.46	103.90
31	DA	1543	C	C6-N1-C1'	-6.89	112.54	120.80
31	BA	522	G	C5-C6-O6	-6.88	124.47	128.60
31	BA	991	C	C5-C6-N1	-6.88	117.56	121.00
31	BA	1658	C	N3-C2-O2	6.88	126.72	121.90
31	DA	1243	G	C8-N9-C4	6.88	109.15	106.40
31	BA	1899	G	C2-N3-C4	-6.88	108.46	111.90
28	B6	11	LEU	CA-CB-CG	6.88	131.12	115.30
31	BA	2843	G	N1-C6-O6	6.88	124.03	119.90
32	BB	17	C	C6-N1-C2	-6.88	117.55	120.30
31	BA	2056	G	N1-C6-O6	6.87	124.02	119.90
31	BA	471	A	C2-N3-C4	-6.87	107.17	110.60
31	BA	448	U	N3-C4-C5	-6.87	110.48	114.60
31	BA	1006	C	C6-N1-C2	6.87	123.05	120.30
31	BA	1830	C	C6-N1-C2	6.87	123.05	120.30
31	DA	1950	G	C5-C6-N1	-6.87	108.07	111.50
31	DA	2058	A	C5-C6-N6	-6.87	118.21	123.70
31	BA	215	G	C2-N3-C4	-6.86	108.47	111.90
31	DA	1131	G	C8-N9-C4	6.86	109.14	106.40
31	BA	1266	G	N3-C4-C5	6.86	132.03	128.60
31	BA	735	A	C8-N9-C4	6.86	108.54	105.80
31	BA	2544	G	C6-C5-N7	-6.86	126.29	130.40
31	BA	774	A	C4-C5-N7	6.86	114.13	110.70
31	BA	2684	U	C5-C6-N1	-6.86	119.27	122.70
31	DA	376	C	C2-N1-C1'	-6.85	111.26	118.80
31	DA	1570	A	N1-C6-N6	6.85	122.71	118.60
31	DA	2488	A	N7-C8-N9	-6.85	110.38	113.80
1	CA	910	C	N3-C2-O2	6.84	126.69	121.90
31	DA	584	C	C6-N1-C2	6.84	123.04	120.30
31	DA	1902	C	N3-C4-C5	6.84	124.64	121.90
31	DA	1820	U	C6-N1-C2	6.84	125.10	121.00
31	BA	562	U	N3-C2-O2	6.83	126.98	122.20
31	DA	2501	C	C2-N1-C1'	-6.83	111.28	118.80
31	BA	1653	G	N3-C4-C5	-6.83	125.19	128.60
1	CA	894	G	C8-N9-C4	6.83	109.13	106.40
31	DA	2040	C	C6-N1-C2	6.83	123.03	120.30
31	DA	574	C	C2-N1-C1'	-6.82	111.29	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	DA	2028	U	N1-C2-O2	-6.82	118.03	122.80
32	BB	17	C	N3-C2-O2	-6.82	117.13	121.90
31	DA	2383	G	C8-N9-C1'	-6.82	118.14	127.00
31	BA	2239	G	N1-C6-O6	-6.81	115.81	119.90
31	BA	1253	A	N9-C4-C5	-6.81	103.08	105.80
31	BA	2246	G	N1-C6-O6	6.80	123.98	119.90
31	BA	1397	U	N3-C2-O2	-6.80	117.44	122.20
31	BA	1295	C	C6-N1-C2	6.79	123.02	120.30
31	DA	2058	A	N1-C6-N6	6.79	122.67	118.60
31	BA	378	C	C6-N1-C2	6.79	123.01	120.30
31	DA	2684	U	C6-N1-C2	6.78	125.07	121.00
31	BA	2502	G	C4-C5-N7	6.78	113.51	110.80
31	DA	814	C	C6-N1-C2	6.78	123.01	120.30
31	BA	15	G	N1-C6-O6	6.78	123.97	119.90
31	BA	1662	C	N1-C2-O2	-6.78	114.83	118.90
31	DA	409	C	C6-N1-C2	6.78	123.01	120.30
31	DA	1332	G	C8-N9-C1'	6.78	135.81	127.00
31	DA	1124	C	C6-N1-C2	6.77	123.01	120.30
31	DA	2292	C	C6-N1-C2	6.77	123.01	120.30
31	BA	420	C	C5-C6-N1	-6.77	117.62	121.00
31	BA	450	G	N9-C4-C5	6.77	108.11	105.40
31	BA	2699	C	C5-C6-N1	-6.77	117.62	121.00
31	DA	1304	C	C6-N1-C2	6.77	123.01	120.30
31	BA	2461	C	C5-C6-N1	-6.76	117.62	121.00
31	BA	984	A	C8-N9-C4	6.76	108.50	105.80
31	BA	1544	A	O4'-C1'-N9	6.76	113.61	108.20
31	DA	2430	A	C4-C5-C6	6.76	120.38	117.00
31	BA	2850	A	C8-N9-C4	6.76	108.50	105.80
31	DA	2091	U	C5-C6-N1	-6.76	119.32	122.70
31	DA	912	C	C6-N1-C2	-6.75	117.60	120.30
31	DA	1384	A	N1-C6-N6	-6.75	114.55	118.60
31	BA	1269	A	C8-N9-C4	6.75	108.50	105.80
31	BA	530	G	N3-C2-N2	6.75	124.62	119.90
31	BA	1333	C	C6-N1-C2	6.75	123.00	120.30
31	DA	2741	A	C8-N9-C4	6.75	108.50	105.80
31	DA	2579	C	N3-C2-O2	6.74	126.62	121.90
31	BA	1029	A	N1-C6-N6	6.74	122.64	118.60
31	BA	1495	A	C4-C5-N7	6.74	114.07	110.70
31	BA	2442	C	N1-C2-O2	-6.74	114.86	118.90
31	BA	2672	G	C5-C6-O6	-6.74	124.56	128.60
31	DA	206	U	C5-C6-N1	-6.74	119.33	122.70
31	DA	2684	U	C5-C6-N1	-6.74	119.33	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	1326	U	C6-N1-C2	6.74	125.04	121.00
31	DA	1005	C	C6-N1-C2	6.74	122.99	120.30
31	BA	671	C	C4-C5-C6	6.73	120.77	117.40
31	BA	1201	C	N3-C2-O2	6.73	126.61	121.90
31	BA	2476	A	C2-N3-C4	6.73	113.97	110.60
31	DA	330	A	C4-C5-N7	6.73	114.06	110.70
31	BA	1142(A)	A	C5-N7-C8	-6.72	100.54	103.90
31	BA	2568	C	C6-N1-C2	6.72	122.99	120.30
1	CA	400	C	C6-N1-C2	6.72	122.99	120.30
31	BA	848	G	C8-N9-C1'	-6.72	118.26	127.00
31	DA	207	A	C8-N9-C4	6.72	108.49	105.80
31	DA	1204	A	C5-N7-C8	-6.72	100.54	103.90
31	DA	1779	U	C4-C5-C6	6.72	123.73	119.70
31	BA	2841	C	C6-N1-C2	6.72	122.99	120.30
1	CA	923	A	C3'-C2'-C1'	6.72	106.87	101.50
31	DA	1967	C	C6-N1-C2	6.71	122.99	120.30
31	DA	2796	U	O4'-C1'-N1	6.71	113.57	108.20
31	BA	1204	A	C4-N9-C1'	6.71	138.38	126.30
31	DA	1899	G	C2-N3-C4	-6.71	108.55	111.90
31	BA	796	C	N3-C2-O2	6.71	126.60	121.90
31	BA	2477	C	N3-C4-C5	-6.71	119.22	121.90
31	DA	192	C	C6-N1-C2	6.71	122.98	120.30
31	DA	683	C	C2-N3-C4	-6.71	116.55	119.90
31	BA	141	A	C4-C5-N7	6.70	114.05	110.70
31	BA	810	U	C6-N1-C2	6.70	125.02	121.00
31	BA	2518	A	C4-C5-N7	6.69	114.05	110.70
31	BA	2196	C	C6-N1-C2	6.69	122.98	120.30
31	DA	676	A	C8-N9-C4	-6.69	103.12	105.80
31	DA	142	A	N1-C6-N6	6.69	122.61	118.60
31	BA	1439	A	C8-N9-C4	6.69	108.47	105.80
31	BA	1496	A	N7-C8-N9	6.69	117.14	113.80
31	DA	679	C	C2-N1-C1'	-6.69	111.44	118.80
31	DA	1204	A	C2-N3-C4	-6.68	107.26	110.60
31	BA	205	G	N9-C4-C5	-6.68	102.73	105.40
31	DA	2061	G	N9-C4-C5	-6.68	102.73	105.40
31	BA	1270	C	C6-N1-C2	6.68	122.97	120.30
31	BA	2053	G	N1-C6-O6	6.68	123.91	119.90
31	DA	611	C	C5-C6-N1	-6.68	117.66	121.00
31	BA	600	G	C8-N9-C4	6.67	109.07	106.40
31	BA	1332	G	C5-N7-C8	-6.67	100.96	104.30
31	BA	2362	G	C8-N9-C4	6.67	109.07	106.40
31	DA	1800	C	C6-N1-C2	6.67	122.97	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	686	G	C6-C5-N7	-6.67	126.40	130.40
31	DA	2008	C	C5-C6-N1	-6.67	117.67	121.00
31	BA	491	G	N3-C4-N9	-6.66	122.00	126.00
31	DA	847	U	N3-C4-O4	-6.66	114.74	119.40
31	DA	1798	U	C5-C6-N1	-6.66	119.37	122.70
31	BA	123	G	C8-N9-C4	6.66	109.06	106.40
31	DA	1332	G	N1-C6-O6	6.66	123.89	119.90
31	DA	663	G	N3-C4-N9	-6.66	122.01	126.00
31	BA	207	A	C2-N3-C4	-6.65	107.27	110.60
31	BA	2430	A	C4-C5-C6	6.65	120.33	117.00
31	DA	2572	A	C8-N9-C4	6.65	108.46	105.80
31	DA	2376	A	N9-C4-C5	-6.65	103.14	105.80
31	BA	1765	C	N1-C2-O2	-6.65	114.91	118.90
31	BA	774	A	C6-C5-N7	-6.65	127.65	132.30
31	DA	1589	C	C6-N1-C1'	6.65	128.78	120.80
31	BA	2796	U	O4'-C1'-N1	6.65	113.52	108.20
41	BP	53	GLY	N-CA-C	-6.64	96.49	113.10
31	DA	676	A	C4-C5-N7	6.64	114.02	110.70
31	DA	577	G	C2-N3-C4	-6.64	108.58	111.90
31	BA	2772	C	C6-N1-C2	6.64	122.95	120.30
31	DA	506	G	N1-C6-O6	6.64	123.88	119.90
31	BA	189	G	C8-N9-C4	6.63	109.05	106.40
31	BA	1800	C	N1-C2-O2	-6.63	114.92	118.90
31	DA	1974	C	N3-C2-O2	6.63	126.54	121.90
31	BA	2779	U	N3-C4-O4	-6.63	114.76	119.40
31	DA	1021	A	N1-C6-N6	6.63	122.58	118.60
31	DA	2394	C	C2-N3-C4	-6.63	116.58	119.90
31	BA	2779	U	C2-N3-C4	-6.63	123.02	127.00
31	DA	1528	A	N7-C8-N9	6.63	117.12	113.80
31	DA	1543	C	C5-C4-N4	-6.63	115.56	120.20
31	BA	201	C	C5-C6-N1	-6.63	117.69	121.00
31	BA	62	C	C6-N1-C2	6.63	122.95	120.30
31	BA	679	C	C2-N3-C4	-6.62	116.59	119.90
31	DA	1544	A	O4'-C1'-N9	6.62	113.50	108.20
31	DA	1953	A	C8-N9-C4	6.62	108.45	105.80
31	DA	2555	U	N1-C2-O2	-6.62	118.16	122.80
31	DA	1564	C	C6-N1-C2	6.62	122.95	120.30
31	BA	1678	G	C6-C5-N7	-6.62	126.43	130.40
31	BA	2622	C	C6-N1-C2	6.62	122.95	120.30
31	BA	1241	A	C5-C6-N1	-6.61	114.39	117.70
31	DA	586	A	C8-N9-C4	6.61	108.44	105.80
31	BA	204	A	C6-N1-C2	-6.61	114.63	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	263	C	C6-N1-C2	6.61	122.94	120.30
1	CA	1473	A	C8-N9-C4	6.61	108.44	105.80
31	BA	562	U	N1-C2-O2	-6.61	118.17	122.80
31	DA	2485	G	N9-C4-C5	-6.61	102.76	105.40
31	BA	2471	C	C2-N1-C1'	6.61	126.07	118.80
31	DA	1021	A	C5-N7-C8	-6.61	100.60	103.90
32	DB	104	U	C5-C6-N1	-6.61	119.40	122.70
31	BA	2287	A	C2-N3-C4	-6.61	107.30	110.60
31	DA	647	G	C8-N9-C4	-6.60	103.76	106.40
31	DA	195	A	N1-C6-N6	6.60	122.56	118.60
31	DA	811	U	C5-C4-O4	6.60	129.86	125.90
31	DA	1678	G	C5-N7-C8	-6.60	101.00	104.30
31	BA	817	C	N1-C2-O2	-6.60	114.94	118.90
31	BA	2711	A	N3-C4-C5	6.60	131.42	126.80
31	BA	2598	A	N9-C4-C5	-6.59	103.16	105.80
31	BA	2013	A	C2-N3-C4	-6.59	107.31	110.60
31	DA	1315	C	C2-N3-C4	-6.59	116.61	119.90
31	BA	512	G	C8-N9-C1'	6.59	135.56	127.00
31	BA	1184	G	N1-C6-O6	6.59	123.85	119.90
31	BA	927	G	C5-C6-O6	-6.58	124.65	128.60
31	DA	1328	G	N3-C4-N9	6.58	129.95	126.00
31	DA	1379	A	O4'-C1'-N9	6.58	113.46	108.20
31	DA	2579	C	N1-C2-O2	-6.58	114.95	118.90
31	BA	1897	G	C5-C6-O6	-6.57	124.66	128.60
31	BA	1204	A	N1-C2-N3	6.57	132.58	129.30
31	BA	2430	A	N1-C6-N6	6.56	122.54	118.60
31	BA	2512	C	C6-N1-C2	6.56	122.93	120.30
31	BA	125	G	C4-C5-N7	6.56	113.42	110.80
31	BA	1275	A	N9-C4-C5	-6.56	103.17	105.80
31	DA	803	U	N1-C2-O2	-6.56	118.21	122.80
31	DA	2043	C	N3-C4-C5	6.56	124.53	121.90
31	DA	2731	G	C5-C6-O6	-6.56	124.67	128.60
31	BA	2498	C	N1-C2-O2	-6.55	114.97	118.90
33	BD	243	GLY	N-CA-C	-6.55	96.72	113.10
31	DA	514	A	N7-C8-N9	-6.54	110.53	113.80
31	DA	141	A	C5-N7-C8	-6.54	100.63	103.90
31	DA	865	C	C6-N1-C2	6.54	122.92	120.30
31	DA	1653	G	C8-N9-C1'	-6.54	118.50	127.00
31	DA	2497	A	C8-N9-C4	6.54	108.42	105.80
31	DA	1167	U	C6-N1-C2	6.54	124.92	121.00
31	BA	1233	C	C6-N1-C2	6.53	122.91	120.30
31	DA	1243	G	N7-C8-N9	-6.53	109.83	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	DA	1597	A	C8-N9-C4	6.53	108.41	105.80
31	BA	2688	U	C5-C6-N1	-6.53	119.44	122.70
31	DA	465	G	C4-C5-N7	-6.53	108.19	110.80
31	DA	1332	G	C4-C5-N7	6.53	113.41	110.80
31	DA	1615	C	C6-N1-C2	6.53	122.91	120.30
31	DA	2000	G	C4-N9-C1'	-6.52	118.02	126.50
31	BA	151	C	C6-N1-C2	6.52	122.91	120.30
31	BA	870	A	C8-N9-C4	6.51	108.41	105.80
31	DA	676	A	C2-N3-C4	-6.51	107.34	110.60
31	BA	203	C	C5-C6-N1	-6.51	117.74	121.00
31	BA	2087	G	C8-N9-C4	6.51	109.00	106.40
31	BA	2575	C	C5-C6-N1	-6.51	117.75	121.00
31	DA	1021	A	C6-C5-N7	-6.50	127.75	132.30
31	BA	937	U	N1-C2-O2	-6.50	118.25	122.80
31	BA	1308	A	C2-N3-C4	-6.50	107.35	110.60
31	BA	1934	C	N1-C2-O2	6.50	122.80	118.90
31	DA	1543	C	C2-N1-C1'	6.50	125.95	118.80
31	BA	679	C	N3-C4-C5	6.50	124.50	121.90
27	B5	51	TYR	CA-CB-CG	6.50	125.74	113.40
31	DA	1934	C	C6-N1-C2	6.49	122.90	120.30
31	DA	1328	G	C8-N9-C1'	-6.49	118.56	127.00
31	BA	103	A	C8-N9-C4	6.49	108.39	105.80
31	BA	948	G	N3-C4-C5	6.49	131.84	128.60
31	BA	1021	A	N1-C2-N3	6.49	132.54	129.30
31	DA	1790	C	N1-C2-O2	-6.49	115.01	118.90
31	DA	2053	G	C5-C6-O6	-6.49	124.71	128.60
31	BA	1219	G	C8-N9-C4	6.48	108.99	106.40
31	BA	1229	G	C8-N9-C4	6.48	108.99	106.40
31	BA	2436	G	N3-C2-N2	-6.48	115.36	119.90
31	DA	2584	U	C5-C4-O4	6.48	129.79	125.90
31	DA	859	G	N3-C4-N9	-6.48	122.11	126.00
31	BA	1565	C	C6-N1-C2	6.47	122.89	120.30
31	BA	522	G	N1-C6-O6	6.47	123.78	119.90
31	BA	1617	C	N1-C2-O2	-6.47	115.02	118.90
31	BA	130	C	C5-C6-N1	-6.47	117.77	121.00
31	BA	1657	C	C5-C6-N1	-6.46	117.77	121.00
31	BA	1159	U	C6-N1-C2	6.46	124.88	121.00
31	BA	1677	A	C8-N9-C4	6.46	108.38	105.80
31	DA	210	C	N3-C4-C5	6.46	124.48	121.90
31	DA	2056	G	N9-C4-C5	-6.46	102.82	105.40
31	BA	29	U	C5-C4-O4	-6.46	122.03	125.90
31	DA	803	U	C5-C6-N1	-6.46	119.47	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	DA	2539	C	N3-C4-C5	6.46	124.48	121.90
31	BA	759	G	C8-N9-C4	6.46	108.98	106.40
31	BA	829	A	C8-N9-C4	6.46	108.38	105.80
31	BA	2822	G	C5-C6-O6	-6.45	124.73	128.60
31	DA	1310	G	C5-C6-O6	-6.45	124.73	128.60
31	BA	2825	C	C6-N1-C2	6.45	122.88	120.30
31	DA	1762	A	C8-N9-C4	-6.45	103.22	105.80
31	BA	1403	C	C5-C6-N1	-6.44	117.78	121.00
31	BA	330	A	N3-C4-C5	6.44	131.31	126.80
31	DA	142	A	C5-N7-C8	-6.44	100.68	103.90
31	BA	2762	G	N3-C4-C5	6.44	131.82	128.60
31	BA	784	A	N1-C6-N6	-6.43	114.74	118.60
31	DA	2056	G	C5-C6-O6	-6.43	124.74	128.60
31	BA	723	G	C8-N9-C4	6.43	108.97	106.40
31	DA	1397	U	N3-C2-O2	-6.43	117.70	122.20
31	DA	1779	U	N3-C4-O4	-6.42	114.90	119.40
31	DA	1795	C	C6-N1-C2	6.42	122.87	120.30
31	BA	845	G	C4-C5-N7	6.42	113.37	110.80
31	DA	2496	C	C6-N1-C2	6.42	122.87	120.30
31	BA	2485	G	C6-C5-N7	-6.42	126.55	130.40
32	BB	104	U	C6-N1-C2	6.42	124.85	121.00
31	DA	142	A	C4-C5-N7	6.42	113.91	110.70
31	DA	1772	G	N7-C8-N9	-6.42	109.89	113.10
31	DA	2518	A	N7-C8-N9	6.42	117.01	113.80
1	AA	237	C	C6-N1-C2	6.41	122.86	120.30
31	DA	330	A	N3-C4-C5	6.41	131.29	126.80
31	DA	1557	C	N3-C2-O2	6.41	126.39	121.90
31	DA	1006	C	N3-C4-C5	6.41	124.47	121.90
31	BA	753	C	N1-C2-O2	-6.41	115.05	118.90
31	BA	1256	G	C8-N9-C1'	-6.41	118.67	127.00
31	BA	2713	A	C4-C5-N7	6.41	113.90	110.70
31	DA	2260	C	N1-C2-O2	-6.41	115.05	118.90
31	BA	2383	G	C4-N9-C1'	6.41	134.83	126.50
31	DA	452	G	N1-C6-O6	-6.41	116.06	119.90
1	CA	923	A	N7-C8-N9	6.40	117.00	113.80
31	BA	142	A	N7-C8-N9	6.40	117.00	113.80
31	DA	748	G	C4-N9-C1'	-6.40	118.18	126.50
31	BA	945	A	C4-C5-C6	6.40	120.20	117.00
31	BA	1022	G	C8-N9-C4	-6.40	103.84	106.40
1	AA	1412	C	C6-N1-C2	6.40	122.86	120.30
31	BA	1332	G	C4-N9-C1'	-6.40	118.18	126.50
31	BA	1574	C	C6-N1-C2	6.39	122.86	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	34	C	C6-N1-C2	6.39	122.86	120.30
31	DA	2361	A	N1-C6-N6	6.39	122.44	118.60
31	BA	752	A	C8-N9-C4	-6.39	103.24	105.80
31	BA	1379	A	N9-C1'-C2'	6.39	122.31	114.00
31	BA	2061	G	N3-C4-C5	-6.39	125.41	128.60
31	DA	927	G	C5-C6-O6	-6.39	124.77	128.60
31	BA	859	G	N3-C4-C5	6.39	131.79	128.60
31	BA	805	G	C4-C5-N7	6.39	113.35	110.80
31	DA	673	C	C6-N1-C2	6.39	122.86	120.30
31	DA	2570	G	C5-C6-N1	-6.39	108.31	111.50
31	BA	2648	C	C6-N1-C2	6.38	122.85	120.30
31	BA	1251	C	C2-N3-C4	-6.38	116.71	119.90
31	BA	1786	A	C2-N3-C4	-6.38	107.41	110.60
31	BA	587	C	C6-N1-C2	-6.38	117.75	120.30
31	BA	1786	A	C5-N7-C8	-6.38	100.71	103.90
1	AA	117	G	C5-C6-O6	-6.38	124.77	128.60
31	DA	1570	A	N9-C4-C5	-6.38	103.25	105.80
31	DA	2420	C	C6-N1-C2	6.37	122.85	120.30
31	BA	376	C	C2-N1-C1'	-6.37	111.79	118.80
31	BA	927	G	C4-C5-N7	6.37	113.35	110.80
31	BA	2253	G	C4-C5-N7	6.37	113.35	110.80
31	BA	2740	A	C8-N9-C4	6.37	108.35	105.80
31	BA	2777	G	N1-C6-O6	6.37	123.72	119.90
31	BA	2082	A	N7-C8-N9	-6.37	110.62	113.80
32	BB	103	G	N3-C4-N9	-6.37	122.18	126.00
31	DA	1354	A	C8-N9-C4	6.36	108.35	105.80
31	DA	205	G	C5-C6-O6	-6.36	124.78	128.60
31	DA	1519	G	C8-N9-C4	-6.36	103.86	106.40
31	BA	1219	G	N3-C4-C5	6.36	131.78	128.60
31	BA	1784	A	C8-N9-C4	6.36	108.34	105.80
31	BA	803	U	C5-C6-N1	-6.35	119.52	122.70
32	BB	87	G	C8-N9-C4	6.35	108.94	106.40
28	D6	11	LEU	CA-CB-CG	6.35	129.91	115.30
31	DA	2006	C	N3-C4-C5	6.35	124.44	121.90
31	BA	2469	A	C6-C5-N7	-6.35	127.86	132.30
31	BA	1233	C	C5-C6-N1	-6.35	117.83	121.00
31	BA	1543	C	N1-C2-N3	-6.35	114.76	119.20
31	DA	2737	G	N1-C6-O6	6.34	123.71	119.90
31	DA	1379	A	N9-C1'-C2'	6.34	122.25	114.00
31	BA	2061	G	N3-C4-N9	6.34	129.80	126.00
32	BB	64	C	C6-N1-C2	6.34	122.84	120.30
31	DA	664	C	C5-C6-N1	-6.34	117.83	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	DA	2678	C	C5-C6-N1	-6.34	117.83	121.00
31	BA	16	G	N3-C2-N2	-6.34	115.46	119.90
31	BA	850	C	C6-N1-C2	6.34	122.83	120.30
31	BA	1241	A	N1-C6-N6	6.34	122.40	118.60
31	BA	2710	C	C5-C6-N1	-6.34	117.83	121.00
31	BA	2683	C	N3-C4-C5	-6.33	119.37	121.90
31	DA	1275	A	N1-C6-N6	6.33	122.40	118.60
31	DA	2547	U	C5-C6-N1	-6.33	119.53	122.70
32	BB	85	G	C6-C5-N7	-6.33	126.60	130.40
31	BA	2054	A	N1-C2-N3	6.33	132.47	129.30
31	BA	2481	G	N9-C4-C5	-6.33	102.87	105.40
31	DA	2580	U	C5-C6-N1	-6.33	119.53	122.70
31	DA	2827	C	C2-N3-C4	-6.33	116.73	119.90
31	DA	1380	G	C2-N3-C4	-6.33	108.73	111.90
32	BB	103	G	N7-C8-N9	-6.33	109.94	113.10
31	DA	683	C	C6-N1-C2	6.33	122.83	120.30
31	BA	680	G	N3-C2-N2	-6.32	115.47	119.90
31	DA	1226	A	C8-N9-C4	6.32	108.33	105.80
31	DA	832	G	C2-N3-C4	-6.32	108.74	111.90
31	BA	35	G	C8-N9-C4	6.32	108.93	106.40
31	BA	1786	A	C6-C5-N7	-6.32	127.88	132.30
31	DA	2082	A	C8-N9-C4	6.32	108.33	105.80
31	DA	2771	C	C6-N1-C2	6.32	122.83	120.30
31	BA	1495	A	C5-N7-C8	-6.32	100.74	103.90
31	BA	2056	G	C4-C5-N7	6.31	113.33	110.80
31	BA	142	A	C5-C6-N6	-6.31	118.65	123.70
31	BA	2452	C	C6-N1-C2	6.31	122.82	120.30
31	DA	210	C	C6-N1-C2	6.31	122.82	120.30
31	BA	2447	G	C5-N7-C8	6.31	107.45	104.30
31	BA	244	A	N1-C6-N6	6.31	122.38	118.60
31	BA	2421	G	N1-C6-O6	6.31	123.68	119.90
31	BA	1275	A	C5-C6-N6	-6.30	118.66	123.70
31	BA	296	C	C6-N1-C2	6.30	122.82	120.30
31	BA	2067	G	C8-N9-C4	-6.30	103.88	106.40
31	DA	810	U	C5-C6-N1	-6.30	119.55	122.70
31	DA	1280	G	N7-C8-N9	-6.30	109.95	113.10
31	BA	798	G	C2-N3-C4	-6.30	108.75	111.90
31	DA	1589	C	C2-N1-C1'	-6.30	111.87	118.80
31	DA	2286	A	O4'-C1'-N9	6.30	113.24	108.20
31	BA	2579	C	C6-N1-C2	6.29	122.82	120.30
31	DA	1758	G	C2-N3-C4	-6.29	108.75	111.90
31	BA	1576	U	C5-C6-N1	-6.29	119.55	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	DA	201	C	C2-N1-C1'	-6.29	111.88	118.80
31	DA	1557	C	N1-C2-O2	-6.29	115.13	118.90
31	DA	1899	G	N3-C2-N2	-6.29	115.50	119.90
31	BA	2324	C	C6-N1-C2	6.29	122.81	120.30
31	BA	141	A	C8-N9-C4	-6.28	103.29	105.80
31	BA	1313	U	N3-C4-C5	-6.28	110.83	114.60
31	BA	2572	A	C8-N9-C4	6.28	108.31	105.80
31	DA	2260	C	C5-C6-N1	-6.28	117.86	121.00
31	BA	686	G	C2-N3-C4	-6.28	108.76	111.90
31	DA	461	C	N1-C2-O2	-6.28	115.13	118.90
32	DB	17	C	N3-C2-O2	-6.28	117.50	121.90
31	BA	1207	C	C5-C6-N1	-6.28	117.86	121.00
31	DA	448	U	C5-C6-N1	-6.28	119.56	122.70
31	BA	856	C	N1-C2-N3	6.28	123.59	119.20
31	DA	663	G	N3-C4-C5	6.28	131.74	128.60
31	DA	676	A	C6-C5-N7	-6.28	127.91	132.30
31	DA	1261	C	N3-C4-C5	6.28	124.41	121.90
31	BA	749	C	C6-N1-C2	6.28	122.81	120.30
31	DA	801	G	C2-N3-C4	-6.27	108.76	111.90
31	DA	2713	A	C4-C5-N7	6.27	113.84	110.70
31	BA	1557	C	C6-N1-C2	6.27	122.81	120.30
31	BA	1840	G	N1-C6-O6	6.27	123.66	119.90
31	DA	780	G	C8-N9-C4	6.27	108.91	106.40
31	BA	47	C	C5-C6-N1	-6.27	117.87	121.00
31	BA	2571	C	C5-C6-N1	-6.27	117.87	121.00
31	DA	121	G	C8-N9-C4	6.27	108.91	106.40
31	BA	672	C	N3-C4-C5	-6.26	119.39	121.90
1	CA	806	C	C6-N1-C2	6.26	122.81	120.30
31	DA	1030	G	C5-C6-O6	-6.26	124.84	128.60
1	CA	922	G	C4-N9-C1'	6.26	134.64	126.50
31	DA	2569	G	N1-C6-O6	6.26	123.66	119.90
31	DA	1998	G	C8-N9-C4	6.26	108.90	106.40
1	CA	1412	C	C6-N1-C2	6.26	122.80	120.30
31	BA	1324	G	N1-C6-O6	6.26	123.65	119.90
31	BA	2004	G	N3-C4-C5	6.26	131.73	128.60
31	DA	326	G	N1-C6-O6	6.26	123.65	119.90
31	DA	2691	C	C6-N1-C2	6.26	122.80	120.30
31	BA	568	U	N1-C2-O2	-6.25	118.42	122.80
31	DA	179	G	C2-N3-C4	-6.25	108.77	111.90
31	BA	1217	C	C6-N1-C2	6.25	122.80	120.30
31	BA	1794	U	C5-C6-N1	-6.25	119.57	122.70
31	DA	1269	A	C8-N9-C4	6.25	108.30	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	2597	G	C8-N9-C4	6.25	108.90	106.40
31	DA	1210	A	C4-C5-N7	6.24	113.82	110.70
31	DA	2433	A	N1-C2-N3	6.24	132.42	129.30
31	BA	1142(A)	A	N3-C4-N9	-6.24	122.41	127.40
31	DA	2232	U	C2-N1-C1'	-6.24	110.21	117.70
31	BA	589	C	C5-C6-N1	-6.24	117.88	121.00
31	DA	459	U	C5-C6-N1	-6.24	119.58	122.70
31	DA	1253	A	C8-N9-C4	6.24	108.30	105.80
31	BA	2282	G	C4-N9-C1'	6.24	134.61	126.50
31	DA	2447	G	C3'-C2'-C1'	-6.24	96.51	101.50
31	BA	2246	G	C5-C6-O6	-6.24	124.86	128.60
31	DA	1244	G	N3-C4-C5	6.24	131.72	128.60
31	DA	1692	U	C5-C6-N1	-6.24	119.58	122.70
31	BA	1183	G	C5-N7-C8	-6.23	101.18	104.30
31	DA	870	A	N7-C8-N9	-6.23	110.68	113.80
31	BA	673	C	N3-C4-C5	6.23	124.39	121.90
31	DA	197	A	N1-C6-N6	6.23	122.34	118.60
31	DA	665	C	C6-N1-C2	6.23	122.79	120.30
31	BA	771	G	N7-C8-N9	-6.23	109.99	113.10
31	DA	1897	G	C5-C6-O6	-6.23	124.86	128.60
31	DA	2579	C	C6-N1-C2	6.22	122.79	120.30
31	DA	103	A	C8-N9-C4	6.22	108.29	105.80
31	DA	177	G	C8-N9-C4	6.21	108.89	106.40
31	BA	418	G	C8-N9-C4	6.21	108.89	106.40
31	DA	2426	A	N1-C2-N3	6.21	132.41	129.30
41	BP	59	LEU	N-CA-C	-6.21	94.23	111.00
31	DA	183	C	C6-N1-C2	6.21	122.78	120.30
31	DA	1653	G	N3-C4-N9	6.21	129.73	126.00
31	BA	2469	A	N1-C6-N6	6.21	122.32	118.60
31	DA	451	C	C2-N1-C1'	-6.21	111.97	118.80
31	BA	2073	C	C6-N1-C2	6.20	122.78	120.30
31	BA	1496	A	C8-N9-C4	-6.20	103.32	105.80
31	DA	1609	A	C3'-C2'-C1'	6.20	106.46	101.50
31	DA	2350	C	C6-N1-C2	6.20	122.78	120.30
31	BA	1337	G	C8-N9-C4	6.20	108.88	106.40
31	BA	2443	C	N1-C2-O2	-6.20	115.18	118.90
31	DA	693	C	N3-C4-C5	6.20	124.38	121.90
31	DA	1321	A	C8-N9-C4	6.19	108.28	105.80
31	BA	530	G	N1-C2-N2	-6.19	110.63	116.20
31	BA	1268	A	C2-N3-C4	-6.19	107.50	110.60
31	BA	1589	C	C2-N1-C1'	-6.19	111.99	118.80
31	BA	1677	A	C2-N3-C4	-6.19	107.50	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	DA	1813	G	C8-N9-C4	6.19	108.88	106.40
31	DA	2005	A	C8-N9-C4	6.19	108.28	105.80
31	DA	2464	C	N3-C4-C5	6.19	124.38	121.90
31	BA	1192	G	C8-N9-C4	6.19	108.88	106.40
31	BA	2714	G	N9-C4-C5	-6.19	102.92	105.40
31	DA	2731	G	C6-C5-N7	-6.19	126.69	130.40
31	BA	1800	C	C2-N1-C1'	-6.18	112.00	118.80
31	DA	1251	C	N1-C2-O2	-6.18	115.19	118.90
31	DA	1327	C	N1-C2-O2	-6.18	115.19	118.90
31	BA	1198	U	C5-C6-N1	-6.18	119.61	122.70
31	DA	2689	U	C5-C6-N1	-6.18	119.61	122.70
31	BA	2714	G	C5-C6-O6	-6.17	124.89	128.60
31	BA	1830	C	N3-C2-O2	6.17	126.22	121.90
31	DA	573	G	N1-C6-O6	-6.17	116.20	119.90
31	DA	2414	G	N1-C6-O6	6.17	123.60	119.90
31	DA	1930	G	C8-N9-C4	6.17	108.87	106.40
31	BA	2383	G	C8-N9-C1'	-6.17	118.99	127.00
31	DA	2399	G	N1-C6-O6	-6.17	116.20	119.90
31	BA	1589	C	C6-N1-C1'	6.16	128.19	120.80
32	BB	85	G	C5-C6-O6	-6.16	124.90	128.60
31	BA	121	G	C8-N9-C4	6.16	108.86	106.40
31	BA	473	G	C2-N3-C4	-6.16	108.82	111.90
31	BA	2230	G	N1-C6-O6	6.16	123.59	119.90
31	BA	2672	G	C6-C5-N7	-6.16	126.70	130.40
31	DA	753	C	N1-C2-O2	-6.16	115.20	118.90
31	DA	1965	C	C6-N1-C2	6.16	122.76	120.30
31	BA	388	G	N1-C6-O6	-6.15	116.21	119.90
31	BA	2433	A	C2-N3-C4	-6.15	107.52	110.60
31	DA	1277	G	C8-N9-C4	6.15	108.86	106.40
31	DA	2018	G	N1-C6-O6	6.15	123.59	119.90
31	DA	2079	U	C4-C5-C6	6.15	123.39	119.70
31	BA	527	C	C2-N3-C4	-6.15	116.83	119.90
31	DA	600	G	C8-N9-C4	6.15	108.86	106.40
31	DA	2013	A	C2-N3-C4	-6.15	107.52	110.60
31	DA	2762	G	N3-C4-C5	6.15	131.68	128.60
31	BA	246	C	N1-C2-O2	-6.15	115.21	118.90
31	BA	2029	G	N3-C4-N9	-6.15	122.31	126.00
31	DA	2818	G	C2-N3-C4	-6.15	108.83	111.90
32	DB	99	G	C8-N9-C4	6.15	108.86	106.40
31	BA	2578	G	C8-N9-C4	6.14	108.86	106.40
31	DA	1258	C	C5-C6-N1	-6.14	117.93	121.00
31	BA	1589	C	C5-C4-N4	6.14	124.50	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	287	C	C6-N1-C2	6.14	122.76	120.30
31	BA	2376	A	C4-C5-N7	6.14	113.77	110.70
31	DA	1833	U	N3-C2-O2	6.14	126.50	122.20
31	DA	2622	C	N3-C2-O2	6.14	126.20	121.90
1	AA	896	C	C6-N1-C2	6.14	122.75	120.30
31	DA	100	G	C4-C5-N7	-6.14	108.34	110.80
31	BA	583	G	C8-N9-C4	6.13	108.85	106.40
31	BA	2614	A	N9-C4-C5	-6.13	103.35	105.80
31	DA	1897	G	N1-C6-O6	6.13	123.58	119.90
31	BA	333	G	C8-N9-C4	-6.13	103.95	106.40
31	BA	2846	G	C8-N9-C4	6.13	108.85	106.40
31	BA	774	A	C5-C6-N1	-6.13	114.64	117.70
31	DA	530	G	N3-C2-N2	6.12	124.19	119.90
31	BA	2075	U	C5-C6-N1	-6.12	119.64	122.70
31	DA	1652	A	C4'-C3'-C2'	6.12	108.72	102.60
31	DA	2079	U	C5-C6-N1	-6.12	119.64	122.70
31	BA	1958	C	N3-C2-O2	6.12	126.18	121.90
31	DA	2426	A	C6-N1-C2	-6.12	114.93	118.60
31	BA	1616	A	C5-C6-N1	-6.12	114.64	117.70
31	DA	1974	C	N1-C2-O2	-6.12	115.23	118.90
31	DA	453	C	C5-C6-N1	-6.11	117.94	121.00
31	BA	1827	C	N3-C4-N4	-6.11	113.72	118.00
41	DP	53	GLY	N-CA-C	-6.11	97.82	113.10
31	DA	1142(A)	A	C5-N7-C8	-6.11	100.84	103.90
31	DA	1958	C	C6-N1-C2	6.11	122.74	120.30
31	DA	125	G	C5-C6-O6	-6.11	124.94	128.60
31	DA	141	A	C4-C5-N7	6.11	113.75	110.70
31	BA	2447	G	N3-C4-C5	-6.11	125.55	128.60
31	BA	2711	A	C2-N3-C4	-6.11	107.55	110.60
31	DA	512	G	N7-C8-N9	-6.11	110.05	113.10
31	DA	1608	A	N3-C4-N9	-6.11	122.52	127.40
31	BA	103	A	N7-C8-N9	-6.10	110.75	113.80
31	BA	2056	G	N9-C4-C5	-6.10	102.96	105.40
31	DA	2531	A	C2-N3-C4	-6.10	107.55	110.60
31	BA	735	A	N7-C8-N9	-6.10	110.75	113.80
31	BA	815	C	C6-N1-C2	6.09	122.74	120.30
31	DA	2443	C	C5-C4-N4	-6.09	115.93	120.20
31	DA	2242	G	C5-C6-O6	-6.09	124.94	128.60
32	BB	102	A	C8-N9-C4	6.09	108.24	105.80
31	DA	755	C	C6-N1-C2	6.09	122.73	120.30
31	DA	1829	A	C2-N3-C4	-6.09	107.56	110.60
32	DB	103	G	C4-N9-C1'	-6.09	118.58	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	DA	679	C	C5-C6-N1	-6.09	117.96	121.00
31	DA	2394	C	C2-N1-C1'	-6.09	112.10	118.80
31	DA	1617	C	C2-N1-C1'	-6.09	112.10	118.80
31	BA	2236	C	C5-C4-N4	-6.08	115.94	120.20
31	BA	454	A	N1-C6-N6	-6.08	114.95	118.60
31	BA	1970	A	N1-C6-N6	6.08	122.25	118.60
31	DA	376	C	C5-C6-N1	-6.08	117.96	121.00
31	DA	566	U	C5-C6-N1	-6.08	119.66	122.70
31	BA	122	G	C5-C6-O6	-6.08	124.95	128.60
31	BA	2252	G	C2-N3-C4	-6.08	108.86	111.90
31	BA	610	G	C8-N9-C4	6.08	108.83	106.40
31	BA	467	G	N7-C8-N9	-6.08	110.06	113.10
31	BA	1495	A	C5-C6-N6	-6.08	118.84	123.70
31	BA	1599	C	C6-N1-C2	6.08	122.73	120.30
31	DA	1614	A	C6-C5-N7	-6.08	128.05	132.30
31	BA	471	A	C8-N9-C4	6.07	108.23	105.80
31	BA	1608	A	C2-N3-C4	-6.07	107.56	110.60
31	DA	397	G	N3-C4-C5	6.07	131.64	128.60
31	DA	729	G	N1-C2-N2	6.07	121.67	116.20
31	BA	100	G	C4-C5-N7	-6.07	108.37	110.80
31	BA	788	A	C8-N9-C4	6.07	108.23	105.80
31	DA	2621	A	C2-N3-C4	-6.07	107.56	110.60
31	BA	472	A	C4'-C3'-C2'	6.07	108.67	102.60
31	DA	2829	C	C6-N1-C2	6.07	122.73	120.30
1	AA	244	U	C6-N1-C2	6.07	124.64	121.00
31	DA	2740	A	C8-N9-C4	6.07	108.23	105.80
31	BA	621	A	C5-N7-C8	-6.07	100.87	103.90
31	DA	1678	G	C2-N3-C4	-6.07	108.87	111.90
31	DA	2383	G	N1-C2-N2	-6.07	110.74	116.20
31	BA	2436	G	N1-C6-O6	6.06	123.53	119.90
31	DA	377	C	C6-N1-C2	6.06	122.72	120.30
31	DA	1891	G	C8-N9-C4	6.05	108.82	106.40
31	DA	2485	G	N1-C6-O6	6.05	123.53	119.90
31	BA	125	G	N9-C4-C5	-6.05	102.98	105.40
31	DA	575	A	N1-C6-N6	6.05	122.23	118.60
1	AA	885	G	N3-C4-C5	6.05	131.62	128.60
31	BA	1439	A	N9-C4-C5	-6.05	103.38	105.80
31	DA	97	C	C5-C6-N1	-6.05	117.98	121.00
31	DA	1122	G	C8-N9-C4	6.05	108.82	106.40
31	BA	2433	A	N1-C2-N3	6.05	132.32	129.30
31	DA	2825	C	C6-N1-C2	6.05	122.72	120.30
31	BA	565	C	N3-C4-C5	6.04	124.32	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	676	A	N1-C6-N6	6.04	122.23	118.60
31	BA	1528	A	C8-N9-C4	-6.04	103.38	105.80
31	DA	133	C	C6-N1-C2	6.04	122.72	120.30
31	DA	803	U	C2-N3-C4	-6.04	123.37	127.00
31	DA	2008	C	C4-C5-C6	6.04	120.42	117.40
31	BA	734	A	N1-C6-N6	6.04	122.22	118.60
31	BA	1937	A	C8-N9-C4	6.04	108.22	105.80
31	BA	1409	C	C6-N1-C2	6.04	122.72	120.30
31	DA	210	C	C5-C6-N1	-6.04	117.98	121.00
31	BA	1323	U	N3-C2-O2	6.04	126.43	122.20
31	BA	611	C	N1-C2-O2	-6.04	115.28	118.90
32	DB	27	C	C2-N1-C1'	6.04	125.44	118.80
31	BA	1819	A	N1-C6-N6	-6.03	114.98	118.60
31	DA	1332	G	C4-N9-C1'	-6.03	118.66	126.50
31	BA	1397	U	N1-C2-N3	6.03	118.52	114.90
31	DA	2447	G	C6-N1-C2	-6.03	121.48	125.10
31	BA	1477	A	C8-N9-C4	6.03	108.21	105.80
31	DA	2446	G	N7-C8-N9	-6.03	110.08	113.10
32	BB	104	U	C5-C6-N1	-6.03	119.69	122.70
32	BB	107	G	N3-C4-C5	6.03	131.62	128.60
27	D5	51	TYR	CA-CB-CG	6.03	124.85	113.40
31	DA	142	A	N7-C8-N9	6.03	116.81	113.80
31	DA	859	G	N3-C4-C5	6.03	131.61	128.60
31	DA	1779	U	C5-C4-O4	6.03	129.52	125.90
31	DA	72	U	N3-C4-O4	-6.03	115.18	119.40
31	DA	949	C	C6-N1-C2	6.03	122.71	120.30
31	DA	2067	G	N3-C2-N2	-6.03	115.68	119.90
31	DA	2438	U	C5-C6-N1	-6.03	119.69	122.70
31	BA	1144	G	N1-C6-O6	6.02	123.51	119.90
31	BA	1210	A	C5-N7-C8	-6.02	100.89	103.90
31	BA	2516	G	N1-C6-O6	-6.02	116.29	119.90
31	BA	937	U	N3-C2-O2	6.02	126.41	122.20
31	BA	2542	A	C2-N3-C4	-6.02	107.59	110.60
31	BA	2684	U	C6-N1-C2	6.02	124.61	121.00
31	BA	2430	A	C5-C6-N1	-6.02	114.69	117.70
1	CA	923	A	C4-N9-C1'	6.02	137.13	126.30
31	BA	1256	G	C5-C6-O6	-6.02	124.99	128.60
31	BA	1354	A	C8-N9-C4	6.02	108.21	105.80
31	BA	2023	G	N1-C2-N2	6.02	121.61	116.20
31	BA	1207	C	C6-N1-C2	6.01	122.71	120.30
31	BA	2647	U	N3-C2-O2	6.01	126.41	122.20
31	DA	1263	U	C5-C6-N1	-6.01	119.69	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	DA	1334	G	N3-C2-N2	-6.01	115.69	119.90
31	DA	2436	G	N3-C4-N9	-6.01	122.39	126.00
31	BA	2512	C	C5-C6-N1	-6.01	118.00	121.00
31	DA	789	A	C8-N9-C4	6.01	108.20	105.80
41	DP	59	LEU	N-CA-C	-6.01	94.78	111.00
1	CA	9	G	C8-N9-C4	6.00	108.80	106.40
31	DA	474	G	C8-N9-C4	-6.00	104.00	106.40
31	DA	1204	A	C4-N9-C1'	6.00	137.11	126.30
31	BA	71	A	N1-C6-N6	6.00	122.20	118.60
1	CA	811	C	C6-N1-C2	6.00	122.70	120.30
31	DA	2056	G	C4-C5-N7	6.00	113.20	110.80
31	DA	2082	A	N7-C8-N9	-6.00	110.80	113.80
31	DA	985	C	C6-N1-C2	6.00	122.70	120.30
31	BA	1616	A	C8-N9-C4	-6.00	103.40	105.80
31	DA	786	C	C2-N3-C4	-6.00	116.90	119.90
31	DA	850	C	C6-N1-C2	6.00	122.70	120.30
31	DA	1029	A	N1-C6-N6	6.00	122.20	118.60
31	BA	2464	C	C6-N1-C1'	-6.00	113.60	120.80
31	DA	1991	U	C5-C6-N1	-6.00	119.70	122.70
31	DA	98	G	C8-N9-C4	5.99	108.80	106.40
31	DA	2686	G	N1-C6-O6	5.99	123.50	119.90
31	BA	1021	A	C5-C6-N1	-5.99	114.70	117.70
31	DA	2725	A	C8-N9-C4	5.99	108.20	105.80
31	BA	1021	A	N7-C8-N9	5.99	116.80	113.80
31	BA	978	G	C8-N9-C4	5.99	108.80	106.40
31	BA	133	C	N3-C2-O2	5.99	126.09	121.90
31	BA	1653	G	P-O3'-C3'	5.99	126.88	119.70
31	BA	2531	A	N3-C4-C5	5.99	130.99	126.80
31	DA	2518	A	C4-C5-N7	5.99	113.69	110.70
1	CA	398	C	C6-N1-C2	5.98	122.69	120.30
1	CA	923	A	C8-N9-C4	-5.98	103.41	105.80
31	BA	2702	U	N1-C2-N3	5.98	118.49	114.90
31	DA	1751	C	C6-N1-C2	5.98	122.69	120.30
31	DA	2469	A	N7-C8-N9	5.98	116.79	113.80
31	BA	593	G	C2-N3-C4	-5.98	108.91	111.90
31	BA	945	A	N1-C2-N3	5.98	132.29	129.30
31	DA	1207	C	C6-N1-C2	5.98	122.69	120.30
31	DA	1967	C	N3-C4-C5	5.98	124.29	121.90
31	BA	759	G	N1-C6-O6	5.98	123.49	119.90
31	BA	1256	G	N9-C4-C5	-5.98	103.01	105.40
31	BA	2850	A	N9-C4-C5	-5.98	103.41	105.80
31	DA	142	A	C6-C5-N7	-5.98	128.12	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	238	C	N3-C2-O2	5.98	126.08	121.90
31	DA	47	C	C6-N1-C2	5.98	122.69	120.30
31	DA	244	A	N1-C6-N6	5.97	122.19	118.60
31	DA	791	C	C6-N1-C2	5.97	122.69	120.30
31	DA	1786	A	C8-N9-C4	-5.97	103.41	105.80
31	DA	2539	C	C2-N3-C4	-5.97	116.91	119.90
31	BA	1496	A	N1-C6-N6	5.97	122.18	118.60
31	BA	1977	A	N1-C2-N3	5.97	132.29	129.30
31	DA	1142(A)	A	N1-C2-N3	5.97	132.29	129.30
31	DA	1266	G	N7-C8-N9	-5.97	110.11	113.10
31	BA	2741	A	C8-N9-C4	5.97	108.19	105.80
31	DA	2287	A	C2-N3-C4	-5.97	107.61	110.60
31	DA	1257	C	C5-C6-N1	-5.97	118.02	121.00
31	DA	1310	G	N1-C6-O6	5.96	123.48	119.90
31	BA	2477	C	C6-N1-C2	-5.96	117.92	120.30
31	DA	1573	G	N3-C4-C5	5.96	131.58	128.60
31	DA	1794	U	C6-N1-C2	5.96	124.58	121.00
46	DU	95	LEU	CA-CB-CG	-5.96	101.60	115.30
31	DA	796	C	C5-C6-N1	-5.95	118.02	121.00
31	DA	2714	G	C6-C5-N7	-5.95	126.83	130.40
31	BA	1543	C	C2-N1-C1'	5.95	125.35	118.80
31	BA	1652	A	C4'-C3'-C2'	5.95	108.55	102.60
31	BA	2466	C	N3-C2-O2	5.95	126.07	121.90
31	BA	2695	C	C6-N1-C2	5.95	122.68	120.30
31	DA	481	G	C6-C5-N7	-5.95	126.83	130.40
31	BA	859	G	C4-N9-C1'	-5.95	118.77	126.50
31	DA	809	G	N3-C2-N2	-5.95	115.74	119.90
31	DA	509	C	N1-C2-O2	-5.95	115.33	118.90
31	BA	466	A	N1-C2-N3	5.94	132.27	129.30
31	BA	1497	U	N1-C2-N3	-5.94	111.33	114.90
1	CA	770	C	N1-C2-O2	-5.94	115.33	118.90
31	BA	2614	A	N1-C2-N3	-5.94	126.33	129.30
31	BA	1432	C	C6-N1-C2	5.94	122.68	120.30
31	BA	2286	A	O4'-C1'-N9	5.94	112.95	108.20
1	AA	55	A	C4-C5-C6	5.94	119.97	117.00
31	DA	1971	A	C8-N9-C4	5.94	108.17	105.80
31	DA	2481	G	N9-C4-C5	-5.94	103.03	105.40
31	DA	1784	A	N7-C8-N9	-5.93	110.83	113.80
31	DA	774	A	C5-C6-N1	-5.93	114.73	117.70
31	BA	2485	G	C5-C6-O6	-5.93	125.04	128.60
31	BA	2567	G	N7-C8-N9	-5.93	110.14	113.10
31	BA	122	G	N1-C6-O6	5.93	123.46	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	848	G	C4-N9-C1'	5.93	134.21	126.50
31	DA	980	A	N9-C4-C5	-5.93	103.43	105.80
31	DA	2731	G	C4-C5-N7	5.93	113.17	110.80
31	DA	220	G	N1-C6-O6	5.93	123.46	119.90
31	DA	2246	G	C5-C6-O6	-5.93	125.04	128.60
31	BA	16	G	C5-C6-N1	-5.92	108.54	111.50
31	DA	2523	G	N1-C6-O6	5.92	123.45	119.90
31	BA	2241	A	N1-C2-N3	5.92	132.26	129.30
31	BA	970	C	C6-N1-C2	5.92	122.67	120.30
31	BA	748	G	C8-N9-C1'	5.92	134.69	127.00
31	BA	1344	G	C5-C6-N1	-5.92	108.54	111.50
31	BA	534	U	C5-C4-O4	5.91	129.45	125.90
31	BA	1496	A	C4-N9-C1'	5.91	136.94	126.30
31	DA	630	G	N7-C8-N9	-5.91	110.14	113.10
31	DA	1297	C	N1-C2-O2	-5.91	115.35	118.90
31	DA	2853	C	C6-N1-C2	5.91	122.67	120.30
31	BA	329	G	N1-C6-O6	5.91	123.45	119.90
31	BA	382	G	N1-C6-O6	5.91	123.45	119.90
31	BA	784	A	N9-C4-C5	5.91	108.16	105.80
31	DA	1639	U	C5-C6-N1	-5.91	119.75	122.70
31	DA	723	G	C8-N9-C4	5.91	108.76	106.40
31	BA	2202	C	C6-N1-C2	5.90	122.66	120.30
31	BA	933	A	C2-N3-C4	-5.90	107.65	110.60
31	BA	2345	G	C4-C5-N7	-5.90	108.44	110.80
31	DA	1764	G	N3-C4-C5	5.90	131.55	128.60
31	BA	2762	G	C2-N3-C4	-5.90	108.95	111.90
31	DA	506	G	C8-N9-C4	5.90	108.76	106.40
31	DA	1552	G	N3-C4-C5	5.90	131.55	128.60
31	DA	2465	C	N3-C4-C5	5.90	124.26	121.90
31	BA	2689	U	C5-C6-N1	-5.90	119.75	122.70
31	DA	874	G	C4-N9-C1'	-5.90	118.84	126.50
31	BA	2447	G	C5-C6-N1	5.89	114.45	111.50
31	BA	1698	A	N1-C6-N6	5.89	122.14	118.60
31	BA	1784	A	N7-C8-N9	-5.89	110.85	113.80
31	DA	375	C	C6-N1-C2	5.89	122.66	120.30
31	DA	697	C	C6-N1-C2	5.89	122.66	120.30
31	DA	792	G	C8-N9-C4	5.89	108.76	106.40
31	DA	2531	A	N3-C4-C5	5.89	130.92	126.80
31	BA	16	G	N3-C4-C5	5.89	131.54	128.60
31	BA	2447	G	N9-C4-C5	-5.89	103.04	105.40
31	DA	671	C	N1-C2-N3	5.89	123.32	119.20
31	DA	2066	C	C6-N1-C2	5.89	122.66	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	2075	U	C4-C5-C6	5.89	123.23	119.70
31	BA	2517	C	C6-N1-C2	5.89	122.66	120.30
31	DA	528	A	N3-C4-C5	5.89	130.92	126.80
31	BA	1213	A	C5-N7-C8	-5.89	100.96	103.90
31	BA	1216	G	C2-N3-C4	-5.89	108.96	111.90
31	BA	1978	A	C8-N9-C4	5.89	108.15	105.80
31	DA	1496	A	C4-N9-C1'	5.89	136.90	126.30
31	DA	2000	G	C8-N9-C4	5.89	108.75	106.40
31	BA	970	C	C4-C5-C6	5.88	120.34	117.40
46	BU	95	LEU	CA-CB-CG	-5.88	101.77	115.30
31	DA	2283	C	N3-C2-O2	5.88	126.02	121.90
1	AA	903	G	N1-C6-O6	5.88	123.43	119.90
31	BA	1216	G	N1-C6-O6	5.88	123.43	119.90
31	BA	2827	C	C5-C4-N4	-5.88	116.08	120.20
31	BA	1233	C	N1-C2-O2	-5.88	115.37	118.90
31	DA	1291	C	N1-C2-O2	-5.88	115.37	118.90
31	BA	133	C	C6-N1-C2	5.88	122.65	120.30
31	DA	2439	A	N1-C6-N6	5.88	122.13	118.60
31	BA	21	A	C2-N3-C4	-5.88	107.66	110.60
31	BA	2032	G	C4-C5-N7	5.88	113.15	110.80
1	AA	322	C	C6-N1-C2	5.88	122.65	120.30
31	BA	1251	C	C5-C6-N1	-5.88	118.06	121.00
31	BA	2374	C	C5-C6-N1	-5.88	118.06	121.00
31	BA	474	G	N7-C8-N9	5.87	116.04	113.10
31	DA	409	C	N3-C4-C5	5.87	124.25	121.90
31	DA	1811	G	N3-C4-N9	-5.87	122.48	126.00
31	DA	2440	C	C2-N1-C1'	-5.87	112.34	118.80
31	BA	1420	U	C2-N1-C1'	5.87	124.74	117.70
31	BA	2430	A	N7-C8-N9	5.87	116.73	113.80
31	DA	506	G	N3-C4-C5	5.87	131.53	128.60
31	DA	753	C	C2-N3-C4	-5.87	116.97	119.90
31	DA	2713	A	C5-N7-C8	-5.87	100.97	103.90
31	BA	942	G	C8-N9-C4	-5.87	104.05	106.40
31	DA	2044	C	N3-C2-O2	5.87	126.01	121.90
31	BA	2063	C	N1-C2-O2	-5.86	115.38	118.90
31	DA	491	G	N3-C4-C5	5.86	131.53	128.60
31	DA	978	G	C8-N9-C4	5.86	108.75	106.40
31	BA	2495	G	C8-N9-C4	5.86	108.75	106.40
32	BB	68	C	C2-N1-C1'	5.86	125.25	118.80
31	BA	1656	C	C6-N1-C2	5.86	122.64	120.30
31	BA	1779	U	C6-N1-C1'	5.86	129.40	121.20
31	DA	771	G	N7-C8-N9	-5.86	110.17	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	687	C	C6-N1-C2	-5.85	117.96	120.30
31	BA	1990	C	N3-C4-C5	-5.85	119.56	121.90
31	BA	2606	C	C6-N1-C2	5.85	122.64	120.30
31	DA	700	G	C8-N9-C4	5.85	108.74	106.40
31	DA	1968	G	C5-C6-O6	-5.85	125.09	128.60
31	BA	587	C	N3-C4-C5	-5.85	119.56	121.90
31	DA	201	C	N3-C2-O2	5.85	126.00	121.90
31	BA	122	G	C8-N9-C4	5.85	108.74	106.40
31	BA	562	U	C5-C4-O4	-5.85	122.39	125.90
31	BA	1496	A	C6-C5-N7	-5.85	128.21	132.30
31	BA	2239	G	C5-C6-N1	5.85	114.42	111.50
31	DA	774	A	N7-C8-N9	5.85	116.72	113.80
31	BA	2579	C	N3-C4-C5	5.85	124.24	121.90
1	CA	260	G	N1-C6-O6	5.85	123.41	119.90
31	DA	2447	G	N7-C8-N9	-5.84	110.18	113.10
31	DA	807	U	N1-C2-O2	-5.84	118.71	122.80
31	BA	2276	G	N3-C2-N2	-5.84	115.81	119.90
31	DA	788	A	C8-N9-C4	5.84	108.14	105.80
31	DA	805	G	C2-N3-C4	-5.84	108.98	111.90
31	DA	1253	A	N9-C4-C5	-5.84	103.46	105.80
31	BA	506	G	N1-C6-O6	5.84	123.40	119.90
41	DP	52	GLU	N-CA-C	5.84	126.77	111.00
31	DA	1934	C	C4'-C3'-C2'	5.84	108.44	102.60
31	DA	1543	C	N1-C2-N3	-5.84	115.11	119.20
31	DA	2580	U	C6-N1-C2	5.84	124.50	121.00
31	DA	210	C	C2-N3-C4	-5.83	116.98	119.90
31	DA	1420	U	C2-N1-C1'	5.83	124.70	117.70
31	BA	1823	G	C5-C6-N1	-5.83	108.58	111.50
31	BA	2258	C	N3-C4-N4	5.83	122.08	118.00
32	BB	27	C	C2-N1-C1'	5.83	125.22	118.80
31	DA	2017	U	N3-C2-O2	5.83	126.28	122.20
31	DA	1022	G	N3-C2-N2	-5.83	115.82	119.90
31	DA	2084	C	C5-C6-N1	-5.83	118.08	121.00
31	DA	2841	C	N3-C2-O2	5.83	125.98	121.90
33	DD	243	GLY	N-CA-C	-5.83	98.52	113.10
31	BA	786	C	C2-N3-C4	-5.83	116.98	119.90
31	DA	2644	G	C8-N9-C4	5.83	108.73	106.40
31	DA	2723	C	C6-N1-C2	5.83	122.63	120.30
31	DA	2282	G	C4-N9-C1'	5.83	134.08	126.50
31	DA	2695	C	C6-N1-C2	5.83	122.63	120.30
31	BA	506	G	N3-C4-C5	5.82	131.51	128.60
31	BA	2657	A	N1-C6-N6	5.82	122.09	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	DA	1189	A	N9-C4-C5	-5.82	103.47	105.80
31	DA	1202	C	C5-C6-N1	-5.82	118.09	121.00
31	DA	1269	A	N1-C6-N6	5.82	122.09	118.60
31	DA	2466	C	C6-N1-C2	5.82	122.63	120.30
31	BA	1027	A	N1-C2-N3	5.82	132.21	129.30
31	DA	506	G	C5-C6-O6	-5.82	125.11	128.60
31	DA	2779	U	C5-C6-N1	-5.82	119.79	122.70
31	BA	621	A	C2-N3-C4	-5.82	107.69	110.60
31	BA	1432	C	N3-C4-C5	5.82	124.23	121.90
31	BA	2688	U	C5-C4-O4	5.82	129.39	125.90
31	BA	2729	G	C8-N9-C4	5.82	108.73	106.40
31	BA	2567	G	C8-N9-C4	5.82	108.73	106.40
31	DA	1496	A	N1-C6-N6	5.82	122.09	118.60
31	DA	2246	G	N1-C6-O6	5.82	123.39	119.90
31	BA	182	A	C5-N7-C8	-5.81	100.99	103.90
31	BA	2061	G	C2-N3-C4	5.81	114.81	111.90
31	DA	141	A	N1-C6-N6	5.81	122.09	118.60
1	AA	1484	C	N1-C2-O2	-5.81	115.41	118.90
31	DA	1201	C	N3-C4-C5	5.81	124.22	121.90
31	DA	1207	C	N3-C2-O2	5.81	125.97	121.90
31	DA	2572	A	N1-C6-N6	5.81	122.09	118.60
31	BA	1843	C	C2-N3-C4	-5.81	117.00	119.90
31	BA	2702	U	C2-N3-C4	-5.81	123.52	127.00
31	DA	945	A	C5-C6-N1	-5.81	114.80	117.70
31	DA	1241	A	C5-C6-N1	-5.81	114.80	117.70
31	BA	1978	A	N7-C8-N9	-5.81	110.90	113.80
31	BA	687	C	C5-C6-N1	5.80	123.90	121.00
31	BA	1222	C	C6-N1-C2	5.80	122.62	120.30
31	BA	1653	G	N3-C4-N9	5.80	129.48	126.00
31	DA	2067	G	C5-C6-O6	-5.80	125.12	128.60
31	BA	797	C	N1-C2-O2	-5.80	115.42	118.90
31	BA	190	A	N9-C4-C5	-5.80	103.48	105.80
31	BA	396	G	C8-N9-C4	5.80	108.72	106.40
31	BA	990	A	C2-N3-C4	-5.80	107.70	110.60
31	BA	2287	A	N1-C2-N3	5.80	132.20	129.30
31	DA	1496	A	N7-C8-N9	5.80	116.70	113.80
31	BA	553	G	N3-C4-C5	5.80	131.50	128.60
31	BA	1552	G	N3-C4-C5	5.80	131.50	128.60
31	BA	2253	G	C8-N9-C1'	-5.80	119.46	127.00
31	BA	845	G	C5-N7-C8	-5.79	101.40	104.30
31	BA	942	G	N9-C4-C5	5.79	107.72	105.40
31	BA	1193	G	N9-C4-C5	-5.79	103.08	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	DA	780	G	N7-C8-N9	-5.79	110.20	113.10
31	BA	40	C	N1-C2-O2	-5.79	115.42	118.90
31	BA	1830	C	N3-C4-C5	5.79	124.22	121.90
31	DA	2033	A	C5-C6-N1	5.79	120.59	117.70
31	BA	196	A	N1-C6-N6	5.79	122.07	118.60
31	BA	792	G	C8-N9-C4	5.79	108.72	106.40
31	BA	1204	A	C8-N9-C1'	-5.79	117.28	127.70
31	BA	2253	G	C6-C5-N7	-5.79	126.93	130.40
31	DA	933	A	C5-N7-C8	-5.79	101.01	103.90
31	DA	975(A)	G	C5-C6-O6	-5.79	125.13	128.60
31	BA	62	C	C5-C6-N1	-5.79	118.11	121.00
31	BA	1800	C	C6-N1-C2	5.79	122.61	120.30
31	DA	83	G	N3-C2-N2	-5.79	115.85	119.90
31	DA	1321	A	N7-C8-N9	-5.79	110.91	113.80
31	BA	2000	G	N3-C4-C5	5.79	131.49	128.60
1	AA	34	C	C6-N1-C2	5.78	122.61	120.30
31	BA	686	G	N1-C2-N2	-5.78	111.00	116.20
31	DA	2091	U	C2-N1-C1'	-5.78	110.76	117.70
31	BA	207	A	C8-N9-C4	5.78	108.11	105.80
31	DA	2394	C	C6-N1-C2	5.78	122.61	120.30
31	DA	2436	G	C2-N3-C4	-5.78	109.01	111.90
31	DA	570	G	C2-N3-C4	-5.78	109.01	111.90
31	BA	414	C	C2-N3-C4	-5.78	117.01	119.90
31	DA	1823	G	C8-N9-C4	5.78	108.71	106.40
31	BA	579	G	N1-C6-O6	5.77	123.36	119.90
31	BA	2527	C	N3-C2-O2	5.77	125.94	121.90
31	BA	2628	C	C6-N1-C2	5.77	122.61	120.30
1	CA	904	C	C6-N1-C2	5.77	122.61	120.30
31	DA	2291	U	C6-N1-C2	5.77	124.46	121.00
31	BA	1698	A	C5-N7-C8	-5.77	101.01	103.90
31	DA	1032	A	N7-C8-N9	-5.77	110.91	113.80
31	BA	751	A	C2-N3-C4	-5.77	107.72	110.60
31	BA	814	C	C2-N1-C1'	-5.77	112.45	118.80
31	BA	1559	G	N3-C4-C5	5.77	131.48	128.60
30	D8	61	LEU	CA-CB-CG	-5.77	102.03	115.30
31	BA	2502	G	N1-C6-O6	5.76	123.36	119.90
31	BA	415	A	C8-N9-C4	5.76	108.11	105.80
31	BA	2723	C	N3-C4-C5	5.76	124.20	121.90
31	DA	2282	G	N7-C8-N9	5.76	115.98	113.10
31	DA	2441	C	C2-N3-C4	-5.76	117.02	119.90
31	DA	2848	G	C8-N9-C4	5.76	108.70	106.40
31	BA	330	A	N1-C6-N6	5.76	122.06	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	2614	A	C5-C6-N6	-5.76	119.09	123.70
31	DA	512	G	C8-N9-C1'	5.76	134.49	127.00
31	DA	527	C	N3-C4-C5	5.76	124.20	121.90
31	BA	43	A	C2-N3-C4	-5.76	107.72	110.60
31	DA	814	C	C5-C6-N1	-5.75	118.12	121.00
31	BA	1204	A	C4-C5-N7	5.75	113.58	110.70
31	BA	1263	U	C5-C6-N1	-5.75	119.82	122.70
31	BA	2360	A	N7-C8-N9	5.75	116.67	113.80
31	DA	1608	A	N1-C2-N3	5.75	132.18	129.30
1	AA	9	G	C8-N9-C4	5.75	108.70	106.40
31	DA	1189	A	C2-N3-C4	-5.75	107.72	110.60
31	DA	2716	U	C5-C6-N1	-5.75	119.83	122.70
31	BA	2070	G	N7-C8-N9	-5.75	110.22	113.10
31	DA	125	G	N1-C6-O6	5.75	123.35	119.90
31	BA	2088	G	N3-C4-C5	5.75	131.47	128.60
31	BA	2440	C	C2-N1-C1'	-5.75	112.48	118.80
33	BD	60	ARG	NE-CZ-NH1	-5.75	117.43	120.30
31	DA	528	A	N9-C4-C5	5.75	108.10	105.80
31	DA	1129	A	C8-N9-C4	5.75	108.10	105.80
31	BA	1609	A	C3'-C2'-C1'	5.75	106.10	101.50
31	BA	2614	A	N1-C6-N6	5.74	122.05	118.60
1	AA	1401	G	N1-C6-O6	5.74	123.34	119.90
31	BA	679	C	C5-C6-N1	-5.74	118.13	121.00
31	DA	2544	G	C6-C5-N7	-5.74	126.95	130.40
31	DA	837	C	C6-N1-C2	-5.74	118.00	120.30
31	DA	1708	C	C6-N1-C2	5.74	122.60	120.30
31	DA	1252	G	N7-C8-N9	-5.74	110.23	113.10
31	DA	1937	A	N1-C6-N6	5.74	122.04	118.60
31	BA	1210	A	C2-N3-C4	-5.74	107.73	110.60
31	BA	1291	C	C6-N1-C2	5.74	122.59	120.30
31	BA	1614	A	N9-C4-C5	-5.74	103.50	105.80
31	BA	2599	G	C5-C6-O6	-5.74	125.16	128.60
31	DA	577	G	C5-C6-N1	-5.74	108.63	111.50
31	DA	948	G	N3-C4-N9	-5.74	122.56	126.00
31	BA	2360	A	C5-N7-C8	-5.73	101.03	103.90
31	BA	1380	G	C8-N9-C4	5.73	108.69	106.40
31	BA	2439	A	C5-N7-C8	-5.73	101.03	103.90
31	DA	2033	A	N7-C8-N9	-5.73	110.93	113.80
31	BA	1972	A	N1-C6-N6	5.73	122.04	118.60
43	BR	54	LEU	CA-CB-CG	-5.73	102.13	115.30
31	DA	937	U	C5-C6-N1	-5.73	119.84	122.70
31	DA	1334	G	N1-C6-O6	5.73	123.34	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	730	C	N3-C4-C5	5.72	124.19	121.90
31	BA	1385	G	N3-C4-C5	5.72	131.46	128.60
31	DA	1902	C	N3-C4-N4	-5.72	113.99	118.00
31	BA	1269	A	N7-C8-N9	-5.72	110.94	113.80
31	DA	330	A	C8-N9-C4	5.72	108.09	105.80
31	DA	529	A	N7-C8-N9	5.72	116.66	113.80
31	BA	783	A	C8-N9-C4	-5.72	103.51	105.80
31	BA	800	A	N1-C6-N6	-5.72	115.17	118.60
31	BA	2713	A	C6-C5-N7	-5.72	128.30	132.30
31	BA	2878	U	C5-C4-O4	5.72	129.33	125.90
31	DA	783	A	C4-C5-N7	5.72	113.56	110.70
31	BA	760	G	C2-N3-C4	-5.72	109.04	111.90
31	BA	563	G	C8-N9-C4	5.72	108.69	106.40
31	DA	37	C	C6-N1-C2	5.72	122.59	120.30
31	DA	491	G	N3-C4-N9	-5.72	122.57	126.00
31	DA	1350	C	N3-C2-O2	5.72	125.90	121.90
31	DA	2362	G	C8-N9-C4	5.72	108.69	106.40
31	BA	2597	G	N7-C8-N9	-5.71	110.24	113.10
31	DA	375	C	C5-C6-N1	-5.71	118.14	121.00
31	BA	190	A	C5-C6-N6	-5.71	119.13	123.70
31	BA	788	A	C4-C5-C6	5.71	119.86	117.00
31	DA	189	G	C8-N9-C4	5.71	108.69	106.40
31	DA	2052	G	C8-N9-C4	5.71	108.68	106.40
31	DA	2389	G	N3-C4-N9	-5.71	122.57	126.00
31	BA	1495	A	C8-N9-C4	-5.71	103.52	105.80
31	DA	1130	U	N3-C2-O2	-5.71	118.20	122.20
1	AA	483	C	C6-N1-C2	5.71	122.58	120.30
31	BA	2346	A	C4-C5-C6	5.71	119.85	117.00
1	CA	308	C	C6-N1-C2	5.71	122.58	120.30
31	BA	2714	G	C4-C5-N7	5.71	113.08	110.80
27	D5	4	HIS	C-N-CD	5.71	140.38	128.40
31	BA	639	U	C5-C4-O4	5.70	129.32	125.90
31	BA	809	G	N3-C2-N2	-5.70	115.91	119.90
31	DA	1967	C	N3-C2-O2	5.70	125.89	121.90
31	DA	2515	C	N1-C2-O2	-5.70	115.48	118.90
1	AA	877	C	C6-N1-C2	5.70	122.58	120.30
31	BA	1210	A	N7-C8-N9	5.70	116.65	113.80
31	DA	62	C	C5-C6-N1	-5.70	118.15	121.00
31	BA	1251	C	C6-N1-C2	5.69	122.58	120.30
31	DA	1204	A	N9-C4-C5	-5.69	103.52	105.80
31	DA	1484	G	C4'-C3'-C2'	5.69	108.29	102.60
31	BA	762	U	C5-C4-O4	-5.69	122.49	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	2487	G	N1-C6-O6	5.69	123.31	119.90
31	BA	2532	G	C6-C5-N7	-5.69	126.99	130.40
31	DA	1323	U	N1-C2-O2	-5.69	118.82	122.80
1	AA	55	A	C6-C5-N7	-5.69	128.32	132.30
31	DA	691	C	C6-N1-C2	5.69	122.58	120.30
31	DA	2569	G	C5-C6-O6	-5.69	125.19	128.60
31	BA	1131	G	N7-C8-N9	-5.68	110.26	113.10
31	BA	1484	G	C4'-C3'-C2'	5.68	108.28	102.60
31	BA	2644	G	N3-C4-C5	5.68	131.44	128.60
31	DA	1021	A	N1-C2-N3	5.68	132.14	129.30
31	BA	2435	A	C8-N9-C4	5.68	108.07	105.80
31	DA	2766	G	C6-C5-N7	-5.68	126.99	130.40
31	BA	561	G	C8-N9-C4	5.68	108.67	106.40
31	DA	2061	G	C5-C6-N1	5.68	114.34	111.50
1	AA	1524	C	C6-N1-C2	5.68	122.57	120.30
31	BA	2041	U	C2-N3-C4	-5.68	123.59	127.00
31	DA	2440	C	C5-C6-N1	-5.68	118.16	121.00
31	DA	2447	G	N9-C4-C5	-5.68	103.13	105.40
31	DA	2841	C	N3-C4-C5	5.68	124.17	121.90
31	BA	203	C	C6-N1-C2	5.67	122.57	120.30
31	BA	1779	U	C5-C4-O4	5.67	129.31	125.90
1	CA	818	G	C4-C5-N7	-5.67	108.53	110.80
31	DA	2676	C	C2-N3-C4	-5.67	117.06	119.90
31	DA	656	G	N3-C4-C5	-5.67	125.76	128.60
31	DA	2713	A	C2-N3-C4	-5.67	107.76	110.60
32	DB	68	C	C2-N1-C1'	5.67	125.04	118.80
31	BA	1314	C	C6-N1-C1'	-5.67	114.00	120.80
31	BA	1769	G	N1-C6-O6	5.67	123.30	119.90
31	BA	2081	C	C6-N1-C2	5.67	122.57	120.30
31	DA	2495	G	C8-N9-C4	5.67	108.67	106.40
31	BA	177	G	C8-N9-C4	5.67	108.67	106.40
1	CA	320	C	C6-N1-C2	5.67	122.57	120.30
31	DA	771	G	C5-C6-O6	-5.67	125.20	128.60
31	DA	840	C	C5-C6-N1	-5.67	118.17	121.00
31	DA	663	G	C5-C6-N1	-5.67	108.67	111.50
31	DA	1784	A	N1-C6-N6	5.67	122.00	118.60
31	BA	1556	C	N3-C4-C5	5.66	124.17	121.90
31	BA	2374	C	C6-N1-C2	5.66	122.56	120.30
31	DA	2383	G	C4-N9-C1'	5.66	133.86	126.50
31	BA	139(A)	G	N7-C8-N9	5.66	115.93	113.10
31	BA	795	C	C5-C6-N1	-5.66	118.17	121.00
31	BA	972	G	N3-C4-C5	5.66	131.43	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	117	G	C5-C6-O6	-5.66	125.20	128.60
1	CA	906	G	N1-C6-O6	5.66	123.30	119.90
31	DA	1210	A	C6-C5-N7	-5.66	128.34	132.30
31	DA	2485	G	C5-C6-O6	-5.66	125.20	128.60
31	BA	955	C	C6-N1-C2	5.66	122.56	120.30
31	BA	1635	G	N1-C6-O6	5.66	123.30	119.90
31	BA	2544	G	N3-C2-N2	-5.66	115.94	119.90
31	DA	132	G	C2-N3-C4	-5.66	109.07	111.90
31	DA	1315	C	C5-C6-N1	-5.66	118.17	121.00
31	DA	1782	C	N1-C2-O2	-5.66	115.51	118.90
31	DA	1612	C	C6-N1-C2	5.65	122.56	120.30
31	BA	1291	C	N3-C4-C5	5.65	124.16	121.90
31	BA	1698	A	C4-C5-N7	5.65	113.53	110.70
31	BA	1617	C	C2-N1-C1'	-5.65	112.58	118.80
43	DR	4	LEU	CB-CG-CD1	5.65	120.60	111.00
31	BA	378	C	N3-C4-C5	5.65	124.16	121.90
31	BA	2067	G	N3-C4-C5	-5.65	125.78	128.60
31	DA	1142(A)	A	N3-C4-C5	5.65	130.75	126.80
31	DA	72	U	C5-C6-N1	-5.64	119.88	122.70
31	BA	2041	U	C5-C6-N1	-5.64	119.88	122.70
31	BA	2260	C	C5-C6-N1	-5.64	118.18	121.00
32	BB	101	G	N7-C8-N9	-5.64	110.28	113.10
31	BA	102	G	C3'-C2'-C1'	5.64	106.01	101.50
31	BA	663	G	N3-C4-N9	-5.64	122.61	126.00
31	BA	1332	G	C5-C6-N1	-5.64	108.68	111.50
1	AA	822	C	C6-N1-C2	5.64	122.56	120.30
31	BA	528	A	C6-N1-C2	5.64	121.98	118.60
31	BA	690	G	C8-N9-C4	5.64	108.66	106.40
31	BA	1890	A	N1-C6-N6	-5.64	115.22	118.60
31	DA	507	A	C8-N9-C4	5.64	108.06	105.80
31	BA	2015	A	C8-N9-C4	5.64	108.06	105.80
31	DA	835	A	C8-N9-C4	5.64	108.06	105.80
31	BA	236	C	C5-C6-N1	-5.64	118.18	121.00
31	BA	1657	C	C2-N3-C4	-5.64	117.08	119.90
31	DA	1030	G	N1-C6-O6	5.64	123.28	119.90
31	BA	2258	C	C5-C4-N4	-5.63	116.26	120.20
31	BA	2518	A	N1-C6-N6	5.63	121.98	118.60
31	BA	2579	C	C5-C6-N1	-5.63	118.18	121.00
31	DA	2037	G	N1-C2-N3	5.63	127.28	123.90
31	BA	2678	C	C6-N1-C2	5.63	122.55	120.30
31	DA	1022	G	N9-C4-C5	5.63	107.65	105.40
31	BA	2822	G	N3-C4-C5	5.63	131.42	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	29	U	N3-C4-O4	5.63	123.34	119.40
31	DA	1284	A	N1-C6-N6	5.63	121.98	118.60
31	DA	2558	C	N3-C4-C5	5.63	124.15	121.90
32	DB	101	G	C8-N9-C4	5.63	108.65	106.40
31	BA	2700	C	C5-C6-N1	-5.63	118.19	121.00
31	DA	1258	C	N3-C4-C5	5.62	124.15	121.90
31	DA	1708	C	C5-C6-N1	-5.62	118.19	121.00
31	DA	2723	C	C5-C6-N1	-5.62	118.19	121.00
31	BA	205	G	C5-C6-O6	-5.62	125.22	128.60
31	DA	44	G	C8-N9-C4	-5.62	104.15	106.40
31	BA	272	G	C8-N9-C4	-5.62	104.15	106.40
31	BA	2394	C	C2-N1-C1'	-5.62	112.62	118.80
31	DA	671	C	C2-N3-C4	-5.62	117.09	119.90
31	DA	1314	C	C5-C4-N4	-5.62	116.27	120.20
31	BA	729	G	N1-C2-N2	5.62	121.26	116.20
31	DA	1235	G	C8-N9-C4	5.62	108.65	106.40
32	BB	37	C	C2-N1-C1'	5.62	124.98	118.80
31	DA	472	A	C4'-C3'-C2'	5.62	108.22	102.60
31	DA	529	A	C8-N9-C4	-5.62	103.55	105.80
1	AA	260	G	N1-C6-O6	5.61	123.27	119.90
31	BA	220	G	C2-N3-C4	-5.61	109.09	111.90
31	BA	1291	C	C2-N3-C4	-5.61	117.09	119.90
31	BA	1939	U	C5-C4-O4	-5.61	122.53	125.90
31	BA	272(C)	G	C8-N9-C4	5.61	108.64	106.40
31	BA	1651	G	C5-C6-O6	-5.61	125.24	128.60
31	DA	246	C	C6-N1-C2	5.61	122.54	120.30
31	BA	94(A)	G	N3-C2-N2	-5.60	115.98	119.90
31	DA	2008	C	C2-N3-C4	-5.60	117.10	119.90
31	DA	2517	C	C6-N1-C2	5.60	122.54	120.30
31	BA	665	C	C5-C6-N1	-5.60	118.20	121.00
31	BA	140	G	C5-C6-O6	5.60	131.96	128.60
31	BA	2723	C	C5-C6-N1	-5.60	118.20	121.00
31	BA	762	U	C6-N1-C1'	-5.60	113.37	121.20
32	BB	103	G	C4-N9-C1'	-5.60	119.22	126.50
31	BA	656	G	N3-C4-C5	-5.59	125.80	128.60
31	DA	1322	A	C2-N3-C4	-5.59	107.80	110.60
31	DA	1325	G	C5-C6-O6	-5.59	125.24	128.60
31	DA	2657	A	N1-C6-N6	5.59	121.96	118.60
31	BA	693	C	C5-C6-N1	-5.59	118.20	121.00
31	BA	774	A	N1-C2-N3	5.59	132.10	129.30
31	DA	1270	C	C5-C6-N1	-5.59	118.20	121.00
31	DA	2625	G	C5-N7-C8	-5.59	101.50	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	2060	A	C2-N3-C4	-5.59	107.80	110.60
31	BA	2731	G	C5-C6-O6	-5.59	125.25	128.60
31	BA	1791	A	C2-N3-C4	-5.59	107.81	110.60
31	DA	339	U	C6-N1-C2	5.59	124.35	121.00
31	DA	2053	G	N1-C6-O6	5.59	123.25	119.90
31	DA	2692	C	C5-C6-N1	-5.59	118.20	121.00
31	BA	2023	G	N1-C6-O6	5.59	123.25	119.90
31	DA	1324	G	C5-C6-O6	-5.59	125.25	128.60
31	BA	450	G	C5-C6-O6	5.59	131.95	128.60
31	BA	1965	C	C6-N1-C2	5.59	122.53	120.30
31	DA	2762	G	N3-C4-N9	-5.59	122.65	126.00
31	DA	2495	G	C2-N3-C4	-5.58	109.11	111.90
31	BA	488	G	N1-C6-O6	-5.58	116.55	119.90
31	BA	1336	A	N1-C6-N6	-5.58	115.25	118.60
31	DA	1204	A	C8-N9-C1'	-5.58	117.65	127.70
31	BA	1559	G	N1-C6-O6	5.58	123.25	119.90
31	BA	2569	G	C6-C5-N7	-5.58	127.05	130.40
31	DA	2567	G	C8-N9-C4	5.58	108.63	106.40
31	BA	1934	C	C4'-C3'-C2'	5.58	108.18	102.60
31	DA	601	C	C6-N1-C2	5.58	122.53	120.30
31	DA	1248	G	C8-N9-C4	5.58	108.63	106.40
31	DA	859	G	C4-N9-C1'	-5.58	119.25	126.50
31	DA	1796	U	C5-C6-N1	-5.58	119.91	122.70
31	BA	706	A	C8-N9-C4	5.58	108.03	105.80
31	BA	246	C	C6-N1-C2	5.58	122.53	120.30
31	BA	1555	G	N1-C6-O6	5.58	123.25	119.90
1	CA	892	A	N1-C6-N6	5.58	121.95	118.60
31	DA	2329	G	C4-N9-C1'	-5.58	119.25	126.50
31	BA	1258	C	N3-C2-O2	5.57	125.80	121.90
31	BA	1996	C	N3-C4-C5	5.57	124.13	121.90
31	DA	991	C	C5-C6-N1	-5.57	118.21	121.00
31	DA	2042	A	N7-C8-N9	-5.57	111.01	113.80
31	DA	1270	C	C6-N1-C2	5.57	122.53	120.30
31	BA	1895	C	C6-N1-C2	5.57	122.53	120.30
31	DA	774	A	N1-C2-N3	5.57	132.09	129.30
31	DA	844	C	C6-N1-C2	5.57	122.53	120.30
31	DA	1159	U	N3-C2-O2	5.57	126.10	122.20
31	DA	2495	G	N3-C4-C5	5.57	131.38	128.60
31	BA	814	C	N3-C2-O2	5.57	125.80	121.90
32	BB	99	G	C8-N9-C4	5.57	108.63	106.40
31	BA	1403	C	C6-N1-C2	5.57	122.53	120.30
31	BA	1772	G	C5-C6-O6	-5.57	125.26	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	2426	A	C6-C5-N7	-5.57	128.40	132.30
31	DA	382	G	N1-C6-O6	5.57	123.24	119.90
31	DA	1786	A	C5-C6-N6	-5.57	119.25	123.70
31	BA	976	C	C6-N1-C2	5.57	122.53	120.30
31	BA	2762	G	N3-C4-N9	-5.57	122.66	126.00
31	DA	2439	A	C5-N7-C8	-5.57	101.12	103.90
31	BA	1779	U	C2-N3-C4	-5.56	123.66	127.00
31	BA	2532	G	N1-C6-O6	5.56	123.24	119.90
31	BA	398	G	C8-N9-C4	5.56	108.62	106.40
31	BA	832	G	N3-C4-N9	-5.56	122.67	126.00
31	BA	771	G	N9-C4-C5	-5.56	103.18	105.40
31	BA	866	A	C4-N9-C1'	5.56	136.30	126.30
31	BA	1216	G	C5-C6-N1	-5.56	108.72	111.50
31	BA	2361	A	N1-C6-N6	5.55	121.93	118.60
31	DA	110	G	C8-N9-C4	5.55	108.62	106.40
31	DA	201	C	N1-C2-O2	-5.55	115.57	118.90
31	DA	498	G	N7-C8-N9	-5.55	110.32	113.10
31	BA	945	A	C6-C5-N7	-5.55	128.41	132.30
31	BA	1310	G	C5-C6-O6	-5.55	125.27	128.60
32	BB	76	G	N1-C6-O6	5.55	123.23	119.90
31	DA	517	C	N1-C2-O2	-5.55	115.57	118.90
31	DA	748	G	C8-N9-C1'	5.55	134.22	127.00
31	BA	1315	C	N3-C2-O2	-5.55	118.02	121.90
31	DA	2540	C	N1-C2-O2	-5.55	115.57	118.90
31	BA	202	U	N1-C2-N3	-5.55	111.57	114.90
31	DA	1673	U	N3-C2-O2	-5.55	118.32	122.20
31	DA	2259	G	N3-C4-C5	5.55	131.37	128.60
32	DB	103	G	N3-C4-C5	5.55	131.37	128.60
31	BA	748	G	C4-N9-C1'	-5.55	119.29	126.50
31	BA	2360	A	C6-C5-N7	-5.55	128.42	132.30
31	DA	671	C	N1-C2-O2	-5.55	115.57	118.90
31	DA	2766	G	C4-C5-N7	5.55	113.02	110.80
31	BA	2614	A	C8-N9-C4	5.54	108.02	105.80
31	DA	190	A	N9-C4-C5	-5.54	103.58	105.80
31	DA	795	C	C6-N1-C2	5.54	122.52	120.30
31	BA	2291	U	C2-N1-C1'	-5.54	111.05	117.70
31	BA	2448	A	C8-N9-C4	5.54	108.02	105.80
31	BA	2820	A	C2-N3-C4	-5.54	107.83	110.60
1	CA	880	C	C6-N1-C2	5.54	122.52	120.30
31	DA	529	A	C5-N7-C8	-5.54	101.13	103.90
31	DA	2499	C	C6-N1-C1'	-5.54	114.15	120.80
31	BA	131	G	C4-C5-N7	5.54	113.02	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	409	C	N3-C2-O2	5.54	125.78	121.90
31	BA	1204	A	C5-N7-C8	-5.54	101.13	103.90
31	BA	2502	G	C5-C6-O6	-5.54	125.28	128.60
31	DA	2766	G	N1-C6-O6	5.54	123.22	119.90
31	BA	2426	A	N1-C6-N6	5.54	121.92	118.60
31	BA	506	G	C2-N3-C4	-5.54	109.13	111.90
31	BA	2531	A	C2-N3-C4	-5.54	107.83	110.60
31	DA	1496	A	C8-N9-C4	-5.54	103.59	105.80
31	BA	204	A	C5-C6-N1	5.53	120.47	117.70
31	BA	759	G	N9-C4-C5	-5.53	103.19	105.40
31	BA	1544	A	N9-C1'-C2'	5.53	121.19	114.00
31	BA	1971	A	C8-N9-C4	5.53	108.01	105.80
31	DA	1497	U	N1-C2-N3	-5.53	111.58	114.90
31	DA	2051	A	N1-C2-N3	5.53	132.06	129.30
31	DA	2383	G	N1-C2-N3	5.53	127.22	123.90
31	DA	803	U	C5-C4-O4	-5.53	122.58	125.90
31	DA	1189	A	C8-N9-C4	5.53	108.01	105.80
31	BA	2766	G	C8-N9-C1'	-5.53	119.81	127.00
41	BP	41	ARG	N-CA-C	-5.53	96.08	111.00
41	BP	52	GLU	N-CA-C	5.53	125.92	111.00
31	DA	639	U	C5-C6-N1	-5.53	119.94	122.70
31	BA	2841	C	N3-C4-C5	5.52	124.11	121.90
31	DA	805	G	C4-C5-N7	5.52	113.01	110.80
31	DA	1998	G	C2-N3-C4	-5.52	109.14	111.90
31	BA	567	A	N1-C6-N6	5.52	121.91	118.60
31	BA	2033	A	N7-C8-N9	-5.52	111.04	113.80
31	DA	1141	U	C5-C6-N1	-5.52	119.94	122.70
31	BA	2427	C	C5-C6-N1	-5.52	118.24	121.00
31	DA	1891	G	N7-C8-N9	-5.52	110.34	113.10
31	DA	2501	C	C6-N1-C1'	5.52	127.42	120.80
31	BA	71	A	C2-N3-C4	-5.52	107.84	110.60
31	BA	2713	A	N7-C8-N9	5.52	116.56	113.80
31	DA	190	A	C8-N9-C4	5.52	108.01	105.80
31	DA	2238	G	C8-N9-C4	-5.52	104.19	106.40
31	DA	2517	C	N3-C4-C5	5.52	124.11	121.90
31	BA	574	C	C2-N1-C1'	-5.52	112.73	118.80
31	BA	2404	C	C6-N1-C2	5.52	122.51	120.30
31	DA	937	U	C6-N1-C2	5.52	124.31	121.00
31	BA	123	G	N7-C8-N9	-5.51	110.34	113.10
31	BA	2527	C	N3-C4-N4	5.51	121.86	118.00
31	BA	2662	A	N9-C1'-C2'	5.51	121.17	114.00
31	BA	195	A	N1-C6-N6	5.51	121.91	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	207	A	N3-C4-C5	5.51	130.66	126.80
31	BA	1793	C	N1-C2-O2	-5.51	115.59	118.90
31	BA	2005	A	C4-C5-N7	5.51	113.46	110.70
31	BA	2071	A	C8-N9-C4	5.51	108.00	105.80
31	BA	2608	G	C4-C5-N7	-5.51	108.59	110.80
31	BA	2617	C	N3-C4-C5	5.51	124.10	121.90
31	DA	1597	A	C5-N7-C8	5.51	106.66	103.90
31	BA	500	G	C4-C5-N7	-5.51	108.60	110.80
31	DA	1019	U	N1-C2-O2	-5.51	118.94	122.80
31	DA	1275	A	N9-C4-C5	-5.51	103.60	105.80
31	BA	1256	G	C4-N9-C1'	5.51	133.66	126.50
31	DA	94(A)	G	N3-C2-N2	-5.51	116.05	119.90
31	DA	771	G	N9-C4-C5	-5.51	103.20	105.40
31	DA	805	G	C6-C5-N7	-5.51	127.10	130.40
31	BA	2471	C	C6-N1-C2	-5.50	118.10	120.30
1	CA	108	G	C4-N9-C1'	5.50	133.65	126.50
31	DA	459	U	N3-C4-O4	-5.50	115.55	119.40
31	DA	1324	G	N1-C6-O6	5.50	123.20	119.90
31	DA	1308	A	N1-C2-N3	5.50	132.05	129.30
31	BA	613	G	N3-C4-N9	-5.50	122.70	126.00
31	DA	1631	C	C6-N1-C2	5.50	122.50	120.30
31	DA	2253	G	C6-C5-N7	-5.50	127.10	130.40
31	BA	1241	A	C6-C5-N7	-5.50	128.45	132.30
31	BA	1814	G	C5-C6-N1	-5.50	108.75	111.50
31	BA	947	G	N1-C6-O6	5.49	123.20	119.90
31	DA	2043	C	C2-N3-C4	-5.49	117.15	119.90
36	BG	34	LEU	CA-CB-CG	5.49	127.93	115.30
31	BA	783	A	C5-C6-N1	-5.49	114.95	117.70
31	DA	1293	C	N3-C4-C5	5.49	124.10	121.90
31	DA	2061	G	C8-N9-C4	5.49	108.60	106.40
31	DA	2577	A	N1-C6-N6	5.49	121.89	118.60
1	AA	320	C	N3-C2-O2	5.49	125.74	121.90
31	BA	382	G	C5-C6-N1	-5.49	108.75	111.50
31	BA	968	G	N3-C4-C5	5.49	131.34	128.60
31	BA	2226	C	C5-C6-N1	-5.49	118.25	121.00
31	BA	139(A)	G	C5-N7-C8	-5.49	101.56	104.30
31	DA	832	G	N3-C4-C5	5.49	131.34	128.60
31	BA	2499	C	C2-N1-C1'	5.48	124.83	118.80
31	BA	2253	G	N1-C6-O6	5.48	123.19	119.90
31	BA	2598	A	C8-N9-C4	5.48	107.99	105.80
31	DA	798	G	C2-N3-C4	-5.48	109.16	111.90
31	BA	538	G	C5-C6-N1	-5.48	108.76	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	DA	148	C	N3-C4-C5	5.48	124.09	121.90
31	DA	530	G	N1-C6-O6	-5.48	116.61	119.90
31	DA	1564	C	C5-C6-N1	-5.48	118.26	121.00
31	DA	2007	C	N1-C2-O2	-5.48	115.61	118.90
31	BA	1962	C	C6-N1-C2	-5.48	118.11	120.30
31	BA	2394	C	N3-C4-N4	-5.48	114.16	118.00
31	DA	1320	C	C4-C5-C6	5.48	120.14	117.40
31	BA	94(A)	G	C5-C6-O6	-5.48	125.31	128.60
31	BA	669	G	C8-N9-C4	5.48	108.59	106.40
27	B5	4	HIS	C-N-CD	5.48	139.90	128.40
31	BA	558	G	N7-C8-N9	-5.47	110.36	113.10
31	DA	246	C	C5-C6-N1	-5.47	118.26	121.00
31	DA	389	G	N9-C4-C5	-5.47	103.21	105.40
31	DA	1529	G	C4-N9-C1'	5.47	133.62	126.50
31	BA	1561	G	N1-C6-O6	5.47	123.18	119.90
31	BA	2676	C	C6-N1-C2	5.47	122.49	120.30
31	DA	189	G	N1-C6-O6	5.47	123.18	119.90
31	DA	565	C	C6-N1-C2	5.47	122.49	120.30
31	DA	2737	G	C5-C6-O6	-5.47	125.32	128.60
31	DA	2392	A	N1-C6-N6	5.47	121.88	118.60
31	DA	2816	C	N1-C2-O2	-5.47	115.62	118.90
31	BA	730	C	C2-N3-C4	-5.47	117.17	119.90
31	DA	2676	C	C6-N1-C2	5.47	122.49	120.30
31	BA	1279	G	N1-C6-O6	-5.47	116.62	119.90
31	DA	2392	A	C5-C6-N1	-5.47	114.97	117.70
32	DB	76	G	N3-C4-C5	5.47	131.33	128.60
1	AA	108	G	C4-N9-C1'	5.46	133.60	126.50
31	BA	244	A	C5-C6-N6	-5.46	119.33	123.70
31	BA	1958	C	C6-N1-C2	5.46	122.49	120.30
1	CA	241	C	N1-C2-O2	-5.46	115.62	118.90
31	BA	478	A	C6-N1-C2	-5.46	115.32	118.60
31	BA	1334	G	N1-C6-O6	5.46	123.18	119.90
31	BA	1614	A	C6-C5-N7	-5.46	128.48	132.30
31	BA	2691	C	N3-C2-O2	5.46	125.72	121.90
31	DA	2693	A	C8-N9-C4	5.46	107.98	105.80
31	BA	296	C	N3-C2-O2	5.46	125.72	121.90
31	DA	735	A	C8-N9-C4	5.46	107.98	105.80
31	DA	936	C	C6-N1-C2	5.46	122.48	120.30
31	DA	2363	C	N1-C2-O2	-5.46	115.62	118.90
31	BA	1232	G	C8-N9-C4	5.46	108.58	106.40
31	BA	1303	G	C8-N9-C4	5.46	108.58	106.40
32	DB	37	C	C5-C6-N1	5.46	123.73	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	DA	1161	C	N1-C2-O2	-5.46	115.63	118.90
31	BA	1263	U	C6-N1-C2	5.45	124.27	121.00
31	DA	676	A	C5-C6-N6	-5.45	119.34	123.70
31	DA	2488	A	C4-C5-C6	-5.45	114.27	117.00
31	BA	784	A	C8-N9-C1'	5.45	137.51	127.70
31	BA	1443	G	N7-C8-N9	5.45	115.83	113.10
31	BA	2010	G	C5-N7-C8	-5.45	101.58	104.30
31	BA	2577	A	N1-C6-N6	5.45	121.87	118.60
31	DA	272	G	N3-C4-N9	5.45	129.27	126.00
31	DA	378	C	C6-N1-C2	5.45	122.48	120.30
31	BA	1210	A	C6-C5-N7	-5.45	128.49	132.30
31	BA	2050	C	C2-N3-C4	-5.45	117.18	119.90
31	BA	2073	C	C5-C6-N1	-5.45	118.28	121.00
31	DA	2662	A	N9-C1'-C2'	5.45	121.08	114.00
31	BA	1510	G	N9-C4-C5	-5.45	103.22	105.40
31	BA	762	U	N1-C2-O2	5.45	126.61	122.80
31	BA	1237	A	N1-C6-N6	5.45	121.87	118.60
31	BA	1270	C	C2-N1-C1'	-5.45	112.81	118.80
31	DA	2466	C	C5-C4-N4	-5.45	116.39	120.20
31	BA	100	G	N3-C4-N9	-5.44	122.73	126.00
31	DA	2699	C	C5-C6-N1	-5.44	118.28	121.00
1	AA	117	G	C4-C5-N7	5.44	112.98	110.80
31	DA	2471	C	C2-N1-C1'	5.44	124.79	118.80
31	BA	774	A	N3-C4-N9	-5.44	123.05	127.40
31	BA	787	U	C5-C6-N1	-5.44	119.98	122.70
31	DA	2388	A	C8-N9-C4	5.44	107.98	105.80
31	BA	584	C	C5-C6-N1	-5.44	118.28	121.00
31	BA	2447	G	C4-C5-C6	5.44	122.06	118.80
31	BA	2639	A	C2-N3-C4	-5.44	107.88	110.60
31	DA	562	U	N3-C2-O2	5.44	126.01	122.20
31	DA	1627	G	C5-C6-N1	-5.44	108.78	111.50
31	DA	2259	G	N1-C6-O6	5.44	123.16	119.90
31	DA	2608	G	C4-C5-N7	-5.44	108.62	110.80
31	BA	1561	G	C5-C6-O6	-5.44	125.34	128.60
31	BA	2329	G	C4-N9-C1'	-5.44	119.43	126.50
31	BA	333	G	C4-N9-C1'	5.43	133.56	126.50
31	BA	614	U	C5-C4-O4	5.43	129.16	125.90
31	DA	1314	C	C6-N1-C1'	-5.43	114.28	120.80
31	BA	1647	G	N3-C2-N2	-5.43	116.10	119.90
31	BA	2201	C	C5-C6-N1	-5.43	118.28	121.00
31	BA	2825	C	N3-C2-O2	5.43	125.70	121.90
1	CA	7	G	C8-N9-C1'	5.43	134.06	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	409	C	C2-N1-C1'	-5.43	112.83	118.80
31	BA	244	A	C8-N9-C4	5.43	107.97	105.80
31	DA	2386	C	C5-C6-N1	-5.43	118.29	121.00
31	DA	2676	C	C5-C6-N1	-5.43	118.29	121.00
31	BA	83	G	N3-C2-N2	-5.43	116.10	119.90
31	BA	416	C	C2-N1-C1'	5.43	124.77	118.80
31	BA	1676	A	N7-C8-N9	-5.43	111.09	113.80
31	BA	2266	A	N1-C6-N6	5.43	121.86	118.60
31	BA	2763	G	C8-N9-C4	5.43	108.57	106.40
1	CA	893	C	N3-C4-C5	5.43	124.07	121.90
31	DA	574	C	C6-N1-C2	5.43	122.47	120.30
31	BA	783	A	C4-C5-N7	5.42	113.41	110.70
31	BA	2485	G	N9-C4-C5	-5.42	103.23	105.40
1	CA	1469	G	C5-C6-O6	-5.42	125.35	128.60
31	DA	665	C	C5-C6-N1	-5.42	118.29	121.00
31	BA	221	A	C3'-C2'-C1'	5.42	105.84	101.50
31	DA	798	G	C8-N9-C4	5.42	108.57	106.40
31	DA	1204	A	C5-C6-N1	-5.42	114.99	117.70
31	BA	542	C	C2-N1-C1'	5.42	124.76	118.80
31	BA	1021	A	C4-C5-C6	5.42	119.71	117.00
31	BA	1573	G	C2-N3-C4	-5.42	109.19	111.90
31	DA	1293	C	C2-N3-C4	-5.42	117.19	119.90
31	BA	1543	C	C5-C4-N4	-5.42	116.41	120.20
31	DA	2502	G	C5-N7-C8	-5.42	101.59	104.30
38	DI	88	ILE	CG1-CB-CG2	-5.42	99.48	111.40
1	AA	1485	U	C5-C6-N1	-5.42	119.99	122.70
31	BA	151	C	C2-N3-C4	-5.42	117.19	119.90
31	BA	1786	A	C4-C5-N7	5.42	113.41	110.70
31	BA	2439	A	C4-C5-N7	5.42	113.41	110.70
31	BA	220	G	C5-C6-N1	-5.41	108.79	111.50
31	BA	1653	G	C4-C5-C6	5.41	122.05	118.80
31	DA	1767	C	C4-C5-C6	5.41	120.11	117.40
31	DA	1779	U	N1-C2-N3	5.41	118.15	114.90
31	DA	211	A	N7-C8-N9	-5.41	111.09	113.80
31	BA	774	A	C3'-C2'-C1'	5.41	105.83	101.50
31	BA	1204	A	O4'-C1'-N9	5.41	112.53	108.20
31	BA	1256	G	C6-C5-N7	-5.41	127.15	130.40
31	DA	1049	C	C2-N1-C1'	5.41	124.75	118.80
31	DA	1316	U	C5-C6-N1	-5.41	120.00	122.70
31	DA	2081	C	N1-C2-O2	-5.41	115.65	118.90
31	BA	197	A	N1-C6-N6	5.41	121.84	118.60
31	DA	2621	A	C8-N9-C4	5.41	107.96	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	1201	C	C5-C4-N4	-5.41	116.42	120.20
31	BA	1811	G	N3-C4-N9	-5.41	122.76	126.00
32	BB	96	U	C2-N1-C1'	-5.41	111.21	117.70
1	CA	909	A	C8-N9-C4	5.41	107.96	105.80
31	BA	1678	G	N7-C8-N9	5.40	115.80	113.10
31	BA	265	A	C5-N7-C8	-5.40	101.20	103.90
31	BA	1005	C	C6-N1-C2	5.40	122.46	120.30
31	DA	100	G	C6-C5-N7	5.40	133.64	130.40
31	BA	1194	A	C8-N9-C4	5.40	107.96	105.80
31	BA	1216	G	C8-N9-C1'	-5.40	119.98	127.00
31	DA	1495	A	C4-C5-N7	5.40	113.40	110.70
31	BA	955	C	C5-C6-N1	-5.40	118.30	121.00
31	BA	972	G	C2-N3-C4	-5.40	109.20	111.90
31	BA	1840	G	C6-C5-N7	-5.40	127.16	130.40
31	DA	621	A	C5-N7-C8	-5.40	101.20	103.90
31	DA	1408	C	N1-C2-O2	-5.40	115.66	118.90
31	BA	1303	G	C5-N7-C8	5.40	107.00	104.30
31	BA	2430	A	C5-N7-C8	-5.39	101.20	103.90
31	DA	618	C	C5-C6-N1	-5.39	118.30	121.00
31	DA	1853	A	C8-N9-C4	5.39	107.96	105.80
31	BA	2283	C	N1-C2-O2	-5.39	115.66	118.90
31	DA	528	A	C5-C6-N1	-5.39	115.00	117.70
31	DA	2540	C	C5-C6-N1	-5.39	118.31	121.00
31	BA	272	G	N3-C4-N9	5.39	129.23	126.00
31	BA	850	C	C5-C6-N1	-5.39	118.31	121.00
31	BA	1328	G	C8-N9-C1'	-5.39	120.00	127.00
31	BA	1990	C	C4-C5-C6	5.39	120.09	117.40
31	DA	1939	U	C5-C4-O4	-5.39	122.67	125.90
31	BA	2589	A	N7-C8-N9	-5.39	111.11	113.80
31	BA	2777	G	C5-C6-O6	-5.39	125.37	128.60
31	DA	1022	G	N3-C4-N9	-5.39	122.77	126.00
31	BA	663	G	N1-C6-O6	5.39	123.13	119.90
31	DA	1830	C	N3-C2-O2	5.39	125.67	121.90
31	DA	2292	C	N3-C4-C5	5.39	124.06	121.90
31	DA	2363	C	C5-C6-N1	-5.39	118.31	121.00
31	BA	568	U	N3-C4-O4	5.38	123.17	119.40
31	BA	1216	G	C6-C5-N7	-5.38	127.17	130.40
31	BA	2282	G	C8-N9-C1'	-5.38	120.00	127.00
31	DA	98	G	N7-C8-N9	-5.38	110.41	113.10
31	DA	530	G	N1-C2-N2	-5.38	111.35	116.20
31	DA	1270	C	C2-N1-C1'	-5.38	112.88	118.80
31	BA	1751	C	C6-N1-C2	5.38	122.45	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	892	A	N9-C4-C5	-5.38	103.65	105.80
31	BA	1502	C	C2-N1-C1'	5.38	124.72	118.80
31	BA	1614	A	C5-C6-N6	-5.38	119.39	123.70
31	BA	2699	C	C6-N1-C2	5.38	122.45	120.30
32	BB	60	C	C6-N1-C2	-5.38	118.15	120.30
31	BA	1049	C	C2-N1-C1'	5.38	124.72	118.80
31	BA	681	G	C2-N3-C4	-5.38	109.21	111.90
31	BA	1592	C	C6-N1-C2	5.38	122.45	120.30
31	DA	1291	C	C6-N1-C2	5.38	122.45	120.30
31	DA	2066	C	C5-C6-N1	-5.38	118.31	121.00
31	BA	1350	C	N1-C2-O2	-5.38	115.67	118.90
31	BA	386	G	N1-C2-N3	-5.37	120.68	123.90
31	BA	759	G	N3-C4-C5	5.37	131.29	128.60
31	BA	2442	C	N3-C4-N4	5.37	121.76	118.00
1	CA	921	U	N1-C2-N3	5.37	118.12	114.90
31	DA	133	C	C2-N3-C4	-5.37	117.22	119.90
31	BA	857	C	C6-N1-C2	-5.37	118.15	120.30
31	BA	2503	A	C5-C6-N1	5.37	120.38	117.70
31	BA	2858	C	C6-N1-C2	5.37	122.45	120.30
31	DA	2613	U	N3-C2-O2	5.37	125.96	122.20
31	BA	488	G	C4-C5-N7	-5.37	108.65	110.80
31	BA	527	C	N3-C4-C5	5.37	124.05	121.90
31	BA	698	C	N1-C2-O2	-5.37	115.68	118.90
31	DA	2540	C	C6-N1-C2	5.37	122.45	120.30
31	BA	220	G	N1-C6-O6	5.36	123.12	119.90
31	BA	1154	G	C4-C5-N7	5.36	112.95	110.80
31	DA	775	G	C2-N3-C4	-5.36	109.22	111.90
31	BA	874	G	C4-N9-C1'	-5.36	119.53	126.50
31	BA	2353	G	C8-N9-C4	5.36	108.54	106.40
1	CA	245	C	C6-N1-C2	5.36	122.44	120.30
32	DB	103	G	C8-N9-C4	5.36	108.54	106.40
1	CA	322	C	C6-N1-C2	5.36	122.44	120.30
31	BA	2346	A	C6-C5-N7	-5.35	128.55	132.30
31	BA	470	A	N1-C2-N3	5.35	131.98	129.30
31	DA	2061	G	C4-C5-N7	5.35	112.94	110.80
31	DA	2518	A	N1-C6-N6	5.35	121.81	118.60
31	DA	2742	C	C2-N3-C4	-5.35	117.22	119.90
31	BA	116	C	N1-C2-O2	-5.35	115.69	118.90
1	CA	889	A	C8-N9-C4	5.35	107.94	105.80
31	BA	789	A	C8-N9-C4	5.35	107.94	105.80
31	BA	2014	A	C8-N9-C4	5.35	107.94	105.80
31	BA	2327	A	C8-N9-C4	5.35	107.94	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	1049	C	C5-C6-N1	5.35	123.67	121.00
31	BA	2548	G	N1-C6-O6	5.35	123.11	119.90
31	DA	298	G	C5-C6-O6	-5.35	125.39	128.60
31	DA	574	C	N3-C2-O2	5.35	125.64	121.90
31	DA	1204	A	N7-C8-N9	5.35	116.47	113.80
31	DA	2711	A	C8-N9-C4	5.35	107.94	105.80
32	DB	37	C	C2-N1-C1'	5.35	124.68	118.80
31	BA	606	U	C5-C6-N1	-5.34	120.03	122.70
31	BA	774	A	N3-C4-C5	5.34	130.54	126.80
31	BA	1154	G	N1-C6-O6	5.34	123.11	119.90
31	BA	2518	A	C5-C6-N6	-5.34	119.42	123.70
31	DA	2014	A	N1-C6-N6	5.34	121.81	118.60
31	DA	2430	A	C5-C6-N1	-5.34	115.03	117.70
31	DA	2605	U	C5-C4-O4	5.34	129.10	125.90
31	BA	114	U	C2-N1-C1'	5.34	124.11	117.70
32	BB	104	U	N3-C4-C5	5.34	117.80	114.60
1	CA	921	U	C6-N1-C2	-5.34	117.80	121.00
31	DA	2258	C	C6-N1-C2	5.34	122.44	120.30
31	BA	246	C	N3-C2-O2	5.34	125.64	121.90
31	BA	2766	G	C6-C5-N7	-5.34	127.20	130.40
31	DA	647	G	N7-C8-N9	5.34	115.77	113.10
31	BA	195	A	C2-N3-C4	-5.33	107.93	110.60
31	BA	266	G	N1-C6-O6	5.33	123.10	119.90
31	DA	1676	A	C2-N3-C4	-5.33	107.93	110.60
31	BA	1253	A	N7-C8-N9	-5.33	111.13	113.80
31	BA	2376	A	C6-C5-N7	-5.33	128.57	132.30
32	DB	48	A	C8-N9-C4	5.33	107.93	105.80
31	BA	1213	A	N7-C8-N9	5.33	116.47	113.80
31	BA	1822	G	C8-N9-C4	5.33	108.53	106.40
31	DA	729	G	C5-C6-O6	-5.33	125.40	128.60
31	DA	866	A	C4-N9-C1'	5.33	135.90	126.30
31	DA	975(A)	G	C4-C5-N7	5.33	112.93	110.80
31	DA	783	A	N1-C6-N6	5.33	121.80	118.60
31	DA	1201	C	C2-N3-C4	-5.33	117.23	119.90
31	DA	1632	A	N1-C6-N6	5.33	121.80	118.60
31	DA	1764	G	N3-C4-N9	-5.33	122.80	126.00
31	BA	139(A)	G	C8-N9-C4	-5.33	104.27	106.40
31	BA	686	G	N1-C6-O6	5.33	123.10	119.90
31	BA	1428	C	N3-C4-N4	-5.33	114.27	118.00
31	DA	427	U	C6-N1-C2	5.33	124.20	121.00
31	DA	848	G	C4-N9-C1'	5.33	133.43	126.50
31	DA	1131	G	N7-C8-N9	-5.33	110.44	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	1258	C	C5-C6-N1	-5.33	118.34	121.00
31	DA	1228	G	C8-N9-C4	5.33	108.53	106.40
31	BA	1158	C	C6-N1-C2	5.32	122.43	120.30
31	BA	1266	G	N9-C4-C5	-5.32	103.27	105.40
31	DA	1305	C	N1-C2-O2	-5.32	115.71	118.90
31	DA	650	C	N1-C2-O2	5.32	122.09	118.90
31	DA	2466	C	N3-C2-O2	5.32	125.62	121.90
31	BA	1021	A	C4-C5-N7	5.32	113.36	110.70
31	BA	1609	A	N1-C2-N3	5.32	131.96	129.30
31	DA	2775	A	C8-N9-C4	5.32	107.93	105.80
31	BA	2319	G	N3-C4-C5	-5.32	125.94	128.60
31	BA	848	G	N9-C4-C5	-5.32	103.27	105.40
31	BA	1616	A	C6-C5-N7	-5.32	128.58	132.30
31	BA	2017	U	C4-C5-C6	5.32	122.89	119.70
31	BA	2469	A	C8-N9-C4	-5.32	103.67	105.80
32	DB	85	G	C5-C6-O6	-5.32	125.41	128.60
31	BA	1229	G	C2-N3-C4	-5.32	109.24	111.90
31	DA	2036	C	N3-C4-N4	5.31	121.72	118.00
31	DA	2078	C	C6-N1-C2	5.31	122.42	120.30
31	DA	2702	U	C5-C6-N1	-5.31	120.04	122.70
31	BA	2063	C	C5-C4-N4	5.31	123.92	120.20
31	DA	1252	G	C4-N9-C1'	-5.31	119.60	126.50
1	AA	818	G	C4-C5-N7	-5.31	108.68	110.80
31	BA	2482	G	C8-N9-C1'	-5.31	120.10	127.00
31	BA	796	C	C5-C6-N1	-5.31	118.35	121.00
31	DA	1779	U	C6-N1-C1'	5.31	128.63	121.20
31	BA	1786	A	N7-C8-N9	5.30	116.45	113.80
31	DA	148	C	C5-C6-N1	-5.30	118.35	121.00
31	DA	1241	A	C6-C5-N7	-5.30	128.59	132.30
31	DA	2006	C	C6-N1-C2	5.30	122.42	120.30
31	DA	2498	C	C2-N1-C1'	-5.30	112.97	118.80
31	BA	2560	C	N1-C2-O2	-5.30	115.72	118.90
31	DA	2253	G	C8-N9-C1'	-5.30	120.11	127.00
1	AA	810	C	N3-C4-C5	5.30	124.02	121.90
31	BA	151	C	C5-C6-N1	-5.30	118.35	121.00
31	DA	2499	C	N1-C2-O2	5.30	122.08	118.90
32	DB	102	A	C8-N9-C4	5.30	107.92	105.80
1	AA	7	G	C4-N9-C1'	-5.30	119.61	126.50
31	DA	1498	C	C6-N1-C2	5.30	122.42	120.30
31	DA	330	A	C5-N7-C8	-5.30	101.25	103.90
31	BA	409	C	C5-C6-N1	-5.30	118.35	121.00
31	BA	1221	C	C6-N1-C2	5.30	122.42	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	2681	C	C5-C4-N4	5.30	123.91	120.20
31	DA	975(A)	G	C8-N9-C4	5.30	108.52	106.40
31	DA	1790	C	C2-N1-C1'	-5.30	112.97	118.80
31	BA	253	C	N1-C2-O2	-5.29	115.72	118.90
31	BA	2678	C	C5-C6-N1	-5.29	118.35	121.00
1	CA	741	G	C8-N9-C4	5.29	108.52	106.40
31	DA	190	A	N1-C6-N6	5.29	121.77	118.60
31	DA	728	G	N1-C6-O6	5.29	123.07	119.90
31	BA	129	C	C6-N1-C1'	-5.29	114.45	120.80
31	BA	870	A	N7-C8-N9	-5.29	111.16	113.80
31	BA	1897	G	N1-C6-O6	5.29	123.07	119.90
31	BA	2615	U	N3-C4-C5	5.29	117.77	114.60
31	DA	1295	C	C6-N1-C2	5.29	122.42	120.30
31	DA	1552	G	C8-N9-C4	5.29	108.52	106.40
31	DA	1565	C	C5-C6-N1	-5.29	118.36	121.00
31	BA	523	C	N1-C2-O2	-5.29	115.73	118.90
31	DA	1496	A	C6-C5-N7	-5.29	128.60	132.30
31	BA	2628	C	C5-C6-N1	-5.28	118.36	121.00
31	DA	2089	U	C5-C6-N1	-5.28	120.06	122.70
31	DA	2531	A	N7-C8-N9	-5.28	111.16	113.80
31	BA	1443	G	C5-C6-O6	-5.28	125.43	128.60
31	BA	1763	G	C8-N9-C4	5.28	108.51	106.40
31	BA	1786	A	N1-C6-N6	5.28	121.77	118.60
31	BA	803	U	C4-C5-C6	5.28	122.87	119.70
31	BA	2095	C	C6-N1-C2	5.28	122.41	120.30
31	BA	2549	G	N3-C2-N2	-5.28	116.21	119.90
31	DA	600	G	N3-C4-C5	5.28	131.24	128.60
31	DA	1221	C	C6-N1-C2	5.28	122.41	120.30
31	DA	2282	G	C8-N9-C4	-5.28	104.29	106.40
31	DA	2075	U	N3-C4-O4	5.27	123.09	119.40
31	DA	2480	C	C6-N1-C2	5.27	122.41	120.30
31	BA	131	G	N3-C4-C5	5.27	131.24	128.60
31	BA	935	C	C6-N1-C2	5.27	122.41	120.30
51	BZ	110	GLY	N-CA-C	-5.27	99.92	113.10
31	DA	2253	G	C5-C6-O6	-5.27	125.44	128.60
31	DA	2436	G	N3-C2-N2	-5.27	116.21	119.90
31	DA	133	C	N3-C4-C5	5.27	124.01	121.90
31	DA	330	A	N1-C6-N6	5.27	121.76	118.60
31	DA	2699	C	C2-N3-C4	-5.27	117.27	119.90
31	DA	247	G	C8-N9-C4	5.27	108.51	106.40
31	DA	1608	A	N3-C4-C5	5.27	130.49	126.80
31	BA	671	C	N3-C4-C5	-5.27	119.79	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	1774	C	C2-N3-C4	-5.27	117.27	119.90
31	BA	47	C	C2-N3-C4	-5.26	117.27	119.90
31	DA	744	G	N1-C6-O6	5.26	123.06	119.90
31	DA	1519	G	N7-C8-N9	5.26	115.73	113.10
31	DA	1421	G	C6-C5-N7	-5.26	127.24	130.40
31	DA	2818	G	N1-C6-O6	5.26	123.06	119.90
31	DA	975(A)	G	N9-C4-C5	-5.26	103.30	105.40
31	DA	2363	C	C6-N1-C2	5.26	122.40	120.30
31	BA	272	G	N1-C6-O6	-5.26	116.74	119.90
31	BA	792	G	N9-C4-C5	-5.26	103.30	105.40
31	BA	1972	A	C5-C6-N6	-5.26	119.49	123.70
31	DA	1210	A	C2-N3-C4	-5.26	107.97	110.60
31	DA	1332	G	C5-C6-N1	-5.26	108.87	111.50
31	DA	2455	G	C5-C6-O6	-5.26	125.44	128.60
31	DA	1495	A	N7-C8-N9	5.26	116.43	113.80
31	BA	788	A	N7-C8-N9	-5.25	111.17	113.80
31	DA	114	U	C2-N1-C1'	5.25	124.01	117.70
31	DA	468	G	C8-N9-C4	5.25	108.50	106.40
31	BA	15	G	N3-C4-C5	5.25	131.23	128.60
31	BA	226	G	N1-C6-O6	5.25	123.05	119.90
31	BA	500	G	N9-C4-C5	5.25	107.50	105.40
31	BA	2561	A	C2-N3-C4	-5.25	107.97	110.60
31	DA	199	A	C8-N9-C4	5.25	107.90	105.80
31	DA	1992	G	C8-N9-C4	-5.25	104.30	106.40
31	BA	121	G	N9-C4-C5	-5.25	103.30	105.40
31	BA	1557	C	N3-C4-C5	5.25	124.00	121.90
31	BA	2083	G	N9-C4-C5	-5.25	103.30	105.40
31	DA	416	C	C2-N1-C1'	5.25	124.58	118.80
31	DA	2504	U	C6-N1-C2	5.25	124.15	121.00
31	DA	459	U	C5-C4-O4	5.25	129.05	125.90
31	DA	491	G	C4-N9-C1'	-5.25	119.67	126.50
31	BA	817	C	N3-C2-O2	5.25	125.57	121.90
31	BA	1543	C	C6-N1-C2	5.25	122.40	120.30
1	CA	1466	C	C2-N1-C1'	-5.25	113.03	118.80
31	DA	1021	A	C4-C5-N7	5.25	113.32	110.70
31	DA	2830	G	C5-C6-O6	-5.25	125.45	128.60
31	BA	1183	G	C4-C5-N7	5.25	112.90	110.80
31	BA	2878	U	C6-N1-C2	-5.25	117.85	121.00
31	DA	2055	C	C6-N1-C2	5.25	122.40	120.30
31	BA	468	G	C8-N9-C4	5.25	108.50	106.40
31	BA	1928	A	C8-N9-C4	5.25	107.90	105.80
31	DA	757	U	C5-C6-N1	-5.25	120.08	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	795	C	C6-N1-C2	5.24	122.40	120.30
31	BA	1207	C	C4-C5-C6	5.24	120.02	117.40
31	DA	975	C	C5-C6-N1	-5.24	118.38	121.00
31	DA	2455	G	N1-C6-O6	5.24	123.05	119.90
32	DB	27	C	C6-N1-C2	-5.24	118.20	120.30
31	BA	448	U	N3-C4-O4	5.24	123.07	119.40
31	DA	671	C	C4-C5-C6	5.24	120.02	117.40
31	BA	192	C	C6-N1-C2	5.24	122.40	120.30
31	BA	613	G	N3-C2-N2	-5.24	116.23	119.90
31	BA	1968	G	C8-N9-C4	5.24	108.50	106.40
31	BA	2018	G	N1-C6-O6	5.24	123.04	119.90
31	DA	848	G	C8-N9-C1'	-5.24	120.19	127.00
31	DA	1379	A	O4'-C1'-C2'	5.24	112.32	107.60
31	DA	2724	C	N1-C2-O2	-5.24	115.76	118.90
31	BA	1303	G	N7-C8-N9	-5.24	110.48	113.10
31	BA	2395	C	C5-C4-N4	-5.24	116.53	120.20
31	BA	1300	U	C2-N1-C1'	5.24	123.98	117.70
31	BA	1987	G	N3-C2-N2	-5.24	116.23	119.90
31	BA	2766	G	N9-C4-C5	-5.24	103.31	105.40
1	AA	903	G	C5-C6-O6	-5.24	125.46	128.60
32	BB	81	G	C4-C5-N7	5.24	112.89	110.80
31	DA	796	C	C6-N1-C2	5.24	122.39	120.30
32	DB	37	C	C6-N1-C2	-5.24	118.21	120.30
31	BA	1790	C	C5-C6-N1	-5.23	118.38	121.00
31	BA	2593	U	N3-C4-C5	-5.23	111.46	114.60
31	DA	265	A	C5-N7-C8	-5.23	101.28	103.90
31	DA	1121	C	C5-C6-N1	-5.23	118.38	121.00
31	DA	1249	U	N1-C2-O2	-5.23	119.14	122.80
24	B2	55	ARG	N-CA-C	-5.23	96.87	111.00
31	BA	474	G	P-O3'-C3'	5.23	125.98	119.70
31	BA	71	A	C5-N7-C8	-5.23	101.28	103.90
31	DA	945	A	C6-C5-N7	-5.23	128.64	132.30
31	DA	2438	U	C6-N1-C2	5.23	124.14	121.00
31	BA	82	G	C4-C5-C6	5.23	121.94	118.80
31	BA	1380	G	N3-C4-C5	5.23	131.21	128.60
31	DA	1613	G	C8-N9-C1'	-5.23	120.20	127.00
31	BA	936	C	C6-N1-C2	5.23	122.39	120.30
31	DA	1322	A	C5-N7-C8	5.23	106.51	103.90
31	DA	2252	G	N9-C4-C5	-5.23	103.31	105.40
31	DA	734	A	C8-N9-C4	5.23	107.89	105.80
31	DA	2013	A	N7-C8-N9	-5.23	111.19	113.80
31	BA	110	G	C8-N9-C4	5.22	108.49	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	1328	G	N3-C4-N9	5.22	129.13	126.00
31	DA	2059	A	C8-N9-C4	5.22	107.89	105.80
31	DA	2607	G	C5-C6-N1	-5.22	108.89	111.50
31	DA	2244	U	C5-C6-N1	-5.22	120.09	122.70
31	DA	2431	U	C5-C6-N1	-5.22	120.09	122.70
31	BA	927	G	C5-N7-C8	-5.22	101.69	104.30
31	DA	801	G	N3-C4-C5	5.22	131.21	128.60
31	DA	2066	C	C2-N3-C4	-5.22	117.29	119.90
31	DA	2253	G	C4-C5-N7	5.22	112.89	110.80
31	BA	517	C	N1-C2-O2	-5.22	115.77	118.90
31	BA	1615	C	C6-N1-C2	5.22	122.39	120.30
31	BA	1833	U	N1-C2-O2	-5.22	119.15	122.80
31	DA	441	U	C6-N1-C2	5.22	124.13	121.00
31	DA	979	G	N1-C6-O6	5.22	123.03	119.90
31	DA	2375	G	C8-N9-C4	5.22	108.49	106.40
31	BA	1843	C	C5-C6-N1	-5.22	118.39	121.00
31	BA	139(A)	G	C4-C5-N7	5.22	112.89	110.80
31	BA	1573	G	N3-C4-C5	5.22	131.21	128.60
31	DA	1544	A	N9-C1'-C2'	5.22	120.78	114.00
31	DA	2447	G	C5-C6-O6	-5.22	125.47	128.60
31	DA	84	A	N7-C8-N9	-5.21	111.19	113.80
31	DA	1555	G	C5-C6-O6	-5.21	125.47	128.60
31	BA	1248	G	C8-N9-C4	5.21	108.48	106.40
31	DA	627	A	C8-N9-C4	5.21	107.89	105.80
31	DA	2010	G	N1-C6-O6	5.21	123.03	119.90
31	BA	2231	C	N1-C2-O2	-5.21	115.77	118.90
31	DA	811	U	C2-N1-C1'	-5.21	111.45	117.70
31	DA	2036	C	C5-C4-N4	-5.21	116.55	120.20
31	BA	1154	G	C6-C5-N7	-5.21	127.27	130.40
31	BA	500	G	C5-C6-O6	5.21	131.72	128.60
31	BA	1314	C	C2-N1-C1'	5.21	124.53	118.80
31	BA	2030	A	C5-C6-N6	-5.21	119.53	123.70
31	BA	2260	C	N1-C2-O2	-5.21	115.78	118.90
31	DA	141	A	N7-C8-N9	5.21	116.40	113.80
31	DA	582	G	N1-C6-O6	5.21	123.03	119.90
31	DA	621	A	N1-C6-N6	5.21	121.72	118.60
31	DA	2444	G	N3-C2-N2	-5.21	116.25	119.90
31	DA	2644	G	N3-C4-C5	5.21	131.20	128.60
31	DA	937	U	N3-C2-O2	5.21	125.84	122.20
31	DA	1355	G	C5-C6-O6	-5.21	125.48	128.60
31	DA	2028	U	N3-C2-O2	5.21	125.84	122.20
31	BA	1692	U	C5-C6-N1	-5.21	120.10	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	2053	G	C5-C6-O6	-5.21	125.48	128.60
31	BA	1268	A	N1-C2-N3	5.20	131.90	129.30
31	BA	2510	C	N1-C2-O2	-5.20	115.78	118.90
31	DA	1631	C	N3-C2-O2	5.20	125.54	121.90
31	DA	1678	G	N1-C2-N2	-5.20	111.52	116.20
31	DA	1694	C	C2-N1-C1'	5.20	124.53	118.80
33	BD	104	TYR	CA-CB-CG	5.20	123.28	113.40
31	DA	27	G	N1-C2-N2	-5.20	111.52	116.20
42	BQ	82	ARG	NE-CZ-NH1	-5.20	117.70	120.30
31	DA	1304	C	N1-C2-O2	-5.20	115.78	118.90
31	DA	2714	G	C8-N9-C1'	-5.20	120.24	127.00
31	BA	838	C	C6-N1-C2	5.20	122.38	120.30
31	BA	2552	U	N3-C2-O2	5.20	125.84	122.20
1	CA	7	G	C4-N9-C1'	-5.20	119.74	126.50
31	DA	2329	G	C6-C5-N7	5.20	133.52	130.40
31	BA	2552	U	C5-C4-O4	-5.20	122.78	125.90
31	DA	1323	U	C6-N1-C2	5.20	124.12	121.00
31	DA	759	G	N1-C6-O6	5.20	123.02	119.90
31	DA	1291	C	N3-C4-C5	5.20	123.98	121.90
31	DA	1543	C	C4-C5-C6	-5.20	114.80	117.40
31	DA	1784	A	N1-C2-N3	5.20	131.90	129.30
31	BA	1558	A	C5-C6-N1	-5.19	115.10	117.70
31	BA	1608	A	N3-C4-N9	-5.19	123.25	127.40
31	DA	1624	G	C4-N9-C1'	-5.19	119.75	126.50
31	BA	2027	G	N7-C8-N9	5.19	115.70	113.10
31	BA	2447	G	C6-C5-N7	-5.19	127.28	130.40
31	BA	2572	A	N9-C4-C5	-5.19	103.72	105.80
31	BA	2573	C	C6-N1-C2	-5.19	118.22	120.30
31	DA	1798	U	C6-N1-C2	5.19	124.12	121.00
31	DA	2088	G	N3-C4-C5	5.19	131.20	128.60
31	BA	1313	U	N3-C4-O4	5.19	123.03	119.40
31	BA	1947	C	N1-C2-O2	5.19	122.01	118.90
31	BA	2447	G	C4-N9-C1'	-5.19	119.75	126.50
31	BA	450	G	C5-C6-N1	-5.19	108.91	111.50
31	BA	1260	G	C5-C6-N1	-5.19	108.91	111.50
31	BA	2699	C	C2-N3-C4	-5.19	117.31	119.90
31	DA	674	G	N3-C4-C5	5.19	131.19	128.60
31	DA	678	C	C2-N3-C4	-5.19	117.31	119.90
31	DA	783	A	C6-C5-N7	-5.19	128.67	132.30
31	DA	271(P)	C	C2-N1-C1'	5.18	124.50	118.80
31	BA	1552	G	N3-C4-N9	-5.18	122.89	126.00
31	DA	2439	A	C4-C5-N7	5.18	113.29	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	DA	749	C	C6-N1-C2	5.18	122.37	120.30
51	DZ	110	GLY	N-CA-C	-5.18	100.15	113.10
31	BA	468	G	N7-C8-N9	-5.18	110.51	113.10
31	BA	622	G	N9-C4-C5	-5.18	103.33	105.40
31	DA	179	G	C8-N9-C4	5.18	108.47	106.40
31	DA	2330	G	N7-C8-N9	-5.18	110.51	113.10
31	BA	621	A	N7-C8-N9	5.18	116.39	113.80
31	BA	2421	G	N3-C2-N2	-5.18	116.28	119.90
31	BA	2731	G	N1-C6-O6	5.18	123.01	119.90
31	DA	481	G	N1-C6-O6	5.18	123.00	119.90
31	DA	1253	A	C5-C6-N6	-5.18	119.56	123.70
31	DA	1555	G	N1-C6-O6	5.18	123.01	119.90
31	DA	2361	A	C5-N7-C8	-5.18	101.31	103.90
31	DA	2778	A	N1-C2-N3	5.18	131.89	129.30
32	DB	101	G	N9-C4-C5	-5.18	103.33	105.40
31	BA	567	A	C2-N3-C4	-5.17	108.01	110.60
31	BA	945	A	O4'-C1'-N9	5.17	112.34	108.20
31	BA	1635	G	C5-C6-N1	-5.17	108.91	111.50
31	DA	810	U	C2-N3-C4	-5.17	123.89	127.00
31	DA	1984	G	N7-C8-N9	5.17	115.69	113.10
31	DA	1762	A	N7-C8-N9	5.17	116.39	113.80
31	BA	1189	A	C4-C5-N7	5.17	113.28	110.70
31	BA	1823	G	N1-C6-O6	5.17	123.00	119.90
31	BA	2447	G	N1-C6-O6	5.17	123.00	119.90
31	DA	1968	G	C4-C5-N7	5.17	112.87	110.80
31	BA	2575	C	N3-C2-O2	5.17	125.52	121.90
31	DA	102	G	C3'-C2'-C1'	5.17	105.64	101.50
31	DA	132	G	C5-C6-N1	-5.17	108.92	111.50
31	DA	435	C	N1-C2-O2	5.17	122.00	118.90
31	DA	2019	A	N1-C6-N6	5.17	121.70	118.60
27	B5	25	LEU	CB-CG-CD2	-5.17	102.21	111.00
31	BA	1496	A	C5-N7-C8	-5.17	101.32	103.90
31	BA	2587	A	N1-C2-N3	5.17	131.88	129.30
1	CA	925	G	C8-N9-C4	5.17	108.47	106.40
31	DA	2462	U	C6-N1-C2	5.17	124.10	121.00
31	BA	1223	G	N1-C6-O6	-5.17	116.80	119.90
31	BA	1310	G	N1-C6-O6	5.17	123.00	119.90
31	BA	1625	C	N3-C4-N4	-5.17	114.38	118.00
31	DA	1256	G	C5-C6-O6	-5.17	125.50	128.60
31	DA	1698	A	N3-C4-C5	5.17	130.42	126.80
31	DA	389	G	C8-N9-C4	5.17	108.47	106.40
33	DD	229	VAL	CB-CA-C	-5.17	101.59	111.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	892	A	C5-C6-N6	-5.16	119.57	123.70
31	BA	366	C	N1-C2-O2	-5.16	115.80	118.90
31	BA	409	C	N3-C4-C5	5.16	123.97	121.90
31	BA	1204	A	N7-C8-N9	5.16	116.38	113.80
1	AA	883	C	C6-N1-C2	-5.16	118.24	120.30
31	BA	201	C	C2-N3-C4	-5.16	117.32	119.90
31	BA	570	G	C2-N3-C4	-5.16	109.32	111.90
32	BB	27	C	C6-N1-C2	-5.16	118.24	120.30
31	BA	948	G	C5-C6-O6	-5.16	125.50	128.60
31	BA	1397	U	P-O3'-C3'	5.16	125.89	119.70
31	BA	2583	G	N1-C6-O6	5.16	123.00	119.90
31	DA	1928	A	N1-C6-N6	5.16	121.69	118.60
31	BA	528	A	N9-C4-C5	5.16	107.86	105.80
31	DA	2443	C	C6-N1-C2	5.16	122.36	120.30
31	DA	843	G	N7-C8-N9	-5.16	110.52	113.10
31	DA	975	C	C5-C4-N4	5.16	123.81	120.20
31	DA	1121	C	C6-N1-C2	5.16	122.36	120.30
31	DA	2552	U	C2-N3-C4	-5.15	123.91	127.00
31	BA	1678	G	N3-C4-C5	5.15	131.18	128.60
31	BA	2041	U	N1-C2-O2	-5.15	119.19	122.80
31	DA	1800	C	C2-N1-C1'	-5.15	113.13	118.80
31	BA	671	C	N1-C2-O2	-5.15	115.81	118.90
31	BA	2286	A	C8-N9-C4	-5.15	103.74	105.80
31	DA	1300	U	C2-N1-C1'	5.15	123.88	117.70
31	DA	2826	A	N1-C6-N6	-5.15	115.51	118.60
31	BA	2442	C	C5-C4-N4	-5.15	116.60	120.20
27	D5	51	TYR	CB-CG-CD2	-5.15	117.91	121.00
31	BA	668	G	C2-N3-C4	-5.15	109.33	111.90
31	BA	972	G	C8-N9-C4	5.15	108.46	106.40
31	BA	1925	C	N1-C2-O2	-5.15	115.81	118.90
32	BB	37	C	C6-N1-C2	-5.15	118.24	120.30
31	DA	788	A	N9-C4-C5	-5.15	103.74	105.80
31	DA	1616	A	C2-N3-C4	-5.15	108.03	110.60
31	DA	1797	C	C5-C6-N1	-5.15	118.43	121.00
31	BA	82	G	N1-C2-N3	5.15	126.99	123.90
30	B8	61	LEU	CA-CB-CG	-5.14	103.47	115.30
31	BA	2259	G	N1-C6-O6	5.14	122.99	119.90
31	DA	577	G	N7-C8-N9	-5.14	110.53	113.10
31	BA	251	A	N1-C6-N6	-5.14	115.51	118.60
31	BA	673	C	C5-C6-N1	-5.14	118.43	121.00
31	BA	956	G	N1-C6-O6	5.14	122.98	119.90
31	BA	2443	C	C2-N3-C4	-5.14	117.33	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	DA	2019	A	C8-N9-C4	5.14	107.86	105.80
31	BA	71	A	C4-C5-N7	5.14	113.27	110.70
31	BA	2404	C	N3-C4-C5	5.14	123.96	121.90
31	BA	2569	G	N1-C6-O6	5.14	122.98	119.90
31	DA	678	C	N3-C2-O2	5.14	125.50	121.90
1	CA	55	A	N7-C8-N9	5.14	116.37	113.80
31	DA	2469	A	N1-C2-N3	5.14	131.87	129.30
32	DB	6	C	C6-N1-C2	5.14	122.36	120.30
31	BA	647	G	C8-N9-C4	-5.14	104.35	106.40
31	BA	1022	G	N3-C2-N2	-5.14	116.30	119.90
1	CA	922	G	N3-C4-C5	-5.14	126.03	128.60
31	DA	1570	A	C6-N1-C2	5.14	121.68	118.60
31	DA	2245	U	N3-C4-C5	-5.14	111.52	114.60
31	BA	866	A	C8-N9-C1'	-5.13	118.46	127.70
31	BA	2355	C	C6-N1-C1'	-5.13	114.64	120.80
31	BA	2831	G	N1-C6-O6	5.13	122.98	119.90
31	DA	2021	C	C5-C6-N1	-5.13	118.43	121.00
31	DA	2389	G	C8-N9-C1'	5.13	133.68	127.00
31	DA	2448	A	C5-C6-N1	5.13	120.27	117.70
31	BA	566	U	C6-N1-C2	5.13	124.08	121.00
31	DA	810	U	C6-N1-C2	5.13	124.08	121.00
31	DA	827	U	N1-C2-O2	-5.13	119.21	122.80
31	DA	528	A	C8-N9-C4	-5.13	103.75	105.80
31	DA	2242	G	N1-C6-O6	5.13	122.98	119.90
31	DA	2453	A	C8-N9-C4	5.13	107.85	105.80
31	BA	2067	G	C4-C5-N7	-5.13	108.75	110.80
32	DB	104	U	N3-C4-C5	5.13	117.68	114.60
1	AA	774	G	N1-C6-O6	5.13	122.98	119.90
31	BA	129	C	C2-N1-C1'	5.13	124.44	118.80
31	BA	1235	G	C2-N3-C4	-5.13	109.34	111.90
31	BA	1248	G	N9-C4-C5	-5.13	103.35	105.40
31	DA	736	C	C6-N1-C2	5.13	122.35	120.30
31	DA	1133	U	C5-C6-N1	-5.13	120.14	122.70
31	DA	2863	C	C6-N1-C2	5.13	122.35	120.30
1	AA	644	G	N3-C4-C5	5.12	131.16	128.60
31	BA	596	G	N7-C8-N9	-5.12	110.54	113.10
31	DA	1314	C	C2-N1-C1'	5.12	124.44	118.80
31	BA	481	G	N3-C4-N9	5.12	129.07	126.00
31	BA	1342	A	C5-C6-N6	-5.12	119.60	123.70
31	BA	2059	A	C5-N7-C8	-5.12	101.34	103.90
31	BA	2232	U	C2-N1-C1'	-5.12	111.55	117.70
23	D1	43	TYR	N-CA-C	-5.12	97.16	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	DA	788	A	N1-C2-N3	5.12	131.86	129.30
31	BA	192	C	C5-C6-N1	-5.12	118.44	121.00
31	BA	2754	U	C6-N1-C2	5.12	124.07	121.00
31	BA	785	G	N3-C4-C5	5.12	131.16	128.60
31	BA	2476	A	C5-C6-N1	5.12	120.26	117.70
31	DA	2819	G	N3-C4-N9	-5.12	122.93	126.00
31	DA	979	G	N9-C4-C5	-5.12	103.35	105.40
31	BA	1200	C	C5-C6-N1	-5.12	118.44	121.00
31	BA	2430	A	C8-N9-C4	-5.12	103.75	105.80
31	BA	2456	C	C6-N1-C2	5.12	122.35	120.30
31	BA	1142(A)	A	N1-C6-N6	5.11	121.67	118.60
31	BA	2376	A	C8-N9-C4	5.11	107.85	105.80
31	BA	2822	G	C4-C5-N7	5.11	112.84	110.80
48	BW	19	LEU	CA-CB-CG	-5.11	103.54	115.30
31	DA	1972	A	N1-C6-N6	5.11	121.67	118.60
31	DA	2625	G	C5-C6-O6	-5.11	125.53	128.60
31	BA	2822	G	N3-C2-N2	-5.11	116.32	119.90
1	CA	1484	C	C6-N1-C2	5.11	122.34	120.30
31	DA	2829	C	C5-C6-N1	-5.11	118.44	121.00
31	BA	211	A	N1-C6-N6	5.11	121.67	118.60
31	BA	599	G	N7-C8-N9	-5.11	110.55	113.10
31	BA	673	C	C2-N3-C4	-5.11	117.34	119.90
31	BA	2673	G	N1-C6-O6	5.11	122.97	119.90
1	CA	108	G	C4-C5-N7	5.11	112.84	110.80
31	DA	1543	C	C5-C6-N1	5.11	123.56	121.00
1	AA	273	A	N1-C6-N6	5.11	121.67	118.60
31	BA	692	C	C6-N1-C2	5.11	122.34	120.30
31	BA	441	U	C5-C4-O4	-5.11	122.84	125.90
31	BA	772	C	N3-C4-C5	5.11	123.94	121.90
31	DA	2529	G	N3-C4-C5	5.11	131.15	128.60
31	BA	1998	G	N3-C2-N2	-5.11	116.33	119.90
31	BA	2439	A	N9-C4-C5	-5.11	103.76	105.80
1	CA	893	C	N1-C2-N3	-5.11	115.63	119.20
31	BA	1973	G	C2-N3-C4	-5.10	109.35	111.90
31	BA	2591	C	C2-N3-C4	-5.10	117.35	119.90
31	DA	1950	G	N1-C6-O6	5.10	122.96	119.90
31	BA	175	G	N7-C8-N9	5.10	115.65	113.10
31	DA	500	G	N7-C8-N9	-5.10	110.55	113.10
31	DA	2572	A	C2-N3-C4	-5.10	108.05	110.60
31	BA	233	A	N1-C2-N3	-5.10	126.75	129.30
46	BU	50	ARG	NE-CZ-NH2	-5.10	117.75	120.30
31	DA	795	C	N1-C2-O2	-5.10	115.84	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	DA	1570	A	N3-C4-C5	5.10	130.37	126.80
31	BA	860	U	N3-C2-O2	-5.10	118.63	122.20
31	BA	2242	G	C8-N9-C4	5.10	108.44	106.40
31	BA	115	C	N3-C2-O2	5.10	125.47	121.90
31	DA	1328	G	C4-N9-C1'	5.10	133.12	126.50
31	DA	1596	A	N7-C8-N9	-5.10	111.25	113.80
31	DA	2283	C	N1-C2-O2	-5.10	115.84	118.90
31	BA	2230	G	N3-C4-C5	5.09	131.15	128.60
31	DA	751	A	C8-N9-C4	5.09	107.84	105.80
31	DA	1252	G	N3-C4-C5	5.09	131.15	128.60
31	BA	610	G	N7-C8-N9	-5.09	110.55	113.10
31	BA	2387	U	C2-N1-C1'	-5.09	111.59	117.70
31	BA	2570	G	C5-C6-N1	-5.09	108.95	111.50
31	DA	2081	C	C5-C6-N1	-5.09	118.45	121.00
31	DA	2317	C	N3-C2-O2	-5.09	118.33	121.90
31	BA	1617	C	N3-C2-O2	5.09	125.46	121.90
31	BA	2059	A	N1-C6-N6	5.09	121.66	118.60
31	BA	2345	G	N9-C4-C5	5.09	107.44	105.40
31	BA	2455	G	C4-N9-C1'	5.09	133.12	126.50
1	CA	922	G	N7-C8-N9	5.09	115.65	113.10
31	DA	2777	G	C5-C6-O6	-5.09	125.55	128.60
31	BA	1261	C	C2-N3-C4	-5.09	117.36	119.90
32	DB	96	U	C2-N1-C1'	-5.09	111.60	117.70
31	BA	859	G	C8-N9-C1'	5.08	133.61	127.00
31	BA	1977	A	C8-N9-C4	5.08	107.83	105.80
31	DA	2541	A	N1-C6-N6	5.08	121.65	118.60
31	DA	94(A)	G	C5-C6-O6	-5.08	125.55	128.60
31	DA	208	C	N3-C2-O2	5.08	125.46	121.90
31	DA	389	G	N3-C4-N9	5.08	129.05	126.00
1	AA	1158	C	C2-N1-C1'	5.08	124.39	118.80
1	AA	1524	C	N1-C2-O2	-5.08	115.85	118.90
31	DA	666	G	N9-C4-C5	-5.08	103.37	105.40
31	DA	1131	G	C4-N9-C1'	-5.08	119.90	126.50
1	AA	893	C	N3-C4-C5	5.08	123.93	121.90
31	BA	686	G	C4-C5-N7	5.08	112.83	110.80
31	DA	206	U	C6-N1-C2	5.08	124.05	121.00
31	DA	538	G	C8-N9-C4	5.08	108.43	106.40
31	DA	980	A	N1-C6-N6	5.08	121.65	118.60
31	BA	2089	U	C5-C6-N1	-5.08	120.16	122.70
31	BA	2676	C	C4-C5-C6	5.08	119.94	117.40
32	BB	38	C	N1-C2-O2	5.08	121.95	118.90
31	DA	1977	A	C2-N3-C4	-5.08	108.06	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	1604	C	C5-C6-N1	-5.08	118.46	121.00
31	DA	253	C	N3-C2-O2	5.08	125.45	121.90
32	DB	97	G	C4-N9-C1'	-5.08	119.90	126.50
31	BA	237	C	N3-C4-C5	5.07	123.93	121.90
31	DA	1261	C	C5-C6-N1	-5.07	118.46	121.00
31	DA	2059	A	N1-C6-N6	5.07	121.64	118.60
43	DR	54	LEU	CA-CB-CG	-5.07	103.63	115.30
31	DA	1570	A	C4-C5-N7	5.07	113.24	110.70
31	BA	271(P)	C	C2-N1-C1'	5.07	124.38	118.80
31	BA	1795	C	N3-C4-C5	5.07	123.93	121.90
31	BA	1813	G	C8-N9-C4	5.07	108.43	106.40
31	DA	182	A	N1-C6-N6	5.07	121.64	118.60
31	DA	668	G	C8-N9-C1'	-5.07	120.41	127.00
31	DA	1122	G	N9-C4-C5	-5.07	103.37	105.40
31	DA	1822	G	N3-C4-C5	5.07	131.13	128.60
31	DA	2464	C	C6-N1-C1'	-5.07	114.72	120.80
31	DA	2610	C	N3-C4-C5	5.07	123.93	121.90
31	DA	2676	C	N3-C4-C5	5.07	123.93	121.90
31	BA	190	A	C4-C5-N7	5.07	113.23	110.70
31	BA	1291	C	C5-C6-N1	-5.07	118.47	121.00
34	BE	136	ARG	NE-CZ-NH1	-5.07	117.77	120.30
31	BA	28	A	C8-N9-C4	5.07	107.83	105.80
31	BA	2331	G	N1-C6-O6	5.07	122.94	119.90
31	DA	198	C	N3-C4-C5	5.07	123.93	121.90
31	DA	1403	C	C6-N1-C1'	5.07	126.88	120.80
31	BA	933	A	C4-C5-N7	5.07	113.23	110.70
31	BA	1790	C	N3-C4-C5	5.07	123.93	121.90
31	BA	2383	G	N1-C2-N2	-5.07	111.64	116.20
31	DA	1897	G	C4-C5-N7	5.07	112.83	110.80
31	BA	1255	U	C5-C6-N1	-5.06	120.17	122.70
31	DA	271(P)	C	C6-N1-C2	-5.06	118.27	120.30
31	DA	1232	G	N3-C4-C5	5.06	131.13	128.60
31	DA	1698	A	C3'-C2'-C1'	-5.06	97.45	101.50
31	DA	1976	U	N1-C2-N3	5.06	117.94	114.90
31	BA	478	A	C4-C5-C6	5.06	119.53	117.00
31	DA	378	C	N3-C4-C5	5.06	123.92	121.90
31	DA	507	A	N9-C4-C5	-5.06	103.78	105.80
31	DA	1279	G	N7-C8-N9	-5.06	110.57	113.10
31	DA	1663	C	C6-N1-C2	5.06	122.33	120.30
31	DA	2056	G	C6-C5-N7	-5.06	127.36	130.40
31	DA	1380	G	N3-C4-C5	5.06	131.13	128.60
1	AA	921	U	C6-N1-C2	-5.06	117.97	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	946	G	C5-C6-O6	-5.06	125.56	128.60
31	BA	2290	G	C8-N9-C4	5.06	108.42	106.40
31	BA	1319	G	C6-N1-C2	-5.06	122.07	125.10
31	DA	388	G	N1-C6-O6	-5.06	116.87	119.90
31	DA	1239	G	N3-C4-N9	-5.06	122.97	126.00
31	DA	2291	U	C5-C6-N1	-5.06	120.17	122.70
1	AA	991	U	C3'-C2'-C1'	5.05	105.54	101.50
31	BA	416	C	C6-N1-C2	-5.05	118.28	120.30
31	BA	1224	C	C5-C6-N1	-5.05	118.47	121.00
31	BA	59	U	C5-C4-O4	5.05	128.93	125.90
31	BA	473	G	C5-C6-N1	-5.05	108.97	111.50
31	BA	660	G	C8-N9-C4	5.05	108.42	106.40
31	BA	1031	G	C8-N9-C4	5.05	108.42	106.40
31	DA	147	U	C5-C6-N1	-5.05	120.17	122.70
31	BA	1968	G	N3-C4-C5	5.05	131.12	128.60
36	DG	34	LEU	CA-CB-CG	5.05	126.92	115.30
31	BA	596	G	C8-N9-C4	5.05	108.42	106.40
1	CA	1474	G	C8-N9-C4	5.05	108.42	106.40
31	BA	1708	C	N1-C2-O2	-5.05	115.87	118.90
31	BA	1937	A	C2-N3-C4	-5.04	108.08	110.60
1	AA	108	G	C4-C5-N7	5.04	112.82	110.80
31	BA	647	G	N3-C4-C5	-5.04	126.08	128.60
31	BA	840	C	C5-C6-N1	-5.04	118.48	121.00
31	DA	2544	G	C4-C5-N7	5.04	112.82	110.80
31	BA	2496	C	N3-C4-C5	5.04	123.92	121.90
32	BB	60	C	N3-C4-C5	-5.04	119.88	121.90
31	BA	980	A	N9-C4-C5	-5.04	103.78	105.80
31	BA	1841	U	N1-C2-O2	-5.04	119.27	122.80
31	DA	303	U	N3-C4-C5	5.04	117.62	114.60
31	DA	827	U	N3-C2-O2	5.04	125.73	122.20
31	DA	1948	G	N3-C2-N2	-5.04	116.37	119.90
31	DA	2364	C	C6-N1-C2	5.04	122.31	120.30
31	BA	1510	G	N1-C6-O6	5.04	122.92	119.90
31	BA	2548	G	C4-C5-C6	5.04	121.82	118.80
31	BA	2742	C	C5-C6-N1	-5.04	118.48	121.00
24	D2	55	ARG	N-CA-C	-5.04	97.40	111.00
31	DA	1219	G	N3-C4-C5	5.03	131.12	128.60
31	BA	656	G	C4-C5-C6	5.03	121.82	118.80
31	BA	810	U	C5-C6-N1	-5.03	120.18	122.70
31	BA	2293	C	C6-N1-C2	5.03	122.31	120.30
31	DA	783	A	C5-C6-N1	-5.03	115.18	117.70
31	BA	322	A	N1-C6-N6	5.03	121.62	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	376	C	C6-N1-C1'	5.03	126.84	120.80
31	BA	675	A	N9-C4-C5	-5.03	103.79	105.80
31	BA	1364	G	C8-N9-C4	5.03	108.41	106.40
31	BA	1962	C	C5-C6-N1	5.03	123.52	121.00
31	DA	179	G	N3-C4-C5	5.03	131.12	128.60
31	DA	1210	A	N9-C4-C5	-5.03	103.79	105.80
31	DA	2485	G	C8-N9-C4	5.03	108.41	106.40
31	DA	2547	U	C6-N1-C2	5.03	124.02	121.00
31	DA	948	G	C5-C6-N1	-5.03	108.98	111.50
31	DA	2051	A	C2-N3-C4	-5.03	108.08	110.60
31	DA	2542	A	C3'-C2'-C1'	5.03	105.52	101.50
31	BA	205	G	C8-N9-C4	5.03	108.41	106.40
31	BA	710	G	N1-C6-O6	5.03	122.92	119.90
31	BA	1420	U	C6-N1-C1'	-5.03	114.16	121.20
31	BA	2057	A	C8-N9-C4	5.03	107.81	105.80
31	BA	2729	G	N1-C6-O6	5.03	122.92	119.90
31	DA	2014	A	C5-C6-N6	-5.03	119.68	123.70
31	BA	2559	C	C2-N1-C1'	5.03	124.33	118.80
31	DA	141	A	C6-C5-N7	-5.03	128.78	132.30
31	DA	852	G	N3-C4-N9	5.03	129.01	126.00
31	DA	2498	C	C5-C6-N1	-5.03	118.49	121.00
31	BA	1202	C	N3-C4-C5	-5.02	119.89	121.90
31	BA	2392	A	C2-N3-C4	-5.02	108.09	110.60
31	DA	2061	G	N1-C2-N2	-5.02	111.68	116.20
31	DA	2263	C	C6-N1-C2	5.02	122.31	120.30
31	DA	2451	A	C5-N7-C8	-5.02	101.39	103.90
1	AA	1466	C	C2-N1-C1'	-5.02	113.27	118.80
31	BA	1758	G	N3-C4-N9	-5.02	122.99	126.00
31	DA	2608	G	N9-C4-C5	5.02	107.41	105.40
31	BA	912	C	C6-N1-C2	-5.02	118.29	120.30
32	BB	17	C	N1-C2-O2	5.02	121.91	118.90
31	DA	381	G	C8-N9-C4	5.02	108.41	106.40
31	DA	1495	A	N1-C6-N6	5.02	121.61	118.60
31	DA	1495	A	C6-C5-N7	-5.02	128.79	132.30
31	DA	1673	U	C2-N3-C4	-5.02	123.99	127.00
31	DA	2501	C	N3-C4-C5	5.02	123.91	121.90
31	BA	2027	G	C8-N9-C4	-5.02	104.39	106.40
31	BA	2061	G	C5-C6-O6	5.02	131.61	128.60
31	DA	1106	A	C3'-C2'-C1'	5.02	105.52	101.50
31	DA	2447	G	N3-C4-N9	5.02	129.01	126.00
31	DA	2651	C	C6-N1-C2	5.02	122.31	120.30
31	DA	2699	C	N3-C4-C5	5.02	123.91	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	208	C	N3-C2-O2	5.02	125.41	121.90
31	BA	2084	C	C4-C5-C6	5.02	119.91	117.40
1	CA	894	G	N1-C6-O6	5.02	122.91	119.90
31	DA	57	C	C6-N1-C2	5.02	122.31	120.30
31	DA	203	C	C2-N1-C1'	-5.02	113.28	118.80
31	DA	303	U	C6-N1-C2	5.02	124.01	121.00
31	DA	555	U	C2-N1-C1'	-5.02	111.68	117.70
31	DA	2091	U	C6-N1-C2	5.02	124.01	121.00
31	DA	2346	A	C4-C5-C6	5.02	119.51	117.00
31	DA	2448	A	C8-N9-C4	5.02	107.81	105.80
31	BA	2395	C	N3-C4-N4	5.02	121.51	118.00
31	DA	460	A	N9-C4-C5	-5.02	103.79	105.80
31	DA	2004	G	N3-C2-N2	-5.02	116.39	119.90
31	BA	2000	G	C4-N9-C1'	-5.01	119.98	126.50
31	BA	2032	G	N1-C6-O6	5.01	122.91	119.90
31	DA	1930	G	C4-N9-C1'	-5.01	119.98	126.50
31	DA	2482	G	C4-N9-C1'	5.01	133.02	126.50
31	DA	2598	A	N1-C6-N6	5.01	121.61	118.60
31	BA	737	C	C6-N1-C2	5.01	122.31	120.30
31	BA	1529	G	C4-N9-C1'	5.01	133.02	126.50
31	BA	1972	A	N1-C2-N3	-5.01	126.80	129.30
31	BA	2676	C	C5-C4-N4	-5.01	116.69	120.20
31	DA	612	C	C5-C6-N1	-5.01	118.49	121.00
31	DA	693	C	C4-C5-C6	5.01	119.91	117.40
31	DA	1301	A	N1-C2-N3	5.01	131.81	129.30
31	BA	2498	C	C2-N1-C1'	-5.01	113.29	118.80
31	DA	509	C	C2-N1-C1'	-5.01	113.29	118.80
31	BA	788	A	N9-C4-C5	-5.01	103.80	105.80
31	BA	2527	C	N1-C2-O2	-5.01	115.89	118.90
47	DV	40	LEU	N-CA-C	5.01	124.52	111.00
31	BA	47	C	N3-C4-C5	5.01	123.90	121.90
31	BA	1769	G	C6-C5-N7	-5.01	127.40	130.40
1	CA	909	A	N1-C6-N6	5.01	121.60	118.60
1	CA	991	U	C3'-C2'-C1'	5.01	105.50	101.50
31	DA	759	G	N3-C4-C5	5.01	131.10	128.60
31	DA	1299	G	N1-C6-O6	5.01	122.90	119.90
1	AA	820	U	C2-N1-C1'	-5.00	111.69	117.70
31	DA	594	U	N1-C2-O2	-5.00	119.30	122.80
31	DA	2059	A	C5-C6-N1	-5.00	115.20	117.70
31	DA	2644	G	C2-N3-C4	-5.00	109.40	111.90
31	BA	262	A	N7-C8-N9	-5.00	111.30	113.80
34	BE	51	PHE	N-CA-C	5.00	124.51	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	DA	941	A	N1-C2-N3	5.00	131.80	129.30
31	DA	2431	U	C6-N1-C2	5.00	124.00	121.00
31	DA	2490	G	N1-C6-O6	5.00	122.90	119.90
28	B6	11	LEU	CB-CA-C	-5.00	100.70	110.20
31	BA	2715	C	N1-C2-O2	-5.00	115.90	118.90
31	DA	502	A	C6-N1-C2	-5.00	115.60	118.60
31	DA	1678	G	N3-C2-N2	5.00	123.40	119.90

All (37) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
31	BA	472	A	C3'
31	BA	669	G	C4',C3',C1'
31	BA	945	A	C1'
31	BA	1300	U	C4',C3'
31	BA	1379	A	C1'
31	BA	1484	G	C3'
31	BA	1544	A	C1'
31	BA	1609	A	C2'
31	BA	1652	A	C3'
31	BA	1694	C	C4',C3'
31	BA	1934	C	C3'
31	BA	2286	A	C1'
31	BA	2662	A	C1'
31	BA	2796	U	C1'
1	CA	923	A	C2'
31	DA	472	A	C3'
31	DA	669	G	C4',C3',C1'
31	DA	945	A	C1'
31	DA	1300	U	C4',C3'
31	DA	1379	A	C1'
31	DA	1484	G	C3'
31	DA	1544	A	C1'
31	DA	1609	A	C2'
31	DA	1652	A	C3'
31	DA	1694	C	C4',C3'
31	DA	1934	C	C3'
31	DA	2286	A	C1'
31	DA	2662	A	C1'
31	DA	2796	U	C1'

All (42) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
22	B0	11	ARG	Peptide
23	B1	30	VAL	Peptide
24	B2	54	LYS	Peptide
27	B5	51	TYR	Peptide
33	BD	236	GLY	Peptide
33	BD	237	GLU	Peptide
33	BD	244	ARG	Peptide
33	BD	47	GLY	Peptide
34	BE	131	ALA	Peptide
34	BE	132	HIS	Peptide
37	BH	154	PRO	Peptide
41	BP	37	GLY	Peptide
41	BP	39	LYS	Peptide
41	BP	51	PHE	Peptide
41	BP	52	GLU	Peptide
41	BP	57	THR	Peptide
42	BQ	10	ARG	Peptide
43	BR	5	LYS	Peptide
45	BT	29	ARG	Peptide
47	BV	87	HIS	Peptide
49	BX	76	ARG	Peptide
49	BX	77	LYS	Peptide
22	D0	11	ARG	Peptide
23	D1	30	VAL	Peptide
24	D2	54	LYS	Peptide
27	D5	51	TYR	Peptide
33	DD	244	ARG	Peptide
33	DD	47	GLY	Peptide
34	DE	131	ALA	Peptide
34	DE	132	HIS	Peptide
37	DH	154	PRO	Peptide
41	DP	37	GLY	Peptide
41	DP	51	PHE	Peptide
41	DP	57	THR	Peptide
42	DQ	10	ARG	Peptide
43	DR	5	LYS	Peptide
45	DT	29	ARG	Peptide
47	DV	18	LEU	Peptide
47	DV	87	HIS	Peptide
49	DX	61	GLY	Peptide
49	DX	76	ARG	Peptide
49	DX	77	LYS	Peptide

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	16318	2214	12
1	CA	32329	0	16318	2202	2
2	AB	1901	0	1951	203	0
2	CB	1901	0	1951	204	0
3	AC	1613	0	1677	143	0
3	CC	1613	0	1677	145	0
4	AD	1703	0	1763	229	0
4	CD	1703	0	1764	232	0
5	AE	1147	0	1207	126	0
5	CE	1147	0	1207	145	0
6	AF	843	0	857	116	0
6	CF	843	0	857	125	0
7	AG	1257	0	1296	77	0
7	CG	1257	0	1296	81	0
8	AH	1116	0	1177	144	0
8	CH	1116	0	1177	137	0
9	AI	1011	0	1042	112	0
9	CI	1011	0	1042	107	0
10	AJ	795	0	840	102	0
10	CJ	795	0	840	105	0
11	AK	885	0	904	109	0
11	CK	885	0	904	116	0
12	AL	971	0	1057	136	0
12	CL	971	0	1057	131	0
13	AM	921	0	976	97	0
13	CM	921	0	976	91	0
14	AN	492	0	532	46	0
14	CN	492	0	529	49	0
15	AO	734	0	771	81	0
15	CO	734	0	771	79	0
16	AP	701	0	720	103	0
16	CP	701	0	720	110	0
17	AQ	824	0	891	81	0
17	CQ	824	0	891	78	0
18	AR	574	0	644	86	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
18	CR	574	0	644	86	0
19	AS	630	0	652	53	0
19	CS	630	0	652	50	0
20	AT	763	0	861	93	0
20	CT	763	0	861	94	0
21	AU	209	0	221	14	0
21	CU	209	0	221	12	0
22	B0	650	0	654	90	0
22	D0	650	0	654	95	0
23	B1	693	0	764	149	0
23	D1	693	0	764	156	0
24	B2	421	0	461	141	0
24	D2	421	0	461	136	0
25	B3	468	0	523	47	0
25	D3	468	0	523	70	0
26	B4	157	0	69	7	0
26	D4	157	0	69	8	0
27	B5	459	0	480	100	0
27	D5	459	0	480	100	0
28	B6	381	0	390	102	0
28	D6	381	0	390	95	0
29	B7	419	0	467	54	0
29	D7	419	0	467	57	0
30	B8	508	0	576	156	0
30	D8	508	0	576	151	0
31	BA	58698	0	29589	4119	0
31	DA	58698	0	29591	4387	0
32	BB	2551	0	1295	239	0
32	DB	2551	0	1295	231	0
33	BD	2105	0	2182	402	0
33	DD	2105	0	2182	406	0
34	BE	1564	0	1629	278	0
34	DE	1564	0	1629	278	0
35	BF	1624	0	1677	214	0
35	DF	1624	0	1677	209	0
36	BG	1474	0	1534	220	0
36	DG	1474	0	1534	223	0
37	BH	1223	0	1282	170	0
37	DH	1223	0	1282	162	0
38	BI	1132	0	1218	167	2
38	DI	1132	0	1218	158	12
39	BN	1105	0	1180	231	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
39	DN	1105	0	1180	231	0
40	BO	933	0	996	138	0
40	DO	933	0	996	133	0
41	BP	1114	0	1187	372	0
41	DP	1114	0	1187	345	0
42	BQ	1080	0	1127	195	0
42	DQ	1080	0	1127	195	0
43	BR	960	0	1021	136	0
43	DR	960	0	1021	146	0
44	BS	771	0	832	166	0
44	DS	771	0	832	172	0
45	BT	1100	0	1164	210	0
45	DT	1100	0	1164	213	0
46	BU	958	0	1015	171	0
46	DU	958	0	1015	177	0
47	BV	779	0	851	265	0
47	DV	779	0	851	258	0
48	BW	896	0	953	110	0
48	DW	896	0	953	128	0
49	BX	726	0	778	203	0
49	DX	726	0	777	199	0
50	BY	776	0	870	193	0
50	DY	776	0	870	191	0
51	BZ	1404	0	1432	190	0
51	DZ	1404	0	1432	196	0
52	AA	52	0	0	0	0
52	B0	1	0	0	0	0
52	B1	1	0	0	0	0
52	B5	2	0	0	0	0
52	B7	1	0	0	0	0
52	BA	360	0	0	0	0
52	BB	7	0	0	0	0
52	BD	2	0	0	0	0
52	BF	1	0	0	0	0
52	BP	3	0	0	0	0
52	BQ	2	0	0	0	0
52	BR	1	0	0	0	0
52	BU	1	0	0	0	0
52	BX	1	0	0	0	0
52	CA	50	0	0	0	0
52	D5	1	0	0	0	0
52	D7	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
52	D8	1	0	0	0	0
52	DA	318	0	0	0	0
52	DB	3	0	0	0	0
52	DD	2	0	0	0	0
52	DE	1	0	0	0	0
52	DF	1	0	0	0	0
52	DP	1	0	0	0	0
52	DQ	1	0	0	0	0
52	DR	2	0	0	0	0
52	DU	1	0	0	0	0
52	DX	1	0	0	0	0
53	AD	1	0	0	0	0
53	AN	1	0	0	0	0
53	CD	1	0	0	0	0
53	CN	1	0	0	0	0
54	BA	1	0	0	0	0
54	DA	1	0	0	0	0
55	BA	58	0	65	32	0
55	DA	58	0	65	34	0
All	All	278037	0	189235	24925	14

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 54.

All (24925) close contacts within the same asymmetric unit are listed below.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:921:U:H1'	1:CA:922:G:C4	1.55	1.40
55:DA:3320:TEL:C14	55:DA:3320:TEL:H11	1.64	1.28
55:BA:3362:TEL:C14	55:BA:3362:TEL:H11	1.64	1.24
33:BD:35:LYS:HD2	33:BD:104:TYR:CD1	1.73	1.22
26:B4:13:ARG:HA	36:BG:101:ILE:HG13	1.22	1.19
31:DA:1722:A:H2	31:DA:1740:G:H5'	1.08	1.18
31:DA:2287:A:N6	31:DA:2344:U:H3	1.42	1.17
31:BA:2565:A:H5''	31:BA:2566:A:OP2	1.45	1.17
49:DX:77:LYS:HG2	49:DX:78:LYS:HG3	1.25	1.16
35:BF:67:GLN:HG3	35:BF:67:GLN:O	1.46	1.16
47:DV:2:PHE:HB2	47:DV:42:GLY:HA3	1.25	1.16
37:BH:85:LYS:HD2	37:BH:141:VAL:HG13	1.20	1.16
49:BX:77:LYS:HG2	49:BX:78:LYS:HG3	1.22	1.16
47:DV:82:ARG:HG3	47:DV:82:ARG:HH11	1.06	1.15
31:BA:2787:C:H1'	34:BE:61:ARG:HB2	1.27	1.15
41:BP:16:ARG:HG3	41:BP:16:ARG:HH11	1.04	1.15

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1286:A:O2'	31:DA:1288:U:OP2	1.62	1.15
31:DA:1899:G:H22	31:DA:1902:C:N4	1.43	1.15
31:BA:1899:G:H22	31:BA:1902:C:N4	1.44	1.15
31:BA:1722:A:H2	31:BA:1740:G:H5'	1.10	1.15
26:D4:13:ARG:HA	36:DG:101:ILE:HG13	1.25	1.14
1:AA:627:G:H2'	1:AA:628:G:H8	1.09	1.14
30:B8:62:LEU:HD13	31:BA:242:G:H5''	1.28	1.14
5:CE:76:ILE:HG12	5:CE:77:PRO:HD2	1.30	1.14
46:DU:92:ARG:HD2	47:DV:11:GLN:HE21	1.05	1.13
55:DA:3320:TEL:H142	55:DA:3320:TEL:H11	1.26	1.13
46:DU:92:ARG:HB3	47:DV:11:GLN:NE2	1.64	1.13
4:AD:128:VAL:HG13	4:AD:129:ASN:HD22	1.14	1.13
1:AA:1442(A):G:H22	45:BT:119:LYS:HA	0.97	1.13
50:BY:45:VAL:HG22	50:BY:62:GLU:HB2	1.27	1.13
44:BS:74:ALA:HB1	44:BS:103:GLU:HG3	1.28	1.12
1:CA:627:G:H2'	1:CA:628:G:H8	1.08	1.12
45:DT:50:ILE:HD11	45:DT:102:ILE:HD11	1.22	1.12
38:DI:88:ILE:HG13	38:DI:121:LYS:HA	1.29	1.12
31:BA:2317:C:H2'	31:BA:2318:G:H5''	1.30	1.12
31:BA:1286:A:O2'	31:BA:1288:U:OP2	1.65	1.12
45:BT:50:ILE:HD11	45:BT:102:ILE:HD11	1.26	1.12
33:DD:35:LYS:HD2	33:DD:104:TYR:CD1	1.84	1.11
37:DH:85:LYS:HD2	37:DH:141:VAL:HG13	1.26	1.11
46:BU:92:ARG:HD2	47:BV:11:GLN:HE21	0.98	1.11
31:DA:784:A:H5'	31:DA:785:G:OP1	1.50	1.11
50:DY:45:VAL:HG22	50:DY:62:GLU:HB2	1.29	1.11
31:DA:2701:C:H3'	31:DA:2702:U:C5'	1.81	1.11
23:D1:12:PRO:HD2	23:D1:62:VAL:HG23	1.24	1.11
30:D8:62:LEU:HD13	31:DA:242:G:H5''	1.22	1.11
31:DA:571:A:H5'	31:DA:2030:A:H62	1.00	1.11
47:BV:79:VAL:O	47:BV:80:GLN:HB3	1.49	1.11
55:BA:3362:TEL:H142	55:BA:3362:TEL:H11	1.26	1.10
31:DA:2565:A:H5''	31:DA:2566:A:OP2	1.49	1.10
1:CA:921:U:O2	1:CA:922:G:N3	1.85	1.10
47:DV:62:LEU:HB3	47:DV:98:GLU:HA	1.33	1.10
20:AT:89:ARG:HH21	20:AT:104:LEU:HD11	1.14	1.10
31:DA:669:G:H4'	31:DA:670:A:OP2	1.51	1.10
41:BP:23:PRO:HB2	41:BP:33:ARG:HG3	1.27	1.10
31:BA:2701:C:H3'	31:BA:2702:U:C5'	1.79	1.10
4:CD:128:VAL:HG13	4:CD:129:ASN:HD22	1.09	1.10
31:BA:571:A:H5'	31:BA:2030:A:H62	0.94	1.10
39:DN:42:TRP:HA	39:DN:48:MET:HE1	1.10	1.09

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2787:C:H1'	34:DE:61:ARG:HB2	1.31	1.09
25:D3:8:LEU:HD13	25:D3:31:LEU:HD23	1.29	1.09
25:B3:8:LEU:HD13	25:B3:31:LEU:HD23	1.28	1.09
31:BA:2287:A:N6	31:BA:2344:U:H3	1.47	1.09
31:DA:1403:C:H5''	31:DA:1471:A:H1'	1.30	1.09
43:BR:4:LEU:O	43:BR:4:LEU:HD13	1.52	1.09
5:AE:76:ILE:HG12	5:AE:77:PRO:HD2	1.35	1.09
35:DF:101:LEU:HD12	35:DF:102:PRO:HD2	1.33	1.09
31:DA:71:A:H5'	31:DA:71:A:H8	1.15	1.09
24:B2:26:ARG:CZ	24:B2:29:LYS:HE2	1.82	1.09
2:AB:185:ILE:HG22	2:AB:199:TYR:HB2	1.35	1.09
31:BA:784:A:H5'	31:BA:785:G:OP1	1.50	1.09
20:CT:89:ARG:HH21	20:CT:104:LEU:HD11	1.15	1.09
41:DP:23:PRO:HB2	41:DP:33:ARG:HG3	1.30	1.08
47:DV:79:VAL:O	47:DV:80:GLN:HB3	1.52	1.08
33:DD:27:THR:HG21	33:DD:83:GLU:HG2	1.25	1.08
46:BU:92:ARG:HB3	47:BV:11:GLN:NE2	1.67	1.08
31:DA:49:A:H4'	31:DA:50:U:H5'	1.32	1.08
16:AP:28:ARG:HG2	16:AP:28:ARG:HH11	1.18	1.08
39:BN:42:TRP:HA	39:BN:48:MET:HE1	1.10	1.08
47:BV:2:PHE:HB2	47:BV:42:GLY:HA3	1.27	1.08
31:DA:631:A:OP1	41:DP:64:LYS:HE2	1.54	1.08
50:BY:37:VAL:O	50:BY:38:ILE:HB	1.52	1.08
47:BV:82:ARG:HG3	47:BV:82:ARG:HH11	1.00	1.08
50:BY:71:LYS:HZ3	50:BY:71:LYS:HB2	1.18	1.08
39:DN:65:LYS:O	39:DN:69:GLN:HB2	1.53	1.08
31:DA:996:A:H4'	46:DU:92:ARG:NE	1.68	1.08
47:DV:2:PHE:HB2	47:DV:42:GLY:CA	1.83	1.08
47:BV:62:LEU:HB3	47:BV:98:GLU:HA	1.36	1.07
7:CG:113:GLU:HB2	7:CG:119:ARG:HG2	1.33	1.07
26:B4:25:TYR:HA	36:BG:109:VAL:HG22	1.34	1.07
31:DA:2317:C:H2'	31:DA:2318:G:H5''	1.32	1.07
31:DA:229:A:H5'	31:DA:230:U:H5'	1.35	1.07
33:BD:27:THR:HG21	33:BD:83:GLU:HG2	1.30	1.07
31:DA:1899:G:N2	31:DA:1902:C:H41	1.52	1.07
31:DA:2415:G:H4'	41:DP:67:MET:H	1.16	1.07
33:BD:25:THR:HG21	33:BD:81:ALA:HB1	1.08	1.07
2:CB:185:ILE:HG22	2:CB:199:TYR:HB2	1.35	1.07
8:AH:1:MET:H3	8:AH:1:MET:HE2	1.18	1.06
35:DF:24:LEU:HB3	35:DF:25:PRO:HD2	1.33	1.06
1:CA:921:U:H1'	1:CA:922:G:C5	1.90	1.06
41:DP:16:ARG:HG3	41:DP:16:ARG:HH11	1.02	1.06

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DU:83:LEU:HG	46:DU:88:ILE:HG12	1.34	1.06
44:DS:74:ALA:HB1	44:DS:103:GLU:HG3	1.29	1.06
48:BW:59:VAL:HG12	48:BW:60:ASN:H	1.20	1.06
31:BA:370:G:H4'	31:BA:371:A:OP2	1.54	1.06
31:DA:1210:A:H5'	31:DA:1210:A:H8	1.13	1.06
35:BF:24:LEU:HB3	35:BF:25:PRO:HD2	1.32	1.06
31:BA:2415:G:H4'	41:BP:67:MET:H	1.12	1.06
48:DW:59:VAL:HG12	48:DW:60:ASN:H	1.19	1.06
23:B1:12:PRO:HD2	23:B1:62:VAL:HG23	1.33	1.06
31:DA:1481:U:H5'	31:DA:1482:G:OP2	1.56	1.06
31:BA:49:A:H4'	31:BA:50:U:H5'	1.36	1.06
42:BQ:81:VAL:O	42:BQ:82:ARG:HG2	1.55	1.06
28:D6:10:LEU:H	28:D6:10:LEU:HD22	1.21	1.05
31:DA:27:G:N2	31:DA:512:G:H2'	1.70	1.05
31:DA:1332:G:N2	31:DA:1610:A:C8	2.25	1.05
50:BY:28:LYS:HD3	50:BY:28:LYS:H	1.16	1.05
1:CA:736:C:H2'	1:CA:737:A:C8	1.89	1.05
31:BA:1481:U:H5'	31:BA:1482:G:OP2	1.54	1.05
31:BA:1210:A:H8	31:BA:1210:A:H5'	1.13	1.05
35:BF:65:TRP:CZ3	35:BF:75:HIS:HD2	1.73	1.05
31:BA:631:A:OP1	41:BP:64:LYS:HE2	1.55	1.05
1:CA:1256:A:H61	1:CA:1278:U:H1'	1.17	1.05
42:DQ:141:GLN:HB3	51:DZ:70:LEU:HD13	1.38	1.05
31:DA:1826:G:H4'	33:DD:242:ARG:HH21	1.22	1.05
1:AA:491:G:H2'	1:AA:492:G:H8	1.22	1.05
47:BV:82:ARG:CG	47:BV:82:ARG:HH11	1.70	1.05
10:AJ:34:VAL:HG22	10:AJ:74:ILE:HG22	1.38	1.05
10:CJ:34:VAL:HG22	10:CJ:74:ILE:HG22	1.39	1.05
41:DP:29:LYS:H	41:DP:29:LYS:HD2	1.20	1.05
55:BA:3362:TEL:C1	55:BA:3362:TEL:H143	1.86	1.05
46:BU:83:LEU:HG	46:BU:88:ILE:HG12	1.34	1.05
31:DA:942:G:H5'	41:DP:35:HIS:HB2	1.38	1.04
31:BA:27:G:N2	31:BA:512:G:H2'	1.70	1.04
48:BW:59:VAL:HG12	48:BW:60:ASN:N	1.72	1.04
31:BA:2275:C:O2'	42:BQ:83:MET:HA	1.57	1.04
31:BA:1278:A:OP1	43:BR:36:THR:HG22	1.57	1.04
41:BP:59:LEU:HA	41:BP:61:ARG:NH1	1.72	1.04
33:DD:25:THR:HG21	33:DD:81:ALA:HB1	1.07	1.04
50:DY:28:LYS:H	50:DY:28:LYS:HD3	1.22	1.04
48:DW:75:TYR:CE1	48:DW:104:THR:HB	1.92	1.04
33:BD:27:THR:HG23	33:BD:28:GLU:H	1.23	1.04
47:DV:71:LEU:HD13	47:DV:72:VAL:H	1.21	1.04

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1403:C:H5''	31:BA:1471:A:H1'	1.34	1.04
31:DA:370:G:H4'	31:DA:371:A:OP2	1.55	1.04
32:DB:74:U:H2'	32:DB:75:G:H5''	1.40	1.04
31:DA:2275:C:O2'	42:DQ:83:MET:HA	1.56	1.04
26:D4:25:TYR:HA	36:DG:109:VAL:HG22	1.34	1.04
42:BQ:141:GLN:HB3	51:BZ:70:LEU:HD13	1.38	1.04
1:AA:1256:A:H61	1:AA:1278:U:H1'	1.17	1.04
31:BA:285:C:H2'	31:BA:286:C:H5''	1.40	1.04
31:BA:2334:G:H21	44:BS:18:ILE:HD11	1.21	1.04
47:BV:75:PHE:CE1	47:BV:89:GLN:HB3	1.93	1.04
31:DA:2206:G:N2	31:DA:2207:G:H5'	1.70	1.04
31:DA:285:C:H2'	31:DA:286:C:H5''	1.39	1.04
29:D7:28:ARG:HH11	29:D7:28:ARG:HG3	0.89	1.04
27:D5:16:ARG:HG2	27:D5:16:ARG:HH11	1.21	1.04
35:DF:67:GLN:O	35:DF:67:GLN:HG3	1.50	1.03
31:BA:669:G:H4'	31:BA:670:A:OP2	1.54	1.03
31:BA:1332:G:N2	31:BA:1610:A:C8	2.25	1.03
31:BA:1779:U:H5	31:BA:1784:A:N7	1.54	1.03
32:DB:65:C:N4	32:DB:109:C:H2'	1.73	1.03
31:BA:2206:G:N2	31:BA:2207:G:H5'	1.73	1.03
31:BA:1899:G:N2	31:BA:1902:C:H41	1.53	1.03
27:B5:16:ARG:HG2	27:B5:16:ARG:HH11	1.22	1.03
7:AG:113:GLU:HB2	7:AG:119:ARG:HG2	1.35	1.03
34:BE:132:HIS:CD2	34:BE:135:HIS:CE1	2.46	1.03
41:BP:16:ARG:HD3	41:BP:18:ARG:HB2	1.39	1.03
31:BA:71:A:H8	31:BA:71:A:H5'	1.18	1.03
1:CA:627:G:H2'	1:CA:628:G:C8	1.94	1.03
1:AA:444:C:H2'	1:AA:445:G:H8	1.22	1.03
1:AA:386:C:H2'	1:AA:387:U:H5'	1.36	1.03
34:DE:51:PHE:HB3	34:DE:76:ARG:HB3	1.41	1.03
41:DP:38:GLN:HG3	41:DP:39:LYS:H	1.23	1.03
47:BV:2:PHE:HB2	47:BV:42:GLY:CA	1.88	1.03
23:B1:49:VAL:HG11	31:BA:2091:U:O2'	1.58	1.03
31:BA:229:A:H5'	31:BA:230:U:H5'	1.37	1.03
31:BA:1228:G:H2'	31:BA:1229:G:H5''	1.42	1.02
51:DZ:151:HIS:HB3	51:DZ:170:THR:HA	1.41	1.02
40:BO:10:VAL:HG21	40:BO:16:ALA:O	1.59	1.02
28:B6:10:LEU:H	28:B6:10:LEU:HD22	1.22	1.02
47:BV:71:LEU:HD13	47:BV:72:VAL:H	1.22	1.02
50:DY:37:VAL:O	50:DY:38:ILE:HB	1.56	1.02
31:DA:1278:A:OP1	43:DR:36:THR:HG22	1.58	1.02
50:BY:47:LYS:N	50:BY:47:LYS:HD2	1.73	1.02

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BB:74:U:H2'	32:BB:75:G:H5''	1.38	1.02
1:AA:627:G:H2'	1:AA:628:G:C8	1.95	1.02
1:AA:1442(A):G:N2	45:BT:119:LYS:HA	1.75	1.02
48:BW:75:TYR:CE1	48:BW:104:THR:HB	1.95	1.02
31:BA:2394:C:OP1	41:BP:63:PRO:HD2	1.60	1.01
31:BA:745:G:H22	55:BA:3362:TEL:H51	1.21	1.01
33:BD:108:PRO:HB3	33:BD:143:HIS:HE1	1.25	1.01
16:CP:28:ARG:HH11	16:CP:28:ARG:HG2	1.22	1.01
47:BV:19:LYS:HG3	47:BV:20:LEU:H	1.19	1.01
31:DA:954:G:H5''	42:DQ:13:GLN:HG2	1.41	1.01
38:BI:88:ILE:HG13	38:BI:121:LYS:HA	1.42	1.01
51:BZ:151:HIS:HB3	51:BZ:170:THR:HA	1.40	1.01
1:CA:922:G:H4'	5:CE:20:GLN:HA	1.40	1.01
35:DF:66:PRO:O	35:DF:67:GLN:HB3	1.60	1.01
47:DV:19:LYS:HG3	47:DV:20:LEU:H	1.18	1.01
51:DZ:19:ARG:HG2	51:DZ:19:ARG:HH11	1.25	1.01
39:DN:91:LEU:HA	39:DN:95:PRO:HB3	1.38	1.01
49:BX:36:LYS:NZ	49:BX:38:GLU:O	1.92	1.01
31:DA:2567:G:H2'	31:DA:2568:C:C6	1.95	1.01
5:AE:101:ILE:HD11	5:AE:119:LEU:HD23	1.43	1.01
50:DY:71:LYS:HB2	50:DY:71:LYS:HZ2	1.21	1.01
50:BY:9:LYS:HA	50:BY:30:VAL:HG21	1.40	1.01
29:B7:28:ARG:HG3	29:B7:28:ARG:HH11	0.90	1.01
35:DF:65:TRP:CZ3	35:DF:75:HIS:HD2	1.78	1.01
24:D2:26:ARG:CZ	24:D2:29:LYS:HE2	1.88	1.01
39:DN:120:LEU:HD11	39:DN:122:VAL:HG23	1.38	1.01
50:BY:45:VAL:CG2	50:BY:62:GLU:HB2	1.89	1.01
22:D0:41:ARG:HD2	22:D0:41:ARG:H	1.23	1.01
1:CA:97:G:HO2'	1:CA:98:G:H8	1.08	1.01
31:DA:1146:C:H2'	31:DA:1147:C:H5'	1.42	1.01
31:DA:1228:G:H2'	31:DA:1229:G:H5''	1.42	1.01
31:BA:1826:G:H4'	33:BD:242:ARG:HH21	1.24	1.00
31:DA:2631:G:N2	34:DE:61:ARG:HH12	1.58	1.00
47:BV:85:LYS:O	47:BV:87:HIS:N	1.93	1.00
50:DY:9:LYS:HA	50:DY:30:VAL:HG21	1.42	1.00
11:CK:33:THR:HA	11:CK:39:PRO:HA	1.43	1.00
43:BR:11:ASN:OD1	43:BR:12:ARG:N	1.93	1.00
33:BD:34:VAL:HG21	33:BD:103:ARG:HA	1.39	1.00
27:D5:2:ALA:HA	31:DA:2015:A:H1'	1.44	1.00
47:DV:75:PHE:CE1	47:DV:89:GLN:HB3	1.96	1.00
39:BN:120:LEU:HD11	39:BN:122:VAL:HG23	1.38	1.00
1:AA:736:C:H2'	1:AA:737:A:C8	1.96	1.00

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DP:59:LEU:HA	41:DP:61:ARG:NH1	1.77	1.00
41:BP:38:GLN:HG3	41:BP:39:LYS:H	1.25	1.00
31:DA:1722:A:C2	31:DA:1740:G:H5'	1.97	1.00
39:BN:65:LYS:O	39:BN:69:GLN:HB2	1.60	1.00
32:DB:15:A:H5'	32:DB:16:G:C8	1.97	1.00
32:BB:67:G:C5	32:BB:68:C:H5	1.79	1.00
30:D8:25:MET:HG3	41:DP:64:LYS:HB3	1.43	1.00
50:BY:45:VAL:HG22	50:BY:62:GLU:CB	1.90	1.00
32:BB:65:C:N4	32:BB:109:C:H2'	1.76	1.00
28:D6:10:LEU:HD12	30:D8:35:GLN:HE22	1.25	1.00
31:DA:2808:U:H5'	31:DA:2891:G:O6	1.61	1.00
31:BA:2701:C:C3'	31:BA:2702:U:H5''	1.91	1.00
48:DW:59:VAL:HG12	48:DW:60:ASN:N	1.73	1.00
55:DA:3320:TEL:H143	55:DA:3320:TEL:C1	1.86	1.00
1:AA:430:A:H2'	1:AA:431:A:H5'	1.44	1.00
31:DA:2801:A:H4'	31:DA:2801(A):A:H5'	1.44	1.00
31:DA:2701:C:C3'	31:DA:2702:U:H5''	1.91	0.99
41:DP:16:ARG:HD3	41:DP:18:ARG:HB2	1.41	0.99
33:BD:35:LYS:NZ	33:BD:104:TYR:HB2	1.78	0.99
34:DE:93:VAL:H	34:DE:95:ILE:HD12	1.26	0.99
1:CA:491:G:H2'	1:CA:492:G:H8	1.23	0.99
23:D1:49:VAL:HG11	31:DA:2091:U:O2'	1.62	0.99
1:AA:59:A:H5''	1:AA:60:A:H5''	1.43	0.99
24:B2:56:GLN:HA	24:B2:56:GLN:HE21	1.25	0.99
31:DA:1115:G:H2'	31:DA:1116:C:H6	1.26	0.99
27:B5:2:ALA:HA	31:BA:2015:A:H1'	1.40	0.99
20:CT:13:LEU:H	20:CT:13:LEU:HD12	1.27	0.99
51:BZ:19:ARG:HH11	51:BZ:19:ARG:HG2	1.28	0.99
33:DD:108:PRO:HB3	33:DD:143:HIS:HE1	1.28	0.99
32:BB:88:C:H2'	32:BB:89:G:C8	1.97	0.99
41:DP:51:PHE:HB3	41:DP:52:GLU:OE2	1.63	0.98
38:DI:82:ARG:HD2	38:DI:89:TYR:OH	1.60	0.98
31:DA:745:G:H22	55:DA:3320:TEL:H51	1.25	0.98
5:CE:101:ILE:HD11	5:CE:119:LEU:HD23	1.39	0.98
31:BA:2317:C:C2'	31:BA:2318:G:H5''	1.93	0.98
23:B1:17:SER:O	23:B1:44:PRO:HD2	1.63	0.98
32:BB:15:A:H5'	32:BB:16:G:C8	1.97	0.98
40:DO:111:PHE:HB3	40:DO:114:ILE:HG12	1.42	0.98
31:DA:2781:A:H5'	31:DA:2782:G:H5'	1.45	0.98
9:AI:4:TYR:HB2	9:AI:19:LEU:HB2	1.45	0.98
34:BE:152:LYS:HD3	39:BN:78:TYR:HB2	1.45	0.98
50:DY:31:LEU:HB3	50:DY:32:PRO:HA	1.43	0.98

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:444:C:H2'	1:CA:445:G:H8	1.22	0.98
31:BA:1146:C:H2'	31:BA:1147:C:H5'	1.44	0.98
40:DO:10:VAL:HG21	40:DO:16:ALA:O	1.62	0.98
31:BA:2808:U:H5'	31:BA:2891:G:O6	1.64	0.98
31:BA:2801:A:H4'	31:BA:2801(A):A:H5'	1.45	0.98
39:BN:56:ASN:H	39:BN:125:GLY:HA3	1.27	0.98
42:DQ:75:THR:HA	42:DQ:88:GLY:HA2	1.45	0.98
1:AA:1418:A:H2	31:BA:1948:G:N3	1.60	0.98
31:DA:1158:C:H2'	31:DA:1159:U:H5'	1.46	0.98
1:AA:386:C:C2'	1:AA:387:U:H5'	1.93	0.98
1:CA:386:C:H2'	1:CA:387:U:H5'	1.42	0.98
20:CT:56:MET:HG3	20:CT:88:VAL:HG21	1.46	0.98
1:AA:134:A:H61	16:AP:25:ARG:HH12	1.09	0.98
3:CC:180:ALA:HB1	3:CC:182:ILE:HG13	1.42	0.98
28:D6:15:GLU:OE1	28:D6:18:ARG:HG3	1.64	0.98
31:DA:806:C:OP2	41:DP:39:LYS:HD2	1.63	0.98
30:B8:25:MET:HG3	41:BP:64:LYS:HB3	1.46	0.98
31:BA:1722:A:C2	31:BA:1740:G:H5'	1.98	0.98
33:DD:30:GLU:HG3	33:DD:63:ARG:NE	1.77	0.97
31:BA:1158:C:H2'	31:BA:1159:U:H5'	1.42	0.97
34:BE:154:LYS:HE3	34:BE:154:LYS:HA	1.46	0.97
44:DS:29:PHE:N	44:DS:89:ARG:HD2	1.80	0.97
50:DY:45:VAL:CG2	50:DY:62:GLU:HB2	1.94	0.97
31:BA:2681:C:H5	31:BA:2725:A:H62	1.08	0.97
20:AT:56:MET:HG3	20:AT:88:VAL:HG21	1.43	0.97
31:BA:1115:G:H2'	31:BA:1116:C:H6	1.26	0.97
55:DA:3320:TEL:C1	55:DA:3320:TEL:C14	2.30	0.97
29:D7:28:ARG:NH1	29:D7:28:ARG:HG3	1.67	0.97
32:DB:88:C:H2'	32:DB:89:G:C8	1.99	0.97
39:BN:91:LEU:HA	39:BN:95:PRO:HB3	1.45	0.97
31:DA:1047:G:H21	31:DA:1111:A:H62	1.04	0.97
50:DY:45:VAL:HG22	50:DY:62:GLU:CB	1.94	0.97
50:BY:95:LYS:HE2	50:BY:101:LYS:H	1.29	0.97
31:DA:2394:C:OP1	41:DP:63:PRO:HD2	1.62	0.97
4:CD:18:LYS:HD2	4:CD:33:MET:HG2	1.43	0.97
47:BV:22:VAL:O	47:BV:23:GLU:HB2	1.62	0.97
1:AA:737:A:H2'	1:AA:738:C:C6	1.99	0.97
27:B5:40:LYS:HE3	27:B5:49:CYS:SG	2.03	0.97
46:BU:93:LYS:H	46:BU:93:LYS:HD3	1.29	0.97
9:CI:4:TYR:HB2	9:CI:19:LEU:HB2	1.45	0.97
42:BQ:75:THR:HA	42:BQ:88:GLY:HA2	1.47	0.97
34:DE:132:HIS:CD2	34:DE:135:HIS:CE1	2.53	0.97

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1188:U:C2'	31:DA:1189:A:H5'	1.94	0.97
31:DA:925:C:H2'	31:DA:926:A:H5''	1.45	0.97
34:BE:51:PHE:HB3	34:BE:76:ARG:HB3	1.44	0.97
31:BA:2287:A:H62	31:BA:2344:U:H3	1.03	0.97
24:B2:56:GLN:HE21	24:B2:56:GLN:CA	1.78	0.97
23:D1:41:ARG:HH11	23:D1:41:ARG:HG3	1.29	0.97
31:BA:2415:G:H4'	41:BP:67:MET:N	1.80	0.96
3:AC:180:ALA:HB1	3:AC:182:ILE:HG13	1.43	0.96
31:BA:996:A:H4'	46:BU:92:ARG:NE	1.79	0.96
20:AT:13:LEU:HD12	20:AT:13:LEU:H	1.28	0.96
6:AF:34:GLY:H	6:AF:71:ARG:HH21	1.11	0.96
1:CA:475:G:H2'	1:CA:476:G:H8	1.29	0.96
8:CH:1:MET:HE2	8:CH:1:MET:H3	1.28	0.96
33:BD:30:GLU:HG3	33:BD:63:ARG:NE	1.80	0.96
41:BP:124:LYS:HG2	41:BP:143:GLY:HA2	1.44	0.96
31:BA:1292:U:H2'	31:BA:1293:C:C6	1.99	0.96
23:B1:41:ARG:HG3	23:B1:41:ARG:HH11	1.28	0.96
39:BN:18:ALA:HB1	39:BN:21:LYS:HB2	1.46	0.96
31:DA:996:A:O3'	46:DU:92:ARG:HG3	1.65	0.96
31:BA:287:C:H42	31:BA:354:G:H1	1.11	0.96
1:AA:475:G:H2'	1:AA:476:G:H8	1.29	0.96
31:BA:1339:G:N2	31:BA:1603:A:H1'	1.80	0.96
41:BP:62:LEU:HD22	41:BP:62:LEU:H	1.30	0.96
31:DA:1019:U:H3	31:DA:1142(A):A:H62	0.97	0.96
31:DA:2334:G:H21	44:DS:18:ILE:HD11	1.30	0.96
33:DD:27:THR:HG23	33:DD:28:GLU:H	1.29	0.96
31:DA:2327:A:H2'	31:DA:2328:A:C8	2.01	0.96
31:BA:2068:U:H3	31:BA:2430:A:H2	1.13	0.96
30:D8:25:MET:HB2	41:DP:62:LEU:HD23	1.47	0.96
34:DE:152:LYS:HD3	39:DN:78:TYR:HB2	1.44	0.96
31:BA:1678:G:N2	31:BA:1989:G:H22	1.62	0.96
31:BA:1158:C:C2'	31:BA:1159:U:H5'	1.95	0.96
31:BA:1747(A):G:H2'	31:BA:1748:G:H5''	1.47	0.96
31:BA:27:G:N2	31:BA:512:G:C2'	2.29	0.96
1:CA:134:A:H61	16:CP:25:ARG:HH12	1.09	0.96
31:DA:287:C:H42	31:DA:354:G:H1	1.10	0.96
38:BI:52:ARG:HA	38:BI:55:ALA:HB3	1.44	0.96
31:DA:1292:U:H2'	31:DA:1293:C:C6	2.00	0.96
31:DA:1779:U:H5	31:DA:1784:A:N7	1.62	0.95
36:DG:76:SER:HB2	36:DG:83:ARG:HB3	1.48	0.95
3:AC:20:SER:HB2	3:AC:40:ARG:HH22	1.27	0.95
2:AB:201:ILE:HG21	2:AB:214:ILE:HG21	1.45	0.95

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:BZ:53:ILE:HG22	51:BZ:71:VAL:HB	1.48	0.95
1:AA:662:G:H2'	1:AA:663:A:H8	1.31	0.95
28:B6:10:LEU:HD12	30:B8:35:GLN:HE22	1.28	0.95
31:DA:996:A:H4'	46:DU:92:ARG:HE	1.29	0.95
46:BU:92:ARG:HD2	47:BV:11:GLN:NE2	1.79	0.95
31:DA:2701:C:H3'	31:DA:2702:U:H5''	0.96	0.95
1:CA:1090:U:H2'	1:CA:1091:U:H6	1.30	0.95
55:DA:3320:TEL:H143	55:DA:3320:TEL:O5	1.66	0.95
31:BA:2781:A:H5'	31:BA:2782:G:H5'	1.48	0.95
31:DA:2317:C:C2'	31:DA:2318:G:H5''	1.95	0.95
1:AA:784:C:H4'	31:BA:1837:C:OP1	1.66	0.95
31:DA:2729:G:H1'	34:DE:187:ALA:HB2	1.48	0.95
31:BA:942:G:H5'	41:BP:35:HIS:HB2	1.47	0.95
30:D8:62:LEU:HD13	31:DA:242:G:C5'	1.96	0.95
39:DN:56:ASN:H	39:DN:125:GLY:HA3	1.29	0.95
1:CA:386:C:C2'	1:CA:387:U:H5'	1.97	0.95
35:BF:101:LEU:HD12	35:BF:102:PRO:HD2	1.47	0.95
11:AK:33:THR:HA	11:AK:39:PRO:HA	1.47	0.95
1:AA:97:G:HO2'	1:AA:98:G:H8	1.14	0.95
32:DB:67:G:C5	32:DB:68:C:H5	1.84	0.95
22:B0:41:ARG:H	22:B0:41:ARG:HD2	1.26	0.95
1:AA:1090:U:H2'	1:AA:1091:U:H6	1.31	0.95
41:BP:30:THR:HG22	41:BP:31:ALA:H	1.31	0.95
41:BP:51:PHE:HB3	41:BP:52:GLU:OE2	1.65	0.95
1:AA:626:U:H2'	1:AA:627:G:C8	2.02	0.95
2:CB:178:ARG:NH2	8:CH:68:ARG:HH22	1.63	0.95
34:BE:36:ARG:HH21	34:BE:88:GLY:HA2	1.30	0.95
31:BA:639:U:O2'	31:BA:640:C:H5'	1.67	0.95
4:AD:18:LYS:HD2	4:AD:33:MET:HG2	1.46	0.95
34:DE:36:ARG:HH21	34:DE:88:GLY:HA2	1.29	0.95
41:BP:58:THR:O	41:BP:61:ARG:NE	2.00	0.95
1:AA:437:U:H5''	4:AD:155:LEU:HD13	1.47	0.95
1:CA:102:G:H2'	1:CA:103:C:H6	1.28	0.95
2:AB:178:ARG:NH2	8:AH:68:ARG:HH22	1.64	0.95
15:CO:56:LEU:O	15:CO:60:VAL:HG23	1.67	0.95
3:CC:20:SER:HB2	3:CC:40:ARG:HH22	1.32	0.95
41:BP:16:ARG:HG3	41:BP:16:ARG:NH1	1.75	0.94
24:D2:56:GLN:HE21	24:D2:56:GLN:HA	1.29	0.94
47:DV:85:LYS:O	47:DV:87:HIS:N	2.00	0.94
1:CA:437:U:H5''	4:CD:155:LEU:HD13	1.48	0.94
31:BA:571:A:H5'	31:BA:2030:A:N6	1.80	0.94
29:D7:28:ARG:HH11	29:D7:28:ARG:CG	1.79	0.94

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1494:A:H4'	31:DA:1495:A:OP1	1.66	0.94
28:B6:15:GLU:OE1	28:B6:18:ARG:HG3	1.66	0.94
31:DA:903:C:H2'	31:DA:904:C:H5''	1.45	0.94
31:DA:1158:C:C2'	31:DA:1159:U:H5'	1.97	0.94
50:BY:17:SER:HB3	50:BY:71:LYS:HD2	1.48	0.94
1:AA:664:G:H22	1:AA:741:G:H1	0.96	0.94
3:AC:47:LEU:HD21	3:AC:68:VAL:HG11	1.49	0.94
31:BA:2701:C:H3'	31:BA:2702:U:H5''	0.95	0.94
4:CD:128:VAL:HG13	4:CD:129:ASN:ND2	1.82	0.94
34:DE:154:LYS:HA	34:DE:154:LYS:HE3	1.50	0.94
1:AA:862:C:C2'	1:AA:863:U:H5'	1.96	0.94
1:CA:1412:C:H2'	1:CA:1413:A:C8	2.03	0.94
1:AA:382:A:H2'	1:AA:383:A:H8	1.33	0.94
4:AD:119:GLN:HG3	4:AD:123:HIS:CD2	2.02	0.94
33:DD:34:VAL:HG21	33:DD:103:ARG:HA	1.46	0.94
3:AC:182:ILE:HG12	3:AC:203:PHE:HA	1.49	0.94
1:CA:475:G:H2'	1:CA:476:G:C8	2.03	0.94
31:BA:2680:C:H5'	34:BE:189:PRO:HA	1.50	0.94
43:DR:4:LEU:O	43:DR:4:LEU:HD13	1.67	0.94
31:DA:860:U:H5	31:DA:917:A:N7	1.65	0.94
30:B8:4:MET:SD	30:B8:61:LEU:HD12	2.06	0.94
31:DA:1778:U:H2'	31:DA:1784:A:N6	1.83	0.94
51:BZ:27:VAL:HG23	51:BZ:36:LYS:HA	1.49	0.94
28:D6:9:LEU:HD22	28:D6:10:LEU:N	1.82	0.94
47:DV:82:ARG:CG	47:DV:82:ARG:HH11	1.80	0.94
44:BS:106:ARG:HG2	44:BS:107:GLU:N	1.83	0.94
49:BX:36:LYS:HD2	49:BX:36:LYS:O	1.66	0.94
2:CB:201:ILE:HG21	2:CB:214:ILE:HG21	1.46	0.94
31:DA:2415:G:H4'	41:DP:67:MET:N	1.82	0.94
30:B8:35:GLN:NE2	30:B8:36:LYS:HZ2	1.64	0.94
31:BA:1378:A:O2'	31:BA:1379:A:H5''	1.68	0.94
1:CA:56:U:H2'	1:CA:57:G:C8	2.03	0.94
47:BV:28:GLU:HB2	47:BV:29:PRO:HD3	1.50	0.94
32:DB:15:A:H5'	32:DB:16:G:H8	1.30	0.94
31:DA:2681:C:H5	31:DA:2725:A:H62	1.15	0.94
31:DA:1690:A:H3'	31:DA:1691:C:H6	1.33	0.94
31:DA:1414:G:H1	31:DA:1588:C:H42	1.12	0.94
34:BE:93:VAL:H	34:BE:95:ILE:HD12	1.31	0.94
1:CA:555:C:H2'	1:CA:556:C:H6	1.30	0.94
31:BA:1494:A:H4'	31:BA:1495:A:OP1	1.66	0.94
1:AA:555:C:H2'	1:AA:556:C:H6	1.31	0.94
31:BA:954:G:H5''	42:BQ:13:GLN:HG2	1.48	0.94

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:61:G:H1	31:BA:94:C:H42	1.16	0.94
31:DA:1747(A):G:H2'	31:DA:1748:G:H5''	1.50	0.94
11:AK:121:PRO:HD2	11:AK:126:ARG:HG3	1.50	0.94
31:BA:2359:C:C2'	31:BA:2360:A:H5'	1.98	0.94
29:B7:28:ARG:HG3	29:B7:28:ARG:NH1	1.70	0.94
1:CA:430:A:H2'	1:CA:431:A:H5'	1.47	0.93
1:CA:673:G:H2'	1:CA:674:G:C8	2.03	0.93
42:DQ:81:VAL:O	42:DQ:82:ARG:HG2	1.68	0.93
1:CA:445:G:H2'	1:CA:446:G:C8	2.02	0.93
12:AL:60:LEU:HD21	12:AL:66:VAL:HG22	1.50	0.93
41:BP:29:LYS:H	41:BP:29:LYS:HD2	1.29	0.93
36:DG:106:LEU:HA	36:DG:110:ALA:HB3	1.50	0.93
1:AA:102:G:H2'	1:AA:103:C:H6	1.31	0.93
31:BA:1414:G:H1	31:BA:1588:C:H42	1.08	0.93
45:BT:91:ARG:HB3	45:BT:116:ALA:HA	1.50	0.93
1:CA:15:G:H4'	5:CE:24:ARG:HH12	1.32	0.93
55:BA:3362:TEL:O5	55:BA:3362:TEL:H143	1.66	0.93
31:BA:69:C:H2'	31:BA:69:C:O2	1.66	0.93
33:BD:147:LEU:HD13	33:BD:155:LEU:HD11	1.50	0.93
50:DY:95:LYS:HE2	50:DY:101:LYS:H	1.32	0.93
12:CL:47:LYS:HB3	12:CL:48:PRO:HD3	1.50	0.93
35:DF:20:LEU:HD22	35:DF:203:GLN:HE22	1.32	0.93
32:BB:25:A:H2'	32:BB:26:A:C8	2.03	0.93
41:BP:121:LYS:HG3	25:D3:2:PRO:HG2	1.51	0.93
33:BD:244:ARG:HG2	33:BD:245:PRO:HD3	1.50	0.93
23:D1:17:SER:O	23:D1:44:PRO:HD2	1.67	0.93
1:AA:862:C:H2'	1:AA:863:U:H5'	1.50	0.93
31:BA:1952:A:C5	40:BO:22:ILE:HD11	2.03	0.93
40:BO:104:ARG:CZ	45:BT:33:LYS:HD2	1.98	0.93
49:BX:82:GLN:O	49:BX:85:PRO:HD2	1.68	0.93
1:CA:737:A:H2'	1:CA:738:C:C6	2.03	0.93
1:CA:445:G:H2'	1:CA:446:G:H8	1.33	0.93
31:BA:903:C:H2'	31:BA:904:C:H5''	1.46	0.93
31:DA:1188:U:H2'	31:DA:1189:A:H5'	1.50	0.93
55:BA:3362:TEL:C14	55:BA:3362:TEL:C1	2.30	0.93
31:BA:676:A:H2	31:BA:802:A:H61	1.14	0.93
47:DV:72:VAL:HA	47:DV:88:ARG:HH12	1.33	0.93
1:CA:59:A:H5''	1:CA:60:A:H5''	1.51	0.93
3:CC:182:ILE:HG12	3:CC:203:PHE:HA	1.50	0.93
41:BP:118:GLY:O	41:BP:119:GLU:HG2	1.69	0.93
31:DA:571:A:H5'	31:DA:2030:A:N6	1.83	0.93
23:B1:19:GLN:HG3	23:B1:44:PRO:HG3	1.51	0.93

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BH:85:LYS:HD3	37:BH:133:VAL:HB	1.51	0.93
33:DD:35:LYS:HD3	33:DD:63:ARG:HB3	1.48	0.93
31:BA:528:A:N1	31:BA:2042:A:H2'	1.83	0.93
1:CA:664:G:H22	1:CA:741:G:H1	0.99	0.93
3:CC:47:LEU:HD21	3:CC:68:VAL:HG11	1.49	0.93
1:CA:1502:A:H2	1:CA:1505:G:N1	1.66	0.93
33:BD:35:LYS:CD	33:BD:104:TYR:CD1	2.51	0.93
31:DA:528:A:N1	31:DA:2042:A:H2'	1.83	0.93
33:BD:27:THR:CG2	33:BD:28:GLU:H	1.82	0.93
49:BX:25:LYS:HE3	49:BX:26:TYR:HE1	1.32	0.93
31:DA:1146:C:C2'	31:DA:1147:C:H5'	1.98	0.93
31:BA:1188:U:C2'	31:BA:1189:A:H5'	1.99	0.93
41:DP:124:LYS:HG2	41:DP:143:GLY:HA2	1.49	0.93
36:DG:127:GLY:HA2	36:DG:166:ASP:HB3	1.51	0.93
47:BV:72:VAL:C	47:BV:88:ARG:HH22	1.72	0.92
50:BY:31:LEU:HB3	50:BY:32:PRO:HA	1.47	0.92
23:B1:19:GLN:HE21	31:BA:379:G:H21	0.99	0.92
16:AP:20:VAL:HG21	16:AP:32:TYR:CG	2.04	0.92
48:DW:92:ARG:HG2	48:DW:92:ARG:HH11	1.34	0.92
31:DA:1568:G:H21	33:DD:58:HIS:CE1	1.85	0.92
33:DD:71:ASP:HB2	33:DD:103:ARG:HH22	1.32	0.92
51:BZ:53:ILE:CG2	51:BZ:71:VAL:HB	1.98	0.92
36:DG:161:THR:HG23	36:DG:163:ALA:H	1.35	0.92
1:AA:472:A:H4'	16:AP:82:GLN:HE22	1.33	0.92
1:AA:1446:U:H4'	1:AA:1447:A:N7	1.84	0.92
44:BS:29:PHE:N	44:BS:89:ARG:HD2	1.84	0.92
31:DA:1378:A:O2'	31:DA:1379:A:H5''	1.69	0.92
39:BN:42:TRP:HA	39:BN:48:MET:CE	1.98	0.92
50:BY:30:VAL:HG12	50:BY:31:LEU:H	1.32	0.92
1:AA:475:G:H2'	1:AA:476:G:C8	2.03	0.92
1:AA:1502:A:H2	1:AA:1505:G:N1	1.68	0.92
1:AA:688:G:H2'	1:AA:689:C:H6	1.35	0.92
31:BA:2870:C:H2'	31:BA:2871:C:H5'	1.51	0.92
1:CA:1442:G:O2'	1:CA:1442(A):G:H5''	1.69	0.92
31:DA:71:A:C8	31:DA:71:A:H5'	2.05	0.92
31:BA:1210:A:H8	31:BA:1210:A:C5'	1.81	0.92
41:DP:143:GLY:C	41:DP:145:PRO:HD3	1.89	0.92
22:D0:32:ARG:N	22:D0:35:ASN:HD21	1.67	0.92
31:BA:1047:G:H21	31:BA:1111:A:H62	1.00	0.92
31:DA:676:A:H2	31:DA:802:A:H61	1.05	0.92
31:DA:2199:A:H3'	31:DA:2200:C:H6	1.33	0.92
11:CK:121:PRO:HD2	11:CK:126:ARG:HG3	1.49	0.92

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:975:A:H4'	1:CA:976:G:H5''	1.52	0.92
31:DA:2287:A:H62	31:DA:2344:U:H3	1.00	0.92
1:AA:975:A:H4'	1:AA:976:G:H5''	1.51	0.92
24:D2:49:LYS:HD2	24:D2:53:LEU:HD22	1.50	0.92
4:AD:119:GLN:HG3	4:AD:123:HIS:HD2	1.33	0.92
47:BV:82:ARG:HG3	47:BV:82:ARG:NH1	1.75	0.92
27:D5:40:LYS:HE3	27:D5:49:CYS:SG	2.08	0.92
2:AB:22:LYS:HZ3	2:AB:22:LYS:HA	1.35	0.92
12:AL:47:LYS:HB3	12:AL:48:PRO:HD3	1.50	0.92
31:BA:676:A:H8	31:BA:2069:G:H21	0.97	0.92
39:DN:18:ALA:HB1	39:DN:21:LYS:HB2	1.49	0.92
31:DA:1224:C:O3'	47:DV:88:ARG:HB3	1.69	0.92
1:CA:626:U:H2'	1:CA:627:G:C8	2.04	0.92
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.05	0.92
36:BG:127:GLY:HA2	36:BG:166:ASP:HB3	1.52	0.92
46:DU:93:LYS:HD3	46:DU:93:LYS:H	1.34	0.92
1:AA:1442:G:O2'	1:AA:1442(A):G:H5''	1.70	0.92
48:BW:92:ARG:HH11	48:BW:92:ARG:HG2	1.34	0.92
1:AA:1199:U:H4'	10:AJ:54:PHE:CZ	2.05	0.92
22:B0:32:ARG:N	22:B0:35:ASN:HD21	1.67	0.92
31:BA:1779:U:C5	31:BA:1784:A:N7	2.37	0.92
1:CA:662:G:H2'	1:CA:663:A:H8	1.34	0.92
31:BA:1169:G:H1	31:BA:1180:C:N4	1.68	0.92
1:CA:472:A:H4'	16:CP:82:GLN:HE22	1.34	0.92
1:CA:382:A:H2'	1:CA:383:A:H8	1.35	0.92
38:BI:91:SER:HB2	38:BI:119:PRO:HB2	1.50	0.92
40:BO:111:PHE:HB3	40:BO:114:ILE:HG12	1.52	0.92
1:CA:922:G:C8	5:CE:18:ARG:HB2	2.05	0.91
31:BA:1429:G:H2'	31:BA:1430:C:C6	2.05	0.91
31:BA:1019:U:H3	31:BA:1142(A):A:N6	1.67	0.91
1:AA:673:G:H2'	1:AA:674:G:C8	2.05	0.91
4:CD:209:ARG:CG	4:CD:209:ARG:HH11	1.82	0.91
31:DA:83:G:N2	31:DA:102:G:O2'	2.02	0.91
1:CA:862:C:C2'	1:CA:863:U:H5'	2.00	0.91
31:DA:639:U:O2'	31:DA:640:C:H5'	1.70	0.91
31:BA:2567:G:H2'	31:BA:2568:C:C6	2.06	0.91
41:BP:143:GLY:C	41:BP:145:PRO:HD3	1.90	0.91
46:DU:49:HIS:HA	46:DU:52:ARG:HB2	1.51	0.91
31:DA:1210:A:C8	31:DA:1210:A:H5'	2.04	0.91
51:DZ:10:ARG:HH21	51:DZ:26:GLY:H	1.17	0.91
31:BA:1771:C:H1'	31:BA:1786:A:C8	2.06	0.91
16:CP:20:VAL:HG21	16:CP:32:TYR:CG	2.06	0.91

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BP:62:LEU:N	41:BP:62:LEU:HD22	1.82	0.91
47:DV:22:VAL:O	47:DV:23:GLU:HB2	1.65	0.91
24:B2:49:LYS:HD2	24:B2:53:LEU:HD22	1.49	0.91
1:CA:1281:U:H4'	1:CA:1282:C:OP2	1.70	0.91
31:DA:674:G:O2'	35:DF:74:ARG:HG3	1.70	0.91
2:AB:55:PHE:HE1	2:AB:218:ALA:HA	1.33	0.91
47:BV:72:VAL:HA	47:BV:88:ARG:HH12	1.32	0.91
31:BA:288:C:H42	31:BA:353:G:H1	1.17	0.91
29:B7:28:ARG:HH11	29:B7:28:ARG:CG	1.82	0.91
1:CA:1446:U:H4'	1:CA:1447:A:N7	1.84	0.91
31:DA:1945:G:C2'	31:DA:1946:U:H5'	2.00	0.91
36:BG:76:SER:HB2	36:BG:83:ARG:HB3	1.50	0.91
50:DY:47:LYS:HD2	50:DY:47:LYS:N	1.86	0.91
28:D6:10:LEU:H	28:D6:10:LEU:CD2	1.84	0.91
32:DB:74:U:C2'	32:DB:75:G:H5''	2.01	0.91
32:BB:74:U:C2'	32:BB:75:G:H5''	1.99	0.91
13:CM:44:ARG:HB2	13:CM:46:LYS:HG2	1.52	0.91
30:B8:35:GLN:HE21	30:B8:36:LYS:HZ2	0.94	0.91
33:BD:35:LYS:HD3	33:BD:63:ARG:HB3	1.51	0.91
31:BA:2631:G:N2	34:BE:61:ARG:HH12	1.68	0.91
31:DA:1169:G:H1	31:DA:1180:C:N4	1.68	0.91
38:DI:91:SER:HB2	38:DI:119:PRO:HB2	1.53	0.91
41:DP:58:THR:O	41:DP:61:ARG:CZ	2.19	0.91
32:DB:87:G:H3'	32:DB:88:C:H5''	1.51	0.91
34:BE:117:MET:O	34:BE:118:LYS:HB2	1.67	0.91
31:BA:860:U:H5	31:BA:917:A:N7	1.68	0.91
34:BE:38:THR:HG22	34:BE:40:GLU:H	1.35	0.91
49:DX:36:LYS:NZ	49:DX:38:GLU:O	2.03	0.91
31:DA:1902:C:O2'	33:DD:244:ARG:HB2	1.70	0.91
33:DD:35:LYS:NZ	33:DD:104:TYR:HB2	1.86	0.91
31:DA:1210:A:C5'	31:DA:1210:A:H8	1.82	0.91
48:BW:75:TYR:HE1	48:BW:104:THR:HB	1.29	0.91
1:AA:365:U:H5''	1:AA:366:C:OP1	1.71	0.91
6:CF:34:GLY:H	6:CF:71:ARG:HH21	1.11	0.91
45:DT:65:LYS:HE3	45:DT:66:VAL:H	1.36	0.91
44:DS:106:ARG:HG2	44:DS:107:GLU:N	1.83	0.91
31:DA:2567:G:H2'	31:DA:2568:C:H6	1.35	0.91
31:DA:1495:A:H2'	31:DA:1496:A:N3	1.85	0.91
41:DP:62:LEU:H	41:DP:62:LEU:HD13	1.35	0.91
41:BP:47:ASP:HB3	41:BP:48:PRO:C	1.91	0.91
49:DX:35:THR:HB	49:DX:75:ASP:OD2	1.70	0.91
47:DV:28:GLU:HB2	47:DV:29:PRO:HD3	1.52	0.91

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1902:C:O2'	33:BD:244:ARG:HB2	1.70	0.91
31:DA:1115:G:H2'	31:DA:1116:C:C6	2.05	0.91
31:DA:1639:U:H2'	31:DA:1640:C:H5''	1.49	0.91
31:BA:83:G:N2	31:BA:102:G:O2'	2.04	0.91
24:D2:56:GLN:HE21	24:D2:56:GLN:CA	1.83	0.90
49:DX:36:LYS:HD2	49:DX:36:LYS:O	1.72	0.90
31:DA:1429:G:H2'	31:DA:1430:C:C6	2.06	0.90
31:DA:1430:C:H2'	31:DA:1431:U:C6	2.07	0.90
1:AA:15:G:H4'	5:AE:24:ARG:HH12	1.36	0.90
50:DY:75:ILE:HD11	50:DY:79:CYS:HA	1.52	0.90
13:AM:44:ARG:HB2	13:AM:46:LYS:HG2	1.51	0.90
1:CA:688:G:H2'	1:CA:689:C:H6	1.35	0.90
47:DV:82:ARG:HG3	47:DV:82:ARG:NH1	1.83	0.90
31:BA:2359:C:H2'	31:BA:2360:A:H5'	1.52	0.90
41:BP:121:LYS:HG2	41:BP:122:PRO:HD2	1.52	0.90
31:BA:1019:U:HO2'	31:BA:1021:A:H2	0.93	0.90
35:BF:185:ASP:HA	35:BF:188:ARG:HD3	1.52	0.90
34:DE:117:MET:O	34:DE:118:LYS:HB2	1.67	0.90
31:BA:1495:A:H2'	31:BA:1496:A:N3	1.86	0.90
1:CA:1199:U:H4'	10:CJ:54:PHE:CZ	2.06	0.90
35:DF:22:ALA:O	35:DF:26:ALA:HB2	1.71	0.90
31:BA:1658:C:OP1	34:BE:132:HIS:CE1	2.24	0.90
33:BD:27:THR:HG23	33:BD:28:GLU:N	1.85	0.90
39:DN:42:TRP:HB3	46:DU:64:ARG:NH1	1.86	0.90
1:CA:491:G:H2'	1:CA:492:G:C8	2.06	0.90
23:D1:19:GLN:HE21	31:DA:379:G:H21	1.11	0.90
31:DA:1339:G:N2	31:DA:1603:A:H1'	1.85	0.90
31:BA:1973:G:H2'	31:BA:1974:C:H6	1.37	0.90
41:DP:29:LYS:N	41:DP:29:LYS:HD2	1.86	0.90
12:CL:60:LEU:HD21	12:CL:66:VAL:HG22	1.50	0.90
35:BF:20:LEU:HD22	35:BF:203:GLN:HE22	1.34	0.90
31:DA:1019:U:HO2'	31:DA:1021:A:H2	0.91	0.90
47:DV:19:LYS:CG	47:DV:20:LEU:H	1.84	0.90
23:D1:19:GLN:HG3	23:D1:44:PRO:HG3	1.51	0.90
28:B6:20:ASN:ND2	28:B6:21:TYR:H	1.69	0.90
43:BR:71:GLN:HE21	43:BR:71:GLN:HA	1.37	0.90
1:AA:954:G:H21	1:AA:1227:A:H62	1.16	0.90
1:AA:491:G:H2'	1:AA:492:G:C8	2.06	0.90
46:BU:49:HIS:HA	46:BU:52:ARG:HB2	1.52	0.90
5:AE:102:ALA:HB1	5:AE:106:PRO:HG2	1.53	0.90
50:DY:30:VAL:HG12	50:DY:31:LEU:H	1.36	0.90
31:BA:1210:A:C8	31:BA:1210:A:H5'	2.04	0.90

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1115:G:H2'	31:BA:1116:C:C6	2.05	0.90
41:DP:16:ARG:HG3	41:DP:16:ARG:NH1	1.74	0.90
33:BD:65:ILE:HD11	33:BD:67:PHE:CE1	2.07	0.90
41:BP:140:ALA:HB1	25:D3:38:GLU:HG2	1.53	0.90
31:BA:2317:C:H2'	31:BA:2318:G:C5'	2.02	0.90
1:CA:1281:U:H5'	1:CA:1282:C:H5	1.37	0.90
36:BG:161:THR:HG23	36:BG:163:ALA:H	1.35	0.90
31:DA:1028:A:N6	31:DA:1125:G:H2'	1.86	0.90
31:BA:2875:C:H4'	45:BT:5:ALA:HB2	1.53	0.90
24:B2:25:VAL:HG13	24:B2:26:ARG:HD3	1.54	0.90
33:DD:71:ASP:HB2	33:DD:103:ARG:NH2	1.86	0.90
31:DA:1509(A):A:H2'	31:DA:1509(B):A:C8	2.06	0.90
1:AA:134:A:N6	16:AP:25:ARG:HH12	1.70	0.90
32:BB:87:G:H3'	32:BB:88:C:H5''	1.50	0.90
50:BY:76:CYS:SG	50:BY:77:PRO:HD2	2.12	0.90
41:DP:121:LYS:HG2	41:DP:122:PRO:HD2	1.54	0.90
31:BA:925:C:H2'	31:BA:926:A:H5''	1.53	0.90
41:DP:118:GLY:O	41:DP:119:GLU:HG2	1.70	0.90
1:CA:862:C:H2'	1:CA:863:U:H5'	1.54	0.90
35:BF:66:PRO:O	35:BF:67:GLN:HB3	1.70	0.90
39:DN:42:TRP:HA	39:DN:48:MET:CE	2.01	0.90
1:AA:445:G:H2'	1:AA:446:G:C8	2.06	0.90
24:B2:16:LEU:N	24:B2:18:PRO:HD2	1.87	0.90
31:DA:1678:G:N2	31:DA:1989:G:H22	1.69	0.90
48:DW:88:ARG:HB3	48:DW:92:ARG:HB3	1.52	0.90
30:B8:31:HIS:CG	31:BA:2419:U:O4	2.25	0.90
33:BD:25:THR:HG21	33:BD:81:ALA:CB	2.01	0.90
49:DX:25:LYS:HE3	49:DX:26:TYR:HE1	1.37	0.90
37:DH:85:LYS:HD3	37:DH:133:VAL:HB	1.53	0.90
23:D1:13:ILE:HG12	23:D1:14:VAL:N	1.86	0.90
31:DA:2523:G:H2'	31:DA:2524:G:H5''	1.54	0.90
31:DA:2562:U:H1'	40:DO:23:ARG:HH12	1.38	0.90
41:BP:59:LEU:HA	41:BP:61:ARG:HH11	1.31	0.89
2:AB:55:PHE:CE1	2:AB:218:ALA:HA	2.08	0.89
48:DW:75:TYR:HE1	48:DW:104:THR:HB	1.32	0.89
35:BF:22:ALA:O	35:BF:26:ALA:HB2	1.71	0.89
32:DB:25:A:H2'	32:DB:26:A:C8	2.07	0.89
33:DD:44:ASN:HB3	33:DD:49:ILE:HA	1.54	0.89
38:BI:133:HIS:HB2	38:BI:134:PRO:CD	2.01	0.89
45:BT:65:LYS:HE3	45:BT:66:VAL:H	1.36	0.89
28:D6:20:ASN:ND2	28:D6:21:TYR:H	1.70	0.89
31:DA:676:A:H8	31:DA:2069:G:H21	0.92	0.89

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:BZ:10:ARG:HH21	51:BZ:26:GLY:H	1.14	0.89
31:BA:1146:C:C2'	31:BA:1147:C:H5'	2.02	0.89
42:DQ:23:GLY:HA3	42:DQ:99:PRO:O	1.72	0.89
42:BQ:22:LYS:HE2	42:BQ:22:LYS:HA	1.55	0.89
41:BP:41:ARG:HA	41:BP:41:ARG:NH2	1.86	0.89
31:DA:2359:C:C2'	31:DA:2360:A:H5'	2.03	0.89
31:DA:1779:U:C5	31:DA:1784:A:N7	2.39	0.89
33:DD:27:THR:CG2	33:DD:28:GLU:H	1.85	0.89
47:BV:61:VAL:O	47:BV:62:LEU:HD23	1.73	0.89
32:BB:15:A:H5'	32:BB:16:G:H8	1.33	0.89
31:BA:1603:A:H5'	31:BA:1603:A:H8	1.38	0.89
31:BA:1747(A):G:C2'	31:BA:1748:G:H5''	2.02	0.89
30:B8:25:MET:HB2	41:BP:62:LEU:HD23	1.52	0.89
46:DU:92:ARG:HD2	47:DV:11:GLN:NE2	1.86	0.89
31:DA:2830:G:H5'	31:DA:2830:G:H8	1.37	0.89
15:AO:56:LEU:O	15:AO:60:VAL:HG23	1.72	0.89
4:AD:209:ARG:HH11	4:AD:209:ARG:CG	1.84	0.89
24:D2:33:MET:HG2	49:DX:11:PRO:HD2	1.53	0.89
39:BN:42:TRP:CA	39:BN:48:MET:HE1	1.98	0.89
16:CP:22:THR:HA	16:CP:33:ILE:HG12	1.52	0.89
31:DA:2468:G:H5''	42:DQ:120:ILE:HD12	1.54	0.89
31:DA:2506:U:H4'	31:DA:2507:C:OP1	1.71	0.89
31:DA:1771:C:HO2'	31:DA:1786:A:H8	1.18	0.89
49:BX:77:LYS:CG	49:BX:78:LYS:HG3	2.02	0.89
1:CA:365:U:H5''	1:CA:366:C:OP1	1.72	0.89
33:DD:25:THR:HG22	33:DD:82:ILE:O	1.73	0.89
50:BY:46:LYS:C	50:BY:47:LYS:HZ3	1.76	0.89
3:CC:116:VAL:HG21	3:CC:202:ILE:HD11	1.55	0.89
31:DA:1688:U:H1'	31:DA:1701:A:C6	2.07	0.89
1:AA:1238:A:H62	1:AA:1299:A:N6	1.71	0.89
1:AA:1281:U:H4'	1:AA:1282:C:OP2	1.70	0.89
28:B6:10:LEU:CD2	28:B6:10:LEU:H	1.85	0.89
1:AA:1238:A:H62	1:AA:1299:A:H62	1.20	0.89
50:BY:71:LYS:NZ	50:BY:71:LYS:HB2	1.85	0.89
31:DA:796:C:H2'	31:DA:797:C:C6	2.08	0.89
1:CA:954:G:H21	1:CA:1227:A:H62	1.16	0.89
23:D1:78:LYS:HG2	31:DA:271(R):G:H4'	1.54	0.89
25:D3:8:LEU:HB2	25:D3:28:LEU:HD13	1.55	0.89
31:DA:1568:G:H21	33:DD:58:HIS:HE1	1.16	0.89
6:CF:34:GLY:H	6:CF:71:ARG:NH2	1.70	0.89
11:AK:96:ARG:O	11:AK:99:GLN:HG2	1.73	0.89
37:BH:89:ILE:HD13	37:BH:90:LYS:H	1.38	0.89

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:D2:16:LEU:N	24:D2:18:PRO:HD2	1.87	0.89
5:CE:126:ARG:HH11	5:CE:126:ARG:HG3	1.38	0.89
47:DV:19:LYS:HG3	47:DV:20:LEU:N	1.88	0.88
49:BX:33:LYS:C	49:BX:35:THR:H	1.76	0.88
43:BR:5:LYS:HD2	43:BR:5:LYS:N	1.88	0.88
31:BA:1771:C:HO2'	31:BA:1786:A:H8	1.15	0.88
11:CK:96:ARG:O	11:CK:99:GLN:HG2	1.72	0.88
2:CB:172:ILE:H	2:CB:172:ILE:HD12	1.38	0.88
55:BA:3362:TEL:H11	55:BA:3362:TEL:H143	1.47	0.88
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.08	0.88
2:CB:55:PHE:HE1	2:CB:218:ALA:HA	1.35	0.88
31:BA:1509(A):A:H2'	31:BA:1509(B):A:C8	2.08	0.88
31:BA:1411:C:H2'	31:BA:1412:A:C8	2.08	0.88
2:AB:91:PRO:HG3	2:AB:154:LEU:HB2	1.52	0.88
31:BA:2468:G:H5''	42:BQ:120:ILE:HD12	1.55	0.88
41:BP:51:PHE:O	41:BP:52:GLU:HB2	1.72	0.88
4:AD:128:VAL:HG13	4:AD:129:ASN:ND2	1.87	0.88
39:BN:42:TRP:HB3	46:BU:64:ARG:NH1	1.87	0.88
42:BQ:23:GLY:HA3	42:BQ:99:PRO:O	1.72	0.88
5:CE:6:PHE:HB2	5:CE:34:VAL:HG12	1.56	0.88
30:B8:32:LEU:C	30:B8:34:TRP:H	1.76	0.88
49:DX:12:VAL:HG12	49:DX:27:THR:O	1.73	0.88
47:BV:19:LYS:CG	47:BV:20:LEU:H	1.84	0.88
31:DA:2829:C:H2'	31:DA:2830:G:H5''	1.56	0.88
50:BY:75:ILE:HD11	50:BY:79:CYS:HA	1.54	0.88
31:BA:1047:G:N2	31:BA:1111:A:H62	1.71	0.88
1:AA:877:C:H5''	8:AH:88:LYS:HE3	1.56	0.88
1:CA:1003:G:H2'	1:CA:1004:A:H4'	1.55	0.88
31:BA:774:A:H2	31:BA:787:U:O2'	1.56	0.88
41:BP:105:LEU:H	41:BP:105:LEU:HD12	1.39	0.88
46:DU:75:ASN:HB2	46:DU:78:THR:OG1	1.74	0.88
31:BA:1019:U:H3	31:BA:1142(A):A:H62	0.90	0.88
36:BG:106:LEU:HA	36:BG:110:ALA:HB3	1.53	0.88
31:DA:579:G:H2'	31:DA:580:C:C6	2.09	0.88
31:DA:662:G:OP1	41:DP:18:ARG:HD2	1.74	0.88
41:DP:30:THR:HG22	41:DP:31:ALA:H	1.37	0.88
31:BA:1388:G:O2'	31:BA:1389:G:H5'	1.73	0.88
38:DI:88:ILE:HG13	38:DI:121:LYS:CA	2.03	0.88
33:DD:25:THR:HG23	33:DD:27:THR:HB	1.53	0.88
38:DI:133:HIS:HB2	38:DI:134:PRO:CD	2.02	0.88
31:BA:1430:C:H2'	31:BA:1431:U:C6	2.08	0.88
33:BD:25:THR:HG23	33:BD:27:THR:HB	1.55	0.88

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DU:83:LEU:CG	46:DU:88:ILE:HG12	2.04	0.88
31:DA:2656:U:H3	31:DA:2665:A:H2	1.21	0.88
5:AE:10:MET:HB2	5:AE:32:VAL:HG22	1.52	0.88
1:CA:736:C:H2'	1:CA:737:A:H8	1.36	0.88
42:BQ:141:GLN:HE22	51:BZ:89:PHE:HB3	1.38	0.88
1:AA:1483:A:H1'	31:BA:1948:G:H1'	1.55	0.88
31:BA:2712:U:O2	31:BA:2712:U:H5'	1.73	0.88
1:CA:134:A:N6	16:CP:25:ARG:HH12	1.71	0.88
33:DD:80:ALA:HB3	33:DD:94:LEU:HD13	1.54	0.88
31:BA:996:A:H4'	46:BU:92:ARG:HE	1.37	0.88
47:BV:69:LYS:HB3	47:BV:93:GLU:OE2	1.74	0.88
1:AA:430:A:C2'	1:AA:431:A:H5'	2.04	0.88
23:B1:19:GLN:OE1	23:B1:44:PRO:HB3	1.74	0.88
8:AH:102:ARG:HE	8:AH:102:ARG:H	1.21	0.88
31:BA:71:A:C8	31:BA:71:A:H5'	2.09	0.88
49:BX:35:THR:HB	49:BX:75:ASP:OD2	1.72	0.88
50:DY:17:SER:HB3	50:DY:71:LYS:HD2	1.53	0.88
23:B1:19:GLN:HE21	31:BA:379:G:N2	1.70	0.88
31:BA:2327:A:H2'	31:BA:2328:A:C8	2.09	0.88
37:BH:106:THR:HG22	37:BH:112:PRO:HB3	1.56	0.88
10:CJ:26:ALA:HB1	10:CJ:29:ARG:HH21	1.39	0.88
51:DZ:27:VAL:HG23	51:DZ:36:LYS:HA	1.54	0.88
48:DW:18:ARG:HG2	48:DW:18:ARG:HH11	1.36	0.88
2:AB:172:ILE:HD12	2:AB:172:ILE:H	1.36	0.88
1:CA:922:G:H4'	5:CE:20:GLN:CA	2.04	0.87
51:DZ:53:ILE:CG2	51:DZ:71:VAL:HB	2.03	0.87
41:BP:29:LYS:HD2	41:BP:29:LYS:N	1.88	0.87
1:AA:1281:U:H5'	1:AA:1282:C:H5	1.37	0.87
45:DT:91:ARG:HB3	45:DT:116:ALA:HA	1.53	0.87
31:BA:2729:G:H1'	34:BE:187:ALA:HB2	1.53	0.87
28:B6:9:LEU:HD22	28:B6:10:LEU:N	1.88	0.87
33:BD:65:ILE:HD11	33:BD:67:PHE:CD1	2.10	0.87
46:BU:92:ARG:CD	47:BV:11:GLN:HE21	1.85	0.87
51:DZ:53:ILE:HG22	51:DZ:71:VAL:HB	1.56	0.87
32:BB:67:G:C4	32:BB:68:C:H5	1.92	0.87
48:BW:18:ARG:HG2	48:BW:18:ARG:HH11	1.39	0.87
31:DA:1411:C:H2'	31:DA:1412:A:C8	2.09	0.87
2:CB:91:PRO:HG3	2:CB:154:LEU:HB2	1.55	0.87
33:DD:244:ARG:HG2	33:DD:245:PRO:HD3	1.55	0.87
31:DA:2265:U:H4'	42:DQ:13:GLN:HE22	1.39	0.87
50:DY:81:LYS:HG2	50:DY:96:ILE:HG22	1.55	0.87
41:DP:47:ASP:HB3	41:DP:48:PRO:C	1.94	0.87

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:B8:34:TRP:O	30:B8:35:GLN:HB2	1.75	0.87
31:BA:2334:G:H21	44:BS:18:ILE:CD1	1.87	0.87
49:DX:82:GLN:O	49:DX:85:PRO:HD2	1.74	0.87
23:B1:13:ILE:HG12	23:B1:14:VAL:N	1.89	0.87
38:DI:82:ARG:HB3	38:DI:89:TYR:HE1	1.39	0.87
31:DA:1833:U:H2'	31:DA:1834:U:H6	1.40	0.87
41:DP:105:LEU:H	41:DP:105:LEU:HD12	1.38	0.87
30:B8:52:LYS:N	30:B8:53:PRO:HD2	1.89	0.87
31:DA:2870:C:H2'	31:DA:2871:C:H5'	1.54	0.87
10:AJ:26:ALA:HB1	10:AJ:29:ARG:HH21	1.39	0.87
34:DE:38:THR:HG22	34:DE:40:GLU:H	1.38	0.87
1:CA:922:G:H1'	5:CE:19:MET:CB	2.05	0.87
30:D8:59:LYS:HD3	41:DP:50:ARG:HB3	1.57	0.87
4:CD:119:GLN:HG3	4:CD:123:HIS:CD2	2.08	0.87
31:DA:1796:U:H2'	31:DA:1797:C:C6	2.09	0.87
1:CA:685:G:O2'	1:CA:686:U:H5'	1.74	0.87
45:DT:33:LYS:HB3	45:DT:41:ARG:HB3	1.56	0.87
43:DR:5:LYS:HD2	43:DR:5:LYS:N	1.90	0.87
31:DA:1022:G:H22	31:DA:1142(A):A:H2	1.22	0.87
33:DD:27:THR:HG23	33:DD:28:GLU:N	1.89	0.87
31:BA:1188:U:H2'	31:BA:1189:A:H5'	1.57	0.87
31:BA:2506:U:H4'	31:BA:2507:C:OP1	1.75	0.87
5:AE:126:ARG:HG3	5:AE:126:ARG:HH11	1.39	0.87
8:CH:102:ARG:H	8:CH:102:ARG:HE	1.22	0.87
1:CA:1238:A:H62	1:CA:1299:A:N6	1.71	0.87
30:D8:31:HIS:CG	31:DA:2419:U:O4	2.26	0.87
31:DA:2068:U:H3	31:DA:2430:A:H2	1.16	0.87
31:BA:1568:G:H21	33:BD:58:HIS:CE1	1.93	0.87
25:D3:19:GLN:O	25:D3:23:LEU:HD12	1.75	0.87
31:DA:848:G:H2'	31:DA:849:A:C8	2.10	0.87
23:B1:64:ALA:HA	23:B1:67:ILE:HG13	1.57	0.87
31:DA:1509(A):A:H2'	31:DA:1509(B):A:H8	1.39	0.87
31:DA:288:C:H42	31:DA:353:G:H1	1.21	0.87
43:DR:71:GLN:HE21	43:DR:71:GLN:HA	1.39	0.87
1:AA:1003:G:H2'	1:AA:1004:A:H4'	1.55	0.87
45:DT:29:ARG:CB	45:DT:85:LYS:HA	2.05	0.87
49:DX:77:LYS:CG	49:DX:78:LYS:HG3	2.05	0.87
24:B2:33:MET:HG2	49:BX:11:PRO:HD2	1.56	0.87
50:BY:81:LYS:HG2	50:BY:96:ILE:HG22	1.56	0.87
1:CA:1238:A:H62	1:CA:1299:A:H62	1.21	0.87
43:BR:33:ARG:HG2	43:BR:115:GLU:HG2	1.56	0.87
1:CA:1342:C:H4'	9:CI:125:TYR:HB3	1.57	0.87

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:806:C:OP2	41:BP:39:LYS:HD2	1.74	0.86
31:DA:69:C:O2	31:DA:69:C:H2'	1.73	0.86
31:DA:61:G:H1	31:DA:94:C:H42	1.23	0.86
24:B2:56:GLN:NE2	24:B2:56:GLN:HA	1.88	0.86
31:BA:1332:G:N2	31:BA:1610:A:H8	1.73	0.86
23:D1:64:ALA:O	23:D1:65:SER:HB3	1.74	0.86
2:CB:55:PHE:CE1	2:CB:218:ALA:HA	2.09	0.86
22:D0:74:ARG:HG2	32:DB:12:C:O2'	1.75	0.86
1:CA:254:G:OP1	17:CQ:67:LYS:O	1.93	0.86
39:DN:18:ALA:HB3	39:DN:26:LEU:HD22	1.54	0.86
31:DA:1747(A):G:C2'	31:DA:1748:G:H5''	2.04	0.86
1:AA:1502:A:H2	1:AA:1505:G:H1	0.90	0.86
31:BA:1639:U:C2'	31:BA:1640:C:H5''	2.05	0.86
1:AA:1142:G:H3'	1:AA:1143:G:H8	1.40	0.86
36:BG:16:ARG:HA	36:BG:19:LEU:HD12	1.57	0.86
33:DD:25:THR:HG21	33:DD:81:ALA:CB	2.00	0.86
1:CA:192:U:H2'	1:CA:193:C:H6	1.40	0.86
32:DB:94:C:H2'	32:DB:95:C:H6	1.40	0.86
48:DW:9:TYR:H	48:DW:102:HIS:CD2	1.94	0.86
1:AA:1063:C:H3'	1:AA:1064:G:H2'	1.57	0.86
46:BU:83:LEU:CG	46:BU:88:ILE:HG12	2.04	0.86
31:DA:743:G:C2'	31:DA:744:G:H5'	2.05	0.86
1:CA:1063:C:H3'	1:CA:1064:G:H2'	1.55	0.86
3:CC:150:LYS:HB3	3:CC:201:TYR:HB2	1.58	0.86
31:BA:1902:C:H1'	33:BD:244:ARG:HD3	1.54	0.86
1:CA:624:C:H4'	16:CP:10:GLY:HA2	1.56	0.86
31:DA:2753:A:O2'	31:DA:2754:U:H5'	1.75	0.86
31:BA:107:C:H2'	31:BA:108:U:H6	1.40	0.86
31:BA:2199:A:H3'	31:BA:2200:C:H6	1.37	0.86
1:CA:67:C:H2'	1:CA:68:G:C8	2.11	0.86
35:DF:184:TYR:CE2	35:DF:188:ARG:HD2	2.10	0.86
24:D2:51:ARG:O	24:D2:52:ASP:HB3	1.76	0.86
31:BA:847:U:O4	31:BA:933:A:N6	2.08	0.86
31:DA:2317:C:H2'	31:DA:2318:G:C5'	2.05	0.86
42:DQ:141:GLN:HE22	51:DZ:89:PHE:HB3	1.41	0.86
22:B0:74:ARG:HG2	32:BB:12:C:O2'	1.76	0.86
48:BW:88:ARG:HB3	48:BW:92:ARG:HB3	1.57	0.86
1:AA:1342:C:H4'	9:AI:125:TYR:HB3	1.58	0.86
31:BA:2753:A:O2'	31:BA:2754:U:H5'	1.76	0.86
1:AA:192:U:H2'	1:AA:193:C:H6	1.39	0.86
33:BD:44:ASN:HB3	33:BD:49:ILE:HA	1.58	0.86
51:DZ:74:VAL:HG22	51:DZ:86:VAL:HG12	1.54	0.86

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1169:G:H1	31:DA:1180:C:H42	0.86	0.86
45:DT:88:ILE:HG22	45:DT:89:VAL:N	1.91	0.86
33:BD:77:ALA:HB2	33:BD:97:TYR:CD2	2.09	0.86
37:DH:106:THR:HG22	37:DH:112:PRO:HB3	1.56	0.86
31:DA:2324:C:H5''	31:DA:2325:G:H5'	1.57	0.86
33:DD:77:ALA:HB2	33:DD:97:TYR:CD2	2.10	0.86
41:BP:58:THR:O	41:BP:61:ARG:CZ	2.24	0.86
39:DN:42:TRP:CA	39:DN:48:MET:HE1	2.01	0.86
34:DE:52:LEU:HB2	34:DE:76:ARG:HB2	1.58	0.86
23:B1:89:GLU:H	23:B1:89:GLU:CD	1.79	0.86
43:DR:11:ASN:OD1	43:DR:12:ARG:N	2.09	0.86
42:BQ:8:LYS:HD2	42:BQ:9:TYR:H	1.40	0.86
16:CP:4:ILE:HG13	16:CP:21:VAL:HG12	1.57	0.86
24:B2:14:ARG:NH1	24:B2:57:ILE:HG21	1.91	0.86
33:BD:35:LYS:HD2	33:BD:104:TYR:CE1	2.10	0.86
31:DA:993:G:N3	47:DV:91:TYR:HE1	1.72	0.86
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.10	0.86
31:DA:795:C:O2'	31:DA:796:C:H5'	1.76	0.86
31:BA:1171:G:OP2	31:BA:1171:G:H8	1.59	0.86
24:D2:26:ARG:HG3	49:DX:5:TYR:O	1.76	0.85
4:CD:119:GLN:HG3	4:CD:123:HIS:HD2	1.39	0.85
50:DY:71:LYS:HB2	50:DY:71:LYS:NZ	1.87	0.85
31:BA:1434:A:H61	31:BA:1558:A:N6	1.73	0.85
31:BA:330:A:H2	31:BA:1210:A:H2'	1.39	0.85
31:DA:954:G:H5''	42:DQ:13:GLN:CG	2.06	0.85
31:DA:2830:G:H5'	31:DA:2830:G:C8	2.09	0.85
40:DO:104:ARG:CZ	45:DT:33:LYS:HD2	2.05	0.85
42:DQ:24:GLY:HA3	51:DZ:78:LYS:HD3	1.58	0.85
43:BR:9:LYS:O	43:BR:10:LEU:HG	1.74	0.85
31:BA:2523:G:H2'	31:BA:2524:G:H5''	1.57	0.85
31:DA:1190:G:H4'	41:DP:35:HIS:HB3	1.56	0.85
31:BA:1569:A:H5'	33:BD:61:LEU:HD21	1.56	0.85
1:AA:624:C:H4'	16:AP:10:GLY:HA2	1.57	0.85
31:DA:1658:C:OP1	34:DE:132:HIS:CE1	2.29	0.85
24:D2:57:ILE:HG12	24:D2:59:ARG:NH1	1.91	0.85
31:DA:107:C:H2'	31:DA:108:U:H6	1.41	0.85
24:D2:25:VAL:HG13	24:D2:26:ARG:HD3	1.57	0.85
24:B2:26:ARG:CG	49:BX:5:TYR:HB3	2.07	0.85
44:DS:63:THR:HA	44:DS:66:ALA:HB3	1.57	0.85
31:DA:1569:A:H5'	33:DD:61:LEU:HD21	1.56	0.85
42:DQ:140:ALA:HB3	51:DZ:53:ILE:HG13	1.59	0.85
31:DA:1040:C:N4	31:DA:1116:C:H42	1.73	0.85

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1639:U:C2'	31:DA:1640:C:H5''	2.06	0.85
31:DA:1434:A:H61	31:DA:1558:A:N6	1.73	0.85
41:DP:59:LEU:HA	41:DP:61:ARG:HH11	1.40	0.85
24:B2:30:ARG:H	24:B2:30:ARG:HD2	1.41	0.85
1:AA:685:G:O2'	1:AA:686:U:H5'	1.75	0.85
1:AA:56:U:H2'	1:AA:57:G:C8	2.11	0.85
16:AP:4:ILE:HG13	16:AP:21:VAL:HG12	1.57	0.85
16:AP:22:THR:HA	16:AP:33:ILE:HG12	1.57	0.85
4:AD:209:ARG:HH11	4:AD:209:ARG:HG2	1.40	0.85
35:BF:198:ALA:O	35:BF:201:VAL:HG12	1.76	0.85
1:CA:1502:A:H2	1:CA:1505:G:H1	0.87	0.85
30:D8:35:GLN:HE21	30:D8:36:LYS:HZ3	1.21	0.85
23:D1:9:GLY:O	23:D1:10:LYS:HB3	1.77	0.85
31:DA:2206:G:C2	31:DA:2207:G:H5'	2.11	0.85
31:BA:1040:C:N4	31:BA:1116:C:H42	1.72	0.85
23:D1:19:GLN:OE1	23:D1:44:PRO:HB3	1.76	0.85
28:B6:17:LYS:C	28:B6:18:ARG:HD3	1.97	0.85
23:B1:78:LYS:HG2	31:BA:271(R):G:H4'	1.55	0.85
31:DA:1171:G:H8	31:DA:1171:G:OP2	1.59	0.85
31:BA:2324:C:H5''	31:BA:2325:G:H5'	1.58	0.85
10:CJ:6:ILE:HD11	10:CJ:72:VAL:HB	1.56	0.85
31:BA:343:C:H2'	31:BA:344:G:H5'	1.59	0.85
41:DP:58:THR:O	41:DP:61:ARG:NE	2.10	0.85
35:BF:24:LEU:HB3	35:BF:25:PRO:CD	2.07	0.85
31:DA:2523:G:C2'	31:DA:2524:G:H5''	2.07	0.85
31:DA:2287:A:N6	31:DA:2344:U:N3	2.24	0.85
31:BA:587:C:H4'	31:BA:588:U:OP2	1.77	0.85
31:DA:2564:A:C2	31:DA:2647:U:H4'	2.10	0.85
3:AC:116:VAL:HG21	3:AC:202:ILE:HD11	1.58	0.85
6:AF:34:GLY:H	6:AF:71:ARG:NH2	1.73	0.85
34:BE:111:ARG:HA	43:BR:2:ARG:HG3	1.57	0.85
42:DQ:20:ALA:HB2	42:DQ:99:PRO:HG2	1.56	0.85
38:DI:72:LEU:HD13	38:DI:75:LEU:HB3	1.58	0.85
34:DE:38:THR:HB	34:DE:41:LYS:HG3	1.59	0.85
45:BT:28:VAL:HG22	45:BT:46:GLU:HA	1.58	0.85
31:BA:1882:C:H5'	31:BA:1883:G:OP2	1.77	0.85
1:CA:15:G:O6	1:CA:922:G:N2	2.10	0.85
30:D8:14:VAL:HG11	30:D8:22:VAL:HG13	1.59	0.85
31:DA:27:G:N2	31:DA:512:G:C2'	2.38	0.85
31:DA:1458:C:H4'	31:DA:1459:G:C4	2.11	0.85
24:B2:26:ARG:HG3	49:BX:5:TYR:O	1.76	0.85
1:AA:192:U:H4'	20:AT:57:ARG:HD2	1.57	0.85

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:709:G:H2'	1:CA:710:G:H8	1.41	0.85
1:CA:1342:C:H1'	9:CI:124:GLN:HE22	1.40	0.85
30:B8:61:LEU:HD13	31:BA:593:G:H4'	1.58	0.85
55:BA:3362:TEL:H382	55:BA:3362:TEL:O18	1.76	0.85
33:BD:80:ALA:HB3	33:BD:94:LEU:HD13	1.56	0.85
47:DV:72:VAL:C	47:DV:88:ARG:HH22	1.80	0.85
1:CA:430:A:C2'	1:CA:431:A:H5'	2.06	0.85
38:BI:82:ARG:HD2	38:BI:89:TYR:OH	1.76	0.85
7:CG:4:ARG:HB3	7:CG:5:ARG:HH11	1.42	0.85
13:AM:69:GLU:HB2	13:AM:70:LEU:N	1.92	0.85
45:DT:55:ASN:N	45:DT:59:THR:HB	1.90	0.85
1:AA:1422:G:H5''	40:BO:48:PRO:HA	1.58	0.85
13:CM:69:GLU:HB2	13:CM:70:LEU:N	1.91	0.85
30:B8:62:LEU:HD13	31:BA:242:G:C5'	2.06	0.85
41:BP:140:ALA:CB	25:D3:38:GLU:HG2	2.06	0.85
41:BP:95:VAL:HA	41:BP:99:LEU:HD23	1.58	0.85
31:BA:2723:C:H5''	43:BR:2:ARG:CD	2.07	0.85
31:BA:1688:U:H1'	31:BA:1701:A:C6	2.11	0.85
55:DA:3320:TEL:H382	55:DA:3320:TEL:O18	1.76	0.84
35:BF:65:TRP:CZ3	35:BF:75:HIS:CD2	2.64	0.84
41:BP:141:ALA:C	25:D3:1:MET:HE1	1.97	0.84
39:BN:25:ARG:HH11	39:BN:25:ARG:HG3	1.40	0.84
31:BA:2845:G:O2'	31:BA:2846:G:H5'	1.76	0.84
31:DA:774:A:H2	31:DA:787:U:O2'	1.59	0.84
37:DH:44:VAL:HG12	37:DH:45:VAL:H	1.42	0.84
30:D8:4:MET:SD	30:D8:61:LEU:HD12	2.17	0.84
31:DA:942:G:O2'	31:DA:943:U:H5'	1.77	0.84
41:DP:95:VAL:HA	41:DP:99:LEU:HD23	1.59	0.84
47:BV:19:LYS:HG3	47:BV:20:LEU:N	1.89	0.84
23:B1:41:ARG:HG3	23:B1:41:ARG:NH1	1.86	0.84
24:B2:14:ARG:O	24:B2:18:PRO:HD3	1.77	0.84
31:BA:1499:C:O2'	31:BA:1500:G:H5'	1.76	0.84
1:AA:67:C:H2'	1:AA:68:G:C8	2.12	0.84
42:BQ:24:GLY:HA3	51:BZ:78:LYS:HD3	1.59	0.84
1:AA:254:G:OP1	17:AQ:67:LYS:O	1.94	0.84
40:DO:13:ASN:HD21	40:DO:97:ARG:N	1.75	0.84
2:CB:93:VAL:HG11	2:CB:97:TRP:HD1	1.41	0.84
31:DA:1528:A:N1	31:DA:1544:A:N6	2.25	0.84
31:BA:142:A:C8	31:BA:1408:C:H1'	2.13	0.84
5:CE:102:ALA:HB1	5:CE:106:PRO:HG2	1.57	0.84
31:DA:1501:C:H2'	31:DA:1502:C:H6	1.40	0.84
42:BQ:140:ALA:HB3	51:BZ:53:ILE:HG13	1.60	0.84

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2680:C:H5'	34:DE:189:PRO:HA	1.59	0.84
31:DA:2199:A:H3'	31:DA:2200:C:C6	2.12	0.84
31:BA:1170:G:H1	31:BA:1179:C:H42	1.25	0.84
35:DF:185:ASP:HA	35:DF:188:ARG:HD3	1.58	0.84
1:AA:1346:A:H5''	9:AI:120:ARG:HH12	1.42	0.84
5:AE:6:PHE:HB2	5:AE:34:VAL:HG12	1.58	0.84
31:BA:1887:C:H2'	31:BA:1888:G:H5'	1.58	0.84
31:DA:587:C:H4'	31:DA:588:U:OP2	1.75	0.84
25:D3:8:LEU:HD13	25:D3:31:LEU:HA	1.58	0.84
31:BA:1313:U:H2'	31:BA:1610:A:C2	2.13	0.84
1:AA:659:U:H2'	1:AA:660:G:H5'	1.57	0.84
34:DE:111:ARG:HA	43:DR:2:ARG:HG3	1.59	0.84
31:BA:911:A:C6	42:BQ:9:TYR:HE2	1.94	0.84
31:DA:2712:U:O2	31:DA:2712:U:H5'	1.77	0.84
31:BA:796:C:H2'	31:BA:797:C:C6	2.12	0.84
31:BA:2523:G:H2'	31:BA:2524:G:C5'	2.07	0.84
10:AJ:6:ILE:HD11	10:AJ:72:VAL:HB	1.56	0.84
33:DD:147:LEU:HD13	33:DD:155:LEU:HD11	1.57	0.84
47:DV:47:VAL:HG13	47:DV:48:GLY:H	1.42	0.84
35:DF:89:VAL:HG12	35:DF:90:PHE:N	1.91	0.84
31:BA:2415:G:C4'	41:BP:67:MET:H	1.90	0.84
39:DN:120:LEU:CD1	39:DN:122:VAL:HG23	2.07	0.84
31:DA:910:A:H62	42:DQ:12:GLN:HA	1.42	0.84
1:CA:382:A:H2'	1:CA:383:A:C8	2.13	0.84
4:CD:138:TYR:HD2	4:CD:139:ARG:N	1.75	0.84
12:AL:43:VAL:HG22	12:AL:55:VAL:HG21	1.59	0.84
31:BA:1690:A:H3'	31:BA:1691:C:H6	1.42	0.84
41:BP:101:VAL:HB	41:BP:107:LYS:H	1.43	0.84
31:BA:1459:G:C8	31:BA:1461:G:H1'	2.13	0.84
50:BY:39:VAL:HG12	50:BY:40:GLU:N	1.91	0.84
31:BA:1945:G:C2'	31:BA:1946:U:H5'	2.06	0.84
31:DA:2723:C:H5''	43:DR:2:ARG:CD	2.06	0.84
1:CA:67:C:H2'	1:CA:68:G:H8	1.43	0.84
31:BA:1882:C:O2	31:BA:1882:C:H2'	1.77	0.84
49:BX:41:ASN:HA	49:BX:44:GLU:HG2	1.59	0.84
4:AD:138:TYR:HD2	4:AD:139:ARG:N	1.74	0.84
30:D8:25:MET:HG3	41:DP:64:LYS:CB	2.08	0.84
44:BS:39:ILE:HG12	44:BS:73:LEU:HD11	1.60	0.84
31:DA:141:A:H8	31:DA:1408:C:HO2'	1.20	0.84
2:AB:163:PHE:HA	2:AB:185:ILE:HG13	1.59	0.84
23:B1:9:GLY:O	23:B1:10:LYS:HB3	1.76	0.84
31:DA:911:A:C6	42:DQ:9:TYR:HE2	1.94	0.84

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1339:G:H21	31:BA:1603:A:H1'	1.38	0.84
7:AG:4:ARG:HB3	7:AG:5:ARG:HH11	1.43	0.84
1:CA:1184:G:H2'	1:CA:1185:G:H8	1.41	0.84
41:BP:146:VAL:HG13	41:BP:147:LEU:H	1.42	0.84
31:BA:1028:A:N6	31:BA:1125:G:H2'	1.92	0.84
31:DA:1528(A):A:H3'	31:DA:1529:G:H5''	1.59	0.84
31:DA:1019:U:H3	31:DA:1142(A):A:N6	1.75	0.84
1:AA:389:A:H2'	1:AA:390:C:H5'	1.58	0.84
39:BN:120:LEU:CD1	39:BN:122:VAL:HG23	2.06	0.84
1:CA:1442:G:N7	1:CA:1442(B):A:H2	1.74	0.84
12:AL:102:ARG:HG3	12:AL:102:ARG:HH11	1.42	0.84
1:AA:1432:G:OP1	45:BT:107:ASP:HB2	1.77	0.84
1:CA:1404:C:H2'	1:CA:1405:G:C8	2.13	0.84
1:CA:921:U:C1'	1:CA:922:G:C4	2.52	0.84
35:DF:101:LEU:HD12	35:DF:102:PRO:CD	2.08	0.84
23:D1:89:GLU:CD	23:D1:89:GLU:H	1.81	0.84
32:DB:75:G:H5'	32:DB:75:G:H8	1.41	0.84
42:DQ:8:LYS:HD2	42:DQ:9:TYR:H	1.42	0.84
31:BA:2206:G:C2	31:BA:2207:G:H5'	2.13	0.84
32:BB:17:C:O2	32:BB:17:C:H2'	1.78	0.84
23:D1:41:ARG:NH1	23:D1:41:ARG:HG3	1.87	0.84
1:AA:382:A:H2'	1:AA:383:A:C8	2.12	0.84
45:BT:29:ARG:CB	45:BT:85:LYS:HA	2.06	0.84
14:AN:4:LYS:O	14:AN:7:ILE:HG12	1.78	0.84
31:DA:1024:G:H3'	31:DA:1025:G:H5''	1.59	0.84
23:D1:27:GLU:OE2	23:D1:32:LYS:HB2	1.76	0.84
41:DP:71:VAL:HG12	41:DP:72:PRO:HD3	1.59	0.84
24:D2:30:ARG:H	24:D2:30:ARG:HD2	1.42	0.84
49:BX:72:LYS:HG3	49:BX:73:ARG:N	1.92	0.84
1:AA:445:G:H2'	1:AA:446:G:H8	1.38	0.84
23:D1:64:ALA:HA	23:D1:67:ILE:HG13	1.60	0.84
47:BV:32:THR:HG22	47:BV:33:VAL:H	1.42	0.84
35:DF:24:LEU:HB3	35:DF:25:PRO:CD	2.07	0.84
31:DA:330:A:H2	31:DA:1210:A:H2'	1.42	0.84
32:DB:17:C:H2'	32:DB:17:C:O2	1.78	0.84
31:DA:2801(A):A:H4'	31:DA:2802:G:H5'	1.60	0.84
33:DD:131:LEU:HB2	33:DD:136:ILE:HD11	1.59	0.84
1:AA:96:U:HO2'	1:AA:97:G:H8	1.24	0.84
39:DN:13:TRP:O	39:DN:135:PRO:HG2	1.78	0.84
31:BA:2829:C:H2'	31:BA:2830:G:H5''	1.60	0.84
32:BB:75:G:H5'	32:BB:75:G:H8	1.42	0.83
34:BE:38:THR:HB	34:BE:41:LYS:HG3	1.59	0.83

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1028:A:H61	31:DA:1125:G:H2'	1.42	0.83
33:BD:131:LEU:HB2	33:BD:136:ILE:HD11	1.58	0.83
23:D1:26:ARG:HB3	23:D1:34:THR:HA	1.57	0.83
31:DA:2359:C:H2'	31:DA:2360:A:H5'	1.59	0.83
31:BA:2580:U:C5'	34:BE:131:ALA:H	1.90	0.83
44:DS:97:ARG:HE	44:DS:97:ARG:C	1.81	0.83
31:BA:2801(A):A:H4'	31:BA:2802:G:H5'	1.60	0.83
1:CA:1112:C:N3	3:CC:178:LEU:HD23	1.93	0.83
31:DA:1047:G:N2	31:DA:1111:A:H62	1.74	0.83
49:BX:70:LEU:HG	49:BX:71:GLY:N	1.93	0.83
1:AA:1399:C:C2	1:AA:1502:A:N6	2.46	0.83
31:DA:1973:G:H2'	31:DA:1974:C:H6	1.42	0.83
37:DH:66:GLY:HA2	37:DH:69:ARG:HB2	1.59	0.83
1:CA:1142:G:H3'	1:CA:1143:G:H8	1.41	0.83
31:BA:71:A:H2	49:BX:31:HIS:CE1	1.96	0.83
31:DA:2632:A:H1'	34:DE:61:ARG:NH1	1.94	0.83
47:BV:73:SER:OG	47:BV:74:LYS:N	2.09	0.83
31:DA:966:G:H2'	31:DA:967:C:H6	1.41	0.83
4:CD:209:ARG:HG2	4:CD:209:ARG:HH11	1.41	0.83
17:CQ:67:LYS:HA	17:CQ:70:ARG:HH12	1.44	0.83
36:DG:92:VAL:HG22	36:DG:93:THR:H	1.43	0.83
1:AA:1184:G:H2'	1:AA:1185:G:H8	1.41	0.83
39:BN:13:TRP:O	39:BN:135:PRO:HG2	1.78	0.83
24:B2:49:LYS:HD2	24:B2:53:LEU:CD2	2.08	0.83
34:BE:59:VAL:HG22	34:BE:63:LEU:HA	1.58	0.83
36:DG:16:ARG:HA	36:DG:19:LEU:HD12	1.60	0.83
27:B5:54:GLY:O	27:B5:56:LYS:NZ	2.12	0.83
31:DA:1170:G:H1	31:DA:1179:C:H42	1.24	0.83
39:BN:133:GLN:O	39:BN:135:PRO:HD3	1.79	0.83
2:AB:93:VAL:HG11	2:AB:97:TRP:HD1	1.42	0.83
30:D8:34:TRP:O	30:D8:35:GLN:HB2	1.75	0.83
31:BA:662:G:OP1	41:BP:18:ARG:HD2	1.77	0.83
31:BA:1568:G:H21	33:BD:58:HIS:HE1	1.25	0.83
31:DA:142:A:C8	31:DA:1408:C:H1'	2.13	0.83
50:DY:37:VAL:HG11	50:DY:72:VAL:HG21	1.60	0.83
33:BD:71:ASP:HB2	33:BD:103:ARG:HH22	1.42	0.83
1:AA:709:G:H2'	1:AA:710:G:H8	1.43	0.83
1:AA:1112:C:N3	3:AC:178:LEU:HD23	1.93	0.83
31:BA:1410:G:H1	31:BA:1592:C:H42	1.26	0.83
1:AA:233:C:H2'	1:AA:234:C:H6	1.44	0.83
31:DA:2875:C:H4'	45:DT:5:ALA:HB2	1.59	0.83
1:CA:920:U:H2'	1:CA:922:G:O6	1.78	0.83

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1459:G:C8	31:DA:1461:G:H1'	2.14	0.83
31:BA:1458:C:H4'	31:BA:1459:G:C4	2.13	0.83
31:BA:1528(A):A:H3'	31:BA:1529:G:H5''	1.60	0.83
1:CA:626:U:H2'	1:CA:627:G:H8	1.44	0.83
33:DD:35:LYS:CD	33:DD:104:TYR:CD1	2.61	0.83
1:CA:192:U:H4'	20:CT:57:ARG:HD2	1.59	0.83
3:AC:43:LEU:O	3:AC:47:LEU:HB3	1.79	0.83
45:BT:80:SER:HB3	45:BT:81:PRO:HD3	1.60	0.83
24:D2:14:ARG:O	24:D2:18:PRO:HD3	1.78	0.83
31:BA:1639:U:H2'	31:BA:1640:C:H5''	1.58	0.83
3:AC:150:LYS:HB3	3:AC:201:TYR:HB2	1.59	0.83
44:BS:97:ARG:C	44:BS:97:ARG:HE	1.80	0.83
24:D2:56:GLN:HA	24:D2:56:GLN:NE2	1.92	0.83
1:CA:102:G:H2'	1:CA:103:C:C6	2.13	0.83
1:CA:619:U:H2'	4:CD:135:LEU:HD21	1.60	0.83
5:CE:10:MET:HB2	5:CE:32:VAL:HG22	1.61	0.83
1:AA:559:A:H5''	1:AA:560:U:H3'	1.61	0.83
42:BQ:20:ALA:HB2	42:BQ:99:PRO:HG2	1.59	0.83
31:BA:455:C:N3	31:BA:473:G:H5'	1.94	0.83
12:CL:102:ARG:HG3	12:CL:102:ARG:HH11	1.40	0.83
31:BA:2652:C:C2'	31:BA:2653:U:H5'	2.08	0.83
31:DA:1882:C:H2'	31:DA:1882:C:O2	1.76	0.83
31:BA:1190:G:H4'	41:BP:35:HIS:HB3	1.61	0.83
30:B8:59:LYS:HD3	41:BP:50:ARG:HB3	1.61	0.83
31:DA:1022:G:N2	31:DA:1142(A):A:C2	2.46	0.83
1:AA:1442:G:N7	1:AA:1442(B):A:H2	1.75	0.83
33:DD:35:LYS:HD3	33:DD:63:ARG:CB	2.08	0.83
31:BA:1224:C:O3'	47:BV:88:ARG:HB3	1.78	0.83
45:BT:88:ILE:HG22	45:BT:89:VAL:HG23	1.60	0.83
31:BA:2870:C:C2'	31:BA:2871:C:H5'	2.07	0.83
31:DA:1973:G:H2'	31:DA:1974:C:C6	2.13	0.83
35:DF:198:ALA:O	35:DF:201:VAL:HG12	1.79	0.83
43:DR:9:LYS:O	43:DR:10:LEU:HG	1.79	0.83
1:CA:659:U:H2'	1:CA:660:G:H5'	1.59	0.83
1:AA:702:A:H3'	1:AA:703:G:H5'	1.59	0.83
31:DA:38:A:H2'	31:DA:39:C:C6	2.13	0.83
32:BB:94:C:H2'	32:BB:95:C:H6	1.44	0.83
33:BD:25:THR:CG2	33:BD:81:ALA:HB1	2.02	0.83
31:DA:1406:U:H2'	31:DA:1407:C:C6	2.13	0.83
25:B3:8:LEU:HB2	25:B3:28:LEU:HD13	1.60	0.83
51:DZ:44:PHE:CZ	51:DZ:86:VAL:HG11	2.14	0.83
38:BI:101:LEU:C	38:BI:109:ILE:HD11	1.99	0.83

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:DX:70:LEU:HG	49:DX:71:GLY:N	1.92	0.83
31:DA:2524:G:H8	31:DA:2524:G:H5'	1.44	0.83
17:AQ:67:LYS:HA	17:AQ:70:ARG:HH12	1.42	0.83
8:CH:36:LEU:HA	8:CH:39:LEU:HD23	1.58	0.83
13:CM:81:LEU:HB3	13:CM:89:GLY:HA2	1.60	0.83
1:AA:1510:U:H2'	1:AA:1511:G:C8	2.14	0.83
28:D6:51:GLU:HG2	28:D6:52:VAL:H	1.44	0.83
31:BA:157:U:H5''	31:BA:171:G:H22	1.44	0.83
31:BA:1528:A:N1	31:BA:1544:A:N6	2.27	0.83
1:AA:619:U:H2'	4:AD:135:LEU:HD21	1.61	0.83
33:DD:65:ILE:HD11	33:DD:67:PHE:CD1	2.14	0.83
39:BN:83:LYS:HE2	39:BN:85:ILE:HD11	1.60	0.83
31:BA:2012:G:H4'	48:BW:96:ILE:HD11	1.61	0.83
31:DA:1980:G:O2'	31:DA:1982:C:OP2	1.96	0.83
31:DA:150:C:H2'	31:DA:151:C:H6	1.43	0.83
31:DA:455:C:N3	31:DA:473:G:H5'	1.93	0.83
31:DA:1952:A:C5	40:DO:22:ILE:HD11	2.14	0.83
41:DP:101:VAL:HB	41:DP:107:LYS:H	1.44	0.82
34:BE:132:HIS:CD2	34:BE:135:HIS:NE2	2.46	0.82
46:DU:92:ARG:HB3	47:DV:11:GLN:HE21	1.36	0.82
31:DA:1499:C:O2'	31:DA:1500:G:H5'	1.79	0.82
33:BD:71:ASP:HB2	33:BD:103:ARG:NH2	1.94	0.82
4:AD:18:LYS:HB2	4:AD:33:MET:SD	2.19	0.82
33:BD:267:SER:C	33:BD:269:PHE:H	1.80	0.82
1:CA:233:C:H2'	1:CA:234:C:H6	1.44	0.82
31:BA:2267:A:H5''	31:BA:2268:A:C5'	2.09	0.82
1:CA:1346:A:H5''	9:CI:120:ARG:HH12	1.44	0.82
5:CE:50:GLU:HG3	5:CE:52:PRO:HD2	1.59	0.82
8:AH:29:SER:HB3	8:AH:32:LYS:HG3	1.61	0.82
10:CJ:7:LYS:HD3	10:CJ:71:LEU:HD11	1.58	0.82
51:DZ:101:PRO:O	51:DZ:102:LEU:HD23	1.79	0.82
1:CA:444:C:H2'	1:CA:445:G:C8	2.13	0.82
13:AM:81:LEU:HB3	13:AM:89:GLY:HA2	1.61	0.82
1:CA:748:C:H4'	1:CA:749:C:O5'	1.77	0.82
8:CH:10:LEU:HD13	8:CH:83:ILE:HD11	1.61	0.82
32:DB:36:C:H2'	32:DB:37:C:C5	2.14	0.82
43:BR:11:ASN:CG	43:BR:12:ARG:H	1.81	0.82
32:DB:67:G:C4	32:DB:68:C:H5	1.97	0.82
1:CA:559:A:H5''	1:CA:560:U:H3'	1.61	0.82
31:DA:1410:G:H1	31:DA:1592:C:H42	1.25	0.82
23:B1:76:ARG:HB3	23:B1:78:LYS:HE3	1.60	0.82
31:BA:150:C:H2'	31:BA:151:C:H6	1.43	0.82

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BH:66:GLY:HA2	37:BH:69:ARG:HB2	1.60	0.82
37:DH:89:ILE:HD13	37:DH:90:LYS:H	1.42	0.82
24:D2:26:ARG:CG	49:DX:5:TYR:HB3	2.09	0.82
31:DA:1388:G:O2'	31:DA:1389:G:H5'	1.80	0.82
31:DA:142:A:H1'	31:DA:1408:C:O4'	1.80	0.82
46:BU:64:ARG:CZ	46:BU:64:ARG:HA	2.09	0.82
36:DG:47:LYS:HD3	36:DG:81:LYS:HD2	1.60	0.82
12:AL:102:ARG:CG	12:AL:102:ARG:HH11	1.92	0.82
31:BA:171:G:H2'	31:BA:172:C:O4'	1.79	0.82
31:DA:171:G:H2'	31:DA:172:C:O4'	1.79	0.82
40:DO:65:THR:HA	40:DO:82:ASN:HB3	1.60	0.82
2:AB:69:LEU:HB3	2:AB:162:ILE:HG22	1.59	0.82
5:AE:48:ALA:HB2	5:AE:57:LYS:HD3	1.62	0.82
1:CA:921:U:C1'	1:CA:922:G:C5	2.62	0.82
49:BX:53:LYS:H	49:BX:80:ILE:HG22	1.45	0.82
31:DA:1332:G:N2	31:DA:1610:A:H8	1.74	0.82
1:AA:403:C:O2'	1:AA:404:U:H5'	1.79	0.82
31:BA:2317:C:H2'	31:BA:2317:C:O2	1.78	0.82
39:BN:18:ALA:HB3	39:BN:26:LEU:HD22	1.61	0.82
31:DA:860:U:C5	31:DA:917:A:N7	2.47	0.82
1:CA:973:G:H3'	1:CA:974:A:H5''	1.60	0.82
12:CL:102:ARG:CG	12:CL:102:ARG:HH11	1.92	0.82
36:BG:64:THR:HG23	36:BG:65:GLY:N	1.95	0.82
31:DA:343:C:H2'	31:DA:344:G:H5'	1.61	0.82
38:BI:3:VAL:HG12	38:BI:38:LEU:HA	1.59	0.82
41:BP:71:VAL:HG12	41:BP:72:PRO:HD3	1.60	0.82
32:DB:37:C:O2	32:DB:37:C:H2'	1.80	0.82
50:DY:31:LEU:HB3	50:DY:32:PRO:CA	2.08	0.82
51:BZ:74:VAL:HG22	51:BZ:86:VAL:HG12	1.60	0.82
31:BA:1778:U:H2'	31:BA:1784:A:N6	1.94	0.82
4:CD:18:LYS:HB2	4:CD:33:MET:SD	2.18	0.82
1:AA:1226:C:C4	13:AM:104:ARG:HB2	2.14	0.82
42:DQ:24:GLY:CA	51:DZ:78:LYS:HA	2.09	0.82
31:BA:2523:G:C2'	31:BA:2524:G:H5''	2.09	0.82
5:CE:51:VAL:HB	5:CE:52:PRO:HD3	1.60	0.82
1:CA:344:A:O2'	1:CA:346:G:N7	2.12	0.82
42:DQ:30:GLY:HA2	42:DQ:107:ALA:HB2	1.62	0.82
1:CA:702:A:H3'	1:CA:703:G:H5'	1.60	0.82
1:AA:626:U:H2'	1:AA:627:G:H8	1.43	0.82
46:BU:75:ASN:HB2	46:BU:78:THR:OG1	1.79	0.82
38:DI:77:LEU:HD21	38:DI:101:LEU:HD13	1.62	0.82
33:BD:235:GLY:O	33:BD:237:GLU:HG2	1.78	0.82

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CJ:40:LEU:HB2	10:CJ:41:PRO:HD2	1.61	0.82
36:DG:60:LEU:O	36:DG:64:THR:HG22	1.80	0.82
23:D1:34:THR:HG23	31:DA:388:G:OP1	1.79	0.82
30:D8:32:LEU:C	30:D8:34:TRP:H	1.80	0.82
31:DA:142:A:H5'	31:DA:142(A):C:OP2	1.80	0.82
33:DD:70:TRP:CH2	33:DD:150:LYS:HA	2.15	0.82
1:AA:1142:G:H3'	1:AA:1143:G:C8	2.14	0.82
31:BA:150:C:H2'	31:BA:151:C:C6	2.15	0.82
1:AA:9:G:H2'	1:AA:10:A:H8	1.43	0.82
30:B8:14:VAL:CG1	30:B8:22:VAL:HG13	2.09	0.82
33:BD:25:THR:HG22	33:BD:82:ILE:O	1.78	0.82
31:DA:71:A:H2	49:DX:31:HIS:CE1	1.97	0.82
39:BN:73:THR:O	39:BN:75:TYR:N	2.11	0.82
6:AF:82:ARG:HB2	6:AF:85:VAL:HG23	1.62	0.82
5:AE:50:GLU:HG3	5:AE:52:PRO:HD2	1.59	0.82
49:DX:33:LYS:C	49:DX:35:THR:H	1.81	0.82
41:BP:106:LEU:HD13	41:BP:112:LEU:HD23	1.61	0.82
46:DU:83:LEU:HB3	46:DU:88:ILE:HD11	1.62	0.82
1:AA:748:C:H4'	1:AA:749:C:O5'	1.78	0.82
1:AA:1088:G:H2'	1:AA:1089:G:H8	1.43	0.82
34:DE:104:VAL:HG11	34:DE:188:VAL:HG23	1.62	0.82
13:AM:91:ARG:HB2	13:AM:98:VAL:HG21	1.61	0.82
20:AT:50:GLU:HB2	20:AT:100:ILE:HG12	1.60	0.82
31:DA:2463:C:C2'	31:DA:2464:C:H5'	2.09	0.82
31:DA:2580:U:C5'	34:DE:131:ALA:H	1.92	0.82
31:BA:1987:G:H2'	31:BA:1988:C:H6	1.43	0.82
31:DA:1740:G:H3'	31:DA:1741:A:C8	2.14	0.81
1:CA:403:C:O2'	1:CA:404:U:H5'	1.80	0.81
23:D1:10:LYS:HD2	23:D1:14:VAL:HA	1.62	0.81
31:DA:2317:C:O2	31:DA:2317:C:H2'	1.80	0.81
31:DA:286:C:H42	31:DA:355:G:H1	1.27	0.81
1:AA:913:A:H4'	1:AA:914:A:O5'	1.80	0.81
31:BA:1501:C:H2'	31:BA:1502:C:H6	1.45	0.81
1:CA:601:C:H2'	1:CA:602:A:H8	1.44	0.81
31:DA:1887:C:H2'	31:DA:1888:G:C5'	2.10	0.81
30:D8:14:VAL:CG1	30:D8:22:VAL:HG13	2.10	0.81
31:BA:2068:U:N3	31:BA:2430:A:H2	1.78	0.81
32:BB:25:A:H2'	32:BB:26:A:H8	1.43	0.81
31:DA:1021:A:H3'	31:DA:1021:A:H8	1.45	0.81
1:AA:1256:A:N6	1:AA:1278:U:H1'	1.96	0.81
6:CF:34:GLY:N	6:CF:71:ARG:HH21	1.76	0.81
49:DX:41:ASN:HA	49:DX:44:GLU:HG2	1.60	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:620:G:N3	31:DA:620:G:H5''	1.95	0.81
28:B6:12:GLU:HA	28:B6:23:THR:HA	1.60	0.81
33:BD:108:PRO:HB3	33:BD:143:HIS:CE1	2.13	0.81
33:DD:25:THR:CG2	33:DD:81:ALA:HB1	2.01	0.81
39:BN:40:PRO:C	46:BU:64:ARG:HH22	1.84	0.81
23:D1:85:LEU:HB3	23:D1:87:PRO:HG3	1.62	0.81
23:B1:86:SER:N	23:B1:87:PRO:HD3	1.94	0.81
31:BA:286:C:H42	31:BA:355:G:H1	1.27	0.81
31:BA:2206:G:H21	31:BA:2207:G:H5'	1.45	0.81
31:BA:997:G:C2'	31:BA:998:C:H5'	2.09	0.81
1:CA:818:G:O2'	1:CA:819:A:H5''	1.79	0.81
3:CC:43:LEU:O	3:CC:47:LEU:HB3	1.80	0.81
31:DA:2523:G:H2'	31:DA:2524:G:C5'	2.10	0.81
1:CA:1226:C:C4	13:CM:104:ARG:HB2	2.15	0.81
31:BA:184:C:H2'	31:BA:185:U:C6	2.14	0.81
30:D8:52:LYS:N	30:D8:53:PRO:HD2	1.96	0.81
30:D8:61:LEU:HD13	31:DA:593:G:H4'	1.60	0.81
23:B1:26:ARG:HB3	23:B1:34:THR:HA	1.61	0.81
44:BS:63:THR:HA	44:BS:66:ALA:HB3	1.60	0.81
1:CA:407:G:H5''	4:CD:115:ARG:HB3	1.61	0.81
2:CB:163:PHE:HA	2:CB:185:ILE:HG13	1.60	0.81
40:BO:13:ASN:HD21	40:BO:97:ARG:N	1.77	0.81
50:DY:46:LYS:C	50:DY:47:LYS:HZ3	1.83	0.81
38:DI:102:SER:HA	38:DI:107:VAL:O	1.80	0.81
23:D1:76:ARG:HB3	23:D1:78:LYS:HE3	1.61	0.81
1:CA:1285:A:H1'	1:CA:1286:A:OP2	1.80	0.81
32:BB:36:C:H2'	32:BB:37:C:C5	2.16	0.81
47:DV:32:THR:HG22	47:DV:33:VAL:H	1.45	0.81
44:DS:39:ILE:HG12	44:DS:73:LEU:HD11	1.60	0.81
16:AP:28:ARG:HH11	16:AP:28:ARG:CG	1.93	0.81
23:B1:64:ALA:O	23:B1:65:SER:HB3	1.79	0.81
50:DY:39:VAL:HG12	50:DY:40:GLU:N	1.93	0.81
1:AA:662:G:H2'	1:AA:663:A:C8	2.14	0.81
45:BT:88:ILE:HG22	45:BT:89:VAL:N	1.95	0.81
31:DA:2870:C:C2'	31:DA:2871:C:H5'	2.10	0.81
31:DA:1654:A:OP1	43:DR:3:HIS:HB2	1.81	0.81
8:AH:6:ILE:HD12	8:AH:6:ILE:H	1.44	0.81
1:AA:601:C:H2'	1:AA:602:A:H8	1.43	0.81
31:DA:2012:G:H4'	48:DW:96:ILE:HD11	1.63	0.81
31:BA:1580:A:H8	31:BA:1580:A:OP2	1.64	0.81
41:DP:146:VAL:HG13	41:DP:147:LEU:H	1.43	0.81
31:DA:229:A:H5'	31:DA:230:U:C5'	2.10	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DU:64:ARG:HA	46:DU:64:ARG:CZ	2.10	0.81
25:B3:19:GLN:O	25:B3:23:LEU:HD12	1.81	0.81
47:BV:19:LYS:HE2	47:BV:20:LEU:HD12	1.62	0.81
33:DD:108:PRO:HB3	33:DD:143:HIS:CE1	2.15	0.81
1:CA:662:G:H2'	1:CA:663:A:C8	2.16	0.81
49:DX:70:LEU:HG	49:DX:71:GLY:H	1.46	0.81
8:AH:36:LEU:HA	8:AH:39:LEU:HD23	1.59	0.81
40:BO:43:VAL:HG12	40:BO:54:GLU:HA	1.62	0.81
35:DF:65:TRP:CZ3	35:DF:75:HIS:CD2	2.68	0.81
23:B1:27:GLU:OE2	23:B1:32:LYS:HB2	1.81	0.81
35:BF:65:TRP:HZ3	35:BF:75:HIS:HD2	1.25	0.81
31:BA:2521:C:O2	31:BA:2521:C:H2'	1.80	0.81
31:DA:1313:U:H2'	31:DA:1610:A:C2	2.16	0.81
50:BY:8:LYS:HE2	50:BY:72:VAL:HG23	1.63	0.81
23:B1:10:LYS:HD2	23:B1:14:VAL:HA	1.62	0.81
31:BA:1509(A):A:H2'	31:BA:1509(B):A:H8	1.43	0.81
51:BZ:44:PHE:CZ	51:BZ:86:VAL:HG11	2.16	0.81
1:CA:1442:G:C6	1:CA:1442(B):A:N1	2.49	0.81
1:AA:955:U:H1'	1:AA:1227:A:H61	1.45	0.81
13:CM:91:ARG:HB2	13:CM:98:VAL:HG21	1.62	0.81
31:DA:150:C:H2'	31:DA:151:C:C6	2.16	0.81
31:BA:2392:A:H2	31:BA:2424:C:H42	1.29	0.81
1:CA:650:G:O2'	1:CA:651:C:H5'	1.81	0.81
31:DA:2854:G:H2'	31:DA:2855:C:H6	1.44	0.81
4:CD:189:PRO:HB2	4:CD:194:LEU:HD21	1.62	0.81
31:BA:2660:A:H5''	31:BA:2661:G:N3	1.95	0.81
47:DV:19:LYS:HE2	47:DV:20:LEU:HD12	1.63	0.81
31:DA:1902:C:H1'	33:DD:244:ARG:HD3	1.60	0.81
31:DA:2334:G:H21	44:DS:18:ILE:CD1	1.94	0.81
31:DA:1797:C:C2'	31:DA:1798:U:H5'	2.11	0.81
20:CT:89:ARG:NH2	20:CT:104:LEU:HD11	1.96	0.81
49:BX:70:LEU:HG	49:BX:71:GLY:H	1.44	0.81
1:AA:664:G:N2	1:AA:741:G:H1	1.77	0.81
38:BI:82:ARG:HB3	38:BI:89:TYR:HE1	1.44	0.81
42:BQ:24:GLY:CA	51:BZ:78:LYS:HA	2.10	0.81
1:CA:1142:G:H3'	1:CA:1143:G:C8	2.15	0.81
44:BS:89:ARG:HA	44:BS:89:ARG:HE	1.46	0.81
47:DV:24:LYS:HE3	47:DV:68:LYS:HE3	1.63	0.81
49:BX:72:LYS:HG2	49:BX:74:PRO:HD3	1.62	0.81
1:AA:407:G:H5''	4:AD:115:ARG:HB3	1.62	0.81
1:CA:389:A:H2'	1:CA:390:C:H5'	1.62	0.81
45:DT:50:ILE:HD11	45:DT:102:ILE:CD1	2.09	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:BV:60:GLU:OE1	47:BV:101:GLY:HA2	1.81	0.81
1:CA:1256:A:N6	1:CA:1278:U:H1'	1.96	0.81
40:DO:23:ARG:CG	40:DO:23:ARG:HH11	1.94	0.81
37:BH:89:ILE:HD11	37:BH:129:THR:HB	1.62	0.81
1:AA:67:C:H2'	1:AA:68:G:H8	1.44	0.81
36:BG:22:ARG:HB3	36:BG:23:PHE:CE1	2.15	0.81
12:AL:32:PHE:HD1	12:AL:86:ARG:HA	1.45	0.81
1:CA:1399:C:C2	1:CA:1502:A:N6	2.49	0.81
31:DA:2346:A:H5''	31:DA:2383:G:H1'	1.63	0.81
41:DP:83:VAL:CG1	41:DP:112:LEU:HD21	2.11	0.81
31:DA:997:G:C2'	31:DA:998:C:H5'	2.10	0.81
31:BA:2787:C:C1'	34:BE:61:ARG:HB2	2.10	0.81
31:DA:1820:U:H4'	31:DA:1821:A:OP2	1.81	0.81
1:CA:555:C:H2'	1:CA:556:C:C6	2.15	0.81
1:AA:555:C:H2'	1:AA:556:C:C6	2.16	0.81
1:AA:973:G:H3'	1:AA:974:A:H5''	1.62	0.81
1:AA:102:G:H2'	1:AA:103:C:C6	2.15	0.80
1:AA:437:U:OP1	4:AD:155:LEU:HD22	1.81	0.80
51:BZ:69:THR:HG22	51:BZ:90:VAL:HA	1.63	0.80
35:BF:103:LYS:HA	35:BF:106:ARG:HG3	1.63	0.80
31:DA:1658:C:OP1	34:DE:132:HIS:ND1	2.13	0.80
1:AA:1392:G:C2'	1:AA:1393:U:H5'	2.11	0.80
31:BA:721:C:O2	31:BA:721:C:H2'	1.79	0.80
33:DD:17:THR:HG23	33:DD:205:VAL:H	1.44	0.80
37:DH:33:LEU:HD11	37:DH:136:ILE:O	1.81	0.80
8:CH:29:SER:HB3	8:CH:32:LYS:HG3	1.61	0.80
49:DX:72:LYS:HG3	49:DX:73:ARG:N	1.95	0.80
37:BH:137:ASP:O	37:BH:138:LYS:HB2	1.81	0.80
33:DD:65:ILE:HD11	33:DD:67:PHE:CE1	2.16	0.80
31:DA:1482:G:H22	31:DA:1507:A:H1'	1.47	0.80
15:AO:56:LEU:HD21	31:BA:715:G:C2	2.15	0.80
31:BA:1169:G:H1	31:BA:1180:C:H42	0.86	0.80
42:DQ:22:LYS:HA	42:DQ:22:LYS:HE2	1.62	0.80
31:DA:1786:A:H1'	31:DA:1938:A:N6	1.95	0.80
31:BA:1028:A:H61	31:BA:1125:G:H2'	1.45	0.80
34:DE:134:ILE:H	34:DE:134:ILE:HD13	1.46	0.80
31:DA:2236:C:H2'	31:DA:2237:G:H5'	1.61	0.80
55:DA:3320:TEL:C57	55:DA:3320:TEL:O48	2.30	0.80
23:D1:86:SER:N	23:D1:87:PRO:HD3	1.96	0.80
31:DA:2652:C:C2'	31:DA:2653:U:H5'	2.10	0.80
31:DA:2206:G:H21	31:DA:2207:G:H5'	1.42	0.80
18:AR:74:ARG:HG3	18:AR:79:LEU:HB3	1.63	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:59:A:C5'	1:AA:60:A:H5''	2.10	0.80
1:CA:64:G:H4'	1:CA:65:U:H5''	1.63	0.80
31:BA:1887:C:H2'	31:BA:1888:G:C5'	2.10	0.80
39:DN:83:LYS:HE2	39:DN:85:ILE:HD11	1.64	0.80
47:DV:52:VAL:O	47:DV:53:GLU:HB3	1.79	0.80
37:BH:44:VAL:HG12	37:BH:45:VAL:H	1.46	0.80
55:DA:3320:TEL:H332	55:DA:3320:TEL:O18	1.82	0.80
41:DP:30:THR:HG22	41:DP:31:ALA:N	1.96	0.80
41:BP:71:VAL:CG1	41:BP:72:PRO:HD3	2.12	0.80
33:BD:35:LYS:HD3	33:BD:63:ARG:CB	2.11	0.80
24:B2:44:LEU:O	24:B2:44:LEU:HD12	1.80	0.80
49:BX:12:VAL:HG12	49:BX:27:THR:O	1.81	0.80
31:BA:1654:A:OP1	43:BR:3:HIS:HB2	1.81	0.80
5:AE:76:ILE:HG22	5:AE:93:PRO:HB3	1.62	0.80
31:BA:1796:U:H2'	31:BA:1797:C:C6	2.15	0.80
31:BA:1482:G:H22	31:BA:1507:A:H1'	1.45	0.80
43:BR:116:LEU:O	43:BR:117:VAL:HB	1.80	0.80
31:DA:911:A:H2'	42:DQ:9:TYR:OH	1.82	0.80
1:AA:707:C:O2'	1:AA:708:C:H5'	1.80	0.80
31:DA:903:C:C2'	31:DA:904:C:H5''	2.11	0.80
1:AA:1399:C:H4'	1:AA:1400:C:H5''	1.63	0.80
31:BA:1786:A:H1'	31:BA:1938:A:N6	1.97	0.80
31:DA:481:G:OP2	50:DY:47:LYS:HE2	1.81	0.80
31:BA:271(P):C:H5'	38:BI:45:LYS:HE3	1.64	0.80
1:AA:66:G:H4'	1:AA:173:U:C5	2.16	0.80
1:CA:877:C:H5''	8:CH:88:LYS:HE3	1.61	0.80
31:BA:2463:C:C2'	31:BA:2464:C:H5'	2.10	0.80
1:CA:921:U:O2'	1:CA:922:G:N9	2.15	0.80
35:DF:65:TRP:HZ3	35:DF:75:HIS:HD2	1.29	0.80
44:DS:89:ARG:HA	44:DS:89:ARG:HE	1.46	0.80
31:BA:1331:A:O2'	31:BA:1332:G:H8	1.64	0.80
31:DA:2752:C:H2'	31:DA:2752:C:O2	1.78	0.80
31:BA:847:U:H2'	31:BA:848:G:H5''	1.62	0.80
1:AA:1434:A:H61	1:AA:1467:G:H1'	1.46	0.80
45:BT:29:ARG:HG3	45:BT:30:VAL:HG22	1.64	0.80
45:BT:106:SER:HA	45:BT:110:ILE:HG13	1.63	0.80
31:DA:157:U:H5''	31:DA:171:G:H22	1.44	0.80
31:BA:184:C:H2'	31:BA:185:U:H6	1.46	0.80
1:AA:1320:C:H5'	19:AS:70:LYS:HG3	1.62	0.80
38:DI:3:VAL:HG12	38:DI:38:LEU:HA	1.62	0.80
30:D8:62:LEU:CD1	31:DA:242:G:H5''	2.09	0.80
31:BA:2415:G:O3'	41:BP:66:GLY:HA3	1.81	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:2807:G:H3'	31:BA:2808:U:H5''	1.62	0.80
4:AD:62:GLN:HE22	4:AD:65:ARG:HH21	1.28	0.80
47:BV:72:VAL:CA	47:BV:88:ARG:HH22	1.95	0.80
50:DY:8:LYS:HE2	50:DY:72:VAL:HG23	1.63	0.80
1:AA:344:A:O2'	1:AA:346:G:N7	2.14	0.80
45:DT:118:ARG:HA	45:DT:121:ILE:HB	1.64	0.80
4:AD:189:PRO:HB2	4:AD:194:LEU:HD21	1.62	0.80
31:BA:114:U:H5''	31:BA:115:C:OP2	1.82	0.80
31:BA:2562:U:H1'	40:BO:23:ARG:HH12	1.43	0.80
1:CA:1320:C:H5'	19:CS:70:LYS:HG3	1.62	0.80
28:D6:12:GLU:HA	28:D6:23:THR:HA	1.64	0.80
31:DA:751:A:H5'	48:DW:90:ARG:HA	1.63	0.80
30:B8:14:VAL:HG11	30:B8:22:VAL:HG13	1.62	0.80
24:B2:51:ARG:O	24:B2:52:ASP:HB3	1.79	0.80
39:BN:4:TYR:CD1	39:BN:4:TYR:N	2.50	0.80
31:DA:2632:A:H1'	34:DE:61:ARG:CZ	2.11	0.80
22:D0:41:ARG:CD	22:D0:41:ARG:H	1.94	0.80
36:DG:85:GLY:O	36:DG:87:PRO:HD2	1.80	0.80
11:CK:24:SER:HB3	11:CK:27:ASN:O	1.81	0.80
49:DX:63:LYS:HD2	49:DX:70:LEU:HD13	1.63	0.80
10:AJ:7:LYS:HD3	10:AJ:71:LEU:HD11	1.61	0.80
28:D6:10:LEU:HD22	28:D6:10:LEU:N	1.97	0.80
31:DA:2068:U:N3	31:DA:2430:A:H2	1.78	0.80
55:BA:3362:TEL:C38	55:BA:3362:TEL:O29	2.30	0.80
36:DG:111:LEU:HA	36:DG:114:ILE:HG13	1.63	0.80
31:BA:1021:A:H8	31:BA:1021:A:H3'	1.46	0.80
31:BA:229:A:H5'	31:BA:230:U:C5'	2.11	0.80
31:DA:2829:C:C2'	31:DA:2830:G:H5''	2.11	0.80
49:BX:63:LYS:HD2	49:BX:70:LEU:HD13	1.63	0.80
11:AK:24:SER:HB3	11:AK:27:ASN:O	1.80	0.80
36:BG:47:LYS:HD3	36:BG:81:LYS:HD2	1.62	0.80
48:DW:9:TYR:H	48:DW:102:HIS:HD2	1.26	0.80
31:BA:1173:G:H5'	31:BA:1174:A:OP2	1.82	0.80
16:AP:39:TYR:HA	16:AP:48:TRP:O	1.82	0.80
28:D6:12:GLU:HB3	28:D6:23:THR:HG22	1.63	0.80
31:DA:2415:G:C4'	41:DP:67:MET:H	1.94	0.80
28:B6:12:GLU:HB3	28:B6:23:THR:HG22	1.64	0.80
24:D2:49:LYS:HD2	24:D2:53:LEU:CD2	2.12	0.80
41:BP:88:LEU:HD11	41:BP:95:VAL:HG21	1.63	0.80
32:DB:36:C:H2'	32:DB:37:C:C6	2.17	0.80
34:DE:59:VAL:HG22	34:DE:63:LEU:HA	1.62	0.80
31:BA:1820:U:H4'	31:BA:1821:A:OP2	1.81	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:736:C:H2'	1:AA:737:A:H8	1.43	0.80
32:BB:21:G:C5	32:BB:63:G:N2	2.50	0.80
31:DA:743:G:H2'	31:DA:744:G:H5'	1.64	0.80
1:CA:1088:G:H2'	1:CA:1089:G:H8	1.47	0.80
31:BA:2722:G:O2'	43:BR:5:LYS:HB2	1.80	0.80
1:AA:1281:U:H5'	1:AA:1282:C:C5	2.17	0.80
40:BO:23:ARG:HG2	40:BO:23:ARG:HH11	1.45	0.80
36:BG:92:VAL:HG22	36:BG:93:THR:H	1.45	0.80
31:BA:1980:G:O2'	31:BA:1982:C:OP2	2.00	0.80
47:BV:47:VAL:HG13	47:BV:48:GLY:H	1.47	0.80
38:BI:10:GLU:O	38:BI:12:LEU:HD23	1.82	0.80
41:DP:112:LEU:HD22	41:DP:113:LYS:N	1.97	0.80
31:BA:1429:G:H2'	31:BA:1430:C:H6	1.47	0.80
33:BD:91:ARG:HH11	33:BD:91:ARG:HG2	1.46	0.80
41:BP:119:GLU:O	25:D3:2:PRO:HD3	1.81	0.80
1:CA:1434:A:H61	1:CA:1467:G:H1'	1.47	0.80
33:DD:35:LYS:HD3	33:DD:63:ARG:CA	2.12	0.80
25:B3:8:LEU:HD13	25:B3:31:LEU:HA	1.64	0.80
47:BV:2:PHE:HE1	47:BV:13:ARG:CZ	1.95	0.80
50:BY:47:LYS:HD2	50:BY:47:LYS:H	1.46	0.80
6:AF:34:GLY:N	6:AF:71:ARG:HH21	1.79	0.80
1:CA:955:U:H1'	1:CA:1227:A:H61	1.46	0.80
1:AA:1342:C:H1'	9:AI:124:GLN:HE22	1.46	0.80
42:DQ:48:GLU:O	42:DQ:52:VAL:HG12	1.81	0.80
1:CA:1321:C:H5''	1:CA:1322:C:H5''	1.64	0.80
10:AJ:40:LEU:HB2	10:AJ:41:PRO:HD2	1.64	0.80
1:CA:1399:C:H4'	1:CA:1400:C:H5''	1.64	0.79
23:B1:37:ILE:HG21	31:BA:2080:G:OP1	1.83	0.79
31:DA:1022:G:N2	31:DA:1142(A):A:H2	1.80	0.79
47:DV:66:ARG:HB3	47:DV:95:LEU:O	1.81	0.79
49:BX:25:LYS:HE3	49:BX:26:TYR:CE1	2.16	0.79
1:AA:333:G:H4'	20:AT:16:HIS:CE1	2.16	0.79
1:CA:539:A:H2'	1:CA:540:G:C8	2.18	0.79
33:DD:54:ARG:O	33:DD:218:ARG:HG3	1.82	0.79
39:BN:65:LYS:CE	39:BN:65:LYS:HA	2.13	0.79
23:B1:85:LEU:HB3	23:B1:87:PRO:HG3	1.64	0.79
2:AB:178:ARG:HH22	8:AH:68:ARG:HH22	1.27	0.79
24:B2:57:ILE:HG12	24:B2:59:ARG:NH1	1.97	0.79
37:BH:89:ILE:HD13	37:BH:90:LYS:N	1.96	0.79
45:DT:28:VAL:HG22	45:DT:46:GLU:HA	1.64	0.79
1:CA:66:G:H4'	1:CA:173:U:C5	2.18	0.79
2:AB:162:ILE:HD11	2:AB:184:VAL:HG22	1.62	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CS:10:PHE:HZ	19:CS:70:LYS:HE2	1.47	0.79
31:DA:322:A:H5'	31:DA:340:A:H1'	1.65	0.79
34:DE:101:ARG:HD3	34:DE:169:ASN:O	1.82	0.79
31:BA:1024:G:H3'	31:BA:1025:G:H5''	1.64	0.79
35:BF:168:ARG:HG3	35:BF:175:THR:HG21	1.64	0.79
55:DA:3320:TEL:O18	55:DA:3320:TEL:C38	2.30	0.79
55:BA:3362:TEL:O48	55:BA:3362:TEL:C57	2.30	0.79
41:BP:16:ARG:HG2	41:BP:18:ARG:H	1.46	0.79
29:B7:11:LYS:HE2	31:BA:686:G:H5''	1.65	0.79
1:CA:501:C:H2'	1:CA:502:G:C8	2.17	0.79
1:AA:444:C:H2'	1:AA:445:G:C8	2.13	0.79
46:BU:31:SER:O	46:BU:33:ARG:N	2.15	0.79
31:DA:2808:U:O2'	31:DA:2809:A:H5'	1.81	0.79
50:BY:17:SER:CB	50:BY:71:LYS:HD2	2.10	0.79
1:CA:677:U:H3	1:CA:713:G:H22	1.30	0.79
18:CR:74:ARG:HG3	18:CR:79:LEU:HB3	1.63	0.79
51:DZ:126:VAL:HA	51:DZ:164:ALA:HB3	1.64	0.79
48:DW:75:TYR:HE1	48:DW:104:THR:CB	1.95	0.79
1:AA:1484:C:HO2'	31:BA:1960:A:HO2'	1.24	0.79
31:BA:903:C:C2'	31:BA:904:C:H5''	2.12	0.79
22:D0:31:VAL:HB	22:D0:35:ASN:ND2	1.96	0.79
31:DA:1173:G:H5'	31:DA:1174:A:OP2	1.82	0.79
2:CB:162:ILE:HD11	2:CB:184:VAL:HG22	1.63	0.79
2:CB:69:LEU:HB3	2:CB:162:ILE:HG22	1.62	0.79
35:DF:160:ASN:C	35:DF:160:ASN:HD22	1.85	0.79
31:DA:2415:G:O3'	41:DP:66:GLY:HA3	1.83	0.79
41:DP:62:LEU:N	41:DP:62:LEU:HD13	1.96	0.79
46:DU:92:ARG:CD	47:DV:11:GLN:HE21	1.92	0.79
31:BA:2808:U:O2'	31:BA:2809:A:H5'	1.83	0.79
23:D1:85:LEU:HB3	23:D1:87:PRO:HD3	1.64	0.79
31:DA:2807:G:H3'	31:DA:2808:U:H5''	1.62	0.79
23:B1:85:LEU:HB3	23:B1:87:PRO:HD3	1.63	0.79
31:DA:909:A:H2'	31:DA:912:C:H5	1.47	0.79
2:CB:178:ARG:HH22	8:CH:68:ARG:HH22	1.27	0.79
50:DY:77:PRO:O	50:DY:99:CYS:SG	2.40	0.79
45:BT:33:LYS:HB3	45:BT:41:ARG:HB3	1.64	0.79
31:BA:1973:G:H2'	31:BA:1974:C:C6	2.16	0.79
12:CL:32:PHE:HD1	12:CL:86:ARG:HA	1.47	0.79
31:DA:2467:C:H4'	42:DQ:123:HIS:CD2	2.17	0.79
5:CE:48:ALA:HB2	5:CE:57:LYS:HD3	1.62	0.79
12:CL:8:ASN:HD22	17:CQ:34:LYS:HE2	1.48	0.79
1:CA:9:G:H2'	1:CA:10:A:H8	1.45	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:B0:68:GLU:HB2	22:B0:80:HIS:HB2	1.63	0.79
12:CL:43:VAL:HG22	12:CL:55:VAL:HG21	1.64	0.79
1:CA:922:G:H1'	5:CE:19:MET:HB2	1.63	0.79
31:DA:448:U:H3'	31:DA:449:A:H5'	1.65	0.79
41:DP:62:LEU:N	41:DP:62:LEU:HD22	1.98	0.79
31:DA:997:G:OP1	46:DU:93:LYS:HD3	1.83	0.79
37:BH:141:VAL:HG12	37:BH:142:GLY:N	1.96	0.79
9:AI:19:LEU:HD22	9:AI:59:PHE:HB3	1.65	0.79
34:BE:52:LEU:HB2	34:BE:76:ARG:HB2	1.62	0.79
1:CA:913:A:H4'	1:CA:914:A:O5'	1.83	0.79
16:AP:22:THR:HG22	16:AP:32:TYR:HA	1.65	0.79
24:B2:16:LEU:H	24:B2:18:PRO:HD2	1.46	0.79
36:BG:111:LEU:HA	36:BG:114:ILE:HG13	1.65	0.79
31:BA:2475:C:H5''	31:BA:2476:A:OP2	1.83	0.79
1:AA:1285:A:H1'	1:AA:1286:A:OP2	1.82	0.79
31:DA:2886:G:H2'	31:DA:2887:U:H6	1.47	0.79
1:CA:15:G:C6	1:CA:922:G:N2	2.51	0.79
55:DA:3320:TEL:C38	55:DA:3320:TEL:O29	2.30	0.79
31:BA:2396:G:O2'	31:BA:2397:G:H5'	1.81	0.79
43:BR:4:LEU:O	43:BR:4:LEU:CD1	2.30	0.79
20:CT:50:GLU:HB2	20:CT:100:ILE:HG12	1.62	0.79
2:CB:19:HIS:NE2	2:CB:206:ASP:HB2	1.98	0.79
1:AA:1483:A:H1'	31:BA:1948:G:C1'	2.11	0.79
31:BA:65:C:H2'	31:BA:66:C:H6	1.47	0.79
31:BA:823:G:O2'	31:BA:824:A:H5'	1.82	0.79
31:DA:1434:A:H61	31:DA:1558:A:H62	1.28	0.79
29:D7:39:ARG:NH2	31:DA:468:G:N7	2.30	0.79
45:DT:80:SER:HB3	45:DT:81:PRO:HD3	1.64	0.79
50:BY:49:VAL:HG12	50:BY:53:PRO:HB3	1.63	0.79
41:DP:101:VAL:HG12	41:DP:106:LEU:HD23	1.63	0.79
41:DP:88:LEU:HD11	41:DP:95:VAL:HG21	1.62	0.79
36:BG:29:TRP:C	36:BG:31:VAL:H	1.86	0.79
34:BE:75:VAL:C	34:BE:77:ILE:H	1.85	0.79
33:DD:30:GLU:HG3	33:DD:63:ARG:CZ	2.13	0.79
4:CD:128:VAL:CG1	4:CD:129:ASN:HD22	1.92	0.79
7:CG:113:GLU:HB2	7:CG:119:ARG:CG	2.12	0.79
1:CA:96:U:HO2'	1:CA:97:G:H8	1.31	0.79
31:DA:271(P):C:H5'	38:DI:45:LYS:HE3	1.62	0.79
31:DA:107:C:H2'	31:DA:108:U:C6	2.18	0.79
35:BF:160:ASN:HD22	35:BF:160:ASN:C	1.86	0.79
38:DI:10:GLU:O	38:DI:12:LEU:HD23	1.83	0.79
11:CK:32:ILE:HD11	11:CK:68:ALA:HB1	1.63	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BD:35:LYS:HD3	33:BD:63:ARG:CA	2.13	0.79
31:BA:1740:G:H3'	31:BA:1741:A:C8	2.17	0.79
31:BA:996:A:O3'	46:BU:92:ARG:HG3	1.82	0.79
32:DB:21:G:C5	32:DB:63:G:N2	2.50	0.79
23:D1:19:GLN:HE21	31:DA:379:G:N2	1.79	0.79
12:CL:24:VAL:HG12	12:CL:24:VAL:O	1.82	0.79
38:BI:72:LEU:HD13	38:BI:75:LEU:HB3	1.64	0.79
31:BA:2199:A:OP2	31:BA:2200:C:H5	1.65	0.79
37:DH:89:ILE:HD11	37:DH:129:THR:HB	1.64	0.79
6:CF:82:ARG:HB2	6:CF:85:VAL:HG23	1.62	0.79
31:DA:184:C:H2'	31:DA:185:U:C6	2.17	0.79
38:BI:123:LEU:HD22	38:BI:142:VAL:HB	1.65	0.79
47:BV:52:VAL:O	47:BV:53:GLU:HB3	1.82	0.79
35:DF:67:GLN:O	35:DF:67:GLN:CG	2.31	0.79
31:BA:2346:A:H5''	31:BA:2383:G:H1'	1.65	0.79
31:DA:847:U:H2'	31:DA:848:G:H5''	1.65	0.79
47:DV:61:VAL:O	47:DV:62:LEU:HD23	1.82	0.79
31:DA:1899:G:H21	31:DA:1902:C:H5	1.28	0.79
50:DY:31:LEU:HD12	50:DY:34:LYS:H	1.48	0.79
50:BY:31:LEU:HB3	50:BY:32:PRO:CA	2.12	0.79
1:AA:1238:A:C2	1:AA:1303:C:H4'	2.17	0.79
31:DA:614(C):A:H4'	31:DA:615:G:OP1	1.82	0.79
18:AR:59:SER:HB3	18:AR:62:GLU:CD	2.03	0.79
31:DA:676:A:H8	31:DA:2069:G:N2	1.76	0.79
28:B6:25:LYS:O	31:BA:2286:A:H2	1.66	0.79
31:BA:448:U:H3'	31:BA:449:A:H5'	1.65	0.79
31:BA:2334:G:N2	44:BS:18:ILE:HD11	1.96	0.79
44:BS:71:ARG:O	44:BS:74:ALA:HB3	1.83	0.79
39:DN:55:VAL:HG12	39:DN:126:PRO:HA	1.63	0.79
20:AT:89:ARG:NH2	20:AT:104:LEU:HD11	1.95	0.79
31:BA:2199:A:H3'	31:BA:2200:C:C6	2.17	0.79
31:DA:1882:C:H5'	31:DA:1883:G:OP2	1.82	0.79
31:DA:2236:C:C2'	31:DA:2237:G:H5'	2.13	0.79
38:BI:124:GLY:H	38:BI:142:VAL:HG23	1.47	0.79
43:DR:33:ARG:HG2	43:DR:115:GLU:HG2	1.63	0.79
7:AG:152:ALA:O	7:AG:155:ARG:HG3	1.82	0.79
48:BW:9:TYR:H	48:BW:102:HIS:CD2	2.01	0.79
1:CA:437:U:OP1	4:CD:155:LEU:HD22	1.83	0.79
1:CA:56:U:H2'	1:CA:57:G:H8	1.43	0.79
48:DW:59:VAL:CG1	48:DW:60:ASN:N	2.46	0.79
31:BA:271(L):U:H4'	31:BA:271(M):G:N7	1.98	0.79
38:BI:50:ARG:O	38:BI:54:GLN:HB3	1.83	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:579:G:H5'	1:AA:728:A:H1'	1.64	0.79
45:DT:33:LYS:HZ2	45:DT:33:LYS:H	1.28	0.79
31:BA:2656:U:H3	31:BA:2665:A:H2	1.28	0.79
5:AE:51:VAL:HB	5:AE:52:PRO:HD3	1.64	0.79
31:DA:1887:C:H2'	31:DA:1888:G:H5'	1.65	0.79
31:DA:212:G:O2'	31:DA:213:A:H5'	1.83	0.79
31:BA:191:A:O2'	31:BA:192:C:H5'	1.82	0.78
55:BA:3362:TEL:C38	55:BA:3362:TEL:O18	2.30	0.78
31:DA:1712:C:H2'	31:DA:1713:U:H6	1.46	0.78
31:BA:848:G:H2'	31:BA:849:A:C8	2.18	0.78
31:DA:951:C:C2'	31:DA:952:G:H5'	2.13	0.78
32:BB:87:G:C3'	32:BB:88:C:H5''	2.13	0.78
1:CA:1073:U:H2'	1:CA:1074:G:H8	1.48	0.78
34:DE:117:MET:HB2	34:DE:122:PHE:O	1.83	0.78
31:BA:951:C:C2'	31:BA:952:G:H5'	2.13	0.78
1:CA:1281:U:H5'	1:CA:1282:C:C5	2.18	0.78
31:BA:1833:U:H2'	31:BA:1834:U:H6	1.47	0.78
31:BA:1685:C:O2'	31:BA:1686:C:H5'	1.82	0.78
39:BN:131:GLN:NE2	39:BN:134:ARG:HA	1.98	0.78
36:BG:60:LEU:O	36:BG:64:THR:HG22	1.83	0.78
19:AS:10:PHE:HZ	19:AS:70:LYS:HE2	1.48	0.78
45:BT:23:ARG:O	45:BT:25:GLY:N	2.16	0.78
31:BA:2236:C:H2'	31:BA:2237:G:H5'	1.63	0.78
1:AA:1404:C:H2'	1:AA:1405:G:C8	2.17	0.78
31:DA:2611:U:H5'	31:DA:2611:U:H6	1.48	0.78
41:DP:112:LEU:HD22	41:DP:113:LYS:H	1.47	0.78
35:BF:67:GLN:CG	35:BF:67:GLN:O	2.29	0.78
33:BD:85:ASP:HB2	33:BD:92:ILE:HG13	1.66	0.78
33:DD:25:THR:HB	33:DD:82:ILE:H	1.47	0.78
31:DA:49:A:C4'	31:DA:50:U:H5'	2.13	0.78
32:BB:67:G:C5	32:BB:68:C:C5	2.68	0.78
31:BA:2265:U:H4'	42:BQ:13:GLN:HE22	1.47	0.78
1:CA:1346:A:N1	1:CA:1374:A:H5''	1.98	0.78
42:BQ:30:GLY:HA2	42:BQ:107:ALA:HB2	1.64	0.78
31:DA:2660:A:H5''	31:DA:2661:G:N3	1.96	0.78
55:DA:3320:TEL:H143	55:DA:3320:TEL:H11	1.47	0.78
32:BB:37:C:O2	32:BB:37:C:H2'	1.81	0.78
36:BG:7:LEU:HB3	36:BG:100:TRP:CE3	2.18	0.78
32:DB:28:C:H2'	32:DB:29:A:O4'	1.83	0.78
38:DI:123:LEU:HD22	38:DI:142:VAL:HB	1.66	0.78
46:BU:88:ILE:O	46:BU:90:VAL:N	2.15	0.78
28:B6:51:GLU:HG2	28:B6:52:VAL:H	1.48	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:142:G:C2	1:AA:143:A:C8	2.71	0.78
37:BH:155:SER:O	37:BH:157:TYR:N	2.16	0.78
33:DD:2:ALA:O	33:DD:3:VAL:HB	1.81	0.78
28:D6:13:CYS:HB3	28:D6:49:HIS:HB3	1.65	0.78
28:D6:10:LEU:HD12	30:D8:35:GLN:NE2	1.98	0.78
41:DP:16:ARG:HG2	41:DP:18:ARG:H	1.49	0.78
41:DP:41:ARG:NH2	41:DP:41:ARG:HA	1.98	0.78
30:B8:32:LEU:HB3	30:B8:35:GLN:H	1.48	0.78
55:BA:3362:TEL:H332	55:BA:3362:TEL:O18	1.82	0.78
31:BA:669:G:C4'	31:BA:670:A:OP2	2.32	0.78
35:BF:89:VAL:HG12	35:BF:90:PHE:N	1.98	0.78
33:BD:25:THR:HB	33:BD:82:ILE:H	1.47	0.78
36:BG:15:VAL:HG12	36:BG:19:LEU:HD11	1.64	0.78
47:DV:2:PHE:HE1	47:DV:13:ARG:CZ	1.97	0.78
31:BA:2632:A:H1'	34:BE:61:ARG:NH1	1.97	0.78
1:CA:59:A:C5'	1:CA:60:A:H5''	2.14	0.78
45:DT:50:ILE:CD1	45:DT:102:ILE:HD11	2.09	0.78
33:DD:35:LYS:HA	33:DD:64:ILE:HG22	1.66	0.78
33:DD:144:ALA:HB3	33:DD:192:THR:HG23	1.65	0.78
28:B6:40:CYS:SG	28:B6:45:LYS:NZ	2.55	0.78
45:DT:29:ARG:HG3	45:DT:30:VAL:HG22	1.65	0.78
31:DA:271(L):U:H4'	31:DA:271(M):G:N7	1.99	0.78
45:DT:109:GLU:HA	45:DT:112:ARG:HG3	1.66	0.78
31:DA:833:U:H2'	31:DA:834:C:C6	2.19	0.78
31:BA:196:A:O4'	41:BP:46:LYS:HE2	1.84	0.78
41:BP:7:ARG:HB3	41:BP:8:PRO:HD3	1.64	0.78
32:BB:57:A:C2	32:BB:58:A:C8	2.71	0.78
25:D3:11:SER:OG	25:D3:13:ILE:HG12	1.84	0.78
1:CA:411:A:H2'	1:CA:412:A:H4'	1.65	0.78
1:AA:1442:G:C6	1:AA:1442(B):A:N1	2.51	0.78
31:BA:536:A:H2'	31:BA:537:C:C6	2.19	0.78
27:B5:46:CYS:SG	27:B5:47:PRO:CD	2.72	0.78
31:DA:2818:G:O2'	31:DA:2819:G:H5'	1.84	0.78
42:BQ:17:LEU:HD23	42:BQ:17:LEU:N	1.98	0.78
1:CA:579:G:H5'	1:CA:728:A:H1'	1.64	0.78
31:BA:1047:G:H21	31:BA:1111:A:N6	1.81	0.78
38:BI:102:SER:HA	38:BI:107:VAL:O	1.83	0.78
1:AA:1004:A:H2'	1:AA:1038:C:O2	1.84	0.78
44:BS:37:ALA:HB3	44:BS:51:ALA:HB3	1.66	0.78
31:BA:7:G:H2'	31:BA:8:A:O4'	1.83	0.78
34:DE:33:VAL:HG12	34:DE:90:THR:H	1.47	0.78
28:B6:24:GLU:HA	28:B6:24:GLU:OE1	1.84	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DD:85:ASP:HB2	33:DD:92:ILE:HG13	1.65	0.78
31:BA:527:C:OP2	31:BA:2779:U:H5	1.67	0.78
31:DA:2267:A:H5''	31:DA:2268:A:C5'	2.13	0.78
45:BT:32:TYR:HB3	45:BT:81:PRO:HB2	1.65	0.78
38:DI:101:LEU:C	38:DI:109:ILE:HD11	2.03	0.78
11:CK:27:ASN:HA	11:CK:55:LYS:O	1.83	0.78
1:CA:1004:A:H2'	1:CA:1038:C:O2	1.83	0.78
42:BQ:24:GLY:HA3	51:BZ:78:LYS:HA	1.64	0.78
36:DG:64:THR:HG23	36:DG:65:GLY:N	1.97	0.78
1:AA:1494:G:N2	31:BA:1912:A:C2	2.51	0.78
36:DG:22:ARG:HB3	36:DG:23:PHE:CE1	2.19	0.78
41:BP:62:LEU:HD13	41:BP:62:LEU:H	1.48	0.78
32:BB:36:C:H2'	32:BB:37:C:C6	2.19	0.78
31:BA:49:A:C4'	31:BA:50:U:H5'	2.14	0.78
27:B5:33:CYS:SG	27:B5:49:CYS:CB	2.72	0.78
31:BA:997:G:H2'	31:BA:998:C:H5'	1.65	0.78
1:AA:590:C:H2'	1:AA:591:U:C6	2.18	0.78
31:BA:2886:G:H2'	31:BA:2887:U:H6	1.48	0.78
41:DP:21:ARG:HH11	41:DP:21:ARG:CG	1.97	0.78
28:D6:9:LEU:HD22	28:D6:10:LEU:H	1.49	0.78
28:D6:15:GLU:HG2	28:D6:15:GLU:O	1.83	0.78
50:BY:8:LYS:CE	50:BY:72:VAL:HG23	2.14	0.78
23:D1:10:LYS:HB2	23:D1:14:VAL:H	1.47	0.78
38:BI:88:ILE:HG13	38:BI:121:LYS:CA	2.14	0.78
33:DD:172:TYR:CD1	33:DD:186:HIS:HA	2.19	0.78
32:DB:87:G:C3'	32:DB:88:C:H5''	2.13	0.78
31:BA:1047:G:H2'	31:BA:1110:G:N2	1.99	0.78
42:DQ:24:GLY:HA3	51:DZ:78:LYS:HA	1.63	0.78
1:AA:64:G:H4'	1:AA:65:U:H5''	1.64	0.78
45:DT:106:SER:HA	45:DT:110:ILE:HG13	1.66	0.78
36:DG:22:ARG:O	36:DG:22:ARG:HD3	1.84	0.78
34:BE:134:ILE:H	34:BE:134:ILE:HD13	1.49	0.78
1:CA:80:G:H1	1:CA:89:C:H41	1.29	0.78
31:BA:142:A:H1'	31:BA:1408:C:O4'	1.84	0.78
49:BX:56:THR:C	49:BX:57:LEU:HD12	2.04	0.78
31:DA:1826:G:H4'	33:DD:242:ARG:NH2	1.99	0.78
32:DB:25:A:H2'	32:DB:26:A:H8	1.49	0.78
44:DS:74:ALA:HB1	44:DS:103:GLU:CG	2.13	0.78
31:DA:2751:G:H3'	31:DA:2752:C:H6	1.48	0.78
31:BA:286:C:H2'	31:BA:287:C:H5'	1.66	0.78
41:DP:124:LYS:HA	41:DP:143:GLY:HA3	1.66	0.78
31:DA:2712:U:H1'	31:DA:2712(A):A:C8	2.18	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1238:A:C2	1:CA:1303:C:H4'	2.19	0.78
31:BA:212:G:O2'	31:BA:213:A:H5'	1.84	0.78
31:DA:2557:G:O2'	31:DA:2558:C:H5'	1.84	0.78
8:CH:6:ILE:H	8:CH:6:ILE:HD12	1.46	0.78
31:DA:542:C:N4	31:DA:543:C:N4	2.32	0.78
31:BA:195:A:C8	31:BA:197:A:OP1	2.37	0.78
1:CA:358:U:H2'	1:CA:359:U:C6	2.18	0.78
12:AL:27:LEU:O	12:AL:29:GLY:N	2.17	0.78
8:AH:102:ARG:N	8:AH:102:ARG:HE	1.82	0.78
1:AA:1203:C:H2'	1:AA:1204:A:C8	2.19	0.78
1:CA:601:C:H2'	1:CA:602:A:C8	2.18	0.78
37:BH:91:GLY:O	37:BH:92:ILE:HD13	1.83	0.78
31:DA:1865:G:H5'	31:DA:1866:C:OP2	1.84	0.78
31:BA:2292:C:O2'	31:BA:2293:C:H5'	1.83	0.78
41:DP:66:GLY:O	41:DP:67:MET:C	2.22	0.77
31:DA:389:G:H22	41:DP:71:VAL:HG12	1.48	0.77
31:BA:942:G:O2'	31:BA:943:U:H5'	1.84	0.77
31:DA:1405:U:H2'	31:DA:1406:U:C6	2.20	0.77
31:DA:1406:U:H2'	31:DA:1407:C:H6	1.45	0.77
24:B2:49:LYS:CD	24:B2:53:LEU:HD22	2.14	0.77
31:BA:1406:U:H2'	31:BA:1407:C:C6	2.20	0.77
31:DA:1899:G:N2	31:DA:1902:C:C5	2.52	0.77
1:CA:333:G:H4'	20:CT:16:HIS:CE1	2.20	0.77
50:BY:37:VAL:HG11	50:BY:72:VAL:HG21	1.65	0.77
43:DR:67:LEU:HD13	43:DR:76:VAL:HG21	1.66	0.77
31:DA:1512:U:H2'	31:DA:1512:U:O2	1.83	0.77
31:BA:2208:A:O2'	31:BA:2218:U:OP2	2.02	0.77
1:AA:501:C:H2'	1:AA:502:G:C8	2.19	0.77
46:BU:93:LYS:H	46:BU:93:LYS:CD	1.97	0.77
31:DA:1657:C:H5''	34:DE:133:LYS:O	1.84	0.77
28:B6:15:GLU:O	28:B6:15:GLU:HG2	1.83	0.77
14:CN:4:LYS:O	14:CN:7:ILE:HG12	1.83	0.77
31:DA:1662:C:H1'	31:DA:2687:U:H5''	1.66	0.77
31:DA:2660:A:H3'	31:DA:2660:A:N3	1.98	0.77
34:BE:33:VAL:HG12	34:BE:90:THR:H	1.48	0.77
18:CR:59:SER:HB3	18:CR:62:GLU:CD	2.04	0.77
15:CO:17:ARG:HG3	15:CO:17:ARG:HH11	1.49	0.77
12:AL:41:ARG:HG2	12:AL:42:THR:H	1.47	0.77
1:AA:1321:C:H5''	1:AA:1322:C:H5''	1.65	0.77
22:B0:72:ARG:HB2	22:B0:75:LEU:HB2	1.67	0.77
41:DP:79:ARG:NH2	41:DP:109:GLY:HA2	1.97	0.77
31:BA:579:G:H2'	31:BA:580:C:C6	2.20	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BP:62:LEU:N	41:BP:62:LEU:HD13	1.99	0.77
31:DA:141:A:C8	31:DA:1408:C:O2'	2.35	0.77
31:DA:1021:A:H3'	31:DA:1021:A:C8	2.19	0.77
36:DG:7:LEU:HB3	36:DG:100:TRP:CE3	2.19	0.77
31:BA:993:G:N3	47:BV:91:TYR:HE1	1.81	0.77
1:AA:1483:A:H2	31:BA:1959:G:N3	1.80	0.77
1:AA:1073:U:H2'	1:AA:1074:G:H8	1.47	0.77
2:CB:22:LYS:HZ3	2:CB:22:LYS:HA	1.49	0.77
31:BA:2236:C:C2'	31:BA:2237:G:H5'	2.14	0.77
31:BA:38:A:H2'	31:BA:39:C:C6	2.19	0.77
40:DO:4:PRO:O	40:DO:5:GLN:HB2	1.83	0.77
44:BS:41:ASP:OD2	44:BS:44:LYS:HB2	1.84	0.77
23:B1:71:TYR:CE1	38:BI:27:ARG:HD2	2.20	0.77
1:CA:1510:U:H2'	1:CA:1511:G:C8	2.19	0.77
31:DA:247:G:H4'	31:DA:386:G:C5	2.20	0.77
31:BA:2632:A:H1'	34:BE:61:ARG:CZ	2.14	0.77
31:BA:1720:U:H2'	31:BA:1721:G:O4'	1.85	0.77
36:DG:10:LYS:O	36:DG:15:VAL:HG23	1.84	0.77
36:DG:15:VAL:HG12	36:DG:19:LEU:HD11	1.65	0.77
1:AA:411:A:H2'	1:AA:412:A:H4'	1.65	0.77
1:AA:358:U:C4	1:AA:359:U:C4	2.73	0.77
31:BA:107:C:H2'	31:BA:108:U:C6	2.19	0.77
1:CA:688:G:H2'	1:CA:689:C:C6	2.20	0.77
40:BO:23:ARG:CG	40:BO:23:ARG:HH11	1.98	0.77
1:CA:1158:C:H42	1:CA:1181:G:H1	1.28	0.77
2:AB:126:GLU:O	2:AB:130:ARG:HG3	1.84	0.77
31:BA:2186:G:H3'	31:BA:2187:G:H5''	1.66	0.77
31:DA:1300:U:H1'	31:DA:1626:G:C2	2.19	0.77
35:DF:168:ARG:HG3	35:DF:175:THR:HG21	1.66	0.77
16:CP:39:TYR:HA	16:CP:48:TRP:O	1.84	0.77
24:D2:55:ARG:HH22	49:DX:3:THR:CG2	1.97	0.77
47:DV:75:PHE:HE1	47:DV:89:GLN:HB3	1.46	0.77
31:DA:951:C:O2'	31:DA:952:G:H5'	1.85	0.77
27:B5:47:PRO:O	27:B5:48:GLU:HG3	1.84	0.77
28:B6:13:CYS:HB3	28:B6:49:HIS:HB3	1.65	0.77
32:DB:80:U:H2'	32:DB:81:G:H21	1.48	0.77
38:BI:77:LEU:HD21	38:BI:101:LEU:HD13	1.65	0.77
38:BI:133:HIS:HB2	38:BI:134:PRO:HD3	1.65	0.77
13:CM:31:LYS:HA	13:CM:34:LEU:HD12	1.63	0.77
1:AA:601:C:H2'	1:AA:602:A:C8	2.19	0.77
3:AC:73:PRO:O	3:AC:76:VAL:HG22	1.84	0.77
51:BZ:130:PRO:HA	51:BZ:133:ILE:HD11	1.66	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:776:G:H4'	31:BA:777:A:O5'	1.82	0.77
31:DA:1030:G:OP2	42:DQ:128:LYS:HE2	1.84	0.77
31:DA:669:G:C4'	31:DA:670:A:OP2	2.31	0.77
31:DA:806:C:C5	41:DP:39:LYS:HE2	2.17	0.77
41:DP:71:VAL:CG1	41:DP:72:PRO:HD3	2.15	0.77
36:BG:10:LYS:O	36:BG:15:VAL:HG23	1.84	0.77
49:BX:24:GLY:HA3	49:BX:80:ILE:HG13	1.67	0.77
5:CE:76:ILE:HG22	5:CE:93:PRO:HB3	1.64	0.77
31:BA:1021:A:C8	31:BA:1021:A:H3'	2.19	0.77
47:BV:4:ILE:O	47:BV:39:LEU:HB3	1.83	0.77
31:DA:2787:C:C1'	34:DE:61:ARG:HB2	2.13	0.77
51:BZ:101:PRO:O	51:BZ:102:LEU:HD23	1.85	0.77
31:BA:951:C:O2'	31:BA:952:G:H5'	1.83	0.77
31:BA:2712:U:O2'	31:BA:2712(A):A:OP2	2.02	0.77
10:AJ:82:ILE:O	10:AJ:86:MET:HB3	1.84	0.77
31:BA:322:A:H5'	31:BA:340:A:H1'	1.67	0.77
31:BA:2287:A:N6	31:BA:2344:U:N3	2.29	0.77
47:DV:13:ARG:CG	47:DV:13:ARG:HH11	1.97	0.77
50:BY:44:ILE:HG22	50:BY:45:VAL:H	1.50	0.77
33:DD:35:LYS:HD2	33:DD:104:TYR:CE1	2.19	0.77
46:BU:90:VAL:HG12	46:BU:91:ASP:H	1.49	0.77
50:DY:42:VAL:O	50:DY:65:ALA:HB3	1.83	0.77
50:BY:47:LYS:N	50:BY:47:LYS:CD	2.48	0.77
27:B5:48:GLU:O	27:B5:50:GLY:N	2.17	0.77
22:B0:41:ARG:H	22:B0:41:ARG:CD	1.97	0.77
31:BA:954:G:H5''	42:BQ:13:GLN:CG	2.13	0.77
1:AA:688:G:H2'	1:AA:689:C:C6	2.19	0.77
31:BA:1112:G:H4'	31:BA:1113:U:OP2	1.84	0.77
31:BA:1771:C:C1'	31:BA:1786:A:C8	2.67	0.77
31:BA:860:U:C5	31:BA:917:A:N7	2.50	0.77
13:AM:31:LYS:HA	13:AM:34:LEU:HD12	1.66	0.77
1:AA:1422:G:O2'	1:AA:1423:G:H5'	1.84	0.77
36:BG:22:ARG:HD3	36:BG:22:ARG:O	1.85	0.77
31:DA:2471:C:O2	31:DA:2471:C:H2'	1.82	0.77
33:BD:69:ARG:NH2	33:BD:128:GLY:O	2.18	0.77
7:CG:152:ALA:O	7:CG:155:ARG:HG3	1.84	0.77
31:BA:1531:C:H3'	31:BA:1532:C:C5'	2.15	0.77
41:DP:48:PRO:O	41:DP:49:ARG:C	2.22	0.77
41:DP:61:ARG:HD2	41:DP:61:ARG:H	1.50	0.77
32:BB:57:A:C5	36:BG:29:TRP:CD1	2.73	0.77
24:D2:49:LYS:CD	24:D2:53:LEU:HD22	2.14	0.77
31:DA:1396:U:H2'	31:DA:1396:U:O2	1.85	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DN:25:ARG:HG3	39:DN:25:ARG:HH11	1.50	0.77
47:DV:60:GLU:OE1	47:DV:60:GLU:HA	1.83	0.77
44:DS:30:ARG:HD2	44:DS:35:ILE:HB	1.66	0.77
39:BN:70:LYS:HB3	39:BN:87:LEU:HB2	1.66	0.77
2:AB:19:HIS:NE2	2:AB:206:ASP:HB2	1.99	0.77
33:BD:210:GLY:O	33:BD:212:SER:N	2.17	0.77
1:CA:673:G:H2'	1:CA:674:G:H8	1.47	0.77
34:DE:11:MET:HB2	34:DE:23:VAL:O	1.85	0.77
33:BD:155:LEU:HD23	33:BD:177:LEU:HD22	1.67	0.77
33:DD:155:LEU:HD23	33:DD:177:LEU:HD22	1.64	0.77
31:BA:2830:G:C8	31:BA:2830:G:H5'	2.19	0.77
1:AA:650:G:O2'	1:AA:651:C:H5'	1.84	0.77
41:DP:21:ARG:HH11	41:DP:21:ARG:HG3	1.50	0.77
31:DA:2186:G:H3'	31:DA:2187:G:H5''	1.66	0.77
50:DY:49:VAL:HG12	50:DY:53:PRO:HB3	1.66	0.77
3:CC:73:PRO:O	3:CC:76:VAL:HG22	1.84	0.77
24:D2:34:GLU:O	24:D2:36:ARG:N	2.18	0.77
30:D8:6:THR:HG22	30:D8:63:PRO:HD3	1.66	0.77
31:BA:2564:A:C2	31:BA:2647:U:H4'	2.19	0.77
49:DX:56:THR:C	49:DX:57:LEU:HD12	2.05	0.77
31:BA:2752:C:O2	31:BA:2752:C:H2'	1.83	0.77
2:AB:54:THR:HG21	2:AB:201:ILE:HD11	1.66	0.77
31:DA:330:A:H2	31:DA:1210:A:C2'	1.98	0.77
31:BA:911:A:H2'	42:BQ:9:TYR:OH	1.84	0.77
24:D2:16:LEU:H	24:D2:18:PRO:HD2	1.50	0.77
1:AA:564:C:C6	17:AQ:31:LEU:HD11	2.19	0.77
31:BA:2683:C:O2	40:BO:70:LYS:HE2	1.85	0.77
1:AA:80:G:H1	1:AA:89:C:H41	1.30	0.77
2:AB:88:ALA:HB2	2:AB:219:VAL:HG13	1.67	0.77
36:BG:165:THR:OG1	36:BG:168:GLU:HG3	1.85	0.77
40:BO:4:PRO:O	40:BO:5:GLN:HB2	1.85	0.77
1:AA:1158:C:H42	1:AA:1181:G:H1	1.29	0.77
31:BA:389:G:H22	41:BP:71:VAL:HG12	1.50	0.77
31:BA:745:G:N2	55:BA:3362:TEL:H51	1.98	0.77
25:D3:52:HIS:CE1	32:DB:83:G:H5''	2.20	0.77
31:DA:993:G:N3	47:DV:91:TYR:CE1	2.53	0.77
47:DV:69:LYS:HB3	47:DV:93:GLU:OE2	1.83	0.77
31:BA:309:G:H5''	50:BY:18:GLY:HA3	1.67	0.77
31:BA:2275:C:HO2'	42:BQ:83:MET:HA	1.47	0.77
9:CI:19:LEU:HD22	9:CI:59:PHE:HB3	1.67	0.77
42:BQ:9:TYR:CD2	42:BQ:9:TYR:O	2.37	0.77
1:AA:976:G:H5'	1:AA:1358:U:O2'	1.85	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:DT:41:ARG:O	45:DT:43:GLN:N	2.16	0.77
1:AA:262:A:H2'	1:AA:263:A:C8	2.20	0.77
31:DA:2469:A:H2	31:DA:2481:G:H21	1.30	0.77
33:DD:267:SER:C	33:DD:269:PHE:H	1.87	0.77
12:CL:41:ARG:HG2	12:CL:42:THR:H	1.49	0.77
36:DG:139:LEU:HB3	36:DG:149:VAL:HG11	1.67	0.77
31:DA:823:G:O2'	31:DA:824:A:H5'	1.83	0.77
30:B8:30:ARG:O	30:B8:31:HIS:C	2.24	0.77
44:BS:74:ALA:HB1	44:BS:103:GLU:CG	2.13	0.77
49:BX:33:LYS:O	49:BX:35:THR:N	2.17	0.77
1:CA:59:A:H2'	1:CA:59:A:N3	2.00	0.77
50:BY:28:LYS:CD	50:BY:28:LYS:H	1.89	0.77
33:DD:71:ASP:CB	33:DD:103:ARG:HH22	1.96	0.77
23:D1:12:PRO:HD2	23:D1:62:VAL:CG2	2.12	0.77
47:BV:72:VAL:C	47:BV:88:ARG:NH2	2.37	0.77
1:CA:709:G:H2'	1:CA:710:G:C8	2.20	0.77
31:DA:286:C:H2'	31:DA:287:C:H5'	1.67	0.77
32:BB:15:A:H1'	32:BB:110:G:C8	2.19	0.77
3:AC:52:LEU:HD23	3:AC:52:LEU:H	1.50	0.77
1:CA:1184:G:H2'	1:CA:1185:G:C8	2.20	0.77
31:BA:2660:A:N3	31:BA:2660:A:H3'	1.99	0.77
45:DT:32:TYR:HB3	45:DT:81:PRO:HB2	1.67	0.77
1:CA:946:A:H2'	1:CA:947:G:H8	1.50	0.77
33:BD:2:ALA:O	33:BD:3:VAL:HB	1.83	0.77
36:BG:139:LEU:HB3	36:BG:149:VAL:HG11	1.67	0.77
31:DA:2777:G:H5''	31:DA:2778:A:H5'	1.65	0.77
34:DE:120:TRP:CE3	34:DE:155:LYS:HD3	2.19	0.77
1:CA:921:U:O2	1:CA:922:G:C2	2.38	0.76
31:BA:141:A:C8	31:BA:1408:C:O2'	2.39	0.76
4:CD:62:GLN:HE22	4:CD:65:ARG:HH21	1.32	0.76
33:DD:91:ARG:HG2	33:DD:91:ARG:HH11	1.50	0.76
1:CA:93:G:H2'	1:CA:96:U:H5'	1.66	0.76
50:DY:96:ILE:HD12	50:DY:99:CYS:SG	2.25	0.76
1:AA:1346:A:N1	1:AA:1374:A:H5''	1.99	0.76
1:CA:586:C:H2'	1:CA:587:G:H5'	1.67	0.76
48:DW:73:ALA:O	48:DW:106:ILE:HD13	1.85	0.76
11:AK:111:ASP:HA	18:AR:84:LYS:HG3	1.67	0.76
1:AA:1236:A:O2'	1:AA:1304:G:H4'	1.85	0.76
31:DA:721:C:O2	31:DA:721:C:H2'	1.84	0.76
31:BA:2053:G:H1	31:BA:2616:C:H42	1.33	0.76
31:DA:34:C:C2'	31:DA:35:G:OP1	2.33	0.76
1:AA:992:U:H1'	1:AA:993:G:OP2	1.85	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:B6:10:LEU:HD12	30:B8:35:GLN:NE2	1.99	0.76
31:BA:1843:C:H5'	33:BD:253:GLN:OE1	1.85	0.76
47:BV:66:ARG:HB3	47:BV:95:LEU:O	1.83	0.76
47:BV:24:LYS:HE3	47:BV:68:LYS:HE3	1.66	0.76
27:D5:54:GLY:O	27:D5:56:LYS:NZ	2.17	0.76
16:CP:22:THR:HG22	16:CP:32:TYR:HA	1.67	0.76
11:AK:32:ILE:HD11	11:AK:68:ALA:HB1	1.67	0.76
1:AA:1250:A:H4'	9:AI:68:GLY:H	1.48	0.76
31:BA:2492:U:H2'	31:BA:2493:U:H6	1.48	0.76
23:D1:71:TYR:CE1	38:DI:27:ARG:HD2	2.20	0.76
31:DA:1580:A:OP2	31:DA:1580:A:H8	1.66	0.76
28:D6:25:LYS:O	31:DA:2286:A:H2	1.67	0.76
30:D8:30:ARG:HH21	41:DP:62:LEU:HB2	1.50	0.76
31:DA:389:G:N2	41:DP:71:VAL:HG12	1.99	0.76
23:B1:34:THR:HG23	31:BA:388:G:OP1	1.85	0.76
41:BP:79:ARG:NH2	41:BP:109:GLY:HA2	2.00	0.76
31:DA:536:A:H2'	31:DA:537:C:C6	2.20	0.76
31:BA:1719:G:C2'	31:BA:1720:U:H5'	2.15	0.76
1:CA:707:C:O2'	1:CA:708:C:H5'	1.84	0.76
27:D5:42:PRO:O	27:D5:43:HIS:HB2	1.86	0.76
46:DU:17:ILE:HG23	46:DU:39:LEU:HD12	1.66	0.76
1:CA:198:G:N2	1:CA:199:G:H1'	2.00	0.76
1:CA:1117:G:H4'	9:CI:104:ARG:NH2	2.00	0.76
42:DQ:106:VAL:HG21	42:DQ:114:ALA:HB1	1.67	0.76
1:CA:783:C:O2'	1:CA:784:C:H5'	1.83	0.76
49:DX:50:LYS:HB3	49:DX:82:GLN:HB3	1.67	0.76
50:BY:42:VAL:O	50:BY:65:ALA:HB3	1.85	0.76
31:DA:2544:G:H1'	31:DA:2646:C:H4'	1.68	0.76
1:CA:191:G:C4	20:CT:105:SER:HB3	2.20	0.76
31:DA:1499:C:C2'	31:DA:1500:G:H5'	2.15	0.76
31:DA:2335:A:O2'	31:DA:2336:A:H5''	1.86	0.76
1:AA:673:G:H2'	1:AA:674:G:H8	1.50	0.76
31:DA:1338:G:O2'	31:DA:1339:G:H5'	1.85	0.76
38:DI:133:HIS:HB2	38:DI:134:PRO:HD3	1.67	0.76
31:BA:2470:G:C6	31:BA:2471:C:H5	2.03	0.76
33:BD:267:SER:C	33:BD:269:PHE:N	2.36	0.76
31:BA:234:C:H2'	31:BA:235:U:H6	1.50	0.76
7:AG:79:ARG:NE	7:AG:84:ASN:HD21	1.83	0.76
1:CA:992:U:H1'	1:CA:993:G:OP2	1.85	0.76
51:BZ:108:PRO:HA	51:BZ:142:SER:HA	1.66	0.76
41:BP:21:ARG:HH11	41:BP:21:ARG:HG3	1.49	0.76
51:DZ:130:PRO:HA	51:DZ:133:ILE:HD11	1.68	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BH:20:ALA:HB1	37:BH:21:PRO:HD2	1.67	0.76
35:DF:139:PHE:HB2	35:DF:166:ALA:HB1	1.67	0.76
2:CB:126:GLU:O	2:CB:130:ARG:HG3	1.85	0.76
37:DH:155:SER:O	37:DH:157:TYR:N	2.17	0.76
30:D8:43:GLN:O	30:D8:44:LYS:HD2	1.86	0.76
31:DA:667:U:H2'	31:DA:668:G:H5'	1.67	0.76
39:DN:40:PRO:C	46:DU:64:ARG:HH22	1.88	0.76
46:DU:93:LYS:CD	46:DU:93:LYS:H	1.96	0.76
49:BX:55:ASN:HB2	49:BX:78:LYS:HD3	1.67	0.76
31:BA:607:U:H3	31:BA:621:A:H2	1.30	0.76
43:DR:116:LEU:O	43:DR:117:VAL:HB	1.84	0.76
1:AA:113:G:H2'	1:AA:114:U:H6	1.50	0.76
31:DA:2562:U:H1'	40:DO:23:ARG:NH1	2.00	0.76
31:DA:2854:G:H2'	31:DA:2855:C:C6	2.21	0.76
51:DZ:109:ALA:HB1	51:DZ:145:GLU:OE2	1.85	0.76
31:BA:2818:G:O2'	31:BA:2819:G:H5'	1.86	0.76
31:BA:1245:G:OP1	41:BP:16:ARG:HD2	1.86	0.76
41:BP:66:GLY:O	41:BP:67:MET:C	2.20	0.76
24:D2:44:LEU:O	24:D2:44:LEU:HD12	1.85	0.76
1:AA:41:G:H2'	1:AA:42:G:C8	2.20	0.76
4:CD:62:GLN:HA	4:CD:62:GLN:HE21	1.51	0.76
16:CP:28:ARG:HH11	16:CP:28:ARG:CG	1.96	0.76
50:BY:39:VAL:HG12	50:BY:40:GLU:H	1.51	0.76
31:BA:1210:A:C8	31:BA:1210:A:C5'	2.66	0.76
42:BQ:141:GLN:HB3	51:BZ:70:LEU:CD1	2.15	0.76
48:BW:75:TYR:HE1	48:BW:104:THR:CB	1.96	0.76
1:AA:677:U:H3	1:AA:713:G:H22	1.34	0.76
43:DR:11:ASN:CG	43:DR:12:ARG:H	1.88	0.76
31:BA:1499:C:C2'	31:BA:1500:G:H5'	2.15	0.76
31:DA:2324:C:H5''	31:DA:2325:G:C5'	2.14	0.76
33:BD:70:TRP:CH2	33:BD:150:LYS:HA	2.19	0.76
34:DE:134:ILE:H	34:DE:134:ILE:CD1	1.98	0.76
31:BA:542:C:N4	31:BA:543:C:N4	2.34	0.76
37:BH:30:LYS:HB2	37:BH:79:VAL:O	1.86	0.76
29:D7:7:PRO:HB2	31:DA:1309:G:H4'	1.66	0.76
1:AA:414:A:H2'	1:AA:415:A:H8	1.50	0.76
31:DA:7:G:H2'	31:DA:8:A:O4'	1.84	0.76
41:DP:133:SER:O	41:DP:137:LYS:HG2	1.86	0.76
41:DP:17:LYS:O	41:DP:19:VAL:N	2.19	0.76
31:BA:1658:C:OP1	34:BE:132:HIS:ND1	2.19	0.76
41:BP:61:ARG:H	41:BP:61:ARG:HD2	1.49	0.76
49:DX:76:ARG:O	49:DX:77:LYS:HB2	1.83	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DS:71:ARG:O	44:DS:74:ALA:HB3	1.86	0.76
33:BD:17:THR:HG23	33:BD:205:VAL:H	1.50	0.76
50:DY:17:SER:CB	50:DY:71:LYS:HD2	2.15	0.76
50:DY:8:LYS:CE	50:DY:72:VAL:HG23	2.16	0.76
42:DQ:141:GLN:HB3	51:DZ:70:LEU:CD1	2.16	0.76
1:AA:113:G:H2'	1:AA:114:U:C6	2.21	0.76
39:BN:15:LEU:HD21	39:BN:55:VAL:CG2	2.15	0.76
31:DA:1339:G:H21	31:DA:1603:A:H1'	1.47	0.76
31:DA:1689:A:H62	31:DA:1698:A:H2	1.33	0.76
39:DN:51:PHE:CZ	39:DN:119:ARG:HD3	2.21	0.76
1:AA:1117:G:H4'	9:AI:104:ARG:NH2	2.00	0.76
1:CA:1154:G:H2'	1:CA:1155:G:H8	1.49	0.76
28:D6:17:LYS:C	28:D6:18:ARG:HD3	2.06	0.76
30:D8:35:GLN:HA	31:DA:2420:C:P	2.26	0.76
31:BA:389:G:N2	41:BP:71:VAL:HG12	2.00	0.76
49:DX:55:ASN:HB2	49:DX:78:LYS:HD3	1.66	0.76
24:B2:26:ARG:NE	24:B2:29:LYS:HE2	2.01	0.76
31:BA:997:G:OP1	46:BU:93:LYS:HD3	1.85	0.76
1:AA:93:G:H2'	1:AA:96:U:H5'	1.67	0.76
1:CA:1412:C:H2'	1:CA:1413:A:H8	1.51	0.76
1:AA:818:G:O2'	1:AA:819:A:H5''	1.86	0.76
1:AA:1392:G:O2'	1:AA:1393:U:H5'	1.85	0.76
39:DN:133:GLN:O	39:DN:135:PRO:HD3	1.86	0.76
1:AA:1184:G:H2'	1:AA:1185:G:C8	2.20	0.76
31:DA:1987:G:H2'	31:DA:1988:C:H6	1.51	0.76
24:B2:34:GLU:O	24:B2:36:ARG:N	2.19	0.76
31:DA:1839:G:N7	31:DA:1927:A:H1'	2.00	0.76
31:DA:598:G:H5'	41:DP:15:ARG:HD2	1.68	0.76
55:BA:3362:TEL:H121	55:BA:3362:TEL:H232	1.68	0.76
47:DV:4:ILE:O	47:DV:39:LEU:HB3	1.86	0.76
1:CA:509:A:H4'	1:CA:510:A:OP1	1.86	0.76
45:BT:98:LYS:HB3	45:BT:100:TYR:CE1	2.21	0.76
1:AA:191:G:C4	20:AT:105:SER:HB3	2.20	0.76
31:DA:2261:C:O2'	31:DA:2262:U:H5'	1.86	0.76
31:DA:966:G:C4	31:DA:967:C:C5	2.74	0.76
27:B5:46:CYS:SG	27:B5:47:PRO:HD2	2.25	0.76
39:BN:55:VAL:HG12	39:BN:126:PRO:HA	1.65	0.76
12:CL:27:LEU:O	12:CL:29:GLY:N	2.19	0.76
31:DA:1490:A:H5'	31:DA:1491:G:OP2	1.85	0.76
31:DA:1515:G:O2'	31:DA:1516:C:H5'	1.86	0.76
42:BQ:48:GLU:O	42:BQ:52:VAL:HG12	1.84	0.76
1:AA:600:C:H2'	1:AA:601:C:C6	2.21	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:DZ:108:PRO:HA	51:DZ:142:SER:HA	1.66	0.76
19:CS:22:LEU:HD13	19:CS:27:GLU:HB2	1.67	0.76
31:DA:2292:C:O2'	31:DA:2293:C:H5'	1.86	0.76
1:AA:1154:G:H2'	1:AA:1155:G:H8	1.51	0.76
31:DA:2287:A:N3	31:DA:2289:G:C8	2.54	0.76
31:BA:2646:C:OP2	31:BA:2732:G:O2'	2.04	0.76
31:DA:1141:U:P	39:DN:63:THR:HG21	2.25	0.76
1:CA:41:G:H2'	1:CA:42:G:C8	2.21	0.76
31:BA:1022:G:N2	31:BA:1142(A):A:C2	2.53	0.76
1:AA:539:A:H2'	1:AA:540:G:C8	2.20	0.76
27:D5:48:GLU:O	27:D5:50:GLY:N	2.19	0.76
42:BQ:38:GLU:OE1	42:BQ:127:ILE:HG22	1.85	0.76
31:DA:2723:C:H5''	43:DR:2:ARG:HD2	1.67	0.76
45:BT:35:LYS:O	45:BT:37:GLY:N	2.20	0.76
31:DA:65:C:H2'	31:DA:66:C:H6	1.50	0.76
45:BT:65:LYS:HE3	45:BT:66:VAL:N	2.01	0.76
11:AK:21:ILE:HG13	11:AK:30:VAL:HG12	1.68	0.76
33:BD:145:VAL:HG12	33:BD:146:GLU:O	1.85	0.76
1:CA:600:C:H2'	1:CA:601:C:C6	2.20	0.76
1:CA:1250:A:H4'	9:CI:68:GLY:H	1.50	0.76
3:CC:73:PRO:HA	3:CC:76:VAL:HG13	1.68	0.76
31:BA:614(C):A:H4'	31:BA:615:G:OP1	1.85	0.76
28:B6:10:LEU:HD22	28:B6:10:LEU:N	2.01	0.75
30:B8:25:MET:HG3	41:BP:64:LYS:CB	2.16	0.75
32:BB:28:C:H2'	32:BB:29:A:O4'	1.86	0.75
31:DA:142:A:H8	31:DA:1595:G:H21	1.32	0.75
39:DN:18:ALA:CB	39:DN:26:LEU:HD22	2.16	0.75
31:BA:142:A:H5'	31:BA:142(A):C:OP2	1.85	0.75
49:BX:72:LYS:HG3	49:BX:73:ARG:H	1.51	0.75
34:BE:48:GLN:HE22	34:BE:64:LYS:NZ	1.83	0.75
32:DB:7:G:H3'	32:DB:8:U:H5''	1.68	0.75
1:AA:377:G:O2'	1:AA:378:G:H5'	1.86	0.75
37:DH:137:ASP:O	37:DH:138:LYS:HB2	1.85	0.75
31:BA:1022:G:H22	31:BA:1142(A):A:H2	1.34	0.75
47:BV:75:PHE:HE1	47:BV:89:GLN:HB3	1.46	0.75
51:BZ:126:VAL:HA	51:BZ:164:ALA:HB3	1.66	0.75
1:CA:1065:U:H1'	1:CA:1066:C:OP2	1.86	0.75
1:CA:560:U:H5'	1:CA:566:G:N2	2.01	0.75
3:AC:134:ILE:HG23	3:AC:151:VAL:HB	1.68	0.75
45:BT:3:ARG:HB2	45:BT:6:LEU:HB3	1.68	0.75
9:AI:17:VAL:HG11	9:AI:81:ILE:HD13	1.68	0.75
1:AA:153:C:H42	1:AA:168:G:H1	1.33	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:BA:3362:TEL:O32	55:BA:3362:TEL:C26	2.30	0.75
41:BP:112:LEU:HD22	41:BP:113:LYS:H	1.49	0.75
39:DN:65:LYS:HD3	39:DN:67:LEU:HB2	1.68	0.75
32:DB:57:A:C2	32:DB:58:A:C8	2.74	0.75
31:BA:2307:G:H21	31:BA:2308:G:H5'	1.50	0.75
31:DA:1568:G:P	33:DD:63:ARG:HH22	2.09	0.75
39:BN:47:ALA:CB	39:BN:112:LEU:HD11	2.16	0.75
31:BA:1797:C:C2'	31:BA:1798:U:H5'	2.16	0.75
51:DZ:69:THR:HG22	51:DZ:90:VAL:HA	1.66	0.75
34:BE:51:PHE:O	34:BE:52:LEU:HD12	1.86	0.75
16:AP:82:GLN:N	16:AP:82:GLN:HE21	1.85	0.75
16:CP:82:GLN:HE21	16:CP:82:GLN:N	1.84	0.75
31:DA:1603:A:H8	31:DA:1603:A:H5'	1.51	0.75
8:CH:102:ARG:N	8:CH:102:ARG:HE	1.82	0.75
1:AA:1064:G:N2	1:AA:1190:G:H2'	2.02	0.75
10:CJ:6:ILE:HG13	10:CJ:72:VAL:O	1.86	0.75
31:BA:154:G:H1	31:BA:172:C:N4	1.83	0.75
31:DA:154:G:H1	31:DA:172:C:N4	1.84	0.75
9:CI:17:VAL:HG11	9:CI:81:ILE:HD13	1.68	0.75
1:CA:1236:A:O2'	1:CA:1304:G:H4'	1.85	0.75
45:BT:109:GLU:HA	45:BT:112:ARG:HG3	1.68	0.75
1:AA:250:A:H4'	1:AA:251:G:O5'	1.86	0.75
31:DA:1956:U:H2'	31:DA:1957:C:H5'	1.69	0.75
1:CA:414:A:H2'	1:CA:415:A:H8	1.51	0.75
43:BR:28:LEU:HD12	43:BR:48:VAL:HG21	1.69	0.75
40:BO:63:VAL:HG11	40:BO:85:VAL:HG23	1.67	0.75
1:CA:522:C:H41	12:CL:53:ARG:NH2	1.84	0.75
31:DA:196:A:O4'	41:DP:46:LYS:HE2	1.87	0.75
32:BB:7:G:H3'	32:BB:8:U:H5''	1.65	0.75
34:BE:34:VAL:HG22	34:BE:48:GLN:HE21	1.50	0.75
44:DS:28:VAL:HG11	44:DS:97:ARG:NH1	2.01	0.75
5:CE:101:ILE:CD1	5:CE:119:LEU:HD23	2.16	0.75
31:DA:779:U:OP1	33:DD:49:ILE:HG13	1.86	0.75
46:BU:83:LEU:HB3	46:BU:88:ILE:HD11	1.67	0.75
31:DA:2327:A:H2'	31:DA:2328:A:H8	1.51	0.75
1:AA:1088:G:H1	1:AA:1097:C:H42	1.33	0.75
31:BA:94:C:H5'	31:BA:94(A):G:OP2	1.85	0.75
22:B0:31:VAL:HB	22:B0:35:ASN:ND2	2.01	0.75
40:DO:23:ARG:HH11	40:DO:23:ARG:HG2	1.49	0.75
31:BA:795:C:O2'	31:BA:796:C:H5'	1.87	0.75
45:DT:55:ASN:H	45:DT:59:THR:HB	1.48	0.75
1:CA:1513:A:H2'	1:CA:1514:C:C6	2.22	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DH:89:ILE:HD13	37:DH:90:LYS:N	2.01	0.75
34:BE:134:ILE:H	34:BE:134:ILE:CD1	1.98	0.75
40:DO:18:LYS:HB2	40:DO:45:GLU:HG2	1.68	0.75
19:AS:50:ALA:HB1	19:AS:57:HIS:HB3	1.69	0.75
31:BA:1205:U:H4'	31:BA:1206:G:OP2	1.86	0.75
1:CA:922:G:H1'	5:CE:19:MET:N	2.01	0.75
30:B8:4:MET:HE1	31:BA:593:G:O4'	1.86	0.75
36:DG:29:TRP:C	36:DG:31:VAL:H	1.86	0.75
1:AA:63:C:H42	1:AA:104:G:H1	1.33	0.75
51:BZ:10:ARG:NH2	51:BZ:26:GLY:H	1.84	0.75
1:AA:709:G:H2'	1:AA:710:G:C8	2.22	0.75
1:AA:708:C:P	11:AK:85:ARG:HH22	2.09	0.75
45:BT:89:VAL:HG11	45:BT:91:ARG:HE	1.51	0.75
1:CA:976:G:H5'	1:CA:1358:U:O2'	1.86	0.75
36:BG:82:LEU:HB3	36:BG:87:PRO:HG3	1.67	0.75
31:BA:2663:G:C8	31:BA:2664:G:N7	2.55	0.75
37:BH:41:MET:SD	37:BH:55:PRO:HB3	2.26	0.75
35:DF:156:LEU:HD21	35:DF:163:VAL:HG12	1.68	0.75
41:DP:21:ARG:NH1	41:DP:21:ARG:HG3	2.01	0.75
31:DA:34:C:H3'	31:DA:34:C:H6	1.51	0.75
41:BP:21:ARG:HG3	41:BP:21:ARG:NH1	2.02	0.75
37:DH:30:LYS:HB2	37:DH:79:VAL:O	1.86	0.75
31:DA:2022:U:O2'	31:DA:2617:C:H5'	1.86	0.75
33:BD:8:PRO:HB3	33:BD:14:ARG:HB2	1.67	0.75
1:CA:1422:G:O2'	1:CA:1423:G:H5'	1.85	0.75
33:BD:91:ARG:NH1	33:BD:91:ARG:HG2	2.00	0.75
31:DA:1720:U:H2'	31:DA:1721:G:O4'	1.86	0.75
39:DN:4:TYR:CD1	39:DN:4:TYR:N	2.54	0.75
31:DA:301:G:C4	31:DA:302:C:C5	2.75	0.75
50:DY:8:LYS:HB2	50:DY:28:LYS:NZ	2.01	0.75
42:DQ:9:TYR:CD2	42:DQ:9:TYR:O	2.40	0.75
31:DA:285:C:H2'	31:DA:286:C:C5'	2.17	0.75
32:DB:65:C:H41	32:DB:109:C:H2'	1.50	0.75
43:DR:96:ARG:HH21	43:DR:117:VAL:HG23	1.50	0.75
31:DA:2092:U:H4'	31:DA:2093:G:O5'	1.87	0.75
1:AA:1065:U:H1'	1:AA:1066:C:OP2	1.86	0.75
22:B0:23:VAL:HG21	31:BA:857:C:H4'	1.67	0.75
51:BZ:109:ALA:HB1	51:BZ:145:GLU:OE2	1.86	0.75
41:BP:21:ARG:CG	41:BP:21:ARG:HH11	1.99	0.75
45:BT:55:ASN:N	45:BT:59:THR:HB	2.01	0.75
40:BO:65:THR:HA	40:BO:82:ASN:HB3	1.67	0.75
34:BE:101:ARG:HD3	34:BE:169:ASN:O	1.86	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:921:U:O2'	1:CA:922:G:C8	2.35	0.75
55:DA:3320:TEL:O32	55:DA:3320:TEL:C26	2.30	0.75
33:BD:35:LYS:HE3	33:BD:64:ILE:C	2.07	0.75
45:DT:100:TYR:HB3	45:DT:103:ARG:HE	1.50	0.75
31:BA:1141:U:P	39:BN:63:THR:HG21	2.26	0.75
2:CB:54:THR:HG21	2:CB:201:ILE:HD11	1.69	0.75
31:BA:354:G:H8	31:BA:354:G:O5'	1.70	0.75
51:DZ:19:ARG:HG2	51:DZ:19:ARG:NH1	1.99	0.75
22:D0:23:VAL:HG21	31:DA:857:C:H4'	1.68	0.75
28:D6:51:GLU:HG2	28:D6:52:VAL:N	2.02	0.75
1:AA:166:G:O2'	1:AA:167:G:H5'	1.87	0.75
36:BG:63:ILE:HG22	36:BG:143:GLU:HG3	1.68	0.75
8:CH:12:ARG:NH1	8:CH:27:PRO:HD3	2.01	0.75
1:CA:590:C:H2'	1:CA:591:U:C6	2.21	0.75
10:CJ:63:PHE:HB3	14:CN:57:ARG:O	1.87	0.75
36:DG:165:THR:OG1	36:DG:168:GLU:HG3	1.87	0.75
31:DA:819:A:C4	31:DA:1189:A:C2	2.75	0.75
31:DA:1719:G:C2'	31:DA:1720:U:H5'	2.17	0.75
31:DA:997:G:H2'	31:DA:998:C:H5'	1.67	0.75
31:BA:2751:G:H3'	31:BA:2752:C:H6	1.52	0.75
31:BA:1712:C:H2'	31:BA:1713:U:H6	1.49	0.75
31:BA:1741:A:H2'	31:BA:1742:G:N3	2.00	0.75
31:BA:1292:U:H2'	31:BA:1293:C:H6	1.52	0.75
1:CA:708:C:P	11:CK:85:ARG:HH22	2.10	0.75
40:BO:10:VAL:HG22	40:BO:17:ARG:O	1.85	0.75
31:BA:481:G:OP2	50:BY:47:LYS:HE2	1.86	0.75
31:DA:1112:G:H4'	31:DA:1113:U:OP2	1.85	0.75
31:BA:61:G:H1	31:BA:94:C:N4	1.83	0.75
31:BA:1418:G:OP1	31:BA:1588:C:O2'	2.04	0.75
1:AA:1497:G:H2'	1:AA:1498:U:H5'	1.69	0.75
1:AA:1157:A:H4'	1:AA:1158:C:O5'	1.87	0.75
29:B7:7:PRO:HB2	31:BA:1309:G:H4'	1.68	0.75
31:BA:1543:C:C6	31:BA:1543:C:OP2	2.40	0.75
31:BA:2273:A:O2'	31:BA:2274:A:H5'	1.87	0.75
30:D8:32:LEU:HB3	30:D8:35:GLN:H	1.51	0.75
31:DA:1403:C:H5"	31:DA:1471:A:C1'	2.14	0.75
41:BP:124:LYS:HA	41:BP:143:GLY:HA3	1.69	0.75
31:DA:1331:A:O2'	31:DA:1332:G:H8	1.69	0.75
1:AA:622:A:C8	1:AA:623:C:C6	2.75	0.75
1:CA:618:C:H5"	1:CA:619:U:H5"	1.69	0.75
45:BT:100:TYR:HB3	45:BT:103:ARG:HE	1.50	0.75
33:DD:95:LEU:HD21	33:DD:105:ILE:CG2	2.16	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:B3:52:HIS:CE1	32:BB:83:G:H5'	2.22	0.75
31:DA:966:G:H2'	31:DA:967:C:C6	2.20	0.75
31:DA:2208:A:O2'	31:DA:2218:U:OP2	2.03	0.75
7:AG:113:GLU:HB2	7:AG:119:ARG:CG	2.14	0.75
39:BN:78:TYR:HD1	39:BN:79:PRO:CD	2.00	0.75
36:DG:82:LEU:HB3	36:DG:87:PRO:HG3	1.69	0.75
1:AA:878:G:H5'	8:AH:89:PRO:HG2	1.68	0.75
1:CA:142:G:C2	1:CA:143:A:C8	2.75	0.75
12:AL:58:VAL:HG21	12:AL:85:ILE:HD11	1.69	0.75
55:DA:3320:TEL:H121	55:DA:3320:TEL:H232	1.67	0.75
32:BB:47:C:O2'	44:BS:93:LYS:HG2	1.87	0.75
39:DN:3:THR:C	39:DN:4:TYR:CD1	2.60	0.75
39:DN:65:LYS:HA	39:DN:65:LYS:CE	2.16	0.75
1:AA:499:A:H4'	1:AA:500:G:OP1	1.87	0.75
33:DD:35:LYS:HE3	33:DD:64:ILE:C	2.07	0.75
23:D1:87:PRO:CD	23:D1:88:LYS:H	2.00	0.75
31:DA:2808:U:C2'	31:DA:2809:A:H5'	2.15	0.75
34:DE:34:VAL:HG22	34:DE:48:GLN:HE21	1.52	0.75
33:DD:133:LEU:HA	33:DD:136:ILE:HD13	1.68	0.75
34:BE:152:LYS:CD	39:BN:78:TYR:HB2	2.16	0.75
34:DE:36:ARG:NH2	34:DE:88:GLY:HA2	2.01	0.75
1:CA:878:G:H5'	8:CH:89:PRO:HG2	1.68	0.75
4:AD:172:PRO:HB2	4:AD:187:ARG:HH22	1.52	0.75
42:DQ:38:GLU:OE1	42:DQ:127:ILE:HG22	1.87	0.75
31:DA:195:A:C8	31:DA:197:A:OP1	2.40	0.74
30:B8:58:ILE:O	30:B8:61:LEU:HG	1.85	0.74
49:DX:33:LYS:O	49:DX:35:THR:N	2.20	0.74
45:BT:118:ARG:HA	45:BT:121:ILE:HB	1.69	0.74
47:BV:90:PRO:CD	47:BV:91:TYR:H	1.99	0.74
31:DA:1503:U:H2'	31:DA:1504:C:C6	2.22	0.74
34:DE:93:VAL:N	34:DE:95:ILE:HD12	1.99	0.74
23:D1:41:ARG:NH2	31:DA:205:G:O6	2.18	0.74
3:CC:52:LEU:H	3:CC:52:LEU:HD23	1.52	0.74
11:AK:27:ASN:HA	11:AK:55:LYS:O	1.87	0.74
1:AA:1158:C:N3	1:AA:1181:G:N2	2.35	0.74
41:DP:7:ARG:HB3	41:DP:8:PRO:HD3	1.68	0.74
11:CK:111:ASP:HA	18:CR:84:LYS:HG3	1.69	0.74
31:BA:2340:G:O2'	31:BA:2341:G:H5'	1.86	0.74
31:DA:1685:C:O2'	31:DA:1686:C:H5'	1.87	0.74
2:AB:29:ALA:O	2:AB:32:ILE:HG22	1.87	0.74
50:BY:2:ARG:O	50:BY:4:LYS:N	2.20	0.74
30:D8:59:LYS:CD	41:DP:50:ARG:HB3	2.17	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:DW:92:ARG:HG2	48:DW:92:ARG:NH1	2.02	0.74
29:B7:8:ASN:HD22	29:B7:8:ASN:C	1.87	0.74
49:DX:72:LYS:HG2	49:DX:74:PRO:HD3	1.68	0.74
47:BV:79:VAL:O	47:BV:80:GLN:CB	2.31	0.74
31:DA:354:G:H8	31:DA:354:G:O5'	1.69	0.74
34:DE:152:LYS:CD	39:DN:78:TYR:HB2	2.17	0.74
42:BQ:8:LYS:HD2	42:BQ:9:TYR:N	2.02	0.74
31:BA:2854:G:H2'	31:BA:2855:C:H6	1.52	0.74
28:D6:26:ASN:HD22	28:D6:32:ASN:ND2	1.85	0.74
31:DA:745:G:N2	55:DA:3320:TEL:H51	2.00	0.74
41:DP:51:PHE:O	41:DP:52:GLU:HB2	1.87	0.74
31:BA:588:U:O4	31:BA:670:A:H1'	1.87	0.74
46:BU:83:LEU:HG	46:BU:88:ILE:CG1	2.15	0.74
47:BV:13:ARG:HH11	47:BV:13:ARG:CG	2.00	0.74
34:BE:36:ARG:NH2	34:BE:88:GLY:HA2	2.02	0.74
31:BA:966:G:C4	31:BA:967:C:C5	2.76	0.74
31:BA:966:G:H2'	31:BA:967:C:H6	1.52	0.74
38:DI:109:ILE:H	38:DI:109:ILE:HD12	1.51	0.74
1:AA:946:A:H2'	1:AA:947:G:H8	1.51	0.74
31:DA:1531:C:H3'	31:DA:1532:C:C5'	2.16	0.74
41:DP:83:VAL:HG12	41:DP:112:LEU:HD21	1.66	0.74
44:BS:71:ARG:HG2	44:BS:101:LEU:HG	1.70	0.74
31:BA:1899:G:N2	31:BA:1902:C:C5	2.55	0.74
44:DS:87:PHE:O	44:DS:88:ASP:HB2	1.88	0.74
1:CA:501:C:H2'	1:CA:502:G:H8	1.51	0.74
39:BN:47:ALA:HB2	39:BN:112:LEU:CD1	2.17	0.74
31:DA:2807:G:H22	31:DA:2892:A:N6	1.85	0.74
31:BA:286:C:C2'	31:BA:287:C:H5'	2.17	0.74
32:DB:15:A:H1'	32:DB:110:G:C8	2.22	0.74
1:AA:328:C:O2	1:AA:328:C:H2'	1.87	0.74
27:B5:4:HIS:HB3	27:B5:5:PRO:HD3	1.70	0.74
4:CD:31:CYS:C	4:CD:33:MET:H	1.91	0.74
32:DB:67:G:C5	32:DB:68:C:C5	2.74	0.74
22:B0:40:GLN:HG3	22:B0:42:GLY:O	1.87	0.74
42:BQ:8:LYS:CD	42:BQ:9:TYR:H	2.00	0.74
1:CA:664:G:N2	1:CA:741:G:H1	1.80	0.74
1:CA:1442:G:C5	1:CA:1442(B):A:C2	2.76	0.74
40:DO:1:MET:HE3	40:DO:67:LYS:HG2	1.67	0.74
34:DE:4:ILE:HD13	34:DE:28:ALA:HB1	1.69	0.74
37:BH:33:LEU:HD11	37:BH:136:ILE:O	1.86	0.74
1:AA:198:G:N2	1:AA:199:G:H1'	2.02	0.74
31:DA:114:U:H5''	31:DA:115:C:OP2	1.87	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:979:C:H3'	1:AA:980:C:H5''	1.68	0.74
31:DA:244:A:C2	31:DA:255:A:C4	2.75	0.74
41:DP:62:LEU:H	41:DP:62:LEU:HD22	1.50	0.74
28:B6:26:ASN:HD22	28:B6:32:ASN:ND2	1.86	0.74
31:DA:1741:A:H2'	31:DA:1742:G:N3	2.01	0.74
34:DE:75:VAL:C	34:DE:77:ILE:H	1.91	0.74
31:BA:909:A:H2'	31:BA:912:C:H5	1.51	0.74
1:CA:1203:C:H2'	1:CA:1204:A:C8	2.22	0.74
31:BA:2712:U:H1'	31:BA:2712(A):A:C8	2.22	0.74
31:DA:2722:G:O2'	43:DR:5:LYS:HB2	1.86	0.74
12:AL:6:THR:HG23	12:AL:9:GLN:HE21	1.52	0.74
31:DA:1963:U:H4'	31:DA:1964:G:OP1	1.85	0.74
35:DF:80:ALA:O	35:DF:83:PHE:HB2	1.87	0.74
31:BA:806:C:C5	41:BP:39:LYS:HE2	2.22	0.74
41:BP:48:PRO:O	41:BP:49:ARG:C	2.25	0.74
44:BS:89:ARG:HB3	44:BS:92:TYR:CB	2.16	0.74
49:DX:25:LYS:HE3	49:DX:26:TYR:CE1	2.22	0.74
39:DN:112:LEU:O	39:DN:112:LEU:HD12	1.88	0.74
31:BA:1405:U:H2'	31:BA:1406:U:C6	2.21	0.74
44:DS:29:PHE:H	44:DS:89:ARG:HD2	1.49	0.74
4:CD:57:ARG:HB3	4:CD:206:PHE:HB2	1.70	0.74
50:BY:18:GLY:O	50:BY:20:TYR:N	2.20	0.74
32:DB:65:C:H42	32:DB:109:C:H2'	1.53	0.74
31:DA:2830:G:C5'	31:DA:2830:G:H8	2.01	0.74
37:BH:89:ILE:CD1	37:BH:90:LYS:H	2.00	0.74
35:BF:178:PRO:HB2	35:BF:201:VAL:HG11	1.69	0.74
39:DN:73:THR:O	39:DN:75:TYR:N	2.20	0.74
31:DA:1839:G:C8	31:DA:1927:A:H1'	2.22	0.74
4:CD:148:VAL:HG12	4:CD:149:ALA:N	2.03	0.74
23:B1:8:SER:N	23:B1:46:LEU:HD11	2.03	0.74
45:DT:23:ARG:HB2	45:DT:24:PRO:HD2	1.67	0.74
1:CA:979:C:H3'	1:CA:980:C:H5''	1.68	0.74
41:BP:30:THR:HG22	41:BP:31:ALA:N	2.00	0.74
49:DX:55:ASN:HB2	49:DX:78:LYS:CD	2.16	0.74
41:BP:133:SER:O	41:BP:137:LYS:HG2	1.87	0.74
39:DN:67:LEU:HD22	39:DN:88:GLU:OE2	1.88	0.74
46:DU:88:ILE:O	46:DU:90:VAL:N	2.18	0.74
31:BA:142:A:H8	31:BA:1595:G:H21	1.32	0.74
31:DA:286:C:C2'	31:DA:287:C:H5'	2.17	0.74
31:BA:620:G:H5''	31:BA:620:G:N3	2.03	0.74
4:AD:36:ARG:HB3	4:AD:38:TYR:CE1	2.22	0.74
1:CA:1064:G:N2	1:CA:1190:G:H2'	2.02	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:DY:75:ILE:CD1	50:DY:79:CYS:HA	2.17	0.74
31:DA:1653:G:H4'	31:DA:1654:A:O5'	1.87	0.74
42:DQ:24:GLY:HA3	51:DZ:78:LYS:CD	2.17	0.74
31:BA:271(D):G:H1	31:BA:271(T):C:H42	1.33	0.74
1:AA:1422:G:O3'	40:BO:48:PRO:HB3	1.87	0.74
19:CS:50:ALA:HB1	19:CS:57:HIS:HB3	1.69	0.74
4:CD:172:PRO:HB2	4:CD:187:ARG:HH22	1.51	0.74
31:DA:586:A:N1	31:DA:809:G:O2'	2.20	0.74
31:DA:667:U:C2'	31:DA:668:G:H5'	2.18	0.74
31:DA:588:U:O4	31:DA:670:A:H1'	1.88	0.74
41:DP:62:LEU:CD1	41:DP:62:LEU:H	1.94	0.74
1:AA:394:G:H2'	1:AA:395:C:H6	1.52	0.74
1:AA:618:C:H5''	1:AA:619:U:H5''	1.69	0.74
1:CA:113:G:H2'	1:CA:114:U:H6	1.53	0.74
16:CP:28:ARG:NH1	16:CP:28:ARG:HG2	2.00	0.74
1:AA:509:A:OP2	1:AA:509:A:H3'	1.88	0.74
31:DA:1047:G:H2'	31:DA:1110:G:N2	2.01	0.74
1:CA:1088:G:H1	1:CA:1097:C:H42	1.34	0.74
1:AA:1088:G:H2'	1:AA:1089:G:C8	2.21	0.74
34:BE:93:VAL:N	34:BE:95:ILE:HD12	2.02	0.74
31:DA:271(D):G:H1	31:DA:271(T):C:H42	1.33	0.74
45:BT:61:PHE:CZ	45:BT:85:LYS:HE2	2.22	0.74
49:BX:40:LYS:HG3	49:BX:41:ASN:N	2.03	0.74
35:DF:178:PRO:HB2	35:DF:201:VAL:HG11	1.69	0.74
3:AC:73:PRO:HA	3:AC:76:VAL:HG13	1.69	0.74
37:DH:20:ALA:HB1	37:DH:21:PRO:HD2	1.68	0.74
31:BA:1839:G:N7	31:BA:1927:A:H1'	2.03	0.74
31:DA:2404:C:C2'	31:DA:2405:G:H5'	2.17	0.74
31:BA:1865:G:H5'	31:BA:1866:C:OP2	1.87	0.74
31:BA:674:G:O2'	35:BF:74:ARG:HG3	1.88	0.74
39:BN:51:PHE:CZ	39:BN:119:ARG:HD3	2.23	0.74
31:BA:1270:C:H5''	31:BA:1271:G:O5'	1.86	0.74
31:BA:943:U:OP2	41:BP:38:GLN:CD	2.26	0.74
44:DS:59:LYS:HB2	44:DS:65:VAL:CG2	2.18	0.74
4:AD:133:VAL:HG13	4:AD:135:LEU:HD22	1.70	0.74
1:CA:424:G:H2'	1:CA:425:G:H8	1.51	0.74
33:DD:30:GLU:HG3	33:DD:63:ARG:HE	1.52	0.74
31:DA:2387:U:H5''	31:DA:2388:A:OP2	1.87	0.74
32:BB:20:C:H2'	32:BB:21:G:H5''	1.70	0.74
1:AA:59:A:H5''	1:AA:60:A:C5'	2.16	0.74
31:DA:1945:G:H2'	31:DA:1946:U:H5'	1.67	0.74
31:DA:776:G:H4'	31:DA:777:A:O5'	1.86	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:586:C:H2'	1:AA:587:G:H5'	1.69	0.74
31:DA:1490:A:C2	33:DD:75:ILE:HD13	2.23	0.74
31:BA:2659:G:C2'	31:BA:2663:G:H22	1.99	0.74
45:BT:23:ARG:HB2	45:BT:24:PRO:HD2	1.69	0.74
1:AA:1513:A:H2'	1:AA:1514:C:C6	2.23	0.74
31:DA:1381:G:H2'	31:DA:1382:G:H5'	1.70	0.74
12:AL:20:LYS:H	12:AL:20:LYS:HD3	1.53	0.74
19:CS:6:LYS:HG2	19:CS:7:LYS:HD3	1.70	0.74
1:AA:424:G:H2'	1:AA:425:G:H8	1.51	0.74
6:CF:49:ALA:HB2	18:CR:78:LEU:O	1.87	0.74
30:B8:32:LEU:CG	30:B8:35:GLN:H	2.01	0.74
32:BB:27:C:H2'	32:BB:27:C:O2	1.86	0.74
4:AD:62:GLN:HE21	4:AD:62:GLN:HA	1.53	0.74
31:BA:2305:A:H5''	36:BG:134:GLY:HA3	1.70	0.74
50:DY:14:LEU:HG	50:DY:15:VAL:N	2.03	0.74
31:BA:1512:U:O2	31:BA:1512:U:H2'	1.86	0.74
31:BA:330:A:H2	31:BA:1210:A:C2'	2.01	0.74
51:DZ:15:PRO:O	51:DZ:19:ARG:HD2	1.88	0.74
31:BA:910:A:H62	42:BQ:12:GLN:HA	1.52	0.74
48:DW:12:ILE:HG13	48:DW:42:ARG:HH11	1.51	0.74
1:AA:1064:G:H5'	1:AA:1066:C:H1'	1.69	0.74
31:BA:2324:C:H5''	31:BA:2325:G:C5'	2.17	0.74
31:DA:2470:G:C6	31:DA:2471:C:H5	2.05	0.74
1:CA:946:A:H2'	1:CA:947:G:C8	2.21	0.74
1:AA:949:A:H1'	1:AA:1364:U:H3	1.53	0.74
31:DA:443:A:H1'	31:DA:1201:C:O4'	1.88	0.74
31:DA:2683:C:O2	40:DO:70:LYS:HE2	1.87	0.74
23:D1:37:ILE:HG21	31:DA:2080:G:OP1	1.88	0.74
23:D1:8:SER:N	23:D1:46:LEU:HD11	2.02	0.74
31:BA:2196:C:O2'	31:BA:2197:U:H5'	1.86	0.74
22:D0:68:GLU:HB2	22:D0:80:HIS:HB2	1.68	0.74
1:CA:113:G:H2'	1:CA:114:U:C6	2.22	0.73
50:DY:44:ILE:HG22	50:DY:45:VAL:H	1.53	0.73
31:BA:370:G:H5''	31:BA:423:A:N6	2.03	0.73
31:BA:285:C:C2'	31:BA:286:C:H5''	2.17	0.73
32:DB:20:C:H2'	32:DB:21:G:H5''	1.70	0.73
1:AA:431:A:H2'	1:AA:432:A:O4'	1.86	0.73
36:DG:86:MET:HB2	36:DG:87:PRO:CD	2.18	0.73
1:AA:659:U:C2'	1:AA:660:G:H5'	2.18	0.73
41:BP:62:LEU:CD1	41:BP:62:LEU:H	2.01	0.73
33:BD:30:GLU:HG3	33:BD:63:ARG:CZ	2.18	0.73
31:DA:94:C:H5'	31:DA:94(A):G:OP2	1.87	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1742:G:N7	31:BA:1743:C:C2	2.55	0.73
44:DS:93:LYS:HG3	44:DS:93:LYS:O	1.88	0.73
31:BA:1316:U:O2'	31:BA:1317:A:H5'	1.88	0.73
33:DD:94:LEU:HB2	33:DD:104:TYR:CD2	2.23	0.73
23:D1:85:LEU:HB3	23:D1:87:PRO:CG	2.18	0.73
18:CR:74:ARG:HE	18:CR:81:PHE:HA	1.53	0.73
50:BY:95:LYS:CE	50:BY:101:LYS:H	2.00	0.73
40:BO:48:PRO:HB2	40:BO:49:ARG:HD3	1.70	0.73
2:CB:93:VAL:HG11	2:CB:97:TRP:CD1	2.23	0.73
1:AA:9:G:H2'	1:AA:10:A:C8	2.24	0.73
31:DA:2012:G:H4'	48:DW:96:ILE:CD1	2.18	0.73
31:DA:234:C:H2'	31:DA:235:U:H6	1.52	0.73
42:BQ:27:VAL:HA	42:BQ:105:GLU:OE1	1.87	0.73
2:CB:29:ALA:O	2:CB:32:ILE:HG22	1.88	0.73
31:BA:1030:G:OP2	42:BQ:128:LYS:HE2	1.87	0.73
1:CA:1392:G:O2'	1:CA:1393:U:H5'	1.87	0.73
44:DS:41:ASP:OD2	44:DS:44:LYS:HB2	1.87	0.73
22:D0:72:ARG:HB2	22:D0:75:LEU:HB2	1.69	0.73
31:BA:743:G:C2'	31:BA:744:G:H5'	2.18	0.73
41:BP:144:GLU:N	41:BP:145:PRO:HD3	2.02	0.73
24:B2:55:ARG:HH22	49:BX:3:THR:CG2	2.00	0.73
31:BA:2807:G:H22	31:BA:2892:A:N6	1.86	0.73
31:BA:1899:G:H21	31:BA:1902:C:H5	1.32	0.73
31:DA:2521:C:H2'	31:DA:2521:C:O2	1.88	0.73
47:BV:18:LEU:HD22	47:BV:19:LYS:HA	1.69	0.73
31:DA:2314:C:H2'	31:DA:2315:G:C8	2.23	0.73
31:DA:870:A:C5'	42:DQ:7:MET:HB2	2.18	0.73
22:B0:74:ARG:NH2	32:BB:13:A:H8	1.86	0.73
31:DA:528:A:N1	31:DA:2043:C:O5'	2.21	0.73
20:AT:82:SER:O	20:AT:86:ARG:HB2	1.88	0.73
50:BY:96:ILE:HD12	50:BY:99:CYS:SG	2.28	0.73
31:DA:378:C:C2'	31:DA:379:G:H5'	2.18	0.73
31:DA:378:C:H2'	31:DA:379:G:H5'	1.69	0.73
31:BA:271(L):U:H4'	31:BA:271(M):G:C5	2.23	0.73
40:BO:13:ASN:HD21	40:BO:97:ARG:H	1.32	0.73
31:BA:2875:C:O2'	45:BT:5:ALA:HB3	1.88	0.73
31:DA:1771:C:H1'	31:DA:1786:A:C8	2.24	0.73
31:DA:518:G:H2'	31:DA:519:U:C6	2.24	0.73
45:DT:30:VAL:HG21	45:DT:83:ILE:CG1	2.17	0.73
31:DA:2886:G:C4	31:DA:2887:U:C5	2.76	0.73
31:BA:2884:U:C6	31:BA:2885:C:C6	2.76	0.73
33:DD:182:LEU:O	33:DD:271:ILE:HD12	1.88	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:130:ARG:HE	2:CB:130:ARG:HA	1.52	0.73
33:DD:246:PRO:HB2	33:DD:255:LYS:HG3	1.70	0.73
31:BA:1396:U:H2'	31:BA:1396:U:O2	1.86	0.73
43:BR:72:ASP:HB3	43:BR:75:LEU:HB2	1.70	0.73
5:CE:33:VAL:HG11	5:CE:109:ILE:HA	1.69	0.73
31:DA:197:A:H8	31:DA:197:A:H5'	1.53	0.73
31:DA:2396:G:O2'	31:DA:2397:G:H5'	1.89	0.73
44:BS:30:ARG:HD2	44:BS:35:ILE:HB	1.68	0.73
1:CA:328:C:H2'	1:CA:328:C:O2	1.87	0.73
1:CA:499:A:H4'	1:CA:500:G:OP1	1.87	0.73
38:DI:124:GLY:H	38:DI:142:VAL:HG23	1.53	0.73
1:CA:186:C:O2'	1:CA:187:C:H5'	1.87	0.73
23:B1:94:LEU:O	23:B1:95:LEU:HG	1.87	0.73
27:D5:50:GLY:O	27:D5:51:TYR:HD1	1.71	0.73
28:B6:48:VAL:O	28:B6:49:HIS:HB2	1.88	0.73
31:BA:870:A:H5''	42:BQ:7:MET:HB2	1.69	0.73
31:DA:271(E):U:H2'	31:DA:271(F):C:C6	2.23	0.73
31:BA:2471:C:H2'	31:BA:2471:C:O2	1.88	0.73
8:AH:10:LEU:HD13	8:AH:83:ILE:HD11	1.70	0.73
31:BA:1025:G:OP1	31:BA:1025:G:H8	1.70	0.73
3:AC:70:VAL:HG21	3:AC:76:VAL:HG11	1.70	0.73
1:AA:946:A:H2'	1:AA:947:G:C8	2.23	0.73
34:DE:128:SER:OG	34:DE:129:HIS:N	2.20	0.73
7:CG:79:ARG:NE	7:CG:84:ASN:HD21	1.85	0.73
28:B6:9:LEU:HD22	28:B6:10:LEU:H	1.53	0.73
30:B8:6:THR:HG22	30:B8:63:PRO:HD3	1.69	0.73
31:DA:71:A:OP2	31:DA:71:A:H3'	1.87	0.73
50:BY:45:VAL:HG13	50:BY:62:GLU:OE2	1.88	0.73
31:BA:2312:U:C2'	31:BA:2313:C:H5'	2.19	0.73
42:BQ:81:VAL:C	42:BQ:82:ARG:HG2	2.05	0.73
4:CD:33:MET:CE	4:CD:37:PRO:HA	2.19	0.73
33:BD:147:LEU:HD13	33:BD:155:LEU:CD1	2.18	0.73
41:DP:144:GLU:N	41:DP:145:PRO:HD3	2.04	0.73
13:AM:66:LEU:H	13:AM:66:LEU:HD12	1.52	0.73
40:DO:13:ASN:HD21	40:DO:97:ARG:H	1.35	0.73
22:B0:18:ALA:HB1	31:BA:2271:G:OP1	1.88	0.73
31:DA:1648:C:H2'	31:DA:1649:G:O5'	1.88	0.73
1:AA:537:G:H2'	1:AA:538:G:H8	1.53	0.73
19:AS:22:LEU:HD13	19:AS:27:GLU:HB2	1.69	0.73
1:CA:921:U:O2'	1:CA:922:G:C1'	2.36	0.73
30:B8:52:LYS:H	30:B8:53:PRO:HD2	1.50	0.73
1:CA:377:G:O2'	1:CA:378:G:H5'	1.89	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:BY:8:LYS:HB2	50:BY:28:LYS:NZ	2.04	0.73
39:BN:47:ALA:HB2	39:BN:112:LEU:HD11	1.67	0.73
31:DA:870:A:H5''	42:DQ:7:MET:HB2	1.70	0.73
4:CD:33:MET:HE2	4:CD:37:PRO:HA	1.70	0.73
31:BA:870:A:C5'	42:BQ:7:MET:HB2	2.18	0.73
31:DA:2199:A:OP2	31:DA:2200:C:H5	1.70	0.73
33:DD:228:PRO:HD3	33:DD:235:GLY:HA3	1.71	0.73
31:BA:2199:A:OP2	31:BA:2200:C:C5	2.42	0.73
10:AJ:6:ILE:HG13	10:AJ:72:VAL:O	1.88	0.73
37:DH:41:MET:SD	37:DH:55:PRO:HB3	2.28	0.73
37:BH:123:PHE:CZ	37:BH:148:ILE:HD11	2.22	0.73
10:AJ:63:PHE:HB3	14:AN:57:ARG:O	1.89	0.73
31:DA:2492:U:H2'	31:DA:2493:U:H6	1.52	0.73
10:CJ:82:ILE:O	10:CJ:86:MET:HB3	1.88	0.73
40:DO:122:LEU:HD13	45:DT:72:VAL:HG11	1.70	0.73
1:CA:922:G:H1'	5:CE:19:MET:H	1.52	0.73
47:DV:79:VAL:O	47:DV:80:GLN:CB	2.34	0.73
30:B8:32:LEU:HG	30:B8:34:TRP:HB3	1.70	0.73
44:BS:29:PHE:H	44:BS:89:ARG:HD2	1.52	0.73
44:BS:99:LYS:C	44:BS:106:ARG:HH12	1.92	0.73
24:D2:26:ARG:NE	24:D2:29:LYS:HE2	2.04	0.73
46:DU:90:VAL:HG12	46:DU:91:ASP:H	1.52	0.73
47:DV:13:ARG:HH12	47:DV:15:GLU:HG2	1.54	0.73
44:DS:71:ARG:HG2	44:DS:101:LEU:HG	1.70	0.73
32:DB:47:C:O2'	44:DS:93:LYS:HG2	1.88	0.73
31:BA:1288:U:C2	31:BA:1327:C:O2	2.42	0.73
1:AA:186:C:O2'	1:AA:187:C:H5'	1.89	0.73
31:BA:1790:C:H5''	31:BA:1791:A:OP1	1.88	0.73
23:B1:85:LEU:HB3	23:B1:87:PRO:CG	2.19	0.73
22:B0:74:ARG:NH2	32:BB:13:A:H5'	2.04	0.73
50:BY:75:ILE:CD1	50:BY:79:CYS:HA	2.17	0.73
31:DA:1291:C:O2'	31:DA:1292:U:H5'	1.88	0.73
1:AA:21:G:H2'	1:AA:22:G:C8	2.24	0.73
36:BG:85:GLY:O	36:BG:87:PRO:HD2	1.87	0.73
43:BR:71:GLN:NE2	43:BR:71:GLN:HA	2.04	0.73
45:DT:88:ILE:HG22	45:DT:89:VAL:HG23	1.70	0.73
49:DX:40:LYS:HG3	49:DX:41:ASN:N	2.02	0.73
31:DA:2273:A:O2'	31:DA:2274:A:H5'	1.88	0.73
1:CA:774:G:C2'	1:CA:775:G:H5'	2.19	0.73
30:B8:47:LYS:HE2	30:B8:49:VAL:HG13	1.69	0.73
1:AA:940:C:OP1	7:AG:102:ARG:HD3	1.89	0.73
46:DU:31:SER:O	46:DU:33:ARG:N	2.21	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:AO:17:ARG:HH11	15:AO:17:ARG:HG3	1.53	0.73
31:BA:807:U:H2'	31:BA:808:G:O5'	1.89	0.73
1:CA:922:G:H1'	5:CE:19:MET:CA	2.18	0.73
41:DP:40:SER:O	41:DP:41:ARG:HD2	1.89	0.73
31:DA:1719:G:H2'	31:DA:1720:U:H5'	1.71	0.73
47:DV:72:VAL:CA	47:DV:88:ARG:HH22	2.00	0.73
32:DB:27:C:O2	32:DB:27:C:H2'	1.89	0.73
1:CA:102:G:C4	1:CA:103:C:C5	2.77	0.73
45:BT:50:ILE:CD1	45:BT:102:ILE:HD11	2.13	0.73
46:BU:90:VAL:HG13	47:BV:39:LEU:HG	1.70	0.73
31:DA:2659:G:C2'	31:DA:2663:G:H22	2.02	0.73
31:DA:2307:G:H21	31:DA:2308:G:H5'	1.54	0.73
48:BW:59:VAL:CG1	48:BW:60:ASN:N	2.46	0.73
50:DY:39:VAL:HG12	50:DY:40:GLU:H	1.54	0.73
31:BA:2496:C:OP1	42:BQ:81:VAL:HG12	1.89	0.73
22:D0:42:GLY:HA2	31:DA:2330:G:H21	1.52	0.73
31:DA:1688:U:O2	31:DA:1700:A:H5''	1.88	0.73
40:DO:63:VAL:HG11	40:DO:85:VAL:HG23	1.71	0.73
45:DT:30:VAL:HG21	45:DT:83:ILE:HG12	1.69	0.73
31:DA:1517:G:H8	31:DA:1517:G:H5''	1.53	0.73
49:DX:65:ARG:HA	49:DX:65:ARG:NE	2.02	0.73
31:BA:34:C:C2'	31:BA:35:G:OP1	2.37	0.73
3:AC:189:ALA:HB3	3:AC:196:LEU:HB2	1.71	0.73
1:CA:457:C:H2'	1:CA:458:C:H6	1.54	0.73
31:DA:2845:G:O2'	31:DA:2846:G:H5'	1.87	0.73
3:CC:117:ALA:HB2	3:CC:200:ALA:HB2	1.69	0.73
1:CA:394:G:H2'	1:CA:395:C:H6	1.52	0.73
37:DH:141:VAL:HG12	37:DH:142:GLY:N	2.04	0.73
1:AA:185:A:H2'	1:AA:186:C:H6	1.54	0.73
31:DA:285:C:C2'	31:DA:286:C:H5''	2.18	0.73
27:B5:51:TYR:CD2	27:B5:52:TYR:CZ	2.77	0.73
1:CA:21:G:H2'	1:CA:22:G:C8	2.23	0.73
1:AA:955:U:H1'	1:AA:1227:A:N6	2.04	0.73
45:DT:35:LYS:O	45:DT:37:GLY:N	2.22	0.73
31:BA:2652:C:O2'	31:BA:2653:U:H5'	1.89	0.73
31:BA:2853:C:H2'	31:BA:2854:G:H8	1.54	0.73
31:BA:1029:A:OP1	42:BQ:128:LYS:HE3	1.89	0.73
3:CC:134:ILE:HG23	3:CC:151:VAL:HB	1.70	0.73
41:DP:114:ILE:HG12	41:DP:130:PHE:CD1	2.23	0.73
44:DS:37:ALA:HB3	44:DS:51:ALA:HB3	1.70	0.73
3:AC:117:ALA:HB2	3:AC:200:ALA:HB2	1.71	0.73
31:DA:208:C:H2'	31:DA:209:C:H6	1.54	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:2557:G:O2'	31:BA:2558:C:H5'	1.88	0.73
40:BO:1:MET:HE3	40:BO:67:LYS:HG2	1.71	0.73
31:DA:2287:A:C2	31:DA:2289:G:C8	2.76	0.73
31:BA:2567:G:H2'	31:BA:2568:C:H6	1.50	0.73
31:DA:814:C:O2'	31:DA:815:C:H5'	1.87	0.73
31:DA:996:A:H4'	46:DU:92:ARG:CZ	2.19	0.73
31:BA:1406:U:H2'	31:BA:1407:C:H6	1.53	0.73
16:AP:28:ARG:HG2	16:AP:28:ARG:NH1	1.97	0.73
31:BA:1662:C:O2'	31:BA:1663:C:H5'	1.89	0.73
33:BD:54:ARG:O	33:BD:218:ARG:HG3	1.88	0.73
1:CA:262:A:H2'	1:CA:263:A:C8	2.24	0.73
32:BB:65:C:H42	32:BB:109:C:H2'	1.52	0.73
1:AA:114:U:H2'	1:AA:115:G:C8	2.24	0.73
1:AA:358:U:H2'	1:AA:359:U:C6	2.24	0.73
1:AA:783:C:C2'	1:AA:784:C:H5'	2.18	0.73
36:BG:86:MET:HB2	36:BG:87:PRO:CD	2.18	0.73
43:DR:10:LEU:HB3	43:DR:17:ARG:NE	2.04	0.73
33:BD:182:LEU:O	33:BD:271:ILE:HD12	1.89	0.73
31:DA:271(L):U:H4'	31:DA:271(M):G:C5	2.24	0.73
34:BE:4:ILE:HD13	34:BE:28:ALA:HB1	1.71	0.73
31:BA:2552:U:H2'	31:BA:2554:U:OP2	1.89	0.73
31:DA:2342:C:OP2	31:DA:2342:C:H6	1.71	0.73
31:BA:1963:U:H4'	31:BA:1964:G:OP1	1.88	0.73
31:DA:826:U:OP1	31:DA:2428:G:H3'	1.88	0.72
23:B1:37:ILE:HD11	31:BA:2079:U:H4'	1.71	0.72
31:BA:1568:G:P	33:BD:63:ARG:HH22	2.12	0.72
41:BP:107:LYS:C	41:BP:109:GLY:H	1.93	0.72
47:BV:80:GLN:OE1	47:BV:80:GLN:O	2.07	0.72
31:BA:1515:G:O2'	31:BA:1516:C:H5'	1.89	0.72
27:B5:50:GLY:O	27:B5:51:TYR:HD1	1.72	0.72
1:AA:109:A:H2'	1:AA:326:G:N2	2.04	0.72
1:AA:56:U:H2'	1:AA:57:G:H8	1.51	0.72
31:BA:2681:C:H5	31:BA:2725:A:N6	1.82	0.72
13:CM:90:LEU:HA	13:CM:93:ARG:HB2	1.71	0.72
31:DA:125:G:H4'	31:DA:126:A:OP2	1.89	0.72
31:DA:1204:A:H2	31:DA:1241:A:N1	1.86	0.72
10:AJ:49:VAL:HG13	14:AN:41:ARG:HB2	1.70	0.72
1:CA:1291:G:H4'	9:CI:38:GLN:O	1.89	0.72
1:CA:950:U:H3'	13:CM:102:ARG:HH12	1.53	0.72
1:AA:1030(D):A:H62	1:AA:1031:G:H21	1.36	0.72
1:CA:949:A:H1'	1:CA:1364:U:H3	1.54	0.72
30:D8:4:MET:HE1	31:DA:593:G:O4'	1.89	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:BA:3362:TEL:O48	55:BA:3362:TEL:H572	1.89	0.72
33:BD:30:GLU:HG3	33:BD:63:ARG:HE	1.53	0.72
24:B2:56:GLN:NE2	24:B2:56:GLN:CA	2.46	0.72
49:BX:33:LYS:C	49:BX:35:THR:N	2.40	0.72
31:BA:2808:U:C2'	31:BA:2809:A:H5'	2.19	0.72
23:B1:10:LYS:HB2	23:B1:14:VAL:H	1.51	0.72
22:D0:74:ARG:NH2	32:DB:13:A:H8	1.87	0.72
1:AA:541:G:H2'	1:AA:542:G:H8	1.52	0.72
35:DF:20:LEU:HD22	35:DF:203:GLN:NE2	2.04	0.72
32:BB:80:U:H2'	32:BB:81:G:H21	1.54	0.72
39:DN:131:GLN:NE2	39:DN:134:ARG:HA	2.04	0.72
31:DA:2843:G:H2'	31:DA:2844:G:H8	1.54	0.72
1:AA:1495:U:O2	31:BA:1912:A:H2	1.71	0.72
2:AB:130:ARG:HA	2:AB:130:ARG:HE	1.54	0.72
3:CC:130:VAL:O	3:CC:134:ILE:HG12	1.89	0.72
31:BA:1381:G:H2'	31:BA:1382:G:H5'	1.71	0.72
1:AA:524:G:H2'	1:AA:525:C:C6	2.24	0.72
13:CM:52:GLU:O	13:CM:56:LEU:HB2	1.89	0.72
2:AB:180:LEU:O	2:AB:181:PHE:HB2	1.88	0.72
31:DA:2392:A:H2	31:DA:2424:C:H42	1.34	0.72
33:BD:144:ALA:HB3	33:BD:192:THR:HG23	1.71	0.72
44:DS:99:LYS:C	44:DS:106:ARG:HH12	1.93	0.72
1:CA:541:G:H2'	1:CA:542:G:H8	1.55	0.72
31:BA:2314:C:H2'	31:BA:2315:G:C8	2.24	0.72
31:DA:695:G:OP1	31:DA:1380:G:H4'	1.89	0.72
31:DA:1210:A:C5'	31:DA:1210:A:C8	2.68	0.72
31:BA:288:C:N4	31:BA:353:G:H1	1.86	0.72
22:D0:74:ARG:NH2	32:DB:13:A:H5'	2.04	0.72
51:BZ:151:HIS:N	51:BZ:151:HIS:ND1	2.36	0.72
22:B0:40:GLN:NE2	22:B0:43:THR:HA	2.05	0.72
4:AD:9:CYS:HA	4:AD:12:CYS:HB2	1.71	0.72
1:CA:1366:C:H2'	1:CA:1367:C:H6	1.54	0.72
1:CA:179:A:H2'	1:CA:180:U:H6	1.52	0.72
3:CC:9:GLY:HA2	3:CC:12:LEU:HD23	1.71	0.72
40:DO:43:VAL:HG12	40:DO:54:GLU:HA	1.70	0.72
2:CB:88:ALA:HB2	2:CB:219:VAL:HG13	1.70	0.72
1:AA:179:A:H2'	1:AA:180:U:H6	1.53	0.72
30:B8:39:LYS:HE3	30:B8:39:LYS:O	1.89	0.72
31:BA:27:G:H22	31:BA:512:G:H2'	1.53	0.72
49:DX:82:GLN:HG3	49:DX:85:PRO:CD	2.20	0.72
24:B2:49:LYS:O	24:B2:51:ARG:O	2.07	0.72
1:CA:114:U:H2'	1:CA:115:G:C8	2.24	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DD:35:LYS:CD	33:DD:63:ARG:HB3	2.18	0.72
33:DD:35:LYS:NZ	33:DD:65:ILE:HA	2.04	0.72
33:DD:92:ILE:HD13	33:DD:104:TYR:CD2	2.24	0.72
46:BU:90:VAL:HG22	47:BV:39:LEU:HD11	1.71	0.72
23:D1:87:PRO:HD2	23:D1:88:LYS:H	1.53	0.72
31:DA:370:G:H5''	31:DA:423:A:N6	2.03	0.72
1:CA:673:G:H5''	6:CF:87:ARG:HE	1.55	0.72
31:BA:1434:A:H61	31:BA:1558:A:H62	1.37	0.72
51:DZ:40:ASP:HB3	51:DZ:43:GLU:HB2	1.69	0.72
24:B2:14:ARG:NH2	24:B2:15:LYS:HB3	2.04	0.72
31:DA:1678:G:O5'	31:DA:1678:G:H8	1.72	0.72
43:BR:10:LEU:HB3	43:BR:17:ARG:NE	2.05	0.72
31:BA:2524:G:H8	31:BA:2524:G:H5'	1.54	0.72
42:BQ:24:GLY:HA3	51:BZ:78:LYS:CD	2.19	0.72
31:BA:2829:C:C2'	31:BA:2830:G:H5''	2.18	0.72
1:AA:552:U:H5'	12:AL:86:ARG:HD2	1.71	0.72
28:B6:51:GLU:HG2	28:B6:52:VAL:N	2.04	0.72
11:CK:111:ASP:HA	18:CR:84:LYS:HE2	1.70	0.72
31:DA:1420:U:O2'	31:DA:1421:G:H5'	1.90	0.72
36:BG:124:SER:HB2	36:BG:131:TYR:CE1	2.24	0.72
31:BA:892:G:H1	31:BA:894:C:N4	1.87	0.72
30:D8:5:LYS:HE2	31:DA:254:G:N7	2.05	0.72
31:DA:747:U:O2	31:DA:2014:A:H1'	1.89	0.72
31:DA:1722:A:O2'	31:DA:1739:U:H5'	1.89	0.72
24:D2:33:MET:HG2	49:DX:11:PRO:CD	2.20	0.72
31:DA:848:G:H2'	31:DA:849:A:H8	1.54	0.72
31:BA:71:A:C2	49:BX:31:HIS:CE1	2.77	0.72
1:CA:437:U:C2'	1:CA:438:G:H5'	2.18	0.72
1:CA:63:C:H42	1:CA:104:G:H1	1.36	0.72
31:BA:1163:G:O2'	31:BA:1164:G:H5'	1.89	0.72
31:DA:309:G:H5''	50:DY:18:GLY:HA3	1.71	0.72
22:D0:40:GLN:NE2	22:D0:43:THR:HA	2.04	0.72
31:DA:528:A:H2	31:DA:2043:C:H5'	1.54	0.72
1:CA:1088:G:H2'	1:CA:1089:G:C8	2.24	0.72
32:DB:68:C:O2	32:DB:68:C:H2'	1.90	0.72
4:AD:33:MET:CE	4:AD:37:PRO:HA	2.20	0.72
31:BA:911:A:C5	42:BQ:9:TYR:HE2	2.07	0.72
31:BA:1045:A:H1'	31:BA:1047:G:C8	2.24	0.72
31:DA:796:C:H2'	31:DA:797:C:H6	1.52	0.72
13:CM:66:LEU:HD12	13:CM:66:LEU:H	1.52	0.72
31:DA:1025:G:H8	31:DA:1025:G:OP1	1.73	0.72
45:DT:32:TYR:CD2	45:DT:32:TYR:N	2.56	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BP:114:ILE:HG12	41:BP:130:PHE:CD1	2.24	0.72
31:DA:2252:G:H2'	31:DA:2253:G:C8	2.25	0.72
55:DA:3320:TEL:H572	55:DA:3320:TEL:O48	1.89	0.72
41:DP:85:LEU:HA	41:DP:88:LEU:HB2	1.71	0.72
36:BG:7:LEU:HB2	36:BG:104:GLU:OE2	1.89	0.72
31:DA:1722:A:H2	31:DA:1740:G:C5'	1.98	0.72
33:DD:241:PRO:C	33:DD:242:ARG:HD2	2.10	0.72
1:CA:431:A:H2'	1:CA:432:A:O4'	1.88	0.72
31:DA:769:G:O2'	31:DA:770:G:H5'	1.89	0.72
23:D1:85:LEU:HB3	23:D1:87:PRO:CD	2.20	0.72
31:DA:2312:U:C2'	31:DA:2313:C:H5'	2.20	0.72
31:DA:1280:G:H2'	31:DA:1281:G:H5''	1.71	0.72
22:D0:26:TYR:CE2	31:DA:857:C:H1'	2.25	0.72
13:AM:90:LEU:HA	13:AM:93:ARG:HB2	1.72	0.72
1:CA:1347:G:C8	9:CI:107:ARG:HB3	2.25	0.72
8:AH:97:VAL:HA	8:AH:100:ILE:HD11	1.71	0.72
1:CA:1157:A:H4'	1:CA:1158:C:O5'	1.88	0.72
1:CA:1158:C:H5''	2:CB:133:LYS:HE2	1.70	0.72
36:DG:63:ILE:HG22	36:DG:143:GLU:HG3	1.71	0.72
22:B0:28:GLY:HA2	22:B0:66:VAL:CG1	2.19	0.72
31:BA:2022:U:O2'	31:BA:2617:C:H5'	1.90	0.72
1:AA:457:C:H2'	1:AA:458:C:H6	1.55	0.72
30:D8:39:LYS:O	30:D8:39:LYS:HE3	1.89	0.72
31:DA:579:G:H2'	31:DA:580:C:H6	1.52	0.72
31:BA:2646:C:H6	31:BA:2646:C:O5'	1.73	0.72
31:BA:69:C:C2'	31:BA:69:C:O2	2.38	0.72
51:DZ:10:ARG:NH2	51:DZ:26:GLY:H	1.88	0.72
31:BA:481:G:OP1	31:BA:481:G:H4'	1.90	0.72
1:AA:509:A:H4'	1:AA:510:A:OP1	1.87	0.72
39:DN:77:GLY:O	39:DN:78:TYR:HB3	1.89	0.72
1:CA:667:G:N2	1:CA:740:U:H1'	2.04	0.72
33:DD:8:PRO:HB3	33:DD:14:ARG:HB2	1.72	0.72
31:BA:1420:U:O2'	31:BA:1421:G:H5'	1.90	0.72
50:DY:95:LYS:CE	50:DY:101:LYS:H	2.02	0.72
31:BA:2012:G:H4'	48:BW:96:ILE:CD1	2.19	0.72
1:CA:250:A:H4'	1:CA:251:G:O5'	1.89	0.72
5:AE:50:GLU:OE2	5:AE:51:VAL:HG23	1.89	0.72
31:DA:1029:A:OP1	42:DQ:128:LYS:HE3	1.89	0.72
3:CC:70:VAL:HG21	3:CC:76:VAL:HG11	1.71	0.72
12:AL:8:ASN:HD22	17:AQ:34:LYS:HE2	1.55	0.72
37:BH:20:ALA:HB1	37:BH:21:PRO:CD	2.19	0.72
29:D7:8:ASN:C	29:D7:8:ASN:HD22	1.93	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:30:SER:OG	10:AJ:81:THR:HG22	1.88	0.72
31:DA:2360:A:O2'	31:DA:2361:A:P	2.47	0.72
31:BA:2443:C:O2'	31:BA:2444:G:H5'	1.89	0.72
33:BD:35:LYS:HZ1	33:BD:104:TYR:HB2	1.55	0.72
41:BP:101:VAL:HG12	41:BP:106:LEU:HD23	1.72	0.72
31:BA:1722:A:O2'	31:BA:1739:U:H5'	1.90	0.72
23:B1:85:LEU:HB3	23:B1:87:PRO:CD	2.20	0.72
23:B1:87:PRO:CD	23:B1:88:LYS:H	2.03	0.72
51:BZ:151:HIS:HB3	51:BZ:170:THR:CA	2.19	0.72
31:DA:2093:G:O5'	38:DI:24:GLY:HA3	1.90	0.72
1:CA:575:G:H4'	1:CA:576:G:OP1	1.88	0.72
1:AA:1412:C:H2'	1:AA:1413:A:H8	1.55	0.72
31:BA:1771:C:C1'	31:BA:1786:A:H8	2.02	0.72
31:BA:1503:U:H2'	31:BA:1504:C:C6	2.24	0.72
31:BA:1688:U:O2	31:BA:1700:A:H5''	1.89	0.72
2:AB:93:VAL:HG11	2:AB:97:TRP:CD1	2.24	0.72
18:CR:31:LEU:HD12	18:CR:65:ILE:HD11	1.71	0.72
31:DA:1956:U:C2'	31:DA:1957:C:H5'	2.19	0.72
1:CA:166:G:O2'	1:CA:167:G:H5'	1.89	0.72
40:DO:48:PRO:HB2	40:DO:49:ARG:HD3	1.72	0.72
36:DG:34:LEU:HD13	36:DG:35:GLU:N	2.05	0.72
31:DA:755:C:H2'	31:DA:756:C:C6	2.25	0.72
6:AF:39:LYS:HB3	6:AF:62:TRP:HZ3	1.55	0.72
37:DH:91:GLY:O	37:DH:92:ILE:HD13	1.90	0.72
31:BA:1425:G:H2'	31:BA:1426:G:O4'	1.90	0.72
31:DA:1598:C:H5'	49:DX:37:THR:HB	1.69	0.72
30:D8:35:GLN:HA	31:DA:2420:C:OP2	1.90	0.72
31:DA:833:U:H2'	31:DA:834:C:H6	1.54	0.72
36:BG:7:LEU:HB3	36:BG:100:TRP:HE3	1.54	0.72
25:D3:19:GLN:HE22	25:D3:52:HIS:CE1	2.06	0.72
39:DN:15:LEU:HD21	39:DN:55:VAL:CG2	2.20	0.72
1:CA:358:U:C4	1:CA:359:U:C4	2.77	0.72
25:B3:19:GLN:HE22	25:B3:52:HIS:CE1	2.08	0.72
31:DA:574:C:N3	34:DE:145:LYS:HE2	2.05	0.72
33:BD:17:THR:HG23	33:BD:205:VAL:HB	1.72	0.72
31:BA:875:G:H4'	51:BZ:170:THR:HG21	1.69	0.72
27:D5:40:LYS:HE2	27:D5:46:CYS:HB3	1.72	0.72
39:DN:78:TYR:HD1	39:DN:79:PRO:CD	2.03	0.72
31:BA:1578:U:O2	31:BA:1578:U:H2'	1.88	0.72
1:CA:552:U:H5'	12:CL:86:ARG:HD2	1.70	0.72
24:D2:14:ARG:NH2	24:D2:15:LYS:HB3	2.05	0.72
5:CE:55:VAL:O	5:CE:58:ALA:HB3	1.89	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BG:64:THR:HG23	36:BG:65:GLY:H	1.53	0.72
35:BF:139:PHE:HB2	35:BF:166:ALA:HB1	1.71	0.72
36:BG:172:LEU:HG	36:BG:173:LEU:HD23	1.70	0.72
36:BG:34:LEU:HD13	36:BG:35:GLU:N	2.05	0.72
31:DA:128:C:H2'	31:DA:129:C:H6	1.53	0.72
31:BA:2287:A:N3	31:BA:2289:G:C8	2.58	0.72
30:B8:35:GLN:HA	31:BA:2420:C:P	2.29	0.72
31:BA:587:C:C4'	31:BA:588:U:OP2	2.38	0.72
47:DV:60:GLU:OE1	47:DV:101:GLY:HA2	1.90	0.72
49:BX:50:LYS:HB3	49:BX:82:GLN:HB3	1.72	0.72
33:DD:91:ARG:HG2	33:DD:91:ARG:NH1	2.04	0.72
39:BN:66:LYS:HB3	39:BN:70:LYS:HB2	1.72	0.72
23:B1:10:LYS:HG2	23:B1:11:ARG:N	2.05	0.72
31:DA:864:G:C6	31:DA:865:C:N4	2.58	0.72
39:BN:78:TYR:CE1	39:BN:79:PRO:HB3	2.24	0.72
31:DA:1418:G:OP1	31:DA:1588:C:O2'	2.07	0.72
50:DY:81:LYS:CG	50:DY:96:ILE:HG22	2.19	0.72
1:AA:472:A:H4'	16:AP:82:GLN:NE2	2.04	0.72
1:AA:922:G:C6	1:AA:923:A:C6	2.78	0.72
5:CE:6:PHE:HB2	5:CE:34:VAL:CG1	2.19	0.72
31:BA:2463:C:H2'	31:BA:2464:C:H5'	1.71	0.72
10:AJ:7:LYS:HB2	10:AJ:97:GLU:HB2	1.72	0.72
40:BO:3:GLN:HB2	40:BO:4:PRO:HD2	1.72	0.72
31:DA:2291:U:H4'	31:DA:2380:C:O2	1.90	0.72
31:BA:34:C:H3'	31:BA:34:C:H6	1.53	0.72
31:BA:667:U:C2'	31:BA:668:G:H5'	2.20	0.72
3:AC:62:ASP:O	3:AC:97:LYS:HB3	1.90	0.72
30:D8:58:ILE:O	30:D8:61:LEU:HG	1.88	0.71
31:DA:2443:C:O2'	31:DA:2444:G:H5'	1.88	0.71
41:BP:85:LEU:HD22	41:BP:115:LEU:O	1.89	0.71
47:DV:90:PRO:CD	47:DV:91:TYR:H	2.03	0.71
45:DT:99:LEU:HB2	45:DT:101:PHE:CE1	2.25	0.71
31:BA:1278:A:O2'	43:BR:34:ILE:HD11	1.89	0.71
51:BZ:149:SER:HB2	51:BZ:172:ALA:O	1.89	0.71
32:BB:67:G:C4	32:BB:68:C:C5	2.78	0.71
31:BA:380:U:H2'	31:BA:381:G:H8	1.55	0.71
39:BN:57:ALA:O	39:BN:58:ASP:O	2.07	0.71
4:AD:31:CYS:C	4:AD:33:MET:H	1.92	0.71
1:AA:562:C:N4	1:AA:884:U:C6	2.58	0.71
48:BW:17:VAL:O	48:BW:20:VAL:HG22	1.90	0.71
31:DA:2463:C:O2'	31:DA:2464:C:H5'	1.88	0.71
39:DN:51:PHE:CE2	39:DN:119:ARG:HD3	2.25	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:9:GLY:HA2	3:AC:12:LEU:HD23	1.72	0.71
51:BZ:117:LEU:HA	51:BZ:174:VAL:HA	1.72	0.71
31:DA:1317:A:H2'	31:DA:1318:C:H6	1.55	0.71
31:BA:2099:U:O2	31:BA:2099:U:H2'	1.89	0.71
31:DA:607:U:H3	31:DA:621:A:H2	1.38	0.71
41:DP:97:PRO:O	41:DP:98:GLU:HB3	1.89	0.71
31:BA:767:U:O2'	31:BA:768:G:H5'	1.90	0.71
46:DU:102:GLU:HG3	47:DV:2:PHE:CE2	2.23	0.71
31:BA:1721:G:C2	31:BA:1739:U:OP2	2.42	0.71
23:D1:87:PRO:HB2	23:D1:91:LYS:NZ	2.05	0.71
48:DW:75:TYR:CD1	48:DW:104:THR:HB	2.25	0.71
31:DA:861:A:C2	31:DA:917:A:C4	2.78	0.71
33:DD:97:TYR:HB2	33:DD:101:GLU:O	1.90	0.71
33:DD:147:LEU:HD13	33:DD:155:LEU:CD1	2.19	0.71
34:DE:201:THR:HG22	34:DE:202:LYS:N	2.04	0.71
1:CA:153:C:H42	1:CA:168:G:H1	1.38	0.71
15:CO:33:THR:HG21	15:CO:85:LEU:HD22	1.72	0.71
1:AA:950:U:H3'	13:AM:102:ARG:HH12	1.52	0.71
31:BA:896:A:C2	31:BA:898:C:H5''	2.24	0.71
1:CA:923:A:N3	1:CA:923:A:O2'	2.20	0.71
32:BB:38:C:H4'	44:BS:95:HIS:CE1	2.25	0.71
31:DA:1141:U:P	39:DN:25:ARG:HH12	2.13	0.71
44:DS:28:VAL:HG11	44:DS:97:ARG:HH12	1.55	0.71
1:AA:437:U:C2'	1:AA:438:G:H5'	2.20	0.71
1:CA:109:A:H2'	1:CA:326:G:N2	2.05	0.71
46:BU:92:ARG:CZ	47:BV:11:GLN:H	2.03	0.71
37:DH:123:PHE:CZ	37:DH:148:ILE:HD11	2.24	0.71
31:BA:1662:C:H1'	31:BA:2687:U:H5''	1.71	0.71
47:BV:66:ARG:HD2	47:BV:67:GLY:N	2.04	0.71
23:B1:41:ARG:NH2	31:BA:205:G:O6	2.23	0.71
15:AO:23:GLY:O	15:AO:24:SER:HB3	1.90	0.71
1:CA:819:A:H4'	1:CA:820:U:OP2	1.91	0.71
31:DA:855:G:C6	31:DA:856:C:N4	2.58	0.71
14:CN:24:CYS:HB3	14:CN:27:CYS:O	1.91	0.71
28:D6:51:GLU:CG	28:D6:52:VAL:H	2.02	0.71
11:CK:83:ILE:HA	11:CK:109:VAL:O	1.90	0.71
51:BZ:108:PRO:HB3	51:BZ:141:VAL:HG22	1.71	0.71
45:DT:23:ARG:O	45:DT:25:GLY:N	2.23	0.71
4:AD:148:VAL:HG12	4:AD:149:ALA:N	2.06	0.71
1:AA:1366:C:H2'	1:AA:1367:C:H6	1.56	0.71
5:CE:7:GLU:HG2	5:CE:112:LEU:HD22	1.72	0.71
1:CA:15:G:H4'	5:CE:24:ARG:NH1	2.04	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:922:G:O2'	5:CE:19:MET:HB2	1.91	0.71
31:BA:1204:A:H2	31:BA:1241:A:N1	1.88	0.71
34:BE:128:SER:OG	34:BE:129:HIS:N	2.21	0.71
35:BF:63:LYS:NZ	35:BF:67:GLN:HB2	2.06	0.71
44:BS:87:PHE:O	44:BS:88:ASP:HB2	1.90	0.71
49:DX:35:THR:CB	49:DX:75:ASP:OD2	2.38	0.71
47:DV:18:LEU:HD22	47:DV:19:LYS:HA	1.72	0.71
49:BX:35:THR:O	49:BX:36:LYS:C	2.29	0.71
39:BN:25:ARG:CG	39:BN:25:ARG:HH11	2.02	0.71
46:BU:92:ARG:HB3	47:BV:11:GLN:HE21	1.40	0.71
47:BV:72:VAL:HA	47:BV:88:ARG:NH1	2.04	0.71
43:BR:96:ARG:HH21	43:BR:117:VAL:HG23	1.55	0.71
31:DA:911:A:C5	42:DQ:9:TYR:HE2	2.07	0.71
23:D1:47:GLN:HB2	31:DA:397:G:H5''	1.71	0.71
31:DA:925:C:C2'	31:DA:926:A:H5''	2.20	0.71
1:AA:1091:U:H2'	1:AA:1091:U:O2	1.90	0.71
1:AA:667:G:N2	1:AA:740:U:H1'	2.05	0.71
1:CA:472:A:H4'	16:CP:82:GLN:NE2	2.05	0.71
31:DA:1170:G:H1	31:DA:1179:C:N4	1.88	0.71
31:DA:1637:A:H4'	31:DA:2711:A:O2'	1.90	0.71
31:BA:2467:C:H4'	42:BQ:123:HIS:CD2	2.25	0.71
31:DA:1662:C:O2'	31:DA:1663:C:H5'	1.90	0.71
31:BA:2469:A:H2	31:BA:2481:G:H21	1.35	0.71
37:BH:123:PHE:HZ	37:BH:148:ILE:HD11	1.55	0.71
31:DA:128:C:H2'	31:DA:129:C:O4'	1.90	0.71
2:CB:166:ASP:HB3	2:CB:169:LYS:HB2	1.72	0.71
31:BA:1598:C:H5'	49:BX:37:THR:HB	1.71	0.71
34:BE:27:LEU:HD22	45:BT:1:MET:CE	2.20	0.71
30:D8:43:GLN:C	30:D8:44:LYS:HD2	2.11	0.71
31:BA:197:A:H5'	31:BA:197:A:H8	1.54	0.71
31:BA:631:A:O2'	41:BP:67:MET:HB3	1.91	0.71
31:DA:1005:C:O2'	39:DN:28:THR:HG21	1.90	0.71
49:BX:82:GLN:HG3	49:BX:85:PRO:CD	2.21	0.71
1:CA:622:A:C8	1:CA:623:C:C6	2.78	0.71
50:BY:14:LEU:HG	50:BY:15:VAL:N	2.05	0.71
31:DA:784:A:C5'	31:DA:785:G:OP1	2.37	0.71
2:AB:185:ILE:HG22	2:AB:199:TYR:CB	2.18	0.71
31:BA:764:A:C6	31:BA:781:A:C2	2.78	0.71
50:BY:81:LYS:CG	50:BY:96:ILE:HG22	2.19	0.71
31:DA:2642:G:H5''	39:DN:78:TYR:CE1	2.24	0.71
34:BE:11:MET:HB2	34:BE:23:VAL:O	1.90	0.71
36:DG:124:SER:HB2	36:DG:131:TYR:CE1	2.26	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:B0:32:ARG:H	22:B0:35:ASN:HD21	1.36	0.71
42:BQ:22:LYS:CE	42:BQ:22:LYS:HA	2.14	0.71
31:DA:80:G:C2'	31:DA:81:G:H5'	2.21	0.71
31:BA:151:C:O2'	31:BA:152:G:H5'	1.90	0.71
44:BS:42:ASP:O	44:BS:43:GLU:HB2	1.89	0.71
31:DA:2186:G:C3'	31:DA:2187:G:H5''	2.20	0.71
31:BA:2850:A:OP2	31:BA:2866:U:H5	1.73	0.71
31:DA:1488:G:C6	31:DA:1489:U:N3	2.58	0.71
2:CB:180:LEU:O	2:CB:181:PHE:HB2	1.89	0.71
1:CA:921:U:C2	1:CA:922:G:C2	2.79	0.71
28:D6:19:ARG:CG	28:D6:20:ASN:H	2.02	0.71
44:BS:95:HIS:CG	44:BS:96:GLY:H	2.05	0.71
31:DA:71:A:C2	49:DX:31:HIS:CE1	2.79	0.71
31:BA:1719:G:H2'	31:BA:1720:U:H5'	1.70	0.71
22:D0:74:ARG:HH22	32:DB:13:A:H5'	1.56	0.71
33:DD:145:VAL:HG12	33:DD:146:GLU:O	1.89	0.71
31:DA:2681:C:H5	31:DA:2725:A:N6	1.88	0.71
36:BG:111:LEU:HD23	36:BG:114:ILE:HD12	1.73	0.71
31:BA:343:C:C2'	31:BA:344:G:H5'	2.21	0.71
37:DH:41:MET:HG3	37:DH:54:ARG:HA	1.72	0.71
45:DT:3:ARG:HB2	45:DT:6:LEU:HB3	1.72	0.71
1:CA:659:U:C2'	1:CA:660:G:H5'	2.20	0.71
1:AA:414:A:H2'	1:AA:415:A:C8	2.26	0.71
37:DH:20:ALA:HB1	37:DH:21:PRO:CD	2.20	0.71
1:AA:1291:G:H4'	9:AI:38:GLN:O	1.89	0.71
44:BS:59:LYS:HB2	44:BS:65:VAL:CG2	2.20	0.71
15:AO:33:THR:HG21	15:AO:85:LEU:HD22	1.72	0.71
31:BA:2096:U:H3	31:BA:2193:G:H1	1.39	0.71
30:B8:4:MET:O	30:B8:62:LEU:HD11	1.90	0.71
41:BP:23:PRO:C	41:BP:33:ARG:HE	1.94	0.71
31:DA:1721:G:C2	31:DA:1739:U:OP2	2.44	0.71
41:BP:85:LEU:HA	41:BP:88:LEU:HB2	1.73	0.71
46:DU:90:VAL:HG13	47:DV:39:LEU:HG	1.73	0.71
32:DB:57:A:C5	36:DG:29:TRP:CD1	2.79	0.71
36:DG:7:LEU:HB3	36:DG:100:TRP:HE3	1.55	0.71
44:DS:89:ARG:HB3	44:DS:92:TYR:CB	2.20	0.71
1:CA:106:C:H2'	1:CA:107:G:C8	2.25	0.71
31:DA:1777:U:O2'	31:DA:1778:U:H5'	1.90	0.71
46:BU:90:VAL:O	46:BU:92:ARG:N	2.23	0.71
31:BA:1474:C:H6	31:BA:1474:C:H5''	1.54	0.71
51:DZ:151:HIS:ND1	51:DZ:151:HIS:N	2.38	0.71
39:BN:77:GLY:O	39:BN:78:TYR:HB3	1.88	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:B6:19:ARG:CG	28:B6:20:ASN:H	2.04	0.71
50:DY:75:ILE:HD13	50:DY:76:CYS:N	2.05	0.71
1:AA:339:C:OP2	40:BO:97:ARG:CZ	2.39	0.71
45:BT:32:TYR:CD2	45:BT:32:TYR:N	2.59	0.71
45:BT:41:ARG:O	45:BT:43:GLN:N	2.23	0.71
1:AA:1066:C:H5'	1:AA:1067:A:OP2	1.91	0.71
2:CB:71:VAL:HG13	2:CB:93:VAL:HB	1.73	0.71
49:BX:65:ARG:NE	49:BX:65:ARG:HA	2.04	0.71
31:BA:2531:A:H2	31:BA:2658:C:O2	1.74	0.71
23:D1:37:ILE:HD11	31:DA:2079:U:H4'	1.72	0.71
22:D0:18:ALA:HB1	31:DA:2271:G:OP1	1.91	0.71
31:BA:1962:C:O2'	31:BA:1964:G:OP2	2.09	0.71
1:AA:1030(A):G:H2'	1:AA:1030(C):G:OP2	1.91	0.71
44:BS:34:HIS:HB3	44:BS:53:SER:HB2	1.71	0.71
31:BA:833:U:H2'	31:BA:834:C:C6	2.25	0.71
49:DX:33:LYS:C	49:DX:35:THR:N	2.44	0.71
31:DA:1021:A:H2'	31:DA:1023:U:H5'	1.71	0.71
49:BX:35:THR:CB	49:BX:75:ASP:OD2	2.39	0.71
31:BA:2859:G:C8	31:BA:2859:G:H3'	2.25	0.71
33:DD:25:THR:O	33:DD:27:THR:N	2.24	0.71
31:DA:1568:G:N2	33:DD:58:HIS:HE1	1.89	0.71
35:BF:101:LEU:HD12	35:BF:102:PRO:CD	2.21	0.71
1:AA:364:A:H2'	1:AA:365:U:O2	1.91	0.71
39:BN:57:ALA:HB1	39:BN:60:ILE:HD11	1.73	0.71
1:CA:1090:U:H2'	1:CA:1091:U:C6	2.22	0.71
1:CA:1091:U:H2'	1:CA:1091:U:O2	1.90	0.71
31:DA:1578:U:O2	31:DA:1578:U:H2'	1.89	0.71
10:CJ:49:VAL:HG13	14:CN:41:ARG:HB2	1.72	0.71
12:CL:62:SER:C	12:CL:64:TYR:H	1.93	0.71
1:CA:1475:G:H4'	31:DA:1689:A:H4'	1.73	0.71
10:CJ:7:LYS:HB2	10:CJ:97:GLU:HB2	1.72	0.71
31:BA:2660:A:H5''	31:BA:2661:G:H21	1.55	0.71
42:BQ:29:PHE:O	42:BQ:30:GLY:O	2.09	0.71
34:BE:201:THR:HG22	34:BE:202:LYS:N	2.05	0.71
31:DA:1962:C:O2'	31:DA:1964:G:OP2	2.08	0.71
31:DA:601:C:H1'	31:DA:605:C:H5''	1.73	0.71
31:DA:896:A:C2	31:DA:898:C:H5''	2.26	0.71
31:BA:2777:G:H5''	31:BA:2778:A:H5'	1.73	0.71
44:DS:84:GLN:HE21	44:DS:105:ALA:HB1	1.56	0.71
31:DA:812:C:H1'	31:DA:1250:G:C2	2.26	0.71
22:D0:2:ALA:H	31:DA:2602:A:N6	1.88	0.71
3:CC:71:ALA:HB2	3:CC:115:LEU:HD13	1.73	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:BW:73:ALA:O	48:BW:106:ILE:HD13	1.90	0.71
31:DA:2418:A:H2'	31:DA:2419:U:C6	2.26	0.71
31:DA:2059:A:O2'	35:DF:69:HIS:HD2	1.73	0.71
31:DA:943:U:OP2	41:DP:38:GLN:CD	2.29	0.71
30:B8:59:LYS:CD	41:BP:50:ARG:HB3	2.21	0.71
24:D2:49:LYS:O	24:D2:51:ARG:O	2.09	0.71
49:DX:36:LYS:NZ	49:DX:39:ILE:HA	2.06	0.71
31:DA:557:U:H2'	31:DA:558:G:H8	1.56	0.71
49:BX:57:LEU:N	49:BX:57:LEU:HD12	2.06	0.71
31:DA:2334:G:N2	44:DS:18:ILE:HD11	2.03	0.71
1:CA:537:G:H2'	1:CA:538:G:H8	1.56	0.71
12:AL:62:SER:C	12:AL:64:TYR:H	1.94	0.71
45:BT:32:TYR:CD2	45:BT:81:PRO:O	2.43	0.71
31:BA:904:C:C2'	31:BA:905:U:H5'	2.20	0.71
36:BG:76:SER:HB3	36:BG:84:LYS:H	1.55	0.71
11:AK:83:ILE:HA	11:AK:109:VAL:O	1.90	0.71
31:BA:1502:C:H5'	31:BA:1503:U:OP2	1.91	0.71
1:AA:1347:G:C8	9:AI:107:ARG:HB3	2.26	0.71
31:DA:234:C:H2'	31:DA:235:U:C6	2.26	0.71
1:CA:1116:C:H3'	1:CA:1117:G:H5''	1.73	0.71
31:DA:52:A:O2'	31:DA:53:A:H5'	1.91	0.71
50:BY:2:ARG:C	50:BY:4:LYS:H	1.91	0.71
31:BA:2853:C:H2'	31:BA:2854:G:C8	2.26	0.71
31:DA:2340:G:O2'	31:DA:2341:G:H5'	1.91	0.71
1:CA:524:G:H2'	1:CA:525:C:C6	2.25	0.71
1:CA:1030(D):A:H62	1:CA:1031:G:H21	1.38	0.71
31:DA:363(E):U:H3'	31:DA:363(F):A:O4'	1.90	0.71
51:DZ:149:SER:HB2	51:DZ:172:ALA:O	1.91	0.71
2:CB:135:GLN:O	2:CB:139:LYS:HB2	1.91	0.71
31:DA:2444:G:OP2	35:DF:68:LYS:HE2	1.90	0.71
33:BD:25:THR:O	33:BD:27:THR:N	2.23	0.71
31:BA:2377:A:H4'	44:BS:107:GLU:CG	2.21	0.71
49:DX:35:THR:O	49:DX:36:LYS:C	2.30	0.71
49:DX:73:ARG:H	49:DX:74:PRO:CD	2.03	0.71
39:DN:70:LYS:HB3	39:DN:87:LEU:HB2	1.72	0.71
49:BX:72:LYS:CG	49:BX:73:ARG:H	2.04	0.71
31:BA:2311:A:OP1	31:BA:2312:U:H5	1.74	0.71
33:DD:43:ARG:HH11	33:DD:44:ASN:CG	1.94	0.71
31:BA:814:C:O2'	31:BA:815:C:H5'	1.91	0.71
31:DA:1502:C:H2'	31:DA:1502:C:O2	1.88	0.71
42:DQ:8:LYS:HD2	42:DQ:9:TYR:N	2.04	0.71
31:DA:528:A:C2	31:DA:2043:C:H5'	2.26	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1047:G:H21	31:DA:1111:A:N6	1.86	0.71
41:DP:124:LYS:HG2	41:DP:143:GLY:CA	2.20	0.71
31:DA:2199:A:OP2	31:DA:2200:C:C5	2.43	0.71
45:DT:89:VAL:HG11	45:DT:91:ARG:HE	1.55	0.71
37:DH:89:ILE:CD1	37:DH:90:LYS:H	2.04	0.71
8:CH:97:VAL:HA	8:CH:100:ILE:HD11	1.71	0.71
31:BA:2562:U:H1'	40:BO:23:ARG:NH1	2.05	0.71
31:BA:2186:G:C3'	31:BA:2187:G:H5''	2.21	0.71
3:AC:130:VAL:O	3:AC:134:ILE:HG12	1.90	0.71
2:AB:139:LYS:O	2:AB:143:GLU:HG2	1.90	0.71
5:AE:33:VAL:HG11	5:AE:109:ILE:HA	1.73	0.71
31:BA:128:C:H2'	31:BA:129:C:O4'	1.91	0.71
1:CA:78:G:H1	1:CA:91:C:H42	1.38	0.71
31:BA:1657:C:H5''	34:BE:133:LYS:O	1.90	0.70
49:DX:24:GLY:HA3	49:DX:80:ILE:HG13	1.72	0.70
37:BH:85:LYS:HZ2	37:BH:133:VAL:CG2	2.04	0.70
24:B2:33:MET:HG2	49:BX:11:PRO:CD	2.21	0.70
49:BX:73:ARG:H	49:BX:74:PRO:CD	2.04	0.70
1:AA:1442:G:C5	1:AA:1442(B):A:C2	2.78	0.70
51:DZ:39:VAL:HG21	51:DZ:44:PHE:HB2	1.73	0.70
35:BF:185:ASP:OD1	35:BF:188:ARG:NH1	2.23	0.70
1:AA:501:C:H2'	1:AA:502:G:H8	1.54	0.70
1:CA:1103:C:H5''	2:CB:98:LEU:HD13	1.71	0.70
1:CA:955:U:H1'	1:CA:1227:A:N6	2.06	0.70
31:BA:2658:C:O2	31:BA:2658:C:H2'	1.91	0.70
12:AL:24:VAL:O	12:AL:24:VAL:HG12	1.90	0.70
3:AC:134:ILE:HD12	3:AC:151:VAL:HG11	1.73	0.70
1:CA:1030(A):G:H2'	1:CA:1030(C):G:OP2	1.91	0.70
31:BA:2537:U:H2'	31:BA:2538:C:C6	2.25	0.70
12:CL:58:VAL:HG21	12:CL:85:ILE:HD11	1.71	0.70
13:AM:52:GLU:O	13:AM:56:LEU:HB2	1.91	0.70
1:CA:828:A:H5''	1:CA:859:A:C2	2.26	0.70
41:DP:106:LEU:HD13	41:DP:112:LEU:HD23	1.72	0.70
31:BA:2580:U:H4'	34:BE:130:GLY:HA2	1.73	0.70
33:BD:35:LYS:CD	33:BD:104:TYR:HD1	2.03	0.70
32:BB:37:C:O2	32:BB:38:C:O2	2.10	0.70
1:AA:1442(B):A:N3	1:AA:1442(B):A:H2'	2.05	0.70
50:BY:37:VAL:HG22	50:BY:67:LEU:O	1.91	0.70
39:BN:67:LEU:HD22	39:BN:88:GLU:OE2	1.91	0.70
43:DR:72:ASP:HB3	43:DR:75:LEU:HB2	1.73	0.70
37:DH:123:PHE:HZ	37:DH:148:ILE:HD11	1.56	0.70
31:BA:814:C:C5	41:BP:27:HIS:CE1	2.79	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:676:A:H2'	1:AA:677:U:H6	1.56	0.70
31:DA:14:A:C6	31:DA:526:A:C2	2.78	0.70
1:AA:1483:A:C2	31:BA:1959:G:N3	2.60	0.70
31:DA:1045:A:H1'	31:DA:1047:G:C8	2.26	0.70
5:AE:6:PHE:HB2	5:AE:34:VAL:CG1	2.21	0.70
31:DA:151:C:O2'	31:DA:152:G:H5'	1.91	0.70
31:BA:855:G:C6	31:BA:856:C:N4	2.59	0.70
31:DA:2853:C:H2'	31:DA:2854:G:C8	2.26	0.70
22:B0:20:ARG:NE	31:BA:2271:G:H5''	2.06	0.70
9:AI:45:ALA:O	9:AI:48:GLU:HB2	1.91	0.70
37:BH:86:GLU:HB3	37:BH:132:ARG:HG2	1.74	0.70
11:AK:69:ALA:HB1	11:AK:103:LEU:HD23	1.73	0.70
19:AS:6:LYS:HG2	19:AS:7:LYS:HD3	1.72	0.70
44:BS:84:GLN:HE21	44:BS:105:ALA:HB1	1.56	0.70
16:AP:74:LEU:O	16:AP:79:VAL:HB	1.91	0.70
28:D6:48:VAL:O	28:D6:49:HIS:HB2	1.90	0.70
30:B8:32:LEU:CB	30:B8:35:GLN:H	2.04	0.70
33:BD:35:LYS:CD	33:BD:63:ARG:HB3	2.21	0.70
41:BP:124:LYS:HG2	41:BP:143:GLY:CA	2.19	0.70
47:DV:66:ARG:NE	47:DV:94:LEU:HG	2.05	0.70
36:DG:7:LEU:HB2	36:DG:104:GLU:OE2	1.91	0.70
1:CA:59:A:H5''	1:CA:60:A:C5'	2.21	0.70
4:AD:57:ARG:HB3	4:AD:206:PHE:HB2	1.74	0.70
47:BV:60:GLU:HB3	47:BV:62:LEU:HD21	1.73	0.70
47:BV:71:LEU:CD1	47:BV:72:VAL:H	2.03	0.70
34:BE:117:MET:HB2	34:BE:122:PHE:O	1.91	0.70
50:DY:76:CYS:SG	50:DY:77:PRO:HD2	2.32	0.70
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.26	0.70
33:DD:235:GLY:O	33:DD:237:GLU:HG2	1.90	0.70
6:AF:96:PRO:HB3	18:AR:30:ASP:OD2	1.90	0.70
51:DZ:108:PRO:HB3	51:DZ:141:VAL:HG22	1.71	0.70
31:BA:2093:G:O5'	38:BI:24:GLY:HA3	1.91	0.70
31:DA:1316:U:O2'	31:DA:1317:A:H5'	1.90	0.70
28:B6:42:TRP:CE3	28:B6:42:TRP:HA	2.26	0.70
12:CL:20:LYS:H	12:CL:20:LYS:HD3	1.55	0.70
31:DA:587:C:C4'	31:DA:588:U:OP2	2.38	0.70
33:BD:94:LEU:HB2	33:BD:104:TYR:CD2	2.27	0.70
31:DA:61:G:H1	31:DA:94:C:N4	1.89	0.70
31:DA:1287:A:H5''	31:DA:1288:U:OP2	1.90	0.70
20:CT:13:LEU:CD1	20:CT:13:LEU:H	2.03	0.70
20:CT:82:SER:O	20:CT:86:ARG:HB2	1.92	0.70
47:BV:60:GLU:HA	47:BV:60:GLU:OE1	1.91	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2308:G:O6	31:DA:2310:A:H2'	1.91	0.70
42:BQ:81:VAL:O	42:BQ:82:ARG:CG	2.38	0.70
33:BD:71:ASP:CB	33:BD:103:ARG:HH22	2.03	0.70
31:BA:751:A:H5'	48:BW:90:ARG:HA	1.71	0.70
50:BY:76:CYS:CB	50:BY:77:PRO:HD2	2.22	0.70
31:BA:972:G:OP2	31:BA:974:G:H5''	1.91	0.70
31:BA:2723:C:H5''	43:BR:2:ARG:HD3	1.71	0.70
45:DT:33:LYS:N	45:DT:33:LYS:HZ2	1.88	0.70
5:CE:50:GLU:OE2	5:CE:51:VAL:HG23	1.90	0.70
46:DU:34:LYS:HE2	46:DU:34:LYS:HA	1.74	0.70
31:DA:892:G:H1	31:DA:894:C:N4	1.90	0.70
31:BA:576:U:H2'	31:BA:577:G:C8	2.26	0.70
1:AA:522:C:H41	12:AL:53:ARG:NH2	1.90	0.70
2:AB:166:ASP:HB3	2:AB:169:LYS:HB2	1.73	0.70
1:CA:1497:G:H2'	1:CA:1498:U:H5'	1.74	0.70
37:DH:153:LYS:H	37:DH:153:LYS:HD3	1.57	0.70
42:DQ:41:TRP:HB3	42:DQ:94:VAL:HB	1.72	0.70
1:CA:518:C:H4'	1:CA:519:C:H5''	1.74	0.70
1:CA:15:G:N1	1:CA:922:G:N1	2.38	0.70
31:BA:514:A:H1'	31:BA:581:C:O2'	1.91	0.70
33:BD:35:LYS:HA	33:BD:64:ILE:HG22	1.71	0.70
41:BP:105:LEU:HD12	41:BP:105:LEU:N	2.05	0.70
46:DU:92:ARG:HB3	47:DV:11:GLN:HE22	1.56	0.70
31:BA:1721:G:N1	31:BA:1739:U:OP2	2.25	0.70
36:DG:15:VAL:O	36:DG:19:LEU:HG	1.91	0.70
1:AA:102:G:C4	1:AA:103:C:C5	2.80	0.70
1:AA:392:G:H2'	1:AA:393:A:C8	2.27	0.70
31:DA:2542:A:N3	31:DA:2542:A:H5''	2.06	0.70
31:DA:2564:A:OP1	31:DA:2648:C:H4'	1.91	0.70
27:D5:16:ARG:HG2	27:D5:16:ARG:NH1	2.00	0.70
35:BF:184:TYR:CE2	35:BF:188:ARG:HD2	2.27	0.70
51:DZ:151:HIS:HB3	51:DZ:170:THR:CA	2.19	0.70
32:BB:68:C:H2'	32:BB:68:C:O2	1.91	0.70
31:DA:958:U:H5''	42:DQ:14:ARG:HD3	1.73	0.70
1:AA:819:A:H4'	1:AA:820:U:OP2	1.91	0.70
17:AQ:67:LYS:HA	17:AQ:70:ARG:NH1	2.07	0.70
31:BA:234:C:H2'	31:BA:235:U:C6	2.25	0.70
31:BA:2291:U:H4'	31:BA:2380:C:O2	1.92	0.70
31:BA:296:C:H2'	31:BA:297:C:H6	1.56	0.70
2:AB:135:GLN:O	2:AB:139:LYS:HB2	1.92	0.70
10:CJ:30:SER:OG	10:CJ:81:THR:HG22	1.92	0.70
31:DA:1425:G:H2'	31:DA:1426:G:O4'	1.92	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1550:C:O2'	31:BA:1551:C:H5'	1.91	0.70
47:DV:72:VAL:C	47:DV:88:ARG:NH2	2.45	0.70
31:BA:1388:G:C2'	31:BA:1389:G:H5'	2.22	0.70
1:AA:106:C:H2'	1:AA:107:G:C8	2.26	0.70
31:BA:1021:A:H2'	31:BA:1023:U:H5'	1.71	0.70
31:DA:2542:A:H8	31:DA:2544:G:O6	1.74	0.70
31:DA:2663:G:C8	31:DA:2664:G:N7	2.60	0.70
1:AA:192:U:H2'	1:AA:193:C:C6	2.24	0.70
35:DF:3:GLU:O	35:DF:24:LEU:HG	1.92	0.70
31:DA:2196:C:O2'	31:DA:2197:U:H5'	1.92	0.70
23:B1:19:GLN:NE2	31:BA:379:G:H21	1.81	0.70
31:BA:2720:U:H2'	31:BA:2720:U:O2	1.92	0.70
1:AA:586:C:C2'	1:AA:587:G:H5'	2.22	0.70
31:DA:2688:U:H5	31:DA:2720:U:OP2	1.75	0.70
31:DA:1491:G:O2'	33:DD:101:GLU:HB2	1.90	0.70
31:DA:343:C:C2'	31:DA:344:G:H5'	2.21	0.70
8:CH:110:ALA:HB1	8:CH:133:LEU:HD21	1.73	0.70
1:AA:80:G:H1	1:AA:89:C:N4	1.89	0.70
11:AK:111:ASP:HA	18:AR:84:LYS:HE2	1.71	0.70
1:CA:414:A:H2'	1:CA:415:A:C8	2.26	0.70
36:BG:173:LEU:HA	36:BG:176:LEU:HB2	1.73	0.70
2:CB:139:LYS:O	2:CB:143:GLU:HG2	1.91	0.70
1:AA:671:G:H2'	1:AA:672:U:H6	1.56	0.70
31:BA:2404:C:C2'	31:BA:2405:G:H5'	2.21	0.70
31:BA:1037:G:H1	31:BA:1118:C:N4	1.89	0.70
1:CA:940:C:OP1	7:CG:102:ARG:HD3	1.91	0.70
3:CC:62:ASP:O	3:CC:97:LYS:HB3	1.90	0.70
6:CF:39:LYS:HB3	6:CF:62:TRP:HZ3	1.56	0.70
1:CA:892:A:H2'	1:CA:893:C:C6	2.27	0.70
41:DP:45:LEU:HD22	41:DP:46:LYS:H	1.57	0.70
31:BA:2287:A:C2	31:BA:2289:G:C8	2.79	0.70
32:BB:58:A:N3	32:BB:58:A:H2'	2.06	0.70
24:D2:49:LYS:NZ	24:D2:53:LEU:HD22	2.07	0.70
24:D2:51:ARG:HE	31:DA:72:U:H5'	1.57	0.70
41:BP:112:LEU:HD22	41:BP:113:LYS:N	2.06	0.70
31:DA:848:G:H5'	31:DA:848:G:H8	1.55	0.70
1:CA:46:G:O2'	1:CA:365:U:H1'	1.92	0.70
31:DA:1790:C:H5"	31:DA:1791:A:OP1	1.91	0.70
33:DD:62:TYR:CE1	33:DD:64:ILE:HA	2.27	0.70
31:DA:2305:A:H5"	36:DG:134:GLY:HA3	1.72	0.70
31:DA:330:A:C2	31:DA:1210:A:H2'	2.25	0.70
31:DA:1502:C:H5'	31:DA:1503:U:OP2	1.91	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:330:A:C2	31:BA:1210:A:H2'	2.24	0.70
31:DA:2496:C:OP1	42:DQ:81:VAL:HG12	1.92	0.70
1:AA:783:C:O2'	1:AA:784:C:H5'	1.92	0.70
38:BI:91:SER:HB2	38:BI:119:PRO:O	1.91	0.70
45:DT:65:LYS:HE3	45:DT:66:VAL:N	2.05	0.70
1:CA:771:G:O2'	1:CA:772:U:H5'	1.91	0.70
1:CA:9:G:H2'	1:CA:10:A:C8	2.24	0.70
45:DT:109:GLU:HB3	45:DT:113:LYS:HE3	1.72	0.70
1:AA:1116:C:H3'	1:AA:1117:G:H5''	1.73	0.70
45:BT:109:GLU:HB3	45:BT:113:LYS:HE3	1.74	0.70
31:DA:1254:A:H5'	31:DA:1255:U:H5'	1.73	0.70
2:AB:212:GLN:NE2	2:AB:235:SER:HB3	2.05	0.70
34:DE:27:LEU:HD22	45:DT:1:MET:CE	2.21	0.70
19:AS:40:ILE:HD13	19:AS:62:ILE:HD11	1.74	0.70
41:BP:17:LYS:O	41:BP:19:VAL:N	2.22	0.70
32:BB:57:A:C6	36:BG:29:TRP:CD1	2.80	0.70
49:DX:72:LYS:HG3	49:DX:73:ARG:H	1.55	0.70
49:BX:76:ARG:O	49:BX:77:LYS:HB2	1.90	0.70
45:BT:100:TYR:CD2	45:BT:103:ARG:NH2	2.60	0.70
31:DA:779:U:H5''	33:DD:49:ILE:HD11	1.71	0.70
33:BD:43:ARG:HH11	33:BD:44:ASN:CG	1.95	0.70
42:DQ:8:LYS:CD	42:DQ:9:TYR:H	2.03	0.70
1:CA:1442(A):G:C5	45:DT:118:ARG:CZ	2.74	0.70
31:BA:271(E):U:H2'	31:BA:271(F):C:C6	2.26	0.70
1:CA:160:A:H1'	1:CA:344:A:C8	2.26	0.70
6:CF:96:PRO:HB3	18:CR:30:ASP:OD2	1.91	0.70
31:BA:39:C:O2'	31:BA:40:C:H5'	1.92	0.70
22:B0:2:ALA:H	31:BA:2602:A:N6	1.89	0.70
31:DA:1359:A:H2'	31:DA:1360:A:H5'	1.72	0.70
40:BO:18:LYS:HB2	40:BO:45:GLU:HG2	1.73	0.70
35:DF:132:VAL:O	35:DF:134:GLY:N	2.25	0.70
16:CP:45:THR:HG22	16:CP:47:ASP:H	1.55	0.70
23:D1:34:THR:HG21	31:DA:388:G:OP2	1.91	0.70
30:D8:35:GLN:HE21	30:D8:36:LYS:NZ	1.89	0.70
31:DA:1185:C:H5''	31:DA:1186:G:OP1	1.91	0.70
35:DF:103:LYS:HA	35:DF:106:ARG:HG3	1.72	0.70
41:DP:38:GLN:HG3	41:DP:39:LYS:N	2.04	0.70
31:DA:1721:G:N1	31:DA:1739:U:OP2	2.25	0.70
32:DB:51:G:H5'	32:DB:52:A:OP2	1.92	0.70
4:CD:36:ARG:HB3	4:CD:38:TYR:CE1	2.26	0.70
31:BA:1005:C:O2'	39:BN:28:THR:HG21	1.92	0.70
39:BN:3:THR:C	39:BN:4:TYR:CD1	2.65	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2646:C:OP2	31:DA:2732:G:O2'	2.08	0.70
32:DB:13:A:N1	32:DB:69:G:O2'	2.24	0.70
51:BZ:15:PRO:O	51:BZ:19:ARG:HD2	1.91	0.70
33:DD:143:HIS:HD2	33:DD:144:ALA:CB	2.05	0.70
31:DA:528:A:C2	31:DA:2043:C:C5'	2.74	0.70
50:BY:95:LYS:HD3	50:BY:100:ALA:HB1	1.74	0.70
1:AA:560:U:H5'	1:AA:566:G:N2	2.07	0.70
1:AA:814:A:N7	1:AA:816:A:C4	2.60	0.70
33:BD:172:TYR:CD1	33:BD:186:HIS:HA	2.27	0.70
31:DA:39:C:O2'	31:DA:40:C:H5'	1.91	0.70
49:DX:64:LYS:HE3	49:DX:65:ARG:HH21	1.57	0.70
31:BA:2267:A:H5''	31:BA:2268:A:H5'	1.72	0.70
33:DD:17:THR:HG23	33:DD:205:VAL:HB	1.74	0.70
1:CA:80:G:H1	1:CA:89:C:N4	1.88	0.70
31:BA:792:G:H5''	31:BA:793:A:H5'	1.73	0.70
31:DA:2821:A:C2	31:DA:2822:G:C4	2.80	0.70
35:BF:132:VAL:O	35:BF:134:GLY:N	2.24	0.70
1:AA:1172:C:H2'	1:AA:1173:G:C8	2.27	0.70
41:DP:17:LYS:C	41:DP:19:VAL:H	1.95	0.70
31:BA:675:A:C8	31:BA:804:A:C6	2.79	0.70
35:BF:81:PRO:HB3	35:BF:87:GLY:O	1.91	0.70
31:BA:389:G:H1	41:BP:71:VAL:H	1.40	0.70
31:DA:1429:G:H2'	31:DA:1430:C:H6	1.52	0.70
33:DD:95:LEU:HD21	33:DD:105:ILE:HG22	1.72	0.70
31:BA:1790:C:H2'	31:BA:1791:A:C5	2.26	0.70
31:DA:1482:G:N2	31:DA:1507:A:H1'	2.06	0.70
31:BA:285:C:H2'	31:BA:286:C:C5'	2.19	0.70
50:BY:30:VAL:HG12	50:BY:31:LEU:N	2.05	0.70
31:DA:491:G:H2'	31:DA:492:A:C8	2.27	0.70
13:AM:25:ILE:HD11	13:AM:66:LEU:HD23	1.73	0.70
33:BD:133:LEU:HA	33:BD:136:ILE:HD13	1.73	0.70
31:BA:2463:C:O2'	31:BA:2464:C:H5'	1.92	0.70
1:CA:590:C:H2'	1:CA:591:U:H6	1.55	0.70
31:BA:265:A:H1'	31:BA:266:G:O4'	1.92	0.70
30:B8:52:LYS:H	30:B8:53:PRO:CD	2.03	0.69
41:BP:35:HIS:CD2	41:BP:35:HIS:O	2.45	0.69
44:BS:38:GLN:CG	44:BS:47:THR:HG21	2.22	0.69
31:BA:2542:A:H5''	31:BA:2542:A:N3	2.06	0.69
41:BP:83:VAL:CG1	41:BP:112:LEU:HD21	2.21	0.69
44:DS:34:HIS:HB3	44:DS:53:SER:HB2	1.73	0.69
31:BA:2316:C:H2'	31:BA:2317:C:H6	1.56	0.69
39:BN:65:LYS:HD3	39:BN:67:LEU:HB2	1.73	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2652:C:H2'	31:DA:2653:U:H5'	1.73	0.69
34:DE:48:GLN:NE2	34:DE:78:LEU:HD13	2.07	0.69
42:BQ:140:ALA:H	51:BZ:53:ILE:HD12	1.55	0.69
36:DG:76:SER:HB3	36:DG:84:LYS:H	1.57	0.69
31:BA:2387:U:H5''	31:BA:2388:A:OP2	1.92	0.69
1:AA:15:G:H4'	5:AE:24:ARG:NH1	2.06	0.69
1:CA:663:A:O2'	1:CA:664:G:H5'	1.91	0.69
1:CA:1442(B):A:H2'	1:CA:1442(B):A:N3	2.07	0.69
31:BA:1488:G:C6	31:BA:1489:U:N3	2.60	0.69
41:BP:146:VAL:HG22	41:BP:147:LEU:N	2.07	0.69
31:DA:2875:C:O2'	45:DT:5:ALA:HB3	1.92	0.69
37:BH:149:ARG:HD3	37:BH:164:TYR:HE1	1.57	0.69
31:DA:2853:C:H2'	31:DA:2854:G:H8	1.57	0.69
31:BA:542:C:N4	31:BA:543:C:H42	1.90	0.69
1:AA:538:G:OP2	12:AL:115:LYS:HG3	1.92	0.69
31:BA:667:U:H2'	31:BA:668:G:H5'	1.73	0.69
31:BA:363(E):U:H3'	31:BA:363(F):A:O4'	1.92	0.69
1:CA:568:G:O6	12:CL:5:PRO:HD3	1.92	0.69
31:DA:271(A):A:H5'	31:DA:271(B):C:OP2	1.91	0.69
34:BE:120:TRP:CE3	34:BE:155:LYS:HD3	2.27	0.69
31:DA:1742:G:N7	31:DA:1743:C:C2	2.60	0.69
1:CA:538:G:OP2	12:CL:115:LYS:HG3	1.91	0.69
25:B3:8:LEU:HA	25:B3:54:VAL:HG12	1.74	0.69
31:BA:1648:C:H2'	31:BA:1649:G:O5'	1.91	0.69
31:BA:1517:G:H8	31:BA:1517:G:H5''	1.55	0.69
50:BY:31:LEU:HD12	50:BY:34:LYS:H	1.57	0.69
11:AK:29:ILE:HG13	11:AK:43:SER:O	1.91	0.69
31:BA:1170:G:H1	31:BA:1179:C:N4	1.89	0.69
45:DT:29:ARG:HB3	45:DT:85:LYS:HA	1.75	0.69
31:BA:1639:U:O2'	31:BA:1640:C:H5''	1.91	0.69
31:BA:2472:G:N1	31:BA:2477:C:OP1	2.25	0.69
29:D7:40:TRP:CD2	31:DA:459:U:H5''	2.26	0.69
11:CK:21:ILE:HG13	11:CK:30:VAL:HG12	1.73	0.69
8:CH:51:VAL:HG11	8:CH:60:ARG:HG3	1.73	0.69
31:BA:2092:U:H4'	31:BA:2093:G:O5'	1.91	0.69
12:CL:6:THR:HG23	12:CL:9:GLN:HE21	1.57	0.69
25:D3:7:LYS:O	25:D3:9:VAL:HG13	1.93	0.69
44:DS:95:HIS:CG	44:DS:96:GLY:H	2.08	0.69
8:CH:104:ARG:O	8:CH:107:LEU:HG	1.92	0.69
4:AD:128:VAL:CG1	4:AD:129:ASN:HD22	1.98	0.69
46:BU:92:ARG:HB3	47:BV:11:GLN:HE22	1.56	0.69
31:BA:814:C:C5	41:BP:27:HIS:NE2	2.61	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:BV:13:ARG:HH12	47:BV:15:GLU:HG2	1.58	0.69
23:B1:12:PRO:HD2	23:B1:62:VAL:CG2	2.19	0.69
31:BA:1482:G:N2	31:BA:1507:A:H1'	2.05	0.69
27:B5:40:LYS:HZ2	27:B5:46:CYS:H	1.37	0.69
1:AA:542:G:H2'	1:AA:543:C:H6	1.57	0.69
31:DA:904:C:C2'	31:DA:905:U:H5'	2.22	0.69
45:BT:91:ARG:HA	45:BT:117:ASP:H	1.57	0.69
24:B2:14:ARG:NH1	24:B2:57:ILE:CG2	2.55	0.69
42:DQ:20:ALA:O	42:DQ:22:LYS:N	2.24	0.69
24:D2:14:ARG:CZ	24:D2:15:LYS:H	2.05	0.69
1:CA:267:C:OP1	17:CQ:67:LYS:HD2	1.93	0.69
45:BT:30:VAL:HG21	45:BT:83:ILE:HG12	1.73	0.69
1:CA:564:C:C6	17:CQ:31:LEU:HD11	2.27	0.69
31:DA:184:C:H2'	31:DA:185:U:H6	1.56	0.69
1:CA:1158:C:N3	1:CA:1181:G:N2	2.39	0.69
31:BA:2272:U:H5''	31:BA:2273:A:OP1	1.91	0.69
31:DA:754:C:H2'	31:DA:755:C:C6	2.27	0.69
37:BH:43:VAL:O	37:BH:43:VAL:HG23	1.91	0.69
48:DW:5:ALA:HB2	48:DW:54:ALA:HB2	1.75	0.69
1:CA:1260:C:H4'	1:CA:1284:C:H5'	1.73	0.69
9:CI:45:ALA:O	9:CI:48:GLU:HB2	1.92	0.69
6:AF:49:ALA:HB2	18:AR:78:LEU:O	1.92	0.69
31:BA:1372:U:H2'	31:BA:1373:A:O4'	1.91	0.69
1:CA:857:C:H2'	1:CA:858:G:O4'	1.93	0.69
31:BA:2059:A:O2'	35:BF:69:HIS:HD2	1.74	0.69
49:DX:53:LYS:H	49:DX:80:ILE:HG22	1.57	0.69
41:BP:88:LEU:C	41:BP:90:ARG:H	1.94	0.69
32:DB:6:C:O2'	44:DS:29:PHE:HE1	1.76	0.69
50:BY:15:VAL:HG12	50:BY:16:ALA:N	2.07	0.69
23:D1:94:LEU:O	23:D1:95:LEU:HG	1.93	0.69
5:AE:101:ILE:CD1	5:AE:119:LEU:HD23	2.19	0.69
6:AF:91:VAL:HG11	18:AR:72:ARG:NH1	2.06	0.69
22:B0:74:ARG:HH22	32:BB:13:A:H5'	1.56	0.69
31:DA:527:C:N4	31:DA:2779:U:OP2	2.25	0.69
31:BA:2773:C:O2'	31:BA:2774:C:H5'	1.92	0.69
31:BA:1956:U:H2'	31:BA:1957:C:H5'	1.74	0.69
4:CD:9:CYS:HA	4:CD:12:CYS:HB2	1.73	0.69
1:CA:1064:G:H5'	1:CA:1066:C:H1'	1.72	0.69
50:DY:76:CYS:CB	50:DY:77:PRO:HD2	2.22	0.69
31:DA:494:G:OP1	48:DW:8:ARG:NH1	2.24	0.69
31:DA:2462:U:H1'	31:DA:2491:U:O4	1.93	0.69
12:AL:105:TYR:O	12:AL:107:ALA:N	2.25	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:DT:25:GLY:O	45:DT:26:ASP:HB2	1.90	0.69
31:BA:1839:G:C8	31:BA:1927:A:H1'	2.27	0.69
31:BA:443:A:H1'	31:BA:1201:C:O4'	1.91	0.69
1:AA:84:U:H5	1:AA:88:A:C8	2.10	0.69
31:DA:2599:G:OP2	33:DD:236:GLY:N	2.25	0.69
6:AF:60:PHE:C	6:AF:61:LEU:HD12	2.12	0.69
22:D0:28:GLY:HA2	22:D0:66:VAL:CG1	2.22	0.69
39:BN:115:ARG:HG3	39:BN:115:ARG:HH11	1.57	0.69
31:DA:1614:A:N6	48:DW:88:ARG:H	1.91	0.69
31:DA:1614:A:H61	48:DW:88:ARG:H	1.41	0.69
41:BP:56:SER:O	41:BP:58:THR:N	2.24	0.69
41:BP:61:ARG:H	41:BP:61:ARG:CD	1.99	0.69
32:BB:51:G:H5'	32:BB:52:A:OP2	1.91	0.69
31:DA:1005:C:C2	31:DA:1143:A:C5	2.79	0.69
47:DV:39:LEU:O	47:DV:40:LEU:HB3	1.92	0.69
31:BA:2756:U:H4'	31:BA:2757:A:OP1	1.91	0.69
1:CA:192:U:H2'	1:CA:193:C:C6	2.24	0.69
31:DA:2311:A:OP1	31:DA:2312:U:H5	1.75	0.69
34:BE:52:LEU:HD13	34:BE:76:ARG:HG2	1.74	0.69
1:AA:749:C:O2'	1:AA:750:G:H5'	1.93	0.69
22:B0:53:MET:HE3	22:B0:57:PHE:HA	1.74	0.69
13:CM:23:TYR:HB3	13:CM:67:GLU:HB2	1.74	0.69
31:DA:2580:U:H4'	34:DE:130:GLY:HA2	1.74	0.69
1:CA:783:C:C2'	1:CA:784:C:H5'	2.23	0.69
23:D1:16:ASN:HB3	23:D1:46:LEU:HG	1.73	0.69
42:BQ:106:VAL:HG21	42:BQ:114:ALA:HB1	1.73	0.69
6:AF:39:LYS:HB3	6:AF:62:TRP:CZ3	2.28	0.69
3:AC:71:ALA:HB2	3:AC:115:LEU:HD13	1.74	0.69
1:AA:695:A:H61	1:AA:797:C:H1'	1.56	0.69
1:CA:671:G:H2'	1:CA:672:U:H6	1.58	0.69
31:DA:296:C:H2'	31:DA:297:C:H6	1.58	0.69
31:DA:806:C:OP2	41:DP:39:LYS:CD	2.38	0.69
30:B8:60:LEU:C	30:B8:63:PRO:HD2	2.12	0.69
31:BA:247:G:H4'	31:BA:386:G:C5	2.27	0.69
33:BD:35:LYS:CE	33:BD:104:TYR:HB2	2.22	0.69
36:BG:15:VAL:O	36:BG:19:LEU:HG	1.92	0.69
31:DA:141:A:H8	31:DA:1408:C:O2'	1.71	0.69
31:DA:1141:U:OP1	39:DN:25:ARG:NH1	2.25	0.69
47:DV:72:VAL:HA	47:DV:88:ARG:NH1	2.06	0.69
31:DA:2377:A:H4'	44:DS:107:GLU:CG	2.23	0.69
32:DB:6:C:HO2'	44:DS:29:PHE:HE1	1.39	0.69
31:BA:1280:G:H2'	31:BA:1281:G:H5''	1.75	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BN:65:LYS:CD	39:BN:67:LEU:HB2	2.22	0.69
31:DA:2773:C:O2'	31:DA:2774:C:H5'	1.93	0.69
5:AE:101:ILE:HD11	5:AE:119:LEU:HA	1.75	0.69
1:CA:735:C:O2'	1:CA:736:C:H5'	1.92	0.69
18:AR:74:ARG:HE	18:AR:81:PHE:HA	1.58	0.69
32:BB:65:C:H41	32:BB:109:C:H2'	1.56	0.69
1:AA:1418:A:C2	31:BA:1948:G:N3	2.53	0.69
31:DA:2267:A:H5''	31:DA:2268:A:H5'	1.74	0.69
32:DB:94:C:H2'	32:DB:95:C:C6	2.27	0.69
31:BA:2261:C:O2'	31:BA:2262:U:H5'	1.93	0.69
12:CL:32:PHE:CD1	12:CL:86:ARG:HA	2.26	0.69
17:CQ:67:LYS:HA	17:CQ:70:ARG:NH1	2.06	0.69
33:BD:228:PRO:HD3	33:BD:235:GLY:HA3	1.73	0.69
31:DA:2463:C:H2'	31:DA:2464:C:H5'	1.72	0.69
8:AH:7:ALA:HB2	8:AH:85:ARG:HD2	1.73	0.69
1:CA:586:C:C2'	1:CA:587:G:H5'	2.21	0.69
38:DI:4:ILE:HG12	38:DI:39:ALA:HB2	1.74	0.69
48:BW:9:TYR:H	48:BW:102:HIS:HD2	1.41	0.69
31:DA:2611:U:H5'	31:DA:2611:U:C6	2.28	0.69
42:DQ:37:LEU:HB2	42:DQ:128:LYS:O	1.92	0.69
42:DQ:132:VAL:HG11	51:DZ:81:ARG:HD2	1.73	0.69
31:BA:128:C:H6	31:BA:128:C:H5''	1.57	0.69
10:CJ:32:ALA:HB2	10:CJ:76:ASN:HB3	1.74	0.69
31:DA:11:G:C2'	31:DA:12:U:H5'	2.22	0.69
43:DR:8:ARG:HA	43:DR:8:ARG:NE	2.07	0.69
1:AA:139:G:H2'	1:AA:140:A:H8	1.56	0.69
31:BA:2252:G:H2'	31:BA:2253:G:C8	2.28	0.69
1:AA:892:A:H2'	1:AA:893:C:C6	2.27	0.69
31:DA:191:A:O2'	31:DA:192:C:H5'	1.92	0.69
41:DP:35:HIS:CD2	41:DP:35:HIS:O	2.46	0.69
30:B8:35:GLN:HE21	30:B8:36:LYS:NZ	1.81	0.69
24:D2:48:HIS:NE2	31:DA:75:G:O3'	2.23	0.69
39:DN:65:LYS:CD	39:DN:67:LEU:HB2	2.21	0.69
49:BX:55:ASN:HB2	49:BX:78:LYS:CD	2.22	0.69
34:DE:48:GLN:HE22	34:DE:64:LYS:NZ	1.91	0.69
31:BA:779:U:OP1	33:BD:49:ILE:HG13	1.93	0.69
31:BA:993:G:N3	47:BV:91:TYR:CE1	2.61	0.69
31:DA:2316:C:H2'	31:DA:2317:C:H6	1.55	0.69
34:DE:52:LEU:HD13	34:DE:76:ARG:HG2	1.74	0.69
34:DE:93:VAL:H	34:DE:95:ILE:CD1	2.04	0.69
1:AA:663:A:C2'	1:AA:664:G:H5'	2.23	0.69
42:DQ:20:ALA:CB	42:DQ:99:PRO:HG2	2.23	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1308:U:H5''	13:CM:98:VAL:N	2.08	0.69
31:BA:1410:G:H1	31:BA:1592:C:N4	1.89	0.69
31:DA:1410:G:H1	31:DA:1592:C:N4	1.89	0.69
31:BA:139(A):G:N2	49:BX:44:GLU:OE1	2.24	0.69
15:CO:23:GLY:O	15:CO:24:SER:HB3	1.91	0.69
18:AR:31:LEU:HD12	18:AR:65:ILE:HD11	1.73	0.69
45:BT:24:PRO:HA	45:BT:49:VAL:O	1.92	0.69
51:BZ:130:PRO:HA	51:BZ:133:ILE:CD1	2.22	0.69
31:BA:1037:G:H1	31:BA:1118:C:H42	1.40	0.69
31:BA:90:U:H2'	31:BA:90:U:O2	1.92	0.69
4:AD:14:ARG:H	4:AD:40:PRO:HD3	1.57	0.69
5:AE:7:GLU:HG2	5:AE:112:LEU:HD22	1.74	0.69
3:CC:189:ALA:HB3	3:CC:196:LEU:HB2	1.74	0.69
7:AG:70:LYS:HB3	7:AG:96:GLN:OE1	1.93	0.69
1:CA:922:G:H5''	1:CA:923:A:OP1	1.93	0.69
31:DA:1245:G:OP1	41:DP:16:ARG:HD2	1.91	0.69
41:DP:97:PRO:HD3	41:DP:126:VAL:O	1.92	0.69
41:DP:56:SER:O	41:DP:58:THR:N	2.26	0.69
41:DP:61:ARG:H	41:DP:61:ARG:CD	2.03	0.69
28:D6:16:CYS:SG	28:D6:48:VAL:HG13	2.33	0.69
31:BA:693:C:O2'	31:BA:694:U:H5'	1.93	0.69
33:BD:94:LEU:HD22	33:BD:94:LEU:C	2.13	0.69
32:BB:55:U:H6	32:BB:55:U:OP2	1.76	0.69
49:DX:60:ARG:HB2	49:DX:73:ARG:N	2.08	0.69
47:DV:14:VAL:HG12	47:DV:98:GLU:HG3	1.73	0.69
36:DG:5:VAL:HG21	36:DG:101:ILE:HB	1.75	0.69
1:AA:41:G:H2'	1:AA:42:G:H8	1.57	0.69
1:AA:376:G:OP2	16:AP:67:THR:HG21	1.93	0.69
45:DT:98:LYS:HB3	45:DT:100:TYR:CE1	2.27	0.69
45:DT:51:ARG:HG3	45:DT:98:LYS:HE3	1.74	0.69
31:BA:1286:A:O2'	31:BA:1288:U:P	2.51	0.69
31:DA:1803:A:O3'	33:DD:259:THR:CG2	2.41	0.69
25:B3:11:SER:OG	25:B3:13:ILE:HG12	1.92	0.69
31:BA:848:G:H8	31:BA:848:G:H5'	1.57	0.69
31:DA:1503:U:H2'	31:DA:1504:C:C5	2.27	0.69
27:D5:16:ARG:CG	27:D5:16:ARG:HH11	2.04	0.69
43:DR:100:LEU:HD21	43:DR:113:LEU:HD13	1.74	0.69
1:AA:735:C:O2'	1:AA:736:C:H5'	1.93	0.69
27:D5:32:PRO:O	27:D5:33:CYS:HB3	1.93	0.69
27:D5:47:PRO:O	27:D5:48:GLU:HG3	1.91	0.69
39:BN:56:ASN:N	39:BN:125:GLY:HA3	2.04	0.69
31:BA:1956:U:C2'	31:BA:1957:C:H5'	2.23	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:BZ:73:GLN:HG2	51:BZ:87:ASP:OD1	1.93	0.69
31:BA:864:G:C6	31:BA:865:C:N4	2.61	0.69
1:AA:921:U:C2	1:AA:922:G:C8	2.80	0.69
1:CA:1203:C:OP1	14:CN:3:ARG:HD3	1.93	0.69
31:DA:2720:U:O2	31:DA:2720:U:H2'	1.93	0.69
31:BA:2471:C:H3'	31:BA:2472:G:H5''	1.75	0.69
31:BA:755:C:H2'	31:BA:756:C:C6	2.28	0.69
1:AA:771:G:O2'	1:AA:772:U:H5'	1.91	0.69
34:BE:201:THR:HG22	34:BE:202:LYS:H	1.58	0.69
22:D0:20:ARG:NE	31:DA:2271:G:H5''	2.08	0.69
31:DA:128:C:H6	31:DA:128:C:H5''	1.58	0.69
44:BS:54:LEU:HD21	44:BS:59:LYS:O	1.93	0.69
31:DA:1889:A:N1	31:DA:2234:G:H1'	2.08	0.69
30:D8:6:THR:CG2	30:D8:63:PRO:HD3	2.22	0.69
31:BA:586:A:N1	31:BA:809:G:O2'	2.24	0.69
33:BD:62:TYR:CE1	33:BD:64:ILE:HA	2.28	0.69
31:DA:1286:A:O2'	31:DA:1288:U:P	2.51	0.69
32:DB:58:A:H2'	32:DB:58:A:N3	2.07	0.69
44:DS:38:GLN:CG	44:DS:47:THR:HG21	2.22	0.69
38:DI:120:ILE:HD11	38:DI:140:LEU:HD23	1.75	0.69
31:DA:1430:C:H2'	31:DA:1431:U:H6	1.58	0.69
31:DA:2747:G:O6	31:DA:2755:C:H5''	1.93	0.69
37:DH:149:ARG:HD3	37:DH:164:TYR:HE1	1.58	0.69
34:DE:32:PRO:O	34:DE:34:VAL:HG12	1.93	0.69
47:BV:66:ARG:CD	47:BV:94:LEU:HG	2.23	0.69
2:CB:185:ILE:CG2	2:CB:199:TYR:HB2	2.19	0.69
23:B1:67:ILE:N	23:B1:68:PRO:HD2	2.07	0.69
11:CK:38:ASN:N	11:CK:38:ASN:HD22	1.91	0.69
51:BZ:40:ASP:HB3	51:BZ:43:GLU:HB2	1.73	0.69
31:DA:288:C:N4	31:DA:353:G:H1	1.90	0.69
34:DE:132:HIS:CD2	34:DE:135:HIS:NE2	2.60	0.69
31:BA:2282:G:H4'	31:BA:2283:C:O5'	1.92	0.69
31:DA:2869:G:H2'	31:DA:2870:C:O4'	1.93	0.69
1:CA:272:C:H2'	1:CA:273:A:C8	2.28	0.69
35:DF:184:TYR:O	35:DF:188:ARG:HG3	1.93	0.69
1:CA:341:C:O2'	1:CA:342:C:H5'	1.92	0.69
42:DQ:27:VAL:HA	42:DQ:105:GLU:OE1	1.92	0.69
1:AA:1372:U:H5''	9:AI:71:SER:HB3	1.75	0.69
10:AJ:78:ASN:HB2	10:AJ:81:THR:HG23	1.74	0.69
31:DA:753:C:O5'	31:DA:753:C:H6	1.75	0.69
6:CF:39:LYS:HB3	6:CF:62:TRP:CZ3	2.27	0.69
8:AH:77:GLU:HG3	8:AH:78:GLN:H	1.58	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1172:C:H2'	1:CA:1173:G:C8	2.28	0.69
42:BQ:132:VAL:HG11	51:BZ:81:ARG:HD2	1.72	0.69
31:DA:1037:G:H1	31:DA:1118:C:N4	1.90	0.69
3:AC:152:ILE:HB	3:AC:199:LYS:HB2	1.74	0.69
8:AH:54:ASP:O	8:AH:56:LYS:HG3	1.93	0.69
23:B1:33:LYS:C	23:B1:34:THR:HG22	2.13	0.69
31:BA:2243:U:H2'	31:BA:2244:U:C6	2.28	0.69
31:BA:1722:A:H2	31:BA:1740:G:C5'	1.98	0.69
1:CA:539:A:H2'	1:CA:540:G:H8	1.56	0.69
1:CA:625:G:H2'	1:CA:626:U:H6	1.57	0.69
1:CA:390:C:O3'	16:CP:28:ARG:NH2	2.25	0.69
33:DD:35:LYS:HG2	33:DD:64:ILE:N	2.08	0.69
46:BU:91:ASP:OD2	46:BU:96:ALA:HB2	1.93	0.69
43:DR:29:LEU:HB3	43:DR:75:LEU:HD11	1.73	0.69
2:AB:187:LEU:HA	2:AB:201:ILE:HB	1.72	0.69
31:BA:1812:A:C2	31:BA:1813:G:C4	2.81	0.69
50:DY:30:VAL:HG12	50:DY:31:LEU:N	2.06	0.69
1:AA:116:A:OP2	1:AA:116:A:C8	2.46	0.69
40:DO:114:ILE:N	40:DO:114:ILE:HD13	2.07	0.69
8:CH:1:MET:HE2	8:CH:1:MET:N	2.08	0.69
1:AA:921:U:N3	1:AA:922:G:N7	2.41	0.69
38:BI:78:THR:HA	38:BI:141:LYS:O	1.93	0.69
1:CA:1201:A:H1'	1:CA:1202:G:OP2	1.93	0.69
43:BR:53:HIS:HD2	43:BR:94:TYR:OH	1.74	0.69
51:DZ:73:GLN:HG2	51:DZ:87:ASP:OD1	1.93	0.69
45:DT:35:LYS:HG3	45:DT:36:GLU:HB2	1.75	0.69
1:AA:1132:C:H2'	1:AA:1133:G:O4'	1.93	0.69
31:BA:1490:A:H5'	31:BA:1491:G:OP2	1.93	0.69
45:BT:30:VAL:HG21	45:BT:83:ILE:CG1	2.22	0.69
13:AM:23:TYR:HB3	13:AM:67:GLU:HB2	1.74	0.69
2:AB:97:TRP:HZ2	2:AB:102:LEU:HD13	1.58	0.69
31:BA:2470:G:N1	31:BA:2471:C:C5	2.61	0.69
37:BH:52:VAL:HG11	37:BH:69:ARG:HG3	1.75	0.69
36:DG:64:THR:HG23	36:DG:65:GLY:H	1.57	0.69
12:AL:32:PHE:CD1	12:AL:86:ARG:HA	2.26	0.69
10:AJ:32:ALA:HB2	10:AJ:76:ASN:HB3	1.75	0.69
10:CJ:78:ASN:HB2	10:CJ:81:THR:HG23	1.75	0.69
31:DA:1151:G:H5''	46:DU:81:HIS:CE1	2.28	0.69
31:BA:2762:G:H2'	31:BA:2763:G:H5'	1.74	0.69
34:BE:16:ARG:O	34:BE:18:ASP:N	2.26	0.69
4:CD:14:ARG:H	4:CD:40:PRO:HD3	1.58	0.69
2:AB:74:LYS:NZ	2:AB:76:GLN:HB2	2.07	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1300:U:H1'	31:BA:1626:G:C2	2.28	0.69
43:BR:44:LEU:O	43:BR:44:LEU:HD22	1.92	0.69
16:CP:26:ARG:HD3	16:CP:31:LYS:O	1.93	0.69
1:CA:15:G:N1	1:CA:922:G:C2	2.60	0.68
1:CA:926:G:C6	1:CA:1505:G:C6	2.80	0.68
30:D8:12:LYS:HE3	31:DA:247:G:O6	1.93	0.68
49:DX:30:VAL:HG23	49:DX:76:ARG:HA	1.75	0.68
31:BA:141:A:H8	31:BA:1408:C:O2'	1.75	0.68
31:BA:1022:G:N2	31:BA:1142(A):A:H2	1.89	0.68
11:CK:29:ILE:HG13	11:CK:43:SER:O	1.93	0.68
42:DQ:140:ALA:H	51:DZ:53:ILE:HD12	1.57	0.68
42:BQ:75:THR:CA	42:BQ:88:GLY:HA2	2.22	0.68
31:BA:2880:C:H1'	43:BR:92:GLY:O	1.93	0.68
11:AK:99:GLN:O	11:AK:101:SER:N	2.23	0.68
1:AA:1320:C:H5'	19:AS:70:LYS:CG	2.21	0.68
6:CF:96:PRO:HA	18:CR:32:ARG:HG2	1.75	0.68
51:DZ:128:VAL:HG22	51:DZ:161:VAL:HG22	1.75	0.68
42:DQ:39:PRO:HA	42:DQ:97:VAL:O	1.93	0.68
31:DA:1319:G:C6	31:DA:1320:C:N4	2.61	0.68
35:DF:28:ILE:H	35:DF:28:ILE:HD12	1.58	0.68
19:CS:40:ILE:HD13	19:CS:62:ILE:HD11	1.74	0.68
16:AP:26:ARG:HD3	16:AP:31:LYS:O	1.93	0.68
38:DI:76:THR:HG22	38:DI:139:GLN:HB3	1.74	0.68
3:AC:81:GLY:O	3:AC:85:ARG:HB2	1.94	0.68
41:DP:15:ARG:HG2	41:DP:17:LYS:HD2	1.74	0.68
30:B8:12:LYS:HE3	31:BA:247:G:O6	1.93	0.68
44:BS:28:VAL:HG11	44:BS:97:ARG:NH1	2.08	0.68
25:D3:46:ASN:O	25:D3:50:VAL:HG22	1.93	0.68
24:B2:26:ARG:HG2	49:BX:5:TYR:HB3	1.74	0.68
31:BA:1448:G:H5'	31:BA:1449:A:OP1	1.92	0.68
31:BA:2809:A:C2	31:BA:2892:A:N3	2.62	0.68
4:CD:117:ALA:O	4:CD:121:VAL:HG23	1.93	0.68
31:BA:2307:G:N2	31:BA:2308:G:H5'	2.07	0.68
23:D1:10:LYS:HG2	23:D1:11:ARG:N	2.08	0.68
31:DA:330:A:H2	31:DA:1210:A:HO2'	1.39	0.68
31:DA:1504:C:O2'	31:DA:1505:C:H5'	1.94	0.68
31:BA:1509(B):A:H3'	31:BA:1510:G:H8	1.57	0.68
1:AA:59:A:N3	1:AA:59:A:H2'	2.08	0.68
1:CA:1066:C:H5'	1:CA:1067:A:OP2	1.94	0.68
34:BE:118:LYS:O	34:BE:160:TYR:HE1	1.75	0.68
31:DA:1690:A:H3'	31:DA:1691:C:C6	2.24	0.68
1:AA:818:G:H3'	1:AA:819:A:H5'	1.74	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:481:G:OP1	31:DA:481:G:H4'	1.93	0.68
31:BA:1833:U:O2'	31:BA:1969:A:N1	2.22	0.68
31:DA:2536:G:C5	31:DA:2537:U:C5	2.81	0.68
1:AA:272:C:H2'	1:AA:273:A:C8	2.28	0.68
1:CA:1372:U:H5''	9:CI:71:SER:HB3	1.75	0.68
31:DA:2475:C:H5''	31:DA:2476:A:OP2	1.93	0.68
31:DA:322:A:H5'	31:DA:340:A:C1'	2.23	0.68
1:AA:983:A:H3'	1:AA:983:A:N3	2.08	0.68
31:DA:1843:C:H5'	33:DD:253:GLN:OE1	1.93	0.68
11:CK:18:ARG:HH21	11:CK:37:GLY:HA2	1.58	0.68
31:DA:2099:U:H2'	31:DA:2099:U:O2	1.90	0.68
31:DA:1163:G:O2'	31:DA:1164:G:H5'	1.92	0.68
31:DA:106:C:H1'	50:DY:2:ARG:HE	1.58	0.68
50:DY:2:ARG:O	50:DY:4:LYS:N	2.25	0.68
50:DY:2:ARG:C	50:DY:4:LYS:H	1.94	0.68
37:DH:126:PRO:CG	37:DH:130:ARG:HB3	2.23	0.68
37:DH:86:GLU:HB3	37:DH:132:ARG:HG2	1.76	0.68
1:CA:139:G:H2'	1:CA:140:A:H8	1.57	0.68
31:DA:2287:A:C2	31:DA:2289:G:N9	2.61	0.68
33:BD:92:ILE:HD13	33:BD:104:TYR:CD2	2.28	0.68
37:BH:85:LYS:CD	37:BH:133:VAL:HB	2.22	0.68
31:BA:71:A:C5'	31:BA:71:A:H8	2.03	0.68
31:DA:1899:G:N2	31:DA:1902:C:H5	1.90	0.68
1:AA:62:U:H5''	1:AA:385:C:O2	1.92	0.68
1:CA:619:U:H2'	4:CD:135:LEU:CD2	2.23	0.68
25:B3:7:LYS:O	25:B3:9:VAL:HG13	1.93	0.68
31:DA:2029:G:H2'	31:DA:2031:A:OP2	1.93	0.68
23:B1:87:PRO:HD2	23:B1:88:LYS:H	1.58	0.68
31:DA:1505:C:H6	31:DA:1505:C:H3'	1.58	0.68
26:D4:25:TYR:HA	36:DG:109:VAL:CG2	2.20	0.68
23:B1:42:GLN:HG2	23:B1:43:TYR:H	1.55	0.68
31:BA:1945:G:H2'	31:BA:1946:U:H5'	1.76	0.68
1:AA:663:A:O2'	1:AA:664:G:H5'	1.92	0.68
31:DA:2723:C:H5''	43:DR:2:ARG:HD3	1.74	0.68
1:AA:160:A:H1'	1:AA:344:A:C8	2.27	0.68
22:D0:32:ARG:H	22:D0:35:ASN:HD21	1.40	0.68
13:AM:44:ARG:CB	13:AM:46:LYS:HG2	2.24	0.68
31:BA:774:A:C2	31:BA:787:U:O2'	2.37	0.68
38:DI:72:LEU:HD12	38:DI:138:ILE:HG23	1.76	0.68
35:BF:156:LEU:HD21	35:BF:163:VAL:HG12	1.73	0.68
34:DE:134:ILE:HD13	34:DE:134:ILE:N	2.07	0.68
1:CA:1320:C:H5'	19:CS:70:LYS:CG	2.22	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2476:A:C5	31:DA:2477:C:C5	2.81	0.68
1:AA:948:C:OP1	13:AM:107:ALA:HA	1.94	0.68
31:DA:229:A:C5'	31:DA:230:U:H5'	2.20	0.68
31:DA:2068:U:C2	31:DA:2430:A:H2	2.12	0.68
35:BF:63:LYS:HZ1	35:BF:67:GLN:HB2	1.58	0.68
1:CA:407:G:OP1	4:CD:115:ARG:HD2	1.93	0.68
31:DA:1778:U:H2'	31:DA:1784:A:C6	2.28	0.68
46:BU:61:TRP:O	46:BU:62:ILE:C	2.30	0.68
2:CB:187:LEU:HA	2:CB:201:ILE:HB	1.73	0.68
28:B6:16:CYS:SG	28:B6:48:VAL:HG13	2.33	0.68
28:B6:16:CYS:O	28:B6:17:LYS:HB2	1.92	0.68
1:CA:801:U:H2'	1:CA:802:A:H8	1.58	0.68
31:DA:476:G:H4'	31:DA:502:A:N1	2.09	0.68
31:DA:90:U:H2'	31:DA:90:U:O2	1.93	0.68
24:B2:14:ARG:CZ	24:B2:15:LYS:H	2.05	0.68
31:BA:775:G:C4	31:BA:794:G:C8	2.80	0.68
45:DT:32:TYR:CD2	45:DT:81:PRO:O	2.47	0.68
31:DA:613:G:N2	31:DA:614(C):A:O2'	2.26	0.68
31:DA:2272:U:H5''	31:DA:2273:A:OP1	1.92	0.68
31:DA:603:A:H4'	31:DA:604:G:O5'	1.94	0.68
31:DA:892:G:N3	31:DA:892:G:H3'	2.07	0.68
6:CF:60:PHE:C	6:CF:61:LEU:HD12	2.14	0.68
31:DA:807:U:H2'	31:DA:808:G:O5'	1.93	0.68
1:CA:665:A:H2'	1:CA:732:C:O2	1.92	0.68
31:DA:2864:G:H2'	31:DA:2865:U:O4'	1.94	0.68
16:AP:51:VAL:CG1	16:AP:52:ASP:N	2.56	0.68
1:AA:122:G:H2'	1:AA:123:C:O4'	1.94	0.68
31:DA:972:G:OP2	31:DA:974:G:H5''	1.93	0.68
31:DA:1544:A:O3'	31:DA:1544:A:N3	2.26	0.68
1:AA:392:G:H2'	1:AA:393:A:H8	1.59	0.68
1:CA:62:U:H5''	1:CA:385:C:O2	1.94	0.68
5:CE:101:ILE:HD11	5:CE:119:LEU:HA	1.75	0.68
51:DZ:39:VAL:CG2	51:DZ:44:PHE:HB2	2.23	0.68
1:AA:46:G:O2'	1:AA:365:U:H1'	1.93	0.68
38:BI:54:GLN:HA	38:BI:57:ARG:HH12	1.57	0.68
1:AA:1073:U:H2'	1:AA:1074:G:C8	2.29	0.68
42:BQ:8:LYS:CG	42:BQ:9:TYR:H	2.05	0.68
41:BP:40:SER:O	41:BP:41:ARG:HD2	1.94	0.68
31:BA:1490:A:C2	33:BD:75:ILE:HD13	2.29	0.68
2:CB:97:TRP:HZ2	2:CB:102:LEU:HD13	1.58	0.68
1:AA:702:A:H3'	1:AA:703:G:C5'	2.24	0.68
8:CH:86:ILE:HG21	8:CH:133:LEU:HD12	1.74	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2470:G:N1	31:DA:2471:C:C5	2.62	0.68
42:BQ:32:TYR:CE2	42:BQ:133:ARG:HG2	2.29	0.68
31:BA:1359:A:C8	31:BA:1372:U:O4	2.46	0.68
15:CO:63:ARG:HG2	15:CO:67:LEU:HD12	1.76	0.68
23:D1:42:GLN:HG2	23:D1:43:TYR:H	1.59	0.68
31:BA:601:C:H1'	31:BA:605:C:H5''	1.75	0.68
31:BA:610:G:H2'	31:BA:611:C:C6	2.29	0.68
1:AA:1376:U:O2'	1:AA:1377:A:H5'	1.93	0.68
27:D5:2:ALA:N	31:DA:747:U:C4	2.61	0.68
35:DF:63:LYS:HZ1	35:DF:67:GLN:HB2	1.58	0.68
31:BA:1245:G:H5''	41:BP:16:ARG:HH21	1.59	0.68
44:BS:36:TYR:N	44:BS:36:TYR:CD1	2.62	0.68
31:BA:1826:G:H4'	33:BD:242:ARG:NH2	2.04	0.68
45:BT:99:LEU:HB2	45:BT:101:PHE:CE1	2.28	0.68
39:BN:20:GLY:O	39:BN:61:ARG:HG3	1.94	0.68
31:BA:993:G:H5''	47:BV:75:PHE:CE2	2.29	0.68
47:BV:25:LEU:HG	47:BV:94:LEU:HD13	1.76	0.68
23:B1:11:ARG:HH11	23:B1:91:LYS:HZ3	1.42	0.68
32:BB:74:U:C3'	32:BB:75:G:H5''	2.24	0.68
39:BN:78:TYR:CD1	39:BN:79:PRO:HB3	2.29	0.68
1:CA:1073:U:H2'	1:CA:1074:G:C8	2.29	0.68
1:AA:556:C:O2'	1:AA:557:G:H5'	1.93	0.68
41:DP:92:GLU:HA	41:DP:123:LEU:HD22	1.73	0.68
43:DR:71:GLN:NE2	43:DR:71:GLN:HA	2.08	0.68
31:BA:1887:C:C2'	31:BA:1888:G:H5'	2.24	0.68
1:AA:1201:A:H1'	1:AA:1202:G:OP2	1.93	0.68
33:BD:130:ALA:C	33:BD:131:LEU:HD12	2.14	0.68
31:BA:2476:A:C5	31:BA:2477:C:C5	2.81	0.68
34:DE:201:THR:HG22	34:DE:202:LYS:H	1.58	0.68
31:BA:322:A:H5'	31:BA:340:A:C1'	2.24	0.68
33:DD:253:GLN:HB3	33:DD:255:LYS:NZ	2.09	0.68
31:BA:1922:G:H2'	31:BA:1923:U:H6	1.58	0.68
1:AA:78:G:H1	1:AA:91:C:H42	1.40	0.68
15:AO:36:ILE:HD12	15:AO:63:ARG:HD3	1.76	0.68
1:AA:518:C:H4'	1:AA:519:C:H5''	1.74	0.68
20:AT:97:ALA:O	20:AT:99:LEU:N	2.27	0.68
31:DA:2406:U:O4	41:DP:70:GLN:HB3	1.94	0.68
23:B1:25:LYS:C	23:B1:26:ARG:HG3	2.14	0.68
31:DA:1388:G:C2'	31:DA:1389:G:H5'	2.22	0.68
31:DA:70:G:H21	31:DA:71:A:H62	1.40	0.68
31:DA:848:G:N3	31:DA:933:A:H1'	2.09	0.68
33:BD:246:PRO:HB2	33:BD:255:LYS:HG3	1.75	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:377:G:OP1	16:AP:3:LYS:HD2	1.92	0.68
4:AD:79:PHE:CD1	4:AD:207:TYR:HD1	2.12	0.68
1:CA:543:C:C2'	1:CA:544:G:H5'	2.24	0.68
31:DA:571:A:C5'	31:DA:2030:A:H62	1.93	0.68
31:BA:607:U:N3	31:BA:621:A:C2	2.58	0.68
31:DA:543:C:C6	31:DA:547:A:N7	2.62	0.68
1:CA:983:A:N3	1:CA:983:A:H3'	2.09	0.68
44:DS:42:ASP:O	44:DS:43:GLU:HB2	1.94	0.68
31:DA:811:U:O5'	41:DP:25:SER:O	2.11	0.68
31:DA:1372:U:H2'	31:DA:1373:A:O4'	1.93	0.68
38:DI:78:THR:HA	38:DI:141:LYS:O	1.94	0.68
31:BA:922:U:H2'	31:BA:923:C:C6	2.28	0.68
8:CH:77:GLU:HG3	8:CH:78:GLN:H	1.58	0.68
4:CD:110:PHE:HZ	4:CD:183:GLY:H	1.42	0.68
31:DA:1543:C:OP2	31:DA:1543:C:C6	2.46	0.68
31:DA:2391:G:O6	31:DA:2425:A:H8	1.77	0.68
1:AA:1260:C:H4'	1:AA:1284:C:H5'	1.74	0.68
28:D6:48:VAL:HG22	28:D6:49:HIS:N	2.09	0.68
31:DA:2069:G:C2'	31:DA:2070:G:H5'	2.24	0.68
31:BA:671:C:H41	41:BP:42:SER:HA	1.56	0.68
24:B2:29:LYS:NZ	49:BX:9:LEU:HA	2.08	0.68
31:BA:1341:U:C2	49:BX:77:LYS:HE2	2.29	0.68
32:DB:38:C:H4'	44:DS:95:HIS:CE1	2.29	0.68
1:CA:376:G:H5''	16:CP:5:ARG:HB2	1.76	0.68
1:CA:392:G:H2'	1:CA:393:A:C8	2.28	0.68
4:CD:133:VAL:HG13	4:CD:135:LEU:HD22	1.76	0.68
31:DA:2275:C:HO2'	42:DQ:83:MET:HA	1.56	0.68
1:AA:715:A:H2'	1:AA:716:A:C8	2.29	0.68
40:DO:10:VAL:HG23	40:DO:10:VAL:O	1.93	0.68
1:CA:1066:C:N4	1:CA:1191:A:N7	2.42	0.68
22:D0:77:ARG:NH2	31:DA:857:C:OP2	2.27	0.68
1:AA:575:G:H4'	1:AA:576:G:OP1	1.93	0.68
31:BA:80:G:C2'	31:BA:81:G:H5'	2.24	0.68
12:CL:105:TYR:O	12:CL:107:ALA:N	2.26	0.68
24:B2:15:LYS:O	24:B2:16:LEU:CB	2.42	0.68
31:DA:2537:U:H2'	31:DA:2538:C:C6	2.29	0.68
8:AH:110:ALA:HB1	8:AH:133:LEU:HD21	1.74	0.68
1:CA:1298:C:H4'	1:CA:1299:A:C4	2.27	0.68
22:B0:77:ARG:NH2	31:BA:857:C:OP2	2.27	0.68
37:BH:41:MET:HG3	37:BH:54:ARG:HA	1.75	0.68
31:BA:1981:A:H5''	31:BA:1982:C:OP2	1.93	0.68
31:BA:2821:A:C2	31:BA:2822:G:C4	2.82	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:613:G:N2	31:BA:614(C):A:O2'	2.27	0.68
43:DR:103:ARG:HD3	43:DR:108:GLY:O	1.93	0.68
8:AH:51:VAL:HG11	8:AH:60:ARG:HG3	1.74	0.68
1:AA:581:G:N2	1:AA:582:U:C4	2.62	0.68
31:DA:922:U:H2'	31:DA:923:C:C6	2.29	0.68
31:DA:817:C:H2'	31:DA:818:G:C8	2.29	0.68
31:BA:2347:C:H2'	31:BA:2348:U:C6	2.29	0.68
1:AA:1438:G:H2'	1:AA:1439:C:H6	1.59	0.68
2:CB:212:GLN:NE2	2:CB:235:SER:HB3	2.08	0.68
28:D6:16:CYS:O	28:D6:17:LYS:HB2	1.94	0.68
28:D6:10:LEU:CD1	30:D8:35:GLN:HE22	2.04	0.68
41:DP:107:LYS:C	41:DP:109:GLY:H	1.97	0.68
31:BA:2544:G:H1'	31:BA:2646:C:H4'	1.76	0.68
47:DV:71:LEU:CD1	47:DV:72:VAL:H	2.02	0.68
44:DS:54:LEU:HD21	44:DS:59:LYS:O	1.94	0.68
31:DA:1568:G:N2	33:DD:58:HIS:CE1	2.61	0.68
50:DY:45:VAL:HG13	50:DY:62:GLU:OE2	1.94	0.68
31:BA:574:C:N3	34:BE:145:LYS:HE2	2.08	0.68
31:BA:607:U:O2	31:BA:621:A:N1	2.27	0.68
27:D5:33:CYS:SG	27:D5:49:CYS:CB	2.82	0.68
31:BA:2723:C:H5''	43:BR:2:ARG:HD2	1.74	0.68
36:BG:32:PRO:HB3	36:BG:163:ALA:HB2	1.76	0.68
36:BG:111:LEU:HD23	36:BG:114:ILE:CD1	2.24	0.68
31:BA:1485:G:N2	31:BA:1505:C:C5	2.62	0.68
45:BT:28:VAL:HG22	45:BT:46:GLU:CA	2.23	0.68
31:BA:2652:C:H2'	31:BA:2653:U:H5'	1.73	0.68
37:BH:153:LYS:H	37:BH:153:LYS:HD3	1.58	0.68
31:BA:2660:A:C5'	31:BA:2661:G:H21	2.06	0.68
31:DA:2470:G:C2	31:DA:2471:C:C6	2.82	0.68
31:DA:2660:A:H5''	31:DA:2661:G:H21	1.59	0.68
31:DA:719:C:O2'	31:DA:720:C:H5'	1.94	0.68
31:DA:2593:U:H2'	31:DA:2594:C:C6	2.29	0.68
1:CA:1438:G:H2'	1:CA:1439:C:C6	2.28	0.68
3:AC:32:LEU:HD22	3:AC:59:ARG:NH1	2.09	0.68
7:AG:15:ASP:H	7:AG:20:ASP:H	1.41	0.68
37:DH:116:GLU:HG2	37:DH:117:PRO:HD2	1.76	0.68
31:DA:836:G:H2'	31:DA:837:C:C6	2.28	0.68
2:CB:74:LYS:NZ	2:CB:76:GLN:HB2	2.09	0.68
3:CC:81:GLY:O	3:CC:85:ARG:HB2	1.94	0.68
31:DA:588:U:H2'	31:DA:589:C:C6	2.29	0.68
30:B8:62:LEU:CD1	31:BA:242:G:H5''	2.17	0.68
32:BB:24:G:C2	32:BB:56:G:N2	2.62	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2859:G:C8	31:DA:2859:G:H3'	2.29	0.68
41:BP:97:PRO:O	41:BP:98:GLU:HB3	1.92	0.68
39:DN:112:LEU:C	39:DN:112:LEU:HD12	2.14	0.68
47:DV:66:ARG:CD	47:DV:94:LEU:HG	2.23	0.68
33:DD:27:THR:CG2	33:DD:28:GLU:N	2.51	0.68
31:BA:1790:C:O2'	33:BD:209:ALA:HB2	1.94	0.68
47:BV:90:PRO:HD2	47:BV:91:TYR:H	1.58	0.68
31:DA:2306:C:H5''	31:DA:2307:G:O4'	1.94	0.68
2:CB:187:LEU:HD11	2:CB:204:ASN:O	1.94	0.68
27:B5:16:ARG:HG2	27:B5:16:ARG:NH1	1.99	0.68
1:AA:539:A:H2'	1:AA:540:G:H8	1.58	0.68
38:BI:76:THR:HG22	38:BI:139:GLN:HB3	1.76	0.68
24:D2:15:LYS:O	24:D2:16:LEU:CB	2.42	0.68
31:DA:1473:G:H5''	31:DA:1474:C:OP2	1.94	0.68
37:BH:66:GLY:CA	37:BH:69:ARG:HB2	2.24	0.68
6:CF:79:LEU:HB2	6:CF:88:VAL:HG21	1.76	0.68
8:CH:7:ALA:HB2	8:CH:85:ARG:HD2	1.74	0.68
31:DA:542:C:N4	31:DA:543:C:H42	1.91	0.68
31:DA:542:C:H2'	31:DA:543:C:OP1	1.94	0.68
39:BN:51:PHE:CE2	39:BN:119:ARG:HD3	2.29	0.68
31:DA:755:C:H2'	31:DA:756:C:H6	1.57	0.68
31:DA:1359:A:C8	31:DA:1372:U:O4	2.46	0.68
8:AH:28:ALA:HA	8:AH:59:LEU:HG	1.74	0.68
1:AA:1438:G:H2'	1:AA:1439:C:C6	2.28	0.68
31:DA:2096:U:H3	31:DA:2193:G:H1	1.40	0.68
43:BR:8:ARG:NE	43:BR:8:ARG:HA	2.09	0.68
6:CF:3:ARG:HG3	6:CF:3:ARG:HH11	1.59	0.68
28:D6:24:GLU:OE1	28:D6:24:GLU:HA	1.94	0.67
30:D8:30:ARG:O	30:D8:31:HIS:C	2.31	0.67
30:D8:32:LEU:HG	30:D8:34:TRP:HB3	1.76	0.67
31:DA:198:C:H5'	31:DA:2244:U:OP1	1.93	0.67
35:DF:63:LYS:NZ	35:DF:67:GLN:HB2	2.07	0.67
41:DP:105:LEU:HD12	41:DP:105:LEU:N	2.08	0.67
31:DA:631:A:O2'	41:DP:67:MET:HB3	1.94	0.67
39:DN:25:ARG:CG	39:DN:25:ARG:HH11	2.07	0.67
49:BX:60:ARG:HE	49:BX:74:PRO:CG	2.06	0.67
34:BE:48:GLN:NE2	34:BE:78:LEU:HD13	2.09	0.67
1:AA:390:C:O3'	16:AP:28:ARG:NH2	2.27	0.67
33:DD:25:THR:O	33:DD:25:THR:HG23	1.93	0.67
31:DA:2631:G:N2	34:DE:61:ARG:NH1	2.37	0.67
23:B1:87:PRO:HB2	23:B1:91:LYS:NZ	2.09	0.67
35:BF:184:TYR:O	35:BF:188:ARG:HG3	1.94	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:747:U:O2	31:BA:2014:A:H1'	1.94	0.67
23:B1:20:ARG:HG2	23:B1:20:ARG:HH21	1.57	0.67
31:DA:527:C:OP2	31:DA:2779:U:H5	1.76	0.67
39:BN:78:TYR:N	39:BN:79:PRO:HD3	2.09	0.67
23:D1:20:ARG:HB2	31:DA:380:U:O3'	1.92	0.67
39:BN:18:ALA:CB	39:BN:26:LEU:HD22	2.24	0.67
42:BQ:7:MET:O	42:BQ:10:ARG:NE	2.27	0.67
31:BA:1952:A:C2	40:BO:22:ILE:HG13	2.29	0.67
1:AA:1203:C:OP1	14:AN:3:ARG:HD3	1.93	0.67
2:AB:71:VAL:HG13	2:AB:93:VAL:HB	1.77	0.67
1:CA:1117:G:H4'	9:CI:104:ARG:CZ	2.24	0.67
1:CA:1216:G:H5''	14:CN:5:ALA:HB2	1.75	0.67
23:B1:16:ASN:HB3	23:B1:46:LEU:HG	1.75	0.67
1:AA:949:A:H61	1:AA:1232:U:H3	1.42	0.67
9:AI:96:LEU:HG	9:AI:102:LEU:HB2	1.76	0.67
1:CA:1438:G:H2'	1:CA:1439:C:H6	1.59	0.67
1:CA:38:G:C2	1:CA:397:A:C2	2.82	0.67
1:CA:122:G:H2'	1:CA:123:C:O4'	1.94	0.67
16:AP:45:THR:HG22	16:AP:47:ASP:H	1.58	0.67
45:BT:90:GLN:HG2	45:BT:120:ARG:NH1	2.09	0.67
31:DA:387:U:H4'	31:DA:388:G:O5'	1.94	0.67
31:BA:2402:C:H5'	31:BA:2403:C:OP2	1.94	0.67
41:BP:64:LYS:O	41:BP:66:GLY:N	2.27	0.67
49:DX:21:PHE:HD1	49:DX:21:PHE:H	1.41	0.67
36:DG:111:LEU:HD23	36:DG:114:ILE:HD12	1.74	0.67
4:AD:117:ALA:O	4:AD:121:VAL:HG23	1.93	0.67
1:CA:542:G:H2'	1:CA:543:C:H6	1.59	0.67
1:CA:503:C:OP2	12:CL:116:SER:HB3	1.94	0.67
7:CG:116:ALA:O	7:CG:120:ILE:HG12	1.94	0.67
31:DA:2262:U:O2'	31:DA:2263:C:H5'	1.92	0.67
50:BY:9:LYS:HA	50:BY:30:VAL:CG2	2.21	0.67
50:BY:75:ILE:HD13	50:BY:76:CYS:N	2.08	0.67
1:CA:1072:G:H2'	1:CA:1073:U:C6	2.29	0.67
1:CA:663:A:C2'	1:CA:664:G:H5'	2.24	0.67
1:CA:779:C:C2'	1:CA:780:A:H5'	2.24	0.67
42:BQ:23:GLY:O	42:BQ:100:GLY:HA3	1.94	0.67
43:BR:9:LYS:O	43:BR:10:LEU:CG	2.42	0.67
9:AI:112:LYS:HG2	9:AI:119:ALA:H	1.58	0.67
1:AA:771:G:C2'	1:AA:772:U:H5'	2.24	0.67
37:BH:92:ILE:HG22	37:BH:93:GLY:N	2.08	0.67
33:DD:267:SER:C	33:DD:269:PHE:N	2.43	0.67
12:CL:51:ALA:O	12:CL:52:LEU:HD23	1.93	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AH:12:ARG:NH1	8:AH:27:PRO:HD3	2.09	0.67
37:BH:116:GLU:HG2	37:BH:117:PRO:HD2	1.75	0.67
6:AF:20:ALA:HA	6:AF:23:LYS:HD3	1.76	0.67
3:CC:32:LEU:HD22	3:CC:59:ARG:NH1	2.09	0.67
15:CO:3:ILE:H	15:CO:3:ILE:HD13	1.59	0.67
11:AK:38:ASN:HD22	11:AK:38:ASN:N	1.91	0.67
9:CI:96:LEU:HG	9:CI:102:LEU:HB2	1.74	0.67
47:DV:80:GLN:OE1	47:DV:80:GLN:O	2.12	0.67
30:B8:35:GLN:NE2	30:B8:36:LYS:NZ	2.41	0.67
31:BA:2543:G:H8	31:BA:2543:G:H5'	1.60	0.67
49:DX:36:LYS:HZ2	49:DX:39:ILE:HA	1.60	0.67
49:BX:60:ARG:HB2	49:BX:73:ARG:N	2.09	0.67
50:DY:15:VAL:HG12	50:DY:16:ALA:N	2.10	0.67
7:AG:116:ALA:O	7:AG:120:ILE:HG12	1.94	0.67
42:DQ:75:THR:CA	42:DQ:88:GLY:HA2	2.22	0.67
34:DE:152:LYS:HD3	39:DN:78:TYR:CB	2.23	0.67
31:BA:2476:A:C4	31:BA:2477:C:C5	2.83	0.67
31:BA:2660:A:H5''	31:BA:2661:G:N2	2.09	0.67
1:AA:590:C:H2'	1:AA:591:U:H6	1.54	0.67
31:DA:52:A:C2'	31:DA:53:A:H5'	2.25	0.67
43:DR:28:LEU:HD12	43:DR:48:VAL:HG21	1.76	0.67
31:DA:1190:G:H4'	41:DP:35:HIS:CB	2.25	0.67
41:BP:23:PRO:CB	41:BP:33:ARG:HG3	2.17	0.67
31:DA:143:G:H1'	49:DX:38:GLU:HG3	1.75	0.67
31:DA:1000:A:H2'	31:DA:1001:A:C8	2.29	0.67
46:DU:90:VAL:HG22	47:DV:39:LEU:HD11	1.75	0.67
31:BA:2781:A:H5'	31:BA:2782:G:C5'	2.22	0.67
34:BE:35:GLN:HB3	34:BE:48:GLN:HB3	1.76	0.67
31:BA:2306:C:H5''	31:BA:2307:G:O4'	1.94	0.67
43:BR:116:LEU:O	43:BR:117:VAL:CB	2.43	0.67
34:BE:152:LYS:HD3	39:BN:78:TYR:CB	2.23	0.67
31:BA:1678:G:H21	31:BA:1989:G:H22	1.42	0.67
31:BA:826:U:OP1	31:BA:2428:G:H3'	1.94	0.67
50:DY:76:CYS:HB3	50:DY:77:PRO:HD2	1.75	0.67
1:AA:1298:C:H4'	1:AA:1299:A:C4	2.29	0.67
31:BA:518:G:H2'	31:BA:519:U:C6	2.28	0.67
31:BA:1503:U:H2'	31:BA:1504:C:C5	2.29	0.67
13:CM:25:ILE:HD11	13:CM:66:LEU:HD23	1.74	0.67
31:BA:2292:C:C2'	31:BA:2293:C:H5'	2.25	0.67
5:AE:7:GLU:HB3	5:AE:112:LEU:HD13	1.76	0.67
1:CA:997:U:H2'	1:CA:998:G:C8	2.30	0.67
15:AO:3:ILE:H	15:AO:3:ILE:HD13	1.59	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:449:C:O2	16:AP:42:ARG:HD2	1.94	0.67
1:CA:693:G:H1'	7:CG:82:GLY:HA3	1.76	0.67
31:DA:676:A:H2	31:DA:802:A:N6	1.88	0.67
46:DU:91:ASP:OD2	46:DU:96:ALA:HB2	1.94	0.67
4:CD:106:TYR:HE1	4:CD:112:VAL:O	1.77	0.67
31:DA:693:C:O2'	31:DA:694:U:H5'	1.95	0.67
33:DD:94:LEU:HB2	33:DD:104:TYR:CE2	2.29	0.67
33:BD:158:ALA:O	33:BD:159:ALA:HB2	1.95	0.67
1:CA:676:A:H2'	1:CA:677:U:H6	1.59	0.67
6:CF:91:VAL:HG11	18:CR:72:ARG:NH1	2.09	0.67
31:BA:1228:G:C2'	31:BA:1229:G:H5''	2.23	0.67
31:DA:875:G:H4'	51:DZ:170:THR:HG21	1.74	0.67
31:DA:1291:C:H2'	31:DA:1292:U:C6	2.29	0.67
1:CA:577:G:C8	1:CA:816:A:C6	2.82	0.67
31:DA:1582:C:O2'	31:DA:1586:A:C8	2.48	0.67
31:BA:1495:A:H5''	31:BA:1496:A:OP2	1.95	0.67
31:DA:792:G:H5''	31:DA:793:A:H5'	1.74	0.67
37:DH:66:GLY:CA	37:DH:69:ARG:HB2	2.23	0.67
31:DA:2476:A:C4	31:DA:2477:C:C5	2.83	0.67
42:BQ:63:LYS:HG2	42:BQ:65:PHE:CE2	2.29	0.67
1:AA:1321:C:C5'	1:AA:1322:C:H5''	2.24	0.67
1:AA:166:G:H2'	1:AA:167:G:H8	1.59	0.67
31:BA:1218:C:H2'	31:BA:1219:G:H5'	1.75	0.67
5:AE:68:GLU:O	5:AE:68:GLU:HG3	1.94	0.67
1:CA:923:A:C8	1:CA:1398:A:C2	2.83	0.67
28:D6:42:TRP:HA	28:D6:42:TRP:CE3	2.29	0.67
31:DA:514:A:H1'	31:DA:581:C:O2'	1.94	0.67
41:DP:16:ARG:CG	41:DP:16:ARG:HH11	1.93	0.67
35:BF:80:ALA:O	35:BF:83:PHE:HB2	1.94	0.67
32:BB:6:C:O2'	44:BS:29:PHE:HE1	1.78	0.67
49:DX:38:GLU:OE1	49:DX:38:GLU:N	2.28	0.67
47:DV:60:GLU:HB3	47:DV:62:LEU:HD21	1.77	0.67
49:BX:52:VAL:HB	49:BX:80:ILE:CG2	2.25	0.67
1:CA:364:A:H2'	1:CA:365:U:O2	1.95	0.67
1:CA:428:G:H4'	1:CA:429:U:O5'	1.94	0.67
4:CD:10:ARG:HH11	4:CD:10:ARG:HG2	1.60	0.67
31:BA:2029:G:H2'	31:BA:2031:A:OP2	1.94	0.67
50:DY:37:VAL:HG22	50:DY:67:LEU:O	1.94	0.67
6:AF:52:ILE:HD12	6:AF:87:ARG:HH12	1.59	0.67
1:AA:428:G:H4'	1:AA:429:U:O5'	1.95	0.67
31:BA:1614:A:H61	48:BW:88:ARG:H	1.41	0.67
35:BF:20:LEU:HD22	35:BF:203:GLN:NE2	2.08	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1412:A:H2'	31:DA:1413:G:O4'	1.95	0.67
14:AN:24:CYS:HB3	14:AN:27:CYS:O	1.93	0.67
31:DA:2464:C:O2'	31:DA:2465:C:H5''	1.94	0.67
31:DA:1205:U:H4'	31:DA:1206:G:OP2	1.94	0.67
1:CA:1376:U:O2'	1:CA:1377:A:H5'	1.95	0.67
25:B3:43:ILE:O	25:B3:47:VAL:HG23	1.94	0.67
31:BA:614(A):U:H4'	31:BA:614(B):G:H5''	1.76	0.67
31:BA:2593:U:H2'	31:BA:2594:C:C6	2.29	0.67
41:BP:30:THR:CG2	41:BP:31:ALA:H	2.07	0.67
36:BG:5:VAL:HG21	36:BG:101:ILE:HB	1.75	0.67
44:BS:76:LYS:O	44:BS:79:ALA:HB3	1.94	0.67
44:DS:89:ARG:HB3	44:DS:92:TYR:HB3	1.77	0.67
1:CA:543:C:C2	1:CA:544:G:C8	2.82	0.67
31:DA:2531:A:H2	31:DA:2658:C:O2	1.76	0.67
34:DE:35:GLN:HB3	34:DE:48:GLN:HB3	1.76	0.67
47:BV:66:ARG:HB2	47:BV:95:LEU:H	1.59	0.67
31:BA:1473:G:H5''	31:BA:1474:C:OP2	1.95	0.67
31:DA:1228:G:C2'	31:DA:1229:G:H5''	2.21	0.67
1:AA:47:C:H5''	1:AA:365:U:C6	2.30	0.67
2:CB:111:ARG:HH21	2:CB:114:ARG:HG2	1.60	0.67
31:BA:2328:A:H2'	31:BA:2329:G:O4'	1.95	0.67
31:DA:860:U:O2'	31:DA:861:A:H5'	1.94	0.67
35:DF:203:GLN:HA	35:DF:206:ILE:O	1.95	0.67
31:BA:819:A:C4	31:BA:1189:A:C2	2.82	0.67
31:BA:2843:G:H2'	31:BA:2844:G:H8	1.59	0.67
24:D2:14:ARG:NH1	24:D2:57:ILE:HG21	2.10	0.67
31:BA:1505:C:H6	31:BA:1505:C:H3'	1.59	0.67
1:AA:267:C:OP1	17:AQ:67:LYS:HD2	1.95	0.67
5:AE:55:VAL:O	5:AE:58:ALA:HB3	1.95	0.67
36:BG:57:ALA:O	36:BG:60:LEU:HB3	1.95	0.67
1:CA:9:G:H5''	5:CE:122:GLU:OE2	1.95	0.67
1:AA:177:C:OP1	20:AT:65:LYS:HD3	1.95	0.67
41:DP:85:LEU:HD22	41:DP:115:LEU:O	1.95	0.67
31:BA:2377:A:H4'	44:BS:107:GLU:HG2	1.76	0.67
44:BS:93:LYS:O	44:BS:93:LYS:HG3	1.95	0.67
39:DN:56:ASN:N	39:DN:125:GLY:HA3	2.06	0.67
39:DN:15:LEU:HD22	39:DN:53:VAL:O	1.95	0.67
46:DU:75:ASN:HB2	46:DU:78:THR:HG1	1.58	0.67
47:DV:19:LYS:HE2	47:DV:20:LEU:N	2.10	0.67
31:BA:2747:G:O6	31:BA:2755:C:H5''	1.95	0.67
24:B2:49:LYS:NZ	24:B2:53:LEU:HD22	2.09	0.67
1:CA:106:C:H2'	1:CA:107:G:H8	1.60	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:2308:G:O6	31:BA:2310:A:H2'	1.95	0.67
35:BF:3:GLU:O	35:BF:24:LEU:HG	1.94	0.67
36:DG:47:LYS:HG3	36:DG:82:LEU:HD11	1.74	0.67
31:BA:1582:C:O2'	31:BA:1586:A:C8	2.47	0.67
50:DY:95:LYS:HD3	50:DY:100:ALA:HB1	1.75	0.67
1:CA:1356:G:H2'	1:CA:1357:A:C8	2.30	0.67
1:AA:1066:C:N4	1:AA:1191:A:N7	2.42	0.67
29:B7:40:TRP:CD2	31:BA:459:U:H5''	2.30	0.67
31:DA:1981:A:H5''	31:DA:1982:C:OP2	1.95	0.67
1:CA:702:A:H3'	1:CA:703:G:C5'	2.25	0.67
31:BA:543:C:C6	31:BA:547:A:N7	2.62	0.67
1:AA:1117:G:H4'	9:AI:104:ARG:CZ	2.25	0.67
37:BH:136:ILE:HD12	37:BH:136:ILE:H	1.60	0.67
1:CA:695:A:H61	1:CA:797:C:H1'	1.60	0.67
1:CA:449:C:O2	16:CP:42:ARG:HD2	1.95	0.67
1:CA:1080:A:H5''	5:CE:16:THR:HG21	1.77	0.67
30:D8:32:LEU:CG	30:D8:35:GLN:H	2.08	0.67
31:DA:2016:U:H2'	31:DA:2017:U:C6	2.30	0.67
31:BA:27:G:N2	31:BA:512:G:O2'	2.24	0.67
41:BP:16:ARG:CG	41:BP:16:ARG:HH11	1.94	0.67
29:B7:16:HIS:CB	29:B7:44:PRO:HG2	2.25	0.67
44:BS:52:SER:OG	44:BS:55:ALA:HB3	1.95	0.67
39:DN:30:ILE:HG23	39:DN:52:VAL:HG11	1.77	0.67
4:CD:79:PHE:CD1	4:CD:207:TYR:HD1	2.13	0.67
47:BV:40:LEU:O	47:BV:41:GLY:O	2.13	0.67
47:BV:14:VAL:HG12	47:BV:98:GLU:HG3	1.75	0.67
23:B1:87:PRO:HB2	23:B1:91:LYS:HZ2	1.59	0.67
23:B1:48:LYS:HA	23:B1:48:LYS:HE3	1.75	0.67
38:BI:122:GLU:O	38:BI:126:TYR:HE1	1.78	0.67
1:AA:427:U:OP1	4:AD:13:ARG:NH2	2.27	0.67
27:D5:40:LYS:CE	27:D5:46:CYS:HB3	2.25	0.67
27:D5:50:GLY:HA3	27:D5:56:LYS:HG2	1.77	0.67
31:BA:2830:G:H5'	31:BA:2830:G:H8	1.55	0.67
31:DA:1204:A:C2	31:DA:1241:A:N1	2.63	0.67
33:DD:69:ARG:NH2	33:DD:128:GLY:O	2.27	0.67
46:BU:36:ARG:HD3	46:BU:40:PHE:CZ	2.30	0.67
48:BW:13:SER:HB3	48:BW:16:LYS:HD3	1.76	0.67
31:DA:2418:A:H2'	31:DA:2419:U:H6	1.59	0.67
44:BS:36:TYR:HD1	44:BS:36:TYR:N	1.93	0.67
24:B2:32:LEU:HD13	24:B2:37:PHE:HB3	1.75	0.67
49:BX:21:PHE:H	49:BX:21:PHE:HD1	1.41	0.67
49:BX:82:GLN:C	49:BX:85:PRO:HD2	2.15	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:CT:13:LEU:HD12	20:CT:13:LEU:N	2.07	0.67
38:DI:122:GLU:O	38:DI:126:TYR:HE1	1.77	0.67
33:DD:35:LYS:HZ1	33:DD:104:TYR:HB2	1.60	0.67
31:DA:2652:C:O2'	31:DA:2653:U:H5'	1.93	0.67
31:BA:370:G:C4'	31:BA:371:A:OP2	2.39	0.67
11:CK:29:ILE:HD11	11:CK:42:TRP:CE3	2.30	0.67
1:AA:673:G:H5''	6:AF:87:ARG:HE	1.60	0.67
38:DI:82:ARG:HB3	38:DI:89:TYR:CE1	2.26	0.67
39:BN:15:LEU:HD22	39:BN:53:VAL:O	1.95	0.67
34:BE:154:LYS:CE	34:BE:154:LYS:HA	2.24	0.67
12:AL:27:LEU:HG	12:AL:62:SER:OG	1.95	0.67
31:DA:1025:G:C4	31:DA:1135:C:H1'	2.30	0.67
43:DR:10:LEU:HD22	43:DR:17:ARG:HD3	1.77	0.67
31:BA:754:C:H2'	31:BA:755:C:H6	1.60	0.67
45:BT:55:ASN:H	45:BT:59:THR:HB	1.58	0.67
1:AA:179:A:H2'	1:AA:180:U:C6	2.29	0.67
1:AA:669:U:C2	1:AA:670:G:C8	2.83	0.67
31:DA:106:C:H1'	50:DY:2:ARG:NE	2.10	0.67
1:AA:1216:G:H5''	14:AN:5:ALA:HB2	1.76	0.67
1:CA:1301:U:H3'	1:CA:1302:U:H5''	1.77	0.67
6:CF:20:ALA:HA	6:CF:23:LYS:HD3	1.77	0.67
7:CG:15:ASP:HB3	7:CG:19:GLY:H	1.60	0.67
36:DG:9:ARG:O	36:DG:13:GLU:HG2	1.94	0.67
1:AA:243:A:H4'	1:AA:244:U:O5'	1.95	0.67
41:DP:80:TYR:CZ	41:DP:111:ARG:HG2	2.30	0.66
33:BD:35:LYS:NZ	33:BD:65:ILE:HA	2.09	0.66
49:DX:60:ARG:HE	49:DX:74:PRO:CG	2.07	0.66
31:DA:1019:U:O2'	31:DA:1021:A:H2	1.71	0.66
47:DV:25:LEU:HG	47:DV:94:LEU:HD13	1.76	0.66
24:B2:51:ARG:HE	31:BA:72:U:H5'	1.60	0.66
1:AA:376:G:H5''	16:AP:5:ARG:HB2	1.77	0.66
1:CA:373:A:H2'	1:CA:374:A:H8	1.59	0.66
38:DI:120:ILE:CD1	38:DI:140:LEU:HD23	2.25	0.66
31:DA:1790:C:H2'	31:DA:1791:A:C5	2.30	0.66
31:BA:357:A:C2	31:BA:358:U:O2	2.48	0.66
31:DA:1278:A:O2'	43:DR:34:ILE:HD11	1.94	0.66
27:B5:50:GLY:HA3	27:B5:56:LYS:HG2	1.76	0.66
1:AA:356:A:H2'	1:AA:357:G:O4'	1.96	0.66
31:BA:378:C:C2'	31:BA:379:G:H5'	2.26	0.66
1:AA:1072:G:C6	1:AA:1073:U:C4	2.83	0.66
11:AK:52:GLY:H	11:AK:55:LYS:HG3	1.60	0.66
31:BA:1181:C:O2'	31:BA:1182:A:H5'	1.95	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1502:C:H2'	31:BA:1502:C:O2	1.95	0.66
1:CA:1132:C:H2'	1:CA:1133:G:O4'	1.95	0.66
49:BX:64:LYS:HE3	49:BX:65:ARG:HH21	1.60	0.66
1:CA:1321:C:C5'	1:CA:1322:C:H5''	2.24	0.66
12:CL:8:ASN:ND2	17:CQ:34:LYS:HE2	2.10	0.66
51:DZ:130:PRO:HA	51:DZ:133:ILE:CD1	2.24	0.66
31:DA:2292:C:C2'	31:DA:2293:C:H5'	2.25	0.66
1:CA:179:A:H2'	1:CA:180:U:C6	2.29	0.66
31:BA:1252:G:C2	31:BA:1253:A:C2	2.83	0.66
6:AF:18:GLN:HA	6:AF:21:LEU:HB2	1.77	0.66
1:CA:853:G:H2'	1:CA:854:G:H8	1.60	0.66
3:CC:113:ALA:HB3	3:CC:114:PRO:HD3	1.77	0.66
31:BA:1996:C:H4'	31:BA:1997:G:OP1	1.95	0.66
31:BA:11:G:C2'	31:BA:12:U:H5'	2.25	0.66
30:D8:4:MET:O	30:D8:62:LEU:HD11	1.95	0.66
31:DA:589:C:O2'	31:DA:590:A:H5'	1.95	0.66
31:BA:2393:A:C2'	31:BA:2394:C:H5'	2.24	0.66
41:BP:15:ARG:HG2	41:BP:17:LYS:HD2	1.76	0.66
41:BP:17:LYS:C	41:BP:19:VAL:H	1.99	0.66
41:BP:57:THR:HB	41:BP:59:LEU:N	2.10	0.66
33:BD:35:LYS:HD3	33:BD:63:ARG:C	2.15	0.66
36:BG:15:VAL:HG12	36:BG:19:LEU:CD1	2.24	0.66
31:DA:1448:G:H5'	31:DA:1449:A:OP1	1.95	0.66
41:BP:101:VAL:C	41:BP:103:ALA:H	1.99	0.66
41:BP:80:TYR:CZ	41:BP:111:ARG:HG2	2.31	0.66
46:DU:65:ILE:HG12	46:DU:96:ALA:HB3	1.78	0.66
1:CA:41:G:H2'	1:CA:42:G:H8	1.59	0.66
47:BV:66:ARG:NE	47:BV:94:LEU:HG	2.09	0.66
2:CB:16:HIS:HD2	2:CB:209:ARG:O	1.78	0.66
1:CA:715:A:H2'	1:CA:716:A:C8	2.30	0.66
31:BA:301:G:C4	31:BA:302:C:C5	2.83	0.66
32:DB:74:U:C3'	32:DB:75:G:H5''	2.25	0.66
32:BB:20:C:C2'	32:BB:21:G:H5''	2.26	0.66
1:AA:503:C:OP2	12:AL:116:SER:HB3	1.96	0.66
31:DA:2781:A:H5'	31:DA:2782:G:C5'	2.23	0.66
31:BA:2262:U:O2'	31:BA:2263:C:H5'	1.96	0.66
36:BG:47:LYS:HG3	36:BG:82:LEU:HD11	1.75	0.66
1:AA:1308:U:H5''	13:AM:98:VAL:N	2.09	0.66
31:BA:2480:C:N4	31:BA:2481:G:C6	2.63	0.66
31:BA:2666:C:H5''	31:BA:2666:C:H6	1.60	0.66
9:CI:113:LYS:H	9:CI:119:ALA:HA	1.59	0.66
31:DA:2641:G:OP1	39:DN:83:LYS:HD3	1.95	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:DV:52:VAL:O	47:DV:53:GLU:CB	2.43	0.66
28:B6:51:GLU:CG	28:B6:52:VAL:H	2.05	0.66
1:AA:1517:G:H1'	31:BA:1919:A:O3'	1.95	0.66
31:BA:2492:U:H2'	31:BA:2493:U:C6	2.29	0.66
31:BA:542:C:H2'	31:BA:543:C:OP1	1.94	0.66
23:B1:46:LEU:N	23:B1:46:LEU:HD12	2.09	0.66
45:DT:24:PRO:HA	45:DT:49:VAL:O	1.95	0.66
37:DH:92:ILE:HG22	37:DH:93:GLY:N	2.10	0.66
1:CA:581:G:N2	1:CA:582:U:C4	2.63	0.66
15:AO:3:ILE:HG12	15:AO:3:ILE:O	1.95	0.66
48:DW:6:ILE:HA	48:DW:103:ILE:O	1.95	0.66
1:AA:299:G:C5	1:AA:300:A:C6	2.83	0.66
46:BU:17:ILE:HG23	46:BU:39:LEU:HD12	1.77	0.66
31:BA:2689:U:OP1	31:BA:2719:G:N1	2.24	0.66
1:AA:857:C:H2'	1:AA:858:G:O4'	1.95	0.66
1:AA:828:A:H5''	1:AA:859:A:C2	2.31	0.66
6:AF:79:LEU:HB2	6:AF:88:VAL:HG21	1.76	0.66
18:AR:43:PHE:O	18:AR:44:LEU:HD12	1.96	0.66
31:DA:661:C:O3'	41:DP:18:ARG:HG2	1.96	0.66
41:DP:23:PRO:C	41:DP:33:ARG:HE	1.98	0.66
39:DN:47:ALA:CB	39:DN:112:LEU:HD11	2.26	0.66
24:B2:52:ASP:CG	31:BA:72:U:H1'	2.16	0.66
44:DS:36:TYR:N	44:DS:36:TYR:CD1	2.60	0.66
1:AA:375:U:H5''	16:AP:6:LEU:HD22	1.78	0.66
1:AA:386:C:H2'	1:AA:387:U:C5'	2.20	0.66
1:AA:622:A:C8	1:AA:623:C:C5	2.84	0.66
45:DT:100:TYR:CD2	45:DT:103:ARG:NH2	2.62	0.66
1:CA:718:G:H1	18:CR:74:ARG:NH2	1.93	0.66
31:BA:1614:A:N6	48:BW:88:ARG:H	1.93	0.66
1:CA:1072:G:C6	1:CA:1073:U:C4	2.83	0.66
1:CA:1104:G:H4'	2:CB:111:ARG:NH1	2.10	0.66
31:BA:1495:A:N3	31:BA:1496:A:C2	2.62	0.66
35:DF:20:LEU:HD13	35:DF:199:TRP:HH2	1.60	0.66
35:DF:184:TYR:CD2	35:DF:188:ARG:HD2	2.30	0.66
31:BA:1491:G:O2'	33:BD:101:GLU:HB2	1.95	0.66
45:BT:29:ARG:HB3	45:BT:85:LYS:HA	1.75	0.66
1:CA:771:G:C2'	1:CA:772:U:H5'	2.26	0.66
1:CA:750:G:N3	15:CO:23:GLY:HA3	2.10	0.66
31:BA:153:C:H2'	31:BA:154:G:C8	2.30	0.66
12:AL:70:ILE:HG12	12:AL:100:ILE:HD12	1.78	0.66
31:BA:755:C:H2'	31:BA:756:C:H6	1.61	0.66
40:DO:3:GLN:HB2	40:DO:4:PRO:HD2	1.76	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:B4:5:ILE:C	36:BG:67:LYS:HG2	2.16	0.66
31:BA:557:U:O2'	31:BA:558:G:H5'	1.94	0.66
3:CC:152:ILE:HB	3:CC:199:LYS:HB2	1.76	0.66
1:AA:598:U:H4'	8:AH:94:TYR:CD2	2.30	0.66
31:DA:1270:C:H5''	31:DA:1271:G:O5'	1.95	0.66
30:B8:32:LEU:C	30:B8:34:TRP:N	2.46	0.66
41:BP:47:ASP:HB3	41:BP:48:PRO:O	1.94	0.66
46:DU:61:TRP:O	46:DU:62:ILE:C	2.33	0.66
31:DA:993:G:N2	47:DV:91:TYR:OH	2.28	0.66
31:BA:2752:C:C2	31:BA:2753:A:N7	2.64	0.66
24:B2:47:ASN:ND2	24:B2:48:HIS:N	2.43	0.66
1:CA:116:A:OP2	1:CA:116:A:C8	2.49	0.66
31:DA:1797:C:O2'	31:DA:1798:U:H5'	1.96	0.66
25:B3:52:HIS:CD2	25:B3:52:HIS:H	2.13	0.66
23:D1:11:ARG:HH11	23:D1:91:LYS:HZ3	1.41	0.66
33:BD:16:MET:HB2	33:BD:207:GLY:HA3	1.76	0.66
1:CA:678:U:H2'	1:CA:679:C:C6	2.30	0.66
43:DR:96:ARG:HH21	43:DR:117:VAL:CG2	2.07	0.66
2:AB:111:ARG:HH21	2:AB:114:ARG:HG2	1.61	0.66
11:AK:25:TYR:OH	11:AK:87:THR:HB	1.96	0.66
31:BA:861:A:C2	31:BA:917:A:C4	2.83	0.66
34:BE:38:THR:HG22	34:BE:40:GLU:N	2.10	0.66
33:BD:97:TYR:HB2	33:BD:101:GLU:O	1.96	0.66
31:DA:39:C:H2'	31:DA:40:C:C6	2.31	0.66
41:DP:146:VAL:HG22	41:DP:147:LEU:N	2.11	0.66
31:BA:2462:U:H1'	31:BA:2491:U:O4	1.95	0.66
31:BA:754:C:H2'	31:BA:755:C:C6	2.30	0.66
31:DA:1876:A:H2'	31:DA:1877:A:C8	2.30	0.66
31:DA:34:C:H2'	31:DA:35:G:OP1	1.94	0.66
3:CC:134:ILE:HD12	3:CC:151:VAL:HG11	1.78	0.66
31:BA:892:G:N3	31:BA:892:G:H3'	2.09	0.66
2:CB:61:LEU:CD2	2:CB:68:ILE:HD11	2.25	0.66
36:DG:37:VAL:HG21	36:DG:103:LEU:HD11	1.78	0.66
30:D8:14:VAL:HG11	30:D8:22:VAL:CG1	2.26	0.66
31:BA:2521:C:H42	31:BA:2544:G:H1	1.43	0.66
49:DX:18:TYR:HA	49:DX:21:PHE:CD1	2.30	0.66
36:DG:172:LEU:HG	36:DG:173:LEU:HD23	1.75	0.66
1:CA:59:A:H1'	1:CA:354:G:N2	2.10	0.66
33:DD:58:HIS:HD2	33:DD:59:LYS:N	1.94	0.66
39:BN:40:PRO:O	46:BU:64:ARG:NH2	2.29	0.66
1:AA:191:G:H1'	20:AT:105:SER:HA	1.77	0.66
10:CJ:34:VAL:HG13	10:CJ:73:ASP:O	1.95	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:966:G:H2'	31:BA:967:C:C6	2.30	0.66
45:BT:35:LYS:HG3	45:BT:36:GLU:HB2	1.76	0.66
38:BI:91:SER:CB	38:BI:119:PRO:HB2	2.25	0.66
31:DA:1557:C:OP2	31:DA:1558:A:O2'	2.11	0.66
35:BF:178:PRO:HG2	35:BF:179:GLU:OE2	1.96	0.66
31:DA:2842:G:N2	31:DA:2875:C:O2	2.19	0.66
31:BA:2475:C:H42	31:BA:2529:G:H22	1.44	0.66
31:DA:153:C:H2'	31:DA:154:G:C8	2.31	0.66
37:DH:136:ILE:H	37:DH:136:ILE:HD12	1.59	0.66
37:BH:155:SER:OG	37:BH:155:SER:O	2.12	0.66
31:DA:1348:G:H2'	31:DA:1349:A:H5''	1.78	0.66
31:BA:642:G:H21	31:BA:646:A:H2	1.42	0.66
31:DA:2399:G:H2'	31:DA:2400:G:O4'	1.95	0.66
1:AA:1316:G:H2'	1:AA:1317:C:H5''	1.77	0.66
6:AF:3:ARG:HG3	6:AF:3:ARG:HH11	1.61	0.66
42:DQ:69:PHE:CD1	42:DQ:70:PRO:HD2	2.30	0.66
1:AA:719:C:H5''	1:AA:720:C:OP2	1.96	0.66
1:AA:38:G:C2	1:AA:397:A:C2	2.82	0.66
23:B1:26:ARG:HB2	23:B1:34:THR:HB	1.78	0.66
30:B8:58:ILE:HG22	41:BP:49:ARG:HD2	1.78	0.66
31:BA:1190:G:H4'	41:BP:35:HIS:CB	2.26	0.66
41:BP:92:GLU:HA	41:BP:123:LEU:HD22	1.78	0.66
41:BP:120:ALA:O	25:D3:1:MET:HB3	1.96	0.66
32:DB:38:C:C5	32:DB:39:A:C8	2.84	0.66
36:DG:111:LEU:HD23	36:DG:114:ILE:CD1	2.25	0.66
1:AA:373:A:H2'	1:AA:374:A:H8	1.60	0.66
31:DA:573:G:C6	31:DA:2030:A:H3'	2.30	0.66
31:DA:2307:G:N2	31:DA:2308:G:H5'	2.10	0.66
50:DY:68:HIS:O	50:DY:70:SER:N	2.29	0.66
50:BY:35:TYR:CD2	50:BY:69:ALA:HB3	2.29	0.66
48:BW:92:ARG:HG2	48:BW:92:ARG:NH1	2.02	0.66
31:DA:856:C:H5''	31:DA:856:C:C6	2.30	0.66
31:BA:1412:A:H2'	31:BA:1413:G:O4'	1.95	0.66
9:CI:112:LYS:HG2	9:CI:119:ALA:H	1.61	0.66
31:DA:2464:C:O2'	31:DA:2465:C:C5'	2.44	0.66
37:BH:44:VAL:O	37:BH:46:GLU:OE2	2.14	0.66
37:BH:157:TYR:CE1	37:BH:171:LEU:N	2.64	0.66
3:AC:138:VAL:HG23	3:AC:151:VAL:HG23	1.77	0.66
31:BA:2342:C:H6	31:BA:2342:C:OP2	1.78	0.66
31:BA:384:U:O2'	31:BA:385:C:H5'	1.94	0.66
11:AK:57:THR:OG1	11:AK:58:PRO:HD2	1.95	0.66
1:AA:1301:U:H3'	1:AA:1302:U:H5''	1.76	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:774:G:C2'	1:AA:775:G:H5'	2.25	0.66
1:AA:350:G:O2'	1:AA:351:G:H5'	1.96	0.66
15:AO:64:ARG:HH12	15:AO:88:ARG:NH1	1.93	0.66
31:DA:2689:U:OP1	31:DA:2719:G:N1	2.25	0.66
1:CA:828:A:H2'	1:CA:829:G:O4'	1.96	0.66
31:BA:2360:A:O2'	31:BA:2361:A:P	2.53	0.66
29:B7:8:ASN:C	29:B7:8:ASN:ND2	2.46	0.66
44:BS:17:ARG:HD3	44:BS:25:ARG:HE	1.60	0.66
24:D2:51:ARG:O	24:D2:52:ASP:CB	2.44	0.66
47:DV:66:ARG:HE	47:DV:94:LEU:HG	1.60	0.66
47:DV:66:ARG:HD2	47:DV:67:GLY:N	2.09	0.66
47:DV:66:ARG:HB2	47:DV:95:LEU:H	1.59	0.66
36:DG:15:VAL:HG12	36:DG:19:LEU:CD1	2.25	0.66
1:CA:377:G:OP1	16:CP:3:LYS:HD2	1.96	0.66
23:D1:87:PRO:HB2	23:D1:91:LYS:HZ2	1.59	0.66
1:AA:194:C:H2'	1:AA:195:A:H5''	1.77	0.66
2:AB:187:LEU:HD11	2:AB:204:ASN:O	1.95	0.66
51:BZ:53:ILE:HG22	51:BZ:71:VAL:CB	2.24	0.66
27:B5:16:ARG:NH1	27:B5:17:ASP:OD1	2.28	0.66
1:AA:543:C:C2	1:AA:544:G:C8	2.83	0.66
39:DN:78:TYR:CE1	39:DN:79:PRO:HB3	2.31	0.66
34:DE:118:LYS:O	34:DE:160:TYR:HE1	1.78	0.66
31:BA:2869:G:H2'	31:BA:2870:C:O4'	1.95	0.66
31:DA:1639:U:H4'	31:DA:2699:C:H4'	1.78	0.66
1:AA:1225:A:N3	1:AA:1225:A:H2'	2.10	0.66
38:DI:113:ARG:NH1	38:DI:132:PRO:HG3	2.11	0.66
31:BA:2884:U:C5	31:BA:2885:C:C6	2.84	0.66
8:AH:91:ARG:HG2	17:AQ:34:LYS:H	1.61	0.66
37:BH:20:ALA:HB3	37:BH:23:ARG:HB2	1.76	0.66
31:DA:531:C:H4'	31:DA:532:A:H5''	1.76	0.66
1:CA:154:C:H2'	1:CA:155:C:H6	1.61	0.66
35:DF:132:VAL:HG22	35:DF:133:ASN:H	1.59	0.66
31:BA:1359:A:H2'	31:BA:1360:A:H5'	1.77	0.66
5:CE:72:GLN:O	5:CE:73:ASN:HB2	1.93	0.66
50:BY:68:HIS:O	50:BY:70:SER:N	2.29	0.66
35:DF:57:VAL:HG12	35:DF:59:TYR:H	1.60	0.66
38:BI:5:LEU:O	38:BI:6:LEU:HD23	1.95	0.66
36:BG:9:ARG:O	36:BG:13:GLU:HG2	1.96	0.66
30:D8:34:TRP:HZ3	30:D8:41:ILE:HG23	1.61	0.66
31:DA:2053:G:H1	31:DA:2616:C:H42	1.43	0.66
31:DA:806:C:P	41:DP:39:LYS:HG3	2.36	0.66
41:DP:33:ARG:O	41:DP:34:GLY:C	2.33	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:B8:43:GLN:O	30:B8:44:LYS:HD2	1.96	0.66
31:BA:1670:C:O2	34:BE:129:HIS:HE1	1.79	0.66
31:BA:2418:A:H2'	31:BA:2419:U:C6	2.29	0.66
33:BD:105:ILE:HG13	33:BD:106:ILE:O	1.95	0.66
33:BD:58:HIS:HD2	33:BD:59:LYS:N	1.93	0.66
32:BB:6:C:HO2'	44:BS:29:PHE:HE1	1.44	0.66
24:D2:29:LYS:NZ	49:DX:9:LEU:HA	2.10	0.66
41:BP:121:LYS:HG3	25:D3:2:PRO:CG	2.24	0.66
31:BA:143:G:H1'	49:BX:38:GLU:HG3	1.76	0.66
1:AA:407:G:OP1	4:AD:115:ARG:HD2	1.96	0.66
45:BT:100:TYR:HD2	45:BT:103:ARG:HH21	1.41	0.66
33:DD:16:MET:HB2	33:DD:207:GLY:HA3	1.78	0.66
31:BA:1791:A:H3'	31:BA:1792:G:H8	1.60	0.66
31:DA:869:G:H2'	31:DA:870:A:O4'	1.96	0.66
31:BA:65:C:H2'	31:BA:66:C:C6	2.30	0.66
1:AA:865:A:C2	1:AA:918:A:H4'	2.30	0.66
34:BE:197:ILE:HD11	34:BE:199:ARG:NH2	2.10	0.66
1:AA:561:U:O2'	1:AA:562:C:P	2.53	0.66
1:AA:820:U:H4'	1:AA:821:G:OP2	1.94	0.66
1:AA:341:C:O2'	1:AA:342:C:H5'	1.95	0.66
42:BQ:20:ALA:O	42:BQ:22:LYS:N	2.29	0.66
48:DW:17:VAL:O	48:DW:20:VAL:HG22	1.95	0.66
31:BA:1987:G:H2'	31:BA:1988:C:C6	2.30	0.66
31:BA:2660:A:H5''	31:BA:2661:G:C2	2.31	0.66
33:DD:3:VAL:H	33:DD:20:ASP:HB2	1.59	0.66
1:AA:1495:U:H1'	31:BA:1912:A:C2	2.30	0.66
31:DA:1303:G:H1'	31:DA:1641:A:N1	2.11	0.66
51:BZ:128:VAL:HG22	51:BZ:161:VAL:HG22	1.78	0.66
37:DH:20:ALA:HB3	37:DH:23:ARG:HB2	1.75	0.66
22:D0:20:ARG:NH1	31:DA:2357:U:OP1	2.28	0.66
9:CI:82:ALA:HB1	9:CI:96:LEU:HD11	1.77	0.66
5:CE:68:GLU:O	5:CE:68:GLU:HG3	1.95	0.66
31:BA:565:C:H2'	31:BA:566:U:O4'	1.95	0.66
2:CB:167:PRO:HG3	2:CB:188:ALA:HB2	1.77	0.66
1:AA:1228:C:P	13:AM:108:ARG:HH22	2.19	0.66
31:BA:1773:A:H2'	31:BA:1774:C:H5'	1.77	0.66
1:CA:84:U:H5	1:CA:88:A:C8	2.14	0.66
31:BA:1519:G:H5'	31:BA:1520:G:OP2	1.96	0.66
1:CA:1228:C:P	13:CM:108:ARG:HH22	2.18	0.66
23:D1:26:ARG:HB2	23:D1:34:THR:HB	1.78	0.66
23:D1:26:ARG:HB3	23:D1:34:THR:CA	2.26	0.66
30:D8:25:MET:HB2	41:DP:62:LEU:CD2	2.25	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2500:U:H5''	31:DA:2501:C:OP2	1.95	0.66
41:DP:64:LYS:O	41:DP:66:GLY:N	2.29	0.66
31:BA:2418:A:H2'	31:BA:2419:U:H6	1.61	0.66
25:D3:52:HIS:H	25:D3:52:HIS:CD2	2.13	0.66
49:BX:81:VAL:HG13	49:BX:85:PRO:HB2	1.77	0.66
4:AD:106:TYR:HE1	4:AD:112:VAL:O	1.79	0.66
1:CA:109:A:C6	1:CA:326:G:C6	2.84	0.66
1:CA:503:C:H2'	1:CA:504:C:H6	1.61	0.66
50:BY:44:ILE:HG22	50:BY:45:VAL:N	2.10	0.66
33:DD:210:GLY:O	33:DD:212:SER:N	2.28	0.66
23:D1:11:ARG:HB3	23:D1:12:PRO:HD3	1.77	0.66
1:AA:192:U:O4'	20:AT:103:GLY:HA2	1.96	0.66
5:AE:101:ILE:H	5:AE:101:ILE:HD13	1.60	0.66
2:AB:185:ILE:CG2	2:AB:199:TYR:HB2	2.19	0.66
26:B4:25:TYR:HA	36:BG:109:VAL:CG2	2.18	0.66
31:DA:2328:A:H2'	31:DA:2329:G:O4'	1.96	0.66
48:BW:92:ARG:O	48:BW:93:ALA:HB3	1.94	0.66
31:BA:2641:G:OP1	39:BN:83:LYS:HD3	1.96	0.66
1:AA:1098:C:C2	1:AA:1099:G:C8	2.83	0.66
1:CA:814:A:N7	1:CA:816:A:C4	2.64	0.66
1:CA:818:G:H3'	1:CA:819:A:H5'	1.76	0.66
1:AA:920:U:H1'	1:AA:1080:A:C2	2.30	0.66
38:BI:98:ALA:HA	38:BI:109:ILE:HD13	1.78	0.66
4:CD:209:ARG:NH1	4:CD:209:ARG:HG2	2.11	0.66
31:DA:65:C:H2'	31:DA:66:C:C6	2.30	0.66
42:BQ:20:ALA:CB	42:BQ:99:PRO:HG2	2.26	0.66
31:DA:795:C:H2'	31:DA:796:C:C6	2.31	0.66
31:DA:2471:C:H3'	31:DA:2472:G:H5''	1.77	0.66
6:AF:96:PRO:HA	18:AR:32:ARG:HG2	1.78	0.66
3:CC:70:VAL:O	3:CC:106:VAL:HG23	1.95	0.66
31:BA:2854:G:H2'	31:BA:2855:C:C6	2.30	0.66
9:AI:82:ALA:HB1	9:AI:96:LEU:HD11	1.76	0.66
31:DA:2850:A:OP2	31:DA:2866:U:H5	1.77	0.66
29:D7:16:HIS:HB2	29:D7:44:PRO:HG2	1.76	0.66
6:CF:18:GLN:HA	6:CF:21:LEU:HB2	1.76	0.66
1:AA:665:A:H2'	1:AA:732:C:O2	1.96	0.66
31:DA:676:A:N1	31:DA:802:A:N1	2.44	0.66
31:DA:1741:A:H2'	31:DA:1742:G:C2	2.31	0.66
49:DX:18:TYR:HA	49:DX:21:PHE:CE1	2.31	0.66
37:DH:85:LYS:CD	37:DH:133:VAL:HB	2.24	0.66
31:BA:1653:G:H4'	31:BA:1654:A:O5'	1.96	0.66
31:BA:848:G:H2'	31:BA:849:A:H8	1.61	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:738:C:H5''	6:CF:2:ARG:NH1	2.11	0.66
1:CA:1256:A:O3'	1:CA:1257:U:H4'	1.96	0.66
32:DB:20:C:C2'	32:DB:21:G:H5''	2.26	0.66
4:AD:10:ARG:HH11	4:AD:10:ARG:HG2	1.60	0.66
4:AD:11:LEU:HD23	4:AD:11:LEU:N	2.11	0.66
33:DD:130:ALA:C	33:DD:131:LEU:HD12	2.17	0.66
50:BY:96:ILE:HG13	50:BY:99:CYS:SG	2.35	0.66
31:BA:1748:G:H8	31:BA:1748:G:H5'	1.60	0.66
11:CK:25:TYR:OH	11:CK:87:THR:HB	1.96	0.66
1:CA:1225:A:N3	1:CA:1225:A:H2'	2.11	0.66
1:CA:1321:C:H3'	1:CA:1322:C:H5''	1.77	0.66
31:BA:543:C:H6	31:BA:547:A:N7	1.95	0.66
3:CC:53:ALA:O	3:CC:54:ARG:HB2	1.96	0.66
31:BA:1889:A:N1	31:BA:2234:G:H1'	2.11	0.66
1:CA:1012:U:H6	1:CA:1012:U:O5'	1.79	0.66
31:BA:2364:C:O2'	31:BA:2365:G:H5'	1.96	0.66
28:D6:15:GLU:OE1	28:D6:18:ARG:CG	2.42	0.65
23:B1:37:ILE:HG21	31:BA:2080:G:P	2.36	0.65
33:BD:58:HIS:CD2	33:BD:59:LYS:N	2.65	0.65
32:BB:38:C:C5	32:BB:39:A:C8	2.84	0.65
36:BG:26:GLN:N	36:BG:30:GLU:OE1	2.26	0.65
31:BA:2542:A:H8	31:BA:2544:G:O6	1.77	0.65
41:BP:83:VAL:HG12	41:BP:112:LEU:HD21	1.77	0.65
36:DG:173:LEU:HA	36:DG:176:LEU:HB2	1.77	0.65
44:DS:38:GLN:HG2	44:DS:47:THR:HG21	1.78	0.65
1:CA:509:A:OP2	1:CA:509:A:H3'	1.96	0.65
38:DI:88:ILE:CG1	38:DI:121:LYS:HA	2.17	0.65
31:DA:963:U:H1'	31:DA:2250:G:O6	1.96	0.65
1:AA:322:C:H4'	20:AT:23:ARG:HD2	1.78	0.65
1:CA:820:U:H4'	1:CA:821:G:OP2	1.96	0.65
1:AA:779:C:C2'	1:AA:780:A:H5'	2.26	0.65
31:BA:1952:A:C6	40:BO:22:ILE:HD11	2.30	0.65
35:BF:20:LEU:HD13	35:BF:199:TRP:HH2	1.61	0.65
35:BF:203:GLN:HA	35:BF:206:ILE:O	1.96	0.65
31:BA:212:G:C2'	31:BA:213:A:H5'	2.26	0.65
31:DA:542:C:C4	31:DA:543:C:N4	2.64	0.65
8:CH:28:ALA:HA	8:CH:59:LEU:HG	1.76	0.65
15:AO:74:ASP:OD2	15:AO:77:ARG:HG2	1.96	0.65
31:DA:754:C:H2'	31:DA:755:C:H6	1.60	0.65
5:CE:7:GLU:HB3	5:CE:112:LEU:HD13	1.77	0.65
31:BA:2864:G:H2'	31:BA:2865:U:O4'	1.97	0.65
42:DQ:16:ARG:HG2	42:DQ:17:LEU:N	2.11	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:669:U:C2	1:CA:670:G:C8	2.84	0.65
7:CG:15:ASP:H	7:CG:20:ASP:H	1.41	0.65
51:DZ:117:LEU:HA	51:DZ:174:VAL:HA	1.77	0.65
31:DA:610:G:H2'	31:DA:611:C:C6	2.30	0.65
31:DA:614(A):U:H4'	31:DA:614(B):G:H5''	1.77	0.65
37:BH:126:PRO:CG	37:BH:130:ARG:HB3	2.26	0.65
1:AA:997:U:H2'	1:AA:998:G:C8	2.31	0.65
28:D6:26:ASN:HD22	28:D6:32:ASN:HD21	1.42	0.65
31:DA:2360:A:O2'	31:DA:2361:A:OP2	2.14	0.65
31:BA:661:C:H4'	41:BP:18:ARG:HG2	1.78	0.65
31:DA:1386:C:H2'	31:DA:1387:C:C6	2.32	0.65
49:DX:36:LYS:HZ2	49:DX:39:ILE:CA	2.09	0.65
33:BD:255:LYS:N	33:BD:255:LYS:HZ1	1.94	0.65
36:DG:5:VAL:O	36:DG:7:LEU:N	2.30	0.65
1:AA:619:U:H2'	4:AD:135:LEU:CD2	2.26	0.65
8:CH:107:LEU:HD23	8:CH:107:LEU:N	2.10	0.65
31:DA:2756:U:H4'	31:DA:2757:A:OP1	1.95	0.65
39:BN:47:ALA:HB2	39:BN:112:LEU:CD2	2.27	0.65
31:BA:1819:A:H4'	31:BA:1820:U:O5'	1.97	0.65
50:DY:18:GLY:O	50:DY:20:TYR:N	2.29	0.65
42:DQ:140:ALA:O	51:DZ:53:ILE:HB	1.96	0.65
48:BW:75:TYR:CD1	48:BW:104:THR:HB	2.31	0.65
1:AA:353:A:H5'	1:AA:353:A:H8	1.61	0.65
1:CA:561:U:O2'	1:CA:562:C:P	2.54	0.65
45:BT:33:LYS:H	45:BT:33:LYS:HZ2	1.42	0.65
1:AA:687:A:C2	1:AA:704:A:C6	2.85	0.65
1:CA:963:G:N3	10:CJ:55:LYS:NZ	2.44	0.65
45:DT:55:ASN:O	45:DT:57:PHE:N	2.29	0.65
31:BA:2476:A:C2	31:BA:2477:C:C6	2.84	0.65
22:B0:26:TYR:CE2	31:BA:857:C:H1'	2.31	0.65
31:DA:2471:C:O2	31:DA:2472:G:O4'	2.14	0.65
31:DA:1987:G:H2'	31:DA:1988:C:C6	2.31	0.65
1:CA:592:G:H1	1:CA:647:C:H42	1.44	0.65
7:AG:15:ASP:HB3	7:AG:19:GLY:H	1.61	0.65
31:DA:2364:C:O2'	31:DA:2365:G:H5'	1.96	0.65
38:BI:69:LYS:HE2	38:BI:73:GLU:OE1	1.96	0.65
31:BA:208:C:H2'	31:BA:209:C:H6	1.59	0.65
1:CA:1316:G:H2'	1:CA:1317:C:H5''	1.77	0.65
36:BG:5:VAL:O	36:BG:7:LEU:N	2.29	0.65
44:BS:89:ARG:HB3	44:BS:92:TYR:HB3	1.75	0.65
41:BP:140:ALA:HB1	25:D3:1:MET:HG2	1.77	0.65
31:DA:814:C:C5	41:DP:27:HIS:CE1	2.85	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DN:14:VAL:HG12	39:DN:52:VAL:HA	1.78	0.65
46:DU:83:LEU:C	46:DU:88:ILE:HD11	2.16	0.65
46:DU:90:VAL:O	46:DU:92:ARG:N	2.29	0.65
1:AA:625:G:H2'	1:AA:626:U:H6	1.61	0.65
25:B3:8:LEU:CD1	25:B3:31:LEU:HA	2.27	0.65
10:AJ:34:VAL:HG13	10:AJ:73:ASP:O	1.94	0.65
31:DA:2282:G:H4'	31:DA:2283:C:O5'	1.96	0.65
31:DA:1114:G:H2'	31:DA:1115:G:H8	1.61	0.65
31:DA:2199:A:N3	31:DA:2199:A:H2'	2.10	0.65
38:DI:91:SER:HB2	38:DI:119:PRO:O	1.96	0.65
31:DA:2699:C:H2'	31:DA:2700:C:O4'	1.96	0.65
11:CK:52:GLY:H	11:CK:55:LYS:HG3	1.61	0.65
43:BR:53:HIS:CD2	43:BR:94:TYR:OH	2.50	0.65
45:BT:65:LYS:CE	45:BT:66:VAL:H	2.07	0.65
8:AH:87:SER:HA	8:AH:93:VAL:HG23	1.78	0.65
40:DO:2:ILE:HD12	40:DO:6:THR:HG21	1.77	0.65
31:DA:1130:U:O2	31:DA:2025:C:H5''	1.96	0.65
31:BA:2464:C:O2'	31:BA:2465:C:C5'	2.45	0.65
1:AA:949:A:H1'	1:AA:1364:U:N3	2.11	0.65
5:CE:68:GLU:O	5:CE:70:PRO:HD3	1.96	0.65
31:BA:1773:A:H2'	31:BA:1774:C:C5'	2.26	0.65
1:CA:598:U:H4'	8:CH:94:TYR:CD2	2.31	0.65
51:BZ:165:VAL:HG12	51:BZ:166:SER:N	2.11	0.65
11:CK:69:ALA:HB1	11:CK:103:LEU:HD23	1.77	0.65
37:DH:122:THR:HB	37:DH:134:SER:HB2	1.78	0.65
34:BE:203:LYS:HG3	34:BE:204:ALA:N	2.10	0.65
45:BT:10:VAL:HG12	45:BT:11:GLU:N	2.12	0.65
1:CA:923:A:C8	1:CA:1398:A:H2	2.14	0.65
31:DA:607:U:O2	31:DA:621:A:N1	2.30	0.65
31:BA:812:C:H1'	31:BA:1250:G:C2	2.31	0.65
33:BD:35:LYS:HG2	33:BD:64:ILE:N	2.11	0.65
32:BB:35:U:C4	32:BB:36:C:N4	2.64	0.65
47:DV:6:LYS:HA	47:DV:11:GLN:HA	1.79	0.65
36:DG:173:LEU:HB3	36:DG:178:PHE:CD1	2.31	0.65
44:DS:52:SER:OG	44:DS:55:ALA:HB3	1.97	0.65
31:BA:2311:A:OP1	31:BA:2312:U:C5	2.49	0.65
31:DA:1797:C:H2'	31:DA:1798:U:H5'	1.78	0.65
46:BU:83:LEU:C	46:BU:88:ILE:HD11	2.17	0.65
46:BU:88:ILE:HD13	46:BU:88:ILE:O	1.96	0.65
1:CA:673:G:C5'	6:CF:87:ARG:HE	2.09	0.65
31:BA:1557:C:OP2	31:BA:1558:A:O2'	2.13	0.65
31:DA:286:C:N4	31:DA:355:G:H1	1.94	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:479:A:H4'	31:BA:480:A:OP1	1.96	0.65
1:AA:59:A:H1'	1:AA:354:G:N2	2.10	0.65
27:B5:2:ALA:N	31:BA:747:U:C4	2.64	0.65
31:DA:528:A:C2	31:DA:2043:C:H4'	2.31	0.65
31:BA:1114:G:H2'	31:BA:1115:G:H8	1.61	0.65
50:DY:95:LYS:HD3	50:DY:100:ALA:CB	2.26	0.65
38:DI:101:LEU:CG	38:DI:109:ILE:HG12	2.26	0.65
38:BI:72:LEU:HD12	38:BI:138:ILE:HG23	1.78	0.65
1:AA:1064:G:H1'	1:AA:1065:U:OP2	1.97	0.65
31:BA:1484:G:N1	31:BA:1506:C:N4	2.45	0.65
9:AI:113:LYS:H	9:AI:119:ALA:HA	1.60	0.65
37:DH:52:VAL:HG11	37:DH:69:ARG:HG3	1.76	0.65
5:CE:88:LYS:HB3	5:CE:123:LEU:HB2	1.77	0.65
47:BV:50:PRO:O	47:BV:51:VAL:O	2.15	0.65
11:AK:111:ASP:C	18:AR:84:LYS:HE2	2.16	0.65
42:DQ:32:TYR:CE2	42:DQ:133:ARG:HG2	2.31	0.65
1:AA:568:G:O6	12:AL:5:PRO:HD3	1.96	0.65
4:CD:148:VAL:CG1	4:CD:149:ALA:N	2.59	0.65
31:DA:1648:C:C2'	31:DA:1649:G:O5'	2.44	0.65
1:CA:949:A:H61	1:CA:1232:U:H3	1.42	0.65
15:CO:3:ILE:O	15:CO:3:ILE:HG12	1.97	0.65
5:AE:68:GLU:O	5:AE:70:PRO:HD3	1.96	0.65
37:BH:122:THR:HB	37:BH:134:SER:HB2	1.79	0.65
3:AC:19:GLU:HG3	3:AC:54:ARG:HG3	1.78	0.65
37:BH:158:HIS:CE1	37:BH:168:PRO:HG2	2.31	0.65
38:DI:54:GLN:HA	38:DI:57:ARG:HH12	1.62	0.65
48:BW:95:ILE:HG13	48:BW:95:ILE:O	1.95	0.65
1:CA:243:A:H4'	1:CA:244:U:O5'	1.97	0.65
22:B0:11:ARG:O	22:B0:14:ARG:NH2	2.29	0.65
18:AR:52:PRO:O	18:AR:56:THR:HG23	1.96	0.65
31:BA:2580:U:H4'	34:BE:130:GLY:CA	2.27	0.65
31:BA:1430:C:H2'	31:BA:1431:U:H6	1.60	0.65
49:DX:81:VAL:HG13	49:DX:85:PRO:HB2	1.77	0.65
31:DA:1330:C:O2'	31:DA:1331:A:H5'	1.95	0.65
44:DS:36:TYR:HD1	44:DS:36:TYR:N	1.92	0.65
33:DD:44:ASN:HB3	33:DD:49:ILE:CA	2.25	0.65
31:BA:1648:C:C2'	31:BA:1649:G:O5'	2.45	0.65
46:BU:102:GLU:HG3	47:BV:2:PHE:CE2	2.31	0.65
47:BV:64:HIS:O	47:BV:64:HIS:CG	2.45	0.65
31:BA:1474:C:C6	31:BA:1474:C:H5"	2.31	0.65
31:BA:1515:G:H2'	31:BA:1516:C:H6	1.61	0.65
42:BQ:140:ALA:O	51:BZ:53:ILE:HB	1.95	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:543:C:C2'	1:AA:544:G:H5'	2.26	0.65
40:DO:10:VAL:HG22	40:DO:17:ARG:O	1.96	0.65
27:D5:55:ARG:C	27:D5:56:LYS:HG3	2.17	0.65
8:CH:1:MET:CE	8:CH:1:MET:H3	2.06	0.65
1:AA:1090:U:H2'	1:AA:1091:U:C6	2.23	0.65
40:BO:114:ILE:N	40:BO:114:ILE:HD13	2.12	0.65
13:CM:44:ARG:CB	13:CM:46:LYS:HG2	2.24	0.65
41:BP:41:ARG:HA	41:BP:41:ARG:HH21	1.61	0.65
45:DT:89:VAL:O	45:DT:91:ARG:HG3	1.97	0.65
31:BA:2267:A:H5''	31:BA:2268:A:H5''	1.77	0.65
31:DA:615:G:OP1	35:DF:40:GLN:NE2	2.28	0.65
31:DA:2660:A:C5'	31:DA:2661:G:H21	2.10	0.65
31:BA:2886:G:C4	31:BA:2887:U:C5	2.84	0.65
1:AA:250:A:H1'	1:AA:251:G:OP2	1.97	0.65
23:D1:46:LEU:N	23:D1:46:LEU:HD12	2.11	0.65
3:CC:138:VAL:HG23	3:CC:151:VAL:HG23	1.77	0.65
40:BO:88:ASN:O	40:BO:91:LEU:N	2.26	0.65
5:AE:72:GLN:O	5:AE:73:ASN:HB2	1.96	0.65
1:CA:948:C:OP1	13:CM:107:ALA:HA	1.96	0.65
31:DA:642:G:H21	31:DA:646:A:H2	1.42	0.65
30:B8:43:GLN:C	30:B8:44:LYS:HD2	2.17	0.65
31:BA:387:U:H4'	31:BA:388:G:O5'	1.95	0.65
31:BA:1569:A:H5'	33:BD:61:LEU:CD2	2.26	0.65
32:BB:37:C:O2	32:BB:38:C:C2	2.50	0.65
41:BP:121:LYS:HA	25:D3:2:PRO:HD2	1.79	0.65
23:D1:13:ILE:O	23:D1:14:VAL:HB	1.94	0.65
31:DA:572:A:H2'	31:DA:573:G:O4'	1.96	0.65
31:DA:2658:C:H2'	31:DA:2658:C:O2	1.96	0.65
37:DH:164:TYR:HB2	37:DH:166:GLY:H	1.62	0.65
1:CA:194:C:H2'	1:CA:195:A:H5''	1.78	0.65
31:DA:1493:C:O2	31:DA:1493:C:H2'	1.97	0.65
34:DE:51:PHE:O	34:DE:52:LEU:HD12	1.96	0.65
51:BZ:19:ARG:NH1	51:BZ:19:ARG:HG2	2.03	0.65
1:AA:862:C:H2'	1:AA:863:U:C5'	2.24	0.65
1:AA:865:A:H2	1:AA:918:A:H4'	1.62	0.65
1:AA:308:C:H2'	1:AA:309:G:H8	1.62	0.65
42:DQ:23:GLY:O	42:DQ:100:GLY:HA3	1.97	0.65
35:BF:124:LEU:HD12	35:BF:125:LEU:N	2.11	0.65
45:BT:25:GLY:O	45:BT:26:ASP:HB2	1.94	0.65
31:BA:2762:G:C2'	31:BA:2763:G:H5'	2.25	0.65
1:AA:828:A:H2'	1:AA:829:G:O4'	1.96	0.65
7:CG:70:LYS:HB3	7:CG:96:GLN:OE1	1.96	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BF:182:ASN:O	35:BF:186:ILE:HG13	1.96	0.65
31:BA:2500:U:H5''	31:BA:2501:C:OP2	1.96	0.65
30:D8:52:LYS:H	30:D8:53:PRO:HD2	1.62	0.65
31:DA:2347:C:H2'	31:DA:2348:U:C6	2.31	0.65
31:BA:2287:A:C2	31:BA:2289:G:N9	2.65	0.65
31:DA:1340:U:H4'	31:DA:1394:U:O2'	1.97	0.65
24:B2:46:GLN:HG2	24:B2:47:ASN:N	2.11	0.65
49:BX:53:LYS:N	49:BX:80:ILE:HG22	2.11	0.65
1:CA:376:G:OP2	16:CP:67:THR:HG21	1.96	0.65
37:DH:103:LEU:HD23	37:DH:115:VAL:HB	1.78	0.65
1:CA:191:G:H1'	20:CT:105:SER:HA	1.79	0.65
31:DA:1485:G:N2	31:DA:1505:C:C5	2.65	0.65
31:DA:1504:C:O2'	31:DA:1505:C:C5'	2.44	0.65
42:DQ:8:LYS:CG	42:DQ:9:TYR:H	2.10	0.65
1:CA:93:G:C2'	1:CA:96:U:H5'	2.26	0.65
27:B5:40:LYS:HE2	27:B5:46:CYS:HB3	1.79	0.65
31:BA:958:U:H5''	42:BQ:14:ARG:HD3	1.79	0.65
42:BQ:41:TRP:HB3	42:BQ:94:VAL:HB	1.78	0.65
1:CA:1098:C:C2	1:CA:1099:G:C8	2.84	0.65
1:AA:818:G:C2	1:AA:820:U:O2'	2.49	0.65
31:DA:1636:C:H2'	31:DA:1637:A:C8	2.32	0.65
13:AM:92:HIS:CE1	13:AM:98:VAL:HG23	2.32	0.65
31:DA:1515:G:H2'	31:DA:1516:C:H6	1.62	0.65
31:BA:1686:C:C2'	31:BA:1687:G:H5'	2.27	0.65
49:BX:65:ARG:CZ	49:BX:66:LEU:H	2.09	0.65
36:BG:64:THR:CG2	36:BG:65:GLY:H	2.09	0.65
42:DQ:29:PHE:O	42:DQ:30:GLY:O	2.15	0.65
1:CA:1287:A:C2	1:CA:1353:G:H1'	2.32	0.65
31:BA:2464:C:O2'	31:BA:2465:C:P	2.55	0.65
38:DI:5:LEU:HD12	38:DI:17:GLN:HB3	1.79	0.65
45:DT:106:SER:HB2	45:DT:110:ILE:HD11	1.79	0.65
33:DD:69:ARG:HH12	33:DD:117:VAL:CG2	2.09	0.65
16:CP:51:VAL:CG1	16:CP:52:ASP:N	2.60	0.65
31:DA:1196:C:O4'	31:DA:1226:A:C2	2.50	0.65
3:AC:113:ALA:HB3	3:AC:114:PRO:HD3	1.78	0.65
2:AB:158:LEU:H	2:AB:158:LEU:HD12	1.62	0.65
28:B6:35:GLU:O	28:B6:35:GLU:HG3	1.95	0.65
31:BA:419:C:H2'	31:BA:420:C:O4'	1.97	0.65
7:AG:54:THR:OG1	7:AG:56:GLN:HB2	1.96	0.65
11:AK:18:ARG:HH21	11:AK:37:GLY:HA2	1.60	0.65
31:BA:125:G:H4'	31:BA:126:A:OP2	1.96	0.65
39:DN:57:ALA:O	39:DN:58:ASP:O	2.15	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:DV:64:HIS:O	47:DV:64:HIS:CG	2.49	0.65
31:BA:1544:A:N3	31:BA:1544:A:O3'	2.30	0.65
1:AA:106:C:H2'	1:AA:107:G:H8	1.61	0.65
31:BA:1140:C:OP1	39:BN:23:LEU:O	2.14	0.65
23:D1:92:LYS:C	23:D1:94:LEU:N	2.47	0.65
31:DA:2666:C:H5''	31:DA:2666:C:H6	1.62	0.65
33:BD:218:ARG:HB3	33:BD:219:PRO:HD2	1.79	0.65
47:BV:73:SER:O	47:BV:74:LYS:HB2	1.96	0.65
50:DY:27:VAL:O	50:DY:29:GLU:OE1	2.15	0.65
51:BZ:39:VAL:HG21	51:BZ:44:PHE:HB2	1.78	0.65
1:AA:737:A:H2'	1:AA:738:C:H6	1.57	0.65
31:DA:1114:G:O2'	31:DA:1115:G:H5'	1.97	0.65
50:BY:77:PRO:O	50:BY:99:CYS:SG	2.54	0.65
50:BY:95:LYS:HE2	50:BY:101:LYS:N	2.06	0.65
4:CD:18:LYS:HD2	4:CD:33:MET:CG	2.24	0.65
32:DB:67:G:C4	32:DB:68:C:C5	2.83	0.65
31:BA:2335:A:O2'	31:BA:2336:A:H5''	1.97	0.65
31:BA:1497:U:N3	31:BA:1578:U:O5'	2.30	0.65
31:DA:2762:G:C2'	31:DA:2763:G:H5'	2.27	0.65
40:DO:35:VAL:HA	40:DO:62:VAL:HG12	1.79	0.65
31:DA:2012:G:O3'	48:DW:96:ILE:HG13	1.97	0.65
1:CA:774:G:O2'	1:CA:775:G:H5'	1.95	0.65
31:BA:1348:G:H2'	31:BA:1349:A:H5''	1.78	0.65
34:BE:27:LEU:HD22	45:BT:1:MET:HE3	1.78	0.65
31:DA:838:C:O2'	31:DA:839:U:H5'	1.97	0.65
26:D4:5:ILE:C	36:DG:67:LYS:HG2	2.18	0.65
1:CA:632:A:C8	1:CA:633:G:C8	2.84	0.65
31:BA:2205:C:O2	31:BA:2220:G:C2	2.49	0.65
19:CS:42:PRO:O	19:CS:43:GLU:HB3	1.97	0.65
35:DF:124:LEU:HD12	35:DF:125:LEU:N	2.11	0.65
31:DA:980:A:C6	31:DA:981:A:N1	2.65	0.65
30:D8:52:LYS:N	30:D8:53:PRO:CD	2.59	0.65
30:B8:61:LEU:HD22	31:BA:593:G:O3'	1.97	0.65
25:D3:8:LEU:CD1	25:D3:31:LEU:HA	2.25	0.65
31:DA:557:U:O2'	31:DA:558:G:H5'	1.96	0.65
47:DV:73:SER:HG	47:DV:75:PHE:HE1	1.39	0.65
47:DV:73:SER:OG	47:DV:74:LYS:N	2.28	0.65
49:BX:38:GLU:OE1	49:BX:38:GLU:N	2.30	0.65
31:BA:1719:G:O2'	31:BA:1720:U:H5'	1.97	0.65
31:DA:2377:A:H4'	44:DS:107:GLU:HG2	1.77	0.65
44:DS:13:ARG:O	44:DS:15:ARG:HG3	1.97	0.65
20:CT:66:ALA:O	20:CT:71:THR:HB	1.96	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:767:U:O2'	31:DA:768:G:H5'	1.97	0.65
37:DH:148:ILE:O	37:DH:151:ILE:HG12	1.97	0.65
47:BV:66:ARG:HH11	47:BV:68:LYS:H	1.45	0.65
7:CG:113:GLU:CB	7:CG:119:ARG:HG2	2.21	0.65
51:DZ:52:SER:OG	51:DZ:53:ILE:N	2.30	0.65
22:D0:40:GLN:HE21	22:D0:43:THR:HA	1.61	0.65
31:BA:1114:G:O2'	31:BA:1115:G:H5'	1.96	0.65
50:BY:95:LYS:HD3	50:BY:100:ALA:CB	2.25	0.65
42:BQ:39:PRO:HA	42:BQ:97:VAL:O	1.96	0.65
1:AA:1074:G:O2'	1:AA:1101:A:N1	2.27	0.65
43:BR:2:ARG:N	43:BR:2:ARG:HD2	2.12	0.65
50:DY:95:LYS:HE2	50:DY:101:LYS:N	2.09	0.65
35:DF:21:ALA:HB3	35:DF:23:ASP:OD2	1.96	0.65
1:AA:339:C:OP2	40:BO:97:ARG:NH1	2.30	0.65
38:DI:109:ILE:HD12	38:DI:109:ILE:N	2.12	0.65
31:DA:271(P):C:C5'	38:DI:45:LYS:HE3	2.27	0.65
1:AA:66:G:C4'	1:AA:173:U:C5	2.80	0.65
31:DA:1773:A:H2'	31:DA:1774:C:C5'	2.27	0.65
31:DA:2660:A:H5''	31:DA:2661:G:C2	2.32	0.65
11:CK:111:ASP:C	18:CR:84:LYS:HE2	2.17	0.65
43:DR:104:ARG:HD3	43:DR:109:ALA:HB3	1.79	0.65
35:BF:132:VAL:HG22	35:BF:133:ASN:H	1.60	0.65
2:CB:64:ARG:O	2:CB:64:ARG:HG3	1.97	0.65
42:BQ:34:LEU:HD11	42:BQ:129:THR:HB	1.79	0.65
31:BA:1683:C:H2'	31:BA:1684:C:C6	2.30	0.65
12:CL:70:ILE:HG12	12:CL:100:ILE:HD12	1.78	0.65
36:BG:37:VAL:HG21	36:BG:103:LEU:HD11	1.77	0.65
1:CA:920:U:H1'	1:CA:1080:A:C2	2.31	0.65
31:DA:228:A:H2'	31:DA:230:U:O4'	1.97	0.65
31:BA:598:G:H5'	41:BP:15:ARG:HD2	1.77	0.65
49:DX:60:ARG:HD3	49:DX:60:ARG:H	1.62	0.65
46:DU:60:LEU:O	46:DU:64:ARG:HG2	1.96	0.65
24:B2:52:ASP:H	24:B2:55:ARG:HB2	1.62	0.65
31:BA:1741:A:H2'	31:BA:1742:G:C2	2.32	0.65
32:DB:57:A:C6	36:DG:29:TRP:CD1	2.85	0.65
32:DB:59:A:H2'	32:DB:60:C:O4'	1.96	0.65
33:DD:35:LYS:HA	33:DD:64:ILE:CG2	2.26	0.65
31:DA:2646:C:O5'	31:DA:2646:C:H6	1.80	0.65
1:AA:191:G:H21	20:AT:104:LEU:HA	1.61	0.65
27:B5:32:PRO:O	27:B5:33:CYS:HB3	1.98	0.65
50:DY:47:LYS:NZ	50:DY:47:LYS:HB3	2.11	0.65
31:DA:2712:U:O2'	31:DA:2712(A):A:OP2	2.10	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BI:4:ILE:HG12	38:BI:39:ALA:HB2	1.78	0.65
45:BT:57:PHE:C	45:BT:59:THR:H	2.01	0.65
4:CD:170:VAL:HG22	4:CD:171:GLY:H	1.61	0.65
31:DA:1254:A:H5'	31:DA:1255:U:C5'	2.27	0.65
44:BS:84:GLN:HA	44:BS:105:ALA:HB3	1.77	0.65
39:BN:115:ARG:HG3	39:BN:115:ARG:NH1	2.12	0.65
31:BA:2399:G:H2'	31:BA:2400:G:O4'	1.96	0.65
31:BA:2598:A:P	33:BD:236:GLY:HA3	2.36	0.65
9:CI:53:VAL:HG13	9:CI:95:LYS:HE3	1.79	0.65
41:DP:75:ILE:N	41:DP:75:ILE:HD13	2.12	0.65
16:CP:50:LYS:C	16:CP:50:LYS:HD3	2.16	0.65
28:D6:25:LYS:HE2	28:D6:27:LYS:NZ	2.11	0.64
23:D1:34:THR:HG21	31:DA:388:G:P	2.38	0.64
31:DA:587:C:C5	41:DP:33:ARG:HG2	2.32	0.64
31:BA:588:U:H2'	31:BA:589:C:C6	2.32	0.64
33:BD:94:LEU:HB2	33:BD:104:TYR:CE2	2.32	0.64
1:CA:437:U:H2'	1:CA:438:G:H5'	1.77	0.64
31:DA:1812:A:C2	31:DA:1813:G:C4	2.85	0.64
31:DA:574:C:N3	34:DE:145:LYS:CE	2.60	0.64
8:AH:104:ARG:O	8:AH:107:LEU:HG	1.96	0.64
31:BA:1509(A):A:C8	31:BA:1509(B):A:N7	2.65	0.64
31:BA:1235:G:C6	31:BA:1236:G:N1	2.65	0.64
22:D0:53:MET:HE3	22:D0:57:PHE:HA	1.79	0.64
50:BY:46:LYS:C	50:BY:47:LYS:NZ	2.49	0.64
31:BA:2642:G:H5''	39:BN:78:TYR:CE1	2.31	0.64
31:BA:1040:C:N4	31:BA:1116:C:N4	2.45	0.64
38:BI:51:ILE:O	38:BI:55:ALA:HB2	1.97	0.64
31:BA:2283:C:H2'	31:BA:2284:C:H5'	1.78	0.64
4:AD:33:MET:HE2	4:AD:37:PRO:HA	1.77	0.64
38:BI:101:LEU:CG	38:BI:109:ILE:HG12	2.27	0.64
31:DA:2547:U:O2'	31:DA:2548:G:H5'	1.97	0.64
1:CA:749:C:O2'	1:CA:750:G:H5'	1.97	0.64
12:AL:24:VAL:HG13	12:AL:98:TYR:CE2	2.32	0.64
1:AA:154:C:H2'	1:AA:155:C:H6	1.63	0.64
31:BA:1381:G:C2'	31:BA:1382:G:H5'	2.27	0.64
1:CA:166:G:H2'	1:CA:167:G:H8	1.62	0.64
31:DA:1316:U:H2'	31:DA:1317:A:C8	2.31	0.64
1:CA:1368:G:H2'	1:CA:1369:C:H5'	1.79	0.64
16:CP:74:LEU:O	16:CP:79:VAL:HB	1.97	0.64
1:CA:44:G:C2	1:CA:45:U:H1'	2.32	0.64
18:CR:53:ARG:HH21	18:CR:60:ALA:N	1.95	0.64
31:DA:945:A:C4	31:DA:2448:A:C2	2.85	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1922:G:H2'	31:DA:1923:U:H6	1.61	0.64
1:AA:1012:U:H6	1:AA:1012:U:O5'	1.80	0.64
30:D8:35:GLN:NE2	30:D8:36:LYS:NZ	2.45	0.64
31:DA:580:C:H2'	31:DA:581:C:C6	2.32	0.64
31:DA:671:C:H41	41:DP:42:SER:HA	1.62	0.64
31:BA:1190:G:O3'	41:BP:35:HIS:HB3	1.97	0.64
44:BS:35:ILE:HD13	44:BS:35:ILE:O	1.96	0.64
24:D2:26:ARG:HG2	49:DX:5:TYR:HB3	1.79	0.64
49:DX:72:LYS:CG	49:DX:73:ARG:H	2.11	0.64
41:BP:107:LYS:O	41:BP:109:GLY:N	2.31	0.64
41:BP:80:TYR:HA	41:BP:111:ARG:O	1.98	0.64
47:DV:24:LYS:HB2	47:DV:92:THR:CG2	2.27	0.64
47:DV:66:ARG:HE	47:DV:94:LEU:CD1	2.10	0.64
24:B2:49:LYS:CE	24:B2:53:LEU:HD22	2.28	0.64
34:BE:48:GLN:HE22	34:BE:64:LYS:HZ2	1.46	0.64
31:BA:1899:G:N2	31:BA:1902:C:N4	2.27	0.64
1:AA:628:G:H2'	1:AA:629:G:C8	2.32	0.64
1:CA:356:A:H2'	1:CA:357:G:O4'	1.97	0.64
4:CD:11:LEU:HD13	4:CD:66:ARG:HD3	1.80	0.64
39:BN:112:LEU:HD12	39:BN:112:LEU:O	1.96	0.64
31:DA:870:A:C2	31:DA:908:C:C2	2.86	0.64
31:DA:1495:A:N3	31:DA:1496:A:C2	2.65	0.64
1:CA:1442:G:C5	1:CA:1442(B):A:H2	2.14	0.64
43:BR:10:LEU:HD13	43:BR:17:ARG:NH1	2.12	0.64
43:BR:10:LEU:HD22	43:BR:17:ARG:HD3	1.78	0.64
47:DV:47:VAL:HG13	47:DV:48:GLY:N	2.10	0.64
39:BN:131:GLN:NE2	39:BN:135:PRO:HD3	2.13	0.64
2:AB:97:TRP:CH2	2:AB:173:ALA:HA	2.31	0.64
18:AR:29:PHE:CZ	18:AR:31:LEU:HD22	2.32	0.64
1:AA:1157:A:C1'	1:AA:1181:G:H21	2.10	0.64
1:CA:522:C:H41	12:CL:53:ARG:HH22	1.44	0.64
1:CA:949:A:H1'	1:CA:1364:U:N3	2.12	0.64
40:DO:19:ILE:HG22	40:DO:43:VAL:HA	1.79	0.64
9:AI:53:VAL:HG13	9:AI:95:LYS:HE3	1.79	0.64
31:DA:1037:G:H1	31:DA:1118:C:H42	1.44	0.64
31:BA:1922:G:H2'	31:BA:1923:U:C6	2.32	0.64
31:BA:384:U:H2'	31:BA:385:C:H6	1.62	0.64
45:BT:129:ARG:NH1	45:BT:131:ALA:H	1.95	0.64
36:DG:135:LEU:HD13	36:DG:155:MET:SD	2.38	0.64
20:CT:97:ALA:O	20:CT:99:LEU:N	2.29	0.64
7:CG:54:THR:OG1	7:CG:56:GLN:HB2	1.96	0.64
44:BS:28:VAL:HG11	44:BS:97:ARG:HH12	1.62	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:993:G:H1'	47:DV:91:TYR:HD1	1.62	0.64
31:BA:1465:G:C4	31:BA:1466:G:C8	2.86	0.64
33:DD:43:ARG:HB2	33:DD:54:ARG:HB2	1.80	0.64
33:DD:35:LYS:HD3	33:DD:63:ARG:C	2.17	0.64
33:DD:92:ILE:HD13	33:DD:104:TYR:CE2	2.32	0.64
47:BV:39:LEU:O	47:BV:40:LEU:HB3	1.98	0.64
31:BA:528:A:O2'	31:BA:529:A:H5'	1.98	0.64
1:CA:191:G:H21	20:CT:104:LEU:HA	1.61	0.64
47:BV:15:GLU:HB3	47:BV:16:PRO:HD2	1.80	0.64
47:BV:28:GLU:HB2	47:BV:29:PRO:CD	2.23	0.64
6:CF:1:MET:O	6:CF:2:ARG:HG3	1.97	0.64
31:DA:867:C:C5	31:DA:868:U:C5	2.85	0.64
42:BQ:141:GLN:NE2	51:BZ:72:ARG:HG2	2.11	0.64
50:BY:47:LYS:NZ	50:BY:47:LYS:HB3	2.12	0.64
31:BA:380:U:H2'	31:BA:381:G:C8	2.33	0.64
39:BN:75:TYR:CD1	39:BN:75:TYR:N	2.65	0.64
36:DG:32:PRO:HB3	36:DG:163:ALA:HB2	1.77	0.64
13:CM:92:HIS:CE1	13:CM:98:VAL:HG23	2.33	0.64
31:BA:2830:G:C5'	31:BA:2830:G:H8	2.10	0.64
31:DA:1952:A:C6	31:DA:1953:A:N1	2.65	0.64
4:CD:194:LEU:HB3	4:CD:196:LEU:HD11	1.78	0.64
31:DA:322:A:OP2	35:DF:169:ASN:HB2	1.98	0.64
3:AC:53:ALA:O	3:AC:54:ARG:HB2	1.98	0.64
31:DA:706:A:H2'	31:DA:707:G:O4'	1.97	0.64
8:CH:109:ILE:HG23	8:CH:137:VAL:HB	1.79	0.64
1:CA:308:C:H2'	1:CA:309:G:H8	1.61	0.64
46:DU:44:ASN:HD22	46:DU:44:ASN:N	1.93	0.64
31:BA:1340:U:H4'	31:BA:1394:U:O2'	1.98	0.64
30:D8:32:LEU:C	30:D8:34:TRP:N	2.50	0.64
41:DP:39:LYS:C	41:DP:41:ARG:H	2.00	0.64
31:BA:586:A:C2	31:BA:1254:A:C2	2.86	0.64
33:BD:143:HIS:HD2	33:BD:144:ALA:CB	2.10	0.64
31:BA:2636:U:H4'	34:BE:80:GLU:OE1	1.97	0.64
1:CA:375:U:H5''	16:CP:6:LEU:HD22	1.78	0.64
1:AA:1442(A):G:C5	45:BT:118:ARG:HD2	2.33	0.64
45:BT:100:TYR:HD2	45:BT:103:ARG:NH2	1.95	0.64
33:DD:34:VAL:O	33:DD:34:VAL:HG13	1.96	0.64
31:DA:2543:G:H5'	31:DA:2543:G:H8	1.62	0.64
2:AB:16:HIS:HD2	2:AB:209:ARG:O	1.79	0.64
31:BA:691:C:O2'	31:BA:692:C:H5'	1.97	0.64
47:BV:66:ARG:NH1	47:BV:68:LYS:H	1.95	0.64
50:DY:20:TYR:CD2	50:DY:41:GLY:HA2	2.31	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:34:VAL:CG2	10:AJ:74:ILE:HG22	2.22	0.64
10:CJ:34:VAL:CG2	10:CJ:74:ILE:HG22	2.23	0.64
31:DA:1701:A:H5''	31:DA:1702:G:OP2	1.98	0.64
31:DA:1833:U:H2'	31:DA:1834:U:C6	2.28	0.64
31:BA:2470:G:C2	31:BA:2471:C:C6	2.85	0.64
31:DA:2025:C:H2'	31:DA:2026:C:C6	2.33	0.64
15:CO:17:ARG:HD3	15:CO:26:GLU:HG3	1.80	0.64
45:BT:57:PHE:O	45:BT:59:THR:N	2.30	0.64
31:DA:2273:A:H2'	31:DA:2274:A:C8	2.32	0.64
1:AA:299:G:C6	1:AA:300:A:C6	2.86	0.64
11:CK:23:ALA:HB3	11:CK:86:GLY:O	1.98	0.64
2:AB:61:LEU:CD2	2:AB:68:ILE:HD11	2.27	0.64
1:CA:1479:C:O2'	1:CA:1480:G:H5'	1.97	0.64
7:AG:62:PHE:HA	7:AG:124:LEU:HD22	1.79	0.64
11:CK:127:LYS:CE	11:CK:127:LYS:HA	2.28	0.64
31:DA:265:A:H1'	31:DA:266:G:O4'	1.97	0.64
31:DA:325:G:H2'	31:DA:326:G:O4'	1.97	0.64
1:CA:865:A:C2	1:CA:918:A:H4'	2.33	0.64
35:DF:89:VAL:HG12	35:DF:90:PHE:H	1.62	0.64
28:B6:26:ASN:HD22	28:B6:32:ASN:HD21	1.43	0.64
28:B6:29:ASN:O	28:B6:30:THR:C	2.34	0.64
34:BE:132:HIS:CD2	34:BE:135:HIS:HE1	2.12	0.64
32:BB:59:A:H2'	32:BB:60:C:O4'	1.98	0.64
39:DN:28:THR:HA	39:DN:106:MET:CE	2.27	0.64
31:DA:538:G:OP1	39:DN:5:VAL:HG21	1.97	0.64
46:DU:92:ARG:CZ	47:DV:11:GLN:H	2.11	0.64
31:DA:1288:U:C2	31:DA:1327:C:O2	2.51	0.64
1:CA:392:G:H2'	1:CA:393:A:H8	1.60	0.64
31:DA:573:G:N1	31:DA:2030:A:H3'	2.12	0.64
31:DA:84:A:N1	31:DA:98:G:O2'	2.29	0.64
23:B1:92:LYS:C	23:B1:94:LEU:N	2.51	0.64
22:D0:43:THR:O	22:D0:45:PHE:N	2.29	0.64
28:B6:47:THR:HG22	28:B6:48:VAL:HG12	1.78	0.64
31:DA:858:U:O2	31:DA:2268:A:H2'	1.98	0.64
31:BA:1832:C:N4	31:BA:1833:U:C4	2.66	0.64
31:DA:2762:G:H2'	31:DA:2763:G:H5'	1.80	0.64
31:DA:775:G:C4	31:DA:794:G:C8	2.86	0.64
1:CA:66:G:C4'	1:CA:173:U:C5	2.81	0.64
31:BA:271(U):G:O2'	31:BA:271(V):G:H5'	1.97	0.64
20:AT:50:GLU:HB2	20:AT:100:ILE:CG1	2.28	0.64
31:DA:543:C:H6	31:DA:547:A:N7	1.94	0.64
42:BQ:37:LEU:HB2	42:BQ:128:LYS:O	1.98	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:DT:129:ARG:NH1	45:DT:131:ALA:H	1.96	0.64
36:BG:108:ASN:O	36:BG:112:PRO:HG2	1.96	0.64
1:CA:1118:C:H1'	1:CA:1179:A:C4	2.33	0.64
55:DA:3320:TEL:O32	55:DA:3320:TEL:C13	2.46	0.64
41:DP:30:THR:CG2	41:DP:31:ALA:H	2.09	0.64
31:BA:118:A:C8	31:BA:119:A:C8	2.86	0.64
31:BA:464:U:O2'	31:BA:465:G:H5'	1.98	0.64
31:BA:695:G:OP1	31:BA:1380:G:H4'	1.95	0.64
49:DX:52:VAL:HB	49:DX:80:ILE:CG2	2.27	0.64
47:DV:62:LEU:HD22	47:DV:98:GLU:CB	2.28	0.64
1:AA:624:C:H2'	1:AA:625:G:H8	1.63	0.64
4:CD:133:VAL:HG12	4:CD:135:LEU:H	1.63	0.64
1:AA:194:C:C2'	1:AA:195:A:H5''	2.28	0.64
1:AA:192:U:C4'	20:AT:103:GLY:HA2	2.28	0.64
31:BA:573:G:O2'	31:BA:574:C:H3'	1.98	0.64
23:B1:11:ARG:HB3	23:B1:12:PRO:HD3	1.80	0.64
31:DA:1509(A):A:C8	31:DA:1509(B):A:N7	2.65	0.64
1:CA:684:A:H2'	1:CA:685:G:C8	2.33	0.64
31:DA:2283:C:H2'	31:DA:2284:C:H5'	1.78	0.64
42:BQ:141:GLN:HE22	51:BZ:89:PHE:CB	2.11	0.64
27:D5:46:CYS:SG	27:D5:47:PRO:CD	2.86	0.64
31:BA:1040:C:H42	31:BA:1116:C:H42	1.45	0.64
4:CD:30:LYS:C	4:CD:32:ALA:H	2.01	0.64
31:BA:271(J):C:C3'	31:BA:271(K):U:H5''	2.28	0.64
1:CA:1169:A:H2'	1:CA:1170:A:C8	2.33	0.64
1:AA:1169:A:H2'	1:AA:1170:A:C8	2.32	0.64
4:AD:30:LYS:C	4:AD:32:ALA:H	2.00	0.64
41:DP:123:LEU:HD12	41:DP:123:LEU:O	1.96	0.64
1:CA:779:C:O2'	1:CA:780:A:H5'	1.97	0.64
1:CA:1059:C:O2	10:CJ:53:PRO:HG3	1.98	0.64
31:DA:2536:G:C6	31:DA:2537:U:C4	2.86	0.64
31:DA:1786:A:C2	31:DA:2606:C:H1'	2.33	0.64
48:DW:13:SER:HB3	48:DW:16:LYS:HD3	1.77	0.64
31:BA:1175:U:H4'	31:BA:1176:G:H2'	1.80	0.64
31:DA:1858:G:H1'	31:DA:1884:A:N6	2.13	0.64
1:CA:1321:C:C3'	1:CA:1322:C:H5''	2.27	0.64
31:DA:2884:U:C6	31:DA:2885:C:C6	2.84	0.64
1:AA:592:G:H1	1:AA:647:C:H42	1.45	0.64
1:CA:1392:G:C2'	1:CA:1393:U:H5'	2.27	0.64
31:BA:1386:C:H2'	31:BA:1387:C:C6	2.33	0.64
1:CA:533:A:O2'	1:CA:534:U:H5''	1.97	0.64
1:CA:278:G:O4'	1:CA:282:A:H1'	1.97	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:30:G:H2'	31:DA:31:C:C6	2.33	0.64
41:BP:75:ILE:N	41:BP:75:ILE:HD13	2.13	0.64
23:D1:54:ALA:O	23:D1:55:GLY:C	2.36	0.64
31:DA:1245:G:H5''	41:DP:16:ARG:HH21	1.62	0.64
30:B8:32:LEU:O	30:B8:33:ASN:CB	2.45	0.64
34:BE:132:HIS:CG	34:BE:135:HIS:NE2	2.65	0.64
41:BP:90:ARG:O	41:BP:91:PHE:HB3	1.98	0.64
31:DA:814:C:C5	41:DP:27:HIS:NE2	2.65	0.64
34:BE:32:PRO:O	34:BE:34:VAL:HG12	1.98	0.64
31:BA:1287:A:H5''	31:BA:1288:U:OP2	1.97	0.64
33:DD:105:ILE:HG13	33:DD:106:ILE:O	1.97	0.64
31:DA:2772:C:H2'	31:DA:2773:C:C6	2.32	0.64
31:DA:2811:G:N2	31:DA:2891:G:H1'	2.12	0.64
47:BV:24:LYS:HB2	47:BV:92:THR:CG2	2.28	0.64
31:DA:2388:A:H2'	31:DA:2389:G:H5'	1.78	0.64
20:AT:13:LEU:CD1	20:AT:13:LEU:H	2.04	0.64
31:DA:2830:G:C5'	31:DA:2830:G:C8	2.80	0.64
23:D1:20:ARG:HH21	23:D1:20:ARG:HG2	1.63	0.64
49:BX:63:LYS:HE3	49:BX:70:LEU:HD22	1.80	0.64
1:AA:93:G:C2'	1:AA:96:U:H5'	2.27	0.64
15:AO:51:HIS:O	15:AO:54:ARG:HB3	1.98	0.64
31:BA:1181:C:C2'	31:BA:1182:A:H5'	2.27	0.64
31:DA:774:A:C2	31:DA:787:U:O2'	2.41	0.64
36:BG:64:THR:CG2	36:BG:65:GLY:N	2.60	0.64
31:DA:298:G:O5'	31:DA:298:G:H8	1.81	0.64
4:CD:172:PRO:HB2	4:CD:187:ARG:NH2	2.13	0.64
31:DA:128:C:H2'	31:DA:129:C:C6	2.31	0.64
34:DE:27:LEU:HD22	45:DT:1:MET:HE3	1.80	0.64
12:CL:6:THR:H	12:CL:9:GLN:HE21	1.46	0.64
15:AO:63:ARG:HG2	15:AO:67:LEU:HD12	1.80	0.64
48:DW:95:ILE:O	48:DW:95:ILE:HG13	1.98	0.64
31:DA:2880:C:H1'	43:DR:92:GLY:O	1.98	0.64
35:BF:28:ILE:H	35:BF:28:ILE:HD12	1.62	0.64
31:BA:1657:C:H2'	31:BA:1658:C:C6	2.33	0.64
33:BD:95:LEU:HD21	33:BD:105:ILE:CG2	2.27	0.64
44:BS:56:LEU:HD23	44:BS:57:LYS:N	2.12	0.64
24:D2:32:LEU:HD13	24:D2:37:PHE:HB3	1.78	0.64
24:D2:52:ASP:H	24:D2:55:ARG:HB2	1.62	0.64
31:DA:1470:G:H5''	31:DA:1471:A:OP1	1.98	0.64
41:BP:123:LEU:O	41:BP:123:LEU:HD12	1.97	0.64
47:DV:73:SER:O	47:DV:74:LYS:HB2	1.96	0.64
31:DA:993:G:H5''	47:DV:75:PHE:CE2	2.32	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:B2:26:ARG:HD2	24:B2:26:ARG:N	2.09	0.64
24:B2:49:LYS:C	24:B2:53:LEU:HB3	2.17	0.64
1:AA:437:U:H2'	1:AA:438:G:H5'	1.79	0.64
1:CA:47:C:H5''	1:CA:365:U:C6	2.33	0.64
31:BA:1141:U:OP1	39:BN:25:ARG:NH1	2.31	0.64
31:DA:370:G:H3'	31:DA:423:A:C5	2.33	0.64
31:DA:2809:A:C2	31:DA:2892:A:N3	2.65	0.64
31:DA:2889:C:H3'	31:DA:2891:G:H8	1.63	0.64
50:DY:9:LYS:HA	50:DY:30:VAL:CG2	2.25	0.64
23:B1:88:LYS:O	23:B1:92:LYS:HB2	1.97	0.64
6:AF:67:MET:HB2	6:AF:68:PRO:HD2	1.80	0.64
1:AA:658:G:H2'	1:AA:659:U:H6	1.62	0.64
31:BA:2327:A:H2'	31:BA:2328:A:H8	1.61	0.64
2:CB:24:TRP:CZ3	2:CB:26:PRO:HA	2.32	0.64
34:BE:197:ILE:HD11	34:BE:199:ARG:CZ	2.28	0.64
1:CA:556:C:O2'	1:CA:557:G:H5'	1.98	0.64
31:BA:2655:G:O2'	31:BA:2656:U:H5	1.80	0.64
31:BA:2659:G:O2'	31:BA:2663:G:N2	2.31	0.64
31:DA:1887:C:H2'	31:DA:1888:G:H5''	1.79	0.64
31:DA:2660:A:H5''	31:DA:2661:G:N2	2.12	0.64
45:DT:109:GLU:HA	45:DT:112:ARG:CG	2.28	0.64
31:DA:1198:U:H2'	31:DA:1199:U:C6	2.33	0.64
1:AA:537:G:H2'	1:AA:538:G:C8	2.33	0.64
31:BA:1303:G:H1'	31:BA:1641:A:N1	2.13	0.64
3:CC:19:GLU:HG3	3:CC:54:ARG:HG3	1.80	0.64
41:DP:101:VAL:C	41:DP:103:ALA:H	2.02	0.64
41:DP:88:LEU:C	41:DP:90:ARG:H	2.02	0.64
44:BS:66:ALA:C	44:BS:69:VAL:HG12	2.18	0.64
31:BA:71:A:H3'	31:BA:71:A:OP2	1.97	0.64
49:BX:4:ALA:C	49:BX:6:ASP:H	2.00	0.64
36:DG:117:PHE:HE1	36:DG:120:LEU:HD23	1.62	0.64
1:CA:322:C:H4'	20:CT:23:ARG:HD2	1.78	0.64
31:BA:1033:U:H5''	31:BA:1034:G:P	2.37	0.64
31:DA:2659:G:O2'	31:DA:2663:G:N2	2.31	0.64
31:BA:2779:U:O4'	31:BA:2779:U:O2	2.15	0.64
47:BV:16:PRO:C	47:BV:98:GLU:OE2	2.36	0.64
50:DY:35:TYR:CD2	50:DY:69:ALA:HB3	2.33	0.64
23:B1:10:LYS:O	23:B1:13:ILE:HG23	1.98	0.64
32:BB:13:A:N1	32:BB:69:G:O2'	2.24	0.64
1:AA:1103:C:H5''	2:AB:98:LEU:HD13	1.80	0.64
1:CA:579:G:C6	1:CA:580:U:C4	2.85	0.64
31:DA:855:G:C5	31:DA:856:C:N4	2.66	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:560:U:H4'	1:AA:561:U:O5'	1.98	0.64
45:BT:88:ILE:CG2	45:BT:89:VAL:HG23	2.27	0.64
31:DA:64:A:C2	31:DA:65:C:C2	2.86	0.64
24:D2:15:LYS:O	24:D2:16:LEU:HB3	1.97	0.64
1:CA:266:G:H5''	1:CA:268:C:H41	1.63	0.64
13:AM:34:LEU:HD13	13:AM:41:PRO:HG3	1.80	0.64
31:BA:856:C:C6	31:BA:856:C:H5''	2.32	0.64
31:DA:139(A):G:N2	49:DX:44:GLU:OE1	2.30	0.64
31:BA:1025:G:C4	31:BA:1135:C:H1'	2.32	0.64
1:CA:1305:G:H5'	21:CU:4:GLY:HA3	1.78	0.64
3:AC:130:VAL:HB	3:AC:157:ILE:HG23	1.78	0.64
36:BG:135:LEU:HD13	36:BG:155:MET:SD	2.37	0.64
31:BA:2092:U:H5	31:BA:2226:C:OP1	1.80	0.64
36:BG:173:LEU:HB3	36:BG:178:PHE:CD1	2.32	0.64
31:DA:836:G:C5	31:DA:837:C:C4	2.86	0.64
38:BI:5:LEU:HD12	38:BI:17:GLN:HB3	1.80	0.64
31:BA:298:G:H8	31:BA:298:G:O5'	1.80	0.64
1:CA:808:C:P	15:CO:48:LYS:HE3	2.38	0.64
31:DA:946:G:O2'	31:DA:947:G:H5'	1.97	0.64
48:DW:92:ARG:O	48:DW:93:ALA:HB3	1.98	0.64
31:BA:2068:U:N3	31:BA:2430:A:C2	2.59	0.64
31:BA:587:C:C5	41:BP:33:ARG:HG2	2.33	0.64
44:BS:90:GLY:H	44:BS:91:PRO:HD2	1.63	0.64
31:DA:69:C:O2	31:DA:69:C:C2'	2.45	0.64
41:BP:110:TYR:O	41:BP:111:ARG:C	2.35	0.64
31:BA:1403:C:H5''	31:BA:1471:A:C1'	2.18	0.64
34:BE:55:ASN:HD21	34:BE:75:VAL:HG21	1.61	0.64
4:AD:133:VAL:HG12	4:AD:135:LEU:H	1.63	0.64
50:BY:39:VAL:O	50:BY:40:GLU:CD	2.36	0.64
31:BA:1330:C:O2'	31:BA:1331:A:H5'	1.98	0.64
37:DH:144:VAL:O	37:DH:148:ILE:HG12	1.98	0.64
1:CA:185:A:H2'	1:CA:186:C:H6	1.61	0.64
47:BV:15:GLU:O	47:BV:98:GLU:CD	2.36	0.64
1:AA:678:U:H2'	1:AA:679:C:C6	2.32	0.64
1:AA:411:A:C4	1:AA:413:G:O4'	2.51	0.64
1:CA:1064:G:H1'	1:CA:1065:U:OP2	1.98	0.64
1:CA:1072:G:C2	1:CA:1073:U:C2	2.86	0.64
12:CL:62:SER:O	12:CL:64:TYR:N	2.31	0.64
45:DT:91:ARG:HA	45:DT:117:ASP:H	1.63	0.64
45:DT:33:LYS:N	45:DT:33:LYS:NZ	2.46	0.64
1:AA:1003:G:H2'	1:AA:1004:A:C4'	2.28	0.64
8:AH:29:SER:HB3	8:AH:32:LYS:CG	2.28	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2472:G:N1	31:DA:2477:C:OP1	2.31	0.64
31:BA:494:G:OP1	48:BW:8:ARG:NH1	2.31	0.64
33:DD:267:SER:HA	33:DD:270:ILE:CD1	2.26	0.64
29:D7:16:HIS:CB	29:D7:44:PRO:HG2	2.28	0.64
32:BB:42:C:O4'	36:BG:69:ALA:HB2	1.98	0.64
15:CO:64:ARG:HH12	15:CO:88:ARG:NH1	1.96	0.64
1:AA:276:G:H5''	17:AQ:15:MET:HE1	1.80	0.64
1:CA:147:G:C2'	1:CA:148:G:H5'	2.28	0.64
30:D8:32:LEU:CB	30:D8:35:GLN:H	2.10	0.63
31:DA:2243:U:H2'	31:DA:2244:U:C6	2.34	0.63
31:DA:389:G:H1	41:DP:71:VAL:H	1.43	0.63
32:BB:24:G:N1	32:BB:56:G:N2	2.46	0.63
31:DA:1744:C:C2'	31:DA:1745:C:H5'	2.28	0.63
39:DN:47:ALA:HB2	39:DN:112:LEU:CD1	2.28	0.63
46:DU:65:ILE:HG12	46:DU:96:ALA:CB	2.28	0.63
37:BH:85:LYS:HZ3	37:BH:145:ALA:HA	1.63	0.63
31:BA:2810:A:H2'	34:BE:61:ARG:NH2	2.13	0.63
33:BD:255:LYS:H	33:BD:255:LYS:HZ1	1.44	0.63
5:CE:76:ILE:CG1	5:CE:77:PRO:HD2	2.18	0.63
31:BA:1019:U:O2'	31:BA:1021:A:H2	1.73	0.63
1:AA:1256:A:O3'	1:AA:1257:U:H4'	1.97	0.63
31:BA:229:A:C5'	31:BA:230:U:H5'	2.19	0.63
31:BA:875:G:C4'	51:BZ:170:THR:HG21	2.28	0.63
34:DE:170:LEU:HD12	34:DE:170:LEU:N	2.12	0.63
43:DR:4:LEU:O	43:DR:6:SER:N	2.32	0.63
15:AO:54:ARG:HG2	15:AO:58:MET:HE1	1.79	0.63
1:AA:1502:A:H5'	1:AA:1504:G:N7	2.13	0.63
38:DI:98:ALA:HA	38:DI:109:ILE:HD13	1.80	0.63
31:BA:860:U:O2'	31:BA:861:A:H5'	1.97	0.63
31:DA:2524:G:H1'	31:DA:2740:A:N1	2.13	0.63
38:BI:113:ARG:NH1	38:BI:132:PRO:HG3	2.12	0.63
8:AH:86:ILE:HG21	8:AH:133:LEU:HD12	1.78	0.63
5:AE:126:ARG:CG	5:AE:126:ARG:HH11	2.09	0.63
1:AA:266:G:H5''	1:AA:268:C:H41	1.63	0.63
1:CA:658:G:H2'	1:CA:659:U:H6	1.62	0.63
36:DG:57:ALA:O	36:DG:60:LEU:HB3	1.97	0.63
37:DH:157:TYR:HE1	37:DH:171:LEU:N	1.96	0.63
31:BA:1543:C:OP2	31:BA:1543:C:C5	2.52	0.63
23:D1:46:LEU:HA	31:DA:396:G:O3'	1.98	0.63
22:D0:48:GLY:HA3	22:D0:80:HIS:ND1	2.14	0.63
15:AO:17:ARG:HD3	15:AO:26:GLU:HG3	1.79	0.63
1:AA:457:C:H2'	1:AA:458:C:C6	2.33	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:AK:73:MET:SD	11:AK:103:LEU:HD22	2.38	0.63
31:DA:1359:A:H8	31:DA:1372:U:O4	1.81	0.63
1:AA:695:A:H61	1:AA:797:C:C1'	2.11	0.63
18:AR:85:LEU:HD12	18:AR:86:VAL:H	1.61	0.63
1:CA:380:G:N1	1:CA:384:G:C6	2.66	0.63
1:CA:447:G:C6	1:CA:485:G:H1'	2.33	0.63
11:CK:57:THR:OG1	11:CK:58:PRO:HD2	1.97	0.63
1:AA:632:A:C8	1:AA:633:G:C8	2.85	0.63
8:AH:73:ASP:OD2	8:AH:75:ARG:HG3	1.98	0.63
1:CA:862:C:H2'	1:CA:863:U:C5'	2.27	0.63
31:BA:2580:U:H5''	34:BE:131:ALA:H	1.63	0.63
31:BA:2521:C:N4	31:BA:2544:G:H1	1.96	0.63
31:DA:1021:A:H62	31:DA:1141:U:H3	1.46	0.63
47:DV:71:LEU:HD22	47:DV:72:VAL:HG23	1.79	0.63
32:DB:37:C:O2	32:DB:38:C:C2	2.51	0.63
33:DD:58:HIS:CD2	33:DD:59:LYS:N	2.66	0.63
33:DD:35:LYS:HZ1	33:DD:65:ILE:HA	1.62	0.63
31:BA:2006:C:H2'	31:BA:2007:C:H6	1.63	0.63
47:BV:19:LYS:HE2	47:BV:20:LEU:N	2.13	0.63
31:DA:2311:A:OP1	31:DA:2312:U:C5	2.52	0.63
2:CB:185:ILE:HG22	2:CB:199:TYR:CB	2.18	0.63
22:D0:53:MET:HB2	22:D0:59:LEU:HD23	1.79	0.63
31:DA:2388:A:C2'	31:DA:2389:G:H5'	2.27	0.63
1:AA:684:A:H2'	1:AA:685:G:C8	2.33	0.63
1:AA:718:G:H1	18:AR:74:ARG:NH2	1.96	0.63
27:B5:40:LYS:CE	27:B5:49:CYS:SG	2.83	0.63
31:DA:2041:U:H2'	31:DA:2042:A:C8	2.33	0.63
39:DN:78:TYR:N	39:DN:79:PRO:HD3	2.13	0.63
31:BA:2688:U:H5	31:BA:2720:U:OP2	1.81	0.63
31:DA:2680:C:OP2	34:DE:111:ARG:NH2	2.30	0.63
1:CA:559:A:H4'	1:CA:560:U:O5'	1.98	0.63
45:BT:89:VAL:O	45:BT:91:ARG:HG3	1.99	0.63
50:DY:47:LYS:HD2	50:DY:47:LYS:H	1.63	0.63
39:BN:128:HIS:O	39:BN:130:HIS:N	2.31	0.63
31:DA:2023:G:H5'	31:DA:2617:C:H4'	1.80	0.63
42:BQ:134:ARG:HH12	51:BZ:119:GLU:CD	2.01	0.63
16:CP:53:VAL:HG12	16:CP:79:VAL:HG22	1.80	0.63
31:DA:267:C:H2'	31:DA:268:C:C6	2.34	0.63
15:CO:7:GLU:O	15:CO:10:LYS:HB3	1.98	0.63
10:CJ:65:LEU:HD13	14:CN:56:VAL:HG22	1.80	0.63
28:D6:13:CYS:HA	28:D6:50:ARG:O	1.98	0.63
41:DP:23:PRO:CB	41:DP:33:ARG:HG3	2.19	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:B6:9:LEU:O	28:B6:9:LEU:HD13	1.99	0.63
30:B8:6:THR:CG2	30:B8:63:PRO:HD3	2.27	0.63
31:BA:2058:A:H5''	31:BA:2059:A:OP2	1.98	0.63
33:BD:24:ILE:HG23	33:BD:24:ILE:O	1.97	0.63
33:BD:85:ASP:OD1	33:BD:86:PRO:HD2	1.98	0.63
44:BS:13:ARG:O	44:BS:15:ARG:HG3	1.98	0.63
31:BA:142:A:H8	31:BA:1408:C:H1'	1.61	0.63
33:BD:253:GLN:HB3	33:BD:255:LYS:NZ	2.14	0.63
31:DA:2376:A:H5''	31:DA:2377:A:OP2	1.98	0.63
32:DB:50:G:OP2	44:DS:62:LYS:HB2	1.98	0.63
31:BA:1291:C:H2'	31:BA:1292:U:C6	2.33	0.63
31:DA:1794:U:O2'	31:DA:1795:C:H5'	1.98	0.63
33:DD:35:LYS:CE	33:DD:104:TYR:HB2	2.28	0.63
31:DA:2650:U:H2'	31:DA:2651:C:C6	2.34	0.63
47:BV:1:MET:N	47:BV:44:LYS:HD2	2.14	0.63
47:BV:67:GLY:O	47:BV:68:LYS:C	2.36	0.63
51:BZ:39:VAL:CG2	51:BZ:44:PHE:HB2	2.28	0.63
51:BZ:52:SER:OG	51:BZ:53:ILE:N	2.29	0.63
31:DA:357:A:C2	31:DA:358:U:O2	2.52	0.63
31:DA:2006:C:H2'	31:DA:2007:C:H6	1.62	0.63
31:BA:478:A:N1	31:BA:500:G:H4'	2.12	0.63
42:BQ:89:ASN:O	42:BQ:91:GLU:N	2.31	0.63
31:BA:869:G:H2'	31:BA:870:A:O4'	1.98	0.63
11:CK:99:GLN:O	11:CK:101:SER:N	2.26	0.63
43:BR:10:LEU:HD22	43:BR:17:ARG:CD	2.28	0.63
2:CB:97:TRP:CH2	2:CB:173:ALA:HA	2.32	0.63
49:DX:65:ARG:CZ	49:DX:66:LEU:H	2.11	0.63
1:AA:1287:A:C2	1:AA:1353:G:H1'	2.32	0.63
45:DT:109:GLU:O	45:DT:112:ARG:HG3	1.98	0.63
31:DA:542:C:H6	31:DA:542:C:O5'	1.82	0.63
1:CA:1157:A:C1'	1:CA:1181:G:H21	2.10	0.63
1:CA:1216:G:OP1	14:CN:2:ALA:HA	1.97	0.63
29:D7:11:LYS:HE2	31:DA:686:G:H5''	1.80	0.63
31:BA:106:C:H1'	50:BY:2:ARG:HE	1.62	0.63
22:D0:2:ALA:H	31:DA:2602:A:H62	1.45	0.63
3:CC:186:PHE:HD1	3:CC:198:VAL:O	1.81	0.63
37:DH:126:PRO:HG2	37:DH:130:ARG:HB3	1.80	0.63
35:BF:7:TYR:CD1	35:BF:8:GLN:N	2.64	0.63
12:CL:38:THR:HG22	12:CL:57:LYS:O	1.99	0.63
55:BA:3362:TEL:O32	55:BA:3362:TEL:C13	2.45	0.63
33:BD:24:ILE:CG2	33:BD:24:ILE:O	2.46	0.63
31:DA:1386:C:H2'	31:DA:1387:C:H6	1.63	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:D2:41:ILE:HG21	31:DA:95:G:H21	1.63	0.63
49:DX:89:ILE:HA	49:DX:92:LEU:HD12	1.81	0.63
25:D3:43:ILE:O	25:D3:47:VAL:HG23	1.97	0.63
31:DA:1005:C:O2	31:DA:1143:A:C6	2.52	0.63
39:DN:30:ILE:O	39:DN:34:LEU:HD22	1.98	0.63
47:DV:28:GLU:HB2	47:DV:29:PRO:CD	2.25	0.63
33:BD:255:LYS:H	33:BD:255:LYS:NZ	1.97	0.63
31:BA:1185:C:H5''	31:BA:1186:G:OP1	1.98	0.63
6:CF:86:ARG:O	6:CF:87:ARG:HB2	1.98	0.63
50:BY:95:LYS:NZ	50:BY:100:ALA:HB1	2.13	0.63
31:BA:635:C:O2'	31:BA:639:U:OP1	2.16	0.63
34:BE:117:MET:O	34:BE:117:MET:HG2	1.98	0.63
1:CA:662:G:O2'	1:CA:663:A:H5'	1.98	0.63
31:DA:1771:C:C1'	31:DA:1786:A:C8	2.82	0.63
31:DA:271(C):C:H2'	31:DA:271(D):G:C8	2.33	0.63
31:DA:271(G):C:O2'	31:DA:271(H):G:H5'	1.98	0.63
31:BA:796:C:H2'	31:BA:797:C:H6	1.60	0.63
43:DR:9:LYS:O	43:DR:10:LEU:CG	2.45	0.63
38:DI:5:LEU:O	38:DI:6:LEU:HD23	1.99	0.63
18:CR:85:LEU:HD12	18:CR:86:VAL:H	1.63	0.63
37:BH:157:TYR:HE1	37:BH:171:LEU:N	1.95	0.63
15:CO:74:ASP:OD2	15:CO:77:ARG:HG2	1.98	0.63
45:BT:109:GLU:HA	45:BT:112:ARG:CG	2.29	0.63
31:DA:1686:C:C2'	31:DA:1687:G:H5'	2.29	0.63
31:DA:221:A:H4'	31:DA:222:A:O5'	1.97	0.63
1:CA:719:C:C6	1:CA:720:C:C5	2.87	0.63
48:DW:64:MET:O	48:DW:65:LEU:CB	2.46	0.63
23:B1:47:GLN:HB2	31:BA:397:G:H5''	1.79	0.63
46:BU:44:ASN:HD22	46:BU:44:ASN:N	1.95	0.63
11:AK:127:LYS:CE	11:AK:127:LYS:HA	2.29	0.63
31:DA:727:A:C2	33:DD:9:TYR:CD2	2.86	0.63
27:B5:10:LYS:HE3	31:BA:1262:A:N3	2.13	0.63
1:AA:44:G:C2	1:AA:45:U:H1'	2.34	0.63
28:D6:25:LYS:HE2	28:D6:27:LYS:HZ1	1.63	0.63
31:DA:2402:C:H5'	31:DA:2403:C:OP2	1.97	0.63
31:DA:634:C:H2'	31:DA:635:C:C6	2.34	0.63
24:D2:52:ASP:CG	31:DA:72:U:H1'	2.19	0.63
31:DA:1341:U:C2	49:DX:77:LYS:HE2	2.34	0.63
32:DB:27:C:O2	32:DB:28:C:C6	2.51	0.63
31:DA:2334:G:C2	44:DS:15:ARG:NH1	2.67	0.63
1:CA:102:G:C5	1:CA:103:C:C5	2.87	0.63
31:BA:2315:G:C6	31:BA:2316:C:N4	2.67	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2753:A:H2	31:DA:2754:U:C2	2.17	0.63
47:BV:6:LYS:HA	47:BV:11:GLN:HA	1.81	0.63
23:D1:48:LYS:HE3	23:D1:48:LYS:HA	1.79	0.63
23:D1:67:ILE:N	23:D1:68:PRO:HD2	2.13	0.63
1:AA:224:C:H2'	1:AA:225:C:C6	2.34	0.63
31:DA:1509(B):A:H3'	31:DA:1510:G:H8	1.62	0.63
34:DE:98:PRO:HD3	34:DE:175:VAL:CG1	2.27	0.63
50:BY:96:ILE:CG1	50:BY:99:CYS:SG	2.87	0.63
42:BQ:16:ARG:HG2	42:BQ:17:LEU:N	2.13	0.63
15:CO:55:GLY:HA2	15:CO:58:MET:HE3	1.81	0.63
31:DA:1498:C:O4'	31:DA:1577:C:H4'	1.99	0.63
31:DA:1181:C:O2'	31:DA:1182:A:H5'	1.97	0.63
45:DT:61:PHE:CZ	45:DT:85:LYS:HE2	2.33	0.63
1:AA:1142:G:H2'	1:AA:1143:G:O4'	1.98	0.63
45:BT:29:ARG:HD3	45:BT:86:ILE:HG22	1.81	0.63
31:BA:1690:A:H3'	31:BA:1691:C:C6	2.30	0.63
12:AL:102:ARG:HG3	12:AL:102:ARG:NH1	2.11	0.63
12:AL:51:ALA:O	12:AL:52:LEU:HD23	1.97	0.63
1:AA:1158:C:H5''	2:AB:133:LYS:HE2	1.80	0.63
33:DD:267:SER:HA	33:DD:270:ILE:HD11	1.79	0.63
33:BD:3:VAL:H	33:BD:20:ASP:HB2	1.63	0.63
44:BS:34:HIS:NE2	44:BS:54:LEU:HB2	2.13	0.63
44:DS:84:GLN:HA	44:DS:105:ALA:HB3	1.80	0.63
1:CA:938:A:N6	1:CA:939:G:C6	2.66	0.63
38:BI:5:LEU:C	38:BI:6:LEU:HD23	2.19	0.63
1:CA:719:C:H3'	1:CA:720:C:C6	2.33	0.63
1:CA:719:C:H6	1:CA:720:C:C5	2.16	0.63
31:DA:2833:G:H4'	31:DA:2834:G:OP2	1.98	0.63
38:DI:69:LYS:HE2	38:DI:73:GLU:OE1	1.98	0.63
1:CA:15:G:C6	1:CA:922:G:C2	2.87	0.63
31:BA:2068:U:C2	31:BA:2430:A:H2	2.17	0.63
31:BA:806:C:P	41:BP:39:LYS:HG3	2.38	0.63
32:BB:31:C:C2'	32:BB:53:A:H61	2.12	0.63
31:DA:1341:U:H3'	31:DA:1397:U:O2	1.98	0.63
31:DA:71:A:C5'	31:DA:71:A:H8	2.03	0.63
46:DU:47:TYR:HA	46:DU:50:ARG:NH2	2.13	0.63
31:BA:2811:G:N2	31:BA:2891:G:H1'	2.13	0.63
36:DG:29:TRP:N	36:DG:29:TRP:CD1	2.67	0.63
31:DA:1569:A:H5'	33:DD:61:LEU:CD2	2.28	0.63
31:BA:1021:A:C3'	31:BA:1021:A:C8	2.80	0.63
31:DA:573:G:O2'	31:DA:574:C:H3'	1.98	0.63
31:BA:1130:U:O2	31:BA:2025:C:H5''	1.98	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:727:A:C2	33:BD:9:TYR:CD2	2.87	0.63
27:D5:16:ARG:NH1	27:D5:17:ASP:OD1	2.31	0.63
33:BD:34:VAL:O	33:BD:34:VAL:HG13	1.98	0.63
6:AF:86:ARG:O	6:AF:87:ARG:HB2	1.98	0.63
1:AA:750:G:N3	15:AO:23:GLY:HA3	2.13	0.63
22:B0:53:MET:HB2	22:B0:59:LEU:HD23	1.80	0.63
34:DE:111:ARG:NH1	43:DR:2:ARG:HH21	1.97	0.63
31:BA:911:A:C6	42:BQ:9:TYR:CE2	2.84	0.63
24:B2:41:ILE:HG21	31:BA:95:G:H21	1.64	0.63
38:DI:101:LEU:HD23	38:DI:109:ILE:HG12	1.80	0.63
24:D2:57:ILE:HG12	24:D2:59:ARG:HH11	1.63	0.63
17:AQ:59:ILE:CG2	17:AQ:71:PHE:HB3	2.29	0.63
31:DA:2641:G:OP1	39:DN:75:TYR:HD2	1.81	0.63
31:DA:271(J):C:C3'	31:DA:271(K):U:H5''	2.29	0.63
31:BA:1918:A:O2'	31:BA:1920:C:N4	2.31	0.63
29:D7:10:ARG:HG3	31:DA:125:G:C6	2.33	0.63
31:DA:1670:C:O2	34:DE:129:HIS:HE1	1.82	0.63
31:BA:1637:A:H4'	31:BA:2711:A:O2'	1.98	0.63
31:DA:1441:G:H2'	31:DA:1442:G:H8	1.62	0.63
1:CA:1311:G:N2	1:CA:1327:C:C2	2.67	0.63
22:D0:50:ASN:O	22:D0:62:LEU:HB2	1.99	0.63
23:D1:25:LYS:C	23:D1:26:ARG:HG3	2.19	0.63
28:B6:11:LEU:O	28:B6:23:THR:HA	1.99	0.63
31:BA:195:A:H4'	31:BA:251:A:O2'	1.99	0.63
31:BA:2444:G:OP2	35:BF:68:LYS:HE2	1.98	0.63
49:DX:30:VAL:HG11	49:DX:39:ILE:HD12	1.81	0.63
49:DX:82:GLN:C	49:DX:85:PRO:HD2	2.17	0.63
47:DV:21:ARG:HG2	47:DV:93:GLU:OE1	1.99	0.63
49:BX:30:VAL:HG11	49:BX:39:ILE:HD12	1.80	0.63
1:AA:375:U:O3'	16:AP:6:LEU:HB2	1.99	0.63
1:CA:624:C:H2'	1:CA:625:G:H8	1.62	0.63
33:DD:35:LYS:HG2	33:DD:64:ILE:HG23	1.80	0.63
31:DA:2563:U:H4'	40:DO:28:SER:HA	1.81	0.63
31:BA:1797:C:O2'	31:BA:1798:U:H5'	1.98	0.63
47:BV:66:ARG:HD2	47:BV:67:GLY:CA	2.28	0.63
50:DY:68:HIS:CE1	50:DY:70:SER:HB3	2.34	0.63
43:BR:96:ARG:HH21	43:BR:117:VAL:CG2	2.10	0.63
48:DW:75:TYR:CE1	48:DW:104:THR:CB	2.74	0.63
31:BA:1493:C:O2	31:BA:1493:C:H2'	1.99	0.63
39:BN:75:TYR:HD1	39:BN:75:TYR:N	1.97	0.63
2:AB:22:LYS:HA	2:AB:22:LYS:NZ	2.12	0.63
31:DA:1179:C:H3'	31:DA:1180:C:H5''	1.80	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:960:U:O2	1:AA:960:U:H2'	1.98	0.63
31:BA:925:C:C2'	31:BA:926:A:H5''	2.29	0.63
42:DQ:22:LYS:HA	42:DQ:22:LYS:CE	2.25	0.63
31:BA:2699:C:H2'	31:BA:2700:C:O4'	1.99	0.63
31:BA:2471:C:O2	31:BA:2472:G:O4'	2.16	0.63
43:DR:10:LEU:HD22	43:DR:17:ARG:CD	2.29	0.63
31:DA:758:C:O2	31:DA:1981:A:H2	1.80	0.63
47:BV:52:VAL:O	47:BV:53:GLU:CB	2.45	0.63
1:CA:457:C:H2'	1:CA:458:C:C6	2.32	0.63
31:DA:1889:A:O2'	31:DA:2087:G:H5'	1.98	0.63
1:AA:1216:G:OP1	14:AN:2:ALA:HA	1.98	0.63
12:CL:18:VAL:HG23	12:CL:19:ARG:H	1.62	0.63
4:CD:176:LEU:HG	4:CD:178:VAL:HG22	1.81	0.63
9:CI:97:LYS:HB3	9:CI:98:PRO:HD3	1.81	0.63
1:AA:533:A:O2'	1:AA:534:U:H5''	1.99	0.63
27:D5:4:HIS:HB3	27:D5:5:PRO:HD3	1.80	0.63
31:DA:2500:U:H2'	31:DA:2504:U:H5	1.63	0.63
31:BA:2393:A:O2'	31:BA:2394:C:H5'	1.98	0.63
49:DX:89:ILE:HA	49:DX:92:LEU:HB2	1.81	0.63
25:D3:8:LEU:HA	25:D3:54:VAL:HG12	1.79	0.63
39:DN:3:THR:C	39:DN:4:TYR:CG	2.72	0.63
37:BH:85:LYS:NZ	37:BH:145:ALA:HA	2.14	0.63
44:DS:17:ARG:HD3	44:DS:25:ARG:HE	1.62	0.63
1:CA:624:C:H2'	1:CA:625:G:C8	2.34	0.63
47:BV:40:LEU:C	47:BV:40:LEU:HD13	2.19	0.63
31:DA:2302:G:O6	31:DA:2315:G:C6	2.52	0.63
11:AK:29:ILE:HD11	11:AK:42:TRP:CE3	2.33	0.63
1:AA:433:C:H2'	1:AA:434:U:H6	1.64	0.63
39:BN:57:ALA:C	39:BN:58:ASP:O	2.36	0.63
42:BQ:75:THR:HG22	42:BQ:88:GLY:HA3	1.79	0.63
1:AA:1095:U:H5''	1:AA:1109:C:O2	1.99	0.63
2:AB:24:TRP:CZ3	2:AB:26:PRO:HA	2.33	0.63
31:DA:1495:A:H5''	31:DA:1496:A:OP2	1.98	0.63
31:DA:1496:A:C8	31:DA:1577:C:O2'	2.52	0.63
31:DA:271(E):U:O5'	31:DA:271(E):U:H6	1.81	0.63
38:BI:82:ARG:HB3	38:BI:89:TYR:CE1	2.30	0.63
12:CL:102:ARG:HG3	12:CL:102:ARG:NH1	2.11	0.63
38:DI:5:LEU:C	38:DI:6:LEU:HD23	2.19	0.63
31:DA:1301:A:H2	31:DA:1626:G:N3	1.97	0.63
31:BA:615:G:OP1	35:BF:40:GLN:NE2	2.31	0.63
31:BA:2023:G:H5'	31:BA:2617:C:H4'	1.79	0.63
4:AD:148:VAL:CG1	4:AD:152:SER:HB2	2.29	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2880:C:O2'	43:DR:90:ARG:HD3	1.99	0.63
31:DA:121:G:H4'	31:DA:149:A:H5'	1.81	0.63
6:AF:69:GLU:O	6:AF:72:VAL:HG12	1.99	0.63
19:AS:42:PRO:O	19:AS:43:GLU:HB3	1.98	0.63
31:DA:633:A:H2'	31:DA:634:C:H5'	1.80	0.63
35:DF:65:TRP:O	35:DF:67:GLN:N	2.32	0.63
41:DP:90:ARG:O	41:DP:91:PHE:HB3	1.99	0.63
31:BA:1671:U:HO2'	31:BA:1673:U:H5	1.46	0.63
41:BP:50:ARG:HG2	41:BP:50:ARG:HH21	1.64	0.63
41:BP:47:ASP:HB2	41:BP:51:PHE:HB2	1.79	0.63
31:BA:2394:C:P	41:BP:63:PRO:HD2	2.37	0.63
44:BS:28:VAL:O	44:BS:29:PHE:HB3	1.99	0.63
31:DA:1388:G:H2'	31:DA:1389:G:H8	1.63	0.63
49:BX:18:TYR:HA	49:BX:21:PHE:CE1	2.34	0.63
44:DS:26:LEU:O	44:DS:88:ASP:HB3	1.98	0.63
31:DA:1777:U:C2'	31:DA:1778:U:H5'	2.28	0.63
31:BA:572:A:H2'	31:BA:573:G:O4'	1.99	0.63
2:AB:187:LEU:HD13	2:AB:187:LEU:O	1.99	0.63
41:DP:29:LYS:H	41:DP:29:LYS:CD	2.03	0.63
1:CA:96:U:O2'	1:CA:97:G:H8	1.82	0.63
6:AF:1:MET:O	6:AF:2:ARG:HG3	1.97	0.63
18:AR:74:ARG:HB3	18:AR:81:PHE:CE1	2.34	0.63
1:AA:359:U:H2'	1:AA:360:A:H8	1.64	0.63
31:BA:394:A:C6	31:BA:395:U:C4	2.87	0.63
38:BI:54:GLN:HA	38:BI:57:ARG:NH1	2.14	0.63
2:AB:178:ARG:NH2	8:AH:68:ARG:NH2	2.43	0.63
1:CA:559:A:H4'	1:CA:560:U:C5'	2.29	0.63
15:AO:39:LEU:HD13	15:AO:56:LEU:HB2	1.80	0.63
1:CA:963:G:H21	10:CJ:55:LYS:HD3	1.64	0.63
12:CL:25:PRO:C	12:CL:27:LEU:H	2.02	0.63
5:CE:126:ARG:CG	5:CE:126:ARG:HH11	2.09	0.63
31:DA:1474:C:H5"	31:DA:1474:C:H6	1.64	0.63
8:AH:6:ILE:N	8:AH:6:ILE:HD12	2.13	0.63
8:CH:91:ARG:HG2	17:CQ:34:LYS:H	1.62	0.63
41:DP:21:ARG:O	41:DP:21:ARG:HG2	1.98	0.63
34:BE:134:ILE:N	34:BE:134:ILE:HD13	2.11	0.63
29:D7:8:ASN:C	29:D7:8:ASN:ND2	2.50	0.63
1:CA:1460:A:H2'	1:CA:1461:G:O4'	1.99	0.63
43:DR:38:VAL:HB	43:DR:39:PRO:HD3	1.81	0.63
31:DA:1562:A:O2'	31:DA:1563:G:H5'	1.98	0.63
32:DB:42:C:O4'	36:DG:69:ALA:HB2	1.99	0.63
25:B3:46:ASN:O	25:B3:50:VAL:HG22	1.99	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:189(A):C:H2'	1:AA:189(B):C:C6	2.34	0.63
31:BA:2833:G:H4'	31:BA:2834:G:OP2	1.99	0.63
55:DA:3320:TEL:H383	55:DA:3320:TEL:O29	1.99	0.62
31:DA:590:A:H2'	31:DA:591:C:C6	2.34	0.62
31:BA:676:A:N1	31:BA:802:A:N1	2.46	0.62
44:BS:26:LEU:O	44:BS:88:ASP:HB3	1.99	0.62
49:BX:36:LYS:HZ3	49:BX:38:GLU:C	1.96	0.62
4:CD:11:LEU:N	4:CD:11:LEU:HD23	2.13	0.62
4:CD:13:ARG:HD2	4:CD:38:TYR:O	1.99	0.62
45:DT:99:LEU:HB2	45:DT:101:PHE:HE1	1.62	0.62
45:BT:51:ARG:HG3	45:BT:98:LYS:HE3	1.80	0.62
31:DA:768:G:O2'	31:DA:1379:A:N6	2.31	0.62
37:DH:85:LYS:HZ2	37:DH:133:VAL:CG2	2.13	0.62
31:BA:2008:C:H2'	31:BA:2009:G:H8	1.64	0.62
1:CA:224:C:H2'	1:CA:225:C:C6	2.34	0.62
28:B6:15:GLU:OE1	28:B6:18:ARG:CG	2.45	0.62
1:CA:562:C:N4	1:CA:884:U:C6	2.66	0.62
1:AA:303:A:H2'	1:AA:304:U:O4'	1.99	0.62
1:AA:559:A:H4'	1:AA:560:U:C5'	2.29	0.62
31:BA:2527:C:H2'	31:BA:2528:U:O4'	1.99	0.62
35:DF:158:THR:HG23	35:DF:160:ASN:H	1.64	0.62
1:AA:1250:A:H4'	9:AI:68:GLY:N	2.13	0.62
45:DT:32:TYR:CG	45:DT:81:PRO:HB2	2.33	0.62
4:AD:170:VAL:HG22	4:AD:171:GLY:H	1.62	0.62
42:DQ:42:ILE:HD13	42:DQ:97:VAL:HB	1.81	0.62
37:DH:92:ILE:HG12	37:DH:160:LYS:HE3	1.80	0.62
22:B0:2:ALA:H	31:BA:2602:A:H62	1.47	0.62
31:BA:2599:G:OP2	33:BD:236:GLY:N	2.31	0.62
31:BA:271(A):A:H5'	31:BA:271(B):C:OP2	1.99	0.62
1:AA:380:G:N1	1:AA:384:G:C6	2.67	0.62
31:DA:2552:U:H2'	31:DA:2554:U:OP2	1.99	0.62
48:BW:37:ARG:HG3	48:BW:37:ARG:HH11	1.64	0.62
31:DA:2068:U:N3	31:DA:2430:A:C2	2.56	0.62
31:DA:515:A:H1'	31:DA:581:C:H1'	1.80	0.62
28:B6:27:LYS:HD2	31:BA:2285:C:OP2	2.00	0.62
31:BA:669:G:C8	31:BA:669:G:H5'	2.34	0.62
31:BA:743:G:H2'	31:BA:744:G:H5'	1.81	0.62
36:BG:20:ILE:HA	36:BG:25:TYR:CD2	2.34	0.62
49:BX:74:PRO:O	49:BX:75:ASP:C	2.38	0.62
1:CA:433:C:H2'	1:CA:434:U:H6	1.64	0.62
31:DA:729:G:OP2	33:DD:13:ARG:NH1	2.31	0.62
31:BA:1021:A:H62	31:BA:1141:U:H3	1.47	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BN:42:TRP:CD1	39:BN:42:TRP:C	2.72	0.62
1:CA:177:C:OP1	20:CT:65:LYS:HD3	1.98	0.62
47:BV:66:ARG:CD	47:BV:67:GLY:N	2.61	0.62
31:DA:329:G:OP2	50:DY:71:LYS:HE2	1.98	0.62
31:DA:912:C:C2	31:DA:913:U:C5	2.87	0.62
31:BA:286:C:N4	31:BA:355:G:H1	1.94	0.62
40:BO:10:VAL:HG23	40:BO:10:VAL:O	1.99	0.62
1:CA:441:A:H3'	1:CA:442:C:H6	1.62	0.62
20:AT:12:ALA:O	20:AT:15:ARG:HB2	1.99	0.62
34:DE:132:HIS:CG	34:DE:135:HIS:NE2	2.67	0.62
31:BA:1603:A:C8	31:BA:1603:A:H5'	2.28	0.62
1:AA:1084:G:C5	1:AA:1085:U:C4	2.87	0.62
2:CB:178:ARG:NH2	8:CH:68:ARG:NH2	2.43	0.62
31:DA:1418:G:H8	31:DA:1418:G:O5'	1.82	0.62
42:BQ:19:GLY:C	42:BQ:21:THR:H	2.02	0.62
1:CA:960:U:O2	1:CA:960:U:H2'	1.96	0.62
45:DT:29:ARG:HD3	45:DT:86:ILE:HG22	1.80	0.62
17:CQ:18:THR:HG23	17:CQ:69:LYS:HE3	1.81	0.62
1:AA:1201:A:H4'	1:AA:1202:G:O5'	1.99	0.62
31:BA:2475:C:H5''	31:BA:2476:A:P	2.39	0.62
31:DA:460:A:C2	31:DA:470:A:C4	2.87	0.62
33:BD:267:SER:HA	33:BD:270:ILE:CD1	2.29	0.62
8:CH:87:SER:HA	8:CH:93:VAL:HG23	1.80	0.62
31:DA:2480:C:N4	31:DA:2481:G:C6	2.67	0.62
18:CR:29:PHE:CZ	18:CR:31:LEU:HD22	2.35	0.62
31:BA:34:C:H2'	31:BA:35:G:OP1	1.98	0.62
31:DA:208:C:H2'	31:DA:209:C:C6	2.34	0.62
31:BA:2074:U:HO2'	31:BA:2597:G:HO2'	1.47	0.62
2:AB:64:ARG:HG3	2:AB:64:ARG:O	1.98	0.62
51:BZ:156:LYS:O	51:BZ:158:PRO:HD3	1.99	0.62
31:BA:836:G:H2'	31:BA:837:C:C6	2.34	0.62
31:DA:576:U:H2'	31:DA:577:G:C8	2.34	0.62
31:DA:2795:G:N2	31:DA:2796:U:O2'	2.33	0.62
28:D6:11:LEU:HD23	28:D6:25:LYS:HA	1.82	0.62
31:DA:2015:A:H2'	31:DA:2016:U:H5'	1.81	0.62
31:DA:2061:G:H5''	31:DA:2503:A:C2	2.34	0.62
31:DA:2245:U:H5''	31:DA:2246:G:H5'	1.81	0.62
31:DA:675:A:C8	31:DA:804:A:C6	2.87	0.62
41:DP:50:ARG:NH2	41:DP:50:ARG:HG2	2.14	0.62
31:BA:1204:A:C2	31:BA:1241:A:N1	2.67	0.62
31:BA:2358:G:H1	41:BP:55:ARG:HH22	1.46	0.62
55:BA:3362:TEL:H383	55:BA:3362:TEL:O29	1.99	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BG:29:TRP:N	36:BG:29:TRP:CD1	2.67	0.62
49:BX:83:VAL:O	49:BX:84:ALA:HB3	1.97	0.62
33:BD:253:GLN:HB3	33:BD:255:LYS:CE	2.29	0.62
1:AA:376:G:H4'	16:AP:5:ARG:HH11	1.63	0.62
1:CA:386:C:H2'	1:CA:387:U:C5'	2.24	0.62
1:CA:437:U:H2'	1:CA:438:G:C5'	2.29	0.62
1:AA:1442:G:C5	1:AA:1442(B):A:H2	2.16	0.62
31:BA:1319:G:C6	31:BA:1320:C:N4	2.68	0.62
31:DA:1796:U:H2'	31:DA:1797:C:H6	1.65	0.62
31:DA:2752:C:C2	31:DA:2753:A:N7	2.66	0.62
23:D1:88:LYS:O	23:D1:92:LYS:HB2	1.99	0.62
31:DA:2655:G:O2'	31:DA:2656:U:H5	1.81	0.62
1:CA:194:C:C2'	1:CA:195:A:H5''	2.29	0.62
31:BA:848:G:N3	31:BA:933:A:H1'	2.15	0.62
31:BA:1508:A:OP1	31:BA:1509(A):A:H2	1.83	0.62
42:BQ:140:ALA:H	51:BZ:53:ILE:CD1	2.13	0.62
1:AA:738:C:H5''	6:AF:2:ARG:NH1	2.15	0.62
27:D5:40:LYS:CD	27:D5:46:CYS:HB3	2.30	0.62
27:D5:40:LYS:NZ	27:D5:46:CYS:H	1.95	0.62
31:DA:1694:C:O2'	31:DA:1695:G:C4	2.52	0.62
12:AL:25:PRO:C	12:AL:27:LEU:H	2.00	0.62
1:AA:343:U:C2	1:AA:347:G:N1	2.67	0.62
12:CL:24:VAL:HG13	12:CL:98:TYR:CE2	2.34	0.62
37:BH:89:ILE:N	37:BH:89:ILE:CD1	2.62	0.62
31:BA:1504:C:O2'	31:BA:1505:C:H5'	1.99	0.62
31:DA:1175:U:H4'	31:DA:1176:G:H2'	1.81	0.62
39:DN:128:HIS:O	39:DN:130:HIS:N	2.32	0.62
31:BA:154:G:N1	31:BA:172:C:N4	2.47	0.62
31:BA:719:C:O2'	31:BA:720:C:H5'	2.00	0.62
8:CH:29:SER:HB3	8:CH:32:LYS:CG	2.29	0.62
1:AA:1408:A:O2'	31:BA:1916:A:N1	2.31	0.62
37:BH:92:ILE:HG12	37:BH:160:LYS:HE3	1.82	0.62
3:AC:70:VAL:O	3:AC:106:VAL:HG23	1.99	0.62
41:BP:21:ARG:HG2	41:BP:21:ARG:O	1.98	0.62
8:CH:54:ASP:O	8:CH:56:LYS:HG3	1.98	0.62
11:CK:111:ASP:CA	18:CR:84:LYS:HE2	2.29	0.62
2:AB:18:GLY:H	2:AB:42:ILE:HG22	1.64	0.62
31:DA:1381:G:C2'	31:DA:1382:G:H5'	2.29	0.62
33:DD:253:GLN:HB3	33:DD:255:LYS:HZ3	1.65	0.62
31:DA:602:G:H8	31:DA:602:G:OP2	1.81	0.62
51:DZ:149:SER:HB2	51:DZ:173:ALA:HA	1.80	0.62
44:BS:83:LYS:HG2	44:BS:105:ALA:HB2	1.81	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:790:A:C6	1:CA:791:G:C6	2.87	0.62
2:AB:239:VAL:HG12	2:AB:239:VAL:O	1.97	0.62
34:BE:120:TRP:O	34:BE:121:ASN:HB2	1.99	0.62
2:CB:239:VAL:HG12	2:CB:239:VAL:O	1.99	0.62
11:CK:62:GLN:C	11:CK:64:ALA:H	2.02	0.62
34:DE:203:LYS:HG3	34:DE:204:ALA:N	2.13	0.62
31:DA:2280:G:C2'	31:DA:2281:C:H5'	2.28	0.62
31:DA:2749:A:H4'	37:DH:62:LYS:HB3	1.80	0.62
43:BR:100:LEU:HD21	43:BR:113:LEU:HD13	1.82	0.62
43:DR:44:LEU:O	43:DR:44:LEU:HD22	2.00	0.62
49:DX:10:ALA:O	49:DX:28:PHE:HB3	1.99	0.62
42:DQ:34:LEU:HD11	42:DQ:129:THR:HB	1.81	0.62
30:D8:30:ARG:HH21	41:DP:62:LEU:CB	2.12	0.62
31:DA:2058:A:H5''	31:DA:2059:A:OP2	2.00	0.62
41:BP:50:ARG:NH2	41:BP:50:ARG:HG2	2.13	0.62
31:DA:2542:A:C8	31:DA:2544:G:O6	2.51	0.62
31:BA:573:G:C6	31:BA:2030:A:H3'	2.33	0.62
23:B1:85:LEU:C	23:B1:87:PRO:HD3	2.20	0.62
6:CF:67:MET:HB2	6:CF:68:PRO:HD2	1.80	0.62
50:BY:46:LYS:HB2	50:BY:47:LYS:HD2	1.81	0.62
48:BW:75:TYR:O	48:BW:75:TYR:CD1	2.53	0.62
12:AL:27:LEU:HD11	12:AL:64:TYR:CE1	2.35	0.62
42:DQ:19:GLY:C	42:DQ:21:THR:H	2.01	0.62
31:DA:518:G:H4'	48:DW:18:ARG:NH1	2.15	0.62
31:BA:1858:G:H1'	31:BA:1884:A:N6	2.15	0.62
33:BD:267:SER:HA	33:BD:270:ILE:HD11	1.81	0.62
31:BA:855:G:C5	31:BA:856:C:N4	2.67	0.62
5:CE:57:LYS:O	5:CE:61:TYR:HD2	1.83	0.62
12:AL:87:GLY:HA2	12:AL:98:TYR:HA	1.80	0.62
1:AA:1128:C:O2'	1:AA:1130:A:C8	2.48	0.62
4:CD:148:VAL:CG1	4:CD:149:ALA:H	2.12	0.62
31:DA:2492:U:H2'	31:DA:2493:U:C6	2.34	0.62
1:AA:245:C:O2	1:AA:283:C:N3	2.32	0.62
4:CD:104:VAL:HG21	4:CD:140:VAL:HG21	1.80	0.62
1:CA:34:C:H2'	1:CA:35:G:C8	2.35	0.62
1:AA:447:G:C6	1:AA:485:G:H1'	2.35	0.62
20:AT:43:LEU:HD12	20:AT:55:ILE:HG13	1.82	0.62
51:DZ:4:ARG:HG2	51:DZ:58:VAL:HB	1.81	0.62
35:BF:57:VAL:HG12	35:BF:59:TYR:H	1.64	0.62
23:D1:33:LYS:C	23:D1:34:THR:HG22	2.19	0.62
31:BA:1254:A:H5'	31:BA:1255:U:H5'	1.82	0.62
33:BD:25:THR:HG23	33:BD:25:THR:O	2.00	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:BX:23:GLU:HG3	49:BX:24:GLY:H	1.64	0.62
32:DB:31:C:C2'	32:DB:53:A:H61	2.11	0.62
1:CA:103:C:OP2	20:CT:14:LYS:HD3	2.00	0.62
1:CA:375:U:O3'	16:CP:6:LEU:HB2	1.99	0.62
1:CA:363:A:C2	12:CL:31:PRO:HG2	2.34	0.62
31:BA:994:C:O2	47:BV:10:LYS:NZ	2.33	0.62
31:BA:573:G:N1	31:BA:2030:A:H3'	2.14	0.62
20:CT:50:GLU:HB2	20:CT:100:ILE:CG1	2.30	0.62
31:DA:2494:G:C4	31:DA:2495:G:C8	2.87	0.62
27:D5:40:LYS:CE	27:D5:49:CYS:SG	2.87	0.62
45:BT:32:TYR:CG	45:BT:81:PRO:HB2	2.35	0.62
1:CA:1201:A:H4'	1:CA:1202:G:O5'	1.99	0.62
24:B2:18:PRO:O	24:B2:19:VAL:C	2.38	0.62
1:CA:1003:G:H2'	1:CA:1004:A:C4'	2.29	0.62
31:DA:1996:C:H4'	31:DA:1997:G:OP1	1.99	0.62
31:BA:758:C:O2	31:BA:1981:A:H2	1.81	0.62
1:AA:1321:C:H3'	1:AA:1322:C:H5''	1.79	0.62
31:BA:2820:A:C8	34:BE:109:LYS:HE3	2.35	0.62
37:DH:92:ILE:HG22	37:DH:93:GLY:H	1.65	0.62
4:AD:148:VAL:CG1	4:AD:149:ALA:N	2.62	0.62
15:CO:36:ILE:HD12	15:CO:63:ARG:HD3	1.82	0.62
1:CA:37:U:O2'	1:CA:38:G:H5'	2.00	0.62
31:DA:1922:G:H2'	31:DA:1923:U:C6	2.35	0.62
1:CA:719:C:H5''	1:CA:720:C:OP2	1.99	0.62
1:AA:1311:G:N2	1:AA:1327:C:C2	2.68	0.62
31:DA:231:C:O2'	31:DA:232:G:H5'	2.00	0.62
31:DA:672:C:O2'	31:DA:673:C:H5'	2.00	0.62
31:DA:828:U:H3'	31:DA:828:U:O2	2.00	0.62
41:BP:48:PRO:O	41:BP:51:PHE:N	2.32	0.62
31:BA:52:A:O2'	31:BA:53:A:H5'	1.99	0.62
33:BD:63:ARG:HH11	33:BD:63:ARG:HG3	1.64	0.62
31:BA:2542:A:C8	31:BA:2544:G:O6	2.52	0.62
24:D2:49:LYS:CE	24:D2:53:LEU:HD22	2.30	0.62
39:DN:57:ALA:HB1	39:DN:60:ILE:HD11	1.81	0.62
47:DV:66:ARG:HD3	47:DV:94:LEU:HG	1.82	0.62
1:AA:389:A:H2'	1:AA:390:C:C5'	2.28	0.62
1:AA:500:G:N2	1:AA:546:G:H1'	2.14	0.62
5:CE:103:GLY:O	5:CE:106:PRO:HD2	2.00	0.62
8:AH:107:LEU:HD23	8:AH:107:LEU:N	2.14	0.62
31:DA:2283:C:C2'	31:DA:2284:C:H5'	2.30	0.62
42:DQ:81:VAL:C	42:DQ:82:ARG:HG2	2.17	0.62
31:BA:1228:G:H2'	31:BA:1229:G:C5'	2.26	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:B5:42:PRO:O	27:B5:43:HIS:HB2	1.98	0.62
31:BA:378:C:H2'	31:BA:379:G:H5'	1.81	0.62
1:CA:1101:A:H61	2:CB:103:THR:HB	1.64	0.62
1:AA:1072:G:H2'	1:AA:1073:U:C6	2.35	0.62
28:B6:20:ASN:O	28:B6:21:TYR:CG	2.52	0.62
34:DE:24:THR:HG21	34:DE:188:VAL:HG12	1.82	0.62
31:BA:1497:U:H3	31:BA:1578:U:P	2.23	0.62
14:CN:4:LYS:HD2	14:CN:7:ILE:HD11	1.81	0.62
31:DA:774:A:H2	31:DA:787:U:HO2'	0.76	0.62
36:BG:120:LEU:HD11	36:BG:179:PRO:HD2	1.80	0.62
1:CA:250:A:H1'	1:CA:251:G:OP2	1.99	0.62
31:DA:1434:A:O2'	31:DA:1435:G:H5'	1.99	0.62
31:BA:271(P):C:C5'	38:BI:45:LYS:HE3	2.28	0.62
37:BH:148:ILE:O	37:BH:151:ILE:HG12	1.99	0.62
31:DA:2469:A:H2	31:DA:2481:G:N2	1.96	0.62
1:AA:1321:C:C3'	1:AA:1322:C:H5''	2.29	0.62
40:BO:4:PRO:O	40:BO:5:GLN:CB	2.47	0.62
31:DA:34:C:H3'	31:DA:34:C:C6	2.35	0.62
3:AC:186:PHE:HD1	3:AC:198:VAL:O	1.81	0.62
3:CC:130:VAL:HB	3:CC:157:ILE:HG23	1.82	0.62
10:AJ:84:GLN:O	10:AJ:88:LEU:HB2	2.00	0.62
42:DQ:17:LEU:HD23	42:DQ:17:LEU:N	2.14	0.62
1:AA:131:C:H2'	1:AA:132:C:H6	1.64	0.62
1:CA:32:A:H2'	1:CA:33:A:C8	2.34	0.62
31:DA:1465:G:C4	31:DA:1466:G:C8	2.88	0.62
7:AG:23:VAL:HG13	7:AG:43:PHE:CZ	2.35	0.62
40:BO:122:LEU:HD13	45:BT:72:VAL:HG11	1.79	0.62
11:AK:23:ALA:HB3	11:AK:86:GLY:O	1.99	0.62
1:CA:863:U:H2'	1:CA:865:A:OP2	1.98	0.62
31:DA:588:U:C2	35:DF:90:PHE:CE1	2.88	0.62
41:DP:110:TYR:O	41:DP:111:ARG:C	2.37	0.62
29:B7:19:ARG:HH11	29:B7:19:ARG:HG2	1.65	0.62
31:BA:1378:A:H4'	31:BA:1379:A:OP1	1.99	0.62
36:BG:29:TRP:C	36:BG:31:VAL:N	2.53	0.62
39:DN:3:THR:HG22	39:DN:4:TYR:H	1.64	0.62
24:B2:56:GLN:HE21	24:B2:56:GLN:N	1.96	0.62
44:DS:34:HIS:NE2	44:DS:54:LEU:HB2	2.14	0.62
44:DS:26:LEU:HD22	44:DS:87:PHE:CE1	2.35	0.62
1:CA:1430:C:H5'	31:DA:1704:G:C5'	2.29	0.62
1:CA:628:G:H2'	1:CA:629:G:C8	2.34	0.62
1:AA:441:A:H3'	1:AA:442:C:H6	1.65	0.62
31:BA:1316:U:H2'	31:BA:1317:A:C8	2.35	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DD:54:ARG:C	33:DD:218:ARG:HG3	2.19	0.62
46:BU:95:LEU:HD22	47:BV:4:ILE:CD1	2.30	0.62
46:BU:95:LEU:HD22	47:BV:4:ILE:HD11	1.82	0.62
31:BA:782:A:H5'	31:BA:783:A:C2	2.34	0.62
33:BD:159:ALA:H	33:BD:161:THR:HG1	1.44	0.62
31:DA:1210:A:H5''	31:DA:1212:G:O4'	2.00	0.62
31:BA:1476:C:H2'	31:BA:1477:A:H8	1.65	0.62
31:DA:2387:U:H6	31:DA:2387:U:OP2	1.83	0.62
32:DB:66:A:C5	32:DB:109:C:C5	2.87	0.62
27:B5:55:ARG:C	27:B5:56:LYS:HG3	2.20	0.62
1:AA:503:C:H2'	1:AA:504:C:H6	1.65	0.62
31:DA:2094:G:H1'	31:DA:2198:A:N6	2.15	0.62
27:B5:7:PRO:HG2	31:BA:2016:U:O2	1.99	0.62
39:BN:15:LEU:HD13	39:BN:16:ILE:N	2.13	0.62
6:AF:82:ARG:HB2	6:AF:85:VAL:CG2	2.28	0.62
36:DG:47:LYS:HD3	36:DG:81:LYS:CD	2.29	0.62
1:AA:853:G:H2'	1:AA:854:G:H8	1.63	0.62
31:DA:873:G:N2	31:DA:905:U:C2	2.67	0.62
43:BR:2:ARG:N	43:BR:2:ARG:CD	2.63	0.62
43:BR:5:LYS:HD2	43:BR:5:LYS:H	1.65	0.62
1:CA:559:A:N3	1:CA:559:A:H2'	2.14	0.62
1:AA:555:C:C2	1:AA:556:C:C5	2.88	0.62
31:BA:966:G:C6	31:BA:967:C:N4	2.68	0.62
31:DA:1786:A:H1'	31:DA:1938:A:H62	1.62	0.62
37:BH:89:ILE:CG1	37:BH:90:LYS:H	2.13	0.62
37:BH:89:ILE:HD12	37:BH:89:ILE:N	2.14	0.62
36:BG:117:PHE:HE1	36:BG:120:LEU:HD23	1.64	0.62
45:DT:88:ILE:CG2	45:DT:89:VAL:HG23	2.30	0.62
31:DA:1476:C:H2'	31:DA:1477:A:H8	1.64	0.62
6:AF:100:ASN:H	18:AR:23:LYS:HZ2	1.47	0.62
1:AA:251:G:H4'	1:AA:252:U:O5'	2.00	0.62
31:BA:2273:A:H2'	31:BA:2274:A:C8	2.34	0.62
31:BA:1876:A:H2'	31:BA:1877:A:C8	2.34	0.62
31:DA:2390:U:O2'	31:DA:2391:G:H5'	2.00	0.62
7:AG:22:LEU:HG	7:AG:62:PHE:HE2	1.65	0.62
46:DU:36:ARG:HD3	46:DU:40:PHE:CZ	2.34	0.62
31:BA:1847:A:H4'	31:BA:1848:A:OP2	1.98	0.62
35:BF:127:GLU:HA	35:BF:127:GLU:OE1	2.00	0.62
37:BH:16:SER:HB2	37:BH:27:LYS:HB2	1.82	0.62
17:AQ:76:LEU:HD12	17:AQ:77:VAL:H	1.64	0.62
29:B7:37:LYS:HE2	31:BA:469:G:O6	1.99	0.62
37:DH:158:HIS:CE1	37:DH:168:PRO:HG2	2.35	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:D8:22:VAL:HB	30:D8:53:PRO:CB	2.30	0.62
31:DA:2061:G:N2	31:DA:2063:C:C2	2.68	0.62
1:AA:103:C:OP2	20:AT:14:LYS:HD3	2.00	0.62
50:BY:8:LYS:NZ	50:BY:72:VAL:HG23	2.15	0.62
31:BA:1317:A:H2'	31:BA:1318:C:H6	1.63	0.62
31:DA:782:A:H5'	31:DA:783:A:C2	2.35	0.62
31:BA:1033:U:H5''	31:BA:1034:G:OP1	1.99	0.62
31:BA:1141:U:P	39:BN:25:ARG:HH12	2.23	0.62
38:BI:120:ILE:HD11	38:BI:140:LEU:HD23	1.81	0.62
1:CA:1095:U:H5''	1:CA:1109:C:O2	2.00	0.62
31:BA:2283:C:C2'	31:BA:2284:C:H5'	2.30	0.62
15:CO:51:HIS:O	15:CO:54:ARG:HB3	2.00	0.62
1:AA:801:U:H2'	1:AA:802:A:H8	1.65	0.62
1:AA:667:G:H4'	15:AO:51:HIS:CE1	2.35	0.62
12:AL:62:SER:O	12:AL:64:TYR:N	2.32	0.62
1:AA:976:G:P	14:AN:32:SER:H	2.23	0.62
31:DA:92:A:H2'	31:DA:93:G:O4'	2.00	0.62
12:CL:27:LEU:HD11	12:CL:64:TYR:CE1	2.35	0.62
31:BA:795:C:H2'	31:BA:796:C:C6	2.35	0.62
36:DG:64:THR:CG2	36:DG:65:GLY:N	2.63	0.62
37:BH:92:ILE:HG22	37:BH:93:GLY:H	1.65	0.62
10:CJ:63:PHE:HA	14:CN:59:ALA:H	1.64	0.62
10:CJ:63:PHE:HZ	14:CN:45:ARG:HG3	1.65	0.62
31:BA:106:C:H1'	50:BY:2:ARG:NE	2.13	0.62
31:BA:1994:C:O2'	31:BA:1995:U:H5'	2.00	0.62
31:DA:2098:U:H2'	31:DA:2099:U:C6	2.35	0.62
31:BA:646:A:H2'	31:BA:647:G:H5'	1.80	0.62
31:BA:2500:U:H2'	31:BA:2504:U:H5	1.65	0.62
1:AA:1337:G:H5''	1:AA:1338:G:OP1	1.99	0.62
36:DG:94:LEU:O	36:DG:99:MET:HB2	2.00	0.62
43:BR:67:LEU:HD13	43:BR:76:VAL:HG21	1.82	0.62
42:DQ:89:ASN:O	42:DQ:91:GLU:N	2.32	0.62
3:AC:64:VAL:HB	3:AC:99:VAL:HG12	1.81	0.62
3:CC:64:VAL:HB	3:CC:99:VAL:HG12	1.80	0.62
31:DA:947:G:N2	31:DA:971:C:C2	2.68	0.62
31:DA:971:C:H2'	31:DA:972:G:H5'	1.80	0.62
31:DA:661:C:H4'	41:DP:18:ARG:HG2	1.81	0.62
28:B6:10:LEU:CD1	30:B8:35:GLN:HE22	2.06	0.62
31:BA:580:C:H2'	31:BA:581:C:C6	2.35	0.62
31:BA:833:U:H5''	41:BP:48:PRO:HB3	1.82	0.62
32:BB:28:C:OP1	44:BS:36:TYR:OH	2.14	0.62
47:DV:13:ARG:HH12	47:DV:15:GLU:CG	2.12	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:DV:40:LEU:O	47:DV:41:GLY:O	2.18	0.62
47:DV:90:PRO:HD2	47:DV:91:TYR:H	1.65	0.62
49:BX:60:ARG:HD3	49:BX:60:ARG:H	1.63	0.62
1:CA:411:A:C4	1:CA:413:G:O4'	2.53	0.62
1:CA:625:G:H2'	1:CA:626:U:C6	2.35	0.62
50:BY:28:LYS:C	50:BY:29:GLU:OE1	2.38	0.62
31:DA:370:G:C4'	31:DA:371:A:OP2	2.39	0.62
50:DY:28:LYS:CD	50:DY:28:LYS:H	1.96	0.62
31:DA:910:A:C8	42:DQ:13:GLN:HB2	2.35	0.62
1:AA:1256:A:H5'	1:AA:1257:U:OP1	2.00	0.62
32:DB:21:G:O2'	32:DB:22:U:C6	2.52	0.62
31:BA:624:C:C2'	31:BA:625:G:H5'	2.29	0.62
1:AA:327:A:C4	1:AA:329:A:C8	2.87	0.62
1:AA:356:A:C2	1:AA:357:G:H1'	2.35	0.62
31:BA:1747(A):G:H2'	31:BA:1748:G:C5'	2.28	0.62
34:BE:104:VAL:HG11	34:BE:188:VAL:HG23	1.81	0.62
3:CC:52:LEU:H	3:CC:52:LEU:CD2	2.13	0.62
31:BA:1972:A:H2'	31:BA:1973:G:H8	1.65	0.62
31:BA:772:C:O2'	31:BA:773:U:H5'	1.98	0.62
3:CC:73:PRO:HA	3:CC:76:VAL:CG1	2.29	0.62
1:AA:1305:G:H5'	21:AU:4:GLY:HA3	1.80	0.62
31:BA:2820:A:O2'	31:BA:2821:A:OP1	2.17	0.62
1:CA:1495:U:H2'	1:CA:1496:C:H6	1.65	0.62
31:BA:1684:C:C2	31:BA:1705:G:N2	2.68	0.62
8:CH:64:LYS:HG2	8:CH:79:VAL:HG21	1.82	0.62
31:BA:1000:A:H2'	31:BA:1001:A:C8	2.33	0.62
7:CG:85:TYR:CD1	7:CG:154:TYR:HE1	2.18	0.62
4:AD:110:PHE:HZ	4:AD:183:GLY:H	1.45	0.62
3:CC:58:GLU:H	3:CC:65:ALA:HB3	1.65	0.62
5:CE:42:GLY:HA3	5:CE:66:MET:HG2	1.81	0.62
31:DA:1033:U:H5''	31:DA:1034:G:P	2.40	0.62
1:CA:1502:A:H5'	1:CA:1504:G:N7	2.15	0.62
31:BA:1239:G:H2'	31:BA:1240:U:O4'	2.00	0.62
33:BD:27:THR:O	33:BD:29:PRO:HD2	1.99	0.62
49:DX:23:GLU:HG3	49:DX:24:GLY:H	1.64	0.62
32:DB:24:G:C2	32:DB:56:G:N2	2.67	0.62
50:BY:45:VAL:HG13	50:BY:62:GLU:CG	2.30	0.62
46:BU:34:LYS:HA	46:BU:34:LYS:HE2	1.80	0.62
50:DY:44:ILE:HG22	50:DY:45:VAL:N	2.15	0.62
23:D1:10:LYS:HB2	23:D1:14:VAL:N	2.14	0.62
33:BD:210:GLY:O	33:BD:211:ARG:HB3	1.99	0.62
33:BD:44:ASN:HB3	33:BD:49:ILE:CA	2.28	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:BV:18:LEU:HD13	47:BV:18:LEU:C	2.20	0.62
47:BV:73:SER:OG	47:BV:75:PHE:CE1	2.51	0.62
31:DA:2318:G:O2'	31:DA:2319:G:P	2.58	0.62
31:DA:1292:U:H2'	31:DA:1293:C:H6	1.57	0.62
1:CA:556:C:C2'	1:CA:557:G:H5'	2.30	0.62
31:BA:910:A:N7	42:BQ:13:GLN:HB2	2.14	0.62
31:DA:1786:A:C1'	31:DA:1938:A:N6	2.62	0.62
31:DA:1994:C:O2'	31:DA:1995:U:H5'	2.00	0.62
31:DA:1515:G:H2'	31:DA:1516:C:C6	2.34	0.62
31:DA:2580:U:H5''	34:DE:131:ALA:H	1.64	0.62
1:AA:1130:A:H1'	1:AA:1146:A:C2	2.34	0.62
1:CA:1423:G:H2'	1:CA:1424:C:H6	1.65	0.62
2:AB:32:ILE:HD12	2:AB:41:ILE:O	2.00	0.62
1:AA:1059:C:O2	10:AJ:53:PRO:HG3	1.99	0.62
2:CB:84:GLU:HB3	2:CB:219:VAL:HG21	1.82	0.62
31:BA:92:A:H2'	31:BA:93:G:O4'	2.00	0.62
31:BA:2205:C:C2	31:BA:2220:G:C2	2.88	0.62
6:CF:69:GLU:O	6:CF:72:VAL:HG12	1.99	0.62
30:D8:18:ALA:HB3	31:DA:651:G:H4'	1.82	0.62
36:BG:66:GLN:OE1	36:BG:98:ARG:HG3	2.00	0.62
3:AC:11:ARG:O	3:AC:14:ILE:O	2.17	0.62
3:AC:135:LYS:NZ	5:AE:53:LEU:HD11	2.15	0.62
1:CA:1416:G:H2'	1:CA:1417:G:O4'	1.99	0.62
31:DA:27:G:H22	31:DA:512:G:H2'	1.59	0.61
31:BA:744:G:OP1	34:BE:132:HIS:HB3	1.99	0.61
31:DA:1007:C:H5''	39:DN:35:ARG:HH11	1.65	0.61
33:BD:253:GLN:HB3	33:BD:255:LYS:HZ3	1.64	0.61
1:AA:624:C:H2'	1:AA:625:G:C8	2.35	0.61
1:CA:322:C:H41	1:CA:328:C:H6	1.48	0.61
1:CA:433:C:H2'	1:CA:434:U:C6	2.35	0.61
1:CA:500:G:N2	1:CA:546:G:H1'	2.15	0.61
1:CA:537:G:H2'	1:CA:538:G:C8	2.35	0.61
1:CA:622:A:C8	1:CA:623:C:C5	2.87	0.61
45:BT:50:ILE:HD11	45:BT:102:ILE:CD1	2.16	0.61
39:BN:47:ALA:HB2	39:BN:112:LEU:HD21	1.82	0.61
34:DE:55:ASN:HD21	34:DE:75:VAL:HG21	1.65	0.61
23:B1:13:ILE:O	23:B1:14:VAL:HB	2.00	0.61
1:CA:738:C:H2'	1:CA:739:C:C6	2.35	0.61
42:DQ:140:ALA:H	51:DZ:53:ILE:CD1	2.13	0.61
31:DA:966:G:C6	31:DA:967:C:N4	2.68	0.61
31:BA:355:G:C2	31:BA:356:G:C8	2.88	0.61
31:DA:1114:G:H2'	31:DA:1115:G:C8	2.34	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:B5:4:HIS:HD2	31:BA:2056:G:H1	1.47	0.61
39:BN:15:LEU:HD21	39:BN:55:VAL:HG22	1.82	0.61
1:CA:1098:C:N3	1:CA:1099:G:C8	2.68	0.61
31:BA:633:A:H2'	31:BA:634:C:H5'	1.81	0.61
1:AA:559:A:H4'	1:AA:560:U:H3'	1.82	0.61
31:BA:2012:G:O3'	48:BW:96:ILE:HG13	1.99	0.61
31:BA:2655:G:O2'	31:BA:2656:U:C5	2.53	0.61
36:DG:64:THR:CG2	36:DG:65:GLY:H	2.13	0.61
1:CA:1332:A:O5'	1:CA:1332:A:H8	1.83	0.61
4:CD:148:VAL:CG1	4:CD:152:SER:HB2	2.29	0.61
31:BA:36:G:C5	31:BA:37:C:C5	2.88	0.61
13:CM:108:ARG:CZ	13:CM:114:ARG:HG2	2.30	0.61
8:CH:44:PHE:HA	8:CH:79:VAL:HG11	1.80	0.61
9:AI:97:LYS:HB3	9:AI:98:PRO:HD3	1.82	0.61
31:BA:948:G:O2'	31:BA:949:C:H5'	1.99	0.61
4:AD:92:VAL:O	4:AD:96:LEU:HD22	2.00	0.61
1:AA:1460:A:H2'	1:AA:1461:G:O4'	2.00	0.61
31:DA:514:A:H2'	31:DA:515:A:C8	2.35	0.61
31:DA:2358:G:H1	41:DP:55:ARG:HH22	1.48	0.61
41:BP:33:ARG:O	41:BP:34:GLY:C	2.38	0.61
49:DX:53:LYS:NZ	49:DX:55:ASN:HD21	1.96	0.61
1:CA:115:G:H4'	1:CA:116:A:O5'	2.00	0.61
31:BA:2318:G:O2'	31:BA:2319:G:P	2.58	0.61
33:DD:206:LEU:N	33:DD:206:LEU:HD23	2.15	0.61
37:DH:70:THR:O	37:DH:72:ILE:N	2.34	0.61
31:DA:2655:G:O2'	31:DA:2656:U:C5	2.53	0.61
5:AE:10:MET:CB	5:AE:32:VAL:HG22	2.27	0.61
31:BA:729:G:OP1	33:BD:10:THR:OG1	2.17	0.61
31:BA:784:A:C5'	31:BA:785:G:OP1	2.37	0.61
31:BA:784:A:C5	33:BD:229:VAL:HG21	2.35	0.61
47:BV:66:ARG:HD3	47:BV:94:LEU:HG	1.80	0.61
18:CR:74:ARG:HB3	18:CR:81:PHE:CE1	2.35	0.61
31:DA:2335:A:C8	31:DA:2337:G:C5	2.88	0.61
31:BA:1777:U:O2'	31:BA:1778:U:H5'	2.00	0.61
35:BF:102:PRO:HB2	35:BF:105:VAL:HG23	1.82	0.61
1:AA:359:U:H2'	1:AA:360:A:C8	2.36	0.61
1:AA:363:A:C2	12:AL:31:PRO:HG2	2.34	0.61
27:B5:4:HIS:HB3	27:B5:5:PRO:CD	2.27	0.61
31:DA:2636:U:H4'	34:DE:80:GLU:OE1	1.99	0.61
27:D5:41:PRO:HG2	27:D5:44:THR:OG1	2.00	0.61
31:BA:1114:G:H2'	31:BA:1115:G:C8	2.34	0.61
1:AA:96:U:O2'	1:AA:97:G:H8	1.80	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1098:C:N3	1:AA:1099:G:C8	2.68	0.61
34:DE:11:MET:HE3	34:DE:186:GLY:HA2	1.81	0.61
1:CA:560:U:H4'	1:CA:561:U:O5'	1.99	0.61
45:BT:32:TYR:HD2	45:BT:81:PRO:O	1.83	0.61
31:DA:2199:A:C5'	31:DA:2200:C:OP2	2.49	0.61
31:BA:2507:C:H5''	31:BA:2573:C:N4	2.15	0.61
13:AM:15:VAL:HG22	13:AM:41:PRO:HA	1.82	0.61
13:CM:34:LEU:HD13	13:CM:41:PRO:HG3	1.81	0.61
37:BH:103:LEU:HD23	37:BH:115:VAL:HB	1.82	0.61
2:AB:162:ILE:O	2:AB:162:ILE:HD12	2.01	0.61
1:AA:1332:A:O5'	1:AA:1332:A:H8	1.83	0.61
31:BA:807:U:C2'	31:BA:808:G:O5'	2.48	0.61
31:DA:1317:A:H2'	31:DA:1318:C:C6	2.34	0.61
31:BA:1359:A:H8	31:BA:1372:U:O4	1.82	0.61
1:AA:397:A:N7	1:AA:548:G:C8	2.68	0.61
38:BI:15:VAL:HG23	38:BI:16:GLY:N	2.14	0.61
31:BA:2596:U:C2'	31:BA:2597:G:H5'	2.30	0.61
3:AC:34:LEU:O	3:AC:38:ARG:HG2	2.01	0.61
29:D7:47:ARG:C	29:D7:48:LYS:HD3	2.21	0.61
8:CH:73:ASP:OD2	8:CH:75:ARG:HG3	2.00	0.61
31:DA:1830:C:H4'	33:DD:15:PHE:CZ	2.35	0.61
31:DA:2393:A:O2'	31:DA:2394:C:H5'	2.00	0.61
31:DA:646:A:H2'	31:DA:647:G:H5'	1.83	0.61
31:DA:671:C:O2'	31:DA:672:C:H5'	2.01	0.61
31:DA:942:G:C2'	31:DA:943:U:H5'	2.30	0.61
41:DP:50:ARG:HH21	41:DP:50:ARG:HG2	1.65	0.61
23:B1:34:THR:HG21	31:BA:388:G:OP2	2.00	0.61
44:BS:99:LYS:O	44:BS:101:LEU:N	2.29	0.61
49:DX:35:THR:O	49:DX:36:LYS:O	2.18	0.61
47:DV:2:PHE:CB	47:DV:42:GLY:CA	2.70	0.61
31:BA:1722:A:C6	31:BA:1741:A:C6	2.88	0.61
44:DS:92:TYR:CD1	44:DS:93:LYS:N	2.69	0.61
1:CA:359:U:H2'	1:CA:360:A:H8	1.64	0.61
47:BV:82:ARG:CG	47:BV:82:ARG:NH1	2.42	0.61
1:CA:192:U:O4'	20:CT:103:GLY:HA2	2.00	0.61
47:BV:71:LEU:HD22	47:BV:72:VAL:HG23	1.80	0.61
51:DZ:5:LEU:HD13	51:DZ:43:GLU:HB3	1.83	0.61
31:BA:394:A:C5	31:BA:395:U:C4	2.88	0.61
31:DA:1747(A):G:H2'	31:DA:1748:G:C5'	2.28	0.61
50:DY:95:LYS:NZ	50:DY:100:ALA:HB1	2.15	0.61
1:AA:963:G:H21	10:AJ:55:LYS:HD3	1.64	0.61
31:BA:1179:C:H3'	31:BA:1180:C:H5''	1.80	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:102:G:O2'	31:DA:103:A:OP2	2.19	0.61
31:BA:2842:G:H2'	31:BA:2843:G:H8	1.65	0.61
31:DA:2536:G:C5	31:DA:2537:U:C4	2.88	0.61
48:BW:20:VAL:HG23	48:BW:21:VAL:N	2.15	0.61
14:AN:4:LYS:HD2	14:AN:7:ILE:HD11	1.82	0.61
33:BD:70:TRP:HZ3	33:BD:146:GLU:OE2	1.84	0.61
37:BH:152:ARG:H	37:BH:162:ILE:HD11	1.65	0.61
1:CA:343:U:C2	1:CA:347:G:N1	2.68	0.61
40:BO:19:ILE:HG22	40:BO:43:VAL:HA	1.80	0.61
31:BA:2464:C:O2'	31:BA:2465:C:H5''	1.99	0.61
6:CF:82:ARG:HB2	6:CF:85:VAL:CG2	2.27	0.61
31:BA:491:G:H2'	31:BA:492:A:C8	2.35	0.61
31:BA:542:C:O5'	31:BA:542:C:H6	1.83	0.61
31:BA:542:C:C4	31:BA:543:C:N4	2.68	0.61
1:AA:1128:C:H5'	9:AI:16:ARG:NH1	2.15	0.61
45:BT:109:GLU:O	45:BT:112:ARG:HG3	2.00	0.61
12:CL:53:ARG:HH12	12:CL:92:ASP:HB3	1.65	0.61
4:AD:172:PRO:HB2	4:AD:187:ARG:NH2	2.15	0.61
1:CA:980:C:H3'	1:CA:981:U:H6	1.65	0.61
15:AO:78:TYR:O	15:AO:82:ILE:HG22	1.99	0.61
1:AA:1058:G:C6	1:AA:1059:C:N3	2.68	0.61
18:AR:56:THR:OG1	18:AR:58:LEU:HD13	2.01	0.61
18:AR:53:ARG:HH21	18:AR:60:ALA:N	1.97	0.61
1:CA:724:G:H2'	1:CA:725:G:H8	1.65	0.61
31:BA:300:A:H2'	31:BA:334:C:H1'	1.82	0.61
31:DA:1550:C:H2'	31:DA:1551:C:H6	1.65	0.61
1:CA:477:A:O2'	1:CA:479:C:H5'	2.00	0.61
31:BA:325:G:H2'	31:BA:326:G:O4'	2.00	0.61
1:AA:147:G:C2'	1:AA:148:G:H5'	2.30	0.61
48:BW:64:MET:O	48:BW:65:LEU:CB	2.47	0.61
35:BF:9:ILE:HG23	35:BF:13:SER:O	2.00	0.61
45:DT:90:GLN:HG2	45:DT:120:ARG:NH1	2.15	0.61
1:CA:865:A:H2	1:CA:918:A:H4'	1.65	0.61
30:D8:47:LYS:HE2	30:D8:49:VAL:HG13	1.83	0.61
31:DA:828:U:H4'	31:DA:831:G:N1	2.16	0.61
31:DA:675:A:OP1	35:DF:63:LYS:HE2	2.01	0.61
23:B1:26:ARG:HB3	23:B1:34:THR:CA	2.29	0.61
33:BD:92:ILE:HD13	33:BD:104:TYR:CE2	2.35	0.61
44:BS:46:VAL:HG12	44:BS:47:THR:N	2.15	0.61
31:DA:58:G:H1	31:DA:69:C:H42	1.48	0.61
31:DA:996:A:N6	31:DA:1160:G:C6	2.68	0.61
31:BA:70:G:H21	31:BA:71:A:H62	1.48	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DB:35:U:C4	32:DB:36:C:N4	2.68	0.61
36:DG:20:ILE:HA	36:DG:25:TYR:CD2	2.36	0.61
33:DD:24:ILE:O	33:DD:24:ILE:CG2	2.48	0.61
37:DH:85:LYS:HZ3	37:DH:145:ALA:HA	1.63	0.61
23:D1:87:PRO:CD	23:D1:88:LYS:N	2.62	0.61
1:CA:1256:A:H5'	1:CA:1257:U:OP1	2.00	0.61
32:BB:21:G:C6	32:BB:63:G:C2	2.89	0.61
1:AA:327:A:C2	1:AA:329:A:C4	2.88	0.61
31:BA:1132:A:H1'	39:BN:73:THR:HG21	1.82	0.61
3:AC:52:LEU:CD2	3:AC:52:LEU:H	2.12	0.61
1:AA:556:C:C2'	1:AA:557:G:H5'	2.29	0.61
1:AA:1199:U:H4'	10:AJ:54:PHE:CE1	2.35	0.61
50:DY:47:LYS:CD	50:DY:47:LYS:N	2.59	0.61
1:CA:552:U:C5'	12:CL:86:ARG:HD2	2.30	0.61
11:AK:20:TYR:C	11:AK:21:ILE:HD12	2.20	0.61
24:D2:12:GLU:HA	24:D2:14:ARG:HH21	1.65	0.61
1:CA:251:G:H4'	1:CA:252:U:O5'	1.99	0.61
1:CA:272:C:H2'	1:CA:273:A:H8	1.65	0.61
47:DV:43:GLU:HA	47:DV:48:GLY:HA3	1.82	0.61
32:BB:94:C:H2'	32:BB:95:C:C6	2.31	0.61
37:DH:157:TYR:CE1	37:DH:171:LEU:N	2.67	0.61
12:AL:91:LYS:HG3	12:AL:91:LYS:O	2.00	0.61
11:CK:73:MET:SD	11:CK:103:LEU:HD22	2.40	0.61
31:BA:1636:C:H2'	31:BA:1637:A:C8	2.35	0.61
31:DA:2280:G:H2'	31:DA:2281:C:H5'	1.82	0.61
31:DA:1550:C:O2'	31:DA:1551:C:H5'	2.01	0.61
51:DZ:175:VAL:HB	51:DZ:176:PRO:HD2	1.81	0.61
31:DA:1893:C:C5	31:DA:1894:C:C5	2.88	0.61
1:CA:299:G:C5	1:CA:300:A:C6	2.88	0.61
30:B8:18:ALA:HB3	31:BA:651:G:H4'	1.82	0.61
7:CG:62:PHE:HA	7:CG:124:LEU:HD22	1.81	0.61
41:DP:47:ASP:HB2	41:DP:51:PHE:HB2	1.81	0.61
39:DN:47:ALA:HB2	39:DN:112:LEU:CD2	2.30	0.61
39:DN:16:ILE:O	39:DN:54:VAL:HA	2.01	0.61
31:BA:2752:C:C2	31:BA:2753:A:C8	2.88	0.61
31:BA:2752:C:N3	31:BA:2753:A:N7	2.48	0.61
24:B2:51:ARG:O	24:B2:52:ASP:CB	2.47	0.61
36:DG:120:LEU:HD11	36:DG:179:PRO:HD2	1.81	0.61
44:DS:28:VAL:O	44:DS:29:PHE:HB3	1.99	0.61
44:DS:59:LYS:HB2	44:DS:65:VAL:HG21	1.83	0.61
1:CA:1429:C:H2'	1:CA:1430:C:C6	2.35	0.61
45:DT:100:TYR:HD2	45:DT:103:ARG:HH21	1.46	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:729:G:C5	33:DD:208:LYS:HB2	2.36	0.61
33:DD:27:THR:O	33:DD:29:PRO:HD2	2.00	0.61
23:D1:67:ILE:O	23:D1:70:VAL:HB	2.00	0.61
1:AA:222:U:H2'	1:AA:223:U:C6	2.35	0.61
42:DQ:141:GLN:HE22	51:DZ:89:PHE:CB	2.11	0.61
1:AA:710:G:H5''	6:AF:54:LYS:HZ1	1.64	0.61
32:BB:21:G:O2'	32:BB:22:U:P	2.57	0.61
31:BA:271(G):C:O2'	31:BA:271(H):G:H5'	2.00	0.61
45:DT:57:PHE:O	45:DT:59:THR:N	2.32	0.61
17:AQ:21:VAL:HG21	17:AQ:59:ILE:HD11	1.82	0.61
1:CA:1142:G:H2'	1:CA:1143:G:O4'	2.00	0.61
37:BH:144:VAL:O	37:BH:148:ILE:HG12	2.00	0.61
37:BH:164:TYR:HB2	37:BH:166:GLY:H	1.65	0.61
36:BG:57:ALA:HB2	36:BG:90:LEU:HD21	1.82	0.61
20:AT:48:LYS:HB2	20:AT:52:ALA:HB2	1.83	0.61
1:CA:1250:A:H4'	9:CI:68:GLY:N	2.14	0.61
1:AA:1350:A:H2'	1:AA:1351:U:C6	2.36	0.61
31:DA:1204:A:C2	31:DA:1241:A:C2	2.89	0.61
35:BF:59:TYR:HB3	35:BF:78:ILE:HD11	1.83	0.61
17:CQ:59:ILE:CG2	17:CQ:71:PHE:HB3	2.31	0.61
1:CA:279:A:OP2	17:CQ:95:TYR:OH	2.16	0.61
27:D5:11:THR:HG21	31:DA:1264:G:H5'	1.82	0.61
35:DF:110:LEU:HD22	35:DF:202:PHE:CE1	2.36	0.61
36:DG:108:ASN:O	36:DG:112:PRO:HG2	1.99	0.61
31:BA:244:A:C2	31:BA:255:A:C4	2.87	0.61
8:AH:44:PHE:HA	8:AH:79:VAL:HG11	1.82	0.61
27:D5:2:ALA:N	31:DA:2014:A:HO2'	1.97	0.61
31:DA:448:U:C3'	31:DA:449:A:H5'	2.30	0.61
31:DA:675:A:C6	31:DA:676:A:C6	2.89	0.61
31:DA:2394:C:P	41:DP:63:PRO:HD2	2.40	0.61
28:B6:9:LEU:C	28:B6:9:LEU:HD13	2.21	0.61
31:BA:2287:A:C2	31:BA:2346:A:H2	2.18	0.61
35:BF:83:PHE:O	35:BF:85:GLY:N	2.33	0.61
32:BB:50:G:OP2	44:BS:62:LYS:HB2	2.01	0.61
31:DA:1722:A:C6	31:DA:1741:A:C6	2.89	0.61
41:BP:115:LEU:HA	41:BP:134:ALA:HB2	1.82	0.61
47:DV:1:MET:N	47:DV:44:LYS:HD2	2.15	0.61
47:DV:2:PHE:HB2	47:DV:42:GLY:HA2	1.79	0.61
49:BX:36:LYS:NZ	49:BX:39:ILE:HA	2.16	0.61
44:DS:56:LEU:HD23	44:DS:57:LYS:N	2.15	0.61
1:CA:434:U:H2'	1:CA:435:C:C6	2.35	0.61
4:CD:7:PRO:HB3	4:CD:10:ARG:HD2	1.83	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:CT:10:LEU:O	20:CT:12:ALA:N	2.34	0.61
33:DD:218:ARG:HB3	33:DD:219:PRO:HD2	1.81	0.61
31:DA:2659:G:C1'	31:DA:2663:G:H22	2.14	0.61
31:DA:1235:G:C6	31:DA:1236:G:N1	2.69	0.61
31:DA:875:G:C4'	51:DZ:170:THR:HG21	2.30	0.61
31:DA:1278:A:O3'	43:DR:34:ILE:HG13	2.00	0.61
31:DA:2267:A:H5''	31:DA:2268:A:H5''	1.81	0.61
31:DA:2679:A:H5'	34:DE:165:VAL:HG21	1.82	0.61
45:BT:33:LYS:N	45:BT:33:LYS:HZ2	1.99	0.61
31:DA:1688:U:H1'	31:DA:1701:A:C5	2.35	0.61
40:DO:115:VAL:HG13	40:DO:121:VAL:HG21	1.83	0.61
35:DF:185:ASP:OD1	35:DF:188:ARG:NH1	2.31	0.61
33:BD:186:HIS:CD2	33:BD:188:GLU:H	2.18	0.61
31:BA:2650:U:H2'	31:BA:2651:C:C6	2.36	0.61
9:CI:118:LYS:HB3	9:CI:118:LYS:NZ	2.14	0.61
1:CA:9:G:O2'	1:CA:10:A:H5'	1.99	0.61
31:BA:322:A:OP2	35:BF:169:ASN:HB2	2.00	0.61
28:B6:42:TRP:HA	28:B6:42:TRP:HE3	1.64	0.61
31:BA:646:A:H2'	31:BA:647:G:C5'	2.30	0.61
31:BA:1889:A:O2'	31:BA:2087:G:H5'	1.99	0.61
51:BZ:166:SER:OG	51:BZ:167:PRO:HA	2.01	0.61
15:CO:62:GLN:HA	15:CO:65:ARG:HH11	1.65	0.61
4:AD:104:VAL:HG21	4:AD:140:VAL:HG21	1.83	0.61
29:D7:48:LYS:N	29:D7:48:LYS:HD3	2.15	0.61
22:D0:11:ARG:O	22:D0:14:ARG:NH2	2.32	0.61
3:AC:102:ASN:O	3:AC:103:VAL:HG23	2.01	0.61
3:CC:34:LEU:O	3:CC:38:ARG:HG2	2.01	0.61
23:B1:56:GLN:HA	23:B1:56:GLN:OE1	1.97	0.61
47:BV:83:ARG:HH11	47:BV:83:ARG:HG3	1.65	0.61
1:AA:724:G:H2'	1:AA:725:G:H8	1.65	0.61
1:CA:921:U:HO2'	1:CA:922:G:C1'	2.13	0.61
1:CA:926:G:C6	1:CA:1505:G:C5	2.89	0.61
31:DA:195:A:H4'	31:DA:251:A:O2'	2.00	0.61
41:DP:111:ARG:HA	41:DP:128:HIS:CD2	2.35	0.61
30:B8:14:VAL:HG11	30:B8:22:VAL:CG1	2.29	0.61
30:B8:32:LEU:HB3	30:B8:35:GLN:N	2.14	0.61
31:BA:2565:A:C5'	31:BA:2566:A:OP2	2.36	0.61
1:CA:359:U:H2'	1:CA:360:A:C8	2.35	0.61
33:DD:35:LYS:HG2	33:DD:64:ILE:H	1.64	0.61
31:BA:995:C:N3	39:BN:4:TYR:CE1	2.69	0.61
5:AE:76:ILE:CG1	5:AE:77:PRO:HD2	2.23	0.61
1:CA:716:A:N3	11:CK:118:GLY:HA2	2.15	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1515:G:H2'	31:BA:1516:C:C6	2.36	0.61
31:DA:2277:G:H2'	31:DA:2278:A:H5'	1.82	0.61
42:BQ:141:GLN:HB2	51:BZ:98:MET:HB2	1.83	0.61
31:BA:1784:A:H4'	31:BA:1785:A:C5'	2.31	0.61
32:DB:21:G:C6	32:DB:63:G:C2	2.89	0.61
27:D5:51:TYR:HB3	27:D5:52:TYR:CD2	2.35	0.61
1:CA:1166:G:N2	1:CA:1170:A:OP2	2.32	0.61
31:DA:1497:U:N3	31:DA:1578:U:O5'	2.33	0.61
31:BA:2679:A:H5'	34:BE:165:VAL:HG21	1.83	0.61
31:BA:910:A:C8	42:BQ:13:GLN:HB2	2.35	0.61
9:AI:118:LYS:NZ	9:AI:118:LYS:HB3	2.14	0.61
37:DH:40:GLU:O	37:DH:41:MET:HB2	2.00	0.61
47:BV:43:GLU:HA	47:BV:48:GLY:CA	2.30	0.61
1:AA:1495:U:H2'	1:AA:1496:C:H6	1.65	0.61
10:AJ:63:PHE:HZ	14:AN:45:ARG:HG3	1.65	0.61
1:AA:1057:G:H5''	3:AC:154:SER:HB2	1.83	0.61
31:DA:2252:G:H2'	31:DA:2253:G:H8	1.65	0.61
31:BA:221:A:N1	31:BA:265:A:O2'	2.31	0.61
31:DA:2599:G:C8	33:DD:236:GLY:HA2	2.36	0.61
1:AA:719:C:H3'	1:AA:720:C:C6	2.36	0.61
23:D1:56:GLN:OE1	23:D1:56:GLN:HA	1.99	0.61
45:BT:7:ILE:O	45:BT:8:LYS:C	2.39	0.61
31:BA:2795:G:N2	31:BA:2796:U:O2'	2.34	0.61
34:DE:147:PRO:HB2	34:DE:149:ARG:HG2	1.81	0.61
31:DA:2596:U:C2'	31:DA:2597:G:H5'	2.31	0.61
31:DA:300:A:H2'	31:DA:334:C:H1'	1.82	0.61
34:BE:65:GLY:HA2	34:BE:70:ALA:CB	2.31	0.61
31:BA:448:U:C3'	31:BA:449:A:H5'	2.30	0.61
31:BA:833:U:H2'	31:BA:834:C:H6	1.64	0.61
44:BS:89:ARG:HB3	44:BS:92:TYR:HB2	1.80	0.61
44:BS:92:TYR:CD1	44:BS:93:LYS:N	2.69	0.61
31:DA:1022:G:C5	31:DA:1140:C:C4	2.88	0.61
31:DA:557:U:H2'	31:DA:558:G:C8	2.35	0.61
31:DA:935:C:O2'	31:DA:936:C:H5'	2.01	0.61
39:DN:91:LEU:CD2	39:DN:98:VAL:HG21	2.30	0.61
49:BX:30:VAL:HG23	49:BX:76:ARG:HA	1.83	0.61
33:BD:241:PRO:C	33:BD:242:ARG:HD2	2.21	0.61
47:BV:22:VAL:HG21	47:BV:96:ILE:HD12	1.82	0.61
31:DA:1506:C:H2'	31:DA:1506:C:O2	2.01	0.61
1:CA:684:A:C2	1:CA:706:A:N6	2.68	0.61
1:CA:715:A:O2'	1:CA:716:A:H5'	2.00	0.61
51:BZ:149:SER:HB2	51:BZ:173:ALA:HA	1.81	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:322:C:H41	1:AA:328:C:H6	1.47	0.61
27:D5:36:CYS:HB3	27:D5:38:ALA:HB2	1.81	0.61
3:AC:20:SER:HB2	3:AC:40:ARG:NH2	2.10	0.61
43:DR:4:LEU:CD1	43:DR:4:LEU:O	2.46	0.61
31:BA:1496:A:C8	31:BA:1577:C:O2'	2.54	0.61
24:B2:41:ILE:O	24:B2:42:GLY:C	2.38	0.61
31:DA:1748:G:H8	31:DA:1748:G:H5'	1.65	0.61
35:BF:21:ALA:HB3	35:BF:23:ASP:OD2	2.00	0.61
31:DA:794:G:H2'	31:DA:795:C:C6	2.36	0.61
31:DA:271(Q):G:O2'	31:DA:271(R):G:C8	2.54	0.61
31:BA:518:G:H4'	48:BW:18:ARG:NH1	2.16	0.61
45:DT:28:VAL:HG22	45:DT:46:GLU:CA	2.31	0.61
31:BA:1504:C:O2'	31:BA:1505:C:C5'	2.49	0.61
1:AA:1346:A:C8	1:AA:1348:U:O2	2.54	0.61
1:AA:1516:G:H2'	1:AA:1518:A:OP2	2.01	0.61
51:BZ:175:VAL:HB	51:BZ:176:PRO:HD2	1.83	0.61
11:AK:111:ASP:CA	18:AR:84:LYS:HE2	2.30	0.61
1:CA:1154:G:H2'	1:CA:1155:G:C8	2.35	0.61
31:DA:1241:A:C2'	31:DA:1242:A:O5'	2.48	0.61
31:BA:128:C:H2'	31:BA:129:C:H6	1.63	0.61
9:AI:53:VAL:HG12	9:AI:95:LYS:HG2	1.83	0.61
9:CI:46:ALA:HA	9:CI:78:LYS:HZ2	1.65	0.61
35:DF:59:TYR:HB3	35:DF:78:ILE:HD11	1.82	0.61
9:CI:53:VAL:HG12	9:CI:95:LYS:HG2	1.82	0.61
48:DW:56:ALA:O	48:DW:57:ASN:C	2.39	0.61
15:CO:78:TYR:O	15:CO:82:ILE:HG22	2.01	0.61
15:AO:7:GLU:O	15:AO:10:LYS:HB3	2.00	0.61
1:AA:1426:C:O2'	1:AA:1427:U:H5'	2.01	0.61
1:CA:1130:A:H1'	1:CA:1146:A:C2	2.36	0.61
32:BB:57:A:C8	36:BG:27:ASN:HB3	2.35	0.61
44:BS:52:SER:CB	44:BS:55:ALA:HB3	2.31	0.61
24:D2:41:ILE:O	24:D2:42:GLY:C	2.38	0.61
49:BX:25:LYS:HG3	49:BX:26:TYR:CD1	2.35	0.61
31:BA:1899:G:N2	31:BA:1902:C:H5	1.93	0.61
32:DB:31:C:H2'	32:DB:53:A:H61	1.66	0.61
31:DA:1378:A:H4'	31:DA:1379:A:OP1	2.01	0.61
37:DH:74:ASN:HB3	37:DH:138:LYS:HD2	1.83	0.61
6:CF:52:ILE:HD12	6:CF:87:ARG:HH12	1.64	0.61
32:DB:21:G:O2'	32:DB:22:U:P	2.58	0.61
1:AA:684:A:C2	1:AA:706:A:N6	2.69	0.61
1:CA:441:A:H3'	1:CA:442:C:C6	2.34	0.61
28:B6:48:VAL:HG22	28:B6:49:HIS:N	2.15	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:870:A:C2	31:BA:908:C:C2	2.88	0.61
1:AA:963:G:N3	10:AJ:55:LYS:NZ	2.44	0.61
1:AA:235:C:H5'	17:AQ:70:ARG:HG2	1.83	0.61
12:AL:102:ARG:CD	12:AL:108:ALA:O	2.49	0.61
1:CA:1516:G:H2'	1:CA:1518:A:OP2	2.00	0.61
37:BH:153:LYS:N	37:BH:153:LYS:HD3	2.14	0.61
37:BH:40:GLU:O	37:BH:41:MET:HB2	2.00	0.61
19:AS:5:LEU:HG	19:AS:10:PHE:CD1	2.36	0.61
31:DA:1580:A:OP2	31:DA:1580:A:C8	2.53	0.61
31:DA:1215:G:C2'	31:DA:1216:G:H5'	2.30	0.61
10:CJ:84:GLN:O	10:CJ:88:LEU:HB2	2.01	0.61
1:CA:695:A:H61	1:CA:797:C:C1'	2.13	0.61
1:AA:774:G:O2'	1:AA:775:G:H5'	2.00	0.61
50:BY:68:HIS:CE1	50:BY:70:SER:HB3	2.36	0.61
31:BA:836:G:C5	31:BA:837:C:C4	2.89	0.61
1:AA:148:G:O2'	1:AA:149:A:H5'	2.00	0.61
8:AH:120:THR:H	8:AH:123:GLU:HB2	1.65	0.61
10:AJ:65:LEU:HD13	14:AN:56:VAL:HG22	1.82	0.61
11:AK:62:GLN:C	11:AK:64:ALA:H	2.04	0.61
3:AC:58:GLU:H	3:AC:65:ALA:HB3	1.65	0.61
3:CC:102:ASN:O	3:CC:103:VAL:HG23	2.01	0.61
2:CB:158:LEU:H	2:CB:158:LEU:HD12	1.66	0.61
31:BA:1762:A:H8	31:BA:1762:A:O5'	1.82	0.61
12:AL:18:VAL:HG23	12:AL:19:ARG:H	1.64	0.61
31:DA:639:U:H2'	31:DA:640:C:C6	2.36	0.61
31:BA:1669:A:H5''	31:BA:1670:C:OP2	2.01	0.61
31:BA:769:G:O2'	31:BA:770:G:H5'	2.01	0.61
33:BD:28:GLU:HB2	33:BD:29:PRO:CD	2.31	0.61
31:BA:2334:G:C2	44:BS:15:ARG:NH1	2.68	0.61
31:DA:993:G:H1'	47:DV:91:TYR:CD1	2.36	0.61
31:DA:995:C:N3	39:DN:4:TYR:CE1	2.68	0.61
39:DN:20:GLY:O	39:DN:61:ARG:HG3	2.00	0.61
49:BX:53:LYS:NZ	49:BX:55:ASN:HD21	1.99	0.61
33:BD:241:PRO:O	33:BD:243:GLY:N	2.34	0.61
36:DG:117:PHE:CE1	36:DG:120:LEU:HD23	2.35	0.61
36:DG:173:LEU:HB3	36:DG:178:PHE:CG	2.36	0.61
1:CA:427:U:OP1	4:CD:13:ARG:NH2	2.32	0.61
16:CP:8:ARG:O	16:CP:9:PHE:CD2	2.54	0.61
40:BO:78:ARG:HG2	45:BT:73:GLU:HG3	1.83	0.61
31:BA:528:A:C2	31:BA:2043:C:H4'	2.35	0.61
31:DA:2315:G:C6	31:DA:2316:C:N4	2.69	0.61
31:BA:1509(B):A:C2'	31:BA:1510:G:H8	2.14	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1509(B):A:C3'	31:BA:1510:G:H8	2.12	0.61
23:B1:48:LYS:C	23:B1:48:LYS:HD3	2.22	0.61
51:BZ:151:HIS:CB	51:BZ:170:THR:HA	2.26	0.61
27:B5:40:LYS:NZ	27:B5:46:CYS:H	1.98	0.61
20:AT:10:LEU:O	20:AT:12:ALA:N	2.33	0.61
20:AT:13:LEU:HD12	20:AT:13:LEU:N	2.08	0.61
50:BY:96:ILE:CD1	50:BY:99:CYS:SG	2.89	0.61
1:AA:1166:G:N2	1:AA:1170:A:OP2	2.32	0.61
4:AD:31:CYS:C	4:AD:33:MET:N	2.52	0.61
28:B6:44:ARG:O	28:B6:45:LYS:HG2	2.00	0.61
1:AA:579:G:C6	1:AA:580:U:C4	2.89	0.61
15:AO:39:LEU:CD1	15:AO:56:LEU:HB2	2.31	0.61
45:BT:32:TYR:CB	45:BT:81:PRO:HB2	2.31	0.61
31:DA:1945:G:O2'	31:DA:1946:U:H5'	2.00	0.61
31:DA:1312:U:C2	31:DA:1603:A:C2	2.89	0.61
38:BI:133:HIS:CB	38:BI:134:PRO:CD	2.77	0.61
31:DA:795:C:H2'	31:DA:796:C:H6	1.65	0.61
2:AB:89:GLY:O	2:AB:90:MET:HE2	2.00	0.61
31:BA:2523:G:H2'	31:BA:2524:G:H5'	1.81	0.61
33:BD:186:HIS:HD2	33:BD:187:GLY:N	1.98	0.61
37:DH:89:ILE:N	37:DH:89:ILE:CD1	2.64	0.61
12:AL:8:ASN:ND2	17:AQ:34:LYS:HE2	2.15	0.61
31:DA:2343:C:O3'	31:DA:2373:G:H4'	2.01	0.61
31:BA:1839:G:C8	31:BA:1839:G:H5'	2.36	0.61
31:BA:2061:G:N2	31:BA:2063:C:C2	2.69	0.61
31:BA:2094:G:H1'	31:BA:2198:A:N6	2.15	0.61
16:AP:53:VAL:HG12	16:AP:79:VAL:HG22	1.82	0.61
4:CD:108:LEU:O	4:CD:110:PHE:N	2.32	0.61
31:DA:1563:G:H2'	31:DA:1564:C:H6	1.66	0.61
42:DQ:63:LYS:HG2	42:DQ:65:PHE:CE2	2.35	0.61
31:BA:2390:U:O2'	31:BA:2391:G:H5'	2.01	0.61
1:CA:864:A:O5'	1:CA:864:A:H8	1.84	0.61
11:CK:48:ILE:HG23	11:CK:63:LEU:HD22	1.81	0.61
12:AL:38:THR:HG22	12:AL:57:LYS:O	2.00	0.61
20:CT:51:GLU:O	20:CT:55:ILE:HG12	2.01	0.61
31:BA:2749:A:H4'	37:BH:62:LYS:HB3	1.82	0.61
31:DA:197:A:H5'	31:DA:197:A:C8	2.35	0.60
31:DA:419:C:H2'	31:DA:420:C:O4'	2.00	0.60
31:DA:1190:G:O5'	41:DP:35:HIS:HA	2.01	0.60
31:BA:663:G:H2'	31:BA:664:C:C6	2.36	0.60
41:BP:36:LYS:O	41:BP:38:GLN:HG2	2.01	0.60
31:BA:2406:U:O4	41:BP:70:GLN:HB3	2.01	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BD:35:LYS:HZ1	33:BD:65:ILE:HA	1.65	0.60
44:BS:46:VAL:CG1	44:BS:47:THR:N	2.64	0.60
31:BA:2376:A:C2	44:BS:94:TYR:CG	2.89	0.60
41:BP:98:GLU:HG3	41:BP:99:LEU:N	2.16	0.60
36:DG:29:TRP:C	36:DG:31:VAL:N	2.53	0.60
1:AA:106:C:O2'	1:AA:379:C:H5''	2.01	0.60
4:AD:119:GLN:O	4:AD:123:HIS:CD2	2.54	0.60
1:CA:438:G:H4'	4:CD:123:HIS:CE1	2.36	0.60
33:DD:28:GLU:HB2	33:DD:29:PRO:CD	2.31	0.60
2:AB:163:PHE:CA	2:AB:185:ILE:HG13	2.31	0.60
6:CF:2:ARG:HB2	6:CF:4:TYR:CE2	2.36	0.60
4:AD:11:LEU:HD13	4:AD:66:ARG:HD3	1.82	0.60
23:B1:17:SER:O	23:B1:44:PRO:CD	2.45	0.60
42:DQ:75:THR:HG22	42:DQ:88:GLY:HA3	1.82	0.60
31:BA:828:U:H4'	31:BA:831:G:N1	2.16	0.60
1:AA:1071:C:O2'	1:AA:1072:G:H5'	2.01	0.60
1:CA:818:G:HO2'	1:CA:819:A:H5''	1.66	0.60
31:BA:867:C:C5	31:BA:868:U:C5	2.88	0.60
50:DY:46:LYS:C	50:DY:47:LYS:NZ	2.54	0.60
32:BB:79:C:H2'	32:BB:80:U:O4'	2.01	0.60
31:BA:1833:U:H2'	31:BA:1834:U:C6	2.33	0.60
1:AA:9:G:O2'	1:AA:10:A:H5'	2.01	0.60
1:CA:1352:C:H2'	1:CA:1353:G:C8	2.36	0.60
31:DA:212:G:C2'	31:DA:213:A:H5'	2.31	0.60
9:AI:114:TYR:HE1	10:AJ:60:ARG:O	1.84	0.60
10:AJ:32:ALA:CB	10:AJ:76:ASN:HB3	2.31	0.60
4:AD:148:VAL:CG1	4:AD:149:ALA:H	2.14	0.60
3:CC:61:ALA:O	3:CC:62:ASP:HB2	2.01	0.60
31:BA:1921:G:H2'	31:BA:1922:G:H8	1.66	0.60
1:AA:276:G:C5'	17:AQ:15:MET:HE1	2.30	0.60
31:DA:1252:G:C2	31:DA:1253:A:C2	2.89	0.60
51:BZ:63:ASP:O	51:BZ:65:GLN:N	2.34	0.60
28:D6:35:GLU:HG3	28:D6:35:GLU:O	2.01	0.60
1:CA:1290:G:N3	1:CA:1290:G:H2'	2.16	0.60
1:AA:32:A:H2'	1:AA:33:A:C8	2.35	0.60
1:CA:1245:A:H2'	1:CA:1246:C:C6	2.36	0.60
27:D5:2:ALA:N	31:DA:747:U:N3	2.49	0.60
31:DA:607:U:N3	31:DA:621:A:C2	2.61	0.60
41:DP:48:PRO:O	41:DP:51:PHE:N	2.35	0.60
31:DA:142:A:H5''	31:DA:142(A):C:C5	2.36	0.60
49:BX:36:LYS:HZ2	49:BX:39:ILE:HA	1.65	0.60
44:DS:90:GLY:C	44:DS:92:TYR:H	2.04	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:AP:8:ARG:O	16:AP:9:PHE:CD2	2.54	0.60
31:DA:2517:C:C6	31:DA:2542:A:N1	2.69	0.60
31:BA:1812:A:O2'	33:BD:45:ASN:HB2	2.01	0.60
1:CA:189(A):C:H2'	1:CA:189(B):C:C6	2.36	0.60
47:BV:18:LEU:O	47:BV:97:LYS:HD2	2.01	0.60
23:B1:87:PRO:CG	23:B1:88:LYS:H	2.14	0.60
22:D0:43:THR:H	31:DA:2331:G:H4'	1.65	0.60
1:AA:433:C:H2'	1:AA:434:U:C6	2.36	0.60
31:DA:2228:G:C6	31:DA:2229:C:C4	2.89	0.60
31:DA:1040:C:N4	31:DA:1116:C:N4	2.46	0.60
31:DA:1047:G:H2'	31:DA:1110:G:C2	2.36	0.60
1:CA:976:G:P	14:CN:32:SER:H	2.24	0.60
38:BI:93:THR:OG1	38:BI:94:ALA:N	2.35	0.60
1:CA:687:A:C2	1:CA:704:A:C6	2.88	0.60
24:B2:57:ILE:HD11	24:B2:59:ARG:HD2	1.84	0.60
37:DH:41:MET:CG	37:DH:55:PRO:HD3	2.31	0.60
31:BA:471:A:C2'	31:BA:472:A:O5'	2.49	0.60
31:BA:2659:G:C1'	31:BA:2663:G:H22	2.14	0.60
31:DA:176:G:O2'	31:DA:177:G:H5'	2.01	0.60
31:DA:2580:U:H4'	34:DE:130:GLY:CA	2.32	0.60
31:BA:1580:A:C8	31:BA:1580:A:OP2	2.51	0.60
47:BV:43:GLU:HA	47:BV:47:VAL:O	2.01	0.60
51:DZ:128:VAL:CG2	51:DZ:161:VAL:HG22	2.31	0.60
51:DZ:156:LYS:O	51:DZ:158:PRO:HD3	2.01	0.60
31:BA:1694:C:H2'	31:BA:1694:C:O2	2.01	0.60
4:CD:173:TRP:CZ3	4:CD:193:ASP:HB3	2.36	0.60
43:BR:29:LEU:HB3	43:BR:75:LEU:HD11	1.83	0.60
4:AD:12:CYS:SG	4:AD:19:LEU:O	2.59	0.60
31:DA:2821:A:H2'	31:DA:2822:G:O4'	2.00	0.60
1:CA:139:G:C2	1:CA:140:A:N7	2.69	0.60
20:CT:43:LEU:HD12	20:CT:55:ILE:HG13	1.83	0.60
29:B7:48:LYS:HD3	29:B7:48:LYS:N	2.16	0.60
1:CA:350:G:O2'	1:CA:351:G:H5'	2.01	0.60
33:BD:164:GLN:HB3	33:BD:166:GLN:HE22	1.66	0.60
5:CE:136:MET:HB3	5:CE:140:ARG:HH22	1.66	0.60
7:AG:37:ASN:HD21	9:AI:40:LEU:HD22	1.66	0.60
1:CA:1337:G:H5''	1:CA:1338:G:OP1	2.01	0.60
3:AC:123:GLN:HB3	3:AC:128:PHE:HB2	1.84	0.60
1:AA:1290:G:N3	1:AA:1290:G:H2'	2.16	0.60
7:CG:23:VAL:HG13	7:CG:43:PHE:CZ	2.36	0.60
1:AA:278:G:O4'	1:AA:282:A:H1'	2.01	0.60
48:BW:86:LEU:C	48:BW:86:LEU:HD12	2.22	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:624:C:O2'	31:DA:657:U:H5'	2.01	0.60
35:DF:101:LEU:CD1	35:DF:102:PRO:HD2	2.20	0.60
33:BD:83:GLU:O	33:BD:92:ILE:HD12	2.02	0.60
24:B2:48:HIS:CD2	24:B2:48:HIS:O	2.54	0.60
49:BX:57:LEU:N	49:BX:57:LEU:CD1	2.64	0.60
44:DS:52:SER:CB	44:DS:55:ALA:HB3	2.31	0.60
1:AA:441:A:H3'	1:AA:442:C:C6	2.36	0.60
50:BY:8:LYS:HB2	50:BY:28:LYS:HZ3	1.63	0.60
31:BA:532:A:N3	31:BA:532:A:H2'	2.15	0.60
39:BN:42:TRP:CB	46:BU:64:ARG:NH1	2.63	0.60
39:BN:63:THR:O	39:BN:64:GLY:O	2.18	0.60
23:D1:87:PRO:CG	23:D1:88:LYS:H	2.14	0.60
23:D1:85:LEU:CB	23:D1:87:PRO:HD3	2.31	0.60
31:BA:14:A:C6	31:BA:526:A:C2	2.89	0.60
31:DA:2810:A:H2'	34:DE:61:ARG:NH2	2.15	0.60
1:CA:192:U:C4'	20:CT:103:GLY:HA2	2.31	0.60
42:DQ:141:GLN:NE2	51:DZ:72:ARG:HG2	2.17	0.60
31:DA:954:G:C5	31:DA:955:C:C5	2.89	0.60
31:BA:356:G:H2'	31:BA:356:G:N3	2.15	0.60
27:B5:51:TYR:HB3	27:B5:52:TYR:CD2	2.36	0.60
33:DD:175:LEU:HD12	33:DD:185:VAL:HG21	1.83	0.60
4:CD:18:LYS:HE3	4:CD:31:CYS:CB	2.31	0.60
31:DA:1657:C:H2'	31:DA:1658:C:C6	2.36	0.60
34:BE:11:MET:HE3	34:BE:186:GLY:HA2	1.83	0.60
50:DY:97:ARG:HH21	50:DY:98:VAL:HB	1.67	0.60
11:AK:52:GLY:N	11:AK:55:LYS:HE2	2.16	0.60
38:BI:101:LEU:HD23	38:BI:109:ILE:HG12	1.82	0.60
31:DA:1181:C:C2'	31:DA:1182:A:H5'	2.31	0.60
11:CK:52:GLY:N	11:CK:55:LYS:HE2	2.16	0.60
41:BP:41:ARG:CZ	41:BP:41:ARG:HA	2.30	0.60
31:DA:1558:A:H3'	31:DA:1558:A:OP2	2.01	0.60
39:DN:131:GLN:NE2	39:DN:135:PRO:HD3	2.17	0.60
31:DA:174:C:H3'	31:DA:175:G:H5''	1.84	0.60
45:DT:106:SER:O	45:DT:107:ASP:OD1	2.19	0.60
8:CH:6:ILE:HD12	8:CH:6:ILE:N	2.16	0.60
31:DA:36:G:C5	31:DA:37:C:C5	2.89	0.60
1:AA:938:A:N6	1:AA:939:G:C6	2.70	0.60
10:CJ:32:ALA:CB	10:CJ:76:ASN:HB3	2.30	0.60
1:AA:84:U:H5	1:AA:88:A:C4	2.19	0.60
1:AA:520:A:N1	1:AA:536:C:H1'	2.16	0.60
1:CA:853:G:H2'	1:CA:854:G:C8	2.36	0.60
37:BH:126:PRO:HG2	37:BH:130:ARG:HB3	1.83	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:AR:53:ARG:HH21	18:AR:60:ALA:CA	2.14	0.60
20:AT:51:GLU:O	20:AT:55:ILE:HG12	2.00	0.60
5:CE:136:MET:HB3	5:CE:140:ARG:NH2	2.17	0.60
18:CR:43:PHE:O	18:CR:44:LEU:HD12	2.01	0.60
35:BF:41:LEU:N	35:BF:41:LEU:HD23	2.16	0.60
48:BW:5:ALA:HB2	48:BW:54:ALA:HB2	1.83	0.60
31:BA:2280:G:C2'	31:BA:2281:C:H5'	2.31	0.60
1:AA:1245:A:H2'	1:AA:1246:C:C6	2.36	0.60
31:DA:1042:G:N3	31:DA:1042:G:H2'	2.16	0.60
33:BD:233:HIS:CD2	33:BD:233:HIS:N	2.66	0.60
1:CA:923:A:H2	1:CA:924:C:C2	2.20	0.60
35:BF:65:TRP:HZ3	35:BF:75:HIS:CD2	2.14	0.60
31:BA:1190:G:O5'	41:BP:35:HIS:HA	2.01	0.60
32:BB:50:G:OP1	44:BS:63:THR:HG23	2.02	0.60
44:BS:89:ARG:CA	44:BS:89:ARG:HE	2.13	0.60
47:DV:19:LYS:CE	47:DV:20:LEU:H	2.14	0.60
49:BX:18:TYR:HA	49:BX:21:PHE:CD1	2.36	0.60
34:BE:75:VAL:C	34:BE:77:ILE:N	2.53	0.60
31:BA:1899:G:H22	31:BA:1902:C:H41	0.70	0.60
20:CT:12:ALA:O	20:CT:15:ARG:HB2	2.02	0.60
33:DD:35:LYS:HE3	33:DD:65:ILE:N	2.17	0.60
25:B3:52:HIS:CD2	25:B3:52:HIS:N	2.68	0.60
31:BA:559:G:H22	46:BU:49:HIS:CD2	2.19	0.60
31:DA:2659:G:H1'	31:DA:2663:G:H22	1.65	0.60
31:BA:14:A:N6	31:BA:15:G:C2	2.69	0.60
1:CA:189(K):U:H2'	1:CA:189(L):G:C8	2.37	0.60
47:BV:66:ARG:CD	47:BV:67:GLY:H	2.13	0.60
31:DA:309:G:C4'	50:DY:18:GLY:HA3	2.32	0.60
31:DA:863:A:O2'	31:DA:864:G:H5'	2.02	0.60
31:BA:228:A:H2'	31:BA:230:U:O4'	2.01	0.60
1:AA:434:U:H2'	1:AA:435:C:C6	2.36	0.60
31:BA:1114:G:C2'	31:BA:1115:G:H5'	2.31	0.60
50:BY:97:ARG:HH21	50:BY:98:VAL:HB	1.64	0.60
42:BQ:75:THR:HA	42:BQ:88:GLY:CA	2.29	0.60
31:BA:1836:C:O2'	31:BA:1837:C:H5'	2.01	0.60
31:DA:917:A:N1	32:DB:80:U:H4'	2.16	0.60
2:AB:91:PRO:N	2:AB:154:LEU:HD12	2.17	0.60
31:DA:1833:U:O2'	31:DA:1969:A:N1	2.25	0.60
45:BT:30:VAL:O	45:BT:30:VAL:HG23	2.02	0.60
31:BA:174:C:H3'	31:BA:175:G:H5''	1.82	0.60
13:AM:4:ILE:H	13:AM:9:ILE:HG13	1.66	0.60
9:AI:10:ARG:HD3	9:AI:75:ASP:HB3	1.84	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1204:A:N1	31:DA:1241:A:H2	2.00	0.60
1:AA:980:C:H3'	1:AA:981:U:H6	1.66	0.60
31:DA:585:G:H2'	31:DA:1251:C:H42	1.65	0.60
33:DD:255:LYS:NZ	33:DD:255:LYS:H	2.00	0.60
9:AI:48:GLU:N	9:AI:49:PRO:HD2	2.15	0.60
1:AA:34:C:H2'	1:AA:35:G:C8	2.37	0.60
37:BH:158:HIS:CE1	37:BH:168:PRO:CG	2.85	0.60
18:CR:52:PRO:O	18:CR:56:THR:HG23	2.01	0.60
17:CQ:10:VAL:HG13	17:CQ:19:VAL:HB	1.83	0.60
1:CA:1426:C:O2'	1:CA:1427:U:H5'	2.01	0.60
1:CA:922:G:H4'	5:CE:20:GLN:N	2.16	0.60
31:DA:607:U:OP1	35:DF:102:PRO:HA	2.01	0.60
41:DP:115:LEU:HA	41:DP:134:ALA:HB2	1.81	0.60
33:BD:35:LYS:HG2	33:BD:64:ILE:HG23	1.84	0.60
32:BB:8:U:O2'	44:BS:40:ILE:HD13	2.01	0.60
24:D2:47:ASN:HA	24:D2:51:ARG:HB3	1.84	0.60
31:DA:1020:A:H4'	31:DA:1021:A:O5'	2.02	0.60
39:DN:42:TRP:CB	46:DU:64:ARG:NH1	2.61	0.60
47:DV:4:ILE:HD12	47:DV:40:LEU:HG	1.84	0.60
31:BA:1717:G:H2'	31:BA:1717:G:N3	2.16	0.60
1:CA:514:C:H2'	1:CA:515:G:C8	2.36	0.60
47:BV:24:LYS:HB2	47:BV:92:THR:HG21	1.82	0.60
23:B1:94:LEU:HD22	23:B1:95:LEU:O	2.00	0.60
31:BA:1510:G:H2'	31:BA:1511:C:C6	2.36	0.60
51:DZ:71:VAL:HG22	51:DZ:88:PHE:CE2	2.36	0.60
43:BR:24:GLN:HE22	43:BR:36:THR:HG21	1.66	0.60
4:AD:13:ARG:HD2	4:AD:38:TYR:O	2.00	0.60
1:CA:444:C:C2	1:CA:445:G:C8	2.90	0.60
27:B5:4:HIS:O	27:B5:5:PRO:C	2.36	0.60
1:CA:1090:U:C2	1:CA:1091:U:C5	2.90	0.60
31:DA:1496:A:H5''	31:DA:1497:U:OP2	2.02	0.60
1:CA:1057:G:H5''	3:CC:154:SER:HB2	1.83	0.60
1:CA:1199:U:H4'	10:CJ:54:PHE:CE1	2.37	0.60
31:BA:1410:G:H2'	31:BA:1411:C:C6	2.37	0.60
31:DA:1667:G:H1'	31:DA:1991:U:O4	2.01	0.60
31:DA:491:G:H2'	31:DA:492:A:H8	1.66	0.60
31:BA:271(U):G:C2'	31:BA:271(V):G:H5'	2.30	0.60
33:BD:186:HIS:CD2	33:BD:187:GLY:N	2.70	0.60
31:DA:1887:C:C2'	31:DA:1888:G:H5'	2.30	0.60
6:AF:94:GLN:O	6:AF:96:PRO:HD3	2.01	0.60
31:DA:214:G:H1'	31:DA:216:A:O2'	2.01	0.60
31:DA:1241:A:H2'	31:DA:1242:A:O5'	2.01	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:939:G:H1'	1:CA:1375:A:C2	2.36	0.60
31:BA:557:U:H2'	31:BA:558:G:H8	1.66	0.60
31:DA:1549:C:O2'	31:DA:1550:C:H5'	2.01	0.60
43:BR:103:ARG:HD3	43:BR:108:GLY:O	2.00	0.60
1:CA:1381:U:H2'	1:CA:1382:C:H5'	1.83	0.60
51:DZ:103:ARG:HD3	51:DZ:136:PHE:CE1	2.37	0.60
4:AD:3:ARG:HD3	4:AD:5:ILE:HG13	1.84	0.60
35:DF:9:ILE:HG23	35:DF:13:SER:O	2.01	0.60
31:DA:1218:C:H2'	31:DA:1219:G:H5'	1.82	0.60
1:AA:1368:G:H2'	1:AA:1369:C:H5'	1.82	0.60
35:DF:84:VAL:O	35:DF:85:GLY:C	2.40	0.60
41:DP:107:LYS:O	41:DP:109:GLY:N	2.34	0.60
28:B6:25:LYS:HE2	28:B6:27:LYS:NZ	2.15	0.60
32:BB:27:C:O2	32:BB:28:C:C6	2.54	0.60
31:BA:2753:A:H2	31:BA:2754:U:C2	2.20	0.60
24:B2:26:ARG:CG	49:BX:5:TYR:CB	2.80	0.60
31:BA:1719:G:H2'	31:BA:1720:U:C5'	2.30	0.60
31:BA:1744:C:C2'	31:BA:1745:C:H5'	2.31	0.60
1:CA:356:A:C2	1:CA:357:G:H1'	2.37	0.60
31:BA:2306:C:C5	31:BA:2307:G:H1'	2.37	0.60
31:DA:2752:C:N3	31:DA:2753:A:N7	2.49	0.60
39:BN:28:THR:HA	39:BN:106:MET:CE	2.31	0.60
2:AB:187:LEU:HD22	2:AB:201:ILE:O	2.01	0.60
2:CB:14:GLY:O	2:CB:15:VAL:HG13	2.02	0.60
2:CB:187:LEU:HD13	2:CB:187:LEU:O	2.01	0.60
31:DA:301:G:H1'	31:DA:302:C:C6	2.36	0.60
31:DA:2265:U:H4'	42:DQ:13:GLN:NE2	2.13	0.60
31:DA:356:G:H2'	31:DA:356:G:N3	2.15	0.60
34:DE:197:ILE:HD11	34:DE:199:ARG:NH2	2.16	0.60
27:B5:4:HIS:CD2	31:BA:2056:G:H1	2.19	0.60
23:B1:19:GLN:CG	23:B1:44:PRO:HG3	2.29	0.60
39:BN:78:TYR:N	39:BN:79:PRO:CD	2.65	0.60
31:DA:958:U:H5''	42:DQ:14:ARG:CD	2.31	0.60
1:CA:1071:C:O2'	1:CA:1072:G:H5'	2.01	0.60
1:CA:1096:C:H2'	1:CA:1097:C:H6	1.66	0.60
34:BE:119:ARG:HA	34:BE:160:TYR:CD1	2.36	0.60
31:DA:918:A:H5''	32:DB:98:G:O2'	2.02	0.60
40:BO:35:VAL:HA	40:BO:62:VAL:HG12	1.83	0.60
1:CA:741:G:H2'	1:CA:742:G:O4'	2.01	0.60
16:CP:20:VAL:HG22	16:CP:21:VAL:H	1.66	0.60
24:B2:15:LYS:O	24:B2:16:LEU:HB3	1.99	0.60
2:CB:89:GLY:O	2:CB:90:MET:HE2	2.01	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1639:U:H4'	31:BA:2699:C:H4'	1.82	0.60
31:DA:1773:A:H2'	31:DA:1774:C:H5'	1.83	0.60
31:DA:154:G:N1	31:DA:172:C:N4	2.49	0.60
9:CI:116:LYS:O	9:CI:118:LYS:N	2.34	0.60
1:AA:1499:A:H1'	1:AA:1520:G:H5'	1.83	0.60
7:AG:79:ARG:HG2	7:AG:84:ASN:ND2	2.17	0.60
31:DA:1937:A:C8	31:DA:1939:U:H2'	2.37	0.60
1:AA:1271:G:H5'	1:AA:1314:C:H5'	1.82	0.60
31:DA:921:G:H2'	31:DA:922:U:C6	2.37	0.60
23:B1:54:ALA:O	23:B1:55:GLY:C	2.39	0.60
1:AA:1118:C:H1'	1:AA:1179:A:C4	2.36	0.60
51:BZ:103:ARG:HD3	51:BZ:136:PHE:CE1	2.37	0.60
43:DR:51:LEU:HD22	43:DR:70:LEU:HD21	1.82	0.60
36:DG:128:ARG:O	36:DG:129:GLY:C	2.39	0.60
31:DA:2065:C:H2'	31:DA:2066:C:C6	2.35	0.60
41:DP:80:TYR:HA	41:DP:111:ARG:O	2.02	0.60
31:BA:1191:G:OP1	41:BP:35:HIS:ND1	2.35	0.60
32:BB:31:C:H4'	36:BG:29:TRP:CH2	2.37	0.60
31:DA:1751:C:O2'	31:DA:1752:C:H5'	2.01	0.60
32:DB:82:G:C2'	32:DB:83:G:H5'	2.32	0.60
31:DA:993:G:H21	47:DV:91:TYR:HH	1.47	0.60
24:B2:26:ARG:HA	24:B2:29:LYS:HE3	1.82	0.60
1:CA:437:U:O2'	1:CA:438:G:H5'	2.02	0.60
1:CA:509:A:O2'	1:CA:510:A:O5'	2.19	0.60
50:BY:27:VAL:O	50:BY:29:GLU:OE1	2.19	0.60
31:BA:2312:U:H2'	31:BA:2313:C:H5'	1.84	0.60
31:BA:527:C:N4	31:BA:2779:U:OP2	2.35	0.60
31:BA:574:C:N3	34:BE:145:LYS:CE	2.64	0.60
31:BA:1803:A:O3'	33:BD:259:THR:CG2	2.50	0.60
31:BA:370:G:H3'	31:BA:423:A:C5	2.37	0.60
51:BZ:5:LEU:CD1	51:BZ:43:GLU:HB3	2.31	0.60
31:BA:1276:A:O2'	43:BR:16:HIS:HE1	1.84	0.60
31:DA:2801(A):A:C4'	31:DA:2802:G:H5'	2.32	0.60
31:DA:398:G:H5''	31:DA:2090:G:O4'	2.00	0.60
31:BA:958:U:H5''	42:BQ:14:ARG:CD	2.32	0.60
31:BA:1338:G:O2'	31:BA:1339:G:H5'	2.02	0.60
31:BA:634:C:H2'	31:BA:635:C:C6	2.37	0.60
31:DA:2872:G:O2'	31:DA:2873:A:H5'	2.02	0.60
31:BA:912:C:C2	31:BA:913:U:C5	2.89	0.60
31:BA:1973:G:C4	31:BA:1974:C:C5	2.90	0.60
12:CL:32:PHE:HB3	12:CL:84:LEU:HD21	1.84	0.60
31:DA:271(D):G:H2'	31:DA:271(E):U:O4'	2.01	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:2199:A:N3	31:BA:2199:A:H2'	2.17	0.60
31:BA:1488:G:C2	31:BA:1489:U:O2	2.55	0.60
45:BT:74:ARG:HB3	45:BT:76:PHE:CE1	2.36	0.60
4:CD:138:TYR:CD2	4:CD:138:TYR:C	2.74	0.60
31:DA:1952:A:C2	40:DO:22:ILE:HG13	2.36	0.60
31:BA:858:U:O2	31:BA:2268:A:H2'	2.01	0.60
45:DT:32:TYR:CB	45:DT:81:PRO:HB2	2.32	0.60
31:DA:271(M):G:H2'	31:DA:271(N):U:C5'	2.31	0.60
3:AC:73:PRO:HA	3:AC:76:VAL:CG1	2.31	0.60
10:AJ:63:PHE:HA	14:AN:59:ALA:H	1.67	0.60
31:DA:2019:A:O4'	46:DU:34:LYS:HD2	2.01	0.60
6:AF:19:LEU:HD21	6:AF:59:TYR:CD2	2.37	0.60
31:BA:1683:C:H2'	31:BA:1684:C:H6	1.67	0.60
1:CA:148:G:O2'	1:CA:149:A:H5'	2.01	0.60
1:CA:724:G:N3	1:CA:725:G:C8	2.69	0.60
3:CC:11:ARG:O	3:CC:14:ILE:O	2.19	0.60
31:BA:760:G:H2'	31:BA:761:A:O4'	2.02	0.60
31:DA:760:G:H2'	31:DA:761:A:O4'	2.00	0.60
4:CD:3:ARG:HD3	4:CD:5:ILE:HG13	1.84	0.60
31:BA:2826:A:C5	31:BA:2827:C:C5	2.90	0.60
31:DA:643:A:O2'	31:DA:644:A:H5'	2.00	0.60
35:DF:83:PHE:O	35:DF:85:GLY:N	2.35	0.60
36:BG:31:VAL:HB	36:BG:33:ARG:HG2	1.83	0.60
24:B2:25:VAL:HG22	24:B2:26:ARG:HH11	1.67	0.60
32:DB:37:C:O2	32:DB:38:C:O2	2.18	0.60
44:DS:76:LYS:O	44:DS:79:ALA:HB3	2.02	0.60
23:D1:85:LEU:C	23:D1:87:PRO:HD3	2.22	0.60
31:DA:2772:C:H2'	31:DA:2773:C:H6	1.67	0.60
31:BA:2025:C:H2'	31:BA:2026:C:C6	2.37	0.60
31:BA:1652:A:C2'	31:BA:1653:G:H5'	2.32	0.60
1:CA:222:U:H2'	1:CA:223:U:C6	2.37	0.60
51:BZ:150:LEU:N	51:BZ:150:LEU:HD13	2.17	0.60
1:AA:355:C:C2'	1:AA:356:A:H5'	2.31	0.60
1:AA:52:G:H2'	1:AA:53:A:C8	2.36	0.60
31:BA:1945:G:O2'	31:BA:1946:U:H5'	2.01	0.60
31:BA:2388:A:C2'	31:BA:2389:G:H5'	2.31	0.60
2:CB:22:LYS:NZ	2:CB:22:LYS:HA	2.16	0.60
1:AA:863:U:H2'	1:AA:865:A:OP2	2.01	0.60
34:DE:119:ARG:HA	34:DE:160:TYR:CD1	2.36	0.60
1:AA:559:A:N3	1:AA:559:A:H2'	2.16	0.60
1:CA:661:G:C2	1:CA:662:G:C8	2.89	0.60
38:DI:131:LYS:HG3	38:DI:132:PRO:HA	1.84	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:DT:88:ILE:HG22	45:DT:89:VAL:H	1.64	0.60
2:CB:91:PRO:N	2:CB:154:LEU:HD12	2.17	0.60
43:DR:5:LYS:HD2	43:DR:5:LYS:H	1.67	0.60
3:CC:150:LYS:HG3	3:CC:169:ALA:HB2	1.84	0.60
1:AA:270:A:C5	1:AA:271:C:C4	2.89	0.60
47:DV:43:GLU:HA	47:DV:47:VAL:O	2.02	0.60
33:BD:172:TYR:HD1	33:BD:185:VAL:C	2.04	0.60
31:BA:1987:G:C4	31:BA:1988:C:C5	2.90	0.60
33:DD:17:THR:HG23	33:DD:205:VAL:N	2.17	0.60
12:CL:50:SER:O	12:CL:51:ALA:HB2	2.02	0.60
34:DE:120:TRP:O	34:DE:121:ASN:HB2	2.01	0.60
31:DA:2404:C:H2'	31:DA:2405:G:H5'	1.83	0.60
31:BA:1386:C:H2'	31:BA:1387:C:H6	1.67	0.60
31:BA:2552:U:C2	31:BA:2554:U:H5'	2.37	0.60
31:DA:603:A:C4'	31:DA:604:G:O5'	2.49	0.60
48:BW:73:ALA:HB3	48:BW:106:ILE:HD11	1.82	0.60
31:DA:839:U:H2'	31:DA:840:C:C6	2.37	0.60
31:BA:2399:G:C4	31:BA:2400:G:C8	2.90	0.60
27:D5:10:LYS:HE3	31:DA:1262:A:N3	2.16	0.60
1:AA:477:A:O2'	1:AA:479:C:H5'	2.02	0.60
31:DA:1519:G:H5'	31:DA:1520:G:OP2	2.01	0.60
19:CS:29:ARG:O	19:CS:31:ILE:HG22	2.01	0.60
7:AG:85:TYR:CD1	7:AG:154:TYR:HE1	2.18	0.60
43:BR:38:VAL:HB	43:BR:39:PRO:HD3	1.84	0.60
1:CA:921:U:C2	1:CA:922:G:N3	2.66	0.60
28:D6:29:ASN:O	28:D6:30:THR:C	2.40	0.60
30:D8:61:LEU:HD13	31:DA:593:G:C4'	2.31	0.60
31:DA:2058:A:N1	55:DA:3320:TEL:H572	2.16	0.60
35:DF:102:PRO:HB2	35:DF:105:VAL:HG23	1.84	0.60
31:DA:1719:G:O2'	31:DA:1720:U:H5'	2.01	0.60
49:DX:72:LYS:CG	49:DX:73:ARG:N	2.62	0.60
25:D3:46:ASN:ND2	31:DA:850:C:O2'	2.34	0.60
47:DV:61:VAL:HG21	47:DV:100:ARG:HE	1.66	0.60
49:BX:3:THR:HA	49:BX:6:ASP:OD2	2.02	0.60
34:BE:60:ASN:ND2	34:BE:60:ASN:N	2.48	0.60
1:AA:618:C:N3	1:AA:622:A:N6	2.50	0.60
1:CA:1430:C:H5'	31:DA:1704:G:H5''	1.84	0.60
31:DA:1790:C:O2'	33:DD:209:ALA:HB2	2.02	0.60
46:BU:64:ARG:NH2	46:BU:64:ARG:HA	2.16	0.60
33:BD:158:ALA:O	33:BD:159:ALA:CB	2.48	0.60
47:BV:13:ARG:HH12	47:BV:15:GLU:CG	2.14	0.60
2:CB:187:LEU:HD22	2:CB:201:ILE:O	2.01	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:204:ASN:HB3	2:CB:210:SER:CB	2.32	0.60
31:DA:1502:C:O2	31:DA:1502:C:C2'	2.50	0.60
1:CA:710:G:H5''	6:CF:54:LYS:NZ	2.17	0.60
48:DW:74:ALA:O	48:DW:75:TYR:HB3	2.02	0.60
31:BA:1784:A:H4'	31:BA:1785:A:O5'	2.02	0.60
32:DB:16:G:C2	32:DB:17:C:C6	2.90	0.60
51:DZ:152:ALA:HB1	51:DZ:167:PRO:HB2	1.82	0.60
43:DR:116:LEU:O	43:DR:117:VAL:CB	2.49	0.60
50:BY:46:LYS:O	50:BY:47:LYS:NZ	2.34	0.60
1:AA:358:U:O2'	1:AA:359:U:C5'	2.50	0.60
1:AA:662:G:O2'	1:AA:663:A:H5'	2.02	0.60
1:AA:1096:C:H2'	1:AA:1097:C:H6	1.65	0.60
31:DA:1693:U:H4'	31:DA:1694:C:OP2	2.01	0.60
31:BA:963:U:H1'	31:BA:2250:G:O6	2.02	0.60
31:BA:2494:G:C4	31:BA:2495:G:C8	2.89	0.60
1:AA:577:G:C8	1:AA:816:A:C6	2.89	0.60
1:AA:818:G:HO2'	1:AA:820:U:H6	1.48	0.60
31:BA:1047:G:H2'	31:BA:1110:G:C2	2.36	0.60
31:DA:1786:A:H2	31:DA:2606:C:H1'	1.66	0.60
2:CB:90:MET:C	2:CB:154:LEU:HD12	2.22	0.60
31:DA:1434:A:C2'	31:DA:1435:G:H5'	2.32	0.60
12:AL:87:GLY:H	12:AL:99:HIS:H	1.50	0.60
38:DI:31:LEU:HD13	38:DI:37:VAL:HA	1.83	0.60
4:AD:173:TRP:CZ3	4:AD:193:ASP:HB3	2.37	0.60
31:DA:532:A:H2'	31:DA:532:A:N3	2.17	0.60
44:DS:83:LYS:HG2	44:DS:105:ALA:HB2	1.83	0.60
1:AA:316:G:OP2	1:AA:351:G:O2'	2.20	0.60
36:DG:66:GLN:OE1	36:DG:98:ARG:HG3	2.01	0.60
31:DA:2596:U:H2'	31:DA:2597:G:H5'	1.83	0.60
33:BD:222:ARG:O	33:BD:225:ALA:HB3	2.01	0.60
1:CA:52:G:H2'	1:CA:53:A:C8	2.36	0.60
31:DA:1861:G:C2	31:DA:1862:G:C8	2.90	0.60
31:DA:2287:A:C2	31:DA:2346:A:H2	2.19	0.60
29:B7:15:THR:HG22	29:B7:16:HIS:CG	2.36	0.60
29:B7:16:HIS:HB2	29:B7:44:PRO:HG2	1.84	0.60
31:DA:1744:C:H2'	31:DA:1745:C:H5'	1.83	0.60
41:BP:131:SER:C	41:BP:133:SER:H	2.05	0.60
46:DU:64:ARG:HA	46:DU:64:ARG:NH2	2.15	0.60
46:DU:83:LEU:HG	46:DU:88:ILE:CG1	2.19	0.60
47:DV:15:GLU:HB3	47:DV:16:PRO:HD2	1.84	0.60
47:DV:15:GLU:O	47:DV:98:GLU:CD	2.41	0.60
37:BH:85:LYS:NZ	37:BH:133:VAL:HG21	2.17	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:514:C:H2'	1:CA:515:G:H8	1.65	0.60
31:DA:1683:C:H2'	31:DA:1684:C:C6	2.37	0.60
50:BY:45:VAL:HG22	50:BY:62:GLU:HB3	1.82	0.60
33:DD:25:THR:O	33:DD:27:THR:HB	2.02	0.60
39:BN:90:MET:O	39:BN:93:THR:O	2.20	0.60
46:BU:31:SER:C	46:BU:33:ARG:H	2.05	0.60
5:AE:102:ALA:HB1	5:AE:106:PRO:CG	2.31	0.60
47:BV:61:VAL:HG21	47:BV:100:ARG:HE	1.67	0.60
47:BV:66:ARG:HE	47:BV:94:LEU:HG	1.66	0.60
31:DA:1508:A:OP1	31:DA:1509(A):A:H2	1.84	0.60
22:D0:40:GLN:HG3	22:D0:42:GLY:O	2.01	0.60
1:AA:323:U:OP1	20:AT:26:ASN:ND2	2.35	0.60
31:DA:1115:G:C4	31:DA:1116:C:C5	2.90	0.60
31:BA:910:A:N1	31:BA:2277:G:H1'	2.17	0.60
1:AA:343:U:C2	1:AA:347:G:C2	2.89	0.60
31:DA:1337:G:H2'	31:DA:1338:G:H8	1.65	0.60
42:BQ:20:ALA:O	42:BQ:23:GLY:N	2.35	0.60
1:AA:1064:G:C8	1:AA:1066:C:C2	2.90	0.60
10:AJ:51:ARG:HG3	10:AJ:61:GLU:N	2.16	0.60
31:BA:1506:C:O2	31:BA:1506:C:H2'	2.00	0.60
33:BD:186:HIS:HD2	33:BD:188:GLU:H	1.50	0.60
8:CH:10:LEU:HD23	8:CH:10:LEU:N	2.16	0.60
1:AA:552:U:C5'	12:AL:86:ARG:HD2	2.32	0.60
22:B0:20:ARG:NH1	31:BA:2357:U:OP1	2.34	0.60
7:CG:79:ARG:HG2	7:CG:84:ASN:ND2	2.17	0.60
31:DA:2008:C:H2'	31:DA:2009:G:H8	1.66	0.60
31:BA:2303:G:H8	31:BA:2303:G:O5'	1.85	0.60
1:CA:791:G:C5	1:CA:792:A:N7	2.70	0.60
31:DA:921:G:H4'	31:DA:2269:A:C5	2.37	0.60
25:B3:46:ASN:ND2	31:BA:850:C:O2'	2.35	0.60
31:BA:1000:A:C6	31:BA:1001:A:C6	2.90	0.60
19:AS:51:VAL:HG21	19:AS:71:LEU:HB3	1.82	0.60
31:BA:1196:C:O4'	31:BA:1226:A:C2	2.55	0.60
31:BA:2036:C:H6	31:BA:2036:C:H5'	1.67	0.60
31:DA:272(E):G:C6	31:DA:272(F):C:C4	2.89	0.60
1:CA:754:C:H3'	1:CA:754:C:O2	2.00	0.60
35:DF:155:LEU:HD22	35:DF:186:ILE:HA	1.83	0.60
35:BF:32:LEU:C	35:BF:32:LEU:HD23	2.22	0.60
39:DN:24:GLY:H	39:DN:27:ALA:H	1.50	0.60
31:BA:2835:A:C5	31:BA:2879:C:C5	2.90	0.60
31:DA:1614:A:H2'	31:DA:1615:C:H5'	1.82	0.59
41:DP:131:SER:C	41:DP:133:SER:H	2.05	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BF:66:PRO:O	35:BF:67:GLN:CB	2.45	0.59
44:BS:38:GLN:HG2	44:BS:47:THR:HG21	1.84	0.59
31:DA:1719:G:H2'	31:DA:1720:U:C5'	2.32	0.59
25:D3:52:HIS:ND1	32:DB:83:G:H5''	2.16	0.59
25:D3:10:LYS:HB3	25:D3:53:LEU:HA	1.84	0.59
34:BE:35:GLN:NE2	34:BE:37:ARG:HH21	1.99	0.59
1:CA:353:A:H5'	1:CA:353:A:H8	1.66	0.59
1:CA:614:A:C6	1:CA:627:G:N1	2.70	0.59
1:CA:62:U:O2'	1:CA:379:C:H1'	2.02	0.59
31:BA:2302:G:O6	31:BA:2315:G:C6	2.54	0.59
5:AE:76:ILE:HD11	5:AE:142:LEU:HD11	1.84	0.59
42:BQ:77:LYS:HE3	42:BQ:82:ARG:HA	1.84	0.59
1:AA:1148:U:H4'	9:AI:14:VAL:HG11	1.84	0.59
1:AA:673:G:C5'	6:AF:87:ARG:HE	2.14	0.59
1:AA:676:A:H2'	1:AA:677:U:C6	2.37	0.59
1:AA:715:A:O2'	1:AA:716:A:H5'	2.02	0.59
31:DA:528:A:O2'	31:DA:529:A:H5'	2.01	0.59
39:BN:78:TYR:H	39:BN:79:PRO:CD	2.14	0.59
23:D1:19:GLN:NE2	31:DA:379:G:H21	1.92	0.59
31:DA:1290:C:H2'	31:DA:1291:C:H6	1.67	0.59
1:CA:1084:G:C5	1:CA:1085:U:C4	2.90	0.59
22:B0:40:GLN:HE21	22:B0:43:THR:HA	1.67	0.59
1:AA:559:A:H4'	1:AA:560:U:O5'	2.02	0.59
1:AA:1392:G:N2	1:AA:1502:A:C8	2.70	0.59
31:DA:494:G:H2'	31:DA:495:G:H8	1.67	0.59
4:AD:138:TYR:HD2	4:AD:138:TYR:C	2.04	0.59
1:CA:946:A:C2	1:CA:1236:A:C2	2.90	0.59
1:AA:153:C:N4	1:AA:168:G:H1	2.00	0.59
23:D1:37:ILE:HG21	31:DA:2080:G:P	2.42	0.59
43:BR:72:ASP:HB3	43:BR:75:LEU:CB	2.31	0.59
43:DR:103:ARG:HB3	43:DR:110:PRO:HA	1.84	0.59
1:CA:775:G:O2'	1:CA:776:G:H5'	2.02	0.59
12:CL:91:LYS:HG3	12:CL:91:LYS:O	2.02	0.59
1:AA:719:C:C6	1:AA:720:C:C5	2.90	0.59
31:BA:2596:U:H2'	31:BA:2597:G:H5'	1.82	0.59
1:AA:189(K):U:H2'	1:AA:189(L):G:C8	2.36	0.59
31:DA:2553:G:H5''	31:DA:2554:U:OP2	2.02	0.59
31:DA:1033:U:H5''	31:DA:1034:G:OP1	2.01	0.59
31:DA:2826:A:C5	31:DA:2827:C:C5	2.90	0.59
16:CP:64:ALA:O	16:CP:65:GLN:C	2.38	0.59
35:BF:154:VAL:HB	35:BF:173:VAL:HG22	1.84	0.59
48:BW:56:ALA:O	48:BW:57:ASN:C	2.41	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:CN:51:GLY:C	14:CN:53:LEU:H	2.05	0.59
31:BA:17:G:H4'	46:BU:25:TRP:CH2	2.37	0.59
5:AE:98:THR:HG22	5:AE:99:GLY:N	2.17	0.59
44:BS:26:LEU:HA	44:BS:39:ILE:HD13	1.84	0.59
31:DA:1717:G:H2'	31:DA:1717:G:N3	2.17	0.59
31:DA:1751:C:HO2'	31:DA:2861:G:HO2'	1.32	0.59
41:BP:105:LEU:O	41:BP:106:LEU:CB	2.49	0.59
31:BA:1470:G:H5''	31:BA:1471:A:OP1	2.01	0.59
36:DG:26:GLN:N	36:DG:30:GLU:OE1	2.30	0.59
44:DS:66:ALA:C	44:DS:69:VAL:HG12	2.23	0.59
1:AA:437:U:H2'	1:AA:438:G:C5'	2.30	0.59
4:CD:43:HIS:HB3	4:CD:46:LYS:HD2	1.84	0.59
1:CA:376:G:H4'	16:CP:5:ARG:HH11	1.67	0.59
37:DH:70:THR:HG22	37:DH:74:ASN:ND2	2.17	0.59
46:BU:64:ARG:CA	46:BU:64:ARG:CZ	2.80	0.59
46:BU:60:LEU:O	46:BU:64:ARG:HG2	2.01	0.59
31:BA:779:U:H5''	33:BD:49:ILE:HD11	1.84	0.59
47:BV:21:ARG:HG2	47:BV:93:GLU:OE1	2.01	0.59
47:BV:66:ARG:HE	47:BV:94:LEU:CD1	2.14	0.59
31:DA:2317:C:C2'	31:DA:2318:G:C5'	2.74	0.59
51:BZ:3:TYR:CD2	51:BZ:51:ALA:HB2	2.37	0.59
20:AT:66:ALA:O	20:AT:71:THR:HB	2.02	0.59
23:B1:20:ARG:HB2	31:BA:380:U:O3'	2.02	0.59
39:BN:82:LEU:H	39:BN:82:LEU:HD12	1.66	0.59
22:B0:42:GLY:HA2	31:BA:2330:G:H21	1.66	0.59
1:CA:579:G:H2'	1:CA:580:U:C6	2.37	0.59
31:DA:2303:G:O5'	31:DA:2303:G:H8	1.86	0.59
38:DI:133:HIS:CB	38:DI:134:PRO:CD	2.78	0.59
40:DO:64:ARG:HB3	40:DO:79:PHE:CG	2.37	0.59
35:BF:124:LEU:O	35:BF:193:VAL:HA	2.02	0.59
31:BA:271(Q):G:O2'	31:BA:271(R):G:C8	2.54	0.59
40:DO:22:ILE:HG22	40:DO:40:VAL:HB	1.84	0.59
31:DA:185:U:H4'	31:DA:218:A:H4'	1.82	0.59
51:BZ:142:SER:H	51:BZ:144:LEU:HD23	1.67	0.59
51:DZ:142:SER:H	51:DZ:144:LEU:HD23	1.66	0.59
1:CA:774:G:N2	1:CA:775:G:H1'	2.17	0.59
31:BA:2098:U:H2'	31:BA:2099:U:C6	2.36	0.59
9:CI:48:GLU:N	9:CI:49:PRO:HD2	2.17	0.59
3:CC:186:PHE:CE2	3:CC:188:LEU:HD22	2.37	0.59
31:BA:1301:A:H2	31:BA:1626:G:N3	2.00	0.59
1:AA:519:C:H2'	1:AA:520:A:O5'	2.02	0.59
31:DA:817:C:H2'	31:DA:818:G:H8	1.67	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:245:C:O2	1:CA:283:C:N3	2.34	0.59
51:BZ:152:ALA:HB1	51:BZ:167:PRO:HB2	1.83	0.59
7:CG:47:CYS:O	7:CG:50:ILE:HB	2.02	0.59
7:CG:85:TYR:CE1	7:CG:154:TYR:HE1	2.20	0.59
6:CF:69:GLU:H	6:CF:69:GLU:CD	2.04	0.59
2:AB:167:PRO:HG3	2:AB:188:ALA:HB2	1.83	0.59
31:DA:2183:C:H2'	31:DA:2184:G:C8	2.38	0.59
37:DH:16:SER:HB2	37:DH:27:LYS:HB2	1.84	0.59
31:DA:384:U:O2'	31:DA:385:C:H5'	2.02	0.59
30:D8:32:LEU:O	30:D8:33:ASN:CB	2.50	0.59
30:D8:52:LYS:H	30:D8:53:PRO:CD	2.13	0.59
31:DA:833:U:H5''	41:DP:48:PRO:HB3	1.84	0.59
41:BP:16:ARG:HG2	41:BP:17:LYS:N	2.08	0.59
31:BA:696:G:O2'	31:BA:697:C:H5'	2.01	0.59
33:BD:94:LEU:HD22	33:BD:95:LEU:N	2.18	0.59
44:BS:26:LEU:HD22	44:BS:87:PHE:CE1	2.37	0.59
47:DV:24:LYS:HB2	47:DV:92:THR:HG21	1.83	0.59
33:DD:241:PRO:O	33:DD:243:GLY:N	2.35	0.59
1:CA:355:C:C2'	1:CA:356:A:H5'	2.31	0.59
50:BY:20:TYR:CD2	50:BY:41:GLY:HA2	2.36	0.59
50:BY:13:VAL:CG1	50:BY:72:VAL:HB	2.32	0.59
31:BA:1286:A:HO2'	31:BA:1288:U:P	2.13	0.59
39:BN:30:ILE:HG23	39:BN:52:VAL:HG11	1.85	0.59
31:DA:2521:C:H42	31:DA:2544:G:H1	1.50	0.59
1:AA:184:G:O2'	1:AA:185:A:H5'	2.03	0.59
1:CA:673:G:O3'	6:CF:87:ARG:NH2	2.36	0.59
31:DA:911:A:C5	42:DQ:9:TYR:CE2	2.90	0.59
31:BA:607:U:C2	31:BA:621:A:N1	2.70	0.59
31:DA:528:A:C2	31:DA:2042:A:H2'	2.37	0.59
9:AI:55:ALA:HB1	9:AI:59:PHE:HE1	1.68	0.59
38:BI:51:ILE:O	38:BI:55:ALA:CB	2.50	0.59
36:DG:45:GLU:HG2	36:DG:47:LYS:H	1.66	0.59
10:CJ:51:ARG:HG3	10:CJ:61:GLU:N	2.17	0.59
31:DA:1497:U:H2'	31:DA:1497:U:O2	2.02	0.59
34:DE:154:LYS:HA	34:DE:154:LYS:CE	2.30	0.59
31:BA:1494:A:C4'	31:BA:1495:A:OP1	2.48	0.59
1:AA:687:A:H1'	1:AA:688:G:OP2	2.02	0.59
31:BA:1106:A:O2'	31:BA:1107:G:O5'	2.20	0.59
1:CA:1003:G:C2	1:CA:1004:A:H1'	2.36	0.59
31:BA:2712:U:O2'	31:BA:2712(A):A:P	2.60	0.59
48:DW:20:VAL:HG23	48:DW:21:VAL:N	2.16	0.59
31:BA:271(D):G:H2'	31:BA:271(E):U:O4'	2.02	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:154:G:O5'	31:BA:154:G:H8	1.85	0.59
1:CA:343:U:C2	1:CA:347:G:C2	2.90	0.59
38:DI:15:VAL:HG23	38:DI:16:GLY:N	2.15	0.59
31:DA:2475:C:H42	31:DA:2529:G:H22	1.50	0.59
42:DQ:52:VAL:HA	42:DQ:55:VAL:HG13	1.85	0.59
1:AA:1286:A:H2'	1:AA:1287:A:H4'	1.84	0.59
1:AA:1350:A:H8	1:AA:1350:A:O5'	1.85	0.59
31:DA:2886:G:N3	31:DA:2887:U:C6	2.70	0.59
31:BA:2343:C:O3'	31:BA:2373:G:H4'	2.02	0.59
2:AB:84:GLU:HB3	2:AB:219:VAL:HG21	1.84	0.59
12:CL:90:VAL:O	12:CL:92:ASP:N	2.31	0.59
31:BA:1694:C:O2'	31:BA:1695:G:C4	2.53	0.59
8:CH:12:ARG:HH12	8:CH:58:TYR:HE2	1.49	0.59
31:BA:2065:C:H2'	31:BA:2066:C:C6	2.37	0.59
23:D1:23:LYS:NZ	23:D1:23:LYS:HA	2.17	0.59
2:CB:18:GLY:H	2:CB:42:ILE:HG22	1.68	0.59
1:AA:522:C:H41	12:AL:53:ARG:HH22	1.49	0.59
31:DA:817:C:O2'	31:DA:839:U:H5''	2.03	0.59
17:CQ:21:VAL:HG21	17:CQ:59:ILE:HD11	1.83	0.59
3:AC:101:LEU:HD23	3:AC:102:ASN:O	2.02	0.59
43:BR:104:ARG:HD3	43:BR:109:ALA:HB3	1.83	0.59
31:BA:700:G:H1	31:BA:732:C:H42	1.49	0.59
2:AB:115:LEU:HD13	2:AB:145:LEU:HB3	1.85	0.59
1:CA:921:U:H1'	1:CA:922:G:N9	2.14	0.59
31:BA:52:A:C2'	31:BA:53:A:H5'	2.33	0.59
33:BD:35:LYS:HA	33:BD:64:ILE:CG2	2.31	0.59
31:BA:2376:A:H5''	31:BA:2377:A:OP2	2.02	0.59
32:BB:57:A:C2	32:BB:58:A:N7	2.70	0.59
31:DA:1712:C:H2'	31:DA:1713:U:C6	2.33	0.59
49:DX:52:VAL:CG2	49:DX:82:GLN:HA	2.32	0.59
41:BP:80:TYR:CD1	41:BP:111:ARG:HB3	2.37	0.59
39:DN:125:GLY:HA2	39:DN:126:PRO:O	2.01	0.59
46:DU:21:ALA:HA	46:DU:24:TYR:CE1	2.37	0.59
49:BX:36:LYS:O	49:BX:38:GLU:N	2.35	0.59
34:BE:39:PRO:HD3	34:BE:45:THR:OG1	2.01	0.59
33:DD:24:ILE:O	33:DD:24:ILE:HG23	2.01	0.59
31:BA:538:G:H2'	31:BA:539:G:H8	1.67	0.59
31:BA:2619:C:H4'	34:BE:151:TYR:O	2.01	0.59
31:DA:1509(B):A:C2'	31:DA:1510:G:H8	2.16	0.59
42:DQ:141:GLN:CB	51:DZ:70:LEU:HD13	2.25	0.59
32:BB:21:G:O2'	32:BB:22:U:C6	2.53	0.59
4:AD:7:PRO:HB3	4:AD:10:ARG:HD2	1.83	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:2801(A):A:C4'	31:BA:2802:G:H5'	2.31	0.59
27:D5:51:TYR:CD2	27:D5:52:TYR:CZ	2.90	0.59
31:DA:380:U:H2'	31:DA:381:G:H8	1.68	0.59
6:AF:33:TYR:O	6:AF:35:ALA:N	2.35	0.59
49:BX:63:LYS:O	49:BX:68:ARG:HA	2.03	0.59
1:AA:833:U:H2'	1:AA:834:C:C6	2.38	0.59
1:CA:302:G:N3	1:CA:556:C:H4'	2.16	0.59
1:AA:22:G:H2'	1:AA:23:C:C6	2.38	0.59
1:AA:883:C:C2'	1:AA:884:U:H5'	2.33	0.59
45:BT:65:LYS:HG3	45:BT:66:VAL:H	1.67	0.59
31:DA:797:C:H2'	31:DA:798:G:H8	1.68	0.59
9:AI:116:LYS:O	9:AI:118:LYS:N	2.36	0.59
4:CD:138:TYR:C	4:CD:138:TYR:HD2	2.04	0.59
10:CJ:40:LEU:HD21	10:CJ:69:ASN:HB3	1.84	0.59
2:CB:162:ILE:HD12	2:CB:162:ILE:O	2.02	0.59
31:BA:1531:C:H3'	31:BA:1532:C:H5'	1.82	0.59
31:DA:118:A:C8	31:DA:119:A:C8	2.91	0.59
31:BA:892:G:N1	31:BA:894:C:N4	2.50	0.59
1:CA:520:A:N1	1:CA:536:C:H1'	2.17	0.59
31:DA:272(B):G:O2'	31:DA:272(C):G:C5'	2.51	0.59
5:AE:42:GLY:HA3	5:AE:66:MET:HG2	1.84	0.59
44:DS:11:LYS:N	44:DS:11:LYS:HD2	2.17	0.59
3:CC:123:GLN:HB3	3:CC:128:PHE:HB2	1.84	0.59
28:D6:42:TRP:HA	28:D6:42:TRP:HE3	1.66	0.59
41:DP:24:GLY:N	41:DP:33:ARG:HE	2.01	0.59
41:BP:10:PRO:CD	41:BP:11:GLY:H	2.14	0.59
46:DU:61:TRP:O	46:DU:64:ARG:N	2.35	0.59
49:BX:23:GLU:O	49:BX:25:LYS:N	2.36	0.59
33:BD:244:ARG:HG2	33:BD:245:PRO:CD	2.28	0.59
44:DS:31:SER:HB3	44:DS:34:HIS:O	2.02	0.59
1:AA:437:U:O2'	1:AA:438:G:H5'	2.03	0.59
1:AA:62:U:O2'	1:AA:379:C:H1'	2.02	0.59
5:CE:101:ILE:H	5:CE:101:ILE:HD13	1.65	0.59
20:CT:23:ARG:HA	20:CT:26:ASN:HD21	1.68	0.59
45:DT:100:TYR:HD2	45:DT:103:ARG:NH2	2.00	0.59
38:DI:88:ILE:HG13	38:DI:121:LYS:C	2.21	0.59
37:DH:135:GLY:HA3	37:DH:141:VAL:HG23	1.85	0.59
32:BB:82:G:C2'	32:BB:83:G:H5'	2.33	0.59
39:BN:3:THR:HG22	39:BN:4:TYR:H	1.68	0.59
37:DH:125:VAL:HG22	37:DH:131:VAL:HG22	1.84	0.59
2:CB:163:PHE:CA	2:CB:185:ILE:HG13	2.31	0.59
50:DY:13:VAL:CG1	50:DY:72:VAL:HB	2.33	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:B1:87:PRO:CD	23:B1:88:LYS:N	2.64	0.59
32:BB:66:A:H61	32:BB:108:U:H2'	1.67	0.59
31:DA:1040:C:H42	31:DA:1116:C:H42	1.46	0.59
31:BA:1115:G:C4	31:BA:1116:C:C5	2.90	0.59
1:AA:783:C:H2'	1:AA:784:C:H5'	1.85	0.59
1:CA:22:G:H2'	1:CA:23:C:C6	2.38	0.59
1:AA:343:U:N3	1:AA:347:G:N1	2.51	0.59
36:BG:76:SER:CB	36:BG:84:LYS:H	2.15	0.59
1:AA:955:U:H3	1:AA:1225:A:H61	1.48	0.59
31:DA:2577:A:H5''	31:DA:2578:G:H5'	1.84	0.59
1:CA:66:G:C2	1:CA:67:C:C6	2.90	0.59
45:BT:106:SER:HA	45:BT:110:ILE:CG1	2.32	0.59
1:CA:746:A:H2'	1:CA:747:C:C6	2.38	0.59
31:DA:154:G:O5'	31:DA:154:G:H8	1.85	0.59
1:AA:9:G:H5''	5:AE:122:GLU:OE2	2.02	0.59
31:DA:2464:C:O2'	31:DA:2465:C:P	2.61	0.59
1:CA:1347:G:N2	1:CA:1373:G:H2'	2.18	0.59
4:AD:194:LEU:HB3	4:AD:196:LEU:HD11	1.84	0.59
8:CH:91:ARG:CG	17:CQ:34:LYS:H	2.15	0.59
16:CP:43:LYS:HA	16:CP:48:TRP:HB3	1.83	0.59
23:D1:37:ILE:HG23	23:D1:37:ILE:O	2.02	0.59
12:AL:53:ARG:HH12	12:AL:92:ASP:HB3	1.66	0.59
1:CA:36:C:H2'	1:CA:37:U:H5'	1.85	0.59
11:AK:127:LYS:NZ	11:AK:127:LYS:HA	2.18	0.59
31:DA:384:U:H2'	31:DA:385:C:H6	1.68	0.59
25:D3:4:LEU:O	25:D3:36:VAL:HA	2.02	0.59
34:BE:9:VAL:HG22	34:BE:25:VAL:HB	1.85	0.59
31:DA:1438:U:O2'	31:DA:1439:A:H5'	2.03	0.59
31:DA:1368:G:O2'	31:DA:1369:G:H5'	2.01	0.59
31:BA:2183:C:H2'	31:BA:2184:G:C8	2.37	0.59
31:DA:448:U:H3'	31:DA:449:A:C5'	2.31	0.59
30:B8:12:LYS:HG2	41:BP:68:GLN:OE1	2.01	0.59
31:BA:2245:U:H5''	31:BA:2246:G:H5'	1.85	0.59
31:BA:806:C:OP2	41:BP:39:LYS:CD	2.48	0.59
33:BD:35:LYS:HE3	33:BD:65:ILE:N	2.18	0.59
31:BA:626:U:H5''	31:BA:627:A:C5'	2.33	0.59
31:BA:637:A:O5'	41:BP:116:GLY:HA2	2.02	0.59
25:D3:52:HIS:CD2	25:D3:52:HIS:N	2.68	0.59
33:DD:241:PRO:O	33:DD:242:ARG:HB2	2.03	0.59
44:DS:93:LYS:O	44:DS:94:TYR:C	2.41	0.59
1:AA:102:G:C5	1:AA:103:C:C5	2.90	0.59
1:CA:1466:C:H2'	1:CA:1467:G:H5'	1.83	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:CP:7:ALA:O	16:CP:9:PHE:CD2	2.56	0.59
31:BA:1291:C:O2'	31:BA:1292:U:H5'	2.02	0.59
31:DA:1819:A:H4'	31:DA:1820:U:O5'	2.02	0.59
31:DA:764:A:H5''	33:DD:210:GLY:HA3	1.84	0.59
39:BN:89:LYS:O	39:BN:93:THR:HG22	2.02	0.59
46:BU:90:VAL:HG12	46:BU:91:ASP:N	2.17	0.59
31:DA:2653:U:H3	31:DA:2667:C:H42	1.48	0.59
31:BA:1659:U:O2'	31:BA:1660:C:H5'	2.03	0.59
31:BA:706:A:H2'	31:BA:707:G:O4'	2.01	0.59
20:CT:48:LYS:HB2	20:CT:52:ALA:HB2	1.84	0.59
23:B1:85:LEU:CB	23:B1:87:PRO:HD3	2.31	0.59
31:DA:1510:G:H2'	31:DA:1511:C:C6	2.38	0.59
1:CA:682:G:H1	1:CA:708:C:N4	2.00	0.59
51:DZ:53:ILE:HG22	51:DZ:71:VAL:CB	2.29	0.59
51:BZ:120:ILE:O	51:BZ:120:ILE:HG22	2.03	0.59
31:BA:1836:C:C2'	31:BA:1837:C:H5'	2.33	0.59
2:CB:22:LYS:HZ3	2:CB:40:HIS:HE1	1.48	0.59
1:CA:555:C:C2	1:CA:556:C:C5	2.91	0.59
1:CA:559:A:H4'	1:CA:560:U:H3'	1.82	0.59
31:BA:1498:C:O4'	31:BA:1577:C:H4'	2.02	0.59
31:DA:1747:G:C4	31:DA:1747(A):G:C8	2.90	0.59
31:BA:1418:G:H8	31:BA:1418:G:O5'	1.86	0.59
1:CA:1442:G:N7	1:CA:1442(B):A:C2	2.64	0.59
31:DA:271(E):U:H2'	31:DA:271(F):C:H6	1.66	0.59
36:BG:117:PHE:CE1	36:BG:120:LEU:HD23	2.37	0.59
48:BW:12:ILE:HG13	48:BW:42:ARG:HH11	1.68	0.59
33:BD:77:ALA:HB2	33:BD:97:TYR:CG	2.37	0.59
1:AA:272:C:H2'	1:AA:273:A:H8	1.66	0.59
37:BH:41:MET:CG	37:BH:55:PRO:HD3	2.33	0.59
37:DH:89:ILE:CG1	37:DH:90:LYS:H	2.16	0.59
37:DH:89:ILE:N	37:DH:89:ILE:HD12	2.18	0.59
8:CH:97:VAL:O	8:CH:100:ILE:HG13	2.02	0.59
12:AL:22:SER:O	12:AL:24:VAL:N	2.36	0.59
1:AA:156:G:C6	1:AA:166:G:N1	2.71	0.59
40:BO:64:ARG:HB3	40:BO:79:PHE:CG	2.37	0.59
31:DA:1488:G:C2	31:DA:1489:U:O2	2.54	0.59
35:DF:132:VAL:C	35:DF:134:GLY:H	2.06	0.59
1:CA:760:G:H2'	1:CA:761:G:H5'	1.85	0.59
34:BE:147:PRO:HB2	34:BE:149:ARG:HG2	1.83	0.59
36:BG:130:ASN:OD1	36:BG:160:VAL:HA	2.03	0.59
31:BA:485:C:H2'	31:BA:486:C:C6	2.37	0.59
17:AQ:10:VAL:HG13	17:AQ:19:VAL:HB	1.85	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2050:C:H1'	34:DE:156:MET:CE	2.32	0.59
39:DN:115:ARG:HG3	39:DN:115:ARG:HH11	1.66	0.59
31:BA:409:C:H42	31:BA:418:G:H1	1.51	0.59
1:CA:145:G:H2'	1:CA:146:G:O4'	2.02	0.59
35:DF:89:VAL:CG1	35:DF:90:PHE:N	2.66	0.59
41:DP:57:THR:HB	41:DP:59:LEU:N	2.17	0.59
31:BA:2069:G:C2'	31:BA:2070:G:H5'	2.32	0.59
31:DA:1140:C:OP1	39:DN:23:LEU:O	2.21	0.59
39:DN:66:LYS:HB3	39:DN:70:LYS:HB2	1.84	0.59
39:DN:91:LEU:HA	39:DN:95:PRO:CB	2.25	0.59
31:DA:1332:G:H22	31:DA:1610:A:H8	1.50	0.59
31:BA:1744:C:H2'	31:BA:1745:C:H5'	1.84	0.59
1:AA:625:G:H2'	1:AA:626:U:C6	2.38	0.59
1:CA:389:A:H2'	1:CA:390:C:C5'	2.31	0.59
1:AA:444:C:C2	1:AA:445:G:C8	2.90	0.59
46:BU:75:ASN:HB3	46:BU:77:SER:OG	2.03	0.59
31:BA:996:A:H4'	46:BU:92:ARG:CZ	2.32	0.59
34:DE:35:GLN:NE2	34:DE:37:ARG:HH21	2.01	0.59
5:AE:103:GLY:O	5:AE:106:PRO:HD2	2.03	0.59
47:BV:66:ARG:CG	47:BV:67:GLY:N	2.63	0.59
23:B1:10:LYS:CG	23:B1:11:ARG:N	2.65	0.59
31:DA:1484:G:N1	31:DA:1506:C:N4	2.49	0.59
51:DZ:99:TYR:HA	51:DZ:125:LEU:HA	1.85	0.59
33:DD:70:TRP:HZ3	33:DD:146:GLU:OE2	1.86	0.59
1:CA:1112:C:O2	3:CC:178:LEU:HB2	2.02	0.59
31:DA:1657:C:H2'	31:DA:1658:C:H6	1.68	0.59
1:AA:1112:C:O2	3:AC:178:LEU:HB2	2.03	0.59
1:AA:741:G:H2'	1:AA:742:G:O4'	2.02	0.59
1:AA:1072:G:C2	1:AA:1073:U:C2	2.91	0.59
1:AA:297:G:H4'	1:AA:557:G:H4'	1.83	0.59
9:CI:114:TYR:HE1	10:CJ:60:ARG:O	1.85	0.59
33:BD:72:LYS:HE3	33:BD:99:ASP:OD1	2.02	0.59
31:BA:2523:G:C2'	31:BA:2524:G:C5'	2.76	0.59
31:BA:855:G:C5	31:BA:856:C:C4	2.90	0.59
49:DX:8:ILE:HD11	49:DX:43:VAL:HA	1.84	0.59
1:AA:946:A:C2	1:AA:1236:A:C2	2.91	0.59
31:DA:1531:C:H3'	31:DA:1532:C:H5'	1.84	0.59
31:DA:1543:C:OP2	31:DA:1543:C:C5	2.56	0.59
6:CF:45:LEU:HD12	6:CF:57:GLN:HB3	1.84	0.59
31:BA:208:C:H2'	31:BA:209:C:C6	2.37	0.59
13:CM:106:ASN:O	13:CM:107:ALA:HB3	2.03	0.59
31:BA:2228:G:C6	31:BA:2229:C:C4	2.91	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DF:7:TYR:CD1	35:DF:8:GLN:N	2.69	0.59
17:AQ:6:LEU:HD13	17:AQ:23:VAL:HG11	1.83	0.59
31:BA:1190:G:C4'	41:BP:35:HIS:HB3	2.30	0.59
33:BD:95:LEU:HD21	33:BD:105:ILE:HG22	1.83	0.59
32:BB:116:G:C2	32:BB:117:G:C8	2.91	0.59
31:BA:2563:U:H4'	40:BO:28:SER:HA	1.85	0.59
49:DX:4:ALA:C	49:DX:6:ASP:H	2.04	0.59
41:BP:97:PRO:HD3	41:BP:126:VAL:O	2.01	0.59
25:D3:8:LEU:CD1	25:D3:31:LEU:HD23	2.18	0.59
47:DV:5:VAL:CG2	47:DV:36:PRO:HB2	2.33	0.59
31:BA:2757:A:C2	37:BH:67:LEU:HD22	2.38	0.59
31:BA:1388:G:H2'	31:BA:1389:G:H8	1.66	0.59
31:BA:1448:G:H21	31:BA:1528(A):A:H2	1.51	0.59
31:BA:2889:C:H3'	31:BA:2891:G:H8	1.67	0.59
31:BA:1750:G:O2'	31:BA:2860:A:N1	2.34	0.59
31:DA:2377:A:H2'	31:DA:2378:A:C8	2.37	0.59
32:DB:45:A:H2'	32:DB:46:A:H5'	1.84	0.59
36:DG:11:TYR:CG	36:DG:100:TRP:HH2	2.21	0.59
1:CA:60:A:H4'	1:CA:61:G:O5'	2.03	0.59
4:CD:119:GLN:O	4:CD:123:HIS:CD2	2.55	0.59
31:BA:1019:U:N3	31:BA:1142(A):A:N6	2.41	0.59
31:BA:995:C:OP2	46:BU:54:LYS:HE3	2.02	0.59
50:DY:45:VAL:HG13	50:DY:62:GLU:CG	2.33	0.59
31:DA:2299:G:C6	31:DA:2318:G:C8	2.91	0.59
2:CB:16:HIS:HB3	2:CB:210:SER:HA	1.85	0.59
42:BQ:141:GLN:CB	51:BZ:70:LEU:HD13	2.25	0.59
51:DZ:165:VAL:HG12	51:DZ:166:SER:N	2.17	0.59
51:BZ:171:ILE:O	51:BZ:172:ALA:CB	2.50	0.59
31:DA:2041:U:H2'	31:DA:2042:A:H8	1.68	0.59
31:DA:743:G:O2'	31:DA:744:G:H5'	2.02	0.59
31:BA:2388:A:H2'	31:BA:2389:G:H5'	1.83	0.59
31:BA:828:U:O2	31:BA:828:U:H3'	2.03	0.59
4:AD:18:LYS:HD2	4:AD:33:MET:CG	2.27	0.59
34:BE:111:ARG:NH1	43:BR:2:ARG:HH21	2.00	0.59
1:CA:303:A:H2'	1:CA:304:U:O4'	2.01	0.59
50:DY:96:ILE:HB	50:DY:99:CYS:HB3	1.85	0.59
31:BA:1044:G:C6	31:BA:1112:G:N1	2.69	0.59
31:DA:1665:A:C2'	31:DA:1666:G:H5'	2.33	0.59
1:AA:1003:G:C2	1:AA:1004:A:H1'	2.38	0.59
33:DD:77:ALA:HB2	33:DD:97:TYR:CG	2.38	0.59
42:DQ:24:GLY:HA2	51:DZ:78:LYS:HA	1.85	0.59
31:BA:1689:A:H62	31:BA:1698:A:H2	1.50	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:173:U:O4'	1:AA:197:A:C4	2.55	0.59
37:BH:109:PHE:CE1	37:BH:152:ARG:CZ	2.86	0.59
51:BZ:130:PRO:HA	51:BZ:133:ILE:CG1	2.33	0.59
31:BA:1693:U:H4'	31:BA:1694:C:OP2	2.02	0.59
1:CA:1423:G:H2'	1:CA:1424:C:C6	2.37	0.59
2:AB:20:GLU:HB2	2:AB:190:THR:OG1	2.03	0.59
1:CA:156:G:C6	1:CA:166:G:N1	2.71	0.59
31:BA:2252:G:H2'	31:BA:2253:G:H8	1.66	0.59
31:BA:603:A:H4'	31:BA:604:G:O5'	2.02	0.59
3:CC:35:GLU:HB3	3:CC:59:ARG:HH22	1.67	0.59
38:DI:54:GLN:HA	38:DI:57:ARG:NH1	2.17	0.59
11:CK:127:LYS:NZ	11:CK:127:LYS:HA	2.18	0.59
51:BZ:9:TYR:CE2	51:BZ:35:ARG:HD2	2.37	0.59
16:AP:64:ALA:O	16:AP:65:GLN:C	2.41	0.59
30:B8:34:TRP:HZ3	30:B8:41:ILE:HG23	1.68	0.59
41:BP:24:GLY:N	41:BP:33:ARG:HE	1.99	0.59
32:BB:35:U:C4	32:BB:36:C:C4	2.91	0.59
44:BS:93:LYS:O	44:BS:94:TYR:C	2.41	0.59
24:D2:26:ARG:CG	49:DX:5:TYR:CB	2.81	0.59
31:DA:1468:C:H2'	31:DA:1469:A:C8	2.37	0.59
31:DA:538:G:H2'	31:DA:539:G:H8	1.68	0.59
39:DN:91:LEU:CA	39:DN:95:PRO:HB3	2.23	0.59
47:DV:18:LEU:O	47:DV:97:LYS:HD2	2.02	0.59
47:DV:16:PRO:C	47:DV:98:GLU:OE2	2.41	0.59
49:BX:89:ILE:HA	49:BX:92:LEU:HB2	1.84	0.59
31:DA:1899:G:N2	31:DA:1902:C:N4	2.26	0.59
31:BA:2859:G:C8	31:BA:2859:G:C3'	2.84	0.59
40:DO:78:ARG:HG2	45:DT:73:GLU:HG3	1.84	0.59
33:DD:35:LYS:CD	33:DD:104:TYR:HD1	2.15	0.59
31:DA:2521:C:N4	31:DA:2544:G:H1	2.01	0.59
31:DA:2543:G:H2'	31:DA:2544:G:C8	2.37	0.59
31:BA:1812:A:C2	31:BA:1813:G:C5	2.91	0.59
31:BA:729:G:OP2	33:BD:13:ARG:NH1	2.30	0.59
33:BD:54:ARG:C	33:BD:218:ARG:HG3	2.22	0.59
50:DY:37:VAL:O	50:DY:38:ILE:CB	2.38	0.59
31:BA:478:A:C6	31:BA:480:A:C6	2.91	0.59
27:B5:50:GLY:HA3	27:B5:56:LYS:CG	2.33	0.59
32:BB:66:A:C5	32:BB:109:C:C5	2.91	0.59
23:B1:19:GLN:CD	23:B1:44:PRO:HB3	2.23	0.59
39:DN:78:TYR:CD1	39:DN:79:PRO:HB3	2.38	0.59
1:AA:746:A:H2'	1:AA:747:C:C6	2.38	0.59
1:CA:1067:A:O2'	1:CA:1093:A:O2'	2.17	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:864:A:H8	1:AA:864:A:O5'	1.86	0.59
34:DE:117:MET:HG2	34:DE:117:MET:O	2.02	0.59
1:CA:297:G:H4'	1:CA:557:G:H4'	1.85	0.59
11:CK:53:SER:C	11:CK:55:LYS:H	2.06	0.59
31:BA:688:U:H5'	31:BA:1780:A:C2	2.38	0.59
31:DA:80:G:H2'	31:DA:81:G:H5'	1.85	0.59
13:CM:15:VAL:HG22	13:CM:41:PRO:HA	1.84	0.59
37:DH:44:VAL:O	37:DH:46:GLU:OE2	2.20	0.59
31:BA:756:C:C4	31:BA:757:U:C5	2.90	0.59
31:BA:39:C:H2'	31:BA:40:C:C6	2.36	0.59
31:DA:116:C:H2'	31:DA:117:G:O4'	2.03	0.59
31:DA:1668:A:H4'	31:DA:1669:A:O5'	2.02	0.59
3:AC:61:ALA:O	3:AC:62:ASP:HB2	2.03	0.59
1:CA:525:C:OP1	12:CL:91:LYS:HB2	2.03	0.59
31:BA:221:A:H4'	31:BA:222:A:O5'	2.02	0.59
1:AA:36:C:H2'	1:AA:37:U:H5'	1.85	0.59
35:DF:114:VAL:HG21	35:DF:202:PHE:CZ	2.38	0.59
31:DA:484:C:H2'	31:DA:485:C:C6	2.38	0.59
51:DZ:63:ASP:O	51:DZ:65:GLN:N	2.36	0.59
5:CE:15:ARG:HD2	5:CE:26:PHE:CD2	2.38	0.59
7:CG:37:ASN:HD21	9:CI:40:LEU:HD22	1.68	0.59
30:D8:7:HIS:CD2	41:DP:50:ARG:HD3	2.38	0.59
30:B8:30:ARG:HH21	41:BP:62:LEU:HB2	1.68	0.59
31:BA:676:A:H8	31:BA:2069:G:N2	1.82	0.59
35:BF:84:VAL:O	35:BF:85:GLY:C	2.38	0.59
31:BA:1568:G:N2	33:BD:58:HIS:CE1	2.68	0.59
44:BS:62:LYS:O	44:BS:66:ALA:HB2	2.03	0.59
49:DX:29:TRP:CH2	49:DX:76:ARG:NH1	2.71	0.59
39:DN:40:PRO:O	46:DU:64:ARG:NH2	2.35	0.59
33:DD:224:ALA:HB2	33:DD:233:HIS:HB3	1.85	0.59
1:CA:49:U:C2	1:CA:361:G:N2	2.70	0.59
1:CA:618:C:N3	1:CA:622:A:N6	2.50	0.59
51:DZ:3:TYR:CD2	51:DZ:51:ALA:HB2	2.38	0.59
31:DA:867:C:C6	31:DA:868:U:C5	2.91	0.59
1:AA:1429:C:H2'	1:AA:1430:C:C6	2.38	0.59
40:DO:113:LYS:O	40:DO:117:LEU:HB2	2.03	0.59
1:AA:1484:C:O2'	31:BA:1960:A:O2'	2.04	0.59
31:BA:1747:G:C4	31:BA:1747(A):G:C8	2.91	0.59
31:BA:271(M):G:H5''	38:BI:57:ARG:HD3	1.84	0.59
4:AD:18:LYS:HE3	4:AD:31:CYS:CB	2.33	0.59
1:CA:29:G:O2'	1:CA:30:U:H5'	2.03	0.59
4:CD:209:ARG:HH11	4:CD:209:ARG:HG3	1.65	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:DW:18:ARG:CG	48:DW:18:ARG:HH11	2.08	0.59
31:DA:1410:G:H2'	31:DA:1411:C:C6	2.38	0.59
45:BT:29:ARG:HG3	45:BT:30:VAL:H	1.68	0.59
1:CA:932:C:H4'	7:CG:4:ARG:NH2	2.18	0.59
4:AD:138:TYR:CD2	4:AD:138:TYR:C	2.73	0.59
31:DA:2461:C:H2'	31:DA:2462:U:C6	2.38	0.59
40:BO:23:ARG:HD2	40:BO:24:VAL:H	1.67	0.59
45:DT:106:SER:HA	45:DT:110:ILE:CG1	2.31	0.59
34:DE:120:TRP:CD2	34:DE:155:LYS:HD3	2.37	0.59
31:DA:687:C:C2	31:DA:788:A:H5'	2.38	0.59
1:AA:939:G:H5''	7:AG:102:ARG:NH1	2.18	0.59
31:BA:2100:G:C4	31:BA:2190:G:N2	2.71	0.59
11:CK:18:ARG:NH2	11:CK:37:GLY:HA2	2.18	0.59
29:D7:15:THR:HG22	29:D7:16:HIS:CG	2.38	0.59
37:BH:158:HIS:HE1	37:BH:168:PRO:HG2	1.68	0.59
31:DA:2835:A:C5	31:DA:2879:C:C5	2.91	0.59
35:DF:53:THR:HG23	35:DF:56:GLU:HB2	1.85	0.59
45:DT:10:VAL:HG12	45:DT:11:GLU:N	2.17	0.59
51:DZ:100:VAL:N	51:DZ:124:ILE:O	2.36	0.59
1:AA:145:G:H2'	1:AA:146:G:O4'	2.02	0.59
1:CA:1113:C:H2'	1:CA:1114:C:C6	2.37	0.59
43:DR:99:LYS:HB3	43:DR:99:LYS:NZ	2.18	0.59
44:BS:11:LYS:N	44:BS:11:LYS:HD2	2.17	0.59
31:BA:269:U:H2'	31:BA:269:U:O2	2.03	0.59
17:AQ:65:ILE:HD12	17:AQ:65:ILE:H	1.67	0.59
31:DA:220:G:O2'	31:DA:233:A:N3	2.35	0.59
30:D8:58:ILE:HG22	41:DP:49:ARG:HD2	1.85	0.58
31:DA:2393:A:C2'	31:DA:2394:C:H5'	2.33	0.58
31:DA:2396:G:HO2'	31:DA:2397:G:H5'	1.67	0.58
41:DP:35:HIS:O	41:DP:35:HIS:HD2	1.86	0.58
31:BA:671:C:O2'	31:BA:672:C:H5'	2.02	0.58
35:BF:89:VAL:HG12	35:BF:90:PHE:H	1.66	0.58
32:BB:25:A:C2'	32:BB:26:A:H8	2.16	0.58
31:DA:1527:G:H5''	31:DA:1528:A:OP1	2.03	0.58
46:DU:88:ILE:HD13	46:DU:88:ILE:O	2.03	0.58
47:DV:36:PRO:CD	47:DV:60:GLU:O	2.51	0.58
37:BH:141:VAL:CG1	37:BH:142:GLY:N	2.65	0.58
49:BX:24:GLY:O	49:BX:25:LYS:O	2.20	0.58
49:BX:52:VAL:CG2	49:BX:82:GLN:HA	2.32	0.58
33:DD:222:ARG:O	33:DD:225:ALA:HB3	2.03	0.58
20:CT:14:LYS:O	20:CT:18:GLN:HG3	2.03	0.58
31:DA:2757:A:C2	37:DH:67:LEU:HD22	2.38	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1007:C:H5''	39:BN:35:ARG:HH11	1.66	0.58
31:DA:2527:C:H2'	31:DA:2528:U:O4'	2.03	0.58
31:BA:2009:G:OP1	48:BW:41:LYS:HE2	2.03	0.58
23:B1:73:LEU:HD13	23:B1:90:ILE:O	2.02	0.58
31:DA:1509(B):A:C3'	31:DA:1510:G:H8	2.16	0.58
1:CA:681:C:N3	1:CA:710:G:C2	2.71	0.58
31:DA:869:G:C4	31:DA:870:A:C8	2.91	0.58
31:DA:288:C:C2	31:DA:289:A:C8	2.91	0.58
34:DE:6:GLY:O	34:DE:195:LEU:HD12	2.02	0.58
1:AA:109:A:C6	1:AA:326:G:C6	2.91	0.58
33:DD:142:VAL:HG23	33:DD:193:VAL:HA	1.85	0.58
31:DA:956:G:OP1	42:DQ:86:GLY:N	2.30	0.58
50:BY:97:ARG:NH2	50:BY:98:VAL:HB	2.18	0.58
31:BA:2247:A:H2'	31:BA:2248:C:H6	1.68	0.58
31:BA:1416:G:O2'	31:BA:1417:C:OP2	2.16	0.58
50:DY:97:ARG:NH2	50:DY:98:VAL:HB	2.18	0.58
38:BI:109:ILE:H	38:BI:109:ILE:HD12	1.68	0.58
13:CM:46:LYS:HG3	13:CM:47:ASP:N	2.18	0.58
31:DA:92:A:H2'	31:DA:93:G:H8	1.68	0.58
49:DX:63:LYS:HE3	49:DX:70:LEU:HD22	1.84	0.58
2:AB:90:MET:C	2:AB:154:LEU:HD12	2.23	0.58
48:DW:47:VAL:HA	48:DW:50:VAL:HG12	1.84	0.58
17:AQ:18:THR:HG23	17:AQ:69:LYS:HE3	1.85	0.58
47:DV:43:GLU:HA	47:DV:48:GLY:CA	2.32	0.58
1:CA:826:C:H2'	1:CA:827:U:C6	2.38	0.58
11:CK:65:ALA:HB3	11:CK:97:ALA:HB3	1.85	0.58
41:DP:7:ARG:NH1	41:DP:7:ARG:O	2.36	0.58
22:D0:72:ARG:O	22:D0:75:LEU:HB2	2.02	0.58
1:AA:939:G:H1'	1:AA:1375:A:C2	2.37	0.58
1:CA:939:G:H5''	7:CG:102:ARG:NH1	2.17	0.58
1:CA:940:C:H2'	1:CA:941:G:H8	1.68	0.58
1:AA:284:G:H2'	1:AA:285:G:C8	2.38	0.58
1:CA:1228:C:H2'	1:CA:1229:A:C8	2.37	0.58
31:DA:1465:G:N3	31:DA:1545:A:H2	2.01	0.58
7:CG:22:LEU:HG	7:CG:62:PHE:HE2	1.66	0.58
27:D5:11:THR:CG2	31:DA:1264:G:H5'	2.32	0.58
8:AH:64:LYS:HG2	8:AH:79:VAL:HG21	1.85	0.58
31:BA:2280:G:H2'	31:BA:2281:C:H5'	1.83	0.58
36:BG:128:ARG:O	36:BG:129:GLY:C	2.40	0.58
1:CA:1160:G:C2	1:CA:1161:C:C6	2.91	0.58
11:AK:48:ILE:HG23	11:AK:63:LEU:HD22	1.84	0.58
1:CA:927:G:OP2	1:CA:1503:A:C8	2.56	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:D8:35:GLN:HE21	30:D8:36:LYS:HG3	1.67	0.58
31:DA:819:A:N3	31:DA:1189:A:C2	2.72	0.58
31:DA:2403:C:N3	31:DA:2415:G:C2	2.71	0.58
31:DA:250:G:C6	31:DA:251:A:C6	2.92	0.58
31:DA:386:G:H3'	31:DA:388:G:N2	2.18	0.58
41:DP:131:SER:C	41:DP:133:SER:N	2.56	0.58
33:BD:27:THR:CG2	33:BD:83:GLU:HG2	2.21	0.58
31:DA:1021:A:C3'	31:DA:1021:A:C8	2.80	0.58
31:DA:1162:G:O2'	47:DV:92:THR:CG2	2.51	0.58
46:DU:83:LEU:HD12	46:DU:113:ALA:HB2	1.84	0.58
46:DU:95:LEU:HD22	47:DV:4:ILE:HD11	1.85	0.58
37:BH:85:LYS:HZ3	37:BH:145:ALA:CA	2.17	0.58
31:BA:1526:G:C6	31:BA:1527:G:C2	2.90	0.58
31:BA:71:A:C2	49:BX:31:HIS:HE1	2.19	0.58
34:BE:61:ARG:N	34:BE:62:PRO:HD2	2.17	0.58
1:AA:63:C:N4	1:AA:104:G:H1	2.01	0.58
31:DA:1797:C:H4'	33:DD:257:LEU:O	2.03	0.58
31:DA:1803:A:O3'	33:DD:259:THR:HG22	2.03	0.58
31:DA:2752:C:C2	31:DA:2753:A:C8	2.91	0.58
39:BN:91:LEU:CD2	39:BN:98:VAL:HG21	2.32	0.58
31:DA:2306:C:C5	31:DA:2307:G:H1'	2.38	0.58
51:DZ:5:LEU:CD1	51:DZ:43:GLU:HB3	2.32	0.58
32:DB:73:A:H3'	32:DB:74:U:H6	1.68	0.58
42:DQ:7:MET:O	42:DQ:10:ARG:NE	2.35	0.58
23:B1:48:LYS:HA	23:B1:48:LYS:CE	2.27	0.58
1:AA:427:U:C4	1:AA:428:G:C6	2.91	0.58
1:AA:360:A:O2'	1:AA:361:G:H5'	2.02	0.58
31:DA:1114:G:C2'	31:DA:1115:G:H5'	2.33	0.58
27:D5:46:CYS:SG	27:D5:47:PRO:HD2	2.42	0.58
31:BA:1153:C:H2'	31:BA:1154:G:O4'	2.04	0.58
42:BQ:42:ILE:HD13	42:BQ:97:VAL:CG2	2.32	0.58
31:BA:1496:A:H5''	31:BA:1497:U:OP2	2.03	0.58
38:DI:91:SER:CB	38:DI:119:PRO:HB2	2.31	0.58
6:CF:33:TYR:HB3	6:CF:71:ARG:HE	1.69	0.58
1:CA:963:G:H21	10:CJ:55:LYS:CE	2.15	0.58
12:CL:105:TYR:C	12:CL:107:ALA:H	2.05	0.58
38:BI:132:PRO:C	38:BI:133:HIS:HD2	2.05	0.58
11:AK:65:ALA:HB3	11:AK:97:ALA:HB3	1.85	0.58
45:DT:61:PHE:CZ	45:DT:76:PHE:HB2	2.38	0.58
1:AA:69:G:H2'	1:AA:70:G:C8	2.38	0.58
31:DA:2839:G:H5'	43:DR:46:GLY:HA2	1.86	0.58
31:DA:2840:C:H5''	43:DR:53:HIS:CD2	2.38	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2842:G:H2'	31:DA:2843:G:H8	1.68	0.58
31:DA:2641:G:OP1	39:DN:75:TYR:CD2	2.55	0.58
16:AP:43:LYS:HA	16:AP:48:TRP:HB3	1.84	0.58
31:BA:2235:G:H2'	31:BA:2236:C:C6	2.38	0.58
40:DO:4:PRO:O	40:DO:5:GLN:CB	2.50	0.58
48:DW:73:ALA:HB3	48:DW:106:ILE:HD11	1.85	0.58
1:AA:1154:G:H2'	1:AA:1155:G:C8	2.36	0.58
33:DD:253:GLN:HB3	33:DD:255:LYS:CE	2.32	0.58
1:CA:774:G:H2'	1:CA:775:G:H5'	1.84	0.58
31:BA:2556:C:H2'	31:BA:2557:G:O4'	2.02	0.58
3:CC:71:ALA:HB2	3:CC:115:LEU:CD1	2.33	0.58
12:AL:90:VAL:O	12:AL:92:ASP:N	2.30	0.58
31:BA:2404:C:H2'	31:BA:2405:G:H5'	1.84	0.58
7:AG:138:LYS:HE2	7:AG:142:GLU:OE2	2.04	0.58
8:AH:12:ARG:HH12	8:AH:58:TYR:HE2	1.51	0.58
11:AK:18:ARG:NH2	11:AK:37:GLY:HA2	2.18	0.58
1:CA:131:C:H2'	1:CA:132:C:H6	1.68	0.58
1:CA:724:G:C2	1:CA:725:G:C8	2.91	0.58
1:CA:1350:A:H8	1:CA:1350:A:O5'	1.84	0.58
31:DA:1572:A:O5'	31:DA:1572:A:H8	1.85	0.58
37:DH:43:VAL:HG23	37:DH:43:VAL:O	2.03	0.58
1:AA:1416:G:H2'	1:AA:1417:G:O4'	2.02	0.58
1:CA:136:C:H42	1:CA:227:G:H1	1.50	0.58
31:BA:1151:G:H5''	46:BU:81:HIS:CE1	2.38	0.58
37:DH:143:GLN:HE22	37:DH:147:ASN:HD21	1.49	0.58
48:BW:62:HIS:O	48:BW:63:ASP:C	2.41	0.58
1:AA:811:C:H4'	1:AA:900:A:N6	2.18	0.58
1:AA:247:G:OP2	17:AQ:100:LYS:HG2	2.03	0.58
5:AE:136:MET:HB3	5:AE:140:ARG:NH2	2.18	0.58
27:D5:4:HIS:CD2	31:DA:2056:G:H1	2.22	0.58
31:BA:942:G:C2'	31:BA:943:U:H5'	2.33	0.58
32:BB:55:U:C6	32:BB:55:U:OP2	2.56	0.58
44:BS:52:SER:OG	44:BS:56:LEU:N	2.36	0.58
24:D2:48:HIS:CD2	24:D2:48:HIS:O	2.56	0.58
49:DX:74:PRO:O	49:DX:75:ASP:C	2.41	0.58
31:DA:1162:G:O2'	47:DV:92:THR:HG22	2.04	0.58
24:B2:26:ARG:HG2	49:BX:5:TYR:CB	2.34	0.58
44:DS:62:LYS:O	44:DS:66:ALA:HB2	2.03	0.58
1:CA:327:A:C2	1:CA:329:A:C4	2.91	0.58
5:CE:105:VAL:HB	5:CE:106:PRO:HD3	1.84	0.58
31:BA:1318:C:H3'	31:BA:1319:G:H5''	1.84	0.58
31:DA:1824:G:O2'	31:DA:1825:A:H5'	2.02	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DD:210:GLY:O	33:DD:211:ARG:HB3	2.03	0.58
33:DD:27:THR:CG2	33:DD:83:GLU:HG2	2.16	0.58
37:DH:85:LYS:NZ	37:DH:145:ALA:HA	2.18	0.58
31:DA:2565:A:C5'	31:DA:2566:A:OP2	2.39	0.58
31:DA:2567:G:C4	31:DA:2568:C:C5	2.92	0.58
1:CA:184:G:O2'	1:CA:185:A:H5'	2.04	0.58
31:BA:1558:A:OP2	31:BA:1558:A:H3'	2.04	0.58
31:DA:911:A:C6	42:DQ:9:TYR:CE2	2.85	0.58
31:DA:355:G:C2	31:DA:356:G:C8	2.91	0.58
32:BB:21:G:C8	32:BB:22:U:H1'	2.38	0.58
39:BN:16:ILE:O	39:BN:54:VAL:HA	2.03	0.58
31:BA:1952:A:C6	31:BA:1953:A:N1	2.71	0.58
45:DT:65:LYS:CE	45:DT:66:VAL:H	2.10	0.58
9:CI:114:TYR:CD2	9:CI:114:TYR:N	2.69	0.58
12:CL:62:SER:C	12:CL:64:TYR:N	2.56	0.58
31:BA:2843:G:C4	31:BA:2844:G:C8	2.92	0.58
24:B2:12:GLU:HA	24:B2:14:ARG:HH21	1.68	0.58
1:CA:1226:C:N4	13:CM:104:ARG:HD2	2.18	0.58
42:DQ:134:ARG:HH12	51:DZ:119:GLU:CD	2.05	0.58
31:BA:753:C:O5'	31:BA:753:C:H6	1.86	0.58
34:DE:169:ASN:ND2	34:DE:201:THR:HG21	2.18	0.58
31:DA:543:C:H42	31:DA:551:G:H1	1.51	0.58
6:CF:94:GLN:O	6:CF:96:PRO:HD3	2.03	0.58
40:BO:7:TYR:CZ	40:BO:44:LYS:HG3	2.37	0.58
38:BI:29:TYR:O	38:BI:32:PRO:HD2	2.03	0.58
31:BA:2193:G:H2'	31:BA:2194:G:O4'	2.03	0.58
1:AA:299:G:C6	1:AA:300:A:N1	2.72	0.58
1:AA:719:C:H6	1:AA:720:C:C5	2.21	0.58
1:AA:397:A:H5''	1:AA:397:A:N3	2.18	0.58
36:DG:94:LEU:HD11	36:DG:102:PHE:CD1	2.38	0.58
1:CA:1350:A:H2'	1:CA:1351:U:C6	2.38	0.58
31:DA:2452:C:H2'	31:DA:2453:A:O4'	2.03	0.58
8:CH:120:THR:H	8:CH:123:GLU:HB2	1.68	0.58
31:BA:1763:G:OP1	31:BA:1763:G:H4'	2.03	0.58
31:BA:2611:U:H5'	31:BA:2611:U:H6	1.69	0.58
35:BF:110:LEU:HD22	35:BF:202:PHE:CE1	2.38	0.58
30:D8:8:LYS:HE2	31:DA:243:U:OP2	2.03	0.58
41:DP:98:GLU:HG3	41:DP:99:LEU:N	2.17	0.58
30:B8:35:GLN:HA	31:BA:2420:C:OP2	2.03	0.58
23:B1:34:THR:HG21	31:BA:388:G:P	2.43	0.58
44:BS:61:ASN:OD1	44:BS:64:GLU:HB2	2.03	0.58
44:BS:95:HIS:CG	44:BS:96:GLY:N	2.71	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:DX:83:VAL:O	49:DX:84:ALA:HB3	2.02	0.58
4:AD:135:LEU:C	4:AD:137:SER:H	2.06	0.58
31:BA:995:C:C2	39:BN:4:TYR:CZ	2.92	0.58
23:B1:10:LYS:O	23:B1:13:ILE:CG2	2.52	0.58
31:DA:1501:C:H2'	31:DA:1502:C:C6	2.31	0.58
31:BA:1478:G:C2'	31:BA:1479:G:H5'	2.33	0.58
38:BI:120:ILE:CD1	38:BI:140:LEU:HD23	2.33	0.58
31:DA:2228:G:C5	31:DA:2229:C:C5	2.91	0.58
31:DA:2831:G:O4'	31:DA:2883:A:C2	2.56	0.58
50:BY:81:LYS:HD3	50:BY:97:ARG:HG3	1.84	0.58
25:D3:45:GLY:HA3	31:DA:851:U:O2'	2.03	0.58
31:DA:479:A:H4'	31:DA:480:A:OP1	2.02	0.58
6:CF:33:TYR:O	6:CF:35:ALA:N	2.35	0.58
42:BQ:23:GLY:HA2	42:BQ:101:ARG:N	2.18	0.58
4:AD:209:ARG:HG2	4:AD:209:ARG:NH1	2.11	0.58
37:BH:89:ILE:CD1	37:BH:89:ILE:H	2.17	0.58
24:D2:12:GLU:C	24:D2:12:GLU:CD	2.62	0.58
31:DA:1972:A:H2'	31:DA:1973:G:H8	1.68	0.58
45:DT:29:ARG:HG3	45:DT:30:VAL:H	1.67	0.58
31:BA:1887:C:C2'	31:BA:1888:G:C5'	2.80	0.58
12:AL:74:GLY:O	12:AL:102:ARG:NH2	2.35	0.58
31:BA:2830:G:C5'	31:BA:2830:G:C8	2.85	0.58
33:BD:175:LEU:HD12	33:BD:185:VAL:HG21	1.85	0.58
3:AC:150:LYS:HG3	3:AC:169:ALA:HB2	1.85	0.58
31:BA:2531:A:C2	31:BA:2658:C:O2	2.56	0.58
31:BA:855:G:C6	31:BA:856:C:C4	2.92	0.58
49:DX:40:LYS:CG	49:DX:41:ASN:N	2.67	0.58
4:CD:194:LEU:HB3	4:CD:196:LEU:CD1	2.34	0.58
45:DT:32:TYR:CD2	45:DT:81:PRO:HB2	2.37	0.58
45:BT:109:GLU:O	45:BT:113:LYS:HG3	2.04	0.58
42:DQ:42:ILE:HD13	42:DQ:97:VAL:CG2	2.33	0.58
31:BA:643:A:O2'	31:BA:644:A:H5'	2.02	0.58
1:AA:84:U:H5	1:AA:88:A:N9	2.00	0.58
31:DA:1164:G:H2'	31:DA:1165:U:C6	2.39	0.58
1:AA:520:A:H2	1:AA:536:C:O2	1.86	0.58
1:AA:1216:G:H5''	14:AN:5:ALA:CB	2.33	0.58
1:CA:834:C:H2'	1:CA:835:U:C6	2.38	0.58
35:DF:57:VAL:CG1	35:DF:58:ALA:N	2.67	0.58
46:DU:16:LYS:O	46:DU:20:LEU:HD23	2.03	0.58
31:BA:2391:G:O6	31:BA:2425:A:H8	1.85	0.58
1:CA:620:C:H2'	1:CA:621:A:O4'	2.04	0.58
1:CA:811:C:H4'	1:CA:900:A:N6	2.19	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2247:A:H2'	31:DA:2248:C:H6	1.69	0.58
6:CF:6:VAL:HG13	6:CF:90:VAL:HG22	1.85	0.58
1:CA:921:U:H1'	1:CA:922:G:N3	2.12	0.58
31:DA:251:A:C5'	41:DP:51:PHE:CZ	2.86	0.58
31:DA:25:U:H2'	31:DA:26:G:C8	2.38	0.58
35:DF:36:VAL:O	35:DF:39:TRP:HB3	2.03	0.58
30:B8:61:LEU:HD13	31:BA:593:G:C4'	2.31	0.58
31:BA:191:A:C2'	31:BA:192:C:H5'	2.33	0.58
41:BP:23:PRO:HB2	41:BP:33:ARG:CG	2.17	0.58
31:BA:2543:G:H2'	31:BA:2544:G:C8	2.38	0.58
49:DX:57:LEU:HD12	49:DX:57:LEU:N	2.19	0.58
31:DA:559:G:H22	46:DU:49:HIS:CD2	2.21	0.58
24:B2:47:ASN:HA	24:B2:51:ARG:HB3	1.85	0.58
31:BA:2633:G:H5'	31:BA:2811:G:HO2'	1.69	0.58
31:DA:2376:A:C2	44:DS:94:TYR:CG	2.92	0.58
32:DB:31:C:H4'	36:DG:29:TRP:CH2	2.39	0.58
44:DS:88:ASP:O	44:DS:92:TYR:CD2	2.56	0.58
1:AA:390:C:O2'	1:AA:391:G:H5'	2.02	0.58
20:AT:14:LYS:O	20:AT:18:GLN:HG3	2.02	0.58
33:DD:35:LYS:HB3	33:DD:63:ARG:HA	1.85	0.58
39:BN:112:LEU:HD12	39:BN:112:LEU:C	2.23	0.58
46:BU:90:VAL:O	46:BU:91:ASP:C	2.41	0.58
2:AB:16:HIS:HB3	2:AB:210:SER:HA	1.84	0.58
31:DA:309:G:H4'	50:DY:18:GLY:HA3	1.85	0.58
50:DY:19:LYS:HB3	50:DY:20:TYR:CD1	2.38	0.58
7:AG:108:ALA:O	7:AG:119:ARG:HD2	2.03	0.58
1:AA:708:C:O2'	1:AA:709:G:H5'	2.04	0.58
1:AA:1468:A:H2'	1:AA:1469:G:O4'	2.03	0.58
1:AA:352:C:O2'	1:AA:354:G:OP1	2.17	0.58
20:AT:23:ARG:HA	20:AT:26:ASN:HD21	1.66	0.58
31:BA:1115:G:C2'	31:BA:1116:C:H6	2.10	0.58
34:DE:132:HIS:CD2	34:DE:135:HIS:HE1	2.16	0.58
23:D1:41:ARG:HH11	23:D1:41:ARG:CG	2.09	0.58
22:B0:43:THR:O	22:B0:45:PHE:N	2.36	0.58
22:B0:43:THR:HG22	31:BA:2331:G:O3'	2.03	0.58
31:BA:639:U:H2'	31:BA:640:C:C6	2.38	0.58
16:AP:20:VAL:HG23	16:AP:35:LYS:HA	1.84	0.58
22:B0:32:ARG:O	22:B0:35:ASN:ND2	2.36	0.58
1:CA:687:A:H1'	1:CA:688:G:OP2	2.02	0.58
31:BA:1410:G:C6	31:BA:1411:C:N4	2.72	0.58
43:BR:10:LEU:HD13	43:BR:17:ARG:CZ	2.34	0.58
49:BX:40:LYS:CG	49:BX:41:ASN:N	2.65	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:748:C:H1'	1:CA:749:C:OP2	2.04	0.58
1:CA:1250:A:H61	1:CA:1354:C:H1'	1.69	0.58
38:BI:12:LEU:HD23	38:BI:12:LEU:H	1.68	0.58
6:CF:94:GLN:NE2	18:CR:32:ARG:HH11	2.01	0.58
1:CA:1016:A:H2'	1:CA:1017:G:O4'	2.04	0.58
1:CA:1271:G:H5'	1:CA:1314:C:H5'	1.85	0.58
37:DH:95:ARG:HB2	37:DH:128:PRO:HB2	1.84	0.58
36:BG:172:LEU:HG	36:BG:173:LEU:CD2	2.32	0.58
31:BA:2536:G:C6	31:BA:2537:U:C4	2.92	0.58
8:AH:25:ASP:OD2	8:AH:60:ARG:HG2	2.03	0.58
3:AC:35:GLU:HB3	3:AC:59:ARG:HH22	1.68	0.58
26:B4:5:ILE:O	36:BG:67:LYS:HG2	2.04	0.58
40:BO:87:ILE:HG22	40:BO:88:ASN:N	2.19	0.58
2:AB:61:LEU:HA	2:AB:64:ARG:HG2	1.86	0.58
2:AB:61:LEU:HA	2:AB:64:ARG:CG	2.33	0.58
1:AA:724:G:C2	1:AA:725:G:C8	2.91	0.58
34:BE:137:HIS:HB3	34:BE:138:PRO:CD	2.33	0.58
31:BA:1368:G:O2'	31:BA:1369:G:H5'	2.04	0.58
4:CD:92:VAL:O	4:CD:96:LEU:HD22	2.03	0.58
5:CE:98:THR:HG22	5:CE:99:GLY:N	2.18	0.58
31:BA:2792:G:N3	31:BA:2792:G:H2'	2.17	0.58
1:AA:953:G:H5'	1:AA:965:A:H61	1.68	0.58
42:DQ:11:LYS:H	42:DQ:73:PRO:HG2	1.68	0.58
34:DE:39:PRO:HD3	34:DE:45:THR:OG1	2.02	0.58
1:CA:828:A:H5''	1:CA:859:A:N1	2.18	0.58
30:D8:51:ALA:N	30:D8:53:PRO:HD2	2.19	0.58
28:B6:25:LYS:HE2	28:B6:27:LYS:HZ1	1.67	0.58
29:B7:10:ARG:HG3	31:BA:125:G:C6	2.39	0.58
33:BD:35:LYS:HZ3	33:BD:104:TYR:HB2	1.65	0.58
31:DA:2859:G:C8	31:DA:2859:G:C3'	2.87	0.58
31:DA:1528:A:C8	31:DA:1528(A):A:C5	2.91	0.58
46:DU:92:ARG:CB	47:DV:11:GLN:HE21	2.14	0.58
1:CA:106:C:O2'	1:CA:379:C:H5''	2.03	0.58
40:DO:78:ARG:HE	45:DT:103:ARG:HH12	1.52	0.58
2:AB:14:GLY:O	2:AB:15:VAL:HG13	2.03	0.58
31:BA:814:C:H5	41:BP:27:HIS:CE1	2.21	0.58
47:BV:33:VAL:HA	47:BV:63:GLY:HA2	1.84	0.58
1:CA:1148:U:H4'	9:CI:14:VAL:HG11	1.83	0.58
31:DA:2275:C:C6	31:DA:2275:C:H5''	2.38	0.58
1:AA:710:G:H5''	6:AF:54:LYS:NZ	2.18	0.58
23:D1:20:ARG:HD3	23:D1:41:ARG:HD3	1.85	0.58
31:BA:64:A:C2	31:BA:65:C:C2	2.92	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:271(M):G:H2'	31:BA:271(N):U:C5'	2.33	0.58
28:B6:14:THR:O	28:B6:49:HIS:HA	2.03	0.58
34:BE:91:VAL:HG13	34:BE:95:ILE:CD1	2.32	0.58
1:AA:779:C:O2'	1:AA:780:A:H5'	2.03	0.58
12:AL:60:LEU:HD21	12:AL:66:VAL:CG2	2.29	0.58
16:AP:20:VAL:HG21	16:AP:32:TYR:CD2	2.39	0.58
45:BT:65:LYS:HG3	45:BT:66:VAL:N	2.19	0.58
42:DQ:20:ALA:O	42:DQ:23:GLY:N	2.36	0.58
34:BE:170:LEU:N	34:BE:170:LEU:HD12	2.18	0.58
45:BT:45:PHE:CE1	45:BT:74:ARG:HG3	2.38	0.58
49:BX:8:ILE:HD11	49:BX:43:VAL:HA	1.85	0.58
1:AA:932:C:H4'	7:AG:4:ARG:NH2	2.18	0.58
13:CM:81:LEU:HB3	13:CM:89:GLY:CA	2.32	0.58
29:D7:34:ARG:HB3	29:D7:34:ARG:HH11	1.68	0.58
10:CJ:7:LYS:HD3	10:CJ:71:LEU:CD1	2.32	0.58
49:DX:41:ASN:HA	49:DX:44:GLU:CG	2.33	0.58
10:AJ:40:LEU:HD21	10:AJ:69:ASN:HB3	1.85	0.58
31:DA:1299:G:H5''	31:DA:1300:U:O5'	2.04	0.58
1:CA:1116:C:C3'	1:CA:1117:G:H5''	2.33	0.58
9:CI:10:ARG:HD3	9:CI:75:ASP:HB3	1.85	0.58
2:AB:29:ALA:C	2:AB:31:TYR:H	2.06	0.58
44:BS:59:LYS:HB2	44:BS:65:VAL:HG21	1.86	0.58
31:DA:892:G:H2'	31:DA:893:C:O4'	2.04	0.58
31:BA:267:C:H2'	31:BA:268:C:C6	2.38	0.58
31:BA:1198:U:H2'	31:BA:1199:U:C6	2.39	0.58
31:DA:2595:G:N2	31:DA:2599:G:C4	2.71	0.58
31:BA:92:A:H2'	31:BA:93:G:H8	1.67	0.58
1:AA:606:G:O2'	1:AA:632:A:N6	2.34	0.58
6:AF:69:GLU:CD	6:AF:69:GLU:H	2.06	0.58
8:AH:109:ILE:HG23	8:AH:137:VAL:HB	1.84	0.58
1:AA:724:G:N3	1:AA:725:G:C8	2.71	0.58
31:BA:280:C:H2'	31:BA:281:G:O5'	2.03	0.58
31:BA:272(E):G:C6	31:BA:272(F):C:C4	2.91	0.58
1:AA:1293:G:HO2'	1:AA:1294:G:H8	1.51	0.58
1:AA:840:C:H4'	1:AA:848:C:O2	2.03	0.58
16:AP:50:LYS:HD3	16:AP:50:LYS:C	2.24	0.58
31:DA:1680:U:H2'	31:DA:1681:G:O4'	2.04	0.58
1:CA:1504:G:OP1	1:CA:1507:A:H4'	2.02	0.58
31:DA:607:U:C2	31:DA:621:A:N1	2.71	0.58
31:DA:826:U:H2'	31:DA:828:U:O4'	2.04	0.58
31:BA:2396:G:C2'	31:BA:2397:G:H5'	2.34	0.58
31:DA:142:A:H8	31:DA:1408:C:H1'	1.63	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1448:G:H21	31:DA:1528(A):A:H2	1.51	0.58
31:DA:71:A:C2	49:DX:31:HIS:HE1	2.21	0.58
49:DX:84:ALA:O	49:DX:86:GLY:N	2.37	0.58
41:BP:100:LEU:O	41:BP:103:ALA:N	2.37	0.58
39:DN:57:ALA:C	39:DN:58:ASP:O	2.39	0.58
31:BA:2757:A:N1	37:BH:67:LEU:HD22	2.19	0.58
31:BA:1722:A:C6	31:BA:1741:A:N1	2.71	0.58
31:BA:1722:A:C4	31:BA:1741:A:N6	2.71	0.58
32:DB:50:G:OP1	44:DS:63:THR:HG23	2.02	0.58
1:CA:1470:G:C2'	1:CA:1471:G:H5'	2.33	0.58
20:CT:26:ASN:HB2	20:CT:71:THR:HG23	1.84	0.58
31:BA:309:G:C5'	50:BY:18:GLY:HA3	2.33	0.58
31:DA:1796:U:H4'	33:DD:256:GLY:N	2.17	0.58
37:DH:109:PHE:CE1	37:DH:152:ARG:CZ	2.86	0.58
5:AE:29:GLY:HA2	5:AE:46:GLY:O	2.04	0.58
33:BD:44:ASN:N	33:BD:44:ASN:OD1	2.33	0.58
31:DA:309:G:C5'	50:DY:18:GLY:HA3	2.34	0.58
42:DQ:141:GLN:HB2	51:DZ:98:MET:HB2	1.85	0.58
51:BZ:5:LEU:HD13	51:BZ:43:GLU:HB3	1.85	0.58
31:DA:286:C:C4	31:DA:356:G:C6	2.92	0.58
23:D1:19:GLN:CG	23:D1:44:PRO:HG3	2.30	0.58
38:BI:57:ARG:NH1	38:BI:57:ARG:HB3	2.17	0.58
1:AA:853:G:H2'	1:AA:854:G:C8	2.38	0.58
1:CA:766:A:C2'	1:CA:767:A:H5'	2.34	0.58
1:CA:559:A:C5'	1:CA:560:U:H3'	2.33	0.58
31:BA:2265:U:H4'	42:BQ:13:GLN:NE2	2.18	0.58
1:CA:1058:G:C6	1:CA:1059:C:N3	2.72	0.58
1:AA:258:G:H2'	1:AA:259:G:C8	2.38	0.58
31:DA:2842:G:H2'	31:DA:2843:G:C8	2.38	0.58
12:CL:102:ARG:CD	12:CL:108:ALA:O	2.51	0.58
31:BA:214:G:H1'	31:BA:216:A:O2'	2.03	0.58
1:AA:1495:U:C2	31:BA:1912:A:H2	2.22	0.58
8:AH:91:ARG:CG	17:AQ:34:LYS:H	2.16	0.58
31:DA:1598:C:H2'	31:DA:1599:C:H6	1.69	0.58
35:BF:132:VAL:C	35:BF:134:GLY:H	2.06	0.58
31:DA:2100:G:C4	31:DA:2190:G:N2	2.72	0.58
6:CF:19:LEU:HD21	6:CF:59:TYR:CD2	2.38	0.58
1:AA:37:U:O2'	1:AA:38:G:H5'	2.03	0.58
36:BG:94:LEU:HD11	36:BG:102:PHE:CD1	2.39	0.58
36:BG:94:LEU:O	36:BG:99:MET:HB2	2.03	0.58
31:DA:1847:A:H4'	31:DA:1848:A:OP2	2.03	0.58
3:CC:101:LEU:HD23	3:CC:102:ASN:O	2.03	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:41:C:H2'	31:BA:42:G:O4'	2.03	0.58
34:DE:16:ARG:O	34:DE:18:ASP:N	2.36	0.58
31:BA:1861:G:C2	31:BA:1862:G:C8	2.91	0.58
38:DI:43:ASN:H	38:DI:43:ASN:ND2	2.01	0.58
31:DA:2205:C:O2	31:DA:2220:G:C2	2.57	0.58
1:CA:1490:C:H2'	1:CA:1491:G:O4'	2.03	0.58
35:BF:53:THR:C	35:BF:55:GLY:H	2.07	0.58
30:D8:61:LEU:HD22	31:DA:593:G:O3'	2.04	0.58
41:DP:30:THR:CG2	41:DP:31:ALA:N	2.67	0.58
35:BF:65:TRP:O	35:BF:67:GLN:N	2.36	0.58
31:DA:1722:A:C6	31:DA:1741:A:N1	2.71	0.58
31:DA:1341:U:O4'	49:DX:57:LEU:HD11	2.04	0.58
41:BP:88:LEU:O	41:BP:90:ARG:N	2.37	0.58
37:BH:70:THR:HG22	37:BH:74:ASN:ND2	2.18	0.58
49:BX:21:PHE:HD2	49:BX:90:GLU:HA	1.69	0.58
36:DG:114:ILE:C	36:DG:115:ARG:HG3	2.24	0.58
31:BA:1332:G:H22	31:BA:1610:A:H8	1.52	0.58
31:DA:1799:G:H3'	31:DA:1799:G:P	2.44	0.58
31:DA:783:A:H2'	31:DA:785:G:OP1	2.04	0.58
31:DA:2807:G:H1	31:DA:2892:A:H62	1.52	0.58
31:BA:935:C:O2'	31:BA:936:C:H5'	2.03	0.58
31:DA:910:A:N7	42:DQ:13:GLN:HB2	2.19	0.58
31:BA:1778:U:H2'	31:BA:1784:A:C6	2.38	0.58
32:DB:66:A:C6	32:DB:109:C:C6	2.91	0.58
6:AF:52:ILE:CD1	6:AF:87:ARG:HH12	2.16	0.58
50:BY:96:ILE:HB	50:BY:99:CYS:HB3	1.86	0.58
38:BI:52:ARG:O	38:BI:56:LYS:HG2	2.03	0.58
34:DE:103:ASP:OD1	34:DE:168:MET:HB3	2.03	0.58
2:AB:178:ARG:HH22	8:AH:68:ARG:NH2	2.00	0.58
49:DX:63:LYS:O	49:DX:68:ARG:HA	2.04	0.58
1:AA:1226:C:N4	13:AM:104:ARG:HD2	2.19	0.58
48:DW:18:ARG:HG2	48:DW:18:ARG:NH1	2.13	0.58
31:BA:1485:G:H21	31:BA:1505:C:N4	2.01	0.58
45:BT:22:PHE:CZ	45:BT:85:LYS:HE3	2.39	0.58
13:CM:25:ILE:CD1	13:CM:66:LEU:HD23	2.33	0.58
42:BQ:52:VAL:HA	42:BQ:55:VAL:HG13	1.86	0.58
5:AE:57:LYS:O	5:AE:61:TYR:HD2	1.87	0.58
1:CA:343:U:N3	1:CA:347:G:N1	2.51	0.58
9:CI:77:ILE:O	9:CI:81:ILE:HG12	2.04	0.58
1:AA:1250:A:H61	1:AA:1354:C:H1'	1.68	0.58
6:AF:94:GLN:NE2	18:AR:32:ARG:HH11	2.01	0.58
1:AA:791:G:C5	1:AA:792:A:N7	2.72	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1915:U:H2'	31:BA:1916:A:H8	1.68	0.58
1:CA:1216:G:H5''	14:CN:5:ALA:CB	2.34	0.58
4:AD:108:LEU:O	4:AD:110:PHE:N	2.34	0.58
1:CA:299:G:C6	1:CA:300:A:C6	2.91	0.58
7:AG:85:TYR:CE1	7:AG:154:TYR:HE1	2.22	0.58
39:DN:115:ARG:HG3	39:DN:115:ARG:NH1	2.19	0.58
31:BA:1680:U:H2'	31:BA:1681:G:O4'	2.04	0.58
19:CS:51:VAL:HG21	19:CS:71:LEU:HB3	1.85	0.58
48:DW:1:MET:HE2	48:DW:2:GLU:H	1.68	0.58
1:CA:1385:G:O2'	1:CA:1386:G:H5'	2.04	0.58
35:DF:164:ARG:HG2	35:DF:164:ARG:HH11	1.67	0.58
18:AR:35:ARG:O	18:AR:37:VAL:N	2.35	0.58
31:DA:409:C:H42	31:DA:418:G:H1	1.51	0.58
1:AA:1325:C:H4'	21:AU:17:THR:HG21	1.86	0.58
28:D6:11:LEU:O	28:D6:23:THR:HA	2.04	0.58
30:D8:59:LYS:HD3	41:DP:50:ARG:CB	2.32	0.58
31:BA:1657:C:H2'	31:BA:1658:C:H6	1.68	0.58
31:BA:1816:G:H8	33:BD:62:TYR:CZ	2.21	0.58
31:BA:2564:A:OP1	31:BA:2648:C:H4'	2.04	0.58
41:BP:101:VAL:C	41:BP:103:ALA:N	2.57	0.58
41:BP:140:ALA:CB	25:D3:1:MET:HG2	2.32	0.58
47:DV:67:GLY:O	47:DV:68:LYS:C	2.41	0.58
31:DA:1899:G:H22	31:DA:1902:C:H41	0.68	0.58
32:DB:24:G:N1	32:DB:56:G:N2	2.51	0.58
4:AD:74:GLN:O	4:AD:78:LEU:HG	2.03	0.58
5:CE:100:VAL:HG13	5:CE:118:ILE:HG22	1.86	0.58
50:BY:28:LYS:N	50:BY:28:LYS:CD	2.65	0.58
39:BN:14:VAL:HG12	39:BN:52:VAL:HA	1.86	0.58
31:BA:538:G:OP1	39:BN:5:VAL:HG21	2.04	0.58
39:BN:66:LYS:HB3	39:BN:70:LYS:CB	2.34	0.58
46:BU:83:LEU:HD12	46:BU:113:ALA:HB2	1.86	0.58
46:BU:88:ILE:C	46:BU:90:VAL:N	2.55	0.58
7:CG:108:ALA:O	7:CG:119:ARG:HD2	2.04	0.58
50:DY:28:LYS:C	50:DY:29:GLU:OE1	2.42	0.58
31:BA:2275:C:C6	31:BA:2275:C:H5''	2.38	0.58
32:DB:66:A:H61	32:DB:108:U:H2'	1.69	0.58
1:AA:509:A:O2'	1:AA:510:A:O5'	2.22	0.58
1:AA:115:G:H4'	1:AA:116:A:O5'	2.04	0.58
33:DD:186:HIS:CD2	33:DD:187:GLY:N	2.72	0.58
39:DN:78:TYR:H	39:DN:79:PRO:CD	2.17	0.58
1:AA:14:U:O2	1:AA:17:U:H5	1.86	0.58
34:DE:118:LYS:O	34:DE:160:TYR:CE1	2.57	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:27:G:H2'	1:AA:28:G:H8	1.69	0.58
50:DY:81:LYS:HD3	50:DY:97:ARG:HG3	1.86	0.58
1:AA:963:G:H21	10:AJ:55:LYS:CE	2.16	0.58
33:DD:228:PRO:HD3	33:DD:235:GLY:CA	2.33	0.58
45:DT:88:ILE:CG2	45:DT:89:VAL:N	2.63	0.58
1:CA:235:C:H5'	17:CQ:70:ARG:HG2	1.86	0.58
31:BA:1887:C:H2'	31:BA:1888:G:H5''	1.84	0.58
8:CH:36:LEU:C	8:CH:38:ILE:H	2.07	0.58
36:BG:22:ARG:HB3	36:BG:23:PHE:CD1	2.38	0.58
31:DA:2476:A:C2	31:DA:2477:C:C6	2.91	0.58
31:BA:494:G:H2'	31:BA:495:G:H8	1.69	0.58
31:BA:542:C:H42	31:BA:543:C:H42	1.51	0.58
1:AA:1116:C:C3'	1:AA:1117:G:H5''	2.34	0.58
1:CA:980:C:H5'	1:CA:981:U:H5	1.68	0.58
31:BA:1991:U:H2'	31:BA:1992:G:H5''	1.86	0.58
31:BA:2552:U:C2	31:BA:2554:U:C5'	2.87	0.58
31:DA:11:G:O2'	31:DA:12:U:H5'	2.04	0.58
1:CA:35:G:H2'	1:CA:36:C:C6	2.39	0.58
18:AR:56:THR:CB	18:AR:58:LEU:HD13	2.34	0.58
1:AA:189(C):C:H2'	1:AA:189(D):C:O4'	2.04	0.58
51:BZ:4:ARG:HG2	51:BZ:58:VAL:HB	1.84	0.58
37:DH:17:VAL:HG21	37:DH:50:VAL:HG21	1.86	0.58
14:AN:51:GLY:C	14:AN:53:LEU:H	2.07	0.58
1:AA:1160:G:C2	1:AA:1161:C:C6	2.91	0.58
7:CG:31:MET:SD	7:CG:34:GLY:HA2	2.44	0.58
1:CA:570:G:H2'	1:CA:571:U:C6	2.39	0.58
1:CA:922:G:C1'	5:CE:19:MET:H	2.17	0.58
30:D8:3:LYS:HE3	31:DA:242:G:O5'	2.04	0.58
31:DA:646:A:H2'	31:DA:647:G:C5'	2.33	0.58
31:DA:1190:G:C4'	41:DP:35:HIS:HB3	2.30	0.58
31:BA:2396:G:HO2'	31:BA:2397:G:H5'	1.69	0.58
36:BG:5:VAL:HG11	36:BG:101:ILE:HB	1.86	0.58
44:BS:67:ARG:HD3	44:BS:101:LEU:HD23	1.86	0.58
32:BB:38:C:C4'	44:BS:95:HIS:CE1	2.87	0.58
41:BP:124:LYS:HA	41:BP:143:GLY:CA	2.34	0.58
31:BA:58:G:H1	31:BA:69:C:H42	1.51	0.58
49:BX:89:ILE:HA	49:BX:92:LEU:HD12	1.86	0.58
32:DB:39:A:H5'	32:DB:40:U:OP2	2.04	0.58
32:DB:57:A:C8	36:DG:27:ASN:HB3	2.39	0.58
1:AA:611:A:H61	1:AA:629:G:H1	1.51	0.58
5:CE:10:MET:CB	5:CE:32:VAL:HG22	2.33	0.58
31:DA:764:A:C6	31:DA:781:A:C2	2.92	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1142(A):A:O2'	31:BA:1143:A:H3'	2.04	0.58
31:BA:2019:A:O4'	46:BU:34:LYS:HD2	2.04	0.58
31:DA:2808:U:H2'	31:DA:2809:A:H5'	1.84	0.58
31:BA:1797:C:H2'	31:BA:1798:U:H5'	1.85	0.58
20:CT:56:MET:O	20:CT:59:ALA:HB3	2.04	0.58
47:BV:19:LYS:HB3	47:BV:96:ILE:O	2.03	0.58
47:BV:25:LEU:C	47:BV:27:ALA:H	2.08	0.58
50:DY:38:ILE:HG22	50:DY:39:VAL:N	2.18	0.58
31:BA:624:C:O2'	31:BA:657:U:H5'	2.02	0.58
31:DA:2092:U:H5	31:DA:2226:C:OP1	1.87	0.58
50:BY:97:ARG:O	50:BY:97:ARG:HG3	2.04	0.58
28:B6:48:VAL:O	28:B6:49:HIS:CB	2.52	0.58
1:CA:294:U:H2'	1:CA:295:C:C6	2.39	0.58
1:CA:883:C:C2'	1:CA:884:U:H5'	2.34	0.58
13:AM:46:LYS:HG3	13:AM:47:ASP:N	2.18	0.58
40:DO:23:ARG:HD2	40:DO:24:VAL:H	1.69	0.58
36:BG:114:ILE:C	36:BG:115:ARG:HG3	2.25	0.58
1:CA:1342:C:H1'	9:CI:124:GLN:NE2	2.15	0.58
31:BA:271(C):C:H2'	31:BA:271(D):G:C8	2.39	0.58
37:DH:44:VAL:HG12	37:DH:45:VAL:N	2.16	0.58
31:BA:473:G:C2'	31:BA:474:G:O5'	2.51	0.58
37:BH:153:LYS:HE2	37:BH:154:PRO:C	2.24	0.58
12:AL:105:TYR:C	12:AL:107:ALA:H	2.07	0.58
16:AP:39:TYR:C	16:AP:39:TYR:CD1	2.76	0.58
1:AA:977:A:H2'	1:AA:978:A:H5'	1.86	0.58
4:CD:173:TRP:HA	4:CD:187:ARG:NH1	2.19	0.58
1:AA:940:C:H2'	1:AA:941:G:H8	1.69	0.58
51:DZ:150:LEU:N	51:DZ:150:LEU:HD13	2.18	0.58
15:CO:63:ARG:HG2	15:CO:67:LEU:CD1	2.34	0.58
1:AA:1016:A:H2'	1:AA:1017:G:O4'	2.03	0.58
1:CA:84:U:H5	1:CA:88:A:C4	2.21	0.58
31:DA:429:A:H2'	31:DA:430:G:C8	2.39	0.58
4:AD:176:LEU:HG	4:AD:178:VAL:HG22	1.85	0.58
21:AU:9:ARG:O	21:AU:13:ILE:HG13	2.04	0.58
1:CA:16:A:C2	1:CA:920:U:O2	2.56	0.57
31:DA:194:G:H2'	31:DA:195:A:O4'	2.04	0.57
31:DA:2061:G:C2	31:DA:2063:C:C4	2.92	0.57
31:BA:1241:A:H2'	31:BA:1242:A:O5'	2.04	0.57
31:BA:514:A:H2'	31:BA:515:A:C8	2.38	0.57
31:BA:743:G:O2'	31:BA:744:G:H5'	2.04	0.57
44:BS:19:LYS:HG2	44:BS:19:LYS:O	2.03	0.57
44:BS:88:ASP:O	44:BS:92:TYR:CD2	2.57	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:68:G:C5	31:DA:69:C:C5	2.91	0.57
49:DX:84:ALA:C	49:DX:86:GLY:H	2.07	0.57
31:BA:626:U:H5''	31:BA:627:A:H5'	1.86	0.57
46:DU:88:ILE:C	46:DU:90:VAL:N	2.57	0.57
47:DV:36:PRO:HD2	47:DV:60:GLU:O	2.04	0.57
47:DV:62:LEU:HD22	47:DV:98:GLU:HB2	1.86	0.57
47:DV:66:ARG:HE	47:DV:94:LEU:CG	2.16	0.57
31:BA:1717:G:C2	31:BA:1718:G:C8	2.92	0.57
1:CA:503:C:H2'	1:CA:504:C:C6	2.39	0.57
1:CA:542:G:OP1	4:CD:10:ARG:NH2	2.37	0.57
31:BA:2308:G:H3'	31:BA:2310:A:OP2	2.04	0.57
31:BA:1321:A:H2'	31:BA:1322:A:O4'	2.04	0.57
31:DA:2702:U:O2'	31:DA:2703:C:C6	2.52	0.57
1:AA:191:G:N3	20:AT:103:GLY:O	2.36	0.57
34:DE:61:ARG:N	34:DE:62:PRO:HD2	2.19	0.57
31:BA:1796:U:H4'	33:BD:256:GLY:N	2.18	0.57
1:CA:189(C):C:H2'	1:CA:189(D):C:O4'	2.04	0.57
47:BV:5:VAL:HG21	47:BV:36:PRO:HG2	1.86	0.57
50:DY:8:LYS:NZ	50:DY:72:VAL:HG23	2.18	0.57
39:BN:78:TYR:HD1	39:BN:79:PRO:N	2.02	0.57
1:AA:1483:A:O2'	31:BA:1947:C:C2'	2.52	0.57
50:BY:99:CYS:SG	50:BY:99:CYS:O	2.62	0.57
4:CD:12:CYS:SG	4:CD:19:LEU:O	2.62	0.57
9:CI:55:ALA:HB1	9:CI:59:PHE:HE1	1.68	0.57
39:DN:78:TYR:N	39:DN:79:PRO:CD	2.67	0.57
1:CA:1064:G:C8	1:CA:1066:C:C2	2.92	0.57
2:CB:178:ARG:HH22	8:CH:68:ARG:NH2	2.00	0.57
34:BE:116:VAL:HG21	34:BE:122:PHE:CD2	2.38	0.57
22:D0:26:TYR:HE2	31:DA:857:C:H1'	1.68	0.57
40:BO:13:ASN:ND2	40:BO:97:ARG:H	2.01	0.57
1:CA:691:G:N7	11:CK:26:ASN:HB3	2.19	0.57
31:BA:2880:C:O2'	43:BR:90:ARG:HD3	2.03	0.57
24:D2:14:ARG:NH1	24:D2:57:ILE:CG2	2.67	0.57
8:AH:87:SER:HA	8:AH:93:VAL:CG2	2.33	0.57
1:CA:270:A:C5	1:CA:271:C:C4	2.91	0.57
45:BT:28:VAL:CG2	45:BT:46:GLU:HG3	2.34	0.57
45:DT:57:PHE:C	45:DT:59:THR:H	2.06	0.57
31:BA:1701:A:H5''	31:BA:1702:G:OP2	2.04	0.57
36:DG:52:ILE:HG22	36:DG:54:GLU:HG2	1.86	0.57
1:CA:1128:C:H5'	9:CI:16:ARG:NH1	2.18	0.57
11:CK:65:ALA:O	11:CK:68:ALA:HB3	2.04	0.57
29:D7:5:TRP:CH2	31:DA:686:G:N7	2.72	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:951:G:C6	1:CA:1231:G:C6	2.92	0.57
1:CA:520:A:H2	1:CA:536:C:O2	1.86	0.57
1:CA:581:G:C2	1:CA:582:U:C4	2.91	0.57
1:CA:584:G:H1	1:CA:757:U:H3	1.52	0.57
31:DA:2098:U:H2'	31:DA:2099:U:H6	1.68	0.57
4:CD:99:SER:O	4:CD:140:VAL:HG23	2.03	0.57
1:AA:760:G:H2'	1:AA:761:G:H5'	1.86	0.57
1:AA:1228:C:H2'	1:AA:1229:A:C8	2.39	0.57
29:B7:47:ARG:C	29:B7:48:LYS:HD3	2.24	0.57
1:AA:1113:C:H2'	1:AA:1114:C:C6	2.38	0.57
17:CQ:65:ILE:HD12	17:CQ:65:ILE:H	1.68	0.57
37:BH:18:GLU:HB2	37:BH:25:LYS:HB2	1.86	0.57
40:DO:39:ILE:O	40:DO:39:ILE:HG12	2.03	0.57
42:BQ:6:ARG:O	42:BQ:6:ARG:HG3	2.04	0.57
46:DU:76:TYR:C	46:DU:76:TYR:CD2	2.76	0.57
31:BA:1441:G:H2'	31:BA:1442:G:H8	1.68	0.57
28:D6:42:TRP:CE2	31:DA:643:A:OP1	2.57	0.57
31:DA:260:G:N2	31:DA:261:G:H1'	2.19	0.57
31:BA:2058:A:N1	55:BA:3362:TEL:H572	2.18	0.57
31:DA:994:C:O2	47:DV:10:LYS:NZ	2.37	0.57
39:DN:42:TRP:HB3	46:DU:64:ARG:HH12	1.64	0.57
47:DV:66:ARG:CD	47:DV:67:GLY:N	2.68	0.57
37:BH:70:THR:O	37:BH:72:ILE:N	2.37	0.57
31:BA:58:G:C2'	31:BA:59:U:O5'	2.52	0.57
31:BA:1722:A:N6	31:BA:1741:A:C2	2.71	0.57
44:DS:38:GLN:HG2	44:DS:47:THR:CG2	2.34	0.57
46:BU:65:ILE:HG12	46:BU:96:ALA:HB3	1.86	0.57
43:DR:72:ASP:HB3	43:DR:75:LEU:CB	2.34	0.57
31:BA:778:G:C5	31:BA:779:U:C4	2.93	0.57
31:BA:993:G:N2	47:BV:91:TYR:OH	2.37	0.57
1:CA:682:G:H1	1:CA:708:C:H42	1.52	0.57
1:CA:737:A:H2'	1:CA:738:C:H6	1.63	0.57
48:DW:75:TYR:HE1	48:DW:104:THR:CG2	2.17	0.57
31:BA:287:C:H2'	31:BA:288:C:C5'	2.34	0.57
31:BA:204:A:H8	31:BA:204:A:OP1	1.86	0.57
22:B0:45:PHE:O	22:B0:59:LEU:HD11	2.04	0.57
28:B6:20:ASN:ND2	28:B6:21:TYR:N	2.49	0.57
31:DA:1416:G:O2'	31:DA:1417:C:OP2	2.18	0.57
1:AA:29:G:O2'	1:AA:30:U:H5'	2.04	0.57
50:DY:96:ILE:CD1	50:DY:99:CYS:SG	2.92	0.57
11:AK:65:ALA:O	11:AK:68:ALA:HB3	2.04	0.57
1:CA:64:G:H4'	1:CA:65:U:C5'	2.34	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BT:20:PRO:O	45:BT:22:PHE:HD2	1.87	0.57
13:AM:25:ILE:CD1	13:AM:66:LEU:HD23	2.33	0.57
31:BA:2222:G:H5''	33:BD:186:HIS:CE1	2.39	0.57
39:DN:75:TYR:HD1	39:DN:75:TYR:N	2.02	0.57
1:AA:1347:G:N2	1:AA:1373:G:H2'	2.19	0.57
31:DA:51:G:H4'	31:DA:52:A:H5'	1.85	0.57
35:DF:31:HIS:CG	41:DP:13:ASN:HD22	2.21	0.57
31:DA:1669:A:H5''	31:DA:1670:C:OP2	2.04	0.57
31:BA:34:C:C6	31:BA:34:C:H3'	2.37	0.57
2:CB:219:VAL:HA	2:CB:222:ILE:HD12	1.86	0.57
1:CA:833:U:H2'	1:CA:834:C:C6	2.38	0.57
31:BA:2689:U:P	31:BA:2719:G:H22	2.27	0.57
15:AO:62:GLN:HA	15:AO:65:ARG:HH11	1.68	0.57
1:CA:606:G:O2'	1:CA:632:A:N6	2.35	0.57
13:AM:37:THR:HG22	13:AM:59:TYR:HB3	1.85	0.57
34:DE:49:LEU:HD23	34:DE:81:ILE:HG12	1.86	0.57
31:DA:280:C:H2'	31:DA:281:G:O5'	2.03	0.57
31:DA:1836:C:C2'	31:DA:1837:C:H5'	2.34	0.57
45:BT:17:THR:O	45:BT:18:ASP:HB3	2.03	0.57
1:CA:922:G:C4'	5:CE:20:GLN:HA	2.26	0.57
28:D6:19:ARG:HG3	28:D6:20:ASN:H	1.68	0.57
27:D5:4:HIS:HD2	31:DA:2056:G:H1	1.51	0.57
30:D8:13:ARG:HD2	41:DP:61:ARG:HD3	1.85	0.57
31:DA:389:G:N1	41:DP:71:VAL:HB	2.18	0.57
31:BA:2612:C:H2'	31:BA:2613:U:H5'	1.86	0.57
41:BP:16:ARG:HG2	41:BP:18:ARG:N	2.17	0.57
31:BA:53:A:H61	31:BA:117:G:C2'	2.17	0.57
29:B7:5:TRP:CH2	31:BA:464:U:H4'	2.39	0.57
36:BG:11:TYR:HD2	36:BG:12:TYR:CE1	2.23	0.57
24:D2:46:GLN:HG2	24:D2:47:ASN:N	2.16	0.57
49:DX:24:GLY:HA3	49:DX:80:ILE:CG1	2.35	0.57
49:DX:9:LEU:HD12	49:DX:30:VAL:C	2.24	0.57
39:DN:65:LYS:HE2	39:DN:65:LYS:HA	1.85	0.57
46:DU:90:VAL:HG12	46:DU:91:ASP:N	2.18	0.57
49:BX:73:ARG:H	49:BX:74:PRO:HD3	1.68	0.57
44:DS:26:LEU:HA	44:DS:39:ILE:HD13	1.85	0.57
4:CD:38:TYR:CD2	4:CD:45:GLN:HB3	2.39	0.57
39:BN:68:GLU:HG3	39:BN:88:GLU:OE1	2.05	0.57
31:DA:2769:C:H2'	31:DA:2770:G:O5'	2.03	0.57
31:DA:2313:C:O2'	31:DA:2314:C:H5'	2.04	0.57
31:BA:2496:C:OP1	42:BQ:81:VAL:CG1	2.52	0.57
31:BA:1563:G:H2'	31:BA:1564:C:H6	1.69	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2385:C:C2'	31:DA:2386:C:H5'	2.34	0.57
32:BB:73:A:C4	32:BB:105:A:C2	2.92	0.57
1:AA:735:C:H1'	18:AR:75:ILE:HD11	1.85	0.57
32:BB:21:G:C8	32:BB:22:U:C1'	2.88	0.57
4:AD:36:ARG:HB3	4:AD:38:TYR:HE1	1.68	0.57
1:AA:114:U:O2'	1:AA:115:G:H5'	2.04	0.57
33:DD:186:HIS:HD2	33:DD:187:GLY:N	2.01	0.57
31:DA:394:A:C6	31:DA:395:U:C4	2.91	0.57
36:DG:76:SER:CB	36:DG:84:LYS:H	2.16	0.57
1:AA:658:G:H1'	15:AO:22:THR:HB	1.86	0.57
1:CA:667:G:H4'	15:CO:51:HIS:CE1	2.40	0.57
1:AA:302:G:N3	1:AA:556:C:H4'	2.20	0.57
31:DA:479:A:H1'	31:DA:481:G:H5''	1.84	0.57
31:DA:271(P):C:O2	31:DA:271(P):C:H2'	2.04	0.57
31:DA:1833:U:O2	31:DA:1969:A:H2	1.86	0.57
31:DA:2688:U:C5	31:DA:2720:U:OP2	2.55	0.57
1:CA:266:G:H5''	1:CA:268:C:N4	2.19	0.57
31:BA:271(Q):G:N3	31:BA:271(R):G:C8	2.73	0.57
31:BA:1686:C:H2'	31:BA:1687:G:H5'	1.86	0.57
13:CM:87:TYR:C	13:CM:89:GLY:H	2.08	0.57
42:DQ:27:VAL:HG21	42:DQ:134:ARG:HA	1.86	0.57
9:CI:26:VAL:HG22	9:CI:61:ALA:HB3	1.85	0.57
31:DA:1300:U:H5''	31:DA:1301:A:H5''	1.86	0.57
31:DA:1949:G:C2	31:DA:1958:C:O2	2.57	0.57
31:DA:1382:G:O2'	31:DA:1383:C:H5'	2.03	0.57
3:AC:186:PHE:CE2	3:AC:188:LEU:HD22	2.40	0.57
31:DA:1321:A:H2'	31:DA:1322:A:O4'	2.04	0.57
31:BA:2098:U:H2'	31:BA:2099:U:H6	1.70	0.57
31:BA:1349:A:N6	31:BA:1598:C:N4	2.52	0.57
31:BA:128:C:C6	31:BA:128:C:H3'	2.39	0.57
9:AI:82:ALA:HB1	9:AI:96:LEU:CD1	2.34	0.57
2:AB:165:VAL:HG23	2:AB:166:ASP:H	1.68	0.57
31:BA:921:G:H2'	31:BA:922:U:C6	2.39	0.57
1:CA:316:G:OP2	1:CA:351:G:O2'	2.21	0.57
31:BA:725:G:C6	31:BA:726:G:N1	2.72	0.57
46:DU:43:GLY:HA2	47:DV:76:LYS:HE3	1.87	0.57
31:BA:838:C:O2'	31:BA:839:U:H5'	2.04	0.57
21:CU:9:ARG:O	21:CU:13:ILE:HG13	2.04	0.57
30:D8:53:PRO:HA	30:D8:56:GLU:HB2	1.86	0.57
35:DF:66:PRO:O	35:DF:67:GLN:CB	2.40	0.57
55:BA:3362:TEL:H81	55:BA:3362:TEL:C10	2.34	0.57
41:BP:26:GLY:HA2	41:BP:30:THR:HG21	1.86	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:943:U:OP2	41:BP:38:GLN:OE1	2.22	0.57
31:BA:768:G:O2'	31:BA:1379:A:N6	2.37	0.57
49:DX:88:LYS:O	49:DX:89:ILE:HB	2.03	0.57
39:DN:47:ALA:HB2	39:DN:112:LEU:HD11	1.87	0.57
37:BH:74:ASN:HB3	37:BH:138:LYS:HD2	1.87	0.57
36:DG:120:LEU:HG	36:DG:179:PRO:O	2.05	0.57
36:DG:24:GLY:C	36:DG:25:TYR:CD2	2.78	0.57
1:AA:405:U:H3'	1:AA:406:G:H5'	1.85	0.57
16:CP:7:ALA:O	16:CP:9:PHE:HD2	1.87	0.57
31:BA:1290:C:H2'	31:BA:1291:C:H6	1.69	0.57
33:DD:158:ALA:O	33:DD:159:ALA:CB	2.51	0.57
31:BA:2019:A:H2'	31:BA:2020:A:O5'	2.04	0.57
31:BA:995:C:C2	39:BN:4:TYR:OH	2.51	0.57
39:BN:65:LYS:HE2	39:BN:65:LYS:HA	1.85	0.57
31:DA:2792:G:N3	31:DA:2792:G:H2'	2.19	0.57
31:BA:814:C:H5	41:BP:27:HIS:NE2	2.02	0.57
31:BA:286:C:C4	31:BA:356:G:C6	2.92	0.57
31:DA:287:C:N4	31:DA:354:G:H1	1.91	0.57
27:B5:16:ARG:HH12	27:B5:17:ASP:CG	2.08	0.57
1:AA:52:G:H2'	1:AA:53:A:H8	1.69	0.57
1:AA:60:A:H4'	1:AA:61:G:O5'	2.05	0.57
42:DQ:75:THR:HA	42:DQ:88:GLY:CA	2.27	0.57
1:AA:575:G:O2'	1:AA:821:G:H5'	2.04	0.57
10:CJ:48:THR:HA	10:CJ:62:HIS:HB3	1.84	0.57
13:AM:87:TYR:C	13:AM:89:GLY:H	2.07	0.57
31:DA:1410:G:C6	31:DA:1411:C:N4	2.72	0.57
41:BP:147:LEU:C	41:BP:148:LEU:HD13	2.24	0.57
31:BA:2659:G:H1'	31:BA:2663:G:H22	1.67	0.57
35:DF:178:PRO:HG2	35:DF:179:GLU:OE2	2.04	0.57
1:CA:1286:A:H2'	1:CA:1287:A:H4'	1.85	0.57
39:DN:75:TYR:N	39:DN:75:TYR:CD1	2.70	0.57
47:DV:50:PRO:O	47:DV:51:VAL:O	2.22	0.57
19:CS:5:LEU:HG	19:CS:10:PHE:CD1	2.39	0.57
47:BV:47:VAL:HG13	47:BV:48:GLY:N	2.17	0.57
47:BV:43:GLU:HA	47:BV:48:GLY:HA3	1.85	0.57
31:DA:2475:C:H5"	31:DA:2476:A:P	2.45	0.57
11:CK:20:TYR:C	11:CK:21:ILE:HD12	2.24	0.57
45:DT:109:GLU:O	45:DT:113:LYS:HG3	2.05	0.57
31:BA:547:A:O2'	31:BA:548:A:OP2	2.20	0.57
38:BI:29:TYR:C	38:BI:32:PRO:HD2	2.25	0.57
31:BA:1383:C:O5'	31:BA:1383:C:H6	1.86	0.57
31:BA:2536:G:C5	31:BA:2537:U:C5	2.93	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1495:U:H2'	1:CA:1496:C:C6	2.38	0.57
31:DA:2598:A:P	33:DD:236:GLY:HA3	2.43	0.57
31:DA:807:U:C2'	31:DA:808:G:O5'	2.52	0.57
1:CA:35:G:C6	1:CA:36:C:N4	2.71	0.57
1:AA:828:A:H5''	1:AA:859:A:N1	2.19	0.57
7:CG:138:LYS:HE2	7:CG:142:GLU:OE2	2.05	0.57
15:CO:64:ARG:NH2	15:CO:88:ARG:CZ	2.67	0.57
11:CK:62:GLN:O	11:CK:64:ALA:N	2.38	0.57
31:DA:1351:C:H4'	31:DA:1572:A:O4'	2.04	0.57
31:BA:2575:C:H2'	31:BA:2578:G:O6	2.04	0.57
43:DR:13:HIS:HE1	43:DR:15:SER:OG	1.86	0.57
9:AI:126:SER:O	9:AI:128:ARG:HD2	2.05	0.57
1:AA:1210:C:H5'	1:AA:1214:C:N4	2.20	0.57
1:AA:986:A:H1'	19:AS:54:GLY:O	2.05	0.57
1:CA:1486:G:H2'	1:CA:1487:G:C1'	2.35	0.57
2:AB:87:ARG:NH2	2:AB:233:SER:HB3	2.19	0.57
31:DA:1763:G:OP1	31:DA:1763:G:H4'	2.04	0.57
1:CA:14:U:O2	1:CA:17:U:H5	1.87	0.57
1:CA:1511:G:H2'	1:CA:1512:U:O4'	2.05	0.57
1:CA:16:A:O2'	1:CA:17:U:H5'	2.03	0.57
27:D5:4:HIS:O	27:D5:5:PRO:C	2.38	0.57
30:D8:32:LEU:HB3	30:D8:35:GLN:N	2.19	0.57
31:DA:2287:A:O2'	31:DA:2288:A:H3'	2.04	0.57
41:DP:16:ARG:HG2	41:DP:17:LYS:N	2.09	0.57
30:B8:30:ARG:HB2	31:BA:2393:A:OP1	2.04	0.57
36:BG:31:VAL:HG12	36:BG:33:ARG:N	2.20	0.57
31:DA:58:G:C2'	31:DA:59:U:O5'	2.52	0.57
31:BA:626:U:H2'	31:BA:626:U:O2	2.04	0.57
31:BA:1899:G:O2'	31:BA:1900:A:H5''	2.05	0.57
1:CA:114:U:O2'	1:CA:115:G:H5'	2.05	0.57
31:BA:2307:G:H3'	31:BA:2307:G:N3	2.18	0.57
31:DA:691:C:O2'	31:DA:692:C:H5'	2.05	0.57
31:BA:528:A:H2	31:BA:2043:C:H5'	1.69	0.57
42:BQ:81:VAL:O	42:BQ:82:ARG:CZ	2.52	0.57
32:DB:21:G:C8	32:DB:22:U:H1'	2.39	0.57
32:BB:17:C:N3	32:BB:18:G:C5	2.72	0.57
1:AA:411:A:C6	1:AA:429:U:C4	2.93	0.57
27:B5:2:ALA:N	31:BA:747:U:N3	2.52	0.57
38:BI:98:ALA:O	38:BI:102:SER:HB2	2.05	0.57
9:CI:114:TYR:HD2	9:CI:114:TYR:N	2.02	0.57
31:DA:1771:C:C1'	31:DA:1786:A:H8	2.17	0.57
1:CA:953:G:H5'	1:CA:965:A:H61	1.68	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1474:C:C6	31:DA:1474:C:H5''	2.39	0.57
31:BA:271(E):U:H2'	31:BA:271(F):C:H6	1.66	0.57
42:BQ:24:GLY:HA2	51:BZ:78:LYS:HA	1.86	0.57
1:AA:1385:G:O2'	1:AA:1386:G:H5'	2.04	0.57
5:CE:51:VAL:O	5:CE:55:VAL:HG23	2.04	0.57
8:AH:10:LEU:N	8:AH:10:LEU:HD23	2.18	0.57
1:AA:552:U:C2'	1:AA:553:A:H5'	2.33	0.57
3:AC:134:ILE:HG22	3:AC:168:ALA:HB3	1.87	0.57
31:BA:2065:C:H2'	31:BA:2066:C:H6	1.70	0.57
2:CB:165:VAL:HG23	2:CB:166:ASP:H	1.68	0.57
35:DF:28:ILE:CD1	35:DF:28:ILE:H	2.15	0.57
15:CO:3:ILE:N	15:CO:3:ILE:HD13	2.18	0.57
1:AA:244:U:C6	1:AA:894:G:N2	2.73	0.57
15:AO:64:ARG:NH2	15:AO:88:ARG:CZ	2.68	0.57
31:BA:2363:C:O2'	31:BA:2364:C:H5'	2.04	0.57
18:CR:53:ARG:HH21	18:CR:60:ALA:CA	2.17	0.57
32:BB:41:U:C2'	32:BB:42:C:OP1	2.52	0.57
34:BE:65:GLY:C	34:BE:67:PHE:H	2.07	0.57
3:CC:11:ARG:O	3:CC:13:GLY:N	2.38	0.57
1:CA:1162:C:H2'	1:CA:1163:C:C6	2.39	0.57
3:AC:23:TYR:CG	3:AC:24:ALA:N	2.72	0.57
13:CM:4:ILE:H	13:CM:9:ILE:HG13	1.68	0.57
19:AS:79:THR:O	19:AS:80:TYR:HB3	2.04	0.57
8:CH:20:TYR:CE1	8:CH:76:PRO:HG2	2.39	0.57
29:B7:39:ARG:NH2	31:BA:468:G:N7	2.42	0.57
23:D1:34:THR:CG2	31:DA:388:G:P	2.92	0.57
31:DA:823:G:C2'	31:DA:824:A:H5'	2.34	0.57
31:DA:1722:A:N6	31:DA:1741:A:C2	2.73	0.57
46:DU:64:ARG:CA	46:DU:64:ARG:CZ	2.83	0.57
49:BX:36:LYS:HZ2	49:BX:39:ILE:CA	2.17	0.57
32:DB:55:U:H6	32:DB:55:U:OP2	1.86	0.57
4:CD:64:LEU:O	4:CD:67:ILE:HB	2.05	0.57
4:CD:79:PHE:HE2	4:CD:83:SER:HG	1.53	0.57
33:DD:158:ALA:O	33:DD:159:ALA:HB2	2.05	0.57
39:BN:42:TRP:CG	39:BN:43:THR:N	2.73	0.57
46:BU:88:ILE:O	46:BU:88:ILE:CD1	2.53	0.57
31:BA:528:A:N1	31:BA:2043:C:O5'	2.37	0.57
31:DA:2299:G:N1	31:DA:2318:G:C8	2.73	0.57
32:DB:73:A:C4	32:DB:105:A:C2	2.93	0.57
7:AG:113:GLU:CB	7:AG:119:ARG:HG2	2.23	0.57
51:BZ:150:LEU:O	51:BZ:171:ILE:HG12	2.05	0.57
34:DE:93:VAL:C	34:DE:95:ILE:H	2.07	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DI:25:TYR:CE1	38:DI:30:LEU:HD21	2.39	0.57
39:BN:56:ASN:HA	39:BN:125:GLY:H	1.68	0.57
31:DA:1044:G:H1'	31:DA:1111:A:N1	2.20	0.57
4:CD:31:CYS:C	4:CD:33:MET:N	2.52	0.57
1:AA:748:C:H1'	1:AA:749:C:OP2	2.04	0.57
31:DA:2682:U:O4'	34:DE:12:THR:HA	2.04	0.57
31:BA:1495:A:C4	31:BA:1496:A:C2	2.93	0.57
31:BA:911:A:C5	42:BQ:9:TYR:CE2	2.90	0.57
38:DI:101:LEU:HG	38:DI:109:ILE:HG12	1.87	0.57
31:BA:2842:G:H2'	31:BA:2843:G:C8	2.40	0.57
24:B2:12:GLU:C	24:B2:12:GLU:CD	2.63	0.57
36:BG:88:ILE:HG23	36:BG:90:LEU:H	1.70	0.57
45:DT:23:ARG:CB	45:DT:24:PRO:HD2	2.33	0.57
31:DA:207:A:H2'	31:DA:208:C:O4'	2.04	0.57
9:AI:114:TYR:N	9:AI:114:TYR:CD2	2.72	0.57
51:BZ:117:LEU:HB3	51:BZ:174:VAL:HG22	1.86	0.57
1:AA:951:G:C6	1:AA:1231:G:C6	2.93	0.57
37:DH:153:LYS:N	37:DH:153:LYS:HD3	2.14	0.57
1:CA:520:A:C2	1:CA:536:C:H1'	2.39	0.57
1:AA:1172:C:H2'	1:AA:1173:G:H8	1.69	0.57
38:DI:127:VAL:HG22	38:DI:139:GLN:HG3	1.85	0.57
1:AA:448:A:OP2	1:AA:485:G:N2	2.28	0.57
1:CA:52:G:H2'	1:CA:53:A:H8	1.68	0.57
31:BA:1441:G:O2'	31:BA:1442:G:H5'	2.05	0.57
3:CC:24:ALA:HB1	3:CC:28:GLN:O	2.05	0.57
31:DA:1915:U:H2'	31:DA:1916:A:H8	1.69	0.57
2:CB:115:LEU:HD13	2:CB:145:LEU:HB3	1.87	0.57
20:CT:93:GLU:O	20:CT:93:GLU:HG2	2.04	0.57
1:AA:1343:G:H2'	1:AA:1344:C:C6	2.39	0.57
28:D6:19:ARG:O	28:D6:20:ASN:O	2.22	0.57
28:D6:46:HIS:CE1	31:DA:2371:G:O2'	2.58	0.57
31:DA:2071:A:H2	31:DA:2440:C:N4	2.03	0.57
30:B8:32:LEU:HD23	30:B8:35:GLN:CA	2.34	0.57
31:DA:1722:A:C4	31:DA:1741:A:N6	2.72	0.57
24:D2:25:VAL:HG22	24:D2:26:ARG:HH11	1.70	0.57
24:D2:49:LYS:C	24:D2:53:LEU:HB3	2.24	0.57
31:DA:142:A:H5''	31:DA:142(A):C:H5	1.70	0.57
31:DA:814:C:H5''	47:DV:86:GLY:HA3	1.87	0.57
39:DN:42:TRP:CD1	39:DN:42:TRP:C	2.77	0.57
31:BA:2752:C:C4	31:BA:2753:A:N7	2.72	0.57
32:DB:8:U:O2'	44:DS:40:ILE:HD13	2.05	0.57
36:DG:31:VAL:HB	36:DG:33:ARG:HG2	1.84	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DS:19:LYS:O	44:DS:19:LYS:HG2	2.05	0.57
23:D1:10:LYS:CG	23:D1:11:ARG:N	2.68	0.57
23:D1:86:SER:N	23:D1:87:PRO:CD	2.67	0.57
31:DA:2666:C:H5'	31:DA:2667:C:OP2	2.04	0.57
2:AB:204:ASN:HB3	2:AB:210:SER:CB	2.34	0.57
31:BA:1210:A:H5''	31:BA:1212:G:O4'	2.05	0.57
51:BZ:6:LYS:HG2	51:BZ:8:TYR:OH	2.04	0.57
33:DD:186:HIS:CD2	33:DD:188:GLU:H	2.22	0.57
31:BA:1042:G:N3	31:BA:1042:G:H2'	2.18	0.57
1:AA:1095:U:P	1:AA:1108:G:H1	2.27	0.57
31:DA:855:G:C5	31:DA:856:C:C4	2.92	0.57
10:AJ:48:THR:HA	10:AJ:62:HIS:HB3	1.85	0.57
50:DY:47:LYS:HB3	50:DY:47:LYS:HZ3	1.68	0.57
1:AA:1511:G:H2'	1:AA:1512:U:O4'	2.05	0.57
8:AH:6:ILE:CD1	8:AH:6:ILE:H	2.17	0.57
35:DF:160:ASN:ND2	35:DF:160:ASN:C	2.57	0.57
50:BY:49:VAL:HG12	50:BY:53:PRO:CB	2.35	0.57
1:AA:1406:U:O2'	1:AA:1407:C:H5'	2.04	0.57
3:CC:104:GLN:CD	3:CC:105:GLU:H	2.08	0.57
3:CC:105:GLU:HG2	3:CC:106:VAL:H	1.70	0.57
13:AM:3:ARG:HD3	13:AM:9:ILE:HD11	1.85	0.57
34:DE:120:TRP:CD1	34:DE:155:LYS:HB3	2.39	0.57
9:AI:26:VAL:HG22	9:AI:61:ALA:HB3	1.86	0.57
12:CL:93:LEU:HB3	12:CL:96:VAL:HG23	1.86	0.57
34:BE:103:ASP:OD1	34:BE:168:MET:HB3	2.04	0.57
1:AA:980:C:H5'	1:AA:981:U:H5	1.69	0.57
31:BA:892:G:C8	31:BA:893:C:C4	2.93	0.57
31:BA:892:G:H2'	31:BA:893:C:O4'	2.03	0.57
6:CF:5:GLU:HB3	6:CF:62:TRP:HE1	1.69	0.57
31:BA:272(H):C:O2	31:BA:272(H):C:H2'	2.05	0.57
1:CA:397:A:N7	1:CA:548:G:C8	2.73	0.57
45:BT:90:GLN:HG2	45:BT:120:ARG:HH12	1.67	0.57
1:AA:279:A:OP2	17:AQ:95:TYR:OH	2.15	0.57
1:AA:859:A:H2'	1:AA:860:A:O4'	2.05	0.57
31:DA:485:C:H2'	31:DA:486:C:C6	2.39	0.57
37:DH:143:GLN:HE22	37:DH:147:ASN:ND2	2.03	0.57
5:AE:136:MET:HB3	5:AE:140:ARG:HH22	1.69	0.57
34:BE:158:GLY:O	34:BE:159:HIS:C	2.42	0.57
31:DA:376:C:H2'	31:DA:377:C:C6	2.40	0.57
38:BI:43:ASN:ND2	38:BI:43:ASN:H	2.00	0.57
3:AC:155:GLY:O	3:AC:156:ARG:HB2	2.05	0.57
3:AC:83:ARG:O	3:AC:86:VAL:HG22	2.04	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DH:18:GLU:HB2	37:DH:25:LYS:HB2	1.86	0.57
41:BP:35:HIS:HD2	41:BP:35:HIS:O	1.86	0.57
24:D2:26:ARG:HA	24:D2:29:LYS:HE3	1.85	0.57
31:DA:1526:G:C6	31:DA:1527:G:C2	2.92	0.57
41:BP:88:LEU:C	41:BP:90:ARG:N	2.58	0.57
31:DA:1141:U:OP2	39:DN:63:THR:OG1	2.18	0.57
39:DN:1:MET:HB3	47:DV:20:LEU:HD22	1.87	0.57
33:BD:255:LYS:N	33:BD:255:LYS:NZ	2.53	0.57
1:CA:611:A:H61	1:CA:629:G:H1	1.51	0.57
39:BN:30:ILE:O	39:BN:34:LEU:HD22	2.05	0.57
46:BU:92:ARG:CB	47:BV:11:GLN:HE21	2.16	0.57
31:BA:1164:G:H2'	31:BA:1165:U:C6	2.40	0.57
31:DA:330:A:H2	31:DA:1210:A:O2'	1.87	0.57
43:BR:34:ILE:HG22	43:BR:114:VAL:HG23	1.86	0.57
42:DQ:7:MET:O	42:DQ:10:ARG:NH2	2.38	0.57
32:DB:13:A:H2'	32:DB:70:C:O2'	2.04	0.57
1:AA:738:C:H2'	1:AA:739:C:C6	2.40	0.57
27:B5:46:CYS:SG	27:B5:47:PRO:CG	2.92	0.57
39:BN:125:GLY:HA2	39:BN:126:PRO:O	2.05	0.57
23:D1:19:GLN:CD	23:D1:44:PRO:HB3	2.24	0.57
31:BA:873:G:N2	31:BA:905:U:C2	2.73	0.57
1:AA:66:G:C2	1:AA:67:C:C6	2.92	0.57
45:BT:106:SER:HB2	45:BT:110:ILE:HD11	1.87	0.57
45:BT:106:SER:O	45:BT:107:ASP:CB	2.52	0.57
45:BT:106:SER:O	45:BT:107:ASP:OD1	2.23	0.57
1:CA:658:G:H1'	15:CO:22:THR:HB	1.85	0.57
31:BA:184:C:C2	31:BA:185:U:C5	2.92	0.57
1:CA:650:G:C2'	1:CA:651:C:H5'	2.35	0.57
1:CA:826:C:H2'	1:CA:827:U:H6	1.69	0.57
1:AA:1352:C:H2'	1:AA:1353:G:C8	2.40	0.57
9:CI:10:ARG:HG2	9:CI:104:ARG:O	2.03	0.57
35:DF:138:GLU:O	35:DF:141:ALA:HB3	2.05	0.57
8:CH:25:ASP:OD2	8:CH:60:ARG:HG2	2.04	0.57
31:BA:1543:C:H6	31:BA:1543:C:OP2	1.88	0.57
12:AL:6:THR:HG23	12:AL:9:GLN:NE2	2.19	0.57
1:CA:1270:C:H2'	1:CA:1271:G:O4'	2.04	0.57
2:CB:20:GLU:HB2	2:CB:190:THR:OG1	2.04	0.57
31:BA:1665:A:H1'	40:BO:1:MET:HG2	1.86	0.57
1:CA:1291:G:O3'	9:CI:39:GLY:HA3	2.04	0.57
8:AH:69:ARG:HD3	8:AH:75:ARG:O	2.04	0.57
31:DA:2552:U:C2	31:DA:2554:U:H5'	2.40	0.57
4:CD:96:LEU:H	4:CD:96:LEU:HD22	1.68	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:444:C:H4'	35:DF:49:ALA:HB2	1.87	0.57
1:AA:754:C:H3'	1:AA:754:C:O2	2.05	0.57
31:BA:489:G:N7	48:BW:49:LYS:NZ	2.52	0.57
1:AA:1134:G:H2'	1:AA:1135:U:H5'	1.87	0.57
1:CA:840:C:H4'	1:CA:848:C:O2	2.04	0.57
29:D7:1:MET:O	29:D7:2:LYS:C	2.43	0.57
8:CH:136:GLU:HG3	8:CH:136:GLU:O	2.05	0.57
27:D5:28:PRO:HB3	48:DW:38:TYR:O	2.05	0.57
31:DA:2061:G:N3	31:DA:2063:C:C5	2.73	0.57
31:DA:580:C:H2'	31:DA:581:C:H6	1.68	0.57
30:B8:32:LEU:HB3	30:B8:34:TRP:N	2.20	0.57
30:B8:7:HIS:CD2	41:BP:50:ARG:HD3	2.40	0.57
41:BP:10:PRO:HD2	41:BP:11:GLY:H	1.70	0.57
31:BA:2393:A:OP1	41:BP:62:LEU:HD12	2.05	0.57
32:BB:31:C:H2'	32:BB:53:A:H61	1.69	0.57
41:BP:101:VAL:HB	41:BP:107:LYS:N	2.16	0.57
41:BP:111:ARG:HA	41:BP:128:HIS:CD2	2.39	0.57
31:DA:1011:G:OP1	46:DU:75:ASN:HB3	2.04	0.57
39:DN:23:LEU:HD13	39:DN:98:VAL:HG12	1.87	0.57
46:DU:95:LEU:HD22	47:DV:4:ILE:CD1	2.35	0.57
47:DV:19:LYS:HB3	47:DV:96:ILE:O	2.04	0.57
31:BA:1464:C:H4'	31:BA:1528(A):A:H4'	1.87	0.57
31:DA:1902:C:HO2'	33:DD:244:ARG:HB2	1.66	0.57
44:DS:89:ARG:HB3	44:DS:92:TYR:HB2	1.85	0.57
1:CA:327:A:C4	1:CA:329:A:C8	2.93	0.57
50:BY:38:ILE:HG22	50:BY:39:VAL:N	2.19	0.57
33:DD:91:ARG:O	33:DD:107:ALA:HB3	2.05	0.57
31:DA:1803:A:O3'	33:DD:259:THR:HG21	2.05	0.57
5:AE:78:HIS:CD2	8:AH:104:ARG:NE	2.73	0.57
31:BA:783:A:H2'	31:BA:785:G:OP1	2.05	0.57
33:BD:43:ARG:HB2	33:BD:54:ARG:HB2	1.87	0.57
4:AD:43:HIS:HB3	4:AD:46:LYS:HD2	1.86	0.57
38:DI:29:TYR:C	38:DI:32:PRO:HD2	2.24	0.57
1:AA:356:A:H2'	1:AA:357:G:O5'	2.04	0.57
31:BA:747:U:O3'	48:BW:89:ALA:HB3	2.04	0.57
39:DN:78:TYR:HD1	39:DN:79:PRO:N	2.01	0.57
31:DA:1290:C:H2'	31:DA:1291:C:C6	2.40	0.57
28:B6:46:HIS:CE1	31:BA:2371:G:O2'	2.58	0.57
1:AA:1399:C:H4'	1:AA:1400:C:C5'	2.35	0.57
38:BI:127:VAL:HG22	38:BI:139:GLN:HG3	1.86	0.57
12:CL:27:LEU:HG	12:CL:62:SER:OG	2.05	0.57
31:BA:1411:C:H2'	31:BA:1412:A:H8	1.68	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:775:G:C5	31:BA:794:G:C8	2.93	0.57
31:BA:1171:G:C8	31:BA:1171:G:OP2	2.50	0.57
1:AA:262:A:C6	1:AA:263:A:N6	2.72	0.57
12:CL:74:GLY:O	12:CL:102:ARG:NH2	2.38	0.57
36:BG:60:LEU:O	36:BG:60:LEU:HD22	2.05	0.57
5:AE:122:GLU:O	5:AE:123:LEU:HD23	2.03	0.57
31:DA:2235:G:H2'	31:DA:2236:C:C6	2.40	0.57
31:DA:322:A:H4'	31:DA:323:G:OP2	2.05	0.57
45:BT:3:ARG:HB2	45:BT:6:LEU:CB	2.34	0.57
31:BA:1694:C:O2'	31:BA:1695:G:C2	2.54	0.57
4:AD:173:TRP:HA	4:AD:187:ARG:NH1	2.19	0.57
31:DA:1247:A:C4	31:DA:1249:U:C5	2.93	0.57
1:AA:514:C:H2'	1:AA:515:G:C8	2.39	0.57
31:DA:753:C:O5'	31:DA:753:C:C6	2.58	0.57
3:AC:71:ALA:HB2	3:AC:115:LEU:CD1	2.34	0.57
1:AA:119:A:H4'	1:AA:120:A:O5'	2.04	0.57
1:CA:833:U:H2'	1:CA:834:C:H6	1.70	0.57
13:AM:108:ARG:CZ	13:AM:114:ARG:HG2	2.35	0.57
20:AT:30:LYS:O	20:AT:34:LYS:HG3	2.05	0.57
31:DA:521:G:O2'	31:DA:522:G:H5'	2.05	0.57
31:DA:17:G:H4'	46:DU:25:TRP:CH2	2.40	0.57
34:DE:137:HIS:HB3	34:DE:138:PRO:CD	2.35	0.57
15:AO:27:VAL:HG12	15:AO:31:LEU:HD13	1.87	0.57
31:BA:1670:C:O2	34:BE:129:HIS:CE1	2.58	0.57
31:BA:2286:A:O2'	31:BA:2286:A:C8	2.58	0.57
32:BB:57:A:N3	32:BB:58:A:C8	2.73	0.57
31:DA:143:G:C1'	49:DX:38:GLU:HG3	2.34	0.57
31:DA:1468:C:H2'	31:DA:1469:A:H8	1.69	0.57
47:DV:38:LEU:HG	47:DV:39:LEU:H	1.69	0.57
47:DV:70:ILE:HB	47:DV:90:PRO:HB2	1.86	0.57
31:BA:1459:G:H5''	31:BA:1460:A:OP2	2.05	0.57
31:BA:1465:G:N3	31:BA:1545:A:H2	2.03	0.57
44:DS:90:GLY:H	44:DS:91:PRO:HD2	1.69	0.57
1:AA:436:C:H2'	1:AA:436:C:OP2	2.04	0.57
1:CA:333:G:O2'	1:CA:334:C:H5'	2.04	0.57
1:AA:1442(A):G:C4	45:BT:118:ARG:HD2	2.40	0.57
31:BA:2313:C:O2'	31:BA:2314:C:H5'	2.05	0.57
31:BA:1317:A:H2'	31:BA:1318:C:C6	2.40	0.57
31:DA:764:A:OP1	33:DD:208:LYS:HE2	2.04	0.57
31:DA:2808:U:H2'	31:DA:2809:A:C5'	2.35	0.57
25:B3:24:LYS:HB3	31:BA:849:A:H2	1.69	0.57
51:DZ:9:TYR:CE2	51:DZ:35:ARG:HD2	2.39	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2277:G:C2'	31:DA:2278:A:H5'	2.34	0.57
51:BZ:54:HIS:O	51:BZ:55:HIS:CD2	2.58	0.57
31:BA:1777:U:C2'	31:BA:1778:U:H5'	2.35	0.57
1:AA:542:G:OP1	4:AD:10:ARG:NH2	2.37	0.57
12:AL:113:ARG:HG3	12:AL:114:LYS:N	2.20	0.57
1:AA:1466:C:H2'	1:AA:1467:G:H5'	1.87	0.57
1:AA:354:G:C4	1:AA:355:C:C5	2.93	0.57
33:DD:164:GLN:HB3	33:DD:166:GLN:HE22	1.68	0.57
4:CD:9:CYS:HB2	4:CD:22:LYS:HD2	1.87	0.57
31:DA:1657:C:OP1	34:DE:136:ARG:N	2.36	0.57
1:AA:666:G:C2	1:AA:741:G:C4	2.93	0.57
31:BA:2335:A:C8	31:BA:2337:G:C5	2.93	0.57
28:B6:19:ARG:HG3	28:B6:20:ASN:H	1.68	0.57
31:BA:2262:U:C2'	31:BA:2263:C:H5'	2.35	0.57
1:AA:339:C:O2'	1:AA:340:U:H5'	2.05	0.57
1:AA:1507:A:C2	1:AA:1508:G:C4	2.93	0.57
31:BA:2870:C:H2'	31:BA:2871:C:C5'	2.31	0.57
50:DY:46:LYS:HB2	50:DY:47:LYS:HD2	1.87	0.57
31:DA:271(U):G:C2'	31:DA:271(V):G:H5'	2.35	0.57
43:BR:33:ARG:HG2	43:BR:115:GLU:CG	2.32	0.57
1:AA:69:G:H2'	1:AA:70:G:H8	1.70	0.57
1:AA:254:G:O2'	1:AA:255:G:H5'	2.05	0.57
37:DH:41:MET:O	37:DH:42:ARG:C	2.42	0.57
31:BA:2655:G:H2'	31:BA:2655:G:N3	2.20	0.57
1:CA:1346:A:C8	1:CA:1348:U:O2	2.57	0.57
37:BH:41:MET:O	37:BH:42:ARG:C	2.42	0.57
5:AE:88:LYS:HB3	5:AE:123:LEU:HB2	1.87	0.57
31:DA:2884:U:C5	31:DA:2885:C:C6	2.93	0.57
9:CI:104:ARG:HG2	9:CI:104:ARG:O	2.05	0.57
51:DZ:142:SER:H	51:DZ:144:LEU:CD2	2.17	0.57
1:AA:1116:C:N4	1:AA:1117:G:N7	2.53	0.57
1:CA:977:A:H2'	1:CA:978:A:H5'	1.86	0.57
31:DA:586:A:C2	31:DA:1254:A:C2	2.93	0.57
31:DA:2019:A:C2'	31:DA:2020:A:O5'	2.53	0.57
31:BA:1218:C:C2'	31:BA:1219:G:H5'	2.34	0.57
6:CF:45:LEU:CD1	6:CF:57:GLN:HB3	2.35	0.57
7:AG:47:CYS:O	7:AG:50:ILE:HB	2.05	0.57
1:CA:1478:C:O2'	1:CA:1479:C:H5'	2.05	0.57
13:CM:3:ARG:HD3	13:CM:9:ILE:HD11	1.86	0.57
3:AC:86:VAL:O	3:AC:89:GLU:HB3	2.05	0.57
8:AH:134:ILE:O	8:AH:135:CYS:HB3	2.05	0.57
31:BA:2422:A:O2'	31:BA:2423:U:O5'	2.23	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DF:32:LEU:C	35:DF:32:LEU:HD23	2.26	0.57
1:AA:1162:C:H2'	1:AA:1163:C:C6	2.40	0.57
48:BW:71:VAL:HA	48:BW:107:LEU:HD12	1.87	0.57
33:DD:48:ARG:NH1	33:DD:48:ARG:HG3	2.18	0.57
31:BA:711:G:O2'	31:BA:712:G:H5'	2.04	0.57
55:DA:3320:TEL:C10	55:DA:3320:TEL:H81	2.34	0.56
31:BA:389:G:N1	41:BP:70:GLN:HG3	2.20	0.56
31:BA:515:A:H1'	31:BA:581:C:H1'	1.85	0.56
31:BA:661:C:O3'	41:BP:18:ARG:HG2	2.04	0.56
32:BB:53:A:C2	32:BB:54:G:H1'	2.40	0.56
36:BG:24:GLY:C	36:BG:25:TYR:CD2	2.78	0.56
24:D2:30:ARG:HH11	24:D2:30:ARG:HG3	1.70	0.56
31:DA:1000:A:C6	31:DA:1001:A:C6	2.92	0.56
47:DV:25:LEU:C	47:DV:27:ALA:H	2.08	0.56
47:DV:73:SER:OG	47:DV:75:PHE:CE1	2.54	0.56
32:DB:115:G:H2'	32:DB:116:G:H8	1.70	0.56
44:DS:89:ARG:CA	44:DS:89:ARG:HE	2.12	0.56
1:AA:620:C:H2'	1:AA:621:A:O4'	2.05	0.56
1:AA:630:G:N3	1:AA:630:G:H2'	2.20	0.56
1:CA:427:U:C4	1:CA:428:G:C6	2.92	0.56
1:CA:630:G:N3	1:CA:630:G:H2'	2.21	0.56
5:CE:78:HIS:CD2	8:CH:104:ARG:NE	2.73	0.56
45:BT:99:LEU:HB2	45:BT:101:PHE:HE1	1.67	0.56
31:DA:768:G:C4	31:DA:769:G:C8	2.93	0.56
31:DA:2757:A:N1	37:DH:67:LEU:HD22	2.20	0.56
31:BA:1662:C:HO2'	31:BA:1663:C:H5'	1.69	0.56
31:BA:2001:A:H2'	31:BA:2002:G:C8	2.40	0.56
5:AE:139:LEU:C	5:AE:141:GLN:H	2.08	0.56
31:BA:843:G:C2	31:BA:936:C:C2	2.93	0.56
31:DA:2314:C:H2'	31:DA:2315:G:H8	1.68	0.56
50:DY:68:HIS:ND1	50:DY:70:SER:HB3	2.20	0.56
1:CA:708:C:O2'	1:CA:709:G:H5'	2.05	0.56
31:BA:1434:A:O2'	31:BA:1435:G:H5'	2.05	0.56
31:BA:476:G:H4'	31:BA:502:A:N1	2.19	0.56
38:BI:88:ILE:HG13	38:BI:121:LYS:C	2.25	0.56
27:B5:40:LYS:CE	27:B5:46:CYS:HB3	2.33	0.56
34:DE:98:PRO:HD3	34:DE:175:VAL:HG13	1.87	0.56
1:AA:1466:C:C2'	1:AA:1467:G:H5'	2.35	0.56
31:DA:1115:G:C2'	31:DA:1116:C:H6	2.11	0.56
1:AA:97:G:O2'	1:AA:98:G:H8	1.84	0.56
31:BA:910:A:C4	42:BQ:13:GLN:OE1	2.58	0.56
16:CP:20:VAL:HG21	16:CP:32:TYR:CD2	2.40	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BQ:18:LYS:O	42:BQ:19:GLY:C	2.42	0.56
31:DA:1411:C:H2'	31:DA:1412:A:H8	1.67	0.56
31:DA:1665:A:H1'	40:DO:1:MET:HG2	1.86	0.56
1:AA:1061:G:H2'	1:AA:1062:U:H5'	1.86	0.56
43:DR:10:LEU:HD13	43:DR:17:ARG:NH1	2.20	0.56
31:DA:1952:A:C6	40:DO:22:ILE:HD11	2.40	0.56
39:DN:82:LEU:H	39:DN:82:LEU:HD12	1.68	0.56
6:CF:81:ILE:O	6:CF:82:ARG:C	2.43	0.56
1:AA:1409:C:H5'	31:BA:1916:A:N1	2.20	0.56
31:BA:2291:U:H5''	31:BA:2380:C:O2	2.04	0.56
42:DQ:32:TYR:CZ	42:DQ:111:GLU:HB2	2.40	0.56
31:BA:892:G:H1	31:BA:894:C:H41	1.51	0.56
37:BH:86:GLU:CB	37:BH:132:ARG:HG2	2.34	0.56
31:DA:319:C:H2'	31:DA:320:A:O4'	2.05	0.56
9:CI:82:ALA:HB1	9:CI:96:LEU:CD1	2.34	0.56
1:AA:775:G:O2'	1:AA:776:G:H5'	2.05	0.56
31:DA:31:C:C4	31:DA:32:C:C5	2.93	0.56
1:CA:1350:A:C5	1:CA:1351:U:C4	2.93	0.56
6:AF:6:VAL:HG13	6:AF:90:VAL:HG22	1.86	0.56
34:DE:65:GLY:HA2	34:DE:70:ALA:CB	2.35	0.56
31:DA:1814:G:H2'	31:DA:1815:A:C8	2.40	0.56
31:DA:45:C:H2'	31:DA:47:C:C6	2.40	0.56
3:CC:207:VAL:HG12	3:CC:207:VAL:O	2.05	0.56
35:BF:164:ARG:HH11	35:BF:164:ARG:HG2	1.70	0.56
31:DA:55:G:O2'	31:DA:127:A:N1	2.27	0.56
31:DA:2612:C:H2'	31:DA:2613:U:H5'	1.87	0.56
1:CA:986:A:H1'	19:CS:54:GLY:O	2.05	0.56
33:BD:231:HIS:CG	33:BD:232:PRO:HD2	2.40	0.56
30:D8:12:LYS:HG2	41:DP:68:GLN:OE1	2.05	0.56
31:DA:635:C:O2'	31:DA:639:U:OP1	2.19	0.56
31:BA:663:G:H2'	31:BA:664:C:H6	1.70	0.56
29:B7:19:ARG:NH1	29:B7:19:ARG:HG2	2.19	0.56
32:BB:46:A:C5	32:BB:47:C:C5	2.92	0.56
36:BG:25:TYR:HD1	36:BG:30:GLU:HG2	1.71	0.56
31:DA:1751:C:HO2'	31:DA:1752:C:H5'	1.70	0.56
31:DA:1464:C:H4'	31:DA:1528(A):A:H4'	1.87	0.56
46:DU:83:LEU:HB3	46:DU:88:ILE:CD1	2.33	0.56
46:DU:61:TRP:CD2	46:DU:94:ASN:HA	2.39	0.56
31:BA:1742:G:C8	31:BA:1743:C:C2	2.93	0.56
1:AA:394:G:H2'	1:AA:395:C:C6	2.39	0.56
31:DA:1791:A:H3'	31:DA:1792:G:H8	1.70	0.56
46:BU:61:TRP:O	46:BU:64:ARG:N	2.38	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:BV:62:LEU:HD22	47:BV:98:GLU:CB	2.36	0.56
31:BA:1434:A:N6	31:BA:1558:A:N6	2.51	0.56
51:BZ:53:ILE:HG21	51:BZ:71:VAL:HB	1.85	0.56
51:DZ:151:HIS:CB	51:DZ:170:THR:HA	2.27	0.56
50:BY:34:LYS:O	50:BY:35:TYR:CB	2.53	0.56
1:CA:97:G:O2'	1:CA:98:G:H8	1.83	0.56
27:B5:36:CYS:HB3	27:B5:38:ALA:HB2	1.88	0.56
22:B0:74:ARG:NH2	32:BB:13:A:C8	2.71	0.56
31:BA:2016:U:H2'	31:BA:2017:U:C6	2.40	0.56
32:BB:87:G:H3'	32:BB:88:C:C5'	2.31	0.56
34:DE:167:VAL:HG22	34:DE:168:MET:N	2.19	0.56
1:CA:818:G:HO2'	1:CA:820:U:H6	1.53	0.56
15:CO:39:LEU:HD13	15:CO:56:LEU:HB2	1.86	0.56
31:DA:856:C:H6	31:DA:856:C:H5''	1.69	0.56
9:CI:114:TYR:H	9:CI:114:TYR:HD2	1.53	0.56
12:CL:87:GLY:HA2	12:CL:98:TYR:HA	1.87	0.56
31:BA:2692:C:O2'	31:BA:2693:A:H5'	2.05	0.56
38:BI:131:LYS:HG3	38:BI:132:PRO:HA	1.86	0.56
1:CA:955:U:H3	1:CA:1225:A:H61	1.51	0.56
31:DA:2870:C:H5''	43:DR:65:LEU:HD21	1.87	0.56
1:AA:1385:G:C2'	1:AA:1386:G:H5'	2.35	0.56
31:BA:2469:A:H2	31:BA:2481:G:N2	2.02	0.56
13:CM:86:CYS:HB2	19:CS:73:GLU:HB3	1.87	0.56
31:DA:1131:G:OP1	39:DN:80:GLY:HA2	2.05	0.56
8:CH:87:SER:HA	8:CH:93:VAL:CG2	2.34	0.56
31:DA:2470:G:C6	31:DA:2471:C:C5	2.92	0.56
1:AA:1495:U:H2'	1:AA:1496:C:C6	2.39	0.56
31:DA:1642:G:C2'	31:DA:1643:G:H5'	2.35	0.56
31:BA:792:G:C5'	31:BA:793:A:H5'	2.35	0.56
31:DA:2078:C:C4	31:DA:2079:U:C4	2.92	0.56
12:AL:93:LEU:HB3	12:AL:96:VAL:HG23	1.86	0.56
31:DA:2074:U:H2'	31:DA:2075:U:C6	2.40	0.56
1:AA:139:G:C2	1:AA:140:A:N7	2.73	0.56
1:AA:584:G:H1	1:AA:757:U:H3	1.51	0.56
6:CF:14:LEU:O	6:CF:19:LEU:HD12	2.04	0.56
2:CB:61:LEU:HA	2:CB:64:ARG:CG	2.35	0.56
1:AA:775:G:C2'	1:AA:776:G:H5'	2.35	0.56
7:CG:150:ALA:HA	11:CK:59:TYR:HB3	1.86	0.56
31:DA:565:C:H2'	31:DA:566:U:O4'	2.04	0.56
22:B0:50:ASN:O	22:B0:62:LEU:HB2	2.05	0.56
1:AA:1049:U:H4'	1:AA:1050:G:O5'	2.05	0.56
37:BH:143:GLN:HE22	37:BH:147:ASN:HD21	1.53	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BT:87:ASP:C	45:BT:87:ASP:OD2	2.42	0.56
45:DT:87:ASP:C	45:DT:87:ASP:OD2	2.42	0.56
1:AA:1379:G:C6	1:AA:1380:U:O4	2.58	0.56
31:DA:236:C:H2'	31:DA:237:C:H6	1.71	0.56
31:DA:2287:A:C2	31:DA:2346:A:C2	2.94	0.56
31:DA:191:A:C2'	31:DA:192:C:H5'	2.36	0.56
31:DA:971:C:C2'	31:DA:972:G:H5'	2.36	0.56
41:DP:45:LEU:HD22	41:DP:46:LYS:N	2.18	0.56
31:BA:2287:A:C2	31:BA:2346:A:C2	2.94	0.56
31:BA:768:G:C6	31:BA:769:G:C5	2.94	0.56
44:BS:101:LEU:O	44:BS:102:ALA:O	2.24	0.56
24:D2:56:GLN:HE21	24:D2:56:GLN:N	2.02	0.56
49:DX:24:GLY:O	49:DX:25:LYS:O	2.22	0.56
24:D2:26:ARG:N	24:D2:26:ARG:HD2	2.16	0.56
24:D2:26:ARG:HG3	49:DX:5:TYR:HB3	1.86	0.56
47:DV:70:ILE:O	47:DV:71:LEU:HB2	2.05	0.56
41:BP:131:SER:C	41:BP:133:SER:N	2.57	0.56
39:DN:66:LYS:HB3	39:DN:70:LYS:CB	2.35	0.56
46:DU:47:TYR:HA	46:DU:50:ARG:HH22	1.69	0.56
47:DV:13:ARG:HG3	47:DV:13:ARG:HH11	1.67	0.56
31:BA:143:G:C1'	49:BX:38:GLU:HG3	2.35	0.56
24:B2:29:LYS:HZ3	49:BX:9:LEU:HA	1.68	0.56
24:B2:47:ASN:ND2	24:B2:48:HIS:H	2.02	0.56
31:BA:1528:A:C8	31:BA:1528(A):A:C5	2.93	0.56
49:BX:35:THR:O	49:BX:36:LYS:O	2.22	0.56
31:BA:2785:C:H2'	31:BA:2786:U:H6	1.70	0.56
33:DD:244:ARG:HG2	33:DD:245:PRO:CD	2.32	0.56
1:AA:614:A:C6	1:AA:627:G:N1	2.74	0.56
4:AD:135:LEU:O	4:AD:137:SER:N	2.38	0.56
1:CA:320:C:O2'	1:CA:1435:G:H1'	2.05	0.56
1:CA:629:G:C4	1:CA:630:G:C8	2.92	0.56
4:CD:79:PHE:CD2	4:CD:79:PHE:C	2.79	0.56
31:BA:2304:G:H2'	31:BA:2304:G:N3	2.20	0.56
31:DA:778:G:C5	31:DA:779:U:C4	2.93	0.56
31:DA:1428:C:O2'	31:DA:1429:G:H5'	2.05	0.56
39:BN:3:THR:C	39:BN:4:TYR:CG	2.79	0.56
31:BA:2019:A:C2'	31:BA:2020:A:O5'	2.52	0.56
31:BA:1131:G:O6	31:BA:2040:C:H1'	2.05	0.56
31:BA:2872:G:O2'	31:BA:2873:A:H5'	2.04	0.56
5:AE:11:ILE:HG22	5:AE:12:LEU:N	2.21	0.56
5:AE:139:LEU:O	5:AE:141:GLN:N	2.38	0.56
1:CA:191:G:N3	20:CT:103:GLY:O	2.38	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:BV:19:LYS:HB3	47:BV:97:LYS:HA	1.87	0.56
1:CA:1278:U:H5''	1:CA:1279:A:O4'	2.04	0.56
31:DA:2258:C:H4'	31:DA:2259:G:OP2	2.04	0.56
31:DA:910:A:N1	31:DA:2277:G:H1'	2.20	0.56
51:BZ:99:TYR:HA	51:BZ:125:LEU:HA	1.86	0.56
32:DB:21:G:C6	32:DB:63:G:N2	2.74	0.56
43:DR:100:LEU:HD21	43:DR:113:LEU:CD1	2.34	0.56
1:AA:427:U:H3'	1:AA:428:G:H2'	1.88	0.56
4:AD:38:TYR:CD2	4:AD:45:GLN:HB3	2.40	0.56
31:DA:2223:G:H2'	31:DA:2224:G:H5'	1.87	0.56
34:DE:197:ILE:HD11	34:DE:199:ARG:CZ	2.35	0.56
34:DE:47:VAL:HG21	34:DE:86:PRO:HD3	1.88	0.56
1:AA:320:C:O2'	1:AA:1435:G:H1'	2.06	0.56
1:AA:1470:G:C2'	1:AA:1471:G:H5'	2.35	0.56
32:BB:76:G:O3'	51:BZ:19:ARG:NH2	2.38	0.56
27:D5:50:GLY:HA3	27:D5:56:LYS:CG	2.36	0.56
15:CO:39:LEU:CD2	15:CO:42:HIS:HD2	2.19	0.56
1:AA:16:A:C2	1:AA:920:U:O2	2.58	0.56
31:BA:2682:U:C5	34:BE:11:MET:HE1	2.40	0.56
43:BR:5:LYS:N	43:BR:5:LYS:CD	2.65	0.56
34:BE:118:LYS:O	34:BE:160:TYR:CE1	2.56	0.56
1:AA:779:C:O2'	11:AK:120:ARG:HD3	2.05	0.56
31:BA:863:A:O2'	31:BA:864:G:H5'	2.06	0.56
1:AA:818:G:HO2'	1:AA:819:A:H5''	1.69	0.56
33:BD:155:LEU:O	33:BD:156:ALA:O	2.23	0.56
41:DP:124:LYS:HA	41:DP:143:GLY:CA	2.34	0.56
1:AA:922:G:N3	1:AA:1396:A:C2	2.74	0.56
1:CA:1442(A):G:C2	45:DT:118:ARG:HD2	2.40	0.56
35:BF:20:LEU:HD23	35:BF:23:ASP:OD2	2.05	0.56
13:AM:81:LEU:HB3	13:AM:89:GLY:CA	2.34	0.56
1:CA:954:G:C2	1:CA:955:U:C2	2.94	0.56
24:D2:57:ILE:HD11	24:D2:59:ARG:HD2	1.88	0.56
31:BA:795:C:H2'	31:BA:796:C:H6	1.69	0.56
36:BG:110:ALA:O	36:BG:111:LEU:HG	2.05	0.56
48:BW:18:ARG:HG2	48:BW:18:ARG:NH1	2.17	0.56
45:DT:38:ASN:HD22	45:DT:40:THR:H	1.52	0.56
1:CA:1298:C:H4'	1:CA:1299:A:N3	2.20	0.56
31:DA:492:A:H2'	31:DA:493:G:O4'	2.05	0.56
1:AA:1190:G:P	3:AC:5:ILE:HG23	2.45	0.56
31:DA:1171:G:C8	31:DA:1171:G:OP2	2.50	0.56
31:BA:1882:C:O2	31:BA:1882:C:C2'	2.51	0.56
13:AM:19:LEU:HB3	13:AM:25:ILE:HG21	1.87	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BT:106:SER:O	45:BT:107:ASP:HB3	2.04	0.56
1:CA:748:C:C4'	1:CA:749:C:O5'	2.52	0.56
31:DA:440:G:H2'	31:DA:441:U:C6	2.41	0.56
31:BA:176:G:C2'	31:BA:177:G:H5'	2.35	0.56
1:CA:600:C:H2'	1:CA:601:C:H6	1.70	0.56
35:DF:160:ASN:ND2	35:DF:163:VAL:H	2.03	0.56
6:CF:94:GLN:HE21	18:CR:32:ARG:NH1	2.04	0.56
12:AL:41:ARG:CG	12:AL:42:THR:H	2.16	0.56
31:DA:720:C:H2'	31:DA:721:C:H6	1.71	0.56
31:DA:35:G:H2'	31:DA:36:G:O4'	2.05	0.56
1:AA:1130:A:H1'	1:AA:1146:A:H2	1.70	0.56
12:AL:6:THR:H	12:AL:9:GLN:HE21	1.53	0.56
2:CB:29:ALA:C	2:CB:31:TYR:H	2.07	0.56
31:BA:1667:G:H1'	31:BA:1991:U:O4	2.05	0.56
31:BA:1382:G:O2'	31:BA:1383:C:H5'	2.04	0.56
34:BE:27:LEU:HD22	45:BT:1:MET:HE2	1.87	0.56
31:BA:2850:A:OP2	31:BA:2866:U:C5	2.58	0.56
51:DZ:171:ILE:O	51:DZ:172:ALA:CB	2.53	0.56
1:AA:1270:C:H2'	1:AA:1271:G:O4'	2.04	0.56
34:DE:27:LEU:HD22	45:DT:1:MET:HE2	1.87	0.56
34:BE:120:TRP:CD2	34:BE:155:LYS:HD3	2.39	0.56
18:AR:43:PHE:C	18:AR:44:LEU:HD12	2.25	0.56
51:DZ:117:LEU:HB3	51:DZ:174:VAL:HG22	1.87	0.56
31:DA:2363:C:O2'	31:DA:2364:C:H5'	2.05	0.56
31:DA:267:C:O2'	31:DA:268:C:H5'	2.05	0.56
43:DR:56:LYS:NZ	43:DR:90:ARG:O	2.31	0.56
4:AD:88:VAL:O	4:AD:92:VAL:HG23	2.04	0.56
50:BY:83:THR:CG2	50:BY:94:LYS:HB3	2.36	0.56
31:DA:1547:C:O2'	31:DA:1548:C:H5'	2.05	0.56
18:CR:56:THR:CB	18:CR:58:LEU:HD13	2.35	0.56
3:CC:11:ARG:HB3	3:CC:15:THR:HB	1.86	0.56
45:DT:7:ILE:O	45:DT:8:LYS:C	2.44	0.56
40:DO:88:ASN:O	40:DO:91:LEU:N	2.36	0.56
1:CA:81:U:N3	1:CA:83:U:H5	2.02	0.56
43:BR:13:HIS:HE1	43:BR:15:SER:OG	1.88	0.56
15:CO:27:VAL:HG12	15:CO:31:LEU:HD13	1.88	0.56
42:BQ:69:PHE:CD1	42:BQ:70:PRO:HD2	2.40	0.56
38:BI:13:GLY:O	38:BI:14:ASP:C	2.43	0.56
31:BA:415:A:H2'	31:BA:416:C:C6	2.41	0.56
1:AA:1490:C:H2'	1:AA:1491:G:O4'	2.04	0.56
31:BA:957:A:N6	31:BA:959:A:C2	2.74	0.56
16:CP:55:ARG:HE	16:CP:55:ARG:HA	1.70	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1671:U:HO2'	31:DA:1673:U:H5	1.51	0.56
1:CA:1137:C:H4'	1:CA:1138:G:C2	2.40	0.56
19:AS:29:ARG:O	19:AS:31:ILE:HG22	2.05	0.56
31:BA:1438:U:O2'	31:BA:1439:A:H5'	2.05	0.56
1:AA:1152:A:H5''	10:AJ:13:HIS:CD2	2.40	0.56
41:DP:80:TYR:CD1	41:DP:111:ARG:HB3	2.41	0.56
32:BB:117:G:C2	32:BB:118:G:C8	2.94	0.56
31:DA:1719:G:C6	31:DA:1720:U:C4	2.94	0.56
31:DA:1153:C:H2'	31:DA:1154:G:O4'	2.06	0.56
24:B2:50:ILE:O	24:B2:51:ARG:CB	2.53	0.56
36:DG:25:TYR:HD1	36:DG:30:GLU:HG2	1.71	0.56
44:DS:61:ASN:OD1	44:DS:64:GLU:HB2	2.04	0.56
1:CA:411:A:C6	1:CA:429:U:C4	2.93	0.56
31:DA:1783:A:C2	31:DA:2587:A:C5	2.93	0.56
23:D1:94:LEU:HD22	23:D1:95:LEU:O	2.05	0.56
31:DA:2656:U:N3	31:DA:2665:A:C2	2.73	0.56
5:AE:100:VAL:HG13	5:AE:118:ILE:HG22	1.88	0.56
2:AB:15:VAL:HG23	2:AB:16:HIS:CE1	2.41	0.56
33:BD:211:ARG:O	33:BD:215:LEU:HG	2.06	0.56
1:CA:189(B):C:N4	1:CA:189(J):G:N1	2.52	0.56
31:DA:2304:G:H2'	31:DA:2304:G:N3	2.21	0.56
23:B1:86:SER:N	23:B1:87:PRO:CD	2.67	0.56
1:CA:676:A:H2'	1:CA:677:U:C6	2.40	0.56
18:CR:74:ARG:HG3	18:CR:79:LEU:CB	2.35	0.56
43:BR:97:VAL:HG22	43:BR:114:VAL:HG13	1.88	0.56
31:BA:287:C:H2'	31:BA:288:C:H5''	1.87	0.56
31:DA:287:C:H2'	31:DA:288:C:C5'	2.36	0.56
32:DB:16:G:C2	32:DB:17:C:H6	2.24	0.56
39:BN:56:ASN:C	39:BN:57:ALA:O	2.43	0.56
4:CD:31:CYS:SG	4:CD:31:CYS:O	2.63	0.56
23:D1:19:GLN:H	23:D1:44:PRO:HD3	1.71	0.56
1:AA:918:A:O2'	1:AA:919:A:H5'	2.05	0.56
34:BE:98:PRO:HD3	34:BE:175:VAL:CG1	2.36	0.56
1:AA:731:G:OP1	1:AA:766:A:H1'	2.05	0.56
1:AA:1392:G:H2'	1:AA:1393:U:H5'	1.86	0.56
11:AK:53:SER:C	11:AK:55:LYS:H	2.07	0.56
45:DT:28:VAL:CG2	45:DT:46:GLU:HG3	2.35	0.56
1:CA:258:G:H2'	1:CA:259:G:C8	2.41	0.56
43:DR:53:HIS:CD2	43:DR:94:TYR:OH	2.58	0.56
31:DA:38:A:H2'	31:DA:39:C:H6	1.68	0.56
36:DG:88:ILE:HG23	36:DG:90:LEU:H	1.69	0.56
31:DA:1858:G:H1'	31:DA:1884:A:H61	1.71	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1132:A:H1'	39:DN:73:THR:HG21	1.86	0.56
31:DA:2025:C:H2'	31:DA:2026:C:H6	1.70	0.56
31:DA:271(J):C:H5'	31:DA:271(K):U:OP2	2.05	0.56
31:BA:9:U:C5	31:BA:2629:A:N6	2.74	0.56
15:CO:74:ASP:OD2	15:CO:77:ARG:N	2.38	0.56
1:CA:1158:C:H2'	1:CA:1158:C:O2	2.05	0.56
31:BA:2821:A:H2'	31:BA:2822:G:O4'	2.04	0.56
31:DA:686:G:N2	31:DA:788:A:H61	2.03	0.56
1:CA:791:G:C6	1:CA:792:A:N7	2.74	0.56
3:CC:125:GLU:HA	3:CC:191:THR:HG22	1.86	0.56
31:DA:1152:C:H5''	46:DU:80:ILE:CG2	2.35	0.56
1:AA:948:C:C5	13:AM:106:ASN:ND2	2.73	0.56
1:AA:581:G:C2	1:AA:582:U:C4	2.94	0.56
31:BA:2599:G:C8	33:BD:236:GLY:HA2	2.40	0.56
43:DR:13:HIS:O	43:DR:14:SER:C	2.44	0.56
34:DE:9:VAL:HG22	34:DE:25:VAL:HB	1.86	0.56
43:BR:87:TYR:O	43:BR:88:ARG:C	2.43	0.56
12:AL:124:LYS:HD2	12:AL:125:PRO:HD2	1.86	0.56
33:DD:132:PRO:HA	33:DD:190:TYR:HA	1.86	0.56
26:D4:19:GLY:C	26:D4:21:VAL:H	2.09	0.56
3:CC:86:VAL:O	3:CC:89:GLU:HB3	2.04	0.56
1:CA:1507:A:C2	1:CA:1508:G:C4	2.92	0.56
28:D6:27:LYS:HD2	31:DA:2285:C:OP2	2.03	0.56
31:DA:255:A:C6	31:DA:256:A:C5	2.94	0.56
31:DA:834:C:C2'	31:DA:835:A:H5'	2.35	0.56
31:DA:637:A:O5'	41:DP:116:GLY:HA2	2.05	0.56
28:B6:11:LEU:HD23	28:B6:25:LYS:HA	1.87	0.56
31:BA:1241:A:C2'	31:BA:1242:A:O5'	2.54	0.56
31:BA:28:A:N6	31:BA:512:G:H1'	2.20	0.56
35:BF:31:HIS:CG	41:BP:13:ASN:HD22	2.22	0.56
29:B7:8:ASN:HD22	29:B7:9:ARG:N	2.04	0.56
33:BD:39:LYS:NZ	33:BD:60:ARG:HH11	2.04	0.56
44:BS:67:ARG:C	44:BS:69:VAL:N	2.58	0.56
24:D2:50:ILE:O	24:D2:51:ARG:CB	2.53	0.56
37:BH:140:LYS:O	37:BH:141:VAL:C	2.43	0.56
31:BA:2747:G:O2'	37:BH:67:LEU:HD13	2.05	0.56
49:BX:82:GLN:HG3	49:BX:85:PRO:HD3	1.88	0.56
31:DA:1323:U:OP1	48:DW:98:LYS:HE3	2.03	0.56
31:BA:1712:C:H2'	31:BA:1713:U:C6	2.36	0.56
1:AA:438:G:H4'	4:AD:123:HIS:CE1	2.40	0.56
5:AE:105:VAL:HB	5:AE:106:PRO:HD3	1.86	0.56
20:CT:30:LYS:O	20:CT:34:LYS:HG3	2.05	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2312:U:H2'	31:DA:2313:C:H5'	1.86	0.56
1:CA:677:U:O2'	1:CA:678:U:H5'	2.05	0.56
31:BA:1562:A:O2'	31:BA:1563:G:H5'	2.05	0.56
1:AA:1278:U:H5''	1:AA:1279:A:O4'	2.06	0.56
34:DE:7:VAL:O	34:DE:7:VAL:HG22	2.05	0.56
1:AA:716:A:N3	11:AK:118:GLY:HA2	2.21	0.56
1:AA:432:A:N7	1:AA:433:C:C4	2.73	0.56
1:AA:509:A:C5'	4:AD:55:ALA:HB2	2.35	0.56
50:BY:76:CYS:HB3	50:BY:77:PRO:HD2	1.88	0.56
4:CD:28:SER:HB3	4:CD:30:LYS:HG2	1.87	0.56
31:DA:1659:U:O2'	31:DA:1660:C:H5'	2.05	0.56
1:AA:834:C:H2'	1:AA:835:U:C6	2.41	0.56
1:CA:818:G:C2	1:CA:820:U:O2'	2.56	0.56
31:DA:1497:U:H3	31:DA:1578:U:P	2.29	0.56
34:DE:171:GLU:HB2	34:DE:185:LYS:HG3	1.87	0.56
48:BW:18:ARG:CG	48:BW:18:ARG:HH11	2.09	0.56
45:DT:28:VAL:O	45:DT:29:ARG:HB2	2.06	0.56
13:CM:19:LEU:HB3	13:CM:25:ILE:HG21	1.88	0.56
31:BA:2653:U:H3	31:BA:2667:C:H42	1.53	0.56
8:AH:36:LEU:C	8:AH:38:ILE:H	2.09	0.56
1:CA:1157:A:N9	1:CA:1181:G:N2	2.53	0.56
1:AA:79:G:C4'	1:AA:80:G:OP1	2.52	0.56
1:AA:1157:A:N9	1:AA:1181:G:N2	2.54	0.56
31:DA:9:U:C5	31:DA:2629:A:N6	2.74	0.56
40:BO:2:ILE:HD12	40:BO:6:THR:HG21	1.86	0.56
34:BE:169:ASN:ND2	34:BE:201:THR:HG21	2.20	0.56
31:DA:1383:C:O5'	31:DA:1383:C:H6	1.87	0.56
31:BA:2536:G:C5	31:BA:2537:U:C4	2.93	0.56
1:CA:790:A:N6	1:CA:791:G:O6	2.38	0.56
1:AA:520:A:C2	1:AA:536:C:H1'	2.40	0.56
31:DA:2193:G:H2'	31:DA:2194:G:O4'	2.04	0.56
31:BA:1394:U:C4	31:BA:1395:A:C5	2.93	0.56
32:DB:41:U:O4	36:DG:72:ARG:HG2	2.06	0.56
36:BG:96:ARG:HD2	36:BG:97:ASP:H	1.71	0.56
8:CH:69:ARG:HD3	8:CH:75:ARG:O	2.05	0.56
1:CA:1385:G:C2'	1:CA:1386:G:H5'	2.36	0.56
31:BA:839:U:H2'	31:BA:840:C:C6	2.41	0.56
31:BA:2586:C:C5	31:BA:2608:G:N2	2.74	0.56
31:DA:1918:A:O2'	31:DA:1920:C:N4	2.38	0.56
2:CB:100:GLY:O	2:CB:104:ASN:N	2.38	0.56
4:AD:150:GLU:H	4:AD:150:GLU:CD	2.08	0.56
8:CH:30:ARG:NH1	8:CH:30:ARG:HB3	2.21	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:CO:20:GLY:O	15:CO:21:ASP:HB3	2.04	0.56
25:D3:30:ARG:O	25:D3:33:GLN:HB3	2.06	0.56
36:BG:52:ILE:HG22	36:BG:54:GLU:HG2	1.87	0.56
27:D5:8:LYS:HD2	31:DA:2056:G:O2'	2.05	0.56
31:DA:2065:C:H2'	31:DA:2066:C:H6	1.71	0.56
41:DP:36:LYS:O	41:DP:38:GLN:HG2	2.06	0.56
41:BP:38:GLN:HG3	41:BP:39:LYS:N	2.08	0.56
29:B7:5:TRP:HA	29:B7:5:TRP:CE3	2.39	0.56
33:BD:35:LYS:HG2	33:BD:64:ILE:H	1.69	0.56
31:BA:2376:A:N1	44:BS:94:TYR:HB2	2.21	0.56
31:BA:2516:G:O2'	31:BA:2517:C:H5'	2.05	0.56
46:DU:61:TRP:CE2	46:DU:94:ASN:HA	2.41	0.56
32:DB:37:C:C2'	32:DB:37:C:O2	2.53	0.56
44:DS:35:ILE:HD13	44:DS:35:ILE:O	2.06	0.56
31:DA:2759:G:O2'	31:DA:2760:C:H5'	2.04	0.56
31:BA:1022:G:C5	31:BA:1140:C:C4	2.94	0.56
31:DA:2657:A:H3'	31:DA:2658:C:O4'	2.05	0.56
31:BA:528:A:C2	31:BA:2043:C:C5'	2.89	0.56
2:AB:19:HIS:HB2	2:AB:204:ASN:HA	1.87	0.56
47:BV:36:PRO:CD	47:BV:60:GLU:O	2.53	0.56
47:BV:90:PRO:CD	47:BV:91:TYR:N	2.68	0.56
47:BV:24:LYS:HA	47:BV:94:LEU:HD12	1.87	0.56
2:CB:19:HIS:HB2	2:CB:204:ASN:HA	1.88	0.56
50:DY:8:LYS:HB2	50:DY:28:LYS:HZ3	1.70	0.56
31:BA:1509(B):A:H2'	31:BA:1510:G:C8	2.40	0.56
43:DR:97:VAL:HG22	43:DR:114:VAL:HG13	1.88	0.56
1:AA:673:G:O3'	6:AF:87:ARG:NH2	2.38	0.56
6:AF:2:ARG:HB2	6:AF:4:TYR:CE2	2.40	0.56
27:B5:40:LYS:HZ1	27:B5:49:CYS:HB2	1.69	0.56
33:DD:186:HIS:HD2	33:DD:188:GLU:H	1.53	0.56
1:AA:1418:A:H1'	31:BA:1959:G:O4'	2.06	0.56
50:BY:76:CYS:SG	50:BY:77:PRO:CD	2.91	0.56
4:CD:18:LYS:HE3	4:CD:31:CYS:SG	2.46	0.56
1:AA:748:C:C4'	1:AA:749:C:O5'	2.53	0.56
1:CA:1190:G:OP1	3:CC:4:LYS:HA	2.05	0.56
31:BA:826:U:H2'	31:BA:828:U:O4'	2.06	0.56
1:AA:1090:U:C2	1:AA:1091:U:C5	2.93	0.56
28:B6:37:ARG:O	28:B6:48:VAL:O	2.23	0.56
3:AC:52:LEU:HD23	3:AC:52:LEU:N	2.21	0.56
36:BG:45:GLU:HG2	36:BG:47:LYS:H	1.70	0.56
31:DA:1638:C:H5''	31:DA:2710:C:O2'	2.06	0.56
31:DA:792:G:N3	31:DA:2072:G:O2'	2.35	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1226:C:H2'	13:CM:103:THR:OG1	2.06	0.56
9:AI:112:LYS:HE3	9:AI:116:LYS:O	2.05	0.56
31:DA:1881:C:C4	31:DA:1882:C:C5	2.93	0.56
1:CA:233:C:O2'	1:CA:234:C:H5'	2.05	0.56
5:CE:51:VAL:HB	5:CE:52:PRO:CD	2.30	0.56
31:DA:342:G:H2'	31:DA:343:C:H6	1.70	0.56
9:CI:16:ARG:O	9:CI:63:ILE:HA	2.06	0.56
48:DW:86:LEU:C	48:DW:86:LEU:HD12	2.25	0.56
8:CH:86:ILE:O	8:CH:88:LYS:HG2	2.06	0.56
1:AA:1350:A:C5	1:AA:1351:U:C4	2.94	0.56
51:BZ:128:VAL:CG2	51:BZ:161:VAL:HG22	2.36	0.56
2:AB:88:ALA:HB2	2:AB:219:VAL:CG1	2.34	0.56
2:AB:219:VAL:HA	2:AB:222:ILE:HD12	1.88	0.56
31:DA:1532:C:O5'	31:DA:1532:C:C6	2.58	0.56
31:BA:35:G:H2'	31:BA:36:G:O4'	2.06	0.56
31:DA:1420:U:O2'	31:DA:1421:G:C5'	2.53	0.56
31:DA:1349:A:N6	31:DA:1598:C:N4	2.53	0.56
31:BA:128:C:H2'	31:BA:129:C:C6	2.40	0.56
31:DA:892:G:N1	31:DA:894:C:N4	2.53	0.56
35:BF:95:ARG:HG3	35:BF:97:TYR:CE2	2.40	0.56
1:CA:948:C:C5	13:CM:106:ASN:ND2	2.74	0.56
31:BA:1684:C:C2	31:BA:1705:G:C2	2.94	0.56
16:CP:49:LEU:O	16:CP:50:LYS:HB2	2.04	0.56
32:BB:41:U:O4	36:BG:72:ARG:HG2	2.06	0.56
4:AD:88:VAL:HG13	5:AE:97:GLY:HA3	1.86	0.56
31:DA:2205:C:C2	31:DA:2220:G:C2	2.94	0.56
3:CC:23:TYR:CG	3:CC:24:ALA:N	2.73	0.56
39:DN:121:LYS:HG3	39:DN:123:TYR:CE1	2.40	0.56
43:DR:54:LEU:HB3	43:DR:66:VAL:CG2	2.34	0.56
2:CB:8:LYS:NZ	2:CB:217:ARG:HH11	2.04	0.56
2:CB:80:ILE:HD13	2:CB:208:ILE:HG23	1.88	0.56
31:DA:2227:A:H5'	33:DD:263:ARG:HB3	1.87	0.56
31:DA:196:A:C4	31:DA:805:G:C6	2.94	0.56
31:DA:669:G:C8	31:DA:669:G:H5'	2.41	0.56
41:DP:100:LEU:O	41:DP:103:ALA:N	2.39	0.56
30:B8:5:LYS:HE2	31:BA:254:G:N7	2.21	0.56
31:BA:250:G:C6	31:BA:251:A:C6	2.94	0.56
55:BA:3362:TEL:H121	55:BA:3362:TEL:C23	2.36	0.56
33:BD:64:ILE:O	33:BD:64:ILE:HG12	2.05	0.56
39:DN:15:LEU:HD21	39:DN:55:VAL:HG22	1.88	0.56
32:DB:116:G:C2	32:DB:117:G:C8	2.94	0.56
1:CA:41:G:C4	1:CA:402:G:C2	2.94	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:509:A:C4'	1:CA:510:A:OP1	2.54	0.56
5:CE:76:ILE:HD11	5:CE:142:LEU:HD11	1.88	0.56
31:BA:2299:G:C6	31:BA:2318:G:C8	2.94	0.56
31:DA:2751:G:H3'	31:DA:2752:C:C6	2.37	0.56
23:D1:87:PRO:HD2	23:D1:88:LYS:N	2.19	0.56
31:DA:2646:C:H2'	31:DA:2647:U:O4'	2.06	0.56
33:BD:159:ALA:C	33:BD:161:THR:H	2.08	0.56
2:CB:15:VAL:HG23	2:CB:16:HIS:CE1	2.41	0.56
42:BQ:82:ARG:O	42:BQ:83:MET:CB	2.53	0.56
1:CA:735:C:H1'	18:CR:75:ILE:HD11	1.87	0.56
31:DA:2263:C:O2'	31:DA:2264:C:H5'	2.06	0.56
22:D0:43:THR:HG21	31:DA:2336:A:H61	1.70	0.56
31:BA:287:C:N4	31:BA:354:G:H1	1.92	0.56
27:B5:46:CYS:O	27:B5:48:GLU:OE1	2.24	0.56
27:D5:55:ARG:O	27:D5:56:LYS:HG3	2.06	0.56
4:CD:24:GLU:O	4:CD:27:TYR:N	2.29	0.56
31:BA:2259:G:C2	31:BA:2282:G:N1	2.74	0.56
35:DF:20:LEU:HD13	35:DF:199:TRP:CH2	2.40	0.56
45:BT:80:SER:CB	45:BT:81:PRO:HD3	2.35	0.56
1:AA:877:C:H5''	8:AH:88:LYS:CE	2.33	0.56
36:BG:120:LEU:HG	36:BG:179:PRO:O	2.05	0.56
10:AJ:26:ALA:HB1	10:AJ:29:ARG:NH2	2.16	0.56
31:DA:1652:A:C2'	31:DA:1653:G:H5'	2.36	0.56
31:BA:473:G:H2'	31:BA:474:G:O5'	2.05	0.56
37:BH:164:TYR:C	37:BH:166:GLY:H	2.07	0.56
9:CI:112:LYS:HE3	9:CI:116:LYS:O	2.05	0.56
31:DA:343:C:O2	31:DA:343:C:H2'	2.04	0.56
31:DA:1887:C:C2'	31:DA:1888:G:C5'	2.82	0.56
9:CI:17:VAL:HG22	9:CI:63:ILE:HG12	1.86	0.56
31:DA:1131:G:O6	31:DA:2040:C:H1'	2.05	0.56
6:AF:94:GLN:HE21	18:AR:32:ARG:NH1	2.04	0.56
45:DT:106:SER:O	45:DT:107:ASP:CB	2.53	0.56
31:DA:542:C:H42	31:DA:543:C:H42	1.51	0.56
1:CA:198:G:H21	1:CA:199:G:H1'	1.70	0.56
9:AI:17:VAL:HG22	9:AI:63:ILE:HG12	1.87	0.56
40:BO:7:TYR:CE1	40:BO:20:MET:HB2	2.40	0.56
31:DA:1204:A:N1	31:DA:1241:A:C2	2.74	0.56
1:AA:514:C:H2'	1:AA:515:G:H8	1.70	0.56
3:CC:124:ILE:HG13	3:CC:130:VAL:HG22	1.88	0.56
31:DA:272:G:C4'	31:DA:272(B):G:O5'	2.54	0.56
1:CA:1172:C:H2'	1:CA:1173:G:H8	1.71	0.56
42:BQ:132:VAL:CG1	51:BZ:81:ARG:HD2	2.35	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:602:G:H8	31:BA:602:G:OP2	1.89	0.56
1:AA:78:G:H22	1:AA:91:C:H42	1.54	0.56
1:AA:519:C:C2'	1:AA:520:A:O5'	2.53	0.56
6:AF:14:LEU:O	6:AF:19:LEU:HD12	2.04	0.56
1:CA:1478:C:H2'	1:CA:1479:C:H6	1.71	0.56
1:CA:1325:C:H4'	21:CU:17:THR:HG21	1.87	0.56
37:DH:158:HIS:CE1	37:DH:168:PRO:CG	2.88	0.56
3:AC:11:ARG:HB3	3:AC:15:THR:HB	1.86	0.56
17:AQ:5:VAL:CG1	17:AQ:6:LEU:N	2.69	0.56
1:CA:1210:C:H5'	1:CA:1214:C:N4	2.21	0.56
7:AG:31:MET:SD	7:AG:34:GLY:HA2	2.46	0.56
13:CM:37:THR:HG22	13:CM:59:TYR:HB3	1.86	0.56
1:AA:81:U:N3	1:AA:83:U:H5	2.04	0.56
11:AK:22:HIS:O	11:AK:28:THR:HG23	2.05	0.56
31:DA:412:A:N7	31:DA:2411:A:H2	2.03	0.56
1:CA:1401:G:C2	1:CA:1402:C:H1'	2.41	0.56
1:CA:918:A:O2'	1:CA:919:A:H5'	2.05	0.56
31:DA:245:G:C5	31:DA:246:C:C5	2.94	0.56
30:B8:39:LYS:HG2	30:B8:39:LYS:O	2.05	0.56
31:BA:197:A:C8	31:BA:197:A:H5'	2.37	0.56
33:BD:63:ARG:NH1	33:BD:63:ARG:HG3	2.19	0.56
31:DA:1018:C:O2'	31:DA:1019:U:H5'	2.05	0.56
37:BH:67:LEU:O	37:BH:71:LEU:HB2	2.06	0.56
24:B2:26:ARG:N	24:B2:26:ARG:CD	2.69	0.56
24:B2:30:ARG:HH11	24:B2:30:ARG:HG3	1.70	0.56
32:DB:60:C:C2	32:DB:61:G:C8	2.94	0.56
1:CA:405:U:H3'	1:CA:406:G:H5'	1.86	0.56
4:CD:135:LEU:C	4:CD:137:SER:H	2.08	0.56
31:BA:2314:C:H2'	31:BA:2315:G:H8	1.70	0.56
47:BV:79:VAL:HG23	47:BV:82:ARG:HD2	1.86	0.56
31:BA:2041:U:H2'	31:BA:2042:A:C8	2.40	0.56
47:BV:19:LYS:CE	47:BV:20:LEU:H	2.19	0.56
31:DA:352:G:N2	31:DA:355:G:OP2	2.39	0.56
31:BA:2207:G:O2'	31:BA:2208:A:H5''	2.06	0.56
31:BA:259:G:O2'	31:BA:260:G:H5'	2.06	0.56
27:B5:41:PRO:O	27:B5:42:PRO:C	2.44	0.56
31:DA:2636:U:OP1	34:DE:80:GLU:N	2.38	0.56
31:BA:2769:C:H2'	31:BA:2770:G:O5'	2.06	0.56
31:BA:1040:C:O2'	31:BA:1041:C:P	2.64	0.56
31:DA:1297:C:H2'	31:DA:1298:C:H6	1.71	0.56
2:CB:194:PRO:O	2:CB:196:LEU:N	2.38	0.56
16:CP:19:ILE:HG22	16:CP:36:ILE:HG13	1.87	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CJ:50:ILE:HA	10:CJ:60:ARG:HB2	1.88	0.56
40:DO:23:ARG:HD2	40:DO:24:VAL:N	2.21	0.56
24:D2:12:GLU:CA	24:D2:14:ARG:HH21	2.18	0.56
10:AJ:51:ARG:CG	10:AJ:61:GLU:HB2	2.36	0.56
1:AA:1423:G:H2'	1:AA:1424:C:H6	1.71	0.56
40:DO:13:ASN:ND2	40:DO:97:ARG:H	2.04	0.56
37:BH:103:LEU:HD22	37:BH:123:PHE:CE2	2.41	0.56
31:DA:2852:G:H2'	31:DA:2853:C:O4'	2.06	0.56
31:DA:2884:U:H2'	31:DA:2885:C:O4'	2.06	0.56
1:CA:980:C:H5'	1:CA:981:U:C5	2.41	0.56
9:AI:86:VAL:HB	9:AI:96:LEU:HD22	1.87	0.56
31:BA:1549:C:O2'	31:BA:1550:C:H5'	2.06	0.56
1:CA:719:C:H3'	1:CA:720:C:H6	1.71	0.56
31:DA:727:A:H2	33:DD:9:TYR:CD2	2.24	0.56
35:DF:52:LYS:HB3	35:DF:56:GLU:HB3	1.86	0.56
31:BA:272:G:C4'	31:BA:272(B):G:O5'	2.53	0.56
1:AA:1381:U:H2'	1:AA:1382:C:H5'	1.85	0.56
48:DW:71:VAL:HA	48:DW:107:LEU:HD12	1.88	0.56
12:CL:21:LYS:HD2	12:CL:21:LYS:H	1.70	0.56
11:CK:79:SER:O	11:CK:80:VAL:HG13	2.06	0.56
31:BA:521:G:O2'	31:BA:522:G:H5'	2.06	0.56
30:D8:22:VAL:HB	30:D8:53:PRO:HB2	1.87	0.56
31:DA:2347:C:H2'	31:DA:2348:U:H6	1.69	0.56
31:DA:593:G:H2'	31:DA:594:U:C6	2.41	0.56
30:B8:22:VAL:HB	30:B8:53:PRO:CB	2.35	0.56
33:BD:35:LYS:HE2	33:BD:104:TYR:HB2	1.88	0.56
36:BG:16:ARG:CA	36:BG:19:LEU:HD12	2.32	0.56
49:DX:25:LYS:HG3	49:DX:26:TYR:CD1	2.40	0.56
49:DX:82:GLN:OE1	49:DX:83:VAL:HG22	2.06	0.56
31:BA:2759:G:O2'	31:BA:2760:C:H5'	2.06	0.56
31:BA:1459:G:C8	31:BA:1461:G:C1'	2.87	0.56
49:BX:21:PHE:HB3	49:BX:90:GLU:HG3	1.88	0.56
31:DA:1331:A:H2'	31:DA:1333:C:C5	2.41	0.56
31:BA:1844:C:O2'	31:BA:1845:G:H5'	2.06	0.56
1:AA:629:G:C4	1:AA:630:G:C8	2.93	0.56
1:CA:358:U:O2'	1:CA:359:U:C5'	2.53	0.56
31:DA:1683:C:H2'	31:DA:1684:C:H6	1.71	0.56
50:BY:45:VAL:CG1	50:BY:62:GLU:OE2	2.54	0.56
34:DE:75:VAL:C	34:DE:77:ILE:N	2.59	0.56
31:BA:993:G:C5'	47:BV:75:PHE:CE2	2.89	0.56
42:DQ:141:GLN:NE2	51:DZ:70:LEU:HB2	2.21	0.56
1:AA:734:G:C2	1:AA:735:C:C2	2.94	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2203:U:O2'	33:DD:151:LYS:HG2	2.05	0.56
27:D5:42:PRO:HB2	27:D5:43:HIS:HD2	1.71	0.56
31:BA:271(J):C:H5'	31:BA:271(K):U:OP2	2.05	0.56
1:AA:833:U:H2'	1:AA:834:C:H6	1.70	0.56
31:BA:1420:U:O2'	31:BA:1421:G:C5'	2.54	0.56
31:BA:108:U:O2'	31:BA:109:G:H5'	2.06	0.56
31:DA:2507:C:H5''	31:DA:2573:C:N4	2.21	0.56
38:DI:132:PRO:C	38:DI:133:HIS:HD2	2.09	0.56
45:DT:34:VAL:O	45:DT:35:LYS:HB3	2.06	0.56
31:BA:1882:C:H3'	31:BA:1883:G:H8	1.71	0.56
1:AA:66:G:O4'	1:AA:173:U:C4	2.59	0.56
31:BA:1858:G:H1'	31:BA:1884:A:H61	1.70	0.56
31:BA:2663:G:C8	31:BA:2664:G:C5	2.94	0.56
8:CH:38:ILE:HD11	8:CH:118:VAL:O	2.06	0.56
31:BA:151:C:C2'	31:BA:152:G:H5'	2.36	0.56
5:AE:51:VAL:HB	5:AE:52:PRO:CD	2.34	0.56
31:DA:218:A:C2	31:DA:235:U:H4'	2.41	0.56
12:AL:50:SER:O	12:AL:51:ALA:HB2	2.06	0.56
31:BA:1532:C:C6	31:BA:1532:C:O5'	2.59	0.56
51:BZ:142:SER:H	51:BZ:144:LEU:CD2	2.19	0.56
40:BO:20:MET:HE3	40:BO:44:LYS:HE3	1.86	0.56
31:BA:2852:G:H2'	31:BA:2853:C:O4'	2.06	0.56
1:AA:473:G:O2'	1:AA:474:G:H5'	2.05	0.56
36:BG:173:LEU:HB3	36:BG:178:PHE:CG	2.41	0.56
31:DA:128:C:H4'	31:DA:129:C:OP1	2.05	0.56
9:AI:46:ALA:O	9:AI:49:PRO:HD2	2.06	0.56
31:DA:892:G:H1	31:DA:894:C:H41	1.54	0.56
1:CA:519:C:H2'	1:CA:520:A:O5'	2.06	0.56
31:BA:363(E):U:OP2	31:BA:363(E):U:H6	1.89	0.56
37:DH:126:PRO:HG3	37:DH:130:ARG:HB3	1.87	0.56
4:CD:108:LEU:O	4:CD:110:PHE:CD1	2.59	0.56
6:AF:75:LEU:CD2	6:AF:79:LEU:HD11	2.36	0.56
2:AB:61:LEU:HD21	2:AB:68:ILE:HD11	1.88	0.56
1:AA:189:G:C6	1:AA:189(L):G:N1	2.74	0.56
36:DG:94:LEU:HG	36:DG:99:MET:HA	1.88	0.56
39:DN:121:LYS:HE2	39:DN:123:TYR:CZ	2.41	0.56
1:AA:1310:G:OP1	13:AM:77:ASN:HB3	2.06	0.56
1:CA:1378:C:N4	1:CA:1379:G:C2	2.73	0.56
1:AA:1137:C:H4'	1:AA:1138:G:C2	2.41	0.56
49:BX:10:ALA:O	49:BX:28:PHE:HB3	2.06	0.56
31:BA:444:C:H4'	35:BF:49:ALA:HB2	1.88	0.56
36:DG:43:LEU:CD1	36:DG:153:ARG:HD2	2.36	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:389:G:H1	41:DP:71:VAL:HB	1.69	0.56
31:DA:581:C:H2'	31:DA:582:G:C8	2.41	0.56
41:DP:24:GLY:HA3	41:DP:33:ARG:NH2	2.21	0.56
31:BA:2360:A:O2'	31:BA:2361:A:C5'	2.54	0.56
41:BP:7:ARG:NH1	41:BP:7:ARG:O	2.39	0.56
29:B7:8:ASN:ND2	29:B7:10:ARG:H	2.04	0.56
31:BA:1428:C:O2'	31:BA:1429:G:H5'	2.06	0.56
31:DA:71:A:C8	31:DA:71:A:C5'	2.85	0.56
49:DX:73:ARG:H	49:DX:74:PRO:HD3	1.69	0.56
39:DN:68:GLU:HG3	39:DN:88:GLU:OE1	2.05	0.56
31:BA:142:A:H5''	31:BA:142(A):C:C5	2.40	0.56
31:BA:2636:U:OP1	34:BE:80:GLU:N	2.39	0.56
1:CA:1433:A:C6	1:CA:1434:A:C6	2.94	0.56
5:CE:102:ALA:HB1	5:CE:106:PRO:CG	2.32	0.56
31:DA:1784:A:H4'	31:DA:1785:A:C5'	2.36	0.56
31:DA:1812:A:C2	31:DA:1813:G:C5	2.94	0.56
25:B3:52:HIS:ND1	32:BB:83:G:H5''	2.21	0.56
31:DA:2637:U:C2'	31:DA:2638:G:H5'	2.35	0.56
37:DH:152:ARG:H	37:DH:162:ILE:HD11	1.71	0.56
32:BB:21:G:C6	32:BB:63:G:N2	2.73	0.56
34:DE:102:VAL:HB	34:DE:199:ARG:O	2.06	0.56
1:AA:110:C:H2'	1:AA:111:G:O4'	2.05	0.56
27:D5:46:CYS:O	27:D5:48:GLU:N	2.39	0.56
2:AB:194:PRO:O	2:AB:196:LEU:N	2.38	0.56
2:AB:22:LYS:NZ	2:AB:40:HIS:HE1	2.04	0.56
31:BA:2688:U:H1'	31:BA:2721:A:N6	2.21	0.56
34:BE:188:VAL:HG23	34:BE:189:PRO:HD2	1.88	0.56
40:BO:104:ARG:NH2	45:BT:33:LYS:HD2	2.21	0.56
1:CA:779:C:O2'	11:CK:120:ARG:HD3	2.05	0.56
31:BA:1168:G:H2'	31:BA:1169:G:C8	2.41	0.56
42:DQ:18:LYS:O	42:DQ:19:GLY:C	2.44	0.56
1:CA:955:U:C1'	1:CA:1227:A:H61	2.18	0.56
31:DA:1476:C:H2'	31:DA:1477:A:C8	2.41	0.56
31:BA:1688:U:H1'	31:BA:1701:A:C5	2.41	0.56
1:AA:233:C:O2'	1:AA:234:C:H5'	2.06	0.56
4:AD:138:TYR:CD2	4:AD:139:ARG:N	2.66	0.56
41:BP:146:VAL:HG13	41:BP:147:LEU:N	2.18	0.56
31:DA:176:G:C2'	31:DA:177:G:H5'	2.36	0.56
1:CA:339:C:O2'	1:CA:340:U:H5'	2.06	0.56
31:BA:721:C:O2	31:BA:721:C:C2'	2.50	0.56
1:AA:1496:C:H4'	31:BA:1920:C:O2'	2.05	0.56
31:BA:2884:U:C5	31:BA:2885:C:C5	2.94	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CF:99:ALA:HB1	18:CR:23:LYS:HZ2	1.71	0.56
42:DQ:132:VAL:CG1	51:DZ:81:ARG:HD2	2.35	0.56
45:DT:25:GLY:O	45:DT:26:ASP:CB	2.54	0.56
1:AA:425:G:C2'	1:AA:426:G:H5'	2.36	0.56
31:DA:2273:A:H2'	31:DA:2274:A:H8	1.70	0.56
1:CA:775:G:C2'	1:CA:776:G:H5'	2.36	0.56
51:BZ:167:PRO:O	51:BZ:168:GLU:HB2	2.06	0.56
31:DA:705:A:C2	31:DA:727:A:H1'	2.41	0.56
1:CA:229:U:H2'	1:CA:230:G:C8	2.41	0.56
36:BG:96:ARG:CG	36:BG:97:ASP:H	2.19	0.56
3:AC:181:ASN:O	3:AC:204:LEU:HB2	2.06	0.56
31:BA:484:C:H2'	31:BA:485:C:C6	2.41	0.56
42:DQ:73:PRO:HA	42:DQ:93:TYR:CD2	2.41	0.56
31:BA:945:A:C4	31:BA:2448:A:C2	2.94	0.56
1:CA:1162:C:H2'	1:CA:1163:C:H6	1.71	0.56
31:DA:376:C:H2'	31:DA:377:C:H6	1.69	0.56
40:DO:87:ILE:CG2	40:DO:91:LEU:HA	2.35	0.56
1:AA:1478:C:H2'	1:AA:1479:C:H6	1.71	0.56
1:CA:881:G:P	12:CL:12:ARG:HH22	2.29	0.56
11:AK:72:ALA:O	11:AK:77:MET:HB2	2.04	0.56
8:AH:136:GLU:HG3	8:AH:136:GLU:O	2.06	0.56
35:DF:127:GLU:OE1	35:DF:127:GLU:HA	2.06	0.56
19:CS:80:TYR:O	19:CS:80:TYR:CG	2.59	0.56
7:AG:115:ARG:HB2	7:AG:118:VAL:HG22	1.88	0.56
40:BO:115:VAL:HG13	40:BO:121:VAL:HG21	1.88	0.56
30:D8:60:LEU:C	30:D8:63:PRO:HD2	2.26	0.55
31:DA:2070:G:H2'	31:DA:2071:A:C8	2.41	0.55
41:DP:47:ASP:HB3	41:DP:48:PRO:O	2.06	0.55
47:DV:79:VAL:HG23	47:DV:82:ARG:HD2	1.88	0.55
31:BA:448:U:H3'	31:BA:449:A:C5'	2.36	0.55
32:BB:57:A:H8	36:BG:27:ASN:HB3	1.69	0.55
32:BB:57:A:N3	36:BG:29:TRP:HB2	2.21	0.55
44:BS:90:GLY:C	44:BS:92:TYR:H	2.08	0.55
31:DA:1341:U:H5'	49:DX:57:LEU:HG	1.87	0.55
31:DA:1389:G:C2	31:DA:1390:U:C2	2.94	0.55
31:DA:73:A:H2'	31:DA:74:A:OP2	2.05	0.55
41:BP:85:LEU:HD23	41:BP:117:GLU:O	2.06	0.55
37:BH:85:LYS:NZ	37:BH:145:ALA:CA	2.69	0.55
49:BX:9:LEU:HD12	49:BX:30:VAL:C	2.26	0.55
49:BX:52:VAL:HG21	49:BX:82:GLN:HA	1.88	0.55
31:BA:2859:G:H4'	31:BA:2860:A:OP1	2.06	0.55
31:DA:2334:G:OP1	31:DA:2334:G:H8	1.90	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DB:50:G:P	44:DS:63:THR:HG23	2.46	0.55
1:CA:509:A:C5'	4:CD:55:ALA:HB2	2.35	0.55
31:DA:729:G:H4'	31:DA:763:G:H5'	1.87	0.55
31:DA:768:G:C6	31:DA:769:G:C5	2.94	0.55
47:BV:2:PHE:CB	47:BV:42:GLY:CA	2.75	0.55
31:DA:1509(B):A:H2'	31:DA:1510:G:C8	2.41	0.55
51:DZ:71:VAL:HG22	51:DZ:88:PHE:HE2	1.70	0.55
31:DA:966:G:C5	31:DA:967:C:C5	2.95	0.55
35:BF:36:VAL:O	35:BF:39:TRP:HB3	2.06	0.55
32:BB:16:G:C2	32:BB:17:C:C6	2.93	0.55
6:AF:26:ILE:O	6:AF:29:ALA:HB3	2.06	0.55
31:BA:102:G:O2'	31:BA:103:A:OP2	2.23	0.55
1:AA:955:U:C1'	1:AA:1227:A:H61	2.17	0.55
31:BA:2698:U:H2'	31:BA:2699:C:C6	2.41	0.55
1:AA:1190:G:OP1	3:AC:4:LYS:HA	2.06	0.55
1:CA:782:A:H4'	1:CA:1514:C:O2'	2.06	0.55
31:BA:176:G:O2'	31:BA:177:G:H5'	2.05	0.55
36:DG:57:ALA:HB2	36:DG:90:LEU:HD21	1.87	0.55
31:BA:218:A:C2	31:BA:235:U:H4'	2.41	0.55
9:AI:10:ARG:HG2	9:AI:104:ARG:O	2.06	0.55
36:BG:141:PHE:C	36:BG:143:GLU:H	2.10	0.55
2:CB:32:ILE:HD12	2:CB:41:ILE:O	2.05	0.55
10:AJ:32:ALA:H	10:AJ:78:ASN:HD21	1.54	0.55
31:DA:1374:G:C2	31:DA:1375:C:C2	2.94	0.55
12:CL:6:THR:HG23	12:CL:9:GLN:NE2	2.21	0.55
38:DI:76:THR:HG21	38:DI:141:LYS:HE3	1.88	0.55
1:AA:177:C:O2'	1:AA:178:C:H5'	2.07	0.55
31:BA:647:G:H2'	31:BA:648:G:O4'	2.06	0.55
1:CA:84:U:H5	1:CA:88:A:N9	2.04	0.55
1:CA:1368:G:C2'	1:CA:1369:C:H5'	2.35	0.55
45:BT:129:ARG:HD2	45:BT:130:ALA:N	2.20	0.55
31:BA:651:G:N3	31:BA:651:G:H2'	2.22	0.55
11:AK:62:GLN:O	11:AK:64:ALA:N	2.39	0.55
43:BR:103:ARG:HB3	43:BR:110:PRO:HA	1.88	0.55
34:BE:9:VAL:CG2	34:BE:25:VAL:HB	2.35	0.55
20:AT:32:ALA:O	20:AT:36:LEU:HB2	2.06	0.55
33:DD:221:VAL:HG22	33:DD:226:MET:CE	2.37	0.55
8:AH:20:TYR:CE1	8:AH:76:PRO:HG2	2.41	0.55
31:BA:1230:C:H6	31:BA:1230:C:O5'	1.90	0.55
34:BE:49:LEU:HD23	34:BE:81:ILE:HG12	1.88	0.55
27:D5:4:HIS:HB3	27:D5:5:PRO:CD	2.36	0.55
31:DA:2069:G:H2'	31:DA:2070:G:H5'	1.87	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2287:A:C2	31:DA:2289:G:C1'	2.89	0.55
31:DA:259:G:O2'	31:DA:260:G:H5'	2.06	0.55
41:DP:101:VAL:HB	41:DP:107:LYS:N	2.17	0.55
31:DA:662:G:P	41:DP:18:ARG:HD2	2.46	0.55
41:DP:83:VAL:HG23	41:DP:105:LEU:HD22	1.87	0.55
31:BA:675:A:OP1	35:BF:63:LYS:HE2	2.05	0.55
31:BA:673:C:H4'	35:BF:82:ILE:HG12	1.88	0.55
36:BG:101:ILE:HD11	36:BG:105:LYS:HE3	1.89	0.55
44:BS:73:LEU:O	44:BS:77:ALA:N	2.31	0.55
31:DA:1459:G:H5''	31:DA:1460:A:OP2	2.06	0.55
49:DX:80:ILE:O	49:DX:81:VAL:HB	2.04	0.55
31:DA:1140:C:O3'	39:DN:25:ARG:NH1	2.38	0.55
31:DA:815:C:H2'	31:DA:816:C:H6	1.71	0.55
31:DA:1225:G:P	47:DV:88:ARG:HB3	2.46	0.55
49:BX:80:ILE:O	49:BX:81:VAL:HB	2.07	0.55
31:BA:2808:U:H2'	31:BA:2809:A:H5'	1.88	0.55
50:BY:37:VAL:O	50:BY:38:ILE:CB	2.34	0.55
33:DD:27:THR:O	33:DD:28:GLU:HB2	2.06	0.55
46:BU:88:ILE:N	46:BU:88:ILE:HD12	2.20	0.55
23:D1:60:PHE:HZ	23:D1:90:ILE:HG21	1.71	0.55
31:BA:528:A:C2	31:BA:2043:C:H5'	2.41	0.55
5:AE:78:HIS:HD2	8:AH:104:ARG:NE	2.04	0.55
2:AB:200:ILE:HG22	2:AB:202:PRO:HD3	1.87	0.55
33:BD:16:MET:HG3	33:BD:206:LEU:O	2.07	0.55
31:BA:1796:U:O3'	33:BD:256:GLY:HA2	2.07	0.55
31:BA:993:G:H21	47:BV:91:TYR:HH	1.54	0.55
47:BV:60:GLU:OE2	47:BV:100:ARG:O	2.24	0.55
47:BV:2:PHE:CD2	47:BV:42:GLY:HA2	2.41	0.55
27:B5:46:CYS:CB	27:B5:47:PRO:HD2	2.35	0.55
27:B5:40:LYS:NZ	27:B5:46:CYS:O	2.34	0.55
38:DI:29:TYR:O	38:DI:32:PRO:HD2	2.06	0.55
22:B0:40:GLN:NE2	22:B0:43:THR:CA	2.69	0.55
22:B0:43:THR:H	31:BA:2331:G:H4'	1.70	0.55
1:CA:577:G:C2	1:CA:578:C:C6	2.94	0.55
31:BA:1497:U:H2'	31:BA:1497:U:O2	2.06	0.55
42:BQ:8:LYS:CG	42:BQ:9:TYR:N	2.69	0.55
41:BP:29:LYS:H	41:BP:29:LYS:CD	2.11	0.55
1:AA:1394:A:C5	1:AA:1501:C:H4'	2.41	0.55
38:BI:101:LEU:HG	38:BI:109:ILE:HG12	1.87	0.55
31:DA:83:G:H1	31:DA:102:G:H2'	1.71	0.55
31:DA:1639:U:O2'	31:DA:1640:C:H5''	2.05	0.55
31:BA:80:G:O2'	31:BA:81:G:H5'	2.07	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1202:G:H2'	1:CA:1203:C:O4'	2.06	0.55
31:DA:271(Q):G:N3	31:DA:271(R):G:C8	2.74	0.55
5:CE:34:VAL:O	5:CE:41:VAL:HA	2.06	0.55
45:DT:30:VAL:HG21	45:DT:83:ILE:HG13	1.86	0.55
1:CA:173:U:O4'	1:CA:197:A:C4	2.58	0.55
31:DA:1478:G:O2'	31:DA:1558:A:H2	1.90	0.55
1:AA:1432:G:P	45:BT:107:ASP:HB2	2.46	0.55
31:DA:473:G:C2'	31:DA:474:G:O5'	2.55	0.55
20:AT:50:GLU:O	20:AT:54:LYS:HB2	2.05	0.55
31:BA:114:U:H3'	31:BA:115:C:H6	1.72	0.55
45:DT:106:SER:HB2	45:DT:110:ILE:CD1	2.35	0.55
31:BA:8:A:H2	31:BA:2896:C:N3	2.04	0.55
3:AC:104:GLN:CD	3:AC:105:GLU:H	2.08	0.55
3:AC:105:GLU:HG2	3:AC:106:VAL:H	1.70	0.55
31:BA:1990:C:H2'	31:BA:1991:U:C6	2.41	0.55
8:AH:58:TYR:O	8:AH:59:LEU:HD23	2.05	0.55
1:AA:299:G:N7	1:AA:300:A:N6	2.54	0.55
2:CB:61:LEU:HD21	2:CB:68:ILE:HD11	1.87	0.55
31:BA:2452:C:H2'	31:BA:2453:A:O4'	2.06	0.55
1:AA:189(B):C:N4	1:AA:189(J):G:N1	2.54	0.55
33:BD:224:ALA:HB2	33:BD:233:HIS:HB3	1.89	0.55
36:BG:129:GLY:O	36:BG:130:ASN:ND2	2.39	0.55
1:CA:137:C:N3	1:CA:227:G:C2	2.74	0.55
16:AP:49:LEU:O	16:AP:50:LYS:HB2	2.06	0.55
1:CA:141:A:H4'	1:CA:182:U:H1'	1.88	0.55
25:B3:27:GLY:HA3	25:B3:35:ARG:NE	2.21	0.55
39:DN:89:LYS:O	39:DN:93:THR:HG22	2.06	0.55
2:CB:73:THR:HG22	2:CB:95:GLN:O	2.06	0.55
28:D6:11:LEU:HD11	28:D6:26:ASN:HD21	1.71	0.55
55:DA:3320:TEL:O18	55:DA:3320:TEL:C33	2.54	0.55
31:DA:990:A:OP2	31:DA:991:C:OP2	2.24	0.55
41:BP:144:GLU:N	41:BP:145:PRO:CD	2.70	0.55
47:DV:29:PRO:O	47:DV:64:HIS:NE2	2.39	0.55
47:DV:33:VAL:HA	47:DV:63:GLY:HA2	1.88	0.55
47:DV:66:ARG:HH11	47:DV:68:LYS:H	1.54	0.55
47:DV:22:VAL:HG21	47:DV:96:ILE:HD12	1.88	0.55
31:DA:1287:A:N3	31:DA:1287:A:H2'	2.21	0.55
31:BA:1899:G:C2'	31:BA:1900:A:OP2	2.54	0.55
32:DB:35:U:C4	32:DB:36:C:C4	2.94	0.55
1:CA:1466:C:C2'	1:CA:1467:G:H5'	2.35	0.55
1:CA:375:U:H4'	16:CP:17:TYR:CE2	2.40	0.55
31:DA:1802:A:N1	31:DA:1822:G:H1'	2.22	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1824:G:C2'	31:DA:1825:A:H5'	2.36	0.55
23:D1:48:LYS:C	23:D1:48:LYS:HD3	2.25	0.55
31:DA:1507:A:C2	31:DA:1508:A:H1'	2.42	0.55
31:BA:1476:C:H2'	31:BA:1477:A:C8	2.42	0.55
42:DQ:81:VAL:O	42:DQ:82:ARG:CG	2.48	0.55
31:DA:287:C:H2'	31:DA:288:C:H5''	1.87	0.55
40:BO:10:VAL:HG21	40:BO:16:ALA:C	2.26	0.55
31:DA:2223:G:C2'	31:DA:2224:G:H5'	2.36	0.55
9:AI:4:TYR:HA	9:AI:88:TYR:CE1	2.41	0.55
3:CC:182:ILE:HG12	3:CC:203:PHE:HD1	1.71	0.55
1:CA:1072:G:C5	1:CA:1104:G:N1	2.74	0.55
4:AD:28:SER:HB3	4:AD:30:LYS:HG2	1.88	0.55
31:DA:1495:A:C4	31:DA:1496:A:C2	2.94	0.55
1:AA:690:G:OP2	11:AK:27:ASN:HB3	2.06	0.55
11:CK:123:LYS:HA	11:CK:126:ARG:HB3	1.88	0.55
31:BA:1786:A:C1'	31:BA:1938:A:N6	2.68	0.55
42:BQ:21:THR:O	42:BQ:22:LYS:HD2	2.06	0.55
31:DA:271(U):G:O2'	31:DA:271(V):G:H5'	2.06	0.55
48:DW:16:LYS:O	48:DW:19:LEU:HB2	2.06	0.55
40:DO:101:PRO:HG3	45:DT:67:SER:HB3	1.88	0.55
31:BA:271(P):C:O2	31:BA:271(P):C:H2'	2.04	0.55
13:AM:61:GLU:HG3	13:AM:66:LEU:HD11	1.86	0.55
31:BA:2474:C:H5'	31:BA:2475:C:OP2	2.07	0.55
31:DA:41:C:H2'	31:DA:42:G:O4'	2.06	0.55
1:AA:782:A:H4'	1:AA:1514:C:O2'	2.06	0.55
45:DT:106:SER:O	45:DT:107:ASP:HB3	2.07	0.55
29:D7:8:ASN:HD22	29:D7:9:ARG:N	2.03	0.55
31:DA:1839:G:C8	31:DA:1839:G:H5'	2.42	0.55
1:CA:527:G:O2'	1:CA:528:C:H5'	2.07	0.55
37:BH:32:GLU:O	37:BH:33:LEU:HD23	2.06	0.55
1:AA:980:C:H5'	1:AA:981:U:C5	2.42	0.55
31:DA:753:C:H2'	31:DA:754:C:H6	1.70	0.55
31:DA:2600:A:H2'	31:DA:2601:C:C6	2.42	0.55
6:AF:61:LEU:HD23	6:AF:63:TYR:OH	2.06	0.55
46:BU:36:ARG:HD3	46:BU:40:PHE:HZ	1.70	0.55
42:BQ:104:PHE:HE1	42:BQ:125:LEU:HD11	1.72	0.55
41:BP:75:ILE:HD13	41:BP:75:ILE:H	1.70	0.55
31:DA:1563:G:C5	31:DA:1564:C:C5	2.95	0.55
50:DY:83:THR:CG2	50:DY:94:LYS:HB3	2.36	0.55
18:CR:56:THR:OG1	18:CR:58:LEU:HD13	2.06	0.55
17:CQ:65:ILE:HD12	17:CQ:65:ILE:N	2.21	0.55
8:CH:13:ILE:O	8:CH:17:THR:HG23	2.06	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:521:G:H2'	31:DA:522:G:H8	1.71	0.55
31:DA:1106:A:O2'	31:DA:1107:G:O5'	2.24	0.55
35:BF:115:ALA:O	35:BF:116:ASP:C	2.44	0.55
1:CA:1272:G:C6	1:CA:1273:G:C5	2.93	0.55
17:CQ:76:LEU:HD12	17:CQ:77:VAL:H	1.71	0.55
5:AE:15:ARG:HD2	5:AE:26:PHE:CD2	2.41	0.55
15:AO:20:GLY:O	15:AO:21:ASP:HB3	2.07	0.55
37:BH:83:TYR:O	37:BH:84:SER:OG	2.24	0.55
20:CT:32:ALA:O	20:CT:36:LEU:HB2	2.05	0.55
2:CB:112:VAL:HG22	2:CB:149:LEU:HD13	1.88	0.55
6:CF:89:MET:HG2	6:CF:89:MET:O	2.05	0.55
31:DA:2512:C:H2'	31:DA:2513:G:O4'	2.06	0.55
1:CA:69:G:H2'	1:CA:70:G:C8	2.40	0.55
31:DA:27:G:H21	31:DA:512:G:C2'	2.16	0.55
31:DA:971:C:H2'	31:DA:972:G:C5'	2.36	0.55
31:DA:1190:G:O3'	41:DP:35:HIS:HB3	2.06	0.55
30:B8:35:GLN:HE21	30:B8:36:LYS:HG3	1.71	0.55
30:B8:4:MET:SD	30:B8:61:LEU:CD1	2.89	0.55
31:BA:1203:G:H4'	41:BP:7:ARG:HG2	1.88	0.55
31:BA:2070:G:H2'	31:BA:2071:A:O4'	2.06	0.55
32:BB:118:G:C2	32:BB:119:G:N7	2.74	0.55
24:D2:26:ARG:HG2	49:DX:5:TYR:CB	2.37	0.55
31:DA:534:U:H2'	31:DA:535:C:C6	2.42	0.55
31:BA:1341:U:N3	49:BX:77:LYS:HE2	2.21	0.55
24:B2:26:ARG:HG3	49:BX:5:TYR:HB3	1.86	0.55
31:BA:2785:C:H2'	31:BA:2786:U:C6	2.41	0.55
31:BA:2808:U:H2'	31:BA:2809:A:C5'	2.37	0.55
31:BA:1719:G:C6	31:BA:1720:U:C4	2.95	0.55
32:DB:57:A:N3	36:DG:29:TRP:HB2	2.21	0.55
31:DA:773:U:C5'	33:DD:47:GLY:HA2	2.37	0.55
31:BA:534:U:H2'	31:BA:535:C:C6	2.41	0.55
39:BN:34:LEU:HD21	39:BN:120:LEU:HD23	1.89	0.55
23:D1:11:ARG:CB	23:D1:12:PRO:HD3	2.36	0.55
31:BA:1798:U:H5''	33:BD:259:THR:HB	1.88	0.55
31:BA:1162:G:O2'	47:BV:92:THR:HG22	2.06	0.55
51:DZ:5:LEU:HD12	51:DZ:47:VAL:CG2	2.36	0.55
31:DA:2257:U:O2'	31:DA:2258:C:H5'	2.06	0.55
31:DA:952:G:C6	31:DA:953:A:N7	2.74	0.55
31:BA:354:G:C6	31:BA:355:G:C5	2.95	0.55
31:BA:352:G:N2	31:BA:355:G:OP2	2.39	0.55
35:BF:36:VAL:HA	35:BF:101:LEU:CD2	2.36	0.55
32:BB:110:G:N1	32:BB:111:G:C5	2.75	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BB:17:C:O2	32:BB:17:C:C2'	2.53	0.55
1:AA:541:G:H2'	1:AA:542:G:C8	2.38	0.55
31:BA:1312:U:C2	31:BA:1603:A:C2	2.93	0.55
31:BA:971:C:H2'	31:BA:972:G:H5'	1.88	0.55
31:DA:904:C:H2'	31:DA:905:U:H5'	1.88	0.55
15:AO:55:GLY:O	15:AO:56:LEU:C	2.42	0.55
50:DY:90:LEU:HD12	50:DY:91:GLU:CG	2.36	0.55
45:BT:38:ASN:HD22	45:BT:40:THR:H	1.54	0.55
11:AK:82:VAL:HG21	11:AK:98:LEU:HD12	1.88	0.55
48:BW:20:VAL:CG2	48:BW:21:VAL:N	2.69	0.55
31:BA:271(E):U:O5'	31:BA:271(E):U:H6	1.89	0.55
1:CA:769:G:H4'	1:CA:1513:A:H4'	1.89	0.55
31:BA:471:A:H2'	31:BA:472:A:O5'	2.07	0.55
37:BH:87:LEU:HD13	37:BH:148:ILE:HG21	1.88	0.55
5:CE:48:ALA:HB1	5:CE:49:PRO:HD2	1.87	0.55
36:DG:60:LEU:O	36:DG:60:LEU:HD22	2.06	0.55
19:AS:5:LEU:HG	19:AS:10:PHE:HD1	1.72	0.55
38:BI:10:GLU:O	38:BI:12:LEU:CD2	2.53	0.55
12:CL:10:LEU:HB3	17:CQ:32:TYR:CE1	2.41	0.55
1:AA:790:A:C6	1:AA:791:G:C6	2.94	0.55
1:AA:591:U:H2'	1:AA:592:G:C8	2.41	0.55
15:CO:74:ASP:OD1	15:CO:76:GLU:HB3	2.06	0.55
9:AI:104:ARG:HG2	9:AI:104:ARG:O	2.07	0.55
46:DU:31:SER:HB3	46:DU:34:LYS:HB2	1.88	0.55
51:BZ:117:LEU:CB	51:BZ:174:VAL:HG22	2.36	0.55
1:AA:1291:G:O3'	9:AI:39:GLY:HA3	2.06	0.55
2:CB:136:VAL:O	2:CB:140:HIS:HB2	2.07	0.55
9:AI:46:ALA:HB2	9:AI:74:ILE:HG23	1.89	0.55
42:DQ:16:ARG:HG2	42:DQ:17:LEU:H	1.68	0.55
12:AL:18:VAL:O	12:AL:19:ARG:HB3	2.06	0.55
8:CH:134:ILE:O	8:CH:135:CYS:HB3	2.05	0.55
28:D6:48:VAL:O	28:D6:49:HIS:CB	2.53	0.55
23:D1:32:LYS:HG2	31:DA:2396:G:O2'	2.07	0.55
35:DF:68:LYS:HG2	35:DF:69:HIS:CE1	2.42	0.55
31:BA:2580:U:H5'	34:BE:131:ALA:H	1.70	0.55
36:BG:11:TYR:CG	36:BG:100:TRP:HH2	2.25	0.55
31:DA:2859:G:O2'	31:DA:2860:A:P	2.64	0.55
47:DV:90:PRO:CG	47:DV:91:TYR:H	2.20	0.55
24:B2:49:LYS:CA	24:B2:53:LEU:HB3	2.36	0.55
32:DB:46:A:C5	32:DB:47:C:C5	2.95	0.55
36:DG:11:TYR:HD2	36:DG:12:TYR:CE1	2.25	0.55
44:DS:73:LEU:O	44:DS:77:ALA:N	2.28	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:355:C:H2'	1:CA:356:A:H5'	1.86	0.55
1:CA:425:G:C2'	1:CA:426:G:H5'	2.36	0.55
1:CA:503:C:O2'	1:CA:504:C:H5'	2.06	0.55
39:BN:42:TRP:HB3	46:BU:64:ARG:HH12	1.67	0.55
31:BA:2000:G:OP2	43:BR:3:HIS:CE1	2.60	0.55
31:BA:1792:G:O2'	31:BA:1793:C:H5'	2.06	0.55
31:BA:329:G:OP2	50:BY:71:LYS:HE2	2.06	0.55
11:CK:38:ASN:H	11:CK:38:ASN:HD22	1.53	0.55
31:BA:1517:G:H5''	31:BA:1517:G:C8	2.39	0.55
31:BA:1478:G:O2'	31:BA:1558:A:H2	1.89	0.55
42:DQ:141:GLN:O	51:DZ:70:LEU:HD22	2.06	0.55
31:DA:953:A:O2'	31:DA:954:G:H5'	2.06	0.55
32:DB:17:C:N3	32:DB:18:G:C5	2.75	0.55
31:BA:398:G:H5''	31:BA:2090:G:O4'	2.05	0.55
27:B5:50:GLY:O	27:B5:51:TYR:CD1	2.56	0.55
31:BA:2641:G:OP1	39:BN:75:TYR:HD2	1.90	0.55
31:DA:203:C:H3'	31:DA:204:A:H5''	1.88	0.55
31:DA:1281:G:H8	31:DA:1281:G:H5''	1.72	0.55
1:AA:661:G:C2	1:AA:662:G:C8	2.94	0.55
31:BA:2258:C:H4'	31:BA:2259:G:OP2	2.06	0.55
31:BA:2282:G:H5''	31:BA:2283:C:O4'	2.07	0.55
28:B6:20:ASN:O	28:B6:21:TYR:CD1	2.60	0.55
1:AA:691:G:N7	11:AK:26:ASN:HB3	2.22	0.55
31:DA:478:A:H62	31:DA:502:A:N6	2.05	0.55
14:CN:24:CYS:HB2	14:CN:29:ARG:HB3	1.87	0.55
31:DA:2547:U:H2'	31:DA:2548:G:C8	2.41	0.55
48:BW:12:ILE:HD13	48:BW:17:VAL:HG22	1.89	0.55
45:DT:20:PRO:HD2	45:DT:85:LYS:HB3	1.89	0.55
1:CA:66:G:O4'	1:CA:173:U:C4	2.60	0.55
31:DA:1478:G:C2'	31:DA:1479:G:H5'	2.36	0.55
1:AA:266:G:H5''	1:AA:268:C:N4	2.21	0.55
31:BA:157:U:H6	31:BA:157:U:OP2	1.89	0.55
9:CI:15:ALA:HA	9:CI:65:VAL:HA	1.88	0.55
5:CE:122:GLU:O	5:CE:123:LEU:HD23	2.06	0.55
6:CF:75:LEU:CD2	6:CF:79:LEU:HD11	2.37	0.55
1:CA:79:G:C4'	1:CA:80:G:OP1	2.54	0.55
51:BZ:144:LEU:N	51:BZ:144:LEU:HD22	2.21	0.55
1:CA:414:A:H2'	1:CA:415:A:O4'	2.07	0.55
12:AL:5:PRO:HA	12:AL:9:GLN:NE2	2.22	0.55
1:AA:525:C:OP1	12:AL:91:LYS:HB2	2.07	0.55
42:DQ:41:TRP:HB3	42:DQ:94:VAL:CB	2.35	0.55
1:CA:671:G:C4	1:CA:672:U:C6	2.94	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1642:G:C2'	31:BA:1643:G:H5'	2.36	0.55
31:DA:2400:G:N3	31:DA:2400:G:H2'	2.22	0.55
31:BA:1773:A:C2'	31:BA:1774:C:H5'	2.36	0.55
31:BA:2086:U:H2'	31:BA:2087:G:C8	2.41	0.55
37:BH:158:HIS:CD2	37:BH:170:ARG:HA	2.42	0.55
35:DF:124:LEU:O	35:DF:193:VAL:HA	2.07	0.55
36:BG:3:LEU:HA	36:BG:97:ASP:OD2	2.07	0.55
50:DY:83:THR:HG22	50:DY:84:ARG:N	2.21	0.55
31:DA:2220:G:H2'	31:DA:2221:G:C8	2.41	0.55
17:CQ:57:VAL:HG12	17:CQ:76:LEU:HA	1.87	0.55
31:DA:1248:G:O2'	46:DU:3:ARG:HA	2.06	0.55
1:CA:247:G:OP2	17:CQ:100:LYS:HG2	2.06	0.55
2:AB:221:LEU:O	2:AB:221:LEU:HD13	2.07	0.55
36:BG:43:LEU:CD1	36:BG:153:ARG:HD2	2.37	0.55
7:AG:14:PRO:HG3	7:AG:21:VAL:HG13	1.88	0.55
42:DQ:57:HIS:NE2	42:DQ:116:GLU:HG2	2.21	0.55
9:CI:126:SER:O	9:CI:128:ARG:HD2	2.06	0.55
51:DZ:11:GLU:H	51:DZ:11:GLU:CD	2.10	0.55
18:CR:22:VAL:O	18:CR:22:VAL:HG12	2.07	0.55
32:DB:2:C:C5	32:DB:3:C:C5	2.94	0.55
34:BE:56:PRO:O	34:BE:58:ARG:N	2.40	0.55
34:BE:105:THR:HA	34:BE:166:THR:HA	1.87	0.55
31:BA:435:C:C5	31:BA:436:C:C5	2.94	0.55
2:CB:87:ARG:NH2	2:CB:233:SER:HB3	2.21	0.55
27:D5:8:LYS:O	31:DA:2017:U:H4'	2.07	0.55
31:DA:245:G:H2'	31:DA:246:C:H6	1.71	0.55
31:DA:647:G:H2'	31:DA:648:G:O4'	2.07	0.55
41:DP:105:LEU:O	41:DP:106:LEU:CB	2.54	0.55
30:B8:52:LYS:N	30:B8:53:PRO:CD	2.53	0.55
31:BA:2394:C:OP1	41:BP:63:PRO:CD	2.47	0.55
41:BP:67:MET:CE	41:BP:67:MET:HA	2.37	0.55
31:DA:2859:G:H4'	31:DA:2860:A:OP1	2.07	0.55
47:DV:38:LEU:HG	47:DV:39:LEU:N	2.22	0.55
47:DV:66:ARG:NH1	47:DV:68:LYS:H	2.04	0.55
32:DB:57:A:C2	32:DB:58:A:N7	2.74	0.55
1:AA:333:G:O2'	1:AA:334:C:H5'	2.06	0.55
1:AA:402:G:C6	1:AA:403:C:C4	2.95	0.55
1:CA:360:A:O2'	1:CA:361:G:H5'	2.06	0.55
50:BY:13:VAL:HG11	50:BY:72:VAL:HB	1.88	0.55
33:DD:63:ARG:HG3	33:DD:63:ARG:HH11	1.71	0.55
46:BU:65:ILE:HG12	46:BU:96:ALA:CB	2.36	0.55
31:DA:2531:A:C2	31:DA:2658:C:O2	2.58	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:993:G:H1'	47:BV:91:TYR:HD1	1.72	0.55
31:DA:2309:A:N3	31:DA:2310:A:H2	2.05	0.55
31:DA:870:A:H5'	42:DQ:7:MET:HB2	1.87	0.55
32:BB:66:A:C6	32:BB:109:C:C6	2.95	0.55
1:AA:429:U:H4'	1:AA:430:A:O5'	2.07	0.55
1:AA:432:A:C8	1:AA:433:C:C5	2.95	0.55
33:DD:142:VAL:HG22	33:DD:192:THR:O	2.07	0.55
33:DD:172:TYR:HD1	33:DD:185:VAL:C	2.10	0.55
6:AF:81:ILE:O	6:AF:82:ARG:C	2.45	0.55
28:B6:13:CYS:HA	28:B6:50:ARG:O	2.07	0.55
34:DE:116:VAL:O	34:DE:117:MET:HB3	2.05	0.55
36:BG:47:LYS:HD3	36:BG:81:LYS:CD	2.31	0.55
38:DI:93:THR:OG1	38:DI:94:ALA:N	2.36	0.55
31:BA:917:A:N1	32:BB:80:U:H4'	2.22	0.55
49:DX:70:LEU:O	49:DX:71:GLY:C	2.45	0.55
1:AA:954:G:C2	1:AA:955:U:C2	2.94	0.55
37:BH:89:ILE:HD12	37:BH:89:ILE:H	1.70	0.55
2:AB:67:THR:HG21	2:AB:155:LEU:HD21	1.87	0.55
38:DI:136:VAL:O	38:DI:138:ILE:HG13	2.06	0.55
31:DA:518:G:H4'	48:DW:18:ARG:CZ	2.37	0.55
48:BW:51:LEU:HD23	48:BW:105:VAL:HG11	1.89	0.55
31:DA:1990:C:H2'	31:DA:1991:U:C6	2.42	0.55
31:DA:2688:U:H1'	31:DA:2721:A:N6	2.21	0.55
1:CA:236:G:H2'	1:CA:237:C:C6	2.42	0.55
31:DA:473:G:H2'	31:DA:474:G:O5'	2.06	0.55
8:CH:10:LEU:HD13	8:CH:83:ILE:CD1	2.33	0.55
31:DA:2580:U:H5'	34:DE:131:ALA:H	1.72	0.55
31:BA:185:U:H4'	31:BA:218:A:H4'	1.88	0.55
45:DT:112:ARG:O	45:DT:112:ARG:HD3	2.06	0.55
6:CF:99:ALA:HB3	18:CR:29:PHE:CE2	2.42	0.55
33:BD:14:ARG:HG2	33:BD:14:ARG:HH11	1.71	0.55
31:DA:1844:C:O2'	31:DA:1845:G:H5'	2.06	0.55
31:DA:602:G:O2'	31:DA:604:G:H4'	2.07	0.55
2:CB:140:HIS:O	2:CB:143:GLU:HB2	2.06	0.55
31:BA:319:C:H2'	31:BA:320:A:O4'	2.07	0.55
31:BA:1373:A:N6	31:BA:1374:G:C2	2.75	0.55
1:AA:774:G:N2	1:AA:775:G:H1'	2.22	0.55
15:CO:61:GLY:O	15:CO:64:ARG:HB3	2.07	0.55
17:AQ:57:VAL:HG12	17:AQ:76:LEU:HA	1.88	0.55
31:DA:1850:G:C5	31:DA:1851:U:C5	2.94	0.55
18:CR:56:THR:HB	18:CR:58:LEU:HD13	1.88	0.55
19:AS:80:TYR:O	19:AS:80:TYR:CG	2.59	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:415:A:H2'	31:DA:416:C:C6	2.42	0.55
26:B4:23:GLU:O	36:BG:113:ARG:HG3	2.07	0.55
7:CG:69:VAL:HG11	7:CG:134:ALA:HB1	1.88	0.55
19:CS:63:THR:O	19:CS:66:MET:HG2	2.07	0.55
1:AA:1159:U:C5	1:AA:1182:G:C4	2.95	0.55
41:DP:98:GLU:O	41:DP:101:VAL:HG13	2.07	0.55
31:BA:1675:C:H2'	31:BA:1676:A:O4'	2.07	0.55
32:BB:27:C:C2'	32:BB:27:C:O2	2.55	0.55
32:BB:24:G:C2	32:BB:56:G:C2	2.94	0.55
31:DA:1528(A):A:C3'	31:DA:1529:G:H5''	2.33	0.55
39:DN:54:VAL:HB	39:DN:122:VAL:HG22	1.88	0.55
47:DV:90:PRO:CD	47:DV:91:TYR:N	2.70	0.55
1:CA:390:C:O2'	1:CA:391:G:H5'	2.07	0.55
4:CD:10:ARG:NH1	4:CD:10:ARG:HG2	2.22	0.55
31:DA:697:C:H2'	31:DA:698:C:C6	2.41	0.55
39:BN:32:THR:O	39:BN:35:ARG:O	2.25	0.55
37:DH:103:LEU:HD22	37:DH:123:PHE:CE2	2.42	0.55
20:CT:79:ARG:HA	20:CT:82:SER:OG	2.07	0.55
31:DA:2307:G:N3	31:DA:2307:G:H3'	2.21	0.55
31:BA:1509(B):A:H3'	31:BA:1510:G:C8	2.38	0.55
31:DA:2262:U:C2'	31:DA:2263:C:H5'	2.37	0.55
31:DA:911:A:C2'	42:DQ:9:TYR:OH	2.55	0.55
42:BQ:141:GLN:NE2	51:BZ:70:LEU:HB2	2.22	0.55
32:DB:21:G:C8	32:DB:22:U:C1'	2.89	0.55
31:BA:2208:A:H1'	31:BA:2219:G:C5	2.42	0.55
1:AA:321:A:N7	1:AA:328:C:O2'	2.30	0.55
1:AA:328:C:H4'	1:AA:329:A:H5'	1.88	0.55
20:AT:26:ASN:HB2	20:AT:71:THR:HG23	1.87	0.55
27:B5:2:ALA:HB3	31:BA:747:U:C6	2.42	0.55
39:BN:56:ASN:HA	39:BN:125:GLY:N	2.22	0.55
1:CA:1097:C:H1'	1:CA:1170:A:H1'	1.89	0.55
4:AD:24:GLU:O	4:AD:27:TYR:N	2.31	0.55
1:CA:818:G:C3'	1:CA:819:A:C5'	2.85	0.55
32:DB:79:C:H2'	32:DB:80:U:O4'	2.06	0.55
3:CC:47:LEU:HD23	3:CC:52:LEU:HD13	1.89	0.55
31:DA:1678:G:H21	31:DA:1989:G:H22	1.55	0.55
42:DQ:23:GLY:HA2	42:DQ:101:ARG:N	2.21	0.55
31:BA:1411:C:H2'	31:BA:1412:A:N7	2.22	0.55
31:BA:773:U:C5'	33:BD:47:GLY:HA2	2.36	0.55
31:DA:1972:A:O2'	31:DA:1973:G:H5'	2.07	0.55
31:DA:2843:G:C4	31:DA:2844:G:C8	2.94	0.55
31:BA:157:U:C5'	31:BA:171:G:H22	2.18	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:10:A:H2'	1:CA:11:G:C8	2.42	0.55
1:AA:769:G:H4'	1:AA:1513:A:H4'	1.88	0.55
31:DA:2556:C:H2'	31:DA:2557:G:O4'	2.06	0.55
6:AF:39:LYS:O	6:AF:40:VAL:HB	2.06	0.55
31:DA:892:G:C8	31:DA:893:C:C4	2.95	0.55
12:AL:119:LYS:O	12:AL:120:TYR:HB2	2.07	0.55
12:CL:5:PRO:HA	12:CL:9:GLN:NE2	2.22	0.55
8:CH:77:GLU:HG3	8:CH:78:GLN:N	2.22	0.55
31:BA:2347:C:H2'	31:BA:2348:U:H6	1.70	0.55
36:DG:96:ARG:HD2	36:DG:97:ASP:H	1.72	0.55
8:AH:109:ILE:HD11	8:AH:111:ILE:HG12	1.87	0.55
1:AA:1486:G:H2'	1:AA:1487:G:C1'	2.37	0.55
31:DA:489:G:N7	48:DW:49:LYS:NZ	2.54	0.55
1:AA:1272:G:C6	1:AA:1273:G:C5	2.95	0.55
31:BA:1805:U:C2	31:BA:1806:C:C5	2.94	0.55
27:D5:2:ALA:HB3	31:DA:747:U:C6	2.42	0.55
28:D6:20:ASN:O	28:D6:21:TYR:CG	2.60	0.55
31:DA:2447:G:N2	31:DA:2450:A:OP2	2.39	0.55
31:DA:671:C:OP1	41:DP:43:GLY:HA2	2.06	0.55
31:DA:1257:C:O2'	35:DF:84:VAL:HG23	2.06	0.55
41:DP:67:MET:CE	41:DP:67:MET:HA	2.37	0.55
31:BA:2393:A:H2'	31:BA:2394:C:O4'	2.07	0.55
31:BA:579:G:H2'	31:BA:580:C:H6	1.69	0.55
41:BP:26:GLY:HA2	41:BP:30:THR:CG2	2.37	0.55
41:BP:62:LEU:CD2	41:BP:62:LEU:H	1.89	0.55
33:BD:35:LYS:HB3	33:BD:63:ARG:HA	1.88	0.55
32:BB:39:A:H5'	32:BB:40:U:OP2	2.06	0.55
24:D2:44:LEU:O	24:D2:47:ASN:ND2	2.40	0.55
49:DX:53:LYS:N	49:DX:80:ILE:HG22	2.21	0.55
41:BP:91:PHE:CZ	41:BP:95:VAL:HB	2.42	0.55
46:DU:75:ASN:HB3	46:DU:77:SER:OG	2.07	0.55
47:DV:40:LEU:C	47:DV:40:LEU:HD13	2.27	0.55
31:BA:2786:U:N3	31:BA:2787:C:C5	2.75	0.55
31:BA:2807:G:H1	31:BA:2892:A:H62	1.55	0.55
34:BE:59:VAL:CG2	34:BE:63:LEU:HA	2.32	0.55
1:AA:41:G:C4	1:AA:402:G:C2	2.94	0.55
1:CA:427:U:H3'	1:CA:428:G:H2'	1.88	0.55
1:CA:432:A:N7	1:CA:433:C:C4	2.75	0.55
4:CD:117:ALA:O	4:CD:120:LEU:HB2	2.07	0.55
12:CL:113:ARG:HG3	12:CL:114:LYS:N	2.22	0.55
39:BN:28:THR:HG22	39:BN:29:LYS:N	2.21	0.55
23:D1:10:LYS:O	23:D1:13:ILE:HG23	2.07	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:527:C:O2	31:BA:527:C:O4'	2.19	0.55
4:AD:58:LEU:HD23	4:AD:206:PHE:CE1	2.42	0.55
31:BA:1791:A:H3'	31:BA:1792:G:C8	2.41	0.55
46:BU:101:ARG:O	46:BU:102:GLU:C	2.44	0.55
23:B1:10:LYS:HB2	23:B1:14:VAL:N	2.20	0.55
22:D0:43:THR:HG22	31:DA:2331:G:O2'	2.06	0.55
31:DA:952:G:C6	31:DA:966:G:C6	2.95	0.55
43:DR:24:GLN:HE22	43:DR:36:THR:HG21	1.71	0.55
1:CA:1189:C:O3'	3:CC:5:ILE:HD12	2.06	0.55
31:BA:2387:U:H6	31:BA:2387:U:OP2	1.90	0.55
31:BA:830:G:H4'	31:BA:831:G:OP2	2.07	0.55
2:CB:168:THR:HA	2:CB:171:ALA:HB2	1.89	0.55
2:CB:25:ASN:C	2:CB:25:ASN:OD1	2.45	0.55
1:AA:27:G:O2'	1:AA:28:G:H5'	2.06	0.55
15:AO:52:SER:O	15:AO:55:GLY:N	2.40	0.55
15:AO:54:ARG:HG2	15:AO:58:MET:CE	2.37	0.55
1:AA:346:G:N3	1:AA:346:G:H3'	2.21	0.55
31:BA:904:C:H2'	31:BA:905:U:H5'	1.88	0.55
1:AA:687:A:H4'	1:AA:688:G:O5'	2.06	0.55
31:BA:1047:G:H2'	31:BA:1110:G:H22	1.70	0.55
31:DA:2713:A:H3'	31:DA:2714:G:C5'	2.36	0.55
31:DA:1337:G:O2'	31:DA:1338:G:H5'	2.07	0.55
13:AM:86:CYS:HB2	19:AS:73:GLU:HB3	1.89	0.55
31:DA:1663:C:HO2'	31:DA:1664:A:H8	1.53	0.55
31:BA:1177:A:H5'	31:BA:1178:C:O4'	2.07	0.55
31:DA:1433:U:O2'	31:DA:1434:A:H5'	2.06	0.55
1:CA:659:U:N3	1:CA:660:G:C8	2.75	0.55
31:BA:121:G:H4'	31:BA:149:A:H5'	1.89	0.55
38:BI:31:LEU:HD13	38:BI:37:VAL:HA	1.88	0.55
19:CS:10:PHE:CZ	19:CS:70:LYS:HE2	2.37	0.55
1:AA:791:G:C6	1:AA:792:A:N7	2.75	0.55
50:DY:49:VAL:HG12	50:DY:53:PRO:CB	2.37	0.55
31:DA:34:C:C3'	31:DA:34:C:C6	2.90	0.55
29:D7:19:ARG:HD3	31:DA:125:G:OP2	2.06	0.55
1:AA:414:A:H2'	1:AA:415:A:O4'	2.07	0.55
31:DA:1933:G:H2'	31:DA:1934:C:O5'	2.06	0.55
1:CA:983:A:H2	1:CA:984:C:C5	2.25	0.55
10:AJ:50:ILE:HD12	10:AJ:60:ARG:HH11	1.71	0.55
31:BA:921:G:H4'	31:BA:2269:A:C5	2.42	0.55
1:CA:119:A:H4'	1:CA:120:A:O5'	2.05	0.55
15:AO:3:ILE:HD13	15:AO:3:ILE:N	2.19	0.55
31:BA:557:U:H2'	31:BA:558:G:C8	2.41	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DO:87:ILE:HG22	40:DO:88:ASN:O	2.06	0.55
37:BH:17:VAL:HG21	37:BH:50:VAL:HG21	1.88	0.55
19:AS:63:THR:O	19:AS:66:MET:HG2	2.07	0.55
17:CQ:6:LEU:HD13	17:CQ:23:VAL:HG11	1.89	0.55
1:AA:136:C:H42	1:AA:227:G:H1	1.55	0.55
43:BR:99:LYS:HB3	43:BR:99:LYS:NZ	2.21	0.55
1:CA:505:G:C6	1:CA:535:A:C2	2.94	0.55
30:D8:39:LYS:HG2	30:D8:39:LYS:O	2.07	0.55
31:DA:663:G:H2'	31:DA:664:C:C6	2.42	0.55
31:DA:804:A:H5''	31:DA:805:G:OP1	2.07	0.55
41:DP:101:VAL:C	41:DP:103:ALA:N	2.58	0.55
23:B1:23:LYS:NZ	23:B1:23:LYS:HA	2.22	0.55
31:BA:811:U:O2	31:BA:1250:G:H3'	2.07	0.55
29:B7:8:ASN:ND2	29:B7:10:ARG:N	2.54	0.55
24:D2:25:VAL:HG13	24:D2:26:ARG:CD	2.35	0.55
31:DA:1019:U:N3	31:DA:1142(A):A:N6	2.46	0.55
47:DV:13:ARG:CG	47:DV:13:ARG:NH1	2.64	0.55
47:DV:19:LYS:HE2	47:DV:20:LEU:H	1.71	0.55
31:BA:1468:C:H2'	31:BA:1469:A:C8	2.41	0.55
31:DA:1607:C:H4'	31:DA:1608:A:O5'	2.06	0.55
32:DB:117:G:C2	32:DB:118:G:C8	2.95	0.55
36:DG:30:GLU:O	36:DG:30:GLU:HG2	2.07	0.55
44:DS:46:VAL:CG1	44:DS:47:THR:N	2.70	0.55
44:DS:46:VAL:HG12	44:DS:47:THR:N	2.21	0.55
1:CA:625:G:C4	1:CA:626:U:C5	2.95	0.55
46:BU:92:ARG:HD2	47:BV:11:GLN:HG3	1.89	0.55
47:BV:22:VAL:O	47:BV:23:GLU:CB	2.46	0.55
47:BV:66:ARG:HE	47:BV:94:LEU:CG	2.20	0.55
47:BV:25:LEU:HB2	47:BV:94:LEU:HD11	1.89	0.55
50:DY:39:VAL:O	50:DY:40:GLU:CD	2.45	0.55
31:BA:330:A:H2	31:BA:1210:A:HO2'	1.52	0.55
51:DZ:8:TYR:O	51:DZ:37:VAL:HG12	2.07	0.55
27:B5:40:LYS:CD	27:B5:46:CYS:HB3	2.37	0.55
50:BY:86:ARG:HG2	50:BY:87:LYS:H	1.72	0.55
42:BQ:42:ILE:HD13	42:BQ:97:VAL:HG21	1.88	0.55
6:AF:22:GLU:HA	6:AF:25:ILE:HG12	1.89	0.55
31:BA:947:G:N2	31:BA:971:C:C2	2.75	0.55
1:AA:1097:C:H1'	1:AA:1170:A:H1'	1.88	0.55
42:BQ:93:TYR:N	42:BQ:93:TYR:CD1	2.74	0.55
1:AA:727:G:N2	1:AA:731:G:C4	2.75	0.55
1:AA:818:G:C3'	1:AA:819:A:C5'	2.85	0.55
50:DY:77:PRO:O	50:DY:78:ALA:CB	2.54	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1504:G:OP1	1:AA:1507:A:H4'	2.06	0.55
12:AL:47:LYS:CB	12:AL:48:PRO:HD3	2.26	0.55
12:CL:87:GLY:H	12:CL:99:HIS:H	1.53	0.55
31:DA:1677:A:H2'	31:DA:1678:G:C8	2.42	0.55
1:AA:1298:C:H4'	1:AA:1299:A:N3	2.21	0.55
31:DA:688:U:H5'	31:DA:1780:A:C2	2.42	0.55
1:CA:236:G:H2'	1:CA:237:C:H6	1.72	0.55
31:BA:1484:G:O2'	31:BA:1485:G:O4'	2.23	0.55
1:AA:236:G:H2'	1:AA:237:C:C6	2.41	0.55
47:DV:43:GLU:N	47:DV:48:GLY:HA2	2.22	0.55
31:BA:2203:U:O2'	33:BD:151:LYS:HG2	2.07	0.55
31:DA:2474:C:H5'	31:DA:2475:C:OP2	2.07	0.55
48:DW:4:LYS:HG2	48:DW:106:ILE:HG22	1.89	0.55
3:CC:134:ILE:HG22	3:CC:168:ALA:HB3	1.88	0.55
31:BA:1373:A:C6	31:BA:1374:G:C4	2.95	0.55
37:DH:86:GLU:CB	37:DH:132:ARG:HG2	2.36	0.55
1:CA:284:G:H2'	1:CA:285:G:C8	2.41	0.55
1:AA:35:G:H2'	1:AA:36:C:C6	2.42	0.55
31:DA:2552:U:C2	31:DA:2554:U:C5'	2.89	0.55
37:DH:158:HIS:HE1	37:DH:168:PRO:HG2	1.72	0.55
3:AC:11:ARG:O	3:AC:13:GLY:N	2.39	0.55
1:CA:936:C:H2'	1:CA:937:A:O4'	2.07	0.55
38:DI:44:LEU:O	38:DI:47:LEU:HB2	2.06	0.55
26:D4:23:GLU:O	36:DG:113:ARG:HG3	2.07	0.55
7:CG:146:GLU:HA	7:CG:149:ARG:HB2	1.89	0.55
1:AA:808:C:P	15:AO:48:LYS:HE3	2.47	0.55
30:D8:40:GLU:O	30:D8:41:ILE:C	2.43	0.55
31:DA:2056:G:C2	31:DA:2057:A:C8	2.95	0.55
31:DA:2286:A:O2'	31:DA:2286:A:C8	2.59	0.55
31:DA:626:U:H5''	31:DA:627:A:C5'	2.36	0.55
31:BA:1204:A:C2	31:BA:1241:A:C2	2.94	0.55
31:BA:511:U:H5''	31:BA:512:G:OP2	2.06	0.55
41:BP:45:LEU:HD22	41:BP:46:LYS:H	1.72	0.55
36:BG:11:TYR:CD2	36:BG:12:TYR:CE1	2.95	0.55
31:DA:1459:G:C8	31:DA:1461:G:C1'	2.88	0.55
49:DX:52:VAL:HG21	49:DX:82:GLN:HA	1.89	0.55
39:DN:3:THR:HG22	39:DN:5:VAL:H	1.72	0.55
24:B2:25:VAL:HG13	24:B2:26:ARG:CD	2.32	0.55
49:BX:57:LEU:HD13	49:BX:77:LYS:HB2	1.88	0.55
31:DA:1327:C:H2'	31:DA:1328:G:O4'	2.07	0.55
36:DG:101:ILE:HD11	36:DG:105:LYS:HE3	1.89	0.55
44:DS:90:GLY:C	44:DS:92:TYR:N	2.60	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:110:C:H2'	1:CA:111:G:O4'	2.07	0.55
50:BY:28:LYS:N	50:BY:28:LYS:HD3	2.02	0.55
31:DA:1810:A:H2'	31:DA:1811:G:O4'	2.06	0.55
33:DD:35:LYS:CE	33:DD:65:ILE:HG22	2.37	0.55
37:DH:85:LYS:HE2	37:DH:141:VAL:O	2.06	0.55
23:D1:87:PRO:O	23:D1:91:LYS:N	2.35	0.55
31:DA:2770:G:H5''	31:DA:2771:C:OP2	2.07	0.55
31:BA:1797:C:H4'	33:BD:257:LEU:O	2.06	0.55
31:BA:729:G:H4'	31:BA:763:G:H5'	1.89	0.55
31:BA:764:A:H5''	33:BD:210:GLY:HA3	1.89	0.55
42:BQ:82:ARG:O	42:BQ:83:MET:HB2	2.06	0.55
51:DZ:3:TYR:O	51:DZ:57:ILE:HA	2.07	0.55
42:DQ:6:ARG:O	42:DQ:6:ARG:HG3	2.07	0.55
51:BZ:77:ASP:HB2	51:BZ:84:GLU:HG2	1.88	0.55
31:DA:2836:U:C4	31:DA:2883:A:N6	2.75	0.55
1:CA:1206:G:C6	1:CA:1207:G:C6	2.95	0.55
1:AA:1104:G:H4'	2:AB:111:ARG:NH1	2.22	0.55
50:DY:86:ARG:HG2	50:DY:87:LYS:H	1.72	0.55
16:CP:20:VAL:HG23	16:CP:35:LYS:HA	1.88	0.55
14:CN:3:ARG:O	14:CN:7:ILE:HG23	2.07	0.55
8:AH:86:ILE:O	8:AH:88:LYS:HG2	2.06	0.55
1:CA:346:G:H3'	1:CA:346:G:N3	2.22	0.55
45:DT:32:TYR:HD2	45:DT:81:PRO:O	1.87	0.55
31:BA:543:C:H42	31:BA:551:G:H1	1.54	0.55
9:AI:16:ARG:O	9:AI:63:ILE:HA	2.07	0.55
1:AA:250:A:C4'	1:AA:251:G:O5'	2.53	0.55
10:CJ:63:PHE:CZ	14:CN:45:ARG:HG3	2.42	0.55
38:BI:25:TYR:CE1	38:BI:30:LEU:HD21	2.42	0.55
1:AA:939:G:H5''	7:AG:102:ARG:CZ	2.37	0.55
10:AJ:50:ILE:HA	10:AJ:60:ARG:HB2	1.89	0.55
31:DA:272(H):C:O2	31:DA:272(H):C:H2'	2.06	0.55
31:BA:1550:C:H2'	31:BA:1551:C:H6	1.72	0.55
31:DA:272(B):G:H2'	31:DA:272(C):G:H8	1.72	0.55
37:BH:43:VAL:CG1	37:BH:53:GLU:H	2.20	0.55
6:AF:46:ARG:O	6:AF:47:ARG:C	2.45	0.55
13:AM:106:ASN:O	13:AM:107:ALA:HB3	2.05	0.55
1:CA:36:C:C2'	1:CA:37:U:H5'	2.37	0.55
31:BA:1682:G:C2	31:BA:1683:C:C2	2.95	0.55
31:BA:2075:U:H2'	31:BA:2238:G:N2	2.22	0.55
36:BG:94:LEU:HG	36:BG:99:MET:HA	1.88	0.55
4:AD:3:ARG:O	4:AD:5:ILE:N	2.40	0.55
31:BA:2835:A:C6	31:BA:2879:C:C6	2.94	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:409:C:N4	31:DA:418:G:H1	2.05	0.55
3:AC:77:ILE:O	3:AC:83:ARG:HB3	2.07	0.55
37:BH:143:GLN:HE22	37:BH:147:ASN:ND2	2.05	0.55
3:CC:83:ARG:O	3:CC:86:VAL:HG22	2.07	0.55
7:AG:146:GLU:HA	7:AG:149:ARG:HB2	1.88	0.55
1:CA:1292:U:O2'	1:CA:1293:G:H5'	2.07	0.55
39:BN:24:GLY:H	39:BN:27:ALA:H	1.53	0.55
1:CA:1026:G:N3	1:CA:1026:G:H2'	2.22	0.55
31:DA:2518:A:H5'	31:DA:2518:A:H8	1.71	0.55
2:AB:21:ARG:HG3	2:AB:21:ARG:O	2.07	0.55
7:CG:14:PRO:HG3	7:CG:21:VAL:HG13	1.89	0.55
33:BD:142:VAL:HG23	33:BD:193:VAL:HA	1.89	0.55
28:D6:37:ARG:O	28:D6:48:VAL:O	2.25	0.54
31:DA:948:G:O2'	31:DA:949:C:H5'	2.06	0.54
30:B8:53:PRO:HA	30:B8:56:GLU:HB2	1.89	0.54
31:BA:1669:A:H5''	31:BA:2550:G:OP1	2.07	0.54
31:BA:696:G:C2	31:BA:767:U:O2	2.60	0.54
33:BD:27:THR:O	33:BD:28:GLU:HB2	2.06	0.54
31:BA:2334:G:H8	31:BA:2334:G:OP1	1.90	0.54
32:BB:33:G:N1	32:BB:50:G:C6	2.75	0.54
31:DA:1449:A:HO2'	31:DA:1530:C:H5	1.55	0.54
49:BX:21:PHE:CD2	49:BX:90:GLU:HA	2.42	0.54
1:CA:394:G:H2'	1:CA:395:C:C6	2.39	0.54
5:CE:78:HIS:HD2	8:CH:104:ARG:NE	2.03	0.54
31:BA:2310:A:O2'	31:BA:2311:A:H5''	2.07	0.54
31:BA:2000:G:C2	31:BA:2001:A:C8	2.95	0.54
31:DA:1509(B):A:H2'	31:DA:1510:G:H8	1.72	0.54
31:BA:84:A:H3'	50:BY:9:LYS:HB2	1.88	0.54
1:AA:676:A:O2'	1:AA:677:U:H5'	2.08	0.54
34:DE:93:VAL:N	34:DE:95:ILE:CD1	2.66	0.54
1:AA:358:U:N3	1:AA:359:U:N3	2.55	0.54
15:CO:54:ARG:HG2	15:CO:58:MET:CE	2.36	0.54
34:DE:105:THR:HA	34:DE:166:THR:HA	1.89	0.54
31:DA:1695:G:N2	31:DA:1696:G:C8	2.76	0.54
1:AA:768:A:H5'	1:AA:1524:C:O2'	2.07	0.54
50:DY:99:CYS:O	50:DY:100:ALA:O	2.25	0.54
22:D0:32:ARG:O	22:D0:35:ASN:ND2	2.40	0.54
31:BA:80:G:H2'	31:BA:81:G:H5'	1.90	0.54
1:CA:960:U:C4	1:CA:1225:A:H1'	2.42	0.54
1:CA:1004:A:C2'	1:CA:1038:C:O2	2.55	0.54
10:CJ:26:ALA:HB1	10:CJ:29:ARG:NH2	2.17	0.54
31:DA:1834:U:H2'	31:DA:1834:U:O2	2.07	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DE:38:THR:HG22	34:DE:40:GLU:N	2.14	0.54
1:AA:1189:C:O3'	3:AC:5:ILE:HD12	2.07	0.54
31:BA:1502:C:C2'	31:BA:1502:C:O2	2.55	0.54
1:AA:273:A:C2'	1:AA:274:A:H5'	2.38	0.54
42:BQ:52:VAL:O	42:BQ:56:ARG:HB2	2.08	0.54
33:BD:228:PRO:HD3	33:BD:235:GLY:CA	2.36	0.54
31:DA:2236:C:H2'	31:DA:2237:G:C5'	2.33	0.54
31:DA:464:U:O2'	31:DA:465:G:H5'	2.06	0.54
9:AI:77:ILE:O	9:AI:81:ILE:HG12	2.08	0.54
1:CA:532:A:H61	3:CC:193:TYR:CB	2.20	0.54
31:BA:1665:A:C2'	31:BA:1666:G:H5'	2.37	0.54
1:AA:759:A:H2'	1:AA:760:G:H5'	1.87	0.54
1:AA:35:G:C6	1:AA:36:C:N4	2.75	0.54
31:BA:207:A:H2'	31:BA:208:C:O4'	2.06	0.54
32:DB:41:U:C2'	32:DB:42:C:OP1	2.55	0.54
1:AA:986:A:H2'	1:AA:987:G:O4'	2.07	0.54
1:AA:1410:G:O2'	1:AA:1411:C:H5'	2.07	0.54
40:DO:20:MET:HE3	40:DO:44:LYS:HE3	1.88	0.54
20:AT:37:SER:O	20:AT:40:ALA:HB3	2.07	0.54
1:AA:936:C:H2'	1:AA:937:A:O4'	2.07	0.54
31:DA:2743:C:H2'	31:DA:2744:G:O4'	2.06	0.54
22:D0:37:LEU:C	22:D0:38:VAL:CG2	2.76	0.54
31:DA:2034:U:O2'	31:DA:2035:G:H5'	2.07	0.54
8:AH:30:ARG:HB3	8:AH:30:ARG:NH1	2.21	0.54
1:AA:141:A:H4'	1:AA:182:U:H1'	1.88	0.54
1:CA:859:A:H2'	1:CA:860:A:O4'	2.08	0.54
30:D8:40:GLU:OE2	30:D8:44:LYS:HE3	2.07	0.54
31:DA:2061:G:N2	31:DA:2063:C:N1	2.56	0.54
31:DA:448:U:O4	31:DA:583:G:H1'	2.08	0.54
31:BA:26:G:C6	31:BA:27:G:N1	2.75	0.54
31:DA:1450(A):C:H2'	31:DA:1451:C:C6	2.42	0.54
31:DA:74:A:H4'	31:DA:75:G:O5'	2.08	0.54
49:DX:3:THR:HA	49:DX:6:ASP:OD2	2.07	0.54
31:DA:1006:C:C2	31:DA:1138:G:N2	2.74	0.54
31:DA:1010:A:N3	31:DA:1153:C:H1'	2.22	0.54
47:DV:66:ARG:HD2	47:DV:67:GLY:CA	2.36	0.54
31:BA:1408:C:C2	31:BA:1595:G:N2	2.76	0.54
36:DG:28:VAL:HB	36:DG:29:TRP:CD1	2.42	0.54
1:CA:63:C:N4	1:CA:104:G:H1	2.03	0.54
1:CA:355:C:C4	1:CA:356:A:N7	2.75	0.54
1:CA:359:U:O2'	1:CA:360:A:H5'	2.07	0.54
4:CD:58:LEU:HD23	4:CD:206:PHE:CE1	2.42	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BG:134:GLY:HA2	36:BG:156:ASP:HA	1.89	0.54
35:BF:1:MET:O	35:BF:2:LYS:C	2.46	0.54
31:BA:1434:A:C2'	31:BA:1435:G:H5'	2.37	0.54
32:DB:17:C:O2	32:DB:17:C:C2'	2.53	0.54
35:BF:184:TYR:CD2	35:BF:188:ARG:HD2	2.42	0.54
51:DZ:167:PRO:O	51:DZ:168:GLU:HB2	2.07	0.54
1:AA:355:C:H2'	1:AA:356:A:H5'	1.89	0.54
31:BA:2772:C:H2'	31:BA:2773:C:C6	2.42	0.54
31:BA:64:A:O3'	49:BX:68:ARG:O	2.25	0.54
31:BA:1678:G:O5'	31:BA:1678:G:H8	1.89	0.54
31:BA:823:G:C2'	31:BA:824:A:H5'	2.37	0.54
1:CA:731:G:OP1	1:CA:766:A:H1'	2.07	0.54
31:BA:1044:G:H2'	31:BA:1044:G:N3	2.22	0.54
31:DA:2199:A:H5''	31:DA:2200:C:OP2	2.06	0.54
1:CA:975:A:H5''	1:CA:1363(A):A:N6	2.22	0.54
1:CA:552:U:C2'	1:CA:553:A:H5'	2.37	0.54
31:DA:2523:G:H2'	31:DA:2524:G:H5'	1.89	0.54
38:BI:133:HIS:HB2	38:BI:134:PRO:HD2	1.89	0.54
31:BA:1411:C:O5'	31:BA:1411:C:H6	1.90	0.54
45:DT:45:PHE:CE1	45:DT:74:ARG:HG3	2.42	0.54
13:CM:61:GLU:HG3	13:CM:66:LEU:HD11	1.87	0.54
40:DO:13:ASN:HD22	40:DO:97:ARG:HB2	1.72	0.54
31:DA:154:G:O5'	31:DA:154:G:C8	2.60	0.54
31:DA:2464:C:N4	31:DA:2487:G:C6	2.75	0.54
6:AF:99:ALA:HB3	18:AR:29:PHE:CE2	2.41	0.54
31:BA:792:G:C4'	31:BA:793:A:H5'	2.38	0.54
1:CA:939:G:H5''	7:CG:102:ARG:CZ	2.37	0.54
9:CI:46:ALA:HB2	9:CI:74:ILE:HG23	1.89	0.54
31:DA:807:U:C2	31:DA:808:G:C8	2.95	0.54
18:AR:22:VAL:HG12	18:AR:22:VAL:O	2.08	0.54
1:AA:1315:U:H2'	1:AA:1316:G:O4'	2.07	0.54
31:BA:2220:G:H2'	31:BA:2221:G:C8	2.43	0.54
45:BT:129:ARG:CZ	45:BT:131:ALA:H	2.20	0.54
30:D8:19:SER:HB3	31:DA:651:G:H5'	1.89	0.54
34:DE:146:THR:HA	34:DE:147:PRO:C	2.28	0.54
34:BE:65:GLY:O	34:BE:67:PHE:N	2.40	0.54
4:CD:88:VAL:O	4:CD:92:VAL:HG23	2.08	0.54
31:BA:451:C:N4	31:BA:454:A:H5'	2.21	0.54
2:AB:8:LYS:HZ2	2:AB:217:ARG:HH11	1.55	0.54
45:DT:17:THR:O	45:DT:18:ASP:HB3	2.08	0.54
31:DA:1632:A:C6	31:DA:1633:G:C6	2.95	0.54
51:BZ:11:GLU:CD	51:BZ:11:GLU:H	2.10	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2897:U:H2'	31:DA:2897:U:O2	2.07	0.54
5:AE:79:GLU:HB3	5:AE:92:LYS:HG3	1.90	0.54
1:CA:921:U:H3	1:CA:923:A:H62	1.56	0.54
27:D5:7:PRO:HG2	31:DA:2016:U:O2	2.07	0.54
28:D6:39:TYR:HE1	31:DA:2347:C:HO2'	1.54	0.54
30:D8:62:LEU:N	30:D8:63:PRO:CD	2.70	0.54
31:DA:2396:G:C2'	31:DA:2397:G:H5'	2.37	0.54
41:DP:85:LEU:HD23	41:DP:117:GLU:O	2.08	0.54
31:BA:697:C:H2'	31:BA:698:C:C6	2.42	0.54
32:BB:6:C:O2'	44:BS:29:PHE:CE1	2.57	0.54
49:DX:52:VAL:HB	49:DX:80:ILE:HG21	1.88	0.54
31:DA:996:A:C4'	46:DU:92:ARG:HE	2.13	0.54
47:DV:18:LEU:HD13	47:DV:18:LEU:C	2.26	0.54
47:DV:66:ARG:CG	47:DV:67:GLY:N	2.70	0.54
24:B2:26:ARG:NH1	24:B2:29:LYS:HE2	2.22	0.54
24:B2:45:SER:HB3	24:B2:48:HIS:HB3	1.89	0.54
31:BA:1449:A:HO2'	31:BA:1530:C:H5	1.55	0.54
49:BX:24:GLY:HA3	49:BX:80:ILE:CG1	2.37	0.54
31:BA:1713:U:O2'	31:BA:1714:G:H5'	2.07	0.54
32:DB:28:C:C2	32:DB:29:A:C8	2.96	0.54
36:DG:5:VAL:HG11	36:DG:101:ILE:HB	1.89	0.54
31:DA:2376:A:N1	44:DS:94:TYR:HB2	2.23	0.54
4:CD:74:GLN:O	4:CD:78:LEU:HG	2.06	0.54
5:CE:105:VAL:HB	5:CE:106:PRO:CD	2.37	0.54
31:BA:309:G:C4'	50:BY:18:GLY:HA3	2.37	0.54
31:DA:1811:G:C6	31:DA:1812:A:N7	2.75	0.54
31:BA:1659:U:C2'	31:BA:1660:C:H5'	2.37	0.54
5:AE:93:PRO:HA	5:AE:118:ILE:HD12	1.89	0.54
2:AB:201:ILE:CG2	2:AB:214:ILE:HG21	2.30	0.54
47:BV:13:ARG:HG3	47:BV:13:ARG:HH11	1.72	0.54
47:BV:85:LYS:C	47:BV:87:HIS:H	2.06	0.54
31:DA:1484:G:O2'	31:DA:1485:G:O4'	2.20	0.54
1:CA:674:G:H2'	1:CA:675:A:H8	1.72	0.54
31:DA:960:A:C8	31:DA:962:G:C8	2.95	0.54
51:BZ:5:LEU:HD12	51:BZ:47:VAL:CG2	2.38	0.54
31:DA:1651:G:N2	31:DA:2007:C:C2	2.75	0.54
32:BB:18:G:C4	32:BB:19:G:C8	2.95	0.54
1:AA:358:U:C4	1:AA:359:U:O4	2.60	0.54
31:DA:2636:U:H3	31:DA:2782:G:H1	1.54	0.54
27:D5:40:LYS:HE2	27:D5:46:CYS:CB	2.37	0.54
1:CA:1205:U:HO2'	1:CA:1206:G:H8	1.56	0.54
28:B6:40:CYS:SG	28:B6:45:LYS:CD	2.94	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BE:93:VAL:C	34:BE:95:ILE:H	2.09	0.54
31:BA:962:G:C2'	31:BA:963:U:H5'	2.38	0.54
31:BA:1414:G:H1	31:BA:1588:C:N4	1.92	0.54
1:AA:343:U:N3	1:AA:347:G:C6	2.76	0.54
45:BT:32:TYR:CD2	45:BT:81:PRO:HB2	2.42	0.54
45:BT:32:TYR:HB3	45:BT:81:PRO:CB	2.36	0.54
31:DA:478:A:N6	31:DA:502:A:H62	2.05	0.54
31:DA:1126:A:H4'	31:DA:1127:A:O5'	2.06	0.54
31:BA:2841:C:H2'	31:BA:2842:G:H8	1.73	0.54
31:BA:790:C:O2'	31:BA:791:C:C5'	2.55	0.54
31:DA:1266:G:O5'	48:DW:15:ARG:NH2	2.41	0.54
31:DA:153:C:H2'	31:DA:154:G:N7	2.23	0.54
35:DF:34:TRP:HB2	41:DP:10:PRO:O	2.07	0.54
2:AB:189:ASP:HB3	2:AB:203:GLY:O	2.07	0.54
15:AO:74:ASP:OD1	15:AO:76:GLU:HB3	2.08	0.54
44:BS:31:SER:HB3	44:BS:34:HIS:O	2.06	0.54
1:CA:1030(A):G:H1'	1:CA:1031:G:H22	1.72	0.54
1:CA:832:C:N4	1:CA:855:G:C6	2.76	0.54
38:DI:57:ARG:NH1	38:DI:57:ARG:HB3	2.22	0.54
35:DF:126:VAL:HG13	35:DF:193:VAL:HG13	1.89	0.54
45:DT:129:ARG:CZ	45:DT:131:ALA:H	2.20	0.54
50:BY:83:THR:HG22	50:BY:84:ARG:N	2.21	0.54
33:BD:233:HIS:CD2	33:BD:233:HIS:H	2.25	0.54
3:AC:24:ALA:HB1	3:AC:28:GLN:O	2.08	0.54
29:B7:34:ARG:HH11	29:B7:34:ARG:HB3	1.71	0.54
19:CS:79:THR:O	19:CS:80:TYR:HB3	2.07	0.54
8:AH:13:ILE:O	8:AH:17:THR:HG23	2.07	0.54
2:AB:100:GLY:O	2:AB:104:ASN:N	2.40	0.54
31:BA:1751:C:HO2'	31:BA:2861:G:HO2'	1.31	0.54
22:B0:39:ARG:HH21	31:BA:2355:C:H1'	1.73	0.54
37:BH:125:VAL:HG22	37:BH:131:VAL:HG22	1.88	0.54
31:DA:2674:G:H5''	40:DO:26:LYS:HE2	1.89	0.54
31:DA:2300:G:O2'	31:DA:2301:C:H5'	2.07	0.54
31:BA:2897:U:O2	31:BA:2897:U:H2'	2.05	0.54
22:D0:47:PRO:HB2	22:D0:51:VAL:O	2.07	0.54
1:CA:1152:A:H5''	10:CJ:13:HIS:CD2	2.43	0.54
1:CA:923:A:C2	1:CA:924:C:C2	2.96	0.54
28:D6:20:ASN:ND2	28:D6:21:TYR:N	2.50	0.54
31:BA:2415:G:O3'	41:BP:66:GLY:CA	2.55	0.54
31:BA:2580:U:H5'	34:BE:131:ALA:HB3	1.88	0.54
33:BD:28:GLU:HB2	33:BD:29:PRO:HD3	1.89	0.54
32:BB:60:C:C2	32:BB:61:G:C8	2.95	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:BS:13:ARG:O	44:BS:14:VAL:C	2.45	0.54
31:BA:2544:G:O5'	31:BA:2544:G:H8	1.90	0.54
24:D2:25:VAL:HA	24:D2:28:LYS:HB2	1.89	0.54
24:D2:47:ASN:ND2	24:D2:48:HIS:N	2.56	0.54
34:BE:77:ILE:HG22	34:BE:78:LEU:O	2.08	0.54
31:DA:1899:G:N2	31:DA:1902:C:C4	2.74	0.54
31:BA:1899:G:N2	31:BA:1902:C:C4	2.74	0.54
36:DG:16:ARG:CG	36:DG:16:ARG:HH11	2.20	0.54
44:DS:95:HIS:CD2	44:DS:96:GLY:H	2.25	0.54
1:AA:615:C:H2'	1:AA:616:G:O4'	2.08	0.54
1:CA:328:C:H4'	1:CA:329:A:H5'	1.90	0.54
1:CA:61:G:OP1	20:CT:10:LEU:HD11	2.06	0.54
31:BA:2307:G:OP1	31:BA:2307:G:H4'	2.07	0.54
33:DD:159:ALA:C	33:DD:161:THR:H	2.10	0.54
33:DD:35:LYS:CG	33:DD:64:ILE:N	2.71	0.54
33:DD:80:ALA:HB2	33:DD:96:HIS:CG	2.43	0.54
31:DA:2752:C:C4	31:DA:2753:A:N7	2.75	0.54
39:BN:87:LEU:HD21	39:BN:98:VAL:HG11	1.89	0.54
37:DH:164:TYR:CB	37:DH:166:GLY:H	2.21	0.54
31:DA:2310:A:O2'	31:DA:2311:A:H5''	2.07	0.54
50:DY:64:GLU:O	50:DY:65:ALA:HB2	2.08	0.54
31:DA:951:C:H2'	31:DA:952:G:H5'	1.86	0.54
22:D0:74:ARG:NH2	32:DB:13:A:C8	2.72	0.54
32:DB:18:G:C4	32:DB:19:G:C8	2.96	0.54
1:AA:682:G:H1	1:AA:708:C:N4	2.05	0.54
11:AK:85:ARG:HA	11:AK:112:THR:OG1	2.08	0.54
1:AA:541:G:C4	1:AA:542:G:C8	2.96	0.54
1:AA:60:A:P	1:AA:60:A:H8	2.30	0.54
23:B1:19:GLN:H	23:B1:44:PRO:HD3	1.73	0.54
50:BY:99:CYS:O	50:BY:100:ALA:O	2.26	0.54
1:AA:1072:G:C5	1:AA:1104:G:N1	2.76	0.54
1:AA:1105:A:H2'	1:AA:1106:G:H8	1.72	0.54
1:CA:579:G:H2'	1:CA:580:U:H6	1.72	0.54
1:CA:727:G:N2	1:CA:731:G:C4	2.76	0.54
1:AA:17:U:H2'	1:AA:18:C:C6	2.41	0.54
31:DA:856:C:H2'	31:DA:857:C:H6	1.72	0.54
31:BA:966:G:C5	31:BA:967:C:C5	2.95	0.54
31:DA:1168:G:H2'	31:DA:1169:G:C8	2.43	0.54
35:BF:20:LEU:HD13	35:BF:199:TRP:CH2	2.42	0.54
24:D2:18:PRO:O	24:D2:19:VAL:C	2.45	0.54
31:DA:1997:G:O2'	31:DA:1998:G:H5'	2.07	0.54
1:AA:64:G:H4'	1:AA:65:U:C5'	2.35	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:271:C:H2'	1:AA:272:C:H6	1.72	0.54
1:AA:930:C:O2'	1:AA:931:C:H5'	2.06	0.54
1:AA:1202:G:H2'	1:AA:1203:C:O4'	2.07	0.54
31:BA:2663:G:N7	31:BA:2664:G:C6	2.76	0.54
1:CA:658:G:C5	1:CA:659:U:C5	2.96	0.54
5:AE:51:VAL:O	5:AE:55:VAL:HG23	2.08	0.54
1:AA:650:G:C2'	1:AA:651:C:H5'	2.37	0.54
51:BZ:130:PRO:HA	51:BZ:133:ILE:HG13	1.90	0.54
51:DZ:108:PRO:CA	51:DZ:142:SER:HA	2.34	0.54
1:CA:1314:C:H41	19:CS:4:SER:N	2.05	0.54
2:CB:33:TYR:O	2:CB:34:ALA:HB2	2.08	0.54
4:AD:9:CYS:HB2	4:AD:22:LYS:HD2	1.89	0.54
18:AR:44:LEU:HA	18:AR:49:LYS:O	2.07	0.54
51:DZ:117:LEU:CB	51:DZ:174:VAL:HG22	2.38	0.54
45:DT:129:ARG:HD2	45:DT:130:ALA:N	2.22	0.54
4:CD:3:ARG:O	4:CD:5:ILE:N	2.40	0.54
17:AQ:65:ILE:N	17:AQ:65:ILE:HD12	2.23	0.54
1:CA:930:C:O2'	1:CA:931:C:H5'	2.08	0.54
31:DA:521:G:H2'	31:DA:522:G:C8	2.42	0.54
40:DO:87:ILE:HG22	40:DO:88:ASN:N	2.21	0.54
1:CA:69:G:H2'	1:CA:70:G:H8	1.71	0.54
1:CA:1076:C:C2	1:CA:1082:G:N2	2.75	0.54
50:DY:73:ARG:HH21	50:DY:82:PRO:HD3	1.71	0.54
31:BA:236:C:H2'	31:BA:237:C:H6	1.73	0.54
45:DT:58:ASN:C	45:DT:58:ASN:HD22	2.11	0.54
29:B7:13:ALA:O	29:B7:17:GLY:HA3	2.07	0.54
1:CA:17:U:O2'	1:CA:1079:G:N3	2.41	0.54
28:D6:48:VAL:HG22	28:D6:49:HIS:H	1.71	0.54
31:DA:2415:G:O2'	31:DA:2416:C:H5'	2.07	0.54
41:DP:16:ARG:HG2	41:DP:18:ARG:N	2.18	0.54
30:B8:40:GLU:OE2	30:B8:44:LYS:HE3	2.07	0.54
31:BA:1257:C:H1'	35:BF:82:ILE:O	2.08	0.54
31:BA:51:G:H4'	31:BA:52:A:H5'	1.90	0.54
36:BG:25:TYR:HA	36:BG:30:GLU:OE2	2.08	0.54
44:BS:26:LEU:HG	44:BS:39:ILE:HD11	1.88	0.54
44:BS:38:GLN:HG3	44:BS:47:THR:HG21	1.90	0.54
44:BS:94:TYR:CD1	44:BS:95:HIS:N	2.76	0.54
41:BP:107:LYS:C	41:BP:109:GLY:N	2.61	0.54
47:DV:66:ARG:CD	47:DV:67:GLY:H	2.21	0.54
49:BX:82:GLN:OE1	49:BX:83:VAL:HG22	2.07	0.54
31:DA:1899:G:O2'	31:DA:1900:A:H5''	2.07	0.54
4:CD:135:LEU:O	4:CD:137:SER:N	2.40	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:309:G:H4'	50:BY:18:GLY:HA3	1.88	0.54
31:BA:2317:C:C2'	31:BA:2318:G:C5'	2.70	0.54
31:BA:1290:C:H2'	31:BA:1291:C:C6	2.43	0.54
31:DA:696:G:C2	31:DA:767:U:O2	2.60	0.54
31:DA:1812:A:O2'	33:DD:45:ASN:HB2	2.08	0.54
31:BA:1005:C:C2	31:BA:1143:A:C5	2.96	0.54
39:BN:6:PRO:HG2	39:BN:43:THR:OG1	2.06	0.54
47:BV:79:VAL:CG2	47:BV:82:ARG:HD2	2.37	0.54
31:BA:1802:A:N1	31:BA:1822:G:H1'	2.22	0.54
33:BD:45:ASN:OD1	33:BD:46:GLN:N	2.41	0.54
47:BV:2:PHE:O	47:BV:3:ALA:CB	2.55	0.54
2:CB:200:ILE:HG22	2:CB:202:PRO:HD3	1.89	0.54
31:DA:1499:C:H2'	31:DA:1500:G:H5'	1.89	0.54
1:CA:738:C:H2'	1:CA:739:C:H6	1.72	0.54
6:CF:50:TYR:CE2	6:CF:52:ILE:HD11	2.43	0.54
6:CF:52:ILE:CD1	6:CF:87:ARG:HH12	2.21	0.54
1:AA:1255:G:HO2'	1:AA:1258:G:HO2'	1.53	0.54
51:DZ:77:ASP:HB2	51:DZ:84:GLU:HG2	1.89	0.54
27:B5:46:CYS:SG	27:B5:47:PRO:HG2	2.48	0.54
1:AA:504:C:H1'	1:AA:510:A:C4	2.43	0.54
1:CA:490:G:OP2	4:CD:132:ARG:NH2	2.39	0.54
31:DA:2197:U:H1'	31:DA:2198:A:C8	2.42	0.54
33:DD:70:TRP:CZ3	33:DD:150:LYS:HE3	2.43	0.54
40:DO:111:PHE:O	40:DO:113:LYS:N	2.40	0.54
1:AA:1483:A:O2'	31:BA:1947:C:H2'	2.07	0.54
50:BY:88:LYS:O	50:BY:89:PHE:CB	2.56	0.54
31:BA:1337:G:H2'	31:BA:1338:G:H8	1.71	0.54
43:DR:11:ASN:CG	43:DR:12:ARG:N	2.60	0.54
1:AA:833:U:H3	1:AA:853:G:H1	1.56	0.54
1:CA:575:G:OP1	1:CA:576:G:OP1	2.25	0.54
34:DE:24:THR:HG23	34:DE:184:VAL:HG22	1.89	0.54
1:CA:666:G:C2	1:CA:741:G:C4	2.96	0.54
16:AP:22:THR:HG22	16:AP:32:TYR:CA	2.35	0.54
1:CA:768:A:H5'	1:CA:1524:C:O2'	2.07	0.54
40:BO:93:PRO:HD3	40:BO:114:ILE:CD1	2.38	0.54
31:DA:103:A:C2'	31:DA:104:U:H5'	2.38	0.54
31:DA:1337:G:OP2	49:DX:63:LYS:HE2	2.07	0.54
12:CL:60:LEU:HD21	12:CL:66:VAL:CG2	2.30	0.54
1:CA:955:U:H2'	1:CA:956:U:C6	2.43	0.54
1:CA:1227:A:OP2	13:CM:111:LYS:HE2	2.07	0.54
1:AA:877:C:C5'	8:AH:88:LYS:HE3	2.33	0.54
40:DO:61:VAL:O	40:DO:63:VAL:HG13	2.06	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1206:G:C6	1:AA:1207:G:C6	2.96	0.54
31:BA:470:A:C2'	31:BA:471:A:H5'	2.37	0.54
31:DA:157:U:C5'	31:DA:171:G:H22	2.19	0.54
1:CA:586:C:O2'	1:CA:878:G:H4'	2.08	0.54
11:CK:21:ILE:HB	11:CK:84:VAL:HG12	1.89	0.54
6:AF:100:ASN:N	18:AR:23:LYS:HZ2	2.05	0.54
37:BH:93:GLY:O	37:BH:95:ARG:HG2	2.08	0.54
16:CP:39:TYR:CD1	16:CP:39:TYR:C	2.80	0.54
31:DA:2019:A:H2'	31:DA:2020:A:O5'	2.07	0.54
15:AO:75:PRO:O	15:AO:79:ARG:HG3	2.08	0.54
3:AC:125:GLU:HA	3:AC:191:THR:HG22	1.88	0.54
37:DH:153:LYS:HG2	37:DH:154:PRO:N	2.23	0.54
8:AH:77:GLU:HG3	8:AH:78:GLN:N	2.22	0.54
11:AK:57:THR:O	11:AK:60:ALA:HB3	2.08	0.54
1:AA:774:G:H2'	1:AA:775:G:H5'	1.90	0.54
31:DA:980:A:N6	31:DA:981:A:N1	2.56	0.54
1:CA:448:A:OP2	1:CA:485:G:N2	2.29	0.54
31:BA:244:A:H4'	41:BP:74:GLU:HB2	1.88	0.54
1:AA:1368:G:C2'	1:AA:1369:C:H5'	2.38	0.54
29:D7:13:ALA:O	29:D7:17:GLY:HA3	2.07	0.54
1:AA:117:G:C2'	1:AA:118:U:H5'	2.38	0.54
1:AA:1026:G:N3	1:AA:1026:G:H2'	2.22	0.54
38:DI:144:VAL:O	38:DI:145:VAL:HB	2.08	0.54
5:AE:96:PRO:HA	5:AE:117:ASP:OD2	2.07	0.54
28:D6:47:THR:HG22	28:D6:48:VAL:HG12	1.89	0.54
23:D1:34:THR:CG2	31:DA:388:G:OP1	2.54	0.54
31:DA:390:A:H4'	31:DA:391:G:H5'	1.90	0.54
41:DP:39:LYS:C	41:DP:41:ARG:N	2.61	0.54
30:B8:30:ARG:HB3	31:BA:2393:A:OP2	2.07	0.54
30:B8:51:ALA:N	30:B8:53:PRO:HD2	2.23	0.54
30:B8:5:LYS:NZ	31:BA:253:C:OP2	2.34	0.54
31:BA:585:G:H2'	31:BA:1251:C:H42	1.71	0.54
32:BB:50:G:P	44:BS:63:THR:HG23	2.47	0.54
44:BS:95:HIS:CD2	44:BS:96:GLY:H	2.24	0.54
49:DX:21:PHE:HD2	49:DX:90:GLU:HA	1.73	0.54
31:BA:1600:C:OP1	49:BX:35:THR:HG21	2.08	0.54
31:BA:57:C:H2'	31:BA:58:G:O5'	2.07	0.54
32:DB:44:G:C2'	32:DB:45:A:OP2	2.56	0.54
44:DS:67:ARG:HD3	44:DS:101:LEU:HD23	1.88	0.54
1:AA:611:A:N6	1:AA:629:G:H1	2.05	0.54
1:CA:1468:A:H2'	1:CA:1469:G:O4'	2.08	0.54
1:CA:1469:G:H2'	1:CA:1470:G:H8	1.73	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:386:C:O2'	1:CA:387:U:H5'	2.08	0.54
5:CE:11:ILE:HG22	5:CE:12:LEU:N	2.23	0.54
16:CP:14:ASN:OD1	16:CP:16:HIS:HE1	1.91	0.54
33:DD:95:LEU:HD21	33:DD:105:ILE:HG21	1.88	0.54
31:DA:2753:A:C2	31:DA:2754:U:C2	2.95	0.54
31:BA:531:C:H4'	31:BA:532:A:H5''	1.89	0.54
47:BV:5:VAL:CG2	47:BV:36:PRO:HB2	2.36	0.54
47:BV:2:PHE:HD2	47:BV:42:GLY:HA2	1.73	0.54
31:DA:1485:G:H21	31:DA:1505:C:N4	2.06	0.54
32:BB:75:G:C5'	32:BB:75:G:H8	2.17	0.54
42:BQ:141:GLN:O	51:BZ:70:LEU:HD22	2.07	0.54
39:BN:78:TYR:CD1	39:BN:79:PRO:CB	2.91	0.54
1:CA:1063:C:OP2	1:CA:1064:G:O2'	2.25	0.54
34:DE:188:VAL:HG23	34:DE:189:PRO:HD2	1.90	0.54
35:DF:20:LEU:HD23	35:DF:23:ASP:OD2	2.08	0.54
31:BA:918:A:H5''	32:BB:98:G:O2'	2.08	0.54
48:DW:15:ARG:HA	48:DW:18:ARG:HD2	1.89	0.54
31:DA:1832:C:N4	31:DA:1833:U:C4	2.75	0.54
31:DA:1177:A:H5'	31:DA:1178:C:O4'	2.07	0.54
47:DV:43:GLU:H	47:DV:48:GLY:HA2	1.72	0.54
45:BT:106:SER:HB2	45:BT:110:ILE:CD1	2.38	0.54
45:DT:3:ARG:HB2	45:DT:6:LEU:CB	2.37	0.54
31:BA:2657:A:H3'	31:BA:2658:C:O4'	2.07	0.54
43:DR:10:LEU:HD13	43:DR:17:ARG:CZ	2.38	0.54
1:CA:659:U:C2	1:CA:660:G:C8	2.95	0.54
31:DA:2515:C:O2	31:DA:2570:G:C2	2.61	0.54
35:DF:168:ARG:HG3	35:DF:175:THR:CG2	2.38	0.54
1:CA:450:G:OP1	16:CP:43:LYS:NZ	2.38	0.54
33:BD:69:ARG:HH12	33:BD:117:VAL:CG2	2.20	0.54
41:DP:10:PRO:CD	41:DP:11:GLY:H	2.20	0.54
1:CA:473:G:O2'	1:CA:474:G:H5'	2.07	0.54
31:DA:363(E):U:H6	31:DA:363(E):U:OP2	1.90	0.54
31:BA:128:C:C6	31:BA:128:C:C3'	2.91	0.54
4:CD:108:LEU:HD12	4:CD:108:LEU:N	2.23	0.54
37:BH:116:GLU:HG2	37:BH:117:PRO:CD	2.38	0.54
37:BH:126:PRO:HG3	37:BH:130:ARG:HB3	1.90	0.54
31:BA:2220:G:H2'	31:BA:2221:G:H8	1.73	0.54
1:CA:1118:C:O2	1:CA:1179:A:C6	2.60	0.54
32:BB:41:U:H2'	32:BB:42:C:OP1	2.08	0.54
1:CA:299:G:C6	1:CA:300:A:N1	2.75	0.54
31:BA:701:G:N2	31:BA:732:C:C2	2.75	0.54
37:BH:146:ALA:O	37:BH:150:ALA:N	2.41	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:837:G:C2	1:AA:838:G:N7	2.76	0.54
31:BA:1933:G:H2'	31:BA:1934:C:O5'	2.07	0.54
2:AB:80:ILE:HD13	2:AB:208:ILE:HG23	1.89	0.54
31:BA:979:G:H3'	31:BA:980:A:H5''	1.88	0.54
43:DR:87:TYR:O	43:DR:88:ARG:C	2.45	0.54
39:BN:121:LYS:HE2	39:BN:123:TYR:CZ	2.43	0.54
1:CA:1310:G:OP1	13:CM:77:ASN:HB3	2.07	0.54
1:CA:922:G:C1'	5:CE:19:MET:N	2.71	0.54
31:DA:251:A:H5''	41:DP:51:PHE:CZ	2.42	0.54
31:BA:251:A:C5'	41:BP:51:PHE:CZ	2.90	0.54
35:BF:117:ARG:CZ	41:BP:5:ASP:N	2.71	0.54
29:B7:12:ARG:HG3	31:BA:686:G:O6	2.08	0.54
25:D3:24:LYS:HB3	31:DA:849:A:H2	1.73	0.54
47:DV:5:VAL:HG21	47:DV:36:PRO:HB2	1.89	0.54
31:BA:1468:C:H2'	31:BA:1469:A:H8	1.73	0.54
49:BX:72:LYS:CG	49:BX:74:PRO:HD3	2.35	0.54
36:DG:137:GLU:O	36:DG:140:ILE:HG12	2.08	0.54
44:DS:26:LEU:HG	44:DS:39:ILE:HD11	1.89	0.54
44:DS:52:SER:OG	44:DS:56:LEU:N	2.40	0.54
1:AA:625:G:C4	1:AA:626:U:C5	2.95	0.54
31:BA:2320:A:H2'	31:BA:2320:A:N3	2.22	0.54
46:BU:88:ILE:C	46:BU:90:VAL:HG23	2.28	0.54
31:BA:1162:G:O2'	47:BV:92:THR:CG2	2.55	0.54
31:DA:1210:A:O5'	31:DA:1212:G:H5'	2.07	0.54
50:DY:11:ASP:OD1	50:DY:28:LYS:HE2	2.07	0.54
50:DY:39:VAL:CG1	50:DY:40:GLU:H	2.16	0.54
43:DR:34:ILE:HG22	43:DR:114:VAL:HG23	1.88	0.54
31:DA:205:G:O2'	31:DA:206:U:P	2.65	0.54
6:AF:33:TYR:HB3	6:AF:71:ARG:HE	1.73	0.54
1:CA:1190:G:P	3:CC:5:ILE:HG23	2.47	0.54
2:AB:170:GLU:O	2:AB:174:VAL:HG23	2.08	0.54
1:CA:819:A:N7	1:CA:1529:G:C2	2.76	0.54
31:DA:1494:A:C4'	31:DA:1495:A:OP1	2.48	0.54
1:AA:1401:G:C2	1:AA:1402:C:H1'	2.42	0.54
1:AA:1504:G:H4'	1:AA:1505:G:OP2	2.07	0.54
31:DA:792:G:C5'	31:DA:793:A:H5'	2.38	0.54
24:D2:14:ARG:CZ	24:D2:15:LYS:HB3	2.37	0.54
31:BA:786:C:C2'	31:BA:787:U:H5'	2.38	0.54
1:AA:1423:G:H2'	1:AA:1424:C:C6	2.43	0.54
40:BO:46:ALA:O	40:BO:47:ILE:HD13	2.08	0.54
5:AE:34:VAL:O	5:AE:41:VAL:HA	2.07	0.54
39:BN:131:GLN:CD	39:BN:134:ARG:HA	2.28	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DR:53:HIS:HD2	43:DR:94:TYR:OH	1.89	0.54
31:BA:153:C:H2'	31:BA:154:G:N7	2.23	0.54
31:BA:154:G:O5'	31:BA:154:G:C8	2.61	0.54
31:DA:471:A:C2'	31:DA:472:A:O5'	2.56	0.54
11:CK:82:VAL:HG21	11:CK:98:LEU:HD12	1.89	0.54
1:CA:80:G:N1	1:CA:89:C:N4	2.56	0.54
51:BZ:108:PRO:CA	51:BZ:142:SER:HA	2.35	0.54
9:AI:15:ALA:HA	9:AI:65:VAL:HA	1.90	0.54
1:AA:939:G:H5''	7:AG:102:ARG:NH2	2.22	0.54
9:AI:114:TYR:N	9:AI:114:TYR:HD2	2.06	0.54
1:CA:153:C:N4	1:CA:168:G:H1	2.04	0.54
5:CE:7:GLU:HB2	5:CE:35:GLY:O	2.07	0.54
10:CJ:32:ALA:H	10:CJ:78:ASN:HD21	1.56	0.54
1:AA:84:U:C5	1:AA:88:A:C8	2.95	0.54
9:CI:86:VAL:HB	9:CI:96:LEU:HD22	1.88	0.54
31:DA:1446:C:C6	31:DA:1446:C:H3'	2.43	0.54
31:DA:300:A:OP1	50:DY:84:ARG:NH2	2.40	0.54
1:CA:1130:A:H1'	1:CA:1146:A:H2	1.72	0.54
1:AA:32:A:H3'	1:AA:33:A:H8	1.73	0.54
35:DF:53:THR:C	35:DF:55:GLY:H	2.11	0.54
1:AA:965:A:H5'	1:AA:969:A:O4'	2.08	0.54
1:CA:1217:C:H2'	1:CA:1218:C:O4'	2.07	0.54
31:BA:2227:A:H5'	33:BD:263:ARG:HB3	1.88	0.54
26:B4:19:GLY:C	26:B4:21:VAL:H	2.11	0.54
33:BD:31:LYS:HZ1	33:BD:31:LYS:HA	1.73	0.54
31:DA:136:G:C2'	31:DA:137:C:O5'	2.56	0.54
41:DP:16:ARG:CD	41:DP:18:ARG:HB2	2.29	0.54
41:DP:91:PHE:CZ	41:DP:95:VAL:HB	2.43	0.54
31:BA:834:C:C2'	31:BA:835:A:H5'	2.37	0.54
29:B7:10:ARG:O	29:B7:14:LYS:HB2	2.08	0.54
31:BA:1568:G:N2	33:BD:58:HIS:HE1	2.00	0.54
44:BS:101:LEU:HD13	44:BS:102:ALA:H	1.73	0.54
44:BS:63:THR:CA	44:BS:66:ALA:HB3	2.36	0.54
31:DA:533:G:C6	31:DA:534:U:N3	2.75	0.54
31:BA:2758:A:C4	37:BH:67:LEU:HD21	2.42	0.54
36:DG:110:ALA:O	36:DG:111:LEU:HG	2.08	0.54
36:DG:169:ALA:O	36:DG:173:LEU:HG	2.08	0.54
44:DS:99:LYS:O	44:DS:101:LEU:N	2.30	0.54
1:AA:407:G:C2	1:AA:436:C:N3	2.76	0.54
4:AD:64:LEU:O	4:AD:67:ILE:HB	2.08	0.54
1:CA:402:G:C6	1:CA:403:C:C4	2.95	0.54
50:BY:13:VAL:HG21	50:BY:28:LYS:HZ2	1.73	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:2299:G:N1	31:BA:2318:G:C8	2.76	0.54
31:BA:2041:U:H2'	31:BA:2042:A:H8	1.73	0.54
31:BA:2043:C:H1'	31:BA:2779:U:O4	2.08	0.54
31:DA:2889:C:H3'	31:DA:2891:G:C8	2.43	0.54
31:BA:1794:U:O2'	31:BA:1795:C:H5'	2.08	0.54
33:BD:206:LEU:N	33:BD:206:LEU:HD23	2.22	0.54
50:DY:8:LYS:HB2	50:DY:28:LYS:HZ1	1.72	0.54
31:BA:1509(B):A:H2'	31:BA:1510:G:H8	1.73	0.54
31:BA:301:G:H1'	31:BA:302:C:C6	2.43	0.54
34:DE:51:PHE:CB	34:DE:76:ARG:HB3	2.27	0.54
1:AA:710:G:H2'	1:AA:711:G:H8	1.73	0.54
11:AK:29:ILE:HD12	11:AK:44:SER:HB3	1.89	0.54
1:AA:61:G:OP1	20:AT:10:LEU:HD11	2.07	0.54
34:BE:51:PHE:CB	34:BE:76:ARG:HB3	2.29	0.54
1:CA:1061:G:C2'	1:CA:1062:U:H5'	2.38	0.54
1:CA:1061:G:H2'	1:CA:1062:U:H5'	1.88	0.54
42:BQ:9:TYR:HD2	42:BQ:9:TYR:O	1.87	0.54
31:BA:1581:G:C2'	31:BA:1582:C:H5'	2.38	0.54
31:BA:1106:A:O2'	31:BA:1107:G:P	2.66	0.54
38:BI:102:SER:N	38:BI:109:ILE:HD11	2.23	0.54
38:BI:92:VAL:HG23	38:BI:96:ASP:OD2	2.08	0.54
48:DW:20:VAL:HG23	48:DW:47:VAL:HG21	1.89	0.54
31:BA:1505:C:H3'	31:BA:1505:C:C6	2.42	0.54
31:DA:1473:G:C6	31:DA:1474:C:C4	2.95	0.54
31:DA:1517:G:C8	31:DA:1517:G:H5''	2.38	0.54
1:AA:258:G:H2'	1:AA:259:G:H8	1.72	0.54
1:AA:270:A:C6	1:AA:271:C:C4	2.95	0.54
31:BA:2472:G:C6	31:BA:2477:C:OP1	2.60	0.54
31:BA:2476:A:N3	31:BA:2477:C:C6	2.76	0.54
8:AH:9:MET:HG2	8:AH:10:LEU:HD23	1.90	0.54
1:AA:600:C:H2'	1:AA:601:C:H6	1.70	0.54
36:DG:22:ARG:HB3	36:DG:23:PHE:CD1	2.42	0.54
6:CF:96:PRO:HB3	18:CR:30:ASP:CG	2.28	0.54
12:CL:41:ARG:CG	12:CL:42:THR:H	2.17	0.54
40:BO:63:VAL:HG11	40:BO:85:VAL:CG2	2.37	0.54
1:CA:983:A:H2	1:CA:984:C:C6	2.26	0.54
10:AJ:63:PHE:CZ	14:AN:45:ARG:HG3	2.42	0.54
9:AI:46:ALA:HA	9:AI:78:LYS:HZ2	1.73	0.54
11:AK:38:ASN:HD22	11:AK:38:ASN:H	1.55	0.54
6:AF:75:LEU:HD23	6:AF:79:LEU:HD11	1.90	0.54
1:CA:719:C:C5	1:CA:720:C:C4	2.96	0.54
31:BA:1850:G:C5	31:BA:1851:U:C5	2.95	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:91:LEU:HD11	3:CC:101:LEU:HD12	1.90	0.54
18:CR:25:THR:HG21	18:CR:42:ARG:HD3	1.90	0.54
3:CC:181:ASN:O	3:CC:204:LEU:HB2	2.07	0.54
1:CA:1113:C:O5'	1:CA:1113:C:H6	1.91	0.54
1:AA:1479:C:O2'	1:AA:1480:G:H5'	2.07	0.54
1:CA:1274:G:N2	1:CA:1275:A:H62	2.05	0.54
31:BA:1638:C:H5''	31:BA:2710:C:O2'	2.07	0.54
36:DG:39:ILE:HA	36:DG:157:ILE:HB	1.90	0.54
42:BQ:54:MET:SD	42:BQ:118:LEU:HD23	2.48	0.54
1:AA:872:A:C2	1:AA:874:G:C6	2.96	0.54
1:CA:668:G:H21	15:CO:46:HIS:CE1	2.26	0.54
38:DI:13:GLY:O	38:DI:14:ASP:C	2.44	0.54
38:DI:84:GLY:O	38:DI:85:GLU:HG2	2.07	0.54
17:AQ:52:LYS:HD2	17:AQ:52:LYS:H	1.73	0.54
31:DA:700:G:H1	31:DA:732:C:H42	1.54	0.54
31:DA:2286:A:HO2'	31:DA:2286:A:H8	1.54	0.54
55:DA:3320:TEL:C23	55:DA:3320:TEL:H121	2.36	0.54
31:DA:673:C:H4'	35:DF:82:ILE:HG12	1.89	0.54
28:B6:25:LYS:CE	28:B6:27:LYS:NZ	2.71	0.54
31:BA:1242:A:N1	41:BP:8:PRO:HG3	2.22	0.54
31:BA:2593:U:H2'	31:BA:2594:C:H6	1.71	0.54
41:BP:48:PRO:O	41:BP:50:ARG:N	2.40	0.54
31:BA:2520:C:N4	31:BA:2567:G:C5	2.76	0.54
31:DA:1600:C:O2'	31:DA:1601:G:H5'	2.07	0.54
49:DX:82:GLN:HG3	49:DX:85:PRO:HD3	1.90	0.54
31:DA:1192:G:O2'	31:DA:1193:G:H5'	2.07	0.54
31:DA:1141:U:C5	39:DN:64:GLY:HA3	2.43	0.54
47:DV:2:PHE:CD2	47:DV:42:GLY:HA2	2.43	0.54
47:DV:24:LYS:HA	47:DV:94:LEU:HD12	1.89	0.54
47:DV:62:LEU:HD22	47:DV:98:GLU:HG2	1.88	0.54
31:BA:142:A:C8	31:BA:1595:G:N2	2.65	0.54
49:BX:30:VAL:HG12	49:BX:31:HIS:H	1.72	0.54
49:BX:29:TRP:CH2	49:BX:76:ARG:NH1	2.76	0.54
31:DA:2376:A:C8	31:DA:2377:A:C8	2.95	0.54
44:DS:71:ARG:HG2	44:DS:101:LEU:CG	2.38	0.54
1:CA:356:A:H2'	1:CA:357:G:O5'	2.08	0.54
1:AA:442:C:H42	1:AA:492:G:H1	1.56	0.54
1:AA:1442:G:N7	1:AA:1442(B):A:C2	2.65	0.54
31:BA:2309:A:N3	31:BA:2310:A:H2	2.06	0.54
31:BA:1281:G:H8	31:BA:1281:G:H5''	1.73	0.54
33:DD:16:MET:HG3	33:DD:206:LEU:O	2.07	0.54
25:B3:10:LYS:HB3	25:B3:53:LEU:HA	1.90	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1020:A:H4'	31:BA:1021:A:O5'	2.08	0.54
20:CT:50:GLU:O	20:CT:54:LYS:HB2	2.07	0.54
23:B1:11:ARG:HG2	23:B1:61:ARG:O	2.08	0.54
1:CA:674:G:H2'	1:CA:675:A:C8	2.43	0.54
1:CA:734:G:C2	1:CA:735:C:C2	2.96	0.54
11:CK:44:SER:OG	11:CK:47:VAL:HG23	2.07	0.54
31:DA:866:A:C2	31:DA:867:C:C4	2.95	0.54
27:B5:42:PRO:HB2	27:B5:43:HIS:HD2	1.72	0.54
1:AA:503:C:H2'	1:AA:504:C:C6	2.42	0.54
31:DA:1116:C:O2	31:DA:1116:C:H2'	2.07	0.54
31:DA:2829:C:C3'	31:DA:2830:G:H5''	2.37	0.54
31:DA:740:U:H2'	31:DA:741:G:C8	2.43	0.54
31:DA:1281:G:C2	31:DA:1290:C:C2	2.95	0.54
1:CA:1088:G:H1	1:CA:1097:C:N4	2.04	0.54
1:AA:783:C:O3'	31:BA:1836:C:H5''	2.08	0.54
33:DD:14:ARG:HG2	33:DD:14:ARG:HH11	1.72	0.54
34:BE:93:VAL:H	34:BE:95:ILE:CD1	2.12	0.54
42:BQ:9:TYR:C	42:BQ:9:TYR:CD2	2.81	0.54
1:AA:881:G:P	12:AL:12:ARG:HH22	2.30	0.54
40:BO:22:ILE:HG22	40:BO:40:VAL:HB	1.90	0.54
1:CA:690:G:OP2	11:CK:27:ASN:HB3	2.08	0.54
12:CL:22:SER:O	12:CL:24:VAL:N	2.41	0.54
24:B2:12:GLU:CA	24:B2:14:ARG:HH21	2.19	0.54
40:DO:23:ARG:NH1	40:DO:23:ARG:HG2	2.18	0.54
31:DA:792:G:C4'	31:DA:793:A:H5'	2.38	0.54
38:DI:113:ARG:HB2	38:DI:130:TYR:CZ	2.43	0.54
5:AE:126:ARG:HG3	5:AE:126:ARG:NH1	2.18	0.54
31:DA:80:G:O2'	31:DA:81:G:H5'	2.07	0.54
31:BA:1688:U:H5'	31:BA:1689:A:OP1	2.08	0.54
1:CA:1499:A:H1'	1:CA:1520:G:H5'	1.89	0.54
1:CA:342:C:H2'	1:CA:343:U:O4'	2.08	0.54
1:CA:343:U:N3	1:CA:347:G:C6	2.76	0.54
1:AA:564:C:C5	17:AQ:31:LEU:HD11	2.43	0.54
31:DA:8:A:H2	31:DA:2896:C:N3	2.05	0.54
45:BT:92:GLY:C	45:BT:94:ALA:H	2.12	0.54
1:AA:983:A:H2	1:AA:984:C:C5	2.26	0.54
31:BA:1937:A:C8	31:BA:1939:U:H2'	2.43	0.54
31:DA:1374:G:C6	31:DA:1375:C:C4	2.96	0.54
31:DA:2233:U:H2'	31:DA:2234:G:C8	2.43	0.54
2:CB:61:LEU:HA	2:CB:64:ARG:HG2	1.88	0.54
38:BI:15:VAL:C	38:BI:17:GLN:H	2.11	0.54
36:DG:96:ARG:CG	36:DG:97:ASP:H	2.21	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DG:3:LEU:HA	36:DG:97:ASP:OD2	2.08	0.54
4:AD:99:SER:O	4:AD:140:VAL:HG23	2.08	0.54
35:BF:53:THR:C	35:BF:55:GLY:N	2.61	0.54
34:DE:9:VAL:CG2	34:DE:25:VAL:HB	2.37	0.54
42:BQ:116:GLU:O	42:BQ:119:ARG:N	2.40	0.54
2:CB:105:PHE:HZ	2:CB:156:LYS:HA	1.73	0.54
35:DF:195:ASP:HB3	35:DF:197:ASP:HB3	1.90	0.54
2:CB:67:THR:HG21	2:CB:155:LEU:HD21	1.89	0.54
1:AA:527:G:O2'	1:AA:528:C:H5'	2.07	0.54
28:D6:44:ARG:O	28:D6:45:LYS:HG2	2.08	0.54
31:DA:1257:C:H1'	35:DF:82:ILE:O	2.08	0.54
31:DA:2052:G:C2	31:DA:2053:G:C8	2.96	0.54
31:DA:26:G:C6	31:DA:27:G:N1	2.75	0.54
31:DA:806:C:OP2	41:DP:39:LYS:CG	2.56	0.54
35:DF:36:VAL:HG11	35:DF:183:VAL:CG1	2.38	0.54
30:B8:41:ILE:HD12	30:B8:42:ARG:H	1.72	0.54
31:DA:58:G:OP1	49:DX:72:LYS:HA	2.08	0.54
31:DA:987:G:H2'	31:DA:988:A:O4'	2.07	0.54
37:BH:85:LYS:CE	37:BH:133:VAL:HB	2.38	0.54
44:DS:101:LEU:O	44:DS:102:ALA:O	2.25	0.54
44:DS:34:HIS:CB	44:DS:53:SER:HB2	2.38	0.54
1:CA:436:C:H2'	1:CA:436:C:OP2	2.08	0.54
4:CD:79:PHE:O	4:CD:82:ALA:HB3	2.07	0.54
50:BY:19:LYS:HB3	50:BY:20:TYR:CD1	2.42	0.54
31:BA:1607:C:H4'	31:BA:1608:A:O5'	2.08	0.54
31:DA:2516:G:O2'	31:DA:2517:C:H5'	2.08	0.54
39:BN:1:MET:HB3	47:BV:20:LEU:HD22	1.90	0.54
31:DA:2307:G:H4'	31:DA:2307:G:OP1	2.08	0.54
35:DF:3:GLU:HG3	35:DF:19:GLU:HB2	1.90	0.54
35:DF:1:MET:O	35:DF:2:LYS:C	2.47	0.54
51:BZ:54:HIS:HE1	51:BZ:123:ASP:CG	2.12	0.54
4:AD:10:ARG:NH1	4:AD:10:ARG:HG2	2.23	0.54
27:B5:6:VAL:HG13	31:BA:2016:U:H1'	1.90	0.54
33:DD:172:TYR:CD1	33:DD:186:HIS:CA	2.91	0.54
31:BA:2770:G:H5''	31:BA:2771:C:OP2	2.07	0.54
27:D5:40:LYS:NZ	27:D5:46:CYS:O	2.40	0.54
9:CI:4:TYR:HA	9:CI:88:TYR:CE1	2.43	0.54
23:D1:17:SER:O	23:D1:44:PRO:CD	2.50	0.54
31:DA:380:U:H2'	31:DA:381:G:C8	2.43	0.54
31:DA:393:C:C4	31:DA:394:A:N7	2.76	0.54
1:CA:1088:G:N2	1:CA:1097:C:N3	2.49	0.54
1:CA:575:G:O2'	1:CA:821:G:H5'	2.08	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:B6:13:CYS:HB2	28:B6:22:ALA:HB3	1.89	0.54
31:DA:855:G:C6	31:DA:856:C:C4	2.95	0.54
36:DG:127:GLY:CA	36:DG:166:ASP:HB3	2.32	0.54
31:BA:1833:U:C4	31:BA:1834:U:C5	2.96	0.54
31:BA:2842:G:C6	31:BA:2876:G:C6	2.96	0.54
45:DT:29:ARG:CG	45:DT:85:LYS:HA	2.38	0.54
33:DD:72:LYS:HE3	33:DD:99:ASP:OD1	2.08	0.54
31:BA:470:A:O2'	31:BA:471:A:H5'	2.07	0.54
31:BA:2473:U:H2'	31:BA:2474:C:O4'	2.08	0.54
9:CI:5:TYR:HA	9:CI:17:VAL:O	2.08	0.54
41:DP:147:LEU:C	41:DP:148:LEU:HD13	2.27	0.54
33:DD:17:THR:HG23	33:DD:205:VAL:CB	2.37	0.54
8:CH:5:PRO:O	8:CH:8:ASP:HB3	2.08	0.54
38:DI:10:GLU:O	38:DI:12:LEU:CD2	2.54	0.54
43:DR:33:ARG:HG2	43:DR:115:GLU:CG	2.35	0.54
51:DZ:155:LEU:O	51:DZ:157:LEU:HD23	2.08	0.54
2:AB:33:TYR:O	2:AB:34:ALA:HB2	2.08	0.54
31:DA:2593:U:H2'	31:DA:2594:C:H6	1.73	0.54
31:DA:884:C:O2'	31:DA:892:G:C8	2.46	0.54
9:CI:46:ALA:O	9:CI:49:PRO:HD2	2.07	0.54
31:BA:1358:G:O2'	31:BA:1359:A:H5''	2.08	0.54
43:DR:8:ARG:HE	43:DR:8:ARG:HA	1.73	0.54
35:DF:115:ALA:O	35:DF:118:ALA:HB3	2.07	0.54
37:DH:116:GLU:HG2	37:DH:117:PRO:CD	2.38	0.54
46:DU:36:ARG:HD3	46:DU:40:PHE:HZ	1.73	0.54
34:BE:65:GLY:C	34:BE:67:PHE:N	2.61	0.54
31:BA:412:A:N7	31:BA:2411:A:H2	2.06	0.54
7:CG:115:ARG:HB2	7:CG:118:VAL:HG22	1.88	0.54
31:BA:220:G:O2'	31:BA:233:A:N3	2.36	0.54
31:BA:146:G:H8	31:BA:146:G:H5''	1.73	0.54
37:DH:163:TYR:N	37:DH:163:TYR:CD1	2.76	0.54
1:CA:785:G:H2'	1:CA:786:G:H5'	1.90	0.54
1:AA:826:C:H2'	1:AA:827:U:H6	1.73	0.54
1:CA:922:G:C1'	5:CE:19:MET:HB2	2.33	0.53
28:D6:48:VAL:CG2	28:D6:49:HIS:N	2.71	0.53
30:D8:32:LEU:HD23	30:D8:35:GLN:CA	2.38	0.53
30:D8:5:LYS:HG2	31:DA:242:G:C8	2.43	0.53
31:DA:2393:A:OP1	41:DP:62:LEU:HD12	2.09	0.53
41:DP:97:PRO:O	41:DP:98:GLU:CB	2.56	0.53
31:BA:2415:G:C2'	31:BA:2416:C:H5'	2.38	0.53
31:BA:386:G:H3'	31:BA:388:G:N2	2.22	0.53
31:BA:589:C:O2'	31:BA:590:A:H5'	2.07	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BP:24:GLY:HA3	41:BP:33:ARG:NH2	2.23	0.53
31:DA:1341:U:N3	49:DX:77:LYS:HE2	2.23	0.53
31:DA:814:C:H5'	47:DV:86:GLY:CA	2.38	0.53
39:DN:34:LEU:HD21	39:DN:120:LEU:HD23	1.90	0.53
31:DA:995:C:C2	39:DN:4:TYR:CZ	2.95	0.53
4:CD:109:GLY:O	4:CD:111:ALA:N	2.41	0.53
45:BT:102:ILE:O	45:BT:103:ARG:C	2.46	0.53
31:DA:1811:G:C4	31:DA:1812:A:C8	2.97	0.53
31:DA:2769:C:C2'	31:DA:2770:G:O5'	2.56	0.53
31:BA:2702:U:O2'	31:BA:2703:C:C6	2.55	0.53
31:DA:2790:A:H2'	31:DA:2791:C:C5'	2.39	0.53
34:DE:48:GLN:HE22	34:DE:64:LYS:HZ1	1.55	0.53
51:DZ:54:HIS:HE1	51:DZ:123:ASP:CG	2.11	0.53
22:D0:41:ARG:HD2	22:D0:41:ARG:N	2.07	0.53
31:BA:288:C:C2	31:BA:289:A:C8	2.96	0.53
27:B5:55:ARG:O	27:B5:56:LYS:HG3	2.08	0.53
1:CA:445:G:C2	1:CA:446:G:C5	2.96	0.53
31:DA:2779:U:O4'	31:DA:2779:U:O2	2.25	0.53
27:D5:45:VAL:HG22	27:D5:51:TYR:CE1	2.42	0.53
32:DB:87:G:H3'	32:DB:88:C:C5'	2.32	0.53
4:CD:20:TYR:HD2	4:CD:26:CYS:CB	2.20	0.53
1:CA:1074:G:O2'	1:CA:1101:A:N1	2.25	0.53
22:B0:40:GLN:NE2	22:B0:43:THR:C	2.62	0.53
31:BA:2282:G:H5'	31:BA:2389:G:H1'	1.91	0.53
28:B6:22:ALA:HB2	28:B6:39:TYR:CE2	2.43	0.53
31:BA:953:A:O2'	31:BA:954:G:H5'	2.08	0.53
31:DA:1638:C:H4'	31:DA:2710:C:O2	2.08	0.53
31:BA:1905:C:H2'	31:BA:1930:G:H5'	1.89	0.53
24:B2:14:ARG:CZ	24:B2:15:LYS:HB3	2.38	0.53
1:AA:1061:G:C2'	1:AA:1062:U:H5'	2.37	0.53
31:BA:1504:C:H6	31:BA:1504:C:O5'	1.91	0.53
31:BA:1686:C:N4	31:BA:1687:G:C6	2.77	0.53
31:BA:2470:G:C6	31:BA:2471:C:C5	2.90	0.53
31:DA:157:U:H6	31:DA:157:U:OP2	1.90	0.53
40:BO:23:ARG:HD2	40:BO:24:VAL:N	2.22	0.53
47:BV:43:GLU:N	47:BV:48:GLY:HA2	2.21	0.53
6:CF:100:ASN:H	18:CR:23:LYS:HZ2	1.55	0.53
51:DZ:130:PRO:HA	51:DZ:133:ILE:CG1	2.37	0.53
31:DA:53:A:H61	31:DA:117:G:C2'	2.21	0.53
9:AI:28:VAL:HA	9:AI:63:ILE:O	2.07	0.53
31:DA:1686:C:H2'	31:DA:1687:G:H5'	1.88	0.53
1:AA:198:G:H21	1:AA:199:G:H1'	1.72	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DU:31:SER:C	46:DU:33:ARG:H	2.10	0.53
31:BA:1992:G:O2'	31:BA:1993:U:OP2	2.23	0.53
2:AB:140:HIS:O	2:AB:143:GLU:HB2	2.08	0.53
31:BA:1296:G:C2	31:BA:1645:G:C4	2.96	0.53
6:AF:45:LEU:HD12	6:AF:57:GLN:HB3	1.88	0.53
31:BA:648:G:O4'	31:BA:2351:G:H5''	2.08	0.53
31:BA:2228:G:C5	31:BA:2229:C:C5	2.95	0.53
1:AA:1378:C:N4	1:AA:1379:G:C2	2.75	0.53
4:CD:47:ARG:HH21	4:CD:49:ARG:NH2	2.05	0.53
20:AT:93:GLU:O	20:AT:93:GLU:HG2	2.07	0.53
4:CD:59:ARG:HA	4:CD:59:ARG:NE	2.22	0.53
31:DA:1769:G:C5	31:DA:1984:G:C6	2.96	0.53
1:CA:276:G:H5''	17:CQ:15:MET:HE1	1.89	0.53
48:DW:37:ARG:HG3	48:DW:37:ARG:HH11	1.73	0.53
3:CC:126:ARG:C	3:CC:127:ARG:HD2	2.28	0.53
5:AE:144:THR:O	5:AE:148:VAL:HG23	2.07	0.53
31:BA:2101:G:C6	31:BA:2102:U:C5	2.96	0.53
41:DP:17:LYS:C	41:DP:19:VAL:N	2.61	0.53
23:B1:37:ILE:HG23	23:B1:37:ILE:O	2.06	0.53
31:BA:1204:A:N1	31:BA:1241:A:H2	2.06	0.53
31:BA:2071:A:H2	31:BA:2440:C:N4	2.06	0.53
31:BA:811:U:O5'	41:BP:25:SER:O	2.26	0.53
32:BB:45:A:H2'	32:BB:46:A:H5'	1.89	0.53
36:BG:11:TYR:HD2	36:BG:12:TYR:CD1	2.26	0.53
31:DA:1345:C:O2'	31:DA:1346:G:H5'	2.08	0.53
31:DA:1394:U:H3'	31:DA:1394:U:H6	1.74	0.53
49:DX:60:ARG:CB	49:DX:72:LYS:H	2.21	0.53
49:DX:72:LYS:CG	49:DX:74:PRO:HD3	2.38	0.53
41:BP:98:GLU:O	41:BP:101:VAL:HG13	2.08	0.53
31:DA:995:C:OP2	46:DU:54:LYS:HE3	2.08	0.53
31:BA:1450:G:C6	31:BA:1450(A):C:C4	2.96	0.53
34:BE:61:ARG:H	34:BE:62:PRO:HD2	1.73	0.53
31:DA:1900:A:N1	31:DA:1970:A:C6	2.75	0.53
31:BA:1902:C:H4'	33:BD:244:ARG:HA	1.91	0.53
1:AA:445:G:C2	1:AA:446:G:C5	2.97	0.53
31:DA:1803:A:H2	31:DA:1822:G:N3	2.06	0.53
31:BA:780:G:C2	31:BA:782:A:C2	2.97	0.53
20:CT:100:ILE:HD12	20:CT:100:ILE:N	2.24	0.53
47:BV:99:ILE:HG22	47:BV:100:ARG:HG2	1.91	0.53
22:D0:43:THR:N	31:DA:2331:G:H4'	2.23	0.53
32:BB:73:A:H3'	32:BB:74:U:H6	1.72	0.53
31:BA:287:C:C4	31:BA:288:C:C5	2.97	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BB:16:G:C2	32:BB:17:C:H6	2.26	0.53
1:AA:1434:A:N6	1:AA:1467:G:H1'	2.20	0.53
31:BA:1116:C:O2	31:BA:1116:C:H2'	2.07	0.53
34:BE:92:THR:H	34:BE:95:ILE:HD11	1.73	0.53
31:BA:951:C:H2'	31:BA:952:G:H5'	1.87	0.53
1:AA:1400:C:H4'	1:AA:1401:G:OP2	2.08	0.53
1:AA:960:U:C4	1:AA:1225:A:H1'	2.42	0.53
1:CA:253:U:H2'	1:CA:254:G:H8	1.73	0.53
1:AA:1423:G:P	40:BO:48:PRO:HB3	2.48	0.53
39:BN:127:ASP:HB3	39:BN:129:PRO:HD3	1.89	0.53
5:AE:48:ALA:HB1	5:AE:49:PRO:HD2	1.91	0.53
34:DE:202:LYS:HD3	34:DE:202:LYS:N	2.23	0.53
6:AF:100:ASN:H	18:AR:23:LYS:NZ	2.06	0.53
37:BH:95:ARG:HB2	37:BH:128:PRO:HB2	1.88	0.53
34:BE:167:VAL:HG22	34:BE:168:MET:N	2.22	0.53
31:BA:2273:A:H2'	31:BA:2274:A:H8	1.73	0.53
31:DA:1935:G:H1'	31:DA:1964:G:N2	2.22	0.53
1:AA:424:G:N3	1:AA:425:G:C8	2.77	0.53
42:BQ:32:TYR:CZ	42:BQ:111:GLU:HB2	2.43	0.53
6:AF:5:GLU:HB3	6:AF:62:TRP:HE1	1.72	0.53
2:AB:136:VAL:O	2:AB:140:HIS:HB2	2.07	0.53
5:AE:7:GLU:HG2	5:AE:112:LEU:CD2	2.38	0.53
1:CA:758:G:H5''	1:CA:880:C:H1'	1.90	0.53
31:BA:610:G:H2'	31:BA:611:C:H6	1.71	0.53
18:AR:56:THR:HB	18:AR:58:LEU:HD13	1.91	0.53
31:DA:1441:G:O2'	31:DA:1442:G:H5'	2.07	0.53
31:DA:2106:G:H1'	31:DA:2184:G:H22	1.73	0.53
31:DA:701:G:N2	31:DA:732:C:C2	2.76	0.53
29:B7:1:MET:O	29:B7:2:LYS:C	2.45	0.53
7:CG:75:VAL:HG21	7:CG:144:MET:HB3	1.91	0.53
1:AA:692:U:H2'	1:AA:694:A:OP2	2.08	0.53
17:CQ:52:LYS:H	17:CQ:52:LYS:HD2	1.72	0.53
41:DP:86:LYS:HB2	41:DP:117:GLU:O	2.08	0.53
31:BA:834:C:O2'	31:BA:835:A:H5'	2.09	0.53
31:DA:1713:U:O2'	31:DA:1714:G:H5'	2.08	0.53
49:DX:78:LYS:HD3	49:DX:78:LYS:H	1.72	0.53
31:BA:626:U:C5'	31:BA:627:A:H5'	2.39	0.53
31:DA:1023:U:H4'	31:DA:1123:C:OP1	2.09	0.53
39:DN:42:TRP:H	46:DU:64:ARG:NH2	2.06	0.53
39:DN:42:TRP:CG	39:DN:43:THR:N	2.76	0.53
34:BE:48:GLN:HE22	34:BE:64:LYS:HZ1	1.56	0.53
32:DB:53:A:C2	32:DB:54:G:H1'	2.43	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:612:C:O2	1:CA:629:G:N2	2.42	0.53
31:DA:1790:C:H4'	33:DD:209:ALA:HB1	1.89	0.53
37:DH:85:LYS:NZ	37:DH:133:VAL:HG21	2.24	0.53
46:BU:76:TYR:CD2	46:BU:76:TYR:C	2.81	0.53
47:BV:60:GLU:O	47:BV:62:LEU:HG	2.07	0.53
31:BA:1433:U:O2	31:BA:1561:G:C2	2.62	0.53
48:DW:75:TYR:O	48:DW:75:TYR:CD1	2.61	0.53
31:BA:259:G:H21	31:BA:621:A:H8	1.56	0.53
31:BA:479:A:H1'	31:BA:481:G:H5''	1.90	0.53
1:AA:353:A:H2'	1:AA:354:G:OP2	2.08	0.53
1:AA:358:U:H2'	1:AA:359:U:H6	1.72	0.53
20:AT:79:ARG:HA	20:AT:82:SER:OG	2.08	0.53
10:CJ:51:ARG:CG	10:CJ:61:GLU:HB2	2.39	0.53
31:BA:954:G:OP1	42:BQ:15:GLY:N	2.40	0.53
16:AP:20:VAL:HG22	16:AP:21:VAL:H	1.72	0.53
16:CP:22:THR:HG22	16:CP:32:TYR:CA	2.37	0.53
38:DI:101:LEU:CD2	38:DI:109:ILE:HG12	2.36	0.53
31:DA:2711:A:N7	31:DA:2714:G:C8	2.76	0.53
31:BA:79:G:C4	31:BA:80:G:C8	2.97	0.53
1:CA:1226:C:H42	13:CM:104:ARG:HD2	1.74	0.53
31:DA:271(F):C:H42	31:DA:271(R):G:H1	1.56	0.53
40:DO:104:ARG:CZ	40:DO:104:ARG:HB3	2.37	0.53
1:AA:1063:C:OP2	1:AA:1064:G:O2'	2.24	0.53
31:BA:1887:C:C3'	31:BA:1888:G:H5'	2.39	0.53
37:DH:68:THR:O	37:DH:69:ARG:C	2.47	0.53
31:BA:856:C:H5''	31:BA:856:C:H6	1.72	0.53
37:DH:89:ILE:H	37:DH:89:ILE:CD1	2.20	0.53
8:AH:97:VAL:O	8:AH:100:ILE:HG13	2.07	0.53
41:DP:146:VAL:HG13	41:DP:147:LEU:N	2.20	0.53
1:AA:552:U:O2'	1:AA:553:A:H5'	2.07	0.53
31:DA:2471:C:O2	31:DA:2471:C:C2'	2.54	0.53
38:DI:12:LEU:HD23	38:DI:12:LEU:H	1.72	0.53
31:DA:547:A:O2'	31:DA:548:A:OP2	2.22	0.53
22:B0:72:ARG:O	22:B0:75:LEU:HB2	2.08	0.53
31:BA:542:C:C2'	31:BA:543:C:OP1	2.55	0.53
29:D7:8:ASN:ND2	29:D7:10:ARG:N	2.55	0.53
22:D0:1:MET:O	22:D0:2:ALA:HB3	2.09	0.53
31:DA:2590:A:H2'	31:DA:2591:C:C6	2.43	0.53
2:AB:166:ASP:HB3	2:AB:169:LYS:CB	2.38	0.53
31:DA:2075:U:C4	31:DA:2238:G:C6	2.96	0.53
1:CA:669:U:O2'	1:CA:670:G:H5'	2.08	0.53
16:CP:26:ARG:CD	16:CP:31:LYS:O	2.55	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DF:115:ALA:O	35:DF:116:ASP:C	2.47	0.53
16:AP:26:ARG:CD	16:AP:31:LYS:O	2.56	0.53
1:CA:833:U:H3	1:CA:853:G:H1	1.57	0.53
31:BA:1893:C:C5	31:BA:1894:C:C5	2.96	0.53
31:DA:651:G:H2'	31:DA:651:G:N3	2.22	0.53
36:DG:129:GLY:O	36:DG:130:ASN:ND2	2.42	0.53
1:CA:1486:G:H2'	1:CA:1487:G:O4'	2.08	0.53
1:CA:986:A:H2'	1:CA:987:G:O4'	2.09	0.53
39:DN:90:MET:O	39:DN:93:THR:O	2.26	0.53
4:CD:80:GLU:O	4:CD:84:LYS:HG2	2.08	0.53
27:B5:22:HIS:HD2	31:BA:2046:G:O2'	1.92	0.53
31:BA:553:G:H2'	31:BA:554:U:O4'	2.08	0.53
31:BA:2300:G:O2'	31:BA:2301:C:H5'	2.08	0.53
17:AQ:84:LEU:O	17:AQ:87:LYS:HB2	2.08	0.53
11:AK:50:TYR:HB3	11:AK:54:ARG:O	2.08	0.53
5:CE:145:LYS:O	5:CE:149:GLU:HG2	2.08	0.53
51:DZ:45:ASP:O	51:DZ:46:LYS:C	2.46	0.53
31:DA:146:G:H5''	31:DA:146:G:H8	1.72	0.53
6:CF:22:GLU:HA	6:CF:25:ILE:HG12	1.88	0.53
25:D3:27:GLY:HA3	25:D3:35:ARG:NE	2.23	0.53
36:BG:39:ILE:HA	36:BG:157:ILE:HB	1.90	0.53
17:CQ:27:PHE:CZ	17:CQ:36:ILE:HD11	2.43	0.53
1:CA:1394:A:C5	1:CA:1501:C:H4'	2.43	0.53
28:D6:25:LYS:CE	28:D6:27:LYS:NZ	2.71	0.53
28:D6:32:ASN:O	28:D6:33:LYS:CB	2.56	0.53
31:DA:1269:A:H2'	31:DA:1270:C:C6	2.44	0.53
31:DA:2063:C:O2	31:DA:2450:A:N1	2.42	0.53
31:DA:626:U:H2'	31:DA:626:U:O2	2.08	0.53
41:DP:66:GLY:O	41:DP:68:GLN:HB3	2.09	0.53
31:BA:1254:A:H5'	31:BA:1255:U:C5'	2.38	0.53
33:BD:35:LYS:CE	33:BD:104:TYR:CD1	2.91	0.53
41:BP:96:THR:HG22	41:BP:126:VAL:HG23	1.90	0.53
46:DU:83:LEU:CD1	46:DU:113:ALA:HB2	2.38	0.53
47:DV:25:LEU:HB2	47:DV:94:LEU:HD11	1.90	0.53
31:BA:142:A:H8	31:BA:1595:G:N2	2.05	0.53
31:BA:1461:G:C2	31:BA:1462:C:C6	2.96	0.53
49:BX:72:LYS:CG	49:BX:73:ARG:N	2.58	0.53
49:BX:90:GLU:C	49:BX:92:LEU:H	2.10	0.53
44:DS:95:HIS:CG	44:DS:96:GLY:N	2.74	0.53
1:CA:1434:A:N6	1:CA:1467:G:H1'	2.20	0.53
1:CA:611:A:N6	1:CA:629:G:H1	2.07	0.53
1:AA:491:G:C4	1:AA:492:G:C8	2.96	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1784:A:H4'	31:DA:1785:A:O5'	2.08	0.53
31:DA:781:A:H5'	33:DD:219:PRO:HG2	1.91	0.53
31:DA:784:A:C5	33:DD:229:VAL:HG21	2.43	0.53
33:DD:64:ILE:O	33:DD:64:ILE:HG12	2.07	0.53
37:DH:70:THR:HG22	37:DH:74:ASN:HD21	1.72	0.53
31:BA:729:G:O5'	33:BD:208:LYS:NZ	2.40	0.53
31:DA:2320:A:N3	31:DA:2320:A:H2'	2.23	0.53
31:DA:910:A:C4	42:DQ:13:GLN:OE1	2.61	0.53
31:DA:287:C:C4	31:DA:288:C:C5	2.97	0.53
32:DB:15:A:H1'	32:DB:110:G:N9	2.23	0.53
1:AA:681:C:N3	1:AA:710:G:C2	2.77	0.53
32:BB:15:A:H1'	32:BB:110:G:N9	2.22	0.53
31:DA:2197:U:C6	31:DA:2224:G:C6	2.96	0.53
33:DD:137:PRO:O	33:DD:140:THR:HG23	2.09	0.53
31:BA:1010:A:N3	31:BA:1153:C:H1'	2.22	0.53
31:DA:394:A:C5	31:DA:395:U:C4	2.96	0.53
31:BA:1337:G:OP2	49:BX:63:LYS:HE2	2.08	0.53
1:AA:1072:G:C5	1:AA:1073:U:C4	2.96	0.53
1:AA:1530:G:OP1	1:AA:1530:G:H4'	2.08	0.53
31:DA:478:A:N1	31:DA:500:G:H4'	2.23	0.53
14:CN:41:ARG:HG3	14:CN:42:ILE:N	2.23	0.53
25:B3:45:GLY:HA3	31:BA:851:U:O2'	2.07	0.53
37:BH:89:ILE:HD11	37:BH:129:THR:CB	2.38	0.53
48:DW:47:VAL:O	48:DW:50:VAL:HG12	2.08	0.53
31:DA:1886:C:H2'	31:DA:1887:C:C6	2.43	0.53
31:DA:2473:U:H2'	31:DA:2474:C:O4'	2.08	0.53
31:BA:2886:G:N3	31:BA:2887:U:C6	2.77	0.53
6:CF:93:SER:C	6:CF:94:GLN:HG3	2.28	0.53
33:BD:66:ASP:OD2	33:BD:69:ARG:HG2	2.07	0.53
1:CA:1116:C:N4	1:CA:1117:G:N7	2.57	0.53
12:CL:119:LYS:O	12:CL:120:TYR:HB2	2.08	0.53
41:DP:6:LEU:HG	41:DP:8:PRO:O	2.08	0.53
31:DA:1670:C:O2	34:DE:129:HIS:CE1	2.60	0.53
36:DG:141:PHE:C	36:DG:143:GLU:H	2.11	0.53
35:DF:132:VAL:HG22	35:DF:133:ASN:N	2.22	0.53
9:CI:96:LEU:HD23	9:CI:102:LEU:HD12	1.90	0.53
3:CC:19:GLU:HG2	3:CC:19:GLU:O	2.09	0.53
31:DA:1921:G:H2'	31:DA:1922:G:H8	1.73	0.53
31:DA:267:C:H2'	31:DA:268:C:H6	1.72	0.53
4:AD:108:LEU:O	4:AD:110:PHE:CD1	2.61	0.53
1:AA:1292:U:O2'	1:AA:1293:G:H5'	2.09	0.53
31:DA:2220:G:H2'	31:DA:2221:G:H8	1.71	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1113:C:H6	1:AA:1113:C:O5'	1.92	0.53
1:AA:654:G:C2	1:AA:753:A:C4	2.96	0.53
36:BG:151:ALA:HB3	36:BG:153:ARG:HH12	1.74	0.53
38:DI:9:LEU:H	38:DI:13:GLY:HA2	1.72	0.53
1:AA:826:C:H2'	1:AA:827:U:C6	2.43	0.53
3:CC:155:GLY:O	3:CC:156:ARG:HB2	2.07	0.53
1:AA:396:G:O2'	1:AA:398:C:OP1	2.25	0.53
2:AB:105:PHE:HZ	2:AB:156:LYS:HA	1.73	0.53
5:AE:36:ASP:OD2	5:AE:38:GLN:HB2	2.08	0.53
31:BA:2321:G:H5''	31:BA:2322:A:OP2	2.07	0.53
31:DA:524:U:H2'	31:DA:525:U:C6	2.44	0.53
44:BS:12:PHE:CD1	44:BS:12:PHE:O	2.61	0.53
10:AJ:16:LEU:HD13	10:AJ:70:ARG:HE	1.74	0.53
1:CA:922:G:C8	5:CE:18:ARG:CB	2.85	0.53
31:DA:2070:G:H2'	31:DA:2071:A:H8	1.74	0.53
31:DA:626:U:H5''	31:DA:627:A:H5'	1.91	0.53
47:DV:82:ARG:CG	47:DV:82:ARG:NH1	2.52	0.53
31:BA:581:C:H2'	31:BA:582:G:C8	2.43	0.53
36:BG:16:ARG:CG	36:BG:16:ARG:HH11	2.22	0.53
44:BS:71:ARG:HG2	44:BS:101:LEU:CG	2.38	0.53
31:BA:2517:C:C6	31:BA:2542:A:N1	2.77	0.53
31:BA:2646:C:H2'	31:BA:2647:U:O4'	2.08	0.53
31:DA:1405:U:O2'	31:DA:1406:U:H5'	2.09	0.53
49:DX:23:GLU:O	49:DX:25:LYS:N	2.41	0.53
31:BA:1461:G:N3	31:BA:1462:C:C6	2.76	0.53
36:DG:172:LEU:HG	36:DG:173:LEU:CD2	2.39	0.53
44:DS:49:VAL:HG11	44:DS:73:LEU:HD13	1.91	0.53
1:AA:378:G:O6	1:AA:385:C:N4	2.42	0.53
16:AP:7:ALA:O	16:AP:9:PHE:HD2	1.92	0.53
1:CA:424:G:N3	1:CA:425:G:C8	2.77	0.53
1:CA:428:G:C4'	1:CA:429:U:O5'	2.57	0.53
1:CA:629:G:H2'	1:CA:630:G:O4'	2.08	0.53
5:CE:93:PRO:HA	5:CE:118:ILE:HD12	1.90	0.53
31:BA:1608:A:H1'	31:BA:1610:A:OP2	2.08	0.53
37:DH:85:LYS:HZ3	37:DH:145:ALA:CA	2.21	0.53
31:BA:1011:G:OP1	46:BU:75:ASN:HB3	2.08	0.53
39:BN:31:ALA:O	39:BN:34:LEU:N	2.42	0.53
47:BV:4:ILE:HD12	47:BV:40:LEU:HG	1.91	0.53
31:DA:2517:C:C6	31:DA:2542:A:C2	2.97	0.53
31:BA:1652:A:H2'	31:BA:1653:G:H5'	1.89	0.53
31:BA:762:U:H4'	31:BA:763:G:O5'	2.08	0.53
31:BA:729:G:C5	33:BD:208:LYS:HB2	2.44	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:193:C:O2'	1:CA:194:C:H5'	2.09	0.53
1:CA:685:G:O2'	1:CA:686:U:C5'	2.51	0.53
1:AA:677:U:O2'	1:AA:678:U:H5'	2.08	0.53
34:DE:93:VAL:C	34:DE:95:ILE:N	2.62	0.53
27:D5:36:CYS:CB	27:D5:49:CYS:SG	2.96	0.53
31:DA:204:A:OP1	31:DA:204:A:H8	1.91	0.53
1:CA:1072:G:C5	1:CA:1073:U:C4	2.96	0.53
1:AA:579:G:H2'	1:AA:580:U:C6	2.43	0.53
50:DY:88:LYS:O	50:DY:89:PHE:CB	2.56	0.53
50:DY:46:LYS:O	50:DY:47:LYS:NZ	2.38	0.53
38:BI:71:ILE:HG12	38:BI:72:LEU:HD22	1.90	0.53
4:AD:209:ARG:HH11	4:AD:209:ARG:HG3	1.70	0.53
1:CA:965:A:H5'	1:CA:969:A:O4'	2.08	0.53
31:BA:794:G:H2'	31:BA:795:C:C6	2.44	0.53
39:DN:128:HIS:NE2	39:DN:131:GLN:HB3	2.24	0.53
49:BX:65:ARG:CZ	49:BX:66:LEU:N	2.72	0.53
31:DA:38:A:C2	31:DA:442:G:C2	2.96	0.53
42:DQ:52:VAL:HA	42:DQ:55:VAL:CG1	2.38	0.53
8:CH:53:VAL:O	8:CH:54:ASP:HB2	2.06	0.53
31:DA:1845:G:C2'	31:DA:1846:G:H5'	2.37	0.53
31:BA:2552:U:O2	31:BA:2554:U:H5'	2.08	0.53
2:CB:88:ALA:HB2	2:CB:219:VAL:CG1	2.38	0.53
1:CA:1030(C):G:H2'	1:CA:1030(D):A:C8	2.43	0.53
51:DZ:120:ILE:H	51:DZ:172:ALA:HA	1.74	0.53
3:CC:121:ALA:HB2	3:CC:198:VAL:HG21	1.91	0.53
31:BA:1301:A:O2'	31:BA:1302:A:H3'	2.07	0.53
1:CA:1438:G:C4	1:CA:1439:C:C5	2.97	0.53
1:CA:397:A:H5''	1:CA:397:A:N3	2.24	0.53
6:AF:44:GLY:O	6:AF:45:LEU:C	2.47	0.53
1:CA:598:U:H4'	8:CH:94:TYR:CG	2.43	0.53
41:DP:75:ILE:H	41:DP:75:ILE:HD13	1.73	0.53
31:DA:266:G:H2'	31:DA:267:C:O5'	2.09	0.53
1:AA:189:G:O6	1:AA:189(L):G:C6	2.62	0.53
35:BF:57:VAL:CG1	35:BF:58:ALA:N	2.72	0.53
18:CR:43:PHE:C	18:CR:44:LEU:HD12	2.29	0.53
51:DZ:100:VAL:HG11	51:DZ:137:ILE:HG12	1.90	0.53
31:DA:18:C:H2'	31:DA:19:C:C6	2.44	0.53
1:AA:837:G:C2	1:AA:838:G:C8	2.96	0.53
31:BA:575:A:OP2	31:BA:2055:C:N4	2.24	0.53
11:AK:79:SER:O	11:AK:80:VAL:HG13	2.09	0.53
1:CA:872:A:C2	1:CA:874:G:C6	2.96	0.53
38:BI:144:VAL:O	38:BI:145:VAL:HB	2.08	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1400:C:H4'	1:CA:1401:G:OP2	2.08	0.53
1:CA:1501:C:H5''	1:CA:1502:A:OP2	2.08	0.53
30:D8:29:LYS:HA	30:D8:32:LEU:HD12	1.90	0.53
31:DA:251:A:C5	31:DA:252:G:H1'	2.44	0.53
31:DA:623:G:H2'	31:DA:624:C:C6	2.44	0.53
41:DP:85:LEU:HA	41:DP:88:LEU:CB	2.38	0.53
31:BA:2286:A:C5'	31:BA:2287:A:O4'	2.56	0.53
31:DA:1458:C:H4'	31:DA:1459:G:N3	2.23	0.53
41:BP:138:LEU:C	41:BP:140:ALA:N	2.62	0.53
46:DU:88:ILE:CD1	46:DU:88:ILE:O	2.56	0.53
31:BA:1527:G:H5''	31:BA:1528:A:OP1	2.08	0.53
31:BA:1528(A):A:C3'	31:BA:1529:G:H5''	2.35	0.53
31:BA:71:A:C8	31:BA:71:A:C5'	2.85	0.53
31:BA:73:A:H2'	31:BA:74:A:OP2	2.08	0.53
4:AD:119:GLN:CG	4:AD:123:HIS:HD2	2.15	0.53
4:AD:79:PHE:CD2	4:AD:79:PHE:C	2.82	0.53
4:CD:36:ARG:HB3	4:CD:38:TYR:HE1	1.73	0.53
33:DD:39:LYS:NZ	33:DD:60:ARG:HH11	2.06	0.53
46:BU:62:ILE:HG22	46:BU:63:VAL:N	2.21	0.53
31:DA:370:G:H5''	31:DA:423:A:C6	2.42	0.53
31:BA:2030:A:H4'	31:BA:2031:A:OP1	2.09	0.53
31:DA:2786:U:N3	31:DA:2787:C:C5	2.77	0.53
31:BA:1225:G:P	47:BV:88:ARG:HB3	2.48	0.53
23:B1:87:PRO:HD2	23:B1:88:LYS:N	2.22	0.53
31:BA:1473:G:C6	31:BA:1474:C:C4	2.97	0.53
31:BA:1507:A:C2	31:BA:1508:A:H1'	2.43	0.53
32:DB:75:G:H5'	32:DB:75:G:C8	2.32	0.53
34:DE:52:LEU:CB	34:DE:76:ARG:HB2	2.36	0.53
32:BB:13:A:H2'	32:BB:70:C:O2'	2.08	0.53
1:AA:503:C:O2'	1:AA:504:C:H5'	2.09	0.53
34:DE:2:LYS:HB3	34:DE:95:ILE:HG21	1.91	0.53
31:DA:1040:C:O2'	31:DA:1041:C:P	2.66	0.53
1:AA:1088:G:H1	1:AA:1097:C:N4	2.03	0.53
34:BE:171:GLU:HB2	34:BE:185:LYS:HG3	1.91	0.53
1:CA:28:G:C6	1:CA:29:G:C5	2.97	0.53
42:BQ:9:TYR:C	42:BQ:10:ARG:HG3	2.28	0.53
45:BT:34:VAL:HG13	45:BT:39:ARG:HB3	1.90	0.53
31:BA:2846:G:H2'	31:BA:2847:U:O4'	2.09	0.53
31:DA:775:G:C5	31:DA:794:G:C8	2.96	0.53
31:DA:2820:A:C8	34:DE:109:LYS:HE3	2.43	0.53
45:BT:28:VAL:HG21	45:BT:46:GLU:CD	2.29	0.53
45:BT:29:ARG:CG	45:BT:85:LYS:HA	2.38	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:AN:3:ARG:O	14:AN:7:ILE:HG23	2.09	0.53
31:BA:460:A:C2	31:BA:470:A:C4	2.96	0.53
1:CA:339:C:H2'	1:CA:340:U:C6	2.44	0.53
8:CH:86:ILE:HG13	8:CH:133:LEU:CD1	2.38	0.53
31:DA:322:A:H3'	35:DF:169:ASN:ND2	2.24	0.53
6:CF:75:LEU:HD23	6:CF:79:LEU:HD11	1.91	0.53
1:AA:789:U:H2'	1:AA:791:G:OP2	2.09	0.53
48:DW:106:ILE:O	48:DW:106:ILE:HG12	2.06	0.53
31:DA:1316:U:H2'	31:DA:1317:A:H8	1.73	0.53
31:DA:2591:C:H2'	31:DA:2592:G:C8	2.44	0.53
6:CF:5:GLU:O	6:CF:7:ASN:ND2	2.41	0.53
31:DA:272(D):G:H1	31:DA:364:C:N4	2.05	0.53
1:CA:759:A:H2'	1:CA:760:G:H5'	1.89	0.53
3:AC:19:GLU:HG2	3:AC:19:GLU:O	2.09	0.53
5:AE:71:LEU:O	5:AE:72:GLN:HG3	2.08	0.53
26:D4:5:ILE:O	36:DG:67:LYS:HG2	2.08	0.53
1:CA:307:C:H2'	1:CA:308:C:H5'	1.90	0.53
4:AD:108:LEU:HD11	4:AD:174:LEU:CD2	2.39	0.53
4:AD:96:LEU:H	4:AD:96:LEU:HD22	1.73	0.53
31:BA:485:C:H2'	31:BA:486:C:H6	1.72	0.53
31:DA:1836:C:O2'	31:DA:1837:C:H5'	2.08	0.53
31:BA:1783:A:H5'	31:BA:2608:G:H4'	1.91	0.53
13:AM:74:VAL:HA	13:AM:77:ASN:HD22	1.74	0.53
1:CA:1379:G:C6	1:CA:1380:U:O4	2.61	0.53
6:CF:26:ILE:O	6:CF:29:ALA:HB3	2.08	0.53
51:BZ:100:VAL:N	51:BZ:124:ILE:O	2.40	0.53
33:BD:132:PRO:HA	33:BD:190:TYR:HA	1.88	0.53
1:AA:1076:C:C2	1:AA:1082:G:N2	2.76	0.53
31:DA:123:G:O3'	31:DA:1376:C:H4'	2.08	0.53
31:DA:2015:A:C2'	31:DA:2016:U:H5'	2.38	0.53
31:DA:2056:G:N2	31:DA:2057:A:N9	2.56	0.53
31:DA:2360:A:O2'	31:DA:2361:A:C5'	2.56	0.53
41:DP:47:ASP:HB3	41:DP:48:PRO:CA	2.39	0.53
30:B8:25:MET:HB2	41:BP:62:LEU:CD2	2.30	0.53
30:B8:60:LEU:O	30:B8:63:PRO:HD2	2.08	0.53
32:BB:51:G:OP2	44:BS:62:LYS:HE2	2.09	0.53
24:D2:45:SER:HB3	24:D2:48:HIS:HB3	1.91	0.53
24:D2:49:LYS:CA	24:D2:53:LEU:HB3	2.39	0.53
31:DA:112:U:O4	31:DA:113:G:C2	2.62	0.53
41:BP:140:ALA:HB1	25:D3:38:GLU:CG	2.33	0.53
39:DN:47:ALA:HB2	39:DN:112:LEU:HD21	1.91	0.53
46:DU:88:ILE:C	46:DU:90:VAL:HG23	2.28	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BH:85:LYS:HE2	37:BH:141:VAL:O	2.09	0.53
49:BX:36:LYS:HD3	49:BX:38:GLU:HB2	1.90	0.53
31:BA:2631:G:N2	34:BE:61:ARG:NH1	2.47	0.53
31:BA:2632:A:N3	34:BE:61:ARG:NH1	2.57	0.53
32:DB:57:A:N3	32:DB:58:A:C8	2.77	0.53
44:DS:13:ARG:O	44:DS:14:VAL:C	2.47	0.53
44:DS:27:SER:OG	44:DS:40:ILE:HD12	2.08	0.53
1:AA:394:G:C4	1:AA:395:C:C5	2.96	0.53
4:AD:94:LEU:O	4:AD:97:LEU:HB2	2.09	0.53
45:BT:121:ILE:O	45:BT:124:ASP:HB2	2.08	0.53
50:BY:8:LYS:HE2	50:BY:72:VAL:CG2	2.37	0.53
31:DA:2807:G:H22	31:DA:2892:A:H61	1.57	0.53
33:BD:17:THR:HG23	33:BD:205:VAL:CB	2.38	0.53
1:CA:189:G:C6	1:CA:189(L):G:N1	2.77	0.53
1:CA:189(J):G:O2'	1:CA:189(K):U:H5'	2.09	0.53
1:CA:261:U:H2'	1:CA:263:A:OP2	2.07	0.53
2:CB:210:SER:O	2:CB:214:ILE:HG12	2.09	0.53
1:CA:710:G:H2'	1:CA:711:G:H8	1.74	0.53
31:BA:330:A:HO2'	31:BA:331:A:H8	1.52	0.53
42:DQ:141:GLN:N	51:DZ:53:ILE:O	2.42	0.53
31:DA:954:G:OP1	42:DQ:15:GLY:N	2.40	0.53
31:DA:957:A:N6	31:DA:959:A:C2	2.76	0.53
32:DB:109:C:H5'	32:DB:110:G:O5'	2.08	0.53
32:DB:110:G:N1	32:DB:111:G:C5	2.77	0.53
27:B5:33:CYS:SG	27:B5:49:CYS:HB3	2.48	0.53
27:B5:36:CYS:CB	27:B5:49:CYS:SG	2.97	0.53
1:AA:363:A:O2'	1:AA:364:A:H5'	2.08	0.53
20:AT:56:MET:O	20:AT:59:ALA:HB3	2.09	0.53
31:DA:2730:C:H4'	34:DE:168:MET:O	2.08	0.53
4:AD:18:LYS:CD	4:AD:33:MET:HG2	2.31	0.53
2:AB:174:VAL:O	2:AB:178:ARG:HB2	2.09	0.53
1:CA:27:G:H2'	1:CA:28:G:H8	1.73	0.53
31:BA:869:G:C4	31:BA:870:A:C8	2.97	0.53
38:BI:76:THR:HG21	38:BI:141:LYS:HE3	1.90	0.53
31:DA:1338:G:C2	31:DA:1339:G:C4	2.97	0.53
31:BA:2845:G:C2'	31:BA:2846:G:H5'	2.39	0.53
45:DT:30:VAL:CG2	45:DT:83:ILE:HG12	2.38	0.53
31:BA:1487:G:C2'	31:BA:1488:G:O5'	2.57	0.53
1:AA:173:U:C6	1:AA:197:A:C2	2.97	0.53
47:BV:43:GLU:H	47:BV:48:GLY:HA2	1.74	0.53
35:BF:168:ARG:HG3	35:BF:175:THR:CG2	2.37	0.53
1:CA:10:A:H2'	1:CA:11:G:H8	1.73	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AG:79:ARG:CZ	7:AG:84:ASN:HD21	2.22	0.53
29:D7:5:TRP:HA	29:D7:5:TRP:CE3	2.44	0.53
35:DF:31:HIS:O	35:DF:34:TRP:HB3	2.08	0.53
42:BQ:134:ARG:O	42:BQ:136:ALA:N	2.42	0.53
36:BG:169:ALA:O	36:BG:173:LEU:HG	2.08	0.53
5:CE:7:GLU:HG2	5:CE:112:LEU:CD2	2.38	0.53
31:DA:363(E):U:H5''	31:DA:363(F):A:N3	2.23	0.53
37:DH:153:LYS:CG	37:DH:154:PRO:N	2.71	0.53
31:DA:1358:G:H1'	31:DA:1373:A:H61	1.74	0.53
4:CD:108:LEU:C	4:CD:110:PHE:H	2.12	0.53
31:BA:647:G:H8	31:BA:647:G:O5'	1.92	0.53
1:CA:1480:G:H2'	1:CA:1481:U:O4'	2.07	0.53
1:CA:299:G:H2'	1:CA:300:A:C8	2.44	0.53
31:BA:2835:A:C6	31:BA:2879:C:C5	2.96	0.53
3:AC:83:ARG:O	3:AC:87:LEU:HG	2.08	0.53
38:BI:46:ALA:O	38:BI:49:ALA:HB3	2.08	0.53
31:DA:435:C:C5	31:DA:436:C:C5	2.97	0.53
46:BU:16:LYS:O	46:BU:20:LEU:HD23	2.09	0.53
13:AM:32:GLU:OE2	13:AM:64:TRP:HH2	1.91	0.53
1:AA:785:G:H2'	1:AA:786:G:H5'	1.91	0.53
16:AP:55:ARG:HE	16:AP:55:ARG:HA	1.73	0.53
31:BA:1307:A:N6	31:BA:1606:G:O2'	2.42	0.53
1:CA:1049:U:H4'	1:CA:1050:G:O5'	2.04	0.53
1:CA:923:A:H1'	1:CA:1398:A:C2	2.44	0.53
31:DA:448:U:H1'	35:DF:84:VAL:CG1	2.39	0.53
31:DA:637:A:OP1	41:DP:133:SER:CB	2.56	0.53
31:BA:2376:A:C8	31:BA:2377:A:C8	2.97	0.53
36:BG:30:GLU:HG2	36:BG:30:GLU:O	2.09	0.53
44:BS:89:ARG:C	44:BS:92:TYR:HB3	2.29	0.53
44:BS:94:TYR:CD1	44:BS:94:TYR:C	2.77	0.53
31:DA:814:C:H5	41:DP:27:HIS:NE2	2.06	0.53
31:DA:977:G:C6	31:DA:987:G:C6	2.96	0.53
39:DN:35:ARG:HB2	39:DN:42:TRP:HZ3	1.73	0.53
47:DV:19:LYS:HB3	47:DV:97:LYS:HA	1.91	0.53
31:BA:1458:C:H4'	31:BA:1459:G:N3	2.24	0.53
1:CA:501:C:O2'	1:CA:502:G:H5'	2.09	0.53
1:CA:504:C:H1'	1:CA:510:A:C4	2.43	0.53
31:DA:1795:C:H2'	31:DA:1796:U:C6	2.44	0.53
31:DA:780:G:C2	31:DA:782:A:C2	2.97	0.53
37:DH:85:LYS:CE	37:DH:133:VAL:HB	2.37	0.53
31:DA:2650:U:H2'	31:DA:2651:C:H6	1.73	0.53
1:AA:184:G:N2	1:AA:194:C:C2	2.77	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2785:C:H2'	31:DA:2786:U:C6	2.44	0.53
5:AE:105:VAL:HB	5:AE:106:PRO:CD	2.39	0.53
47:BV:70:ILE:O	47:BV:71:LEU:HB2	2.09	0.53
47:BV:21:ARG:HA	47:BV:94:LEU:O	2.09	0.53
31:DA:2319:G:OP2	31:DA:2319:G:H4'	2.07	0.53
31:BA:49:A:H4'	31:BA:50:U:OP2	2.09	0.53
31:BA:1436:G:O2'	31:BA:1477:A:H4'	2.08	0.53
1:AA:1127:G:H1'	1:AA:1148:U:H3	1.74	0.53
31:BA:624:C:H2'	31:BA:625:G:H5'	1.89	0.53
27:B5:51:TYR:HB2	27:B5:54:GLY:HA3	1.91	0.53
1:AA:509:A:C2	1:AA:510:A:C2	2.97	0.53
1:AA:542:G:H2'	1:AA:543:C:C6	2.41	0.53
1:AA:355:C:C4	1:AA:356:A:N7	2.76	0.53
1:AA:55:A:C5	1:AA:56:U:C4	2.97	0.53
31:DA:1048:A:OP2	31:DA:1110:G:N2	2.42	0.53
50:BY:95:LYS:CE	50:BY:100:ALA:HB1	2.39	0.53
50:BY:90:LEU:HD12	50:BY:91:GLU:CG	2.39	0.53
4:CD:20:TYR:HD2	4:CD:26:CYS:HB3	1.74	0.53
1:CA:1064:G:H21	1:CA:1190:G:H2'	1.74	0.53
2:CB:25:ASN:ND2	2:CB:193:ASP:HB3	2.24	0.53
31:BA:952:G:C6	31:BA:953:A:N7	2.77	0.53
31:BA:902:C:O2'	31:BA:903:C:H5'	2.08	0.53
24:B2:14:ARG:O	24:B2:17:SER:N	2.42	0.53
31:DA:2547:U:C2'	31:DA:2548:G:H5'	2.39	0.53
36:BG:107:LEU:HD23	36:BG:111:LEU:HD12	1.91	0.53
43:BR:10:LEU:HD22	43:BR:21:TYR:OH	2.09	0.53
31:DA:1478:G:O2'	31:DA:1558:A:C2	2.62	0.53
31:BA:271(H):G:O2'	31:BA:271(I):G:P	2.67	0.53
1:CA:1288:A:H2	1:CA:1352:C:O2	1.92	0.53
8:CH:88:LYS:HB3	8:CH:89:PRO:HD2	1.91	0.53
10:AJ:7:LYS:HD3	10:AJ:71:LEU:CD1	2.34	0.53
42:DQ:52:VAL:O	42:DQ:56:ARG:HB2	2.08	0.53
45:DT:32:TYR:HB3	45:DT:81:PRO:CB	2.37	0.53
11:CK:21:ILE:N	11:CK:83:ILE:O	2.42	0.53
12:AL:42:THR:OG1	12:AL:52:LEU:HB3	2.09	0.53
31:DA:1963:U:O2	31:DA:1963:U:H2'	2.09	0.53
31:DA:2078:C:H2'	31:DA:2079:U:C6	2.44	0.53
2:CB:219:VAL:HA	2:CB:222:ILE:CD1	2.39	0.53
9:AI:96:LEU:HD23	9:AI:102:LEU:HD12	1.91	0.53
1:AA:671:G:C4	1:AA:672:U:C6	2.97	0.53
31:DA:272(C):G:C2	31:DA:366:C:O2	2.61	0.53
35:DF:118:ALA:C	35:DF:120:GLU:H	2.12	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:557:U:O2	39:BN:45:ASN:HB2	2.09	0.53
31:DA:610:G:H2'	31:DA:611:C:H6	1.73	0.53
1:CA:1480:G:C6	1:CA:1481:U:C4	2.96	0.53
51:BZ:63:ASP:C	51:BZ:65:GLN:N	2.62	0.53
36:DG:130:ASN:OD1	36:DG:160:VAL:HA	2.08	0.53
31:DA:1367:A:H5'	31:DA:1368:G:OP2	2.09	0.53
37:DH:43:VAL:CG1	37:DH:53:GLU:H	2.22	0.53
1:AA:1217:C:H2'	1:AA:1218:C:O4'	2.09	0.53
8:CH:17:THR:O	8:CH:20:TYR:N	2.41	0.53
31:BA:1439:A:C2	31:BA:1553:A:C4	2.97	0.53
31:DA:413:C:H4'	31:DA:1880:C:O2'	2.09	0.53
1:AA:1273:G:H3'	1:AA:1274:G:H8	1.74	0.53
31:DA:553:G:H2'	31:DA:554:U:O4'	2.09	0.53
13:AM:75:ALA:O	13:AM:79:LYS:HG3	2.09	0.53
18:CR:35:ARG:O	18:CR:37:VAL:N	2.37	0.53
10:CJ:24:VAL:HG21	10:CJ:37:PRO:HG3	1.90	0.53
4:CD:164:ALA:O	4:CD:168:ARG:HD2	2.08	0.53
31:BA:1437:C:H5''	31:BA:1437:C:H6	1.73	0.53
48:BW:1:MET:HE2	48:BW:2:GLU:H	1.74	0.53
1:CA:1134:G:H2'	1:CA:1135:U:H5'	1.91	0.53
8:AH:114:THR:HG23	8:AH:117:GLY:O	2.09	0.53
38:DI:117:GLU:HG3	38:DI:118:LYS:H	1.74	0.53
31:DA:2415:G:O3'	41:DP:66:GLY:CA	2.56	0.53
31:DA:232:G:H22	31:DA:420:C:H5''	1.73	0.53
31:DA:575:A:OP2	31:DA:2055:C:N4	2.28	0.53
41:DP:41:ARG:HH21	41:DP:41:ARG:HA	1.70	0.53
47:DV:79:VAL:CG2	47:DV:82:ARG:HD2	2.39	0.53
23:B1:33:LYS:O	23:B1:34:THR:HG22	2.09	0.53
31:BA:2520:C:C2	31:BA:2521:C:C6	2.96	0.53
31:DA:1459:G:C5	31:DA:1461:G:C8	2.97	0.53
31:DA:1022:G:N7	39:DN:66:LYS:HE2	2.24	0.53
46:DU:92:ARG:HD2	47:DV:11:GLN:HG3	1.91	0.53
34:BE:35:GLN:HB3	34:BE:48:GLN:CB	2.38	0.53
32:DB:24:G:C2	32:DB:56:G:C2	2.97	0.53
36:DG:107:LEU:HD23	36:DG:111:LEU:HD12	1.90	0.53
1:AA:386:C:O2'	1:AA:387:U:H5'	2.08	0.53
1:CA:428:G:H5'	1:CA:430:A:O4'	2.09	0.53
31:DA:1684:C:C2	31:DA:1705:G:N2	2.77	0.53
31:BA:2317:C:O2	31:BA:2317:C:C2'	2.55	0.53
31:DA:2520:C:N4	31:DA:2567:G:C5	2.77	0.53
37:DH:87:LEU:HD13	37:DH:148:ILE:HG21	1.89	0.53
31:BA:528:A:C2	31:BA:2042:A:H2'	2.42	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2811:G:OP1	34:DE:60:ASN:HB3	2.09	0.53
31:BA:1225:G:OP1	47:BV:88:ARG:CB	2.57	0.53
31:BA:304:G:C5	31:BA:305:U:C5	2.97	0.53
22:D0:43:THR:CG2	31:DA:2336:A:H61	2.21	0.53
42:DQ:9:TYR:CD2	42:DQ:9:TYR:C	2.82	0.53
51:BZ:5:LEU:HD22	51:BZ:6:LYS:H	1.74	0.53
32:DB:15:A:C5'	32:DB:16:G:H8	2.14	0.53
1:AA:509:A:O2'	1:AA:510:A:C8	2.61	0.53
31:BA:381:G:C6	31:BA:394:A:C6	2.97	0.53
1:AA:22:G:H4'	1:AA:885:G:C8	2.43	0.53
12:CL:47:LYS:CB	12:CL:48:PRO:HD3	2.28	0.53
38:BI:101:LEU:CD2	38:BI:109:ILE:HG12	2.38	0.53
31:BA:1411:C:C2'	31:BA:1412:A:C8	2.88	0.53
38:DI:71:ILE:O	38:DI:75:LEU:HB2	2.09	0.53
1:AA:1054:C:O2'	1:AA:1055:A:H5''	2.09	0.53
31:BA:1176:G:C4'	31:BA:1177:A:OP1	2.57	0.53
31:DA:108:U:O2'	31:DA:109:G:H5'	2.08	0.53
35:BF:128:ALA:O	35:BF:129:PHE:CG	2.62	0.53
35:BF:126:VAL:HG11	35:BF:142:TRP:CH2	2.44	0.53
31:DA:473:G:O2'	31:DA:474:G:H5'	2.08	0.53
31:BA:720:C:H2'	31:BA:721:C:H6	1.73	0.53
31:DA:2235:G:H2'	31:DA:2236:C:H6	1.73	0.53
1:CA:878:G:C5'	8:CH:89:PRO:HG2	2.38	0.53
38:DI:15:VAL:C	38:DI:17:GLN:H	2.13	0.53
31:BA:491:G:H2'	31:BA:492:A:H8	1.74	0.53
1:AA:1494:G:H4'	31:BA:1913:A:H2'	1.90	0.53
23:B1:71:TYR:HE1	38:BI:27:ARG:HD2	1.71	0.53
45:BT:55:ASN:O	45:BT:57:PHE:N	2.42	0.53
31:BA:2730:C:H4'	34:BE:168:MET:O	2.08	0.53
34:BE:202:LYS:N	34:BE:202:LYS:HD3	2.24	0.53
8:CH:58:TYR:O	8:CH:59:LEU:HD23	2.08	0.53
1:CA:591:U:H2'	1:CA:592:G:C8	2.44	0.53
37:BH:136:ILE:HG22	37:BH:136:ILE:O	2.09	0.53
15:AO:74:ASP:OD2	15:AO:77:ARG:N	2.40	0.53
31:BA:34:C:C3'	31:BA:34:C:C6	2.91	0.53
31:DA:363(C):G:H2'	31:DA:363(D):G:O4'	2.09	0.53
51:DZ:120:ILE:O	51:DZ:120:ILE:HG22	2.09	0.53
35:BF:132:VAL:HG22	35:BF:133:ASN:N	2.24	0.53
31:BA:11:G:O2'	31:BA:12:U:H5'	2.09	0.53
1:CA:1315:U:H2'	1:CA:1316:G:O4'	2.09	0.53
31:DA:707:G:C6	31:DA:708:C:C4	2.97	0.53
15:CO:87:ILE:HG22	15:CO:88:ARG:N	2.23	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:44:G:H2'	1:AA:45:U:O4'	2.09	0.53
1:AA:1118:C:O2	1:AA:1179:A:C6	2.62	0.53
42:DQ:57:HIS:CE1	42:DQ:116:GLU:HB3	2.44	0.53
31:BA:1805:U:H2'	31:BA:1806:C:H6	1.73	0.53
40:DO:7:TYR:CE1	40:DO:20:MET:HB2	2.44	0.53
45:DT:18:ASP:OD1	45:DT:19:LEU:HG	2.09	0.53
11:CK:34:ASP:HB2	11:CK:35:PRO:HD2	1.91	0.53
1:CA:837:G:C2	1:CA:838:G:C8	2.97	0.53
31:DA:1859:A:O5'	31:DA:1859:A:H8	1.92	0.53
5:CE:36:ASP:OD2	5:CE:38:GLN:HB2	2.09	0.53
31:BA:1628:G:O2'	31:BA:1629:U:H5'	2.09	0.53
35:BF:70:THR:HB	35:BF:72:ARG:H	1.73	0.53
27:D5:6:VAL:HG13	27:D5:7:PRO:HD2	1.89	0.53
31:DA:251:A:C5'	41:DP:51:PHE:HZ	2.21	0.53
31:BA:2071:A:N3	31:BA:2071:A:H2'	2.24	0.53
31:BA:672:C:O2'	31:BA:673:C:H5'	2.09	0.53
44:BS:18:ILE:HG22	44:BS:19:LYS:N	2.24	0.53
31:DA:1718:G:O2'	31:DA:1719:G:H5'	2.08	0.53
49:DX:57:LEU:HD13	49:DX:77:LYS:HB2	1.90	0.53
24:B2:49:LYS:HZ2	24:B2:53:LEU:CD2	2.22	0.53
36:DG:11:TYR:CD2	36:DG:12:TYR:CE1	2.97	0.53
1:AA:375:U:OP1	16:AP:69:THR:HG21	2.09	0.53
1:AA:402:G:C5	1:AA:403:C:C5	2.97	0.53
4:AD:90:GLY:O	4:AD:94:LEU:HG	2.09	0.53
1:CA:407:G:C2	1:CA:436:C:N3	2.78	0.53
1:CA:615:C:H2'	1:CA:616:G:O4'	2.09	0.53
1:CA:616:G:C2	1:CA:617:G:C8	2.96	0.53
50:BY:64:GLU:O	50:BY:65:ALA:HB2	2.09	0.53
33:DD:28:GLU:HB2	33:DD:29:PRO:HD3	1.90	0.53
43:DR:76:VAL:HG13	43:DR:80:PHE:HD2	1.73	0.53
23:D1:73:LEU:HD13	23:D1:90:ILE:O	2.10	0.53
34:DE:75:VAL:O	34:DE:75:VAL:HG23	2.06	0.53
2:AB:70:PHE:CD2	2:AB:163:PHE:HB3	2.44	0.53
31:BA:764:A:O4'	33:BD:213:ARG:HG3	2.09	0.53
33:BD:45:ASN:CG	33:BD:46:GLN:N	2.61	0.53
1:CA:262:A:C6	1:CA:263:A:N6	2.77	0.53
46:BU:101:ARG:C	46:BU:102:GLU:HG2	2.30	0.53
47:BV:1:MET:H1	47:BV:44:LYS:HD2	1.73	0.53
47:BV:70:ILE:HB	47:BV:90:PRO:HB2	1.90	0.53
23:B1:91:LYS:O	23:B1:92:LYS:HD2	2.09	0.53
1:CA:676:A:O2'	1:CA:677:U:H5'	2.08	0.53
42:DQ:9:TYR:C	42:DQ:10:ARG:HG3	2.29	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:259:G:N2	31:BA:621:A:H8	2.07	0.53
6:AF:50:TYR:CE2	6:AF:52:ILE:HD11	2.43	0.53
27:B5:2:ALA:HB3	31:BA:747:U:N1	2.24	0.53
23:D1:20:ARG:HG3	31:DA:381:G:OP1	2.09	0.53
1:CA:579:G:C5	1:CA:580:U:C5	2.97	0.53
31:BA:954:G:C5	31:BA:955:C:C5	2.97	0.53
1:AA:779:C:H2'	1:AA:780:A:O4'	2.09	0.53
32:BB:78:A:C2	32:BB:100:A:C4	2.96	0.53
31:DA:1636:C:O2'	31:DA:1760:A:H1'	2.08	0.53
1:CA:687:A:H4'	1:CA:688:G:O5'	2.07	0.53
31:DA:1689:A:N6	31:DA:1698:A:H2	2.03	0.53
31:DA:518:G:H2'	31:DA:519:U:H6	1.72	0.53
45:BT:28:VAL:O	45:BT:29:ARG:HB2	2.09	0.53
31:BA:2658:C:O2	31:BA:2658:C:C2'	2.53	0.53
31:BA:2666:C:H5'	31:BA:2667:C:OP2	2.09	0.53
31:DA:151:C:C2'	31:DA:152:G:H5'	2.39	0.53
5:CE:57:LYS:O	5:CE:61:TYR:CD2	2.61	0.53
1:CA:651:C:O2'	1:CA:652:U:H5'	2.08	0.53
8:CH:8:ASP:O	8:CH:11:THR:N	2.42	0.53
19:CS:5:LEU:HG	19:CS:10:PHE:HD1	1.74	0.53
6:AF:96:PRO:HB3	18:AR:30:ASP:CG	2.29	0.53
31:DA:271(K):U:O2'	31:DA:271(L):U:OP1	2.26	0.53
45:DT:109:GLU:CA	45:DT:112:ARG:HG3	2.38	0.53
31:BA:2053:G:H1	31:BA:2616:C:N4	2.04	0.53
23:B1:46:LEU:HD12	23:B1:46:LEU:O	2.08	0.53
2:CB:189:ASP:HB3	2:CB:203:GLY:O	2.09	0.53
31:BA:807:U:C2	31:BA:808:G:C8	2.97	0.53
31:DA:1318:C:H3'	31:DA:1319:G:H5''	1.90	0.53
5:CE:35:GLY:HA3	5:CE:112:LEU:HB3	1.91	0.53
2:CB:166:ASP:HB3	2:CB:169:LYS:CB	2.38	0.53
1:AA:1314:C:H41	19:AS:4:SER:N	2.07	0.53
35:DF:28:ILE:N	35:DF:28:ILE:HD12	2.23	0.53
1:CA:756:C:H2'	1:CA:757:U:O4'	2.08	0.53
31:DA:2689:U:P	31:DA:2719:G:H22	2.32	0.53
42:BQ:34:LEU:HD11	42:BQ:129:THR:CB	2.38	0.53
31:BA:1705:G:C5	31:BA:1706:U:C4	2.96	0.53
31:DA:1218:C:C2'	31:DA:1219:G:H5'	2.38	0.53
31:DA:2106:G:H1'	31:DA:2184:G:N2	2.24	0.53
4:CD:88:VAL:HG13	5:CE:97:GLY:HA3	1.90	0.53
31:BA:272(D):G:H1	31:BA:364:C:N4	2.06	0.53
1:AA:182:U:C4	1:AA:183:G:H1'	2.44	0.53
31:BA:553:G:C6	31:BA:554:U:C4	2.96	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:349:G:C2'	31:DA:350:U:H5'	2.39	0.53
32:BB:2:C:C5	32:BB:3:C:C5	2.97	0.53
11:AK:13:GLN:HB3	11:AK:75:TYR:O	2.09	0.53
35:BF:46:ARG:O	35:BF:48:THR:HG23	2.08	0.53
7:AG:69:VAL:HG11	7:AG:134:ALA:HB1	1.91	0.53
31:BA:2103:C:H2'	31:BA:2104:G:O4'	2.09	0.53
30:D8:8:LYS:CE	31:DA:243:U:OP2	2.57	0.52
31:DA:819:A:OP2	31:DA:1187:G:N2	2.34	0.52
28:B6:27:LYS:CD	31:BA:2285:C:OP2	2.57	0.52
30:B8:32:LEU:HG	30:B8:35:GLN:H	1.75	0.52
35:BF:31:HIS:O	35:BF:34:TRP:HB3	2.09	0.52
31:BA:116:C:H2'	31:BA:117:G:O4'	2.09	0.52
32:BB:44:G:C2'	32:BB:45:A:OP2	2.56	0.52
44:BS:38:GLN:HG2	44:BS:47:THR:CG2	2.38	0.52
31:DA:1006:C:N3	31:DA:1138:G:C2	2.78	0.52
31:DA:1122:G:C2	31:DA:1123:C:C6	2.97	0.52
39:DN:15:LEU:HD13	39:DN:16:ILE:N	2.24	0.52
47:DV:21:ARG:HB3	47:DV:93:GLU:HG2	1.92	0.52
47:DV:62:LEU:HD22	47:DV:98:GLU:CG	2.39	0.52
31:BA:1345:C:O2'	31:BA:1346:G:H5'	2.09	0.52
31:BA:1341:U:H3'	31:BA:1397:U:O2	2.08	0.52
49:BX:60:ARG:CB	49:BX:72:LYS:H	2.22	0.52
31:BA:2892:A:N7	31:BA:2893:G:C8	2.77	0.52
1:CA:109:A:H2'	1:CA:326:G:H21	1.73	0.52
31:DA:1783:A:C2	31:DA:2587:A:C4	2.97	0.52
31:BA:1006:C:C2	31:BA:1138:G:N2	2.77	0.52
31:BA:727:A:H2	33:BD:9:TYR:CD2	2.26	0.52
1:CA:184:G:C4'	1:CA:224:C:H4'	2.39	0.52
31:DA:2308:G:H3'	31:DA:2310:A:OP2	2.08	0.52
23:B1:67:ILE:O	23:B1:70:VAL:HB	2.08	0.52
31:DA:1504:C:O5'	31:DA:1504:C:H6	1.92	0.52
51:BZ:71:VAL:HG22	51:BZ:88:PHE:CE2	2.44	0.52
31:DA:2207:G:O2'	31:DA:2208:A:H5''	2.09	0.52
31:BA:607:U:OP1	35:BF:102:PRO:HA	2.09	0.52
31:DA:1278:A:P	43:DR:36:THR:HG22	2.47	0.52
11:AK:44:SER:OG	11:AK:47:VAL:HG23	2.09	0.52
27:B5:46:CYS:SG	27:B5:47:PRO:N	2.83	0.52
1:AA:428:G:C4'	1:AA:429:U:O5'	2.57	0.52
1:AA:328:C:O2	1:AA:328:C:C2'	2.57	0.52
1:AA:1088:G:N2	1:AA:1097:C:N3	2.48	0.52
2:CB:22:LYS:NZ	2:CB:40:HIS:HE1	2.07	0.52
4:AD:33:MET:HE1	4:AD:37:PRO:HA	1.89	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:B6:19:ARG:O	28:B6:20:ASN:O	2.26	0.52
31:BA:2277:G:H2'	31:BA:2278:A:H5'	1.91	0.52
1:AA:1504:G:C4'	1:AA:1505:G:OP2	2.57	0.52
31:DA:478:A:C6	31:DA:480:A:C6	2.97	0.52
31:DA:66:C:C2	31:DA:89:G:C2	2.97	0.52
31:BA:1930:G:N2	31:BA:1968:G:H2'	2.24	0.52
38:BI:71:ILE:O	38:BI:75:LEU:HB2	2.10	0.52
31:BA:518:G:H4'	48:BW:18:ARG:CZ	2.39	0.52
31:DA:1905:C:H2'	31:DA:1930:G:H5'	1.91	0.52
31:DA:1664:A:N6	31:DA:1665:A:N6	2.57	0.52
31:DA:2687:U:C4	31:DA:2688:U:C5	2.97	0.52
45:DT:29:ARG:HG2	45:DT:85:LYS:CA	2.39	0.52
31:BA:2199:A:C5'	31:BA:2200:C:OP2	2.56	0.52
35:BF:126:VAL:HG13	35:BF:193:VAL:HG13	1.91	0.52
39:DN:128:HIS:CD2	39:DN:131:GLN:HB2	2.44	0.52
39:BN:134:ARG:O	39:BN:134:ARG:HG3	2.10	0.52
1:CA:658:G:C4	1:CA:659:U:C5	2.97	0.52
8:AH:8:ASP:O	8:AH:11:THR:N	2.42	0.52
37:BH:68:THR:O	37:BH:69:ARG:C	2.47	0.52
40:DO:65:THR:HA	40:DO:82:ASN:CB	2.34	0.52
1:CA:159:G:H21	1:CA:161:A:H3'	1.74	0.52
31:BA:2461:C:H2'	31:BA:2462:U:C6	2.44	0.52
31:BA:2462:U:H2'	31:BA:2463:C:O4'	2.09	0.52
38:DI:31:LEU:CD2	38:DI:38:LEU:HG	2.39	0.52
2:CB:162:ILE:HD12	2:CB:184:VAL:HA	1.91	0.52
22:B0:48:GLY:HA3	22:B0:80:HIS:ND1	2.24	0.52
6:CF:100:ASN:H	18:CR:23:LYS:NZ	2.07	0.52
18:CR:31:LEU:HD23	18:CR:31:LEU:N	2.23	0.52
1:CA:450:G:H5''	16:CP:41:PRO:O	2.09	0.52
51:DZ:141:VAL:HA	51:DZ:144:LEU:HD23	1.89	0.52
3:AC:124:ILE:HG13	3:AC:130:VAL:HG22	1.89	0.52
31:DA:1213:A:H1'	31:DA:1238:G:N3	2.23	0.52
1:AA:983:A:H2	1:AA:984:C:C6	2.27	0.52
31:DA:1675:C:H2'	31:DA:1676:A:O4'	2.10	0.52
31:BA:1664:A:N6	31:BA:1665:A:N6	2.57	0.52
1:AA:522:C:H5''	12:AL:120:TYR:OH	2.09	0.52
31:BA:92:A:H2'	31:BA:93:G:C8	2.44	0.52
1:AA:756:C:H2'	1:AA:757:U:O4'	2.09	0.52
35:BF:16:GLY:O	35:BF:17:ARG:HG3	2.09	0.52
1:AA:149:A:O2'	1:AA:150:C:P	2.67	0.52
23:B1:53:VAL:HG13	23:B1:54:ALA:N	2.22	0.52
40:DO:86:ILE:HD12	40:DO:86:ILE:H	1.75	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:D0:37:LEU:C	22:D0:38:VAL:HG23	2.29	0.52
1:CA:1006:C:H42	1:CA:1024:G:H21	1.57	0.52
38:BI:84:GLY:O	38:BI:85:GLU:HG2	2.09	0.52
4:CD:150:GLU:H	4:CD:150:GLU:CD	2.13	0.52
5:CE:29:GLY:HA2	5:CE:46:GLY:O	2.09	0.52
51:BZ:45:ASP:O	51:BZ:46:LYS:C	2.47	0.52
17:AQ:60:ILE:HG23	17:AQ:62:SER:OG	2.09	0.52
28:D6:14:THR:O	28:D6:49:HIS:HA	2.09	0.52
31:DA:511:U:H5'	31:DA:512:G:OP2	2.09	0.52
31:DA:598:G:C5'	41:DP:15:ARG:HD2	2.38	0.52
28:B6:32:ASN:O	28:B6:33:LYS:CB	2.58	0.52
30:B8:58:ILE:HG22	41:BP:49:ARG:CD	2.39	0.52
31:DA:1461:G:N3	31:DA:1462:C:C6	2.77	0.52
31:DA:1528:A:O2'	31:DA:1528(A):A:C8	2.60	0.52
41:BP:106:LEU:CD1	41:BP:112:LEU:HD23	2.37	0.52
41:BP:118:GLY:O	41:BP:119:GLU:CG	2.50	0.52
31:DA:843:G:C2	31:DA:936:C:C2	2.97	0.52
39:DN:17:ASP:OD2	39:DN:19:GLU:HB3	2.09	0.52
39:DN:35:ARG:NH2	39:DN:42:TRP:HH2	2.07	0.52
39:DN:56:ASN:C	39:DN:57:ALA:O	2.46	0.52
39:DN:87:LEU:HD21	39:DN:98:VAL:HG11	1.90	0.52
31:DA:994:C:OP1	46:DU:53:ARG:NH2	2.43	0.52
49:BX:83:VAL:O	49:BX:84:ALA:CB	2.57	0.52
44:DS:67:ARG:C	44:DS:69:VAL:N	2.61	0.52
1:AA:376:G:O2'	1:AA:377:G:H5'	2.10	0.52
16:AP:10:GLY:O	16:AP:11:SER:O	2.26	0.52
1:CA:323:U:OP1	20:CT:26:ASN:ND2	2.42	0.52
50:BY:11:ASP:H	50:BY:27:VAL:HA	1.74	0.52
50:BY:39:VAL:CG1	50:BY:40:GLU:H	2.15	0.52
33:DD:25:THR:O	33:DD:25:THR:CG2	2.57	0.52
31:DA:2747:G:C2	31:DA:2756:U:C5	2.98	0.52
37:DH:67:LEU:O	37:DH:71:LEU:HB2	2.10	0.52
31:BA:1006:C:H1'	39:BN:106:MET:HB3	1.90	0.52
23:D1:65:SER:OG	23:D1:66:HIS:HD2	1.92	0.52
47:BV:29:PRO:O	47:BV:64:HIS:NE2	2.42	0.52
42:BQ:141:GLN:N	51:BZ:53:ILE:O	2.42	0.52
1:CA:442:C:H42	1:CA:492:G:H1	1.57	0.52
33:DD:148:GLU:HB2	33:DD:151:LYS:HD2	1.92	0.52
50:BY:95:LYS:CD	50:BY:100:ALA:HB1	2.39	0.52
34:BE:6:GLY:O	34:BE:195:LEU:HD12	2.08	0.52
31:BA:1603:A:H2'	31:BA:1604:C:O4'	2.10	0.52
1:AA:659:U:N3	1:AA:660:G:C8	2.77	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:832:C:N4	1:AA:855:G:C6	2.77	0.52
1:CA:1097:C:C2	1:CA:1098:C:C6	2.98	0.52
31:BA:868:U:C4	31:BA:869:G:N7	2.78	0.52
42:BQ:7:MET:O	42:BQ:10:ARG:NH2	2.39	0.52
1:AA:963:G:H21	10:AJ:55:LYS:CD	2.22	0.52
31:DA:501:A:C6	31:DA:502:A:C5	2.98	0.52
31:DA:64:A:O3'	49:DX:68:ARG:O	2.27	0.52
31:DA:1688:U:H5'	31:DA:1689:A:OP1	2.09	0.52
31:DA:797:C:H2'	31:DA:798:G:C8	2.44	0.52
11:AK:92:GLU:C	11:AK:94:ALA:H	2.11	0.52
1:CA:270:A:C6	1:CA:271:C:C4	2.96	0.52
1:AA:1060:C:O2	1:AA:1198:G:C2	2.62	0.52
31:BA:1505:C:C5	31:BA:1506:C:C6	2.97	0.52
31:BA:1126:A:H4'	31:BA:1127:A:O5'	2.09	0.52
14:AN:24:CYS:SG	14:AN:40:CYS:N	2.83	0.52
42:BQ:52:VAL:HA	42:BQ:55:VAL:CG1	2.40	0.52
31:BA:1914:C:C4	31:BA:1915:U:C4	2.97	0.52
6:CF:95:GLU:O	6:CF:96:PRO:O	2.27	0.52
6:CF:100:ASN:ND2	18:CR:23:LYS:HE3	2.24	0.52
31:BA:1692:U:O2'	31:BA:1693:U:H2'	2.10	0.52
35:DF:117:ARG:CZ	41:DP:5:ASP:N	2.73	0.52
31:DA:114:U:H3'	31:DA:115:C:H6	1.74	0.52
31:DA:2849:U:O4	45:DT:23:ARG:NH2	2.42	0.52
31:BA:2196:C:C2'	31:BA:2197:U:H5'	2.39	0.52
31:BA:2223:G:C2'	31:BA:2224:G:H5'	2.40	0.52
31:DA:128:C:C6	31:DA:128:C:H3'	2.44	0.52
31:DA:318:C:H2'	31:DA:319:C:H6	1.74	0.52
31:DA:320:A:H5''	31:DA:321:G:OP1	2.09	0.52
18:AR:25:THR:HG21	18:AR:42:ARG:HD3	1.91	0.52
15:AO:87:ILE:HG22	15:AO:88:ARG:N	2.23	0.52
5:CE:71:LEU:O	5:CE:72:GLN:HG3	2.10	0.52
11:CK:57:THR:O	11:CK:60:ALA:HB3	2.10	0.52
31:BA:1263:U:H2'	31:BA:1264:G:C8	2.44	0.52
41:BP:73:GLY:O	41:BP:74:GLU:C	2.46	0.52
18:CR:44:LEU:HA	18:CR:49:LYS:O	2.09	0.52
31:BA:2106:G:H1'	31:BA:2184:G:N2	2.24	0.52
31:BA:409:C:N4	31:BA:418:G:H1	2.07	0.52
1:CA:137:C:O2'	1:CA:138:G:H5'	2.10	0.52
33:DD:48:ARG:CG	33:DD:48:ARG:HH11	2.23	0.52
31:BA:413:C:H4'	31:BA:1880:C:O2'	2.09	0.52
15:CO:18:PHE:CE1	15:CO:21:ASP:HB2	2.44	0.52
38:DI:47:LEU:O	38:DI:51:ILE:HG12	2.09	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:276:G:C5'	17:CQ:15:MET:HE1	2.39	0.52
39:DN:127:ASP:HB3	39:DN:129:PRO:HD3	1.90	0.52
31:DA:2101:G:C6	31:DA:2102:U:C5	2.97	0.52
14:CN:15:LYS:O	14:CN:16:PHE:O	2.27	0.52
34:DE:176:ILE:N	34:DE:176:ILE:HD12	2.24	0.52
48:DW:24:ILE:HD12	48:DW:24:ILE:O	2.09	0.52
46:BU:43:GLY:HA2	47:BV:76:LYS:HE3	1.91	0.52
37:BH:24:VAL:HB	37:BH:35:VAL:HB	1.91	0.52
1:CA:1399:C:H4'	1:CA:1400:C:C5'	2.35	0.52
28:D6:32:ASN:O	28:D6:33:LYS:HB2	2.10	0.52
31:DA:2415:G:H2'	31:DA:2416:C:H6	1.74	0.52
30:B8:39:LYS:CE	30:B8:39:LYS:O	2.57	0.52
31:BA:2243:U:H2'	31:BA:2244:U:H6	1.71	0.52
35:BF:67:GLN:O	35:BF:68:LYS:HB2	2.09	0.52
33:BD:85:ASP:HB2	33:BD:92:ILE:CG1	2.36	0.52
24:D2:49:LYS:HA	24:D2:53:LEU:HB3	1.92	0.52
31:DA:1528:A:C2	31:DA:1544:A:N6	2.77	0.52
31:DA:1019:U:O2'	31:DA:1021:A:C2	2.53	0.52
39:DN:47:ALA:HB1	39:DN:112:LEU:HD11	1.91	0.52
37:BH:70:THR:O	37:BH:73:ALA:N	2.41	0.52
24:B2:49:LYS:NZ	24:B2:53:LEU:CD2	2.72	0.52
49:BX:73:ARG:O	49:BX:75:ASP:N	2.42	0.52
49:BX:84:ALA:C	49:BX:86:GLY:H	2.13	0.52
31:BA:1718:G:O2'	31:BA:1719:G:H5'	2.10	0.52
32:DB:38:C:C4'	44:DS:95:HIS:CE1	2.92	0.52
36:DG:15:VAL:HG12	36:DG:19:LEU:CG	2.39	0.52
16:AP:7:ALA:O	16:AP:9:PHE:CD2	2.62	0.52
5:CE:102:ALA:H	5:CE:107:ARG:HH12	1.57	0.52
4:AD:127:THR:HA	4:AD:132:ARG:HA	1.90	0.52
38:DI:123:LEU:CD2	38:DI:142:VAL:HB	2.37	0.52
33:DD:44:ASN:OD1	33:DD:44:ASN:N	2.41	0.52
25:B3:11:SER:HG	25:B3:13:ILE:HG12	1.74	0.52
1:AA:192:U:O2'	1:AA:193:C:H5'	2.10	0.52
4:CD:128:VAL:HA	4:CD:145:GLU:O	2.10	0.52
31:BA:1799:G:N7	33:BD:179:SER:OG	2.42	0.52
1:CA:192:U:O2'	1:CA:193:C:H5'	2.09	0.52
50:DY:32:PRO:O	50:DY:35:TYR:N	2.43	0.52
31:DA:1505:C:C3'	31:DA:1505:C:C6	2.93	0.52
32:DB:76:G:O3'	51:DZ:19:ARG:NH2	2.41	0.52
1:CA:491:G:C4	1:CA:492:G:C8	2.97	0.52
31:BA:380:U:C2	31:BA:381:G:C8	2.97	0.52
31:DA:14:A:N1	31:DA:526:A:C2	2.77	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:658:G:C5	1:AA:659:U:C5	2.98	0.52
34:BE:24:THR:HG23	34:BE:184:VAL:HG22	1.90	0.52
1:AA:294:U:H2'	1:AA:295:C:C6	2.44	0.52
31:BA:1044:G:H1'	31:BA:1111:A:N1	2.23	0.52
31:DA:2712:U:O2'	31:DA:2712(A):A:P	2.67	0.52
38:BI:136:VAL:O	38:BI:136:VAL:HG22	2.08	0.52
38:BI:136:VAL:O	38:BI:138:ILE:HG13	2.09	0.52
31:DA:1411:C:H2'	31:DA:1412:A:N7	2.25	0.52
1:AA:1348:U:H4'	9:AI:120:ARG:HD2	1.90	0.52
49:BX:41:ASN:HA	49:BX:44:GLU:CG	2.34	0.52
1:AA:602:A:N1	1:AA:637:G:C6	2.78	0.52
1:AA:1288:A:H2	1:AA:1352:C:O2	1.91	0.52
6:AF:93:SER:C	6:AF:94:GLN:HG3	2.29	0.52
31:DA:1686:C:O2'	31:DA:1687:G:H5'	2.09	0.52
31:DA:1487:G:C2'	31:DA:1488:G:O5'	2.58	0.52
1:CA:1496:C:H2'	1:CA:1497:G:O4'	2.09	0.52
19:AS:62:ILE:HG23	19:AS:62:ILE:O	2.09	0.52
31:DA:1152:C:H5''	46:DU:80:ILE:HG22	1.91	0.52
6:CF:46:ARG:O	6:CF:47:ARG:C	2.47	0.52
6:AF:45:LEU:CD1	6:AF:57:GLN:HB3	2.38	0.52
31:BA:231:C:O2'	31:BA:232:G:H5'	2.08	0.52
42:DQ:104:PHE:HE1	42:DQ:125:LEU:HD11	1.74	0.52
43:BR:76:VAL:HG13	43:BR:80:PHE:HD2	1.74	0.52
31:DA:2048:G:C6	31:DA:2049:G:C5	2.96	0.52
35:DF:16:GLY:O	35:DF:17:ARG:HG3	2.10	0.52
31:DA:2835:A:C6	31:DA:2879:C:C6	2.97	0.52
1:CA:1414:U:H3	1:CA:1486:G:H1	1.57	0.52
38:BI:9:LEU:H	38:BI:13:GLY:HA2	1.74	0.52
31:BA:30:G:H2'	31:BA:31:C:C6	2.44	0.52
6:CF:22:GLU:OE1	6:CF:84:ASN:HB2	2.10	0.52
1:CA:1159:U:C5	1:CA:1182:G:C4	2.97	0.52
3:CC:170:GLN:HG2	3:CC:171:GLY:H	1.75	0.52
1:AA:668:G:H21	15:AO:46:HIS:CE1	2.26	0.52
3:AC:69:HIS:N	3:AC:69:HIS:CD2	2.78	0.52
31:BA:292:C:C2	31:BA:349:G:C2	2.97	0.52
1:CA:1530:G:OP1	1:CA:1530:G:H4'	2.08	0.52
28:D6:13:CYS:O	28:D6:21:TYR:HA	2.09	0.52
31:DA:2071:A:N3	31:DA:2071:A:H2'	2.23	0.52
30:B8:27:THR:HA	41:BP:62:LEU:CD1	2.40	0.52
36:BG:15:VAL:HG12	36:BG:19:LEU:CG	2.39	0.52
31:DA:814:C:H4'	31:DA:1224:C:O2	2.09	0.52
39:DN:120:LEU:HD11	39:DN:122:VAL:CG2	2.26	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DU:49:HIS:O	46:DU:53:ARG:N	2.42	0.52
31:DA:994:C:H1'	47:DV:10:LYS:NZ	2.24	0.52
49:BX:88:LYS:O	49:BX:89:ILE:HB	2.08	0.52
31:BA:1741:A:N3	31:BA:1742:G:N2	2.58	0.52
1:AA:612:C:O2	1:AA:629:G:N2	2.42	0.52
1:CA:378:G:N2	1:CA:386:C:C2	2.77	0.52
1:CA:626:U:C2	1:CA:627:G:N7	2.77	0.52
38:DI:120:ILE:HG23	38:DI:126:TYR:CE1	2.45	0.52
31:BA:1287:A:H2'	31:BA:1287:A:N3	2.24	0.52
50:DY:30:VAL:CG1	50:DY:31:LEU:H	2.16	0.52
31:DA:2283:C:H2'	31:DA:2284:C:C5'	2.39	0.52
1:AA:509:A:H3'	1:AA:509:A:P	2.50	0.52
1:AA:359:U:O2'	1:AA:360:A:H5'	2.09	0.52
40:DO:111:PHE:O	40:DO:112:MET:C	2.48	0.52
31:DA:744:G:OP1	34:DE:132:HIS:HB3	2.10	0.52
1:AA:659:U:C2	1:AA:660:G:C8	2.98	0.52
1:CA:1095:U:P	1:CA:1108:G:H1	2.31	0.52
2:AB:168:THR:HA	2:AB:171:ALA:HB2	1.91	0.52
1:AA:559:A:C5'	1:AA:560:U:H3'	2.34	0.52
31:BA:870:A:H5'	42:BQ:7:MET:HB2	1.88	0.52
1:AA:339:C:H2'	1:AA:340:U:C6	2.44	0.52
31:DA:1629:U:H2'	31:DA:1630:G:C8	2.44	0.52
48:DW:12:ILE:HD13	48:DW:17:VAL:HG22	1.92	0.52
48:DW:44:ALA:O	48:DW:45:TYR:C	2.47	0.52
31:DA:1409:C:C2'	31:DA:1410:G:H5'	2.40	0.52
31:DA:2001:A:H2'	31:DA:2002:G:C8	2.45	0.52
45:DT:29:ARG:CD	45:DT:86:ILE:HG22	2.39	0.52
31:DA:2462:U:H2'	31:DA:2463:C:O4'	2.10	0.52
31:BA:718:A:H3'	31:BA:719:C:H6	1.75	0.52
31:DA:2886:G:C5	31:DA:2887:U:C5	2.98	0.52
11:CK:20:TYR:HA	11:CK:83:ILE:O	2.10	0.52
31:BA:322:A:H4'	31:BA:323:G:OP2	2.08	0.52
19:CS:6:LYS:HG2	19:CS:7:LYS:CD	2.38	0.52
1:AA:941:G:N2	1:AA:942:G:H1'	2.24	0.52
22:D0:1:MET:HA	31:DA:2451:A:H4'	1.91	0.52
1:AA:669:U:O2'	1:AA:670:G:H5'	2.09	0.52
3:AC:32:LEU:HD22	3:AC:59:ARG:HH12	1.74	0.52
1:AA:719:C:C5	1:AA:720:C:C4	2.98	0.52
31:BA:2075:U:C4	31:BA:2238:G:C6	2.97	0.52
31:DA:945:A:C6	31:DA:2448:A:C4	2.98	0.52
23:D1:54:ALA:O	23:D1:56:GLN:N	2.42	0.52
1:CA:32:A:H3'	1:CA:33:A:H8	1.73	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BF:172:TRP:CE3	35:BF:173:VAL:HG23	2.45	0.52
31:BA:482:A:H5'	31:BA:483:A:OP1	2.09	0.52
34:DE:70:ALA:O	34:DE:73:GLU:HA	2.10	0.52
1:AA:1480:G:H2'	1:AA:1481:U:O4'	2.09	0.52
33:BD:126:GLN:C	33:BD:193:VAL:HG11	2.30	0.52
1:CA:276:G:C2'	1:CA:277:C:H5'	2.39	0.52
31:BA:350:U:H2'	31:BA:351:G:O4'	2.09	0.52
1:CA:1343:G:H2'	1:CA:1344:C:C6	2.43	0.52
27:D5:19:ARG:HA	31:DA:2046:G:O5'	2.10	0.52
31:BA:1830:C:H4'	33:BD:15:PHE:CZ	2.44	0.52
12:CL:124:LYS:HD2	12:CL:125:PRO:HD2	1.90	0.52
31:DA:2395:C:H2'	31:DA:2396:G:O4'	2.09	0.52
31:BA:193:U:C2'	31:BA:194:G:H5'	2.39	0.52
41:BP:7:ARG:HB3	41:BP:8:PRO:CD	2.38	0.52
31:BA:51:G:N3	31:BA:119:A:C2	2.77	0.52
31:BA:2544:G:H2'	31:BA:2545:G:O4'	2.10	0.52
41:BP:81:GLN:HG2	41:BP:106:LEU:HA	1.92	0.52
39:DN:91:LEU:HD23	39:DN:98:VAL:HG21	1.91	0.52
31:BA:2753:A:C2	31:BA:2754:U:C2	2.98	0.52
36:DG:31:VAL:HG12	36:DG:33:ARG:N	2.25	0.52
1:CA:394:G:C4	1:CA:395:C:C5	2.98	0.52
1:CA:51:A:C6	1:CA:353:A:C2	2.97	0.52
23:D1:48:LYS:CE	23:D1:48:LYS:HA	2.34	0.52
1:CA:193:C:H4'	20:CT:61:SER:HB2	1.92	0.52
31:DA:2306:C:OP2	31:DA:2307:G:C8	2.62	0.52
31:DA:1505:C:C5	31:DA:1506:C:C6	2.97	0.52
31:DA:1509(B):A:C4	31:DA:1510:G:C8	2.98	0.52
31:DA:2262:U:N3	31:DA:2279:G:C2	2.77	0.52
31:DA:909:A:H2'	31:DA:912:C:C5	2.35	0.52
51:BZ:53:ILE:HG13	51:BZ:53:ILE:O	2.09	0.52
31:BA:874:G:N2	31:BA:875:G:H1'	2.25	0.52
1:AA:543:C:H2'	1:AA:544:G:O4'	2.09	0.52
4:AD:10:ARG:HA	4:AD:13:ARG:HG3	1.90	0.52
23:B1:41:ARG:CG	23:B1:41:ARG:HH11	2.06	0.52
42:DQ:75:THR:HG21	42:DQ:85:LYS:HE3	1.92	0.52
1:CA:1112:C:N3	3:CC:178:LEU:CD2	2.70	0.52
20:AT:56:MET:HG2	20:AT:84:LEU:HD13	1.90	0.52
1:AA:1112:C:N3	3:AC:178:LEU:CD2	2.71	0.52
22:B0:40:GLN:HE21	22:B0:43:THR:CA	2.22	0.52
2:CB:174:VAL:O	2:CB:178:ARG:HB2	2.10	0.52
1:AA:1392:G:N2	1:AA:1502:A:H8	2.05	0.52
1:CA:779:C:H2'	1:CA:780:A:O4'	2.10	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:963:G:H21	10:CJ:55:LYS:CD	2.22	0.52
31:DA:790:C:O2'	31:DA:791:C:H5'	2.09	0.52
1:CA:1298:C:C6	7:CG:114:ARG:NH1	2.77	0.52
45:DT:30:VAL:O	45:DT:82:LEU:HA	2.10	0.52
40:BO:49:ARG:N	40:BO:49:ARG:HD3	2.25	0.52
33:BD:266:SER:O	33:BD:267:SER:OG	2.16	0.52
1:AA:10:A:H2'	1:AA:11:G:C8	2.44	0.52
4:AD:194:LEU:HB3	4:AD:196:LEU:CD1	2.40	0.52
18:AR:31:LEU:N	18:AR:31:LEU:HD23	2.23	0.52
31:BA:2884:U:H2'	31:BA:2885:C:O4'	2.10	0.52
23:B1:46:LEU:CD1	23:B1:46:LEU:H	2.19	0.52
31:DA:1200:C:O2'	31:DA:1201:C:H5'	2.09	0.52
37:DH:93:GLY:O	37:DH:95:ARG:HG2	2.09	0.52
6:AF:19:LEU:O	6:AF:23:LYS:HG3	2.09	0.52
6:CF:45:LEU:HD11	6:CF:57:GLN:OE1	2.10	0.52
31:BA:1889:A:H1'	31:BA:2087:G:O4'	2.08	0.52
31:BA:2595:G:N2	31:BA:2599:G:C4	2.78	0.52
1:AA:1162:C:H2'	1:AA:1163:C:H6	1.73	0.52
7:CG:69:VAL:HG12	7:CG:69:VAL:O	2.10	0.52
1:AA:1486:G:H2'	1:AA:1487:G:O4'	2.10	0.52
4:AD:164:ALA:O	4:AD:168:ARG:HD2	2.10	0.52
31:BA:1008:C:N4	31:BA:1136:G:C6	2.77	0.52
4:AD:190:ASP:O	4:AD:191:ARG:C	2.47	0.52
2:AB:73:THR:HG22	2:AB:95:GLN:O	2.09	0.52
3:CC:69:HIS:CD2	3:CC:69:HIS:N	2.78	0.52
31:BA:2743:C:H2'	31:BA:2744:G:O4'	2.10	0.52
31:DA:2081:C:H2'	31:DA:2082:A:C8	2.44	0.52
7:AG:65:ALA:HB1	7:AG:127:ALA:HB3	1.92	0.52
30:D8:39:LYS:O	30:D8:39:LYS:CE	2.57	0.52
31:DA:2064:C:H2'	31:DA:2065:C:C6	2.45	0.52
31:DA:2442:C:H2'	31:DA:2443:C:H6	1.75	0.52
31:DA:27:G:N2	31:DA:512:G:O2'	2.42	0.52
31:DA:587:C:OP2	41:DP:33:ARG:NH2	2.40	0.52
41:DP:88:LEU:C	41:DP:90:ARG:N	2.62	0.52
31:BA:2600:A:H2'	31:BA:2601:C:C6	2.45	0.52
55:BA:3362:TEL:H123	55:BA:3362:TEL:C10	2.39	0.52
31:BA:1245:G:C5'	41:BP:16:ARG:HH21	2.23	0.52
44:BS:49:VAL:HG11	44:BS:73:LEU:HD13	1.90	0.52
31:DA:1527:G:C5'	31:DA:1528:A:OP1	2.58	0.52
31:DA:1022:G:C6	31:DA:1140:C:C4	2.97	0.52
31:DA:1138:G:H1'	39:DN:105:GLY:O	2.09	0.52
46:DU:90:VAL:O	46:DU:91:ASP:C	2.47	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:DV:17:GLY:O	47:DV:18:LEU:HB3	2.08	0.52
31:BA:1469:A:H2'	31:BA:1470:G:H8	1.73	0.52
31:BA:58:G:OP1	49:BX:72:LYS:HA	2.10	0.52
49:BX:60:ARG:HE	49:BX:74:PRO:CD	2.22	0.52
44:DS:17:ARG:HA	44:DS:20:ARG:HG2	1.90	0.52
1:AA:437:U:C5	1:AA:438:G:N7	2.78	0.52
1:AA:616:G:C2	1:AA:617:G:C8	2.98	0.52
1:CA:402:G:C5	1:CA:403:C:C5	2.98	0.52
1:CA:512:U:H2'	1:CA:513:C:H6	1.75	0.52
1:CA:408:A:H5'	4:CD:116:GLN:HB2	1.91	0.52
31:BA:2319:G:H4'	31:BA:2319:G:OP2	2.09	0.52
40:BO:78:ARG:HE	45:BT:103:ARG:HH12	1.56	0.52
31:DA:2747:G:O2'	37:DH:67:LEU:HD13	2.10	0.52
25:B3:52:HIS:CD2	25:B3:53:LEU:HG	2.44	0.52
31:DA:2544:G:H2'	31:DA:2545:G:O4'	2.10	0.52
31:DA:2664:G:C2'	31:DA:2665:A:O5'	2.58	0.52
31:DA:1212:G:C2	31:DA:1236:G:C4	2.98	0.52
1:CA:710:G:H5''	6:CF:54:LYS:HZ1	1.74	0.52
31:DA:2262:U:C2	31:DA:2279:G:N2	2.78	0.52
1:AA:1258:G:H2'	1:AA:1259:C:C6	2.44	0.52
32:BB:21:G:O2'	32:BB:22:U:OP2	2.28	0.52
27:D5:46:CYS:O	27:D5:48:GLU:OE1	2.28	0.52
1:AA:1095:U:H2'	1:AA:1096:C:C6	2.45	0.52
1:AA:862:C:O2'	1:AA:863:U:H5'	2.10	0.52
34:BE:24:THR:HG21	34:BE:188:VAL:HG12	1.92	0.52
1:AA:818:G:C3'	1:AA:819:A:H5'	2.39	0.52
45:BT:33:LYS:NZ	45:BT:33:LYS:N	2.57	0.52
31:DA:1639:U:H2'	31:DA:1640:C:C5'	2.33	0.52
31:DA:2762:G:H5''	31:DA:2762:G:H8	1.73	0.52
31:DA:786:C:C2'	31:DA:787:U:H5'	2.40	0.52
31:DA:1991:U:H2'	31:DA:1992:G:H5''	1.92	0.52
1:CA:271:C:H2'	1:CA:272:C:H6	1.75	0.52
31:DA:1176:G:C4'	31:DA:1177:A:OP1	2.58	0.52
45:BT:29:ARG:CD	45:BT:86:ILE:HG22	2.39	0.52
31:BA:473:G:O2'	31:BA:474:G:H5'	2.09	0.52
10:AJ:82:ILE:HD12	10:AJ:86:MET:HE2	1.92	0.52
29:D7:5:TRP:CH2	31:DA:464:U:H4'	2.44	0.52
9:AI:114:TYR:CE1	10:AJ:59:SER:HA	2.45	0.52
1:AA:1030(C):G:H2'	1:AA:1030(D):A:C8	2.45	0.52
13:AM:56:LEU:O	13:AM:60:VAL:HG23	2.09	0.52
37:DH:153:LYS:HE2	37:DH:154:PRO:C	2.30	0.52
5:AE:7:GLU:HB2	5:AE:35:GLY:O	2.10	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1215:G:C5	1:AA:1216:G:N7	2.78	0.52
31:BA:2364:C:C2'	31:BA:2365:G:H5'	2.39	0.52
35:BF:28:ILE:HG12	35:BF:119:ARG:HH21	1.75	0.52
51:DZ:63:ASP:C	51:DZ:65:GLN:N	2.63	0.52
31:BA:1367:A:H5'	31:BA:1368:G:OP2	2.10	0.52
31:BA:414:C:H2'	31:BA:415:A:C8	2.44	0.52
1:AA:1274:G:N2	1:AA:1275:A:H62	2.08	0.52
34:DE:56:PRO:O	34:DE:58:ARG:N	2.42	0.52
43:BR:54:LEU:HB3	43:BR:66:VAL:CG2	2.40	0.52
23:D1:18:ILE:HD13	31:DA:188:G:OP1	2.10	0.52
13:AM:68:GLY:HA2	13:AM:71:ARG:HB3	1.92	0.52
31:DA:1854:A:C8	31:DA:1855:G:C8	2.97	0.52
10:AJ:24:VAL:O	10:AJ:28:ARG:HG3	2.09	0.52
31:DA:877:U:H6	31:DA:877:U:O5'	1.93	0.52
28:D6:19:ARG:CG	28:D6:20:ASN:N	2.71	0.52
31:DA:2393:A:H2'	31:DA:2394:C:O4'	2.10	0.52
30:B8:22:VAL:HB	30:B8:53:PRO:HB3	1.92	0.52
30:B8:29:LYS:HA	30:B8:32:LEU:HD12	1.92	0.52
30:B8:41:ILE:HD12	30:B8:42:ARG:N	2.25	0.52
41:BP:16:ARG:CD	41:BP:18:ARG:HB2	2.26	0.52
41:BP:51:PHE:O	41:BP:52:GLU:CB	2.51	0.52
33:BD:35:LYS:CG	33:BD:64:ILE:N	2.73	0.52
31:DA:1461:G:C2	31:DA:1462:C:C6	2.98	0.52
41:BP:119:GLU:HA	41:BP:119:GLU:OE1	2.09	0.52
25:D3:22:ALA:O	25:D3:26:LEU:HG	2.09	0.52
47:DV:61:VAL:O	47:DV:99:ILE:HB	2.09	0.52
31:DA:1900:A:C2	31:DA:1970:A:C4	2.98	0.52
1:CA:509:A:O2'	1:CA:510:A:P	2.67	0.52
1:CA:437:U:O3'	4:CD:125:HIS:NE2	2.42	0.52
4:AD:128:VAL:HA	4:AD:145:GLU:O	2.10	0.52
33:DD:35:LYS:HZ3	33:DD:104:TYR:HB2	1.74	0.52
33:DD:35:LYS:CG	33:DD:64:ILE:H	2.23	0.52
31:BA:1022:G:N7	39:BN:66:LYS:HE2	2.24	0.52
23:D1:87:PRO:CB	23:D1:91:LYS:NZ	2.72	0.52
47:BV:62:LEU:HD22	47:BV:98:GLU:HG2	1.91	0.52
11:CK:29:ILE:HD12	11:CK:44:SER:HB3	1.92	0.52
1:CA:1277:C:H2'	1:CA:1278:U:H5'	1.90	0.52
51:DZ:54:HIS:O	51:DZ:55:HIS:CD2	2.62	0.52
31:DA:2206:G:N3	31:DA:2206:G:H3'	2.25	0.52
50:BY:46:LYS:HB3	50:BY:47:LYS:HE2	1.92	0.52
22:B0:74:ARG:HG2	32:BB:12:C:HO2'	1.70	0.52
38:DI:29:TYR:HD2	38:DI:30:LEU:HD23	1.75	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:BY:77:PRO:O	50:BY:78:ALA:CB	2.58	0.52
1:AA:836:G:C6	1:AA:851:G:C5	2.97	0.52
1:AA:836:G:C6	1:AA:851:G:C6	2.97	0.52
1:CA:1072:G:C6	1:CA:1104:G:C6	2.98	0.52
31:BA:2283:C:H2'	31:BA:2284:C:C5'	2.40	0.52
1:AA:1099:G:C2	1:AA:1100:C:C2	2.98	0.52
31:BA:2682:U:O4'	34:BE:12:THR:HA	2.09	0.52
1:AA:345:C:H5'	45:BT:36:GLU:HG3	1.91	0.52
31:DA:2712:U:HO2'	31:DA:2712(A):A:P	2.30	0.52
31:BA:103:A:C2'	31:BA:104:U:H5'	2.40	0.52
10:CJ:50:ILE:HD12	10:CJ:60:ARG:HH11	1.75	0.52
1:AA:1298:C:C6	7:AG:114:ARG:NH1	2.78	0.52
11:AK:21:ILE:HB	11:AK:84:VAL:HG12	1.90	0.52
48:BW:29:LEU:CD1	48:BW:51:LEU:HD11	2.40	0.52
31:BA:342:G:H2'	31:BA:343:C:H6	1.75	0.52
33:BD:145:VAL:HG11	33:BD:175:LEU:HD11	1.91	0.52
31:DA:2854:G:C4	31:DA:2855:C:C5	2.97	0.52
31:BA:2486:G:H2'	31:BA:2487:G:O5'	2.09	0.52
31:BA:756:C:N4	31:BA:757:U:C4	2.78	0.52
31:BA:492:A:H2'	31:BA:493:G:O4'	2.08	0.52
1:AA:770:C:O2'	1:AA:771:G:H5'	2.10	0.52
1:AA:1496:C:O2'	31:BA:1920:C:H4'	2.09	0.52
31:DA:542:C:H42	31:DA:543:C:N4	2.03	0.52
51:BZ:155:LEU:O	51:BZ:157:LEU:HD23	2.10	0.52
31:DA:52:A:OP2	31:DA:117:G:N1	2.37	0.52
2:AB:28:PHE:CD1	2:AB:190:THR:HA	2.45	0.52
22:D0:18:ALA:HB2	31:DA:2272:U:OP2	2.10	0.52
31:DA:2020:A:P	46:DU:27:LEU:HD23	2.50	0.52
31:DA:2695:C:H2'	31:DA:2696:U:C6	2.45	0.52
13:CM:56:LEU:O	13:CM:60:VAL:HG23	2.10	0.52
37:DH:92:ILE:C	37:DH:94:TYR:H	2.13	0.52
1:AA:1323:G:H2'	1:AA:1324:A:O4'	2.10	0.52
1:CA:941:G:N2	1:CA:942:G:H1'	2.24	0.52
31:BA:267:C:H2'	31:BA:268:C:H6	1.75	0.52
1:AA:598:U:H4'	8:AH:94:TYR:CG	2.45	0.52
38:BI:15:VAL:O	38:BI:17:GLN:N	2.43	0.52
7:CG:66:VAL:O	7:CG:70:LYS:HG3	2.09	0.52
7:CG:91:VAL:O	7:CG:96:GLN:HG3	2.09	0.52
1:CA:149:A:O2'	1:CA:150:C:P	2.68	0.52
8:AH:44:PHE:HE2	8:AH:109:ILE:HG21	1.74	0.52
31:BA:699:A:H4'	31:BA:1634:A:N7	2.24	0.52
31:BA:2106:G:H1'	31:BA:2184:G:H22	1.75	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DE:14:ILE:HG13	34:DE:21:VAL:HG23	1.90	0.52
31:BA:2583:G:H2'	31:BA:2584:U:O2	2.10	0.52
36:BG:43:LEU:HD12	36:BG:153:ARG:HD2	1.92	0.52
2:AB:8:LYS:NZ	2:AB:217:ARG:HH11	2.08	0.52
12:AL:89:ARG:HA	12:AL:97:ARG:HA	1.92	0.52
11:AK:17:GLY:HA2	11:AK:35:PRO:HD3	1.91	0.52
31:DA:452:G:C4	31:DA:458:G:C6	2.98	0.52
4:CD:192:GLU:H	4:CD:192:GLU:CD	2.13	0.52
31:DA:272(G):C:O2	31:DA:272(G):C:H2'	2.09	0.52
31:DA:1764:G:N2	31:DA:1765:C:C2	2.78	0.52
13:CM:49:THR:HG22	13:CM:51:ALA:H	1.75	0.52
38:DI:92:VAL:HG23	38:DI:96:ASP:OD2	2.08	0.52
46:DU:106:PHE:O	46:DU:110:VAL:HG23	2.09	0.52
5:CE:96:PRO:HA	5:CE:117:ASP:OD2	2.09	0.52
31:DA:2286:A:C5'	31:DA:2287:A:O4'	2.58	0.52
31:DA:2347:C:C2	31:DA:2348:U:C5	2.98	0.52
31:DA:241:A:O4'	31:DA:243:U:C6	2.63	0.52
55:DA:3320:TEL:C1	55:DA:3320:TEL:H142	2.13	0.52
28:B6:11:LEU:HD11	28:B6:26:ASN:HD21	1.74	0.52
31:BA:1245:G:OP1	41:BP:16:ARG:CD	2.57	0.52
31:BA:2241:A:O2'	31:BA:2242:G:H5'	2.09	0.52
31:BA:687:C:C2	31:BA:788:A:H5'	2.44	0.52
31:BA:1816:G:C8	33:BD:62:TYR:CZ	2.97	0.52
32:BB:115:G:H2'	32:BB:116:G:H8	1.73	0.52
31:DA:1344:G:H4'	31:DA:1384:A:N7	2.25	0.52
49:DX:60:ARG:HE	49:DX:74:PRO:CD	2.23	0.52
31:DA:1006:C:O2'	31:DA:1007:C:H5'	2.08	0.52
39:DN:46:VAL:O	39:DN:47:ALA:HB3	2.10	0.52
47:DV:19:LYS:CG	47:DV:20:LEU:N	2.54	0.52
37:BH:70:THR:O	37:BH:71:LEU:C	2.48	0.52
24:B2:32:LEU:O	24:B2:33:MET:C	2.48	0.52
31:BA:1341:U:H5'	49:BX:57:LEU:HG	1.91	0.52
49:BX:85:PRO:O	49:BX:86:GLY:C	2.47	0.52
31:DA:1286:A:C2	31:DA:1289:C:C6	2.98	0.52
32:DB:118:G:C2	32:DB:119:G:N7	2.78	0.52
44:DS:35:ILE:HD11	44:DS:99:LYS:HE2	1.91	0.52
1:CA:353:A:H2'	1:CA:354:G:OP2	2.10	0.52
5:CE:102:ALA:O	5:CE:107:ARG:NH1	2.42	0.52
31:DA:2758:A:C4	37:DH:67:LEU:HD21	2.45	0.52
31:BA:1018:C:O2'	31:BA:1019:U:H5'	2.10	0.52
31:BA:1142(A):A:C5	31:BA:1144:G:C5	2.97	0.52
37:DH:146:ALA:O	37:DH:150:ALA:N	2.41	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DE:60:ASN:N	34:DE:60:ASN:ND2	2.58	0.52
31:BA:1661:G:O2'	31:BA:1662:C:H5'	2.10	0.52
1:CA:177:C:O2'	1:CA:178:C:H5'	2.10	0.52
1:CA:223:U:H2'	1:CA:224:C:C6	2.45	0.52
31:BA:1562:A:C2	31:BA:1563:G:C4	2.98	0.52
51:DZ:30:ASN:HA	51:DZ:89:PHE:HE2	1.75	0.52
51:DZ:5:LEU:HD12	51:DZ:47:VAL:HG23	1.91	0.52
32:DB:13:A:O2'	32:DB:14:U:H3'	2.09	0.52
31:DA:1146:C:C4	31:DA:1147:C:C5	2.98	0.52
1:AA:356:A:C2'	1:AA:357:G:O5'	2.58	0.52
27:B5:2:ALA:HA	31:BA:2015:A:C1'	2.28	0.52
31:DA:1044:G:H2'	31:DA:1044:G:N3	2.23	0.52
1:CA:1084:G:OP1	1:CA:1086:U:C6	2.63	0.52
31:BA:1786:A:H2	31:BA:2606:C:H1'	1.75	0.52
1:AA:1226:C:H42	13:AM:104:ARG:HD2	1.75	0.52
1:AA:1226:C:H2'	13:AM:103:THR:OG1	2.09	0.52
48:DW:20:VAL:CG2	48:DW:21:VAL:N	2.72	0.52
40:DO:36:GLY:HA2	40:DO:106:LEU:HD21	1.92	0.52
1:CA:273:A:C2'	1:CA:274:A:H5'	2.38	0.52
31:BA:2470:G:C2	31:BA:2471:C:C5	2.98	0.52
31:BA:857:C:C2	31:BA:858:U:C5	2.98	0.52
31:BA:2291:U:C5'	31:BA:2380:C:O2	2.58	0.52
31:BA:322:A:H3'	35:BF:169:ASN:ND2	2.24	0.52
51:DZ:128:VAL:HG11	51:DZ:133:ILE:HG12	1.91	0.52
29:D7:12:ARG:HG3	31:DA:686:G:O6	2.10	0.52
31:DA:2291:U:H5''	31:DA:2380:C:H1'	1.92	0.52
42:BQ:134:ARG:C	42:BQ:136:ALA:H	2.12	0.52
7:CG:79:ARG:CZ	7:CG:84:ASN:HD21	2.23	0.52
31:DA:2846:G:H2'	31:DA:2847:U:O4'	2.09	0.52
13:CM:39:ILE:HD12	13:CM:56:LEU:HD23	1.92	0.52
40:DO:49:ARG:HD3	40:DO:49:ARG:N	2.24	0.52
31:DA:2438:U:H5''	31:DA:2600:A:OP1	2.10	0.52
31:DA:363(D):G:C6	31:DA:363(E):U:O4	2.63	0.52
1:CA:519:C:C2'	1:CA:520:A:O5'	2.58	0.52
1:CA:939:G:H5''	7:CG:102:ARG:NH2	2.24	0.52
1:CA:581:G:C2	1:CA:582:U:O4	2.62	0.52
31:BA:603:A:C4'	31:BA:604:G:O5'	2.57	0.52
1:CA:38:G:H4'	1:CA:547:A:N6	2.25	0.52
15:AO:61:GLY:O	15:AO:64:ARG:HB3	2.09	0.52
15:AO:64:ARG:NH1	15:AO:88:ARG:NH1	2.57	0.52
12:CL:18:VAL:O	12:CL:19:ARG:HB3	2.09	0.52
34:BE:65:GLY:HA2	34:BE:70:ALA:HB2	1.92	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1160:G:N2	1:CA:1161:C:C6	2.77	0.52
1:CA:1386:G:C2	1:CA:1387:G:N7	2.78	0.52
31:BA:1439:A:C2	31:BA:1553:A:C5	2.98	0.52
1:CA:182:U:C4	1:CA:183:G:H1'	2.44	0.52
31:BA:292:C:O2'	31:BA:293:U:H5'	2.10	0.52
38:BI:64:GLU:O	38:BI:68:LEU:HB2	2.10	0.52
38:BI:117:GLU:HG3	38:BI:118:LYS:H	1.75	0.52
14:AN:23:ARG:NH1	14:AN:30:ALA:HB2	2.25	0.52
23:B1:39:LYS:HE3	31:BA:201:C:OP1	2.10	0.52
31:BA:123:G:O3'	31:BA:1376:C:H4'	2.10	0.52
31:DA:2036:C:H6	31:DA:2036:C:H5'	1.74	0.52
31:DA:2409:G:C6	31:DA:2410:G:C5	2.97	0.52
8:CH:95:VAL:HG12	8:CH:99:GLU:HB2	1.92	0.52
43:DR:81:ASP:O	43:DR:85:PRO:HG3	2.10	0.52
31:BA:975(A):G:H1'	31:BA:990:A:C2	2.45	0.52
1:AA:604:G:C5	1:AA:605:U:C5	2.97	0.52
30:D8:31:HIS:CD2	31:DA:2419:U:O4	2.62	0.52
30:D8:38:GLY:C	30:D8:40:GLU:H	2.13	0.52
31:DA:2415:G:C5	31:DA:2416:C:C5	2.98	0.52
31:DA:2065:C:H1'	31:DA:2449:U:O2	2.10	0.52
31:DA:389:G:H1	41:DP:71:VAL:CB	2.23	0.52
31:DA:449:A:H2'	31:DA:450:G:C5'	2.40	0.52
31:DA:658:C:H2'	31:DA:659:C:C6	2.44	0.52
30:D8:27:THR:HA	41:DP:62:LEU:CD1	2.39	0.52
31:BA:2287:A:O2'	31:BA:2288:A:H3'	2.10	0.52
31:BA:2360:A:O2'	31:BA:2361:A:OP2	2.26	0.52
55:BA:3362:TEL:C33	55:BA:3362:TEL:O18	2.54	0.52
31:BA:827:U:O2	31:BA:2246:G:H4'	2.09	0.52
41:BP:17:LYS:C	41:BP:19:VAL:N	2.63	0.52
33:BD:32:SER:O	33:BD:33:LEU:CB	2.57	0.52
31:BA:1567:A:H2'	33:BD:86:PRO:HB3	1.92	0.52
31:DA:1717:G:C2	31:DA:1718:G:C8	2.98	0.52
24:D2:30:ARG:N	24:D2:30:ARG:HD2	2.19	0.52
46:DU:92:ARG:O	46:DU:95:LEU:N	2.37	0.52
47:DV:21:ARG:HA	47:DV:94:LEU:O	2.10	0.52
24:B2:21:LEU:CD1	24:B2:50:ILE:HG22	2.39	0.52
49:BX:36:LYS:NZ	49:BX:38:GLU:C	2.58	0.52
33:DD:224:ALA:O	33:DD:225:ALA:HB2	2.10	0.52
36:DG:16:ARG:CB	36:DG:16:ARG:HH11	2.23	0.52
44:DS:29:PHE:N	44:DS:89:ARG:CD	2.65	0.52
4:AD:91:SER:O	4:AD:94:LEU:HB2	2.09	0.52
5:CE:11:ILE:HD12	5:CE:105:VAL:HA	1.91	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:538:G:P	12:CL:115:LYS:HB2	2.50	0.52
45:DT:50:ILE:HA	45:DT:99:LEU:HD11	1.91	0.52
31:DA:1825:A:O4'	33:DD:254:THR:HG21	2.08	0.52
31:DA:772:C:O2'	31:DA:773:U:H5'	2.10	0.52
31:BA:1139:G:O2'	31:BA:1143:A:N1	2.30	0.52
1:AA:184:G:C4'	1:AA:224:C:H4'	2.40	0.52
5:AE:11:ILE:HD12	5:AE:105:VAL:HA	1.92	0.52
31:BA:993:G:H1'	47:BV:91:TYR:CD1	2.45	0.52
2:CB:70:PHE:CD2	2:CB:163:PHE:HB3	2.45	0.52
35:DF:3:GLU:O	35:DF:19:GLU:HA	2.09	0.52
31:DA:863:A:C2	31:DA:864:G:C4	2.98	0.52
31:BA:376:C:H2'	31:BA:377:C:C6	2.44	0.52
31:BA:1276:A:O2'	43:BR:16:HIS:CE1	2.63	0.52
1:AA:1435:G:H2'	1:AA:1436:U:H6	1.73	0.52
1:AA:353:A:C2'	1:AA:354:G:OP2	2.58	0.52
31:DA:1047:G:H2'	31:DA:1110:G:H22	1.73	0.52
42:BQ:42:ILE:HD13	42:BQ:97:VAL:HB	1.90	0.52
34:DE:168:MET:O	34:DE:170:LEU:HD12	2.09	0.52
2:AB:25:ASN:ND2	2:AB:193:ASP:HB3	2.24	0.52
31:DA:2681:C:H2'	31:DA:2681:C:O2	2.10	0.52
50:DY:95:LYS:CD	50:DY:100:ALA:HB1	2.40	0.52
45:DT:121:ILE:O	45:DT:124:ASP:HB2	2.10	0.52
1:AA:1355:G:H2'	1:AA:1356:G:C8	2.45	0.52
31:DA:2511:U:O4	31:DA:2575:C:N3	2.43	0.52
45:DT:34:VAL:HG13	45:DT:39:ARG:HB3	1.92	0.52
31:BA:1639:U:H2'	31:BA:1640:C:C5'	2.36	0.52
31:BA:1503:U:C4	31:BA:1504:C:N4	2.76	0.52
31:BA:1686:C:O2'	31:BA:1687:G:H5'	2.09	0.52
33:BD:148:GLU:HB2	33:BD:151:LYS:HD2	1.92	0.52
12:CL:102:ARG:HD2	12:CL:109:GLY:HA2	1.92	0.52
1:CA:1348:U:H4'	9:CI:120:ARG:HD2	1.92	0.52
12:AL:104:VAL:HG12	12:AL:105:TYR:CD2	2.45	0.52
12:AL:32:PHE:HB3	12:AL:84:LEU:HD21	1.92	0.52
38:BI:123:LEU:CD2	38:BI:142:VAL:HB	2.38	0.52
31:BA:2236:C:H2'	31:BA:2237:G:C5'	2.35	0.52
31:BA:296:C:O2'	31:BA:297:C:H5'	2.09	0.52
9:AI:5:TYR:HA	9:AI:17:VAL:O	2.09	0.52
4:CD:181:MET:HG3	4:CD:181:MET:O	2.10	0.52
1:CA:978:A:H5''	1:CA:979:C:OP2	2.10	0.52
31:DA:2436:G:C6	31:DA:2437:U:C4	2.97	0.52
31:DA:1358:G:O2'	31:DA:1359:A:H5''	2.09	0.52
6:CF:61:LEU:HD23	6:CF:63:TYR:OH	2.09	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:397:A:N7	1:AA:548:G:H8	2.07	0.52
2:CB:167:PRO:HG3	2:CB:188:ALA:CB	2.39	0.52
12:CL:38:THR:HG21	12:CL:65:GLU:OE2	2.09	0.52
1:AA:487:A:H2'	1:AA:488:C:O4'	2.10	0.52
45:DT:90:GLN:HG2	45:DT:120:ARG:HH12	1.74	0.52
35:BF:114:VAL:HG21	35:BF:202:PHE:CZ	2.44	0.52
31:BA:725:G:H8	31:BA:725:G:O5'	1.93	0.52
1:AA:985:C:H2'	1:AA:986:A:C8	2.45	0.52
1:CA:985:C:H2'	1:CA:986:A:C8	2.45	0.52
36:DG:43:LEU:HD12	36:DG:153:ARG:HD2	1.92	0.52
31:DA:1248:G:C8	46:DU:3:ARG:HB2	2.45	0.52
14:AN:15:LYS:O	14:AN:16:PHE:O	2.27	0.52
31:DA:711:G:O2'	31:DA:712:G:H5'	2.10	0.52
3:AC:126:ARG:C	3:AC:127:ARG:HD2	2.30	0.52
44:BS:80:LEU:HD12	44:BS:80:LEU:H	1.73	0.52
20:AT:94:ALA:O	20:AT:95:ALA:HB3	2.09	0.52
31:DA:830:G:H4'	31:DA:831:G:OP2	2.10	0.52
44:BS:17:ARG:HA	44:BS:20:ARG:HG2	1.91	0.52
44:BS:90:GLY:C	44:BS:92:TYR:N	2.63	0.52
31:BA:2521:C:O2	31:BA:2521:C:C2'	2.45	0.52
31:DA:57:C:H2'	31:DA:58:G:O5'	2.10	0.52
41:BP:89:ALA:C	41:BP:91:PHE:H	2.14	0.52
25:D3:52:HIS:CD2	25:D3:53:LEU:HG	2.45	0.52
31:DA:934:G:H2'	31:DA:935:C:C6	2.45	0.52
39:DN:28:THR:HG22	39:DN:29:LYS:N	2.25	0.52
46:DU:68:ALA:O	46:DU:71:GLN:HB2	2.10	0.52
24:B2:49:LYS:O	24:B2:53:LEU:HB3	2.10	0.52
31:BA:1404:C:N3	31:BA:1405:U:C5	2.78	0.52
49:BX:85:PRO:O	49:BX:87:GLN:N	2.43	0.52
33:DD:243:GLY:O	33:DD:244:ARG:HB3	2.09	0.52
44:DS:106:ARG:O	44:DS:107:GLU:CB	2.58	0.52
44:DS:18:ILE:HG22	44:DS:19:LYS:N	2.25	0.52
44:DS:88:ASP:OD2	44:DS:89:ARG:N	2.42	0.52
1:AA:376:G:H4'	16:AP:5:ARG:NH1	2.24	0.52
1:CA:331:G:OP1	1:CA:332:G:H8	1.93	0.52
1:CA:363:A:O2'	1:CA:364:A:H5'	2.10	0.52
16:CP:15:PRO:O	16:CP:16:HIS:ND1	2.43	0.52
20:CT:16:HIS:O	20:CT:19:SER:N	2.43	0.52
1:CA:323:U:H5'	20:CT:23:ARG:HB2	1.92	0.52
50:BY:11:ASP:N	50:BY:27:VAL:HA	2.25	0.52
46:BU:61:TRP:CD2	46:BU:94:ASN:HA	2.45	0.52
31:DA:2657:A:C2	31:DA:2664:G:N2	2.76	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2630:G:H1'	31:DA:2894:G:H1'	1.90	0.52
31:BA:1803:A:O3'	33:BD:259:THR:HG21	2.10	0.52
31:DA:1493:C:C5	31:DA:2206:G:O2'	2.62	0.52
32:DB:13:A:C6	32:DB:70:C:H5'	2.44	0.52
27:B5:51:TYR:CD2	27:B5:52:TYR:OH	2.62	0.52
34:DE:91:VAL:HG13	34:DE:95:ILE:CD1	2.40	0.52
4:CD:127:THR:HA	4:CD:132:ARG:HA	1.92	0.52
1:AA:1469:G:H2'	1:AA:1470:G:H8	1.75	0.52
31:BA:2769:C:C2'	31:BA:2770:G:O5'	2.58	0.52
27:D5:50:GLY:O	27:D5:51:TYR:CD1	2.58	0.52
50:BY:81:LYS:HB3	50:BY:96:ILE:HG22	1.92	0.52
4:CD:20:TYR:CD2	4:CD:26:CYS:HB3	2.44	0.52
3:AC:182:ILE:HG12	3:AC:203:PHE:HD1	1.74	0.52
1:AA:659:U:H2'	1:AA:660:G:C5'	2.35	0.52
1:AA:73:G:N2	1:AA:76:C:C2	2.78	0.52
2:AB:178:ARG:NH1	2:AB:196:LEU:O	2.38	0.52
1:CA:27:G:O2'	1:CA:28:G:H5'	2.09	0.52
1:AA:307:C:H2'	1:AA:308:C:H5'	1.92	0.52
15:AO:56:LEU:HD21	31:BA:715:G:C4	2.45	0.52
45:BT:34:VAL:O	45:BT:35:LYS:HB3	2.10	0.52
31:BA:901:A:H5'	31:BA:902:C:OP2	2.10	0.52
38:BI:94:ALA:O	38:BI:98:ALA:HB2	2.10	0.52
16:CP:20:VAL:HG22	16:CP:21:VAL:N	2.24	0.52
31:BA:1972:A:H2'	31:BA:1973:G:C8	2.45	0.52
1:CA:552:U:O2'	1:CA:553:A:H5'	2.09	0.52
31:DA:2539:C:N3	31:DA:2540:C:C5	2.78	0.52
36:BG:137:GLU:O	36:BG:140:ILE:HG12	2.09	0.52
31:DA:1833:U:C4	31:DA:1834:U:C5	2.98	0.52
1:CA:250:A:C4'	1:CA:251:G:O5'	2.57	0.52
31:BA:271(S):G:H2'	31:BA:271(T):C:O4'	2.10	0.52
1:CA:1406:U:O2'	1:CA:1407:C:H5'	2.10	0.52
37:BH:153:LYS:CG	37:BH:154:PRO:N	2.73	0.52
31:DA:1882:C:H3'	31:DA:1883:G:H8	1.74	0.52
8:AH:5:PRO:O	8:AH:8:ASP:HB3	2.09	0.52
36:BG:60:LEU:C	36:BG:60:LEU:HD13	2.31	0.52
16:AP:38:TYR:O	16:AP:39:TYR:HB2	2.10	0.52
31:DA:2469:A:O2'	42:DQ:56:ARG:HG2	2.09	0.52
51:BZ:128:VAL:HG11	51:BZ:133:ILE:HG12	1.92	0.52
31:BA:2061:G:C2	31:BA:2063:C:C4	2.98	0.52
2:CB:28:PHE:CD1	2:CB:190:THR:HA	2.45	0.52
31:BA:1940:U:C4	31:BA:1964:G:H4'	2.44	0.52
14:AN:44:LEU:HD12	14:AN:44:LEU:O	2.09	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BF:138:GLU:O	35:BF:139:PHE:C	2.48	0.52
31:BA:1299:G:H5''	31:BA:1300:U:O5'	2.10	0.52
31:DA:817:C:C2'	31:DA:818:G:H8	2.23	0.52
31:DA:817:C:H2'	31:DA:818:G:O4'	2.10	0.52
1:CA:84:U:C5	1:CA:88:A:C8	2.98	0.52
37:BH:158:HIS:NE2	37:BH:168:PRO:HB2	2.25	0.52
18:CR:53:ARG:NH2	18:CR:60:ALA:N	2.58	0.52
35:BF:119:ARG:HB3	35:BF:119:ARG:CZ	2.40	0.52
1:AA:276:G:H2'	1:AA:277:C:H5'	1.92	0.52
15:CO:75:PRO:O	15:CO:79:ARG:HG3	2.10	0.52
4:CD:4:TYR:O	4:CD:5:ILE:HB	2.10	0.52
19:AS:51:VAL:HG11	19:AS:71:LEU:O	2.10	0.52
31:DA:412:A:H2'	31:DA:413:C:H5'	1.92	0.52
31:BA:349:G:C2'	31:BA:350:U:H5'	2.40	0.52
10:AJ:24:VAL:HG21	10:AJ:37:PRO:HG3	1.90	0.52
43:DR:84:ALA:N	43:DR:85:PRO:HD2	2.25	0.52
31:BA:2630:G:H1'	31:BA:2894:G:H1'	1.92	0.52
13:CM:32:GLU:OE2	13:CM:64:TRP:HH2	1.93	0.52
31:BA:877:U:H6	31:BA:877:U:O5'	1.93	0.52
1:CA:604:G:C5	1:CA:605:U:C5	2.98	0.52
30:D8:29:LYS:HZ1	30:D8:44:LYS:HB3	1.75	0.51
31:DA:2016:U:C4	31:DA:2017:U:C4	2.98	0.51
27:D5:6:VAL:HG13	31:DA:2016:U:H1'	1.92	0.51
55:DA:3320:TEL:C10	55:DA:3320:TEL:C12	2.89	0.51
55:DA:3320:TEL:C10	55:DA:3320:TEL:H123	2.39	0.51
31:DA:665:C:H2'	31:DA:666:G:H8	1.74	0.51
28:B6:27:LYS:HE3	31:BA:2285:C:C5	2.45	0.51
31:BA:2287:A:H2	31:BA:2346:A:H2	1.58	0.51
41:BP:6:LEU:HG	41:BP:8:PRO:O	2.10	0.51
33:BD:39:LYS:HB2	33:BD:62:TYR:HB2	1.92	0.51
31:BA:2516:G:C2'	31:BA:2517:C:H5'	2.40	0.51
49:DX:36:LYS:HD3	49:DX:38:GLU:HB2	1.92	0.51
41:BP:101:VAL:HG22	41:BP:102:ARG:N	2.24	0.51
31:DA:993:G:C5'	47:DV:75:PHE:CE2	2.93	0.51
33:BD:239:ARG:O	33:BD:240:ALA:HB2	2.09	0.51
32:DB:25:A:C2'	32:DB:26:A:H8	2.22	0.51
36:DG:11:TYR:O	36:DG:16:ARG:HG2	2.10	0.51
1:CA:322:C:H5	1:CA:328:C:C5	2.27	0.51
1:CA:438:G:H4'	4:CD:123:HIS:ND1	2.26	0.51
33:DD:27:THR:HG21	33:DD:83:GLU:CG	2.18	0.51
25:B3:11:SER:HB3	31:BA:988:A:P	2.50	0.51
31:BA:1138:G:H5''	31:BA:1139:G:OP2	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1142(A):A:H8	31:BA:1142(A):A:H5'	1.75	0.51
31:BA:1790:C:H4'	33:BD:209:ALA:HB1	1.92	0.51
20:CT:30:LYS:HG3	20:CT:34:LYS:CE	2.40	0.51
47:BV:13:ARG:HH11	47:BV:13:ARG:HG2	1.75	0.51
35:BF:3:GLU:O	35:BF:19:GLU:HA	2.10	0.51
35:BF:3:GLU:HA	35:BF:24:LEU:HB3	1.91	0.51
1:CA:1127:G:H1'	1:CA:1148:U:H3	1.75	0.51
32:DB:75:G:C5'	32:DB:75:G:H8	2.18	0.51
42:DQ:81:VAL:O	42:DQ:82:ARG:CZ	2.58	0.51
32:BB:75:G:C8	32:BB:75:G:H5'	2.33	0.51
31:BA:376:C:H2'	31:BA:377:C:H6	1.75	0.51
32:BB:13:A:O2'	32:BB:14:U:H3'	2.09	0.51
34:DE:96:PHE:CE2	34:DE:102:VAL:HG11	2.45	0.51
39:BN:15:LEU:C	39:BN:15:LEU:HD13	2.30	0.51
1:AA:1418:A:C2	1:AA:1483:A:C2	2.98	0.51
38:BI:52:ARG:HG3	38:BI:53:ALA:N	2.25	0.51
1:AA:1097:C:C2	1:AA:1098:C:C6	2.98	0.51
4:AD:18:LYS:HE3	4:AD:31:CYS:SG	2.50	0.51
34:DE:111:ARG:NH1	43:DR:2:ARG:NH2	2.58	0.51
1:AA:883:C:H2'	1:AA:884:U:H5'	1.91	0.51
50:DY:95:LYS:CE	50:DY:100:ALA:HB1	2.39	0.51
31:BA:1952:A:N3	40:BO:22:ILE:HG13	2.25	0.51
1:AA:975:A:H5''	1:AA:1363(A):A:N6	2.24	0.51
38:DI:98:ALA:O	38:DI:102:SER:HB2	2.10	0.51
38:BI:113:ARG:HB2	38:BI:130:TYR:CZ	2.45	0.51
2:AB:91:PRO:HG3	2:AB:154:LEU:CB	2.34	0.51
48:BW:20:VAL:HG23	48:BW:47:VAL:HG21	1.93	0.51
45:BT:30:VAL:O	45:BT:82:LEU:HA	2.09	0.51
12:AL:102:ARG:HD2	12:AL:109:GLY:HA2	1.92	0.51
35:DF:160:ASN:CG	35:DF:163:VAL:HG23	2.30	0.51
15:CO:17:ARG:HH11	15:CO:17:ARG:CG	2.22	0.51
50:BY:2:ARG:C	50:BY:4:LYS:N	2.60	0.51
31:DA:1255:U:H5''	31:DA:1256:G:O5'	2.10	0.51
40:DO:46:ALA:O	40:DO:47:ILE:HD13	2.10	0.51
31:BA:1348:G:C2'	31:BA:1349:A:H5''	2.40	0.51
31:DA:272(B):G:O2'	31:DA:272(C):G:H5'	2.10	0.51
8:AH:53:VAL:O	8:AH:54:ASP:HB2	2.10	0.51
19:CS:62:ILE:O	19:CS:62:ILE:HG23	2.10	0.51
1:CA:241:C:C2	1:CA:286:G:C2	2.98	0.51
31:DA:2399:G:C4	31:DA:2400:G:C8	2.97	0.51
1:CA:1477:C:H2'	1:CA:1478:C:H6	1.75	0.51
37:DH:158:HIS:CD2	37:DH:170:ARG:HA	2.44	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DR:13:HIS:CE1	43:DR:15:SER:OG	2.64	0.51
31:DA:2690:C:OP2	43:DR:14:SER:HB3	2.10	0.51
48:BW:24:ILE:HD12	48:BW:24:ILE:O	2.09	0.51
43:BR:13:HIS:O	43:BR:14:SER:C	2.49	0.51
31:BA:272(B):G:O2'	31:BA:272(C):G:C5'	2.58	0.51
3:CC:83:ARG:O	3:CC:87:LEU:HG	2.10	0.51
31:BA:2584:U:O4'	31:BA:2584:U:O2	2.26	0.51
1:CA:1273:G:H3'	1:CA:1274:G:H8	1.74	0.51
42:DQ:57:HIS:O	42:DQ:57:HIS:CG	2.63	0.51
1:AA:117:G:O2'	1:AA:118:U:H5'	2.10	0.51
4:AD:47:ARG:HH21	4:AD:49:ARG:NH2	2.08	0.51
35:DF:154:VAL:HB	35:DF:173:VAL:HG22	1.91	0.51
31:BA:645:C:H3'	31:BA:645:C:O2	2.11	0.51
2:CB:21:ARG:HG3	2:CB:21:ARG:O	2.10	0.51
4:AD:80:GLU:O	4:AD:84:LYS:HG2	2.09	0.51
27:B5:58:LEU:O	27:B5:59:GLU:HB3	2.10	0.51
31:BA:1446:C:C4	31:BA:1447:G:N7	2.78	0.51
31:BA:2637:U:C2'	31:BA:2638:G:H5'	2.40	0.51
31:DA:26:G:H1'	31:DA:515:A:H61	1.75	0.51
41:DP:83:VAL:HG11	41:DP:112:LEU:HD21	1.90	0.51
31:DA:661:C:O3'	41:DP:18:ARG:HA	2.09	0.51
23:B1:37:ILE:O	23:B1:38:SER:HB2	2.09	0.51
30:B8:4:MET:HE1	31:BA:593:G:C1'	2.41	0.51
31:BA:2058:A:N1	55:BA:3362:TEL:O48	2.31	0.51
31:BA:2436:G:C6	31:BA:2437:U:C4	2.98	0.51
41:BP:62:LEU:N	41:BP:62:LEU:CD2	2.51	0.51
31:BA:768:G:C4	31:BA:769:G:C8	2.99	0.51
32:BB:57:A:N3	32:BB:58:A:H8	2.08	0.51
24:D2:50:ILE:O	24:D2:51:ARG:HB3	2.10	0.51
31:DA:1404:C:O2	31:DA:1404:C:H2'	2.10	0.51
31:DA:142:A:H8	31:DA:1595:G:N2	2.06	0.51
47:DV:99:ILE:HG22	47:DV:100:ARG:HG2	1.93	0.51
24:B2:49:LYS:HA	24:B2:53:LEU:HB3	1.92	0.51
32:DB:33:G:N1	32:DB:50:G:C6	2.78	0.51
36:DG:25:TYR:HA	36:DG:30:GLU:OE2	2.11	0.51
4:AD:91:SER:HA	4:AD:94:LEU:HD12	1.92	0.51
16:AP:8:ARG:HG2	16:AP:9:PHE:N	2.25	0.51
31:DA:1783:A:H5'	31:DA:2608:G:H4'	1.91	0.51
31:DA:1816:G:H8	33:DD:62:TYR:CZ	2.28	0.51
33:DD:35:LYS:CE	33:DD:64:ILE:C	2.79	0.51
33:DD:83:GLU:HB2	33:DD:92:ILE:CD1	2.39	0.51
33:DD:83:GLU:O	33:DD:92:ILE:HD12	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BN:47:ALA:HB1	39:BN:112:LEU:HD11	1.92	0.51
31:BA:2570:G:H2'	31:BA:2571:C:O4'	2.10	0.51
34:DE:35:GLN:HB3	34:DE:48:GLN:CB	2.40	0.51
4:AD:57:ARG:NH2	5:AE:107:ARG:HD3	2.25	0.51
31:BA:778:G:C6	31:BA:779:U:C4	2.98	0.51
50:DY:20:TYR:N	50:DY:20:TYR:CD1	2.76	0.51
42:DQ:77:LYS:HE3	42:DQ:82:ARG:HA	1.92	0.51
51:DZ:166:SER:OG	51:DZ:167:PRO:HA	2.10	0.51
1:AA:509:A:H5''	4:AD:55:ALA:HB2	1.92	0.51
46:BU:93:LYS:N	46:BU:93:LYS:HD3	2.11	0.51
34:BE:52:LEU:HD13	34:BE:76:ARG:CG	2.39	0.51
23:D1:40:ARG:HD3	23:D1:41:ARG:N	2.25	0.51
31:BA:271(K):U:H2'	31:BA:271(M):G:N2	2.25	0.51
15:CO:55:GLY:O	15:CO:56:LEU:C	2.46	0.51
28:B6:15:GLU:CD	28:B6:18:ARG:HG3	2.29	0.51
34:BE:96:PHE:CE2	34:BE:102:VAL:HG11	2.45	0.51
31:BA:960:A:H5''	31:BA:961:C:OP2	2.10	0.51
41:DP:138:LEU:C	41:DP:140:ALA:N	2.61	0.51
31:DA:794:G:H2'	31:DA:795:C:H6	1.72	0.51
5:CE:126:ARG:CG	5:CE:126:ARG:NH1	2.72	0.51
8:AH:112:LEU:HB2	8:AH:133:LEU:HA	1.91	0.51
48:BW:15:ARG:HA	48:BW:18:ARG:HD2	1.92	0.51
31:BA:1686:C:C4	31:BA:1687:G:C5	2.98	0.51
9:AI:118:LYS:NZ	9:AI:118:LYS:CB	2.73	0.51
31:BA:2666:C:N4	37:BH:109:PHE:HA	2.25	0.51
31:DA:39:C:H2'	31:DA:40:C:H6	1.75	0.51
28:D6:51:GLU:C	28:D6:52:VAL:HG23	2.31	0.51
40:BO:23:ARG:NH1	40:BO:23:ARG:HG2	2.19	0.51
45:BT:25:GLY:O	45:BT:26:ASP:CB	2.58	0.51
31:DA:717:G:H2'	31:DA:718:A:O4'	2.10	0.51
8:CH:51:VAL:O	8:CH:52:ASP:HB2	2.10	0.51
10:AJ:50:ILE:HA	10:AJ:60:ARG:CB	2.40	0.51
31:DA:1598:C:H2'	31:DA:1599:C:C6	2.45	0.51
31:DA:1373:A:C6	31:DA:1374:G:C4	2.98	0.51
31:BA:1300:U:H5''	31:BA:1301:A:H5''	1.91	0.51
6:CF:3:ARG:HD3	6:CF:64:GLN:OE1	2.10	0.51
1:AA:36:C:C2'	1:AA:37:U:H5'	2.40	0.51
21:CU:6:ARG:O	21:CU:12:LYS:HD3	2.10	0.51
32:DB:41:U:H2'	32:DB:42:C:OP1	2.10	0.51
4:AD:108:LEU:C	4:AD:110:PHE:H	2.13	0.51
36:BG:94:LEU:HD11	36:BG:102:PHE:CG	2.45	0.51
29:B7:29:LYS:NZ	31:BA:210:C:OP2	2.35	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1914:C:C4	31:DA:1915:U:C4	2.98	0.51
31:DA:1106:A:O2'	31:DA:1107:G:P	2.68	0.51
15:AO:18:PHE:CE1	15:AO:21:ASP:HB2	2.45	0.51
1:AA:1414:U:H3	1:AA:1486:G:H1	1.58	0.51
31:DA:1764:G:C2	31:DA:1765:C:C2	2.99	0.51
1:CA:604:G:H2'	1:CA:605:U:O4'	2.10	0.51
31:DA:1307:A:N6	31:DA:1606:G:O2'	2.43	0.51
31:DA:2623:G:H2'	31:DA:2624:G:H8	1.74	0.51
42:DQ:110:THR:HB	42:DQ:112:GLU:HG3	1.92	0.51
12:CL:54:LYS:N	12:CL:54:LYS:HD2	2.25	0.51
31:DA:2412:A:H2'	31:DA:2413:G:O4'	2.10	0.51
8:AH:80:ILE:O	8:AH:80:ILE:HG22	2.10	0.51
3:AC:207:VAL:HG12	3:AC:207:VAL:O	2.09	0.51
1:CA:1505:G:H4'	1:CA:1506:U:H5''	1.91	0.51
1:CA:17:U:H2'	1:CA:18:C:C6	2.45	0.51
31:DA:2415:G:C2'	31:DA:2416:C:H5'	2.40	0.51
31:BA:2070:G:H2'	31:BA:2071:A:C8	2.45	0.51
31:BA:28:A:H61	31:BA:512:G:H1'	1.75	0.51
33:BD:25:THR:O	33:BD:27:THR:HB	2.09	0.51
31:DA:70:G:H21	31:DA:71:A:N6	2.06	0.51
49:DX:90:GLU:C	49:DX:92:LEU:H	2.14	0.51
31:DA:814:C:H5	41:DP:27:HIS:CE1	2.26	0.51
31:DA:816:C:O2'	31:DA:932:G:O6	2.27	0.51
47:DV:1:MET:H2	47:DV:44:LYS:HD2	1.74	0.51
31:BA:2807:G:H22	31:BA:2892:A:H61	1.59	0.51
31:DA:1331:A:H2'	31:DA:1333:C:H5	1.73	0.51
32:DB:27:C:C2'	32:DB:27:C:O2	2.57	0.51
4:CD:68:TYR:CE2	4:CD:97:LEU:HB3	2.46	0.51
31:BA:2297:C:O2'	31:BA:2298:A:H5'	2.10	0.51
31:DA:1795:C:H2'	31:DA:1796:U:H6	1.76	0.51
31:BA:1803:A:H2	31:BA:1822:G:N3	2.09	0.51
2:CB:163:PHE:HA	2:CB:185:ILE:O	2.10	0.51
31:DA:312:G:H4'	31:DA:331:A:N3	2.25	0.51
50:DY:13:VAL:HG11	50:DY:72:VAL:HB	1.91	0.51
31:BA:1562:A:H2'	31:BA:1563:G:C8	2.46	0.51
31:BA:1563:G:C5	31:BA:1564:C:C5	2.98	0.51
51:DZ:53:ILE:HG21	51:DZ:71:VAL:HB	1.89	0.51
31:DA:2496:C:OP1	42:DQ:81:VAL:CG1	2.58	0.51
1:AA:1469:G:H2'	1:AA:1470:G:C8	2.46	0.51
1:AA:323:U:H5'	20:AT:23:ARG:HB2	1.92	0.51
1:AA:1483:A:H1'	31:BA:1948:G:O4'	2.11	0.51
31:BA:822:U:C2'	31:BA:823:G:H5'	2.41	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1084:G:OP1	1:AA:1086:U:C5	2.63	0.51
31:DA:2724:C:OP2	43:DR:2:ARG:NH2	2.43	0.51
34:BE:102:VAL:HB	34:BE:199:ARG:O	2.08	0.51
1:CA:291:C:O2'	1:CA:292:G:H5'	2.10	0.51
1:CA:29:G:N2	1:CA:554:C:O2	2.43	0.51
1:AA:20:U:C2'	1:AA:21:G:H5'	2.41	0.51
40:BO:104:ARG:CZ	40:BO:104:ARG:HB3	2.39	0.51
1:AA:976:G:OP1	14:AN:32:SER:N	2.42	0.51
1:AA:955:U:H2'	1:AA:956:U:C6	2.46	0.51
31:BA:852:G:O2'	31:BA:853:G:H5'	2.10	0.51
31:DA:2573:C:OP1	31:DA:2574:G:OP1	2.28	0.51
31:DA:271(H):G:O2'	31:DA:271(I):G:P	2.68	0.51
1:CA:1238:A:OP1	1:CA:1335:C:H1'	2.10	0.51
45:DT:52:ILE:HA	45:DT:61:PHE:HA	1.91	0.51
1:AA:1064:G:H4'	1:AA:1065:U:O5'	2.10	0.51
13:AM:34:LEU:CD1	13:AM:41:PRO:HG3	2.40	0.51
8:CH:39:LEU:N	8:CH:39:LEU:HD22	2.25	0.51
42:DQ:134:ARG:C	42:DQ:136:ALA:H	2.14	0.51
9:CI:28:VAL:HA	9:CI:63:ILE:O	2.10	0.51
31:BA:717:G:H2'	31:BA:718:A:O4'	2.10	0.51
33:DD:181:GLU:O	33:DD:182:LEU:HD23	2.10	0.51
31:DA:2009:G:OP1	48:DW:41:LYS:HE2	2.10	0.51
1:AA:515:G:H2'	1:AA:516:U:O4'	2.09	0.51
31:DA:2692:C:O2'	31:DA:2693:A:H5'	2.11	0.51
51:DZ:150:LEU:O	51:DZ:171:ILE:HG12	2.10	0.51
1:AA:229:U:H2'	1:AA:230:G:C8	2.46	0.51
35:DF:124:LEU:HD12	35:DF:125:LEU:H	1.74	0.51
31:BA:1682:G:H2'	31:BA:1683:C:C6	2.45	0.51
8:CH:109:ILE:HD11	8:CH:111:ILE:HG12	1.90	0.51
46:DU:44:ASN:H	46:DU:44:ASN:HD22	1.57	0.51
36:DG:94:LEU:HD11	36:DG:102:PHE:CG	2.45	0.51
35:DF:7:TYR:HD2	35:DF:16:GLY:HA3	1.76	0.51
43:DR:99:LYS:HZ3	43:DR:99:LYS:HB3	1.76	0.51
31:BA:945:A:C6	31:BA:2448:A:C4	2.99	0.51
21:AU:22:ARG:N	21:AU:23:PRO:HD3	2.26	0.51
31:BA:2584:U:H2'	31:BA:2585:U:H6	1.74	0.51
31:DA:412:A:OP2	31:DA:412:A:H8	1.92	0.51
2:CB:67:THR:OG1	2:CB:155:LEU:HG	2.11	0.51
4:CD:47:ARG:NH2	4:CD:49:ARG:NH2	2.58	0.51
1:CA:837:G:C2	1:CA:838:G:N7	2.79	0.51
14:AN:23:ARG:CZ	14:AN:30:ALA:HB2	2.40	0.51
1:AA:159:G:H21	1:AA:161:A:H3'	1.74	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DF:46:ARG:O	35:DF:48:THR:HG23	2.10	0.51
16:AP:19:ILE:HG22	16:AP:36:ILE:HG13	1.91	0.51
31:BA:306:U:H2'	31:BA:307:G:O4'	2.11	0.51
12:AL:21:LYS:HD2	12:AL:21:LYS:H	1.75	0.51
1:AA:636:U:H5'	17:AQ:2:PRO:HG3	1.92	0.51
31:DA:968:G:H2'	31:DA:969:U:O4'	2.10	0.51
1:CA:1081:G:P	5:CE:16:THR:HG1	2.34	0.51
1:CA:921:U:O2'	1:CA:922:G:O4'	2.28	0.51
31:DA:2016:U:H2'	31:DA:2017:U:H6	1.72	0.51
31:DA:2071:A:H2	31:DA:2440:C:H41	1.58	0.51
31:DA:834:C:O2'	31:DA:835:A:H5'	2.10	0.51
23:B1:34:THR:CG2	31:BA:388:G:P	2.99	0.51
30:B8:32:LEU:HD23	30:B8:35:GLN:O	2.09	0.51
31:BA:2287:A:C2	31:BA:2289:G:C1'	2.94	0.51
24:D2:29:LYS:O	24:D2:33:MET:SD	2.69	0.51
31:BA:71:A:H2	49:BX:31:HIS:NE2	2.09	0.51
31:BA:1845:G:C2'	31:BA:1846:G:H5'	2.40	0.51
1:AA:629:G:H2'	1:AA:630:G:O4'	2.10	0.51
4:AD:117:ALA:O	4:AD:120:LEU:HB2	2.10	0.51
1:CA:432:A:C8	1:CA:433:C:C5	2.99	0.51
1:CA:541:G:C4	1:CA:542:G:C8	2.98	0.51
31:DA:692:C:C2	31:DA:771:G:C2	2.98	0.51
31:BA:1141:U:C5	39:BN:64:GLY:HA3	2.46	0.51
39:BN:40:PRO:CA	46:BU:64:ARG:HH22	2.24	0.51
31:DA:2653:U:H3	31:DA:2667:C:N4	2.08	0.51
31:DA:2632:A:N3	34:DE:61:ARG:NH1	2.58	0.51
31:DA:2297:C:N3	31:DA:2320:A:C8	2.79	0.51
35:BF:3:GLU:HG3	35:BF:19:GLU:HB2	1.92	0.51
1:AA:1125:U:H2'	1:AA:1126:U:OP2	2.10	0.51
32:DB:21:G:O2'	32:DB:22:U:OP2	2.29	0.51
38:BI:120:ILE:HG23	38:BI:126:TYR:CE1	2.45	0.51
1:AA:674:G:H2'	1:AA:675:A:H8	1.75	0.51
1:AA:509:A:C4'	1:AA:510:A:OP1	2.55	0.51
4:AD:8:VAL:O	4:AD:11:LEU:HG	2.11	0.51
31:DA:2092:U:H4'	31:DA:2093:G:C5'	2.41	0.51
1:AA:47:C:O2	1:AA:49:U:C4	2.64	0.51
1:AA:1096:C:C2	1:AA:1097:C:C5	2.98	0.51
15:CO:52:SER:O	15:CO:55:GLY:N	2.43	0.51
31:BA:1999:C:H5''	31:BA:2723:C:O2'	2.10	0.51
1:AA:819:A:N7	1:AA:1529:G:C2	2.78	0.51
38:BI:98:ALA:CA	38:BI:109:ILE:HD13	2.40	0.51
45:DT:65:LYS:HG3	45:DT:66:VAL:H	1.76	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:DX:61:GLY:O	49:DX:70:LEU:HB3	2.10	0.51
13:CM:97:PRO:O	13:CM:98:VAL:HG13	2.11	0.51
11:AK:91:ARG:O	11:AK:95:ILE:HG12	2.11	0.51
31:DA:2000:G:OP2	43:DR:3:HIS:CE1	2.64	0.51
31:BA:271(Q):G:O2'	31:BA:271(R):G:H8	1.94	0.51
31:BA:1696:G:C6	31:BA:1697:G:C5	2.99	0.51
37:DH:52:VAL:CG1	37:DH:69:ARG:HG3	2.40	0.51
1:CA:1250:A:H2	1:CA:1370:G:H1'	1.75	0.51
38:BI:12:LEU:HD23	38:BI:12:LEU:N	2.25	0.51
31:DA:2472:G:H2'	31:DA:2529:G:N2	2.24	0.51
45:BT:93:ARG:O	45:BT:94:ALA:O	2.27	0.51
33:DD:255:LYS:NZ	33:DD:255:LYS:N	2.59	0.51
1:AA:1030(A):G:H1'	1:AA:1031:G:H22	1.75	0.51
44:BS:34:HIS:CB	44:BS:53:SER:HB2	2.38	0.51
1:CA:563:A:C5	1:CA:567:G:C4	2.99	0.51
1:CA:581:G:N1	1:CA:759:A:OP2	2.34	0.51
16:AP:51:VAL:HG12	16:AP:52:ASP:N	2.25	0.51
15:AO:63:ARG:HG2	15:AO:67:LEU:CD1	2.40	0.51
1:AA:581:G:N1	1:AA:759:A:OP2	2.33	0.51
31:BA:2347:C:C2	31:BA:2348:U:C5	2.97	0.51
31:DA:614:U:O2	31:DA:614:U:O5'	2.28	0.51
1:CA:307:C:C5	1:CA:308:C:C5	2.98	0.51
31:DA:451:C:N4	31:DA:454:A:H5'	2.25	0.51
31:BA:2713:A:H3'	31:BA:2714:G:C5'	2.40	0.51
17:CQ:59:ILE:HG23	17:CQ:71:PHE:HB3	1.93	0.51
1:CA:654:G:C2	1:CA:753:A:C4	2.98	0.51
31:BA:485:C:O2'	31:BA:486:C:H5'	2.10	0.51
31:BA:269:U:C2'	31:BA:269:U:O2	2.56	0.51
31:BA:1368:G:C2	31:BA:1369:G:C8	2.99	0.51
1:AA:985:C:H2'	1:AA:986:A:H8	1.75	0.51
29:B7:34:ARG:NH1	29:B7:39:ARG:HG3	2.25	0.51
31:DA:17:G:H2'	31:DA:18:C:C6	2.45	0.51
1:CA:985:C:H2'	1:CA:986:A:H8	1.75	0.51
31:BA:521:G:H2'	31:BA:522:G:C8	2.45	0.51
38:DI:117:GLU:HG3	38:DI:118:LYS:N	2.25	0.51
1:AA:159:G:N3	1:AA:161:A:OP2	2.43	0.51
38:DI:46:ALA:O	38:DI:49:ALA:HB3	2.10	0.51
1:AA:1521:G:H2'	1:AA:1522:U:C6	2.46	0.51
33:BD:79:VAL:O	33:BD:79:VAL:HG12	2.08	0.51
1:AA:607:A:O2'	1:AA:608:A:H5'	2.10	0.51
1:CA:1334:G:OP2	1:CA:1334:G:C8	2.62	0.51
20:CT:94:ALA:O	20:CT:95:ALA:HB3	2.11	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CM:75:ALA:O	13:CM:79:LYS:HG3	2.09	0.51
1:CA:927:G:OP2	1:CA:1503:A:C4	2.64	0.51
28:D6:9:LEU:HD13	28:D6:9:LEU:C	2.30	0.51
30:D8:6:THR:HG22	30:D8:62:LEU:HD12	1.92	0.51
31:DA:1187:G:H5''	47:DV:82:ARG:CZ	2.40	0.51
31:DA:389:G:H22	41:DP:72:PRO:HD3	1.74	0.51
31:DA:747:U:O3'	48:DW:89:ALA:HB3	2.11	0.51
44:BS:52:SER:HB2	44:BS:55:ALA:HB3	1.93	0.51
24:D2:46:GLN:C	24:D2:48:HIS:N	2.62	0.51
49:DX:57:LEU:CD1	49:DX:57:LEU:N	2.74	0.51
31:DA:985:C:H2'	31:DA:986:C:C6	2.45	0.51
31:BA:58:G:OP1	49:BX:72:LYS:HB2	2.11	0.51
44:DS:101:LEU:HD13	44:DS:102:ALA:H	1.75	0.51
1:AA:437:U:O3'	4:AD:125:HIS:NE2	2.44	0.51
1:CA:376:G:O2'	1:CA:377:G:H5'	2.10	0.51
1:CA:429:U:H4'	1:CA:430:A:O5'	2.09	0.51
1:AA:490:G:OP2	4:AD:132:ARG:NH2	2.42	0.51
50:BY:15:VAL:CG1	50:BY:16:ALA:N	2.73	0.51
50:BY:63:LYS:O	50:BY:64:GLU:O	2.29	0.51
33:DD:211:ARG:O	33:DD:215:LEU:HG	2.10	0.51
31:BA:996:A:N6	31:BA:1160:G:C6	2.78	0.51
39:BN:91:LEU:CA	39:BN:95:PRO:HB3	2.31	0.51
31:DA:2652:C:H2'	31:DA:2653:U:C5'	2.39	0.51
31:BA:1795:C:H2'	31:BA:1796:U:H6	1.76	0.51
47:BV:60:GLU:OE1	47:BV:101:GLY:CA	2.57	0.51
31:DA:2319:G:C2	31:DA:2320:A:N1	2.78	0.51
50:DY:34:LYS:O	50:DY:35:TYR:CB	2.58	0.51
23:B1:11:ARG:CB	23:B1:12:PRO:HD3	2.40	0.51
31:DA:1509(B):A:H3'	31:DA:1510:G:C8	2.42	0.51
31:BA:659:C:H1'	35:BF:102:PRO:CD	2.40	0.51
27:B5:41:PRO:HG2	27:B5:44:THR:OG1	2.11	0.51
32:BB:15:A:O2'	32:BB:110:G:C8	2.59	0.51
1:AA:109:A:H2'	1:AA:326:G:H21	1.73	0.51
1:AA:51:A:C6	1:AA:353:A:C2	2.97	0.51
27:B5:2:ALA:N	31:BA:2014:A:HO2'	2.08	0.51
27:D5:55:ARG:CG	27:D5:56:LYS:H	2.23	0.51
31:DA:958:U:C5'	42:DQ:14:ARG:HD3	2.40	0.51
4:CD:18:LYS:CD	4:CD:33:MET:HG2	2.29	0.51
31:BA:271(K):U:O2'	31:BA:271(L):U:OP1	2.27	0.51
1:CA:1094:G:HO2'	1:CA:1108:G:N2	2.08	0.51
1:AA:1084:G:OP1	1:AA:1086:U:C6	2.63	0.51
31:DA:901:A:H5'	31:DA:902:C:OP2	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1694:C:O2	31:DA:1694:C:H2'	2.10	0.51
34:BE:93:VAL:N	34:BE:95:ILE:CD1	2.72	0.51
35:DF:203:GLN:O	35:DF:206:ILE:C	2.48	0.51
1:AA:1505:G:H4'	1:AA:1506:U:H5''	1.91	0.51
31:BA:1786:A:C2	31:BA:2606:C:H1'	2.45	0.51
1:CA:963:G:H21	10:CJ:55:LYS:HE2	1.76	0.51
31:DA:1665:A:O2'	31:DA:1666:G:H5'	2.11	0.51
31:DA:1473:G:C5	31:DA:1474:C:C4	2.99	0.51
45:BT:30:VAL:HG21	45:BT:83:ILE:HG13	1.92	0.51
14:AN:24:CYS:HB2	14:AN:29:ARG:HB3	1.92	0.51
33:BD:133:LEU:HD13	33:BD:173:VAL:HG11	1.92	0.51
16:CP:38:TYR:O	16:CP:39:TYR:HB2	2.11	0.51
13:AM:3:ARG:HH22	36:BG:139:LEU:HB2	1.76	0.51
31:DA:721:C:H3'	31:DA:722:A:H8	1.76	0.51
31:DA:1579:A:H2'	31:DA:1580:A:C8	2.46	0.51
42:DQ:111:GLU:O	42:DQ:115:MET:HB2	2.10	0.51
40:BO:101:PRO:HG3	45:BT:67:SER:HB3	1.93	0.51
1:AA:978:A:H5''	1:AA:979:C:OP2	2.11	0.51
31:BA:2445:G:OP1	35:BF:74:ARG:NH2	2.44	0.51
31:DA:2241:A:O2'	31:DA:2242:G:H5'	2.10	0.51
14:AN:41:ARG:HG3	14:AN:42:ILE:N	2.23	0.51
22:B0:1:MET:HA	31:BA:2451:A:H4'	1.93	0.51
1:AA:1438:G:C4	1:AA:1439:C:C5	2.99	0.51
31:BA:384:U:H2'	31:BA:385:C:C6	2.45	0.51
31:DA:2552:U:O2	31:DA:2554:U:H5'	2.09	0.51
17:AQ:45:HIS:HB2	17:AQ:65:ILE:HG12	1.91	0.51
35:BF:53:THR:HG23	35:BF:56:GLU:HB2	1.93	0.51
33:BD:231:HIS:ND1	33:BD:232:PRO:HD2	2.26	0.51
1:AA:875:C:H3'	1:AA:876:G:H5''	1.93	0.51
31:BA:553:G:C5	31:BA:554:U:C5	2.99	0.51
5:CE:36:ASP:O	5:CE:37:ARG:HB2	2.11	0.51
31:DA:292:C:O2'	31:DA:293:U:H5'	2.10	0.51
27:D5:22:HIS:HD2	31:DA:2046:G:O2'	1.94	0.51
31:BA:1128:A:O2'	31:BA:2490:G:OP1	2.29	0.51
27:D5:7:PRO:HA	31:DA:2615:U:N1	2.25	0.51
28:D6:22:ALA:HB2	28:D6:39:TYR:CE2	2.46	0.51
28:D6:23:THR:HG21	31:DA:2419:U:H4'	1.93	0.51
31:DA:637:A:OP1	41:DP:133:SER:HB3	2.11	0.51
32:BB:117:G:N3	32:BB:118:G:C8	2.79	0.51
31:DA:76:C:O2'	31:DA:77:C:H5'	2.10	0.51
49:DX:34:ALA:O	49:DX:36:LYS:HG3	2.10	0.51
31:BA:637:A:OP1	41:BP:133:SER:CB	2.58	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:932:G:H4'	31:DA:933:A:O5'	2.11	0.51
47:DV:68:LYS:HG3	47:DV:68:LYS:O	2.10	0.51
24:B2:50:ILE:O	24:B2:51:ARG:HB3	2.11	0.51
31:BA:2636:U:H3	31:BA:2782:G:H1	1.57	0.51
1:AA:408:A:H5'	4:AD:116:GLN:HB2	1.91	0.51
1:CA:1469:G:H2'	1:CA:1470:G:C8	2.46	0.51
1:CA:392:G:O3'	16:CP:13:HIS:CE1	2.64	0.51
31:BA:2308:G:C2	31:BA:2309:A:C6	2.99	0.51
31:DA:1778:U:O4	31:DA:1784:A:H1'	2.11	0.51
33:DD:63:ARG:HG3	33:DD:63:ARG:NH1	2.26	0.51
33:DD:35:LYS:NZ	33:DD:64:ILE:O	2.37	0.51
39:BN:25:ARG:CG	39:BN:25:ARG:NH1	2.67	0.51
31:DA:2663:G:C8	31:DA:2664:G:C5	2.99	0.51
31:DA:2656:U:N3	31:DA:2665:A:H2	1.98	0.51
31:DA:2666:C:N4	37:DH:109:PHE:HA	2.25	0.51
31:BA:2515:C:O2	31:BA:2570:G:C2	2.64	0.51
31:DA:2631:G:N3	31:DA:2810:A:H2	2.08	0.51
2:AB:210:SER:O	2:AB:214:ILE:HG12	2.11	0.51
47:BV:18:LEU:HD22	47:BV:19:LYS:CA	2.39	0.51
36:DG:134:GLY:HA2	36:DG:156:ASP:HA	1.91	0.51
1:CA:1125:U:H2'	1:CA:1126:U:OP2	2.10	0.51
31:DA:864:G:O2'	31:DA:865:C:H5'	2.11	0.51
31:DA:867:C:C5	31:DA:868:U:C4	2.98	0.51
51:BZ:6:LYS:HB3	51:BZ:8:TYR:CE1	2.46	0.51
31:BA:1493:C:C5	31:BA:2206:G:O2'	2.61	0.51
32:BB:109:C:H5'	32:BB:110:G:O5'	2.10	0.51
1:AA:361:G:H2'	1:AA:362:G:O4'	2.10	0.51
1:AA:49:U:C4	1:AA:364:A:C5	2.98	0.51
20:AT:29:LYS:O	20:AT:33:ILE:HG12	2.11	0.51
31:BA:2803:C:H2'	31:BA:2804:C:O4'	2.10	0.51
31:DA:2836:U:H6	31:DA:2836:U:O5'	1.94	0.51
1:AA:1419:G:O2'	31:BA:1949:G:O2'	2.28	0.51
34:BE:7:VAL:O	34:BE:7:VAL:HG22	2.09	0.51
38:BI:52:ARG:O	38:BI:56:LYS:N	2.44	0.51
1:AA:1088:G:C4	1:AA:1089:G:C8	2.99	0.51
2:AB:22:LYS:HZ3	2:AB:40:HIS:HE1	1.58	0.51
1:AA:728:A:C6	15:AO:54:ARG:HD2	2.46	0.51
12:AL:60:LEU:CD2	12:AL:66:VAL:HG22	2.33	0.51
1:AA:160:A:H61	1:AA:347:G:H1'	1.75	0.51
45:BT:40:THR:O	45:BT:41:ARG:HB2	2.11	0.51
1:AA:923:A:N6	1:AA:1392:G:O6	2.44	0.51
41:DP:119:GLU:OE1	41:DP:119:GLU:HA	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:AK:82:VAL:HB	11:AK:108:ILE:HG12	1.93	0.51
8:AH:86:ILE:HG22	8:AH:87:SER:N	2.25	0.51
1:AA:878:G:C5'	8:AH:89:PRO:HG2	2.38	0.51
27:D5:25:LEU:HD12	48:DW:19:LEU:HB3	1.92	0.51
31:DA:78:A:H2'	31:DA:79:G:C8	2.46	0.51
31:BA:1859:A:O5'	31:BA:1859:A:H8	1.93	0.51
1:AA:233:C:H2'	1:AA:234:C:C6	2.35	0.51
17:AQ:59:ILE:HG23	17:AQ:71:PHE:HB3	1.90	0.51
33:BD:70:TRP:CD1	33:BD:70:TRP:C	2.83	0.51
1:CA:659:U:H2'	1:CA:660:G:C5'	2.35	0.51
1:CA:602:A:N1	1:CA:637:G:C6	2.79	0.51
44:BS:42:ASP:C	44:BS:44:LYS:H	2.13	0.51
31:BA:340:A:H2'	31:BA:341:G:H5'	1.93	0.51
13:AM:4:ILE:HG13	13:AM:10:PRO:HD2	1.93	0.51
1:AA:1304:G:C6	1:AA:1305:G:N1	2.79	0.51
29:D7:8:ASN:ND2	29:D7:10:ARG:H	2.08	0.51
1:AA:563:A:C5	1:AA:567:G:C4	2.99	0.51
1:CA:1323:G:H2'	1:CA:1324:A:O4'	2.11	0.51
33:DD:255:LYS:HZ1	33:DD:255:LYS:H	1.59	0.51
1:AA:538:G:OP1	12:AL:115:LYS:HB2	2.11	0.51
1:AA:1058:G:H2'	1:AA:1059:C:O4'	2.10	0.51
31:DA:1421:G:C2	31:DA:1422:G:C8	2.98	0.51
43:BR:8:ARG:HA	43:BR:8:ARG:HE	1.75	0.51
1:CA:836:G:C6	1:CA:851:G:C5	2.99	0.51
1:CA:243:A:C2	1:CA:246:A:C8	2.99	0.51
40:BO:87:ILE:CG2	40:BO:88:ASN:N	2.73	0.51
31:BA:2400:G:H2'	31:BA:2400:G:N3	2.25	0.51
8:CH:44:PHE:HD1	8:CH:79:VAL:HG12	1.75	0.51
31:DA:269:U:H2'	31:DA:269:U:O2	2.10	0.51
15:CO:64:ARG:NH1	15:CO:88:ARG:NH1	2.59	0.51
31:BA:1262:A:C5	31:BA:1263:U:C5	2.99	0.51
31:DA:485:C:O2'	31:DA:486:C:H5'	2.11	0.51
31:BA:817:C:C4	31:BA:818:G:C5	2.99	0.51
33:DD:48:ARG:HG3	33:DD:48:ARG:HH11	1.74	0.51
1:AA:1480:G:C6	1:AA:1481:U:C4	2.98	0.51
31:BA:31:C:H2'	31:BA:32:C:O4'	2.10	0.51
42:BQ:57:HIS:O	42:BQ:57:HIS:CG	2.63	0.51
1:AA:872:A:C4	1:AA:874:G:N7	2.79	0.51
1:AA:396:G:H2'	1:AA:398:C:OP1	2.10	0.51
1:CA:1049:U:H4'	1:CA:1050:G:C5'	2.41	0.51
1:AA:1473:A:O2'	1:AA:1474:G:H5'	2.10	0.51
20:AT:73:HIS:O	20:AT:76:ALA:HB3	2.11	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DO:9:GLU:HB3	40:DO:83:ALA:HB2	1.91	0.51
3:AC:111:LEU:HD11	3:AC:145:GLY:O	2.11	0.51
31:BA:2081:C:H2'	31:BA:2082:A:C8	2.46	0.51
17:CQ:84:LEU:O	17:CQ:87:LYS:HB2	2.10	0.51
1:CA:117:G:C2'	1:CA:118:U:H5'	2.41	0.51
40:DO:34:THR:HG22	40:DO:37:ASP:OD2	2.11	0.51
10:CJ:16:LEU:HD13	10:CJ:70:ARG:HE	1.75	0.51
31:DA:578:A:H5''	31:DA:579:G:OP2	2.11	0.51
31:BA:1668:A:H4'	31:BA:1669:A:O5'	2.10	0.51
32:BB:37:C:C2'	32:BB:37:C:O2	2.55	0.51
31:DA:1710:C:O2'	31:DA:1711:C:H5'	2.10	0.51
31:DA:1742:G:C8	31:DA:1743:C:C2	2.98	0.51
31:BA:2517:C:C2	31:BA:2542:A:N6	2.79	0.51
41:BP:83:VAL:HG23	41:BP:105:LEU:HD22	1.93	0.51
31:BA:1405:U:O2'	31:BA:1406:U:H5'	2.11	0.51
24:B2:48:HIS:NE2	31:BA:75:G:O3'	2.34	0.51
1:AA:376:G:P	16:AP:67:THR:HG21	2.51	0.51
1:CA:361:G:H2'	1:CA:362:G:O4'	2.11	0.51
31:BA:2306:C:OP2	31:BA:2307:G:C8	2.64	0.51
31:BA:1324:G:C2	31:BA:1331:A:C2	2.98	0.51
31:DA:1791:A:N6	31:DA:1828:G:O2'	2.43	0.51
31:DA:1824:G:OP1	33:DD:52:ARG:NH1	2.43	0.51
23:D1:11:ARG:CB	23:D1:12:PRO:CD	2.89	0.51
31:DA:2655:G:H2'	31:DA:2655:G:N3	2.25	0.51
1:AA:223:U:H2'	1:AA:224:C:C6	2.45	0.51
5:AE:139:LEU:C	5:AE:141:GLN:N	2.62	0.51
47:BV:2:PHE:O	47:BV:3:ALA:HB3	2.10	0.51
31:DA:2297:C:O2'	31:DA:2298:A:H5'	2.10	0.51
31:DA:2308:G:C2	31:DA:2309:A:C6	2.99	0.51
31:BA:1561:G:O2'	31:BA:1562:A:H5'	2.10	0.51
31:DA:2283:C:C2	31:DA:2389:G:C2	2.99	0.51
51:BZ:99:TYR:CE2	51:BZ:125:LEU:HD12	2.46	0.51
11:AK:41:THR:HG22	11:AK:42:TRP:N	2.25	0.51
32:BB:17:C:C2	32:BB:18:G:C8	2.99	0.51
31:BA:1614:A:H2'	31:BA:1615:C:H5'	1.93	0.51
31:BA:2015:A:H2'	31:BA:2016:U:H5'	1.91	0.51
39:BN:78:TYR:HD1	39:BN:79:PRO:CG	2.24	0.51
31:BA:1039:G:N2	31:BA:1117:G:H1'	2.26	0.51
31:BA:1338:G:C2	31:BA:1339:G:C4	2.98	0.51
31:BA:1836:C:H2'	31:BA:1837:C:H6	1.75	0.51
34:DE:36:ARG:NH2	34:DE:88:GLY:CA	2.73	0.51
2:AB:25:ASN:C	2:AB:25:ASN:OD1	2.49	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:CO:55:GLY:HA2	15:CO:58:MET:CE	2.40	0.51
1:AA:22:G:C6	1:AA:23:C:C4	2.99	0.51
1:AA:562:C:C4	1:AA:884:U:C5	2.98	0.51
31:BA:867:C:C6	31:BA:868:U:C5	2.99	0.51
31:DA:499:U:H2'	31:DA:500:G:O4'	2.10	0.51
9:CI:114:TYR:CE1	10:CJ:59:SER:HA	2.46	0.51
43:BR:33:ARG:CG	43:BR:115:GLU:HG2	2.33	0.51
31:DA:78:A:C2	31:DA:79:G:C5	2.98	0.51
38:BI:82:ARG:HD2	38:BI:89:TYR:HH	1.75	0.51
17:AQ:63:ARG:HG2	17:AQ:64:PRO:N	2.24	0.51
39:BN:128:HIS:HD2	39:BN:131:GLN:H	1.59	0.51
31:BA:2664:G:C2'	31:BA:2665:A:O5'	2.59	0.51
42:BQ:55:VAL:HG22	42:BQ:56:ARG:N	2.25	0.51
31:DA:344:G:O2'	31:DA:345:A:H5'	2.11	0.51
9:CI:105:ASP:C	9:CI:107:ARG:H	2.13	0.51
9:CI:17:VAL:CG1	9:CI:81:ILE:HD13	2.40	0.51
1:CA:1215:G:C5	1:CA:1216:G:N7	2.79	0.51
35:DF:141:ALA:O	35:DF:144:LYS:HB3	2.11	0.51
51:DZ:144:LEU:HD22	51:DZ:144:LEU:N	2.25	0.51
31:DA:463:G:C6	31:DA:467:G:C6	2.99	0.51
9:AI:73:GLN:O	9:AI:77:ILE:HG13	2.11	0.51
31:BA:2854:G:C4	31:BA:2855:C:C5	2.98	0.51
6:CF:49:ALA:HB2	18:CR:78:LEU:C	2.30	0.51
31:BA:2552:U:H2'	31:BA:2554:U:H5''	1.92	0.51
31:DA:1374:G:H2'	31:DA:1375:C:C6	2.45	0.51
1:CA:672:U:H4'	6:CF:80:ARG:NH1	2.26	0.51
1:AA:189(A):C:H2'	1:AA:189(B):C:H6	1.76	0.51
1:AA:189(B):C:O2'	1:AA:189(C):C:H5'	2.11	0.51
34:DE:143:ASN:OD1	34:DE:147:PRO:HD2	2.11	0.51
35:DF:53:THR:C	35:DF:55:GLY:N	2.64	0.51
1:AA:985:C:C2	1:AA:1221:G:N2	2.79	0.51
31:DA:1916:A:N3	31:DA:1916:A:H2'	2.26	0.51
1:AA:1049:U:H4'	1:AA:1050:G:C5'	2.41	0.51
31:BA:2584:U:C2'	31:BA:2585:U:H5'	2.40	0.51
31:BA:521:G:H2'	31:BA:522:G:H8	1.75	0.51
31:BA:1805:U:H2'	31:BA:1806:C:C6	2.45	0.51
13:CM:74:VAL:HA	13:CM:77:ASN:HD22	1.76	0.51
42:BQ:116:GLU:O	42:BQ:117:ALA:C	2.49	0.51
42:BQ:57:HIS:NE2	42:BQ:116:GLU:HG2	2.24	0.51
27:D5:22:HIS:CD2	31:DA:2046:G:O2'	2.63	0.51
38:BI:117:GLU:HG3	38:BI:118:LYS:N	2.25	0.51
1:AA:1485:U:H5'	31:BA:1961:C:H5'	1.91	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BF:195:ASP:HB3	35:BF:197:ASP:HB3	1.92	0.51
28:D6:9:LEU:HD13	28:D6:9:LEU:O	2.10	0.51
30:D8:35:GLN:CG	31:DA:2420:C:OP1	2.59	0.51
31:DA:676:A:H1'	31:DA:2443:C:O4'	2.10	0.51
31:DA:975(A):G:H1'	31:DA:990:A:C2	2.46	0.51
35:DF:36:VAL:HA	35:DF:101:LEU:CD2	2.41	0.51
41:DP:79:ARG:HH22	41:DP:109:GLY:HA2	1.73	0.51
30:B8:35:GLN:CG	31:BA:2420:C:OP1	2.59	0.51
31:BA:2346:A:H5''	31:BA:2383:G:C1'	2.39	0.51
31:BA:2395:C:H2'	31:BA:2396:G:O4'	2.10	0.51
31:BA:590:A:H2'	31:BA:591:C:C6	2.46	0.51
25:D3:47:VAL:HG11	25:D3:56:VAL:HG21	1.93	0.51
31:DA:537:C:H5'	31:DA:538:G:OP2	2.11	0.51
39:DN:58:ASP:C	39:DN:60:ILE:H	2.14	0.51
31:BA:1403:C:H2'	31:BA:1404:C:O5'	2.11	0.51
36:DG:116:ASP:O	36:DG:117:PHE:HB3	2.10	0.51
1:AA:391:G:O3'	16:AP:8:ARG:NH2	2.44	0.51
1:CA:59:A:H3'	1:CA:331:G:H22	1.76	0.51
5:CE:12:LEU:C	5:CE:12:LEU:HD22	2.31	0.51
16:CP:8:ARG:C	16:CP:9:PHE:HD2	2.14	0.51
33:DD:35:LYS:HE2	33:DD:104:TYR:HB2	1.92	0.51
31:BA:1022:G:C6	31:BA:1141:U:C5	2.99	0.51
31:BA:1035:U:H2'	31:BA:1036:G:C8	2.46	0.51
31:BA:2048:G:C6	31:BA:2049:G:C5	2.99	0.51
2:AB:163:PHE:HD2	2:AB:185:ILE:HG13	1.76	0.51
31:BA:764:A:C4	31:BA:781:A:N1	2.78	0.51
1:CA:129(A):G:H4'	1:CA:130:A:H5''	1.93	0.51
47:BV:68:LYS:O	47:BV:68:LYS:HG3	2.11	0.51
31:BA:372:G:O2'	31:BA:373:U:P	2.69	0.51
22:D0:42:GLY:HA3	31:DA:2331:G:O4'	2.11	0.51
42:BQ:139:GLU:O	51:BZ:99:TYR:CE2	2.64	0.51
34:DE:6:GLY:HA2	34:DE:51:PHE:CZ	2.46	0.51
1:CA:73:G:N2	1:CA:76:C:C2	2.79	0.51
1:AA:682:G:H1	1:AA:708:C:H42	1.58	0.51
51:BZ:84:GLU:OE2	51:BZ:84:GLU:HA	2.11	0.51
31:DA:1658:C:H2'	31:DA:1659:U:C6	2.46	0.51
34:DE:132:HIS:O	34:DE:133:LYS:HG3	2.11	0.51
23:D1:41:ARG:NH2	31:DA:205:G:C6	2.78	0.51
31:BA:1747(A):G:C3'	31:BA:1748:G:H5''	2.40	0.51
1:CA:1105:A:H2'	1:CA:1106:G:H8	1.76	0.51
1:CA:1068:G:N3	1:CA:1191:A:C2	2.79	0.51
2:CB:114:ARG:O	2:CB:118:LEU:HG	2.11	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BE:92:THR:N	34:BE:95:ILE:HD11	2.26	0.51
1:CA:20:U:O2'	1:CA:21:G:H5'	2.10	0.51
31:BA:1495:A:C2'	31:BA:1496:A:N3	2.68	0.51
1:AA:342:C:N3	1:AA:348:G:C2	2.79	0.51
40:BO:105:GLU:HA	40:BO:108:GLU:HG3	1.92	0.51
36:DG:125:PHE:HB3	36:DG:166:ASP:HB2	1.93	0.51
1:CA:801:U:H2'	1:CA:802:A:C8	2.42	0.51
40:BO:111:PHE:O	40:BO:112:MET:C	2.48	0.51
31:DA:1603:A:H2'	31:DA:1604:C:O4'	2.11	0.51
12:CL:104:VAL:HG12	12:CL:105:TYR:CD2	2.46	0.51
1:AA:1238:A:OP1	1:AA:1335:C:H1'	2.11	0.51
36:BG:116:ASP:O	36:BG:117:PHE:HB3	2.10	0.51
48:DW:18:ARG:NH1	48:DW:18:ARG:CG	2.70	0.51
40:DO:63:VAL:HG11	40:DO:85:VAL:CG2	2.40	0.51
45:DT:33:LYS:CB	45:DT:41:ARG:HB3	2.34	0.51
1:AA:1342:C:H1'	9:AI:124:GLN:NE2	2.20	0.51
31:BA:1484:G:C6	31:BA:1506:C:N4	2.79	0.51
31:BA:1686:C:H2'	31:BA:1687:G:C5'	2.41	0.51
1:AA:124:G:H1	1:AA:237:C:H42	1.59	0.51
37:BH:153:LYS:HG2	37:BH:154:PRO:N	2.26	0.51
31:DA:1773:A:C2'	31:DA:1774:C:H5'	2.41	0.51
33:BD:267:SER:O	33:BD:268:ARG:HB2	2.10	0.51
8:AH:10:LEU:HD13	8:AH:83:ILE:CD1	2.41	0.51
36:DG:60:LEU:HD13	36:DG:60:LEU:C	2.30	0.51
8:AH:6:ILE:CG2	8:AH:85:ARG:HH12	2.24	0.51
31:BA:2485:G:C2'	31:BA:2486:G:H5'	2.41	0.51
4:AD:192:GLU:CD	4:AD:192:GLU:H	2.14	0.51
31:BA:740:U:H2'	31:BA:741:G:C8	2.46	0.51
31:DA:2470:G:C2	31:DA:2471:C:C5	2.99	0.51
50:BY:53:PRO:HB3	50:BY:57:GLN:HA	1.92	0.51
6:AF:100:ASN:ND2	18:AR:23:LYS:HE3	2.25	0.51
36:DG:139:LEU:HA	36:DG:144:ILE:HG23	1.91	0.51
1:AA:1236:A:OP1	21:AU:3:LYS:NZ	2.40	0.51
51:BZ:141:VAL:HA	51:BZ:144:LEU:HD23	1.92	0.51
12:AL:6:THR:OG1	12:AL:9:GLN:HG3	2.10	0.51
31:DA:2437:U:H2'	31:DA:2438:U:C6	2.45	0.51
37:DH:130:ARG:CZ	37:DH:130:ARG:HB2	2.39	0.51
1:AA:518:C:C4	1:AA:530:G:N7	2.79	0.51
31:DA:836:G:H2'	31:DA:837:C:H6	1.72	0.51
3:CC:32:LEU:HD22	3:CC:59:ARG:HH12	1.74	0.51
1:AA:299:G:H2'	1:AA:300:A:C8	2.45	0.51
40:BO:87:ILE:CG2	40:BO:91:LEU:HA	2.41	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:2596:U:H6	31:BA:2596:U:O5'	1.94	0.51
1:AA:276:G:C2'	1:AA:277:C:H5'	2.40	0.51
43:BR:63:ARG:HA	43:BR:80:PHE:CE2	2.46	0.51
31:DA:1035:U:H2'	31:DA:1036:G:C8	2.46	0.51
51:DZ:63:ASP:C	51:DZ:65:GLN:H	2.13	0.51
35:BF:52:LYS:HB3	35:BF:56:GLU:HB3	1.92	0.51
17:CQ:45:HIS:O	17:CQ:73:VAL:HG23	2.11	0.51
1:AA:654:G:C2'	1:AA:655:A:H5'	2.41	0.51
34:DE:65:GLY:O	34:DE:67:PHE:N	2.44	0.51
22:B0:51:VAL:HG21	22:B0:79:VAL:HG12	1.92	0.51
31:BA:980:A:C6	31:BA:981:A:N1	2.79	0.51
3:AC:127:ARG:HD2	3:AC:127:ARG:N	2.26	0.51
46:BU:106:PHE:O	46:BU:110:VAL:HG23	2.11	0.51
37:BH:163:TYR:CD1	37:BH:163:TYR:N	2.78	0.51
19:CS:9:VAL:HG12	19:CS:9:VAL:O	2.11	0.51
19:AS:24:ALA:O	19:AS:25:LYS:HB2	2.11	0.51
32:BB:10:C:C4	32:BB:11:C:C5	2.98	0.51
1:CA:921:U:H2'	1:CA:922:G:OP2	2.11	0.51
1:CA:1081:G:P	5:CE:16:THR:OG1	2.69	0.51
28:D6:27:LYS:HG3	31:DA:2285:C:H5''	1.93	0.51
30:D8:32:LEU:HD23	30:D8:35:GLN:O	2.11	0.51
31:DA:2053:G:H1	31:DA:2616:C:N4	2.08	0.51
31:DA:827:U:O2	31:DA:2246:G:H4'	2.11	0.51
30:B8:31:HIS:CD2	31:BA:2419:U:O4	2.64	0.51
31:BA:2442:C:H2'	31:BA:2443:C:H6	1.75	0.51
31:BA:464:U:C2'	31:BA:465:G:H5'	2.41	0.51
32:BB:26:A:C5	32:BB:27:C:H5	2.29	0.51
31:DA:1468:C:C2	31:DA:1525:G:C2	2.99	0.51
31:DA:1341:U:O4	49:DX:16:LYS:HE3	2.11	0.51
31:DA:1141:U:H4'	31:DA:1142(A):A:O4'	2.11	0.51
31:DA:847:U:OP2	31:DA:928:G:O6	2.28	0.51
39:DN:18:ALA:HB3	39:DN:26:LEU:CD2	2.33	0.51
39:DN:30:ILE:HG21	39:DN:120:LEU:HD21	1.92	0.51
31:BA:2811:G:OP1	34:BE:60:ASN:HB3	2.10	0.51
34:BE:60:ASN:OD1	34:BE:62:PRO:HD2	2.11	0.51
32:DB:57:A:H8	36:DG:27:ASN:HB3	1.76	0.51
36:DG:16:ARG:O	36:DG:20:ILE:HG13	2.10	0.51
1:AA:392:G:O3'	16:AP:13:HIS:CE1	2.64	0.51
4:AD:67:ILE:HG22	4:AD:68:TYR:CD1	2.46	0.51
1:CA:617:G:H1	1:CA:623:C:H42	1.59	0.51
31:DA:1570:A:H2'	31:DA:1571:A:C8	2.45	0.51
31:DA:690:G:H4'	31:DA:780:G:OP1	2.11	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BN:23:LEU:HD13	39:BN:98:VAL:HG12	1.92	0.51
39:BN:40:PRO:C	46:BU:64:ARG:NH2	2.58	0.51
39:BN:3:THR:HG22	39:BN:5:VAL:H	1.76	0.51
31:BA:2572:A:C8	34:BE:144:ARG:HB3	2.46	0.51
31:BA:1803:A:C8	31:BA:1804:C:C5	2.99	0.51
31:BA:816:C:O2'	31:BA:932:G:O6	2.29	0.51
35:DF:3:GLU:HA	35:DF:24:LEU:HB3	1.92	0.51
1:CA:734:G:H2'	1:CA:735:C:C6	2.45	0.51
31:BA:1509(B):A:C4	31:BA:1510:G:C8	2.99	0.51
31:DA:2259:G:C2	31:DA:2282:G:N1	2.79	0.51
42:DQ:82:ARG:O	42:DQ:83:MET:CB	2.59	0.51
42:DQ:8:LYS:CG	42:DQ:9:TYR:N	2.74	0.51
38:BI:88:ILE:CG1	38:BI:121:LYS:HA	2.27	0.51
31:BA:2774:C:H2'	31:BA:2775:A:O4'	2.11	0.51
42:BQ:41:TRP:HB3	42:BQ:94:VAL:CB	2.40	0.51
1:AA:1072:G:C6	1:AA:1104:G:C6	2.99	0.51
34:BE:160:TYR:HD2	34:BE:161:GLY:N	2.09	0.51
34:BE:171:GLU:O	34:BE:184:VAL:HA	2.11	0.51
1:CA:20:U:C2'	1:CA:21:G:H5'	2.40	0.51
14:CN:24:CYS:SG	14:CN:40:CYS:HB3	2.50	0.51
31:DA:92:A:H2'	31:DA:93:G:C8	2.45	0.51
12:CL:32:PHE:CB	12:CL:84:LEU:HD21	2.40	0.51
31:DA:2741:A:H2'	31:DA:2742:C:O4'	2.10	0.51
31:DA:2575:C:H2'	31:DA:2578:G:O6	2.11	0.51
5:CE:126:ARG:NH1	5:CE:126:ARG:HG3	2.17	0.51
31:BA:1591:G:C2'	31:BA:1592:C:H5'	2.40	0.51
1:AA:1190:G:H3'	3:AC:3:ASN:ND2	2.26	0.51
31:BA:1487:G:C2	31:BA:1488:G:C4	2.99	0.51
35:BF:160:ASN:ND2	35:BF:160:ASN:C	2.58	0.51
12:AL:43:VAL:HG22	12:AL:55:VAL:CG2	2.34	0.51
31:BA:2836:U:O5'	31:BA:2836:U:H6	1.93	0.51
37:DH:40:GLU:O	37:DH:41:MET:CB	2.59	0.51
31:DA:1882:C:O2	31:DA:1882:C:C2'	2.51	0.51
8:CH:10:LEU:CD2	8:CH:10:LEU:N	2.74	0.51
1:AA:552:U:H2'	1:AA:553:A:H5'	1.93	0.51
45:BT:26:ASP:HA	45:BT:48:ILE:HA	1.92	0.51
31:DA:541:C:H2'	31:DA:542:C:C6	2.46	0.51
31:BA:2291:U:H2'	31:BA:2292:C:C6	2.46	0.51
17:AQ:29:HIS:N	17:AQ:33:GLY:O	2.37	0.51
33:DD:182:LEU:HB3	33:DD:271:ILE:CD1	2.41	0.51
45:BT:67:SER:O	45:BT:69:GLY:N	2.44	0.51
35:DF:31:HIS:HB2	41:DP:13:ASN:HB3	1.91	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:B1:46:LEU:HA	31:BA:396:G:O3'	2.11	0.51
31:DA:1198:U:O2	31:DA:1249:U:H1'	2.11	0.51
23:D1:37:ILE:HD12	31:DA:2079:U:O2'	2.10	0.51
31:BA:2197:U:H1'	31:BA:2198:A:C8	2.46	0.51
3:AC:121:ALA:HB2	3:AC:198:VAL:HG21	1.92	0.51
31:BA:1349:A:N6	31:BA:1598:C:H42	2.09	0.51
1:CA:78:G:H22	1:CA:91:C:H42	1.58	0.51
12:AL:119:LYS:C	12:AL:120:TYR:CD1	2.84	0.51
31:DA:2599:G:H8	33:DD:236:GLY:HA2	1.76	0.51
35:DF:119:ARG:HB3	35:DF:119:ARG:CZ	2.40	0.51
35:DF:78:ILE:H	35:DF:78:ILE:HD13	1.76	0.51
35:BF:7:TYR:HD2	35:BF:16:GLY:HA3	1.74	0.51
3:CC:14:ILE:HG23	3:CC:15:THR:N	2.26	0.51
31:DA:483:A:C8	31:DA:484:C:C5	2.99	0.51
31:BA:2790:A:H2'	31:BA:2791:C:C5'	2.40	0.51
1:CA:1410:G:O2'	1:CA:1411:C:H5'	2.10	0.51
19:CS:51:VAL:HG11	19:CS:71:LEU:O	2.11	0.51
1:AA:1160:G:N2	1:AA:1161:C:C6	2.78	0.51
34:DE:3:GLY:HA3	34:DE:81:ILE:HG21	1.93	0.51
31:BA:817:C:H2'	31:BA:818:G:O4'	2.11	0.51
31:BA:2409:G:C6	31:BA:2410:G:C5	2.98	0.51
31:DA:2103:C:H2'	31:DA:2104:G:O4'	2.10	0.51
7:CG:65:ALA:HB1	7:CG:127:ALA:HB3	1.92	0.51
13:CM:68:GLY:H	13:CM:71:ARG:HB3	1.76	0.51
1:CA:862:C:O2'	1:CA:863:U:H5'	2.11	0.51
31:DA:588:U:OP2	31:DA:588:U:C6	2.64	0.51
31:DA:662:G:OP1	41:DP:18:ARG:NH1	2.43	0.51
31:DA:665:C:H2'	31:DA:666:G:C8	2.46	0.51
30:B8:59:LYS:HD3	41:BP:50:ARG:CB	2.37	0.51
31:BA:251:A:C5	31:BA:252:G:H1'	2.46	0.51
31:BA:25:U:H2'	31:BA:26:G:C8	2.46	0.51
31:BA:580:C:H2'	31:BA:581:C:H6	1.76	0.51
33:BD:32:SER:HA	33:BD:35:LYS:O	2.10	0.51
36:BG:11:TYR:O	36:BG:11:TYR:CG	2.64	0.51
44:BS:73:LEU:O	44:BS:77:ALA:CB	2.59	0.51
39:DN:6:PRO:HG2	39:DN:43:THR:OG1	2.10	0.51
47:DV:72:VAL:O	47:DV:73:SER:CB	2.58	0.51
1:CA:509:A:C2	1:CA:510:A:C2	2.99	0.51
1:CA:60:A:H8	1:CA:60:A:P	2.34	0.51
50:BY:26:LYS:HG2	50:BY:27:VAL:H	1.76	0.51
31:BA:1323:U:OP1	48:BW:98:LYS:HE3	2.10	0.51
31:BA:985:C:O2'	31:BA:986:C:H5'	2.11	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2521:C:O2	31:DA:2521:C:C2'	2.54	0.51
31:DA:2774:C:H2'	31:DA:2775:A:O4'	2.11	0.51
31:BA:527:C:HO2'	31:BA:2779:U:HO2'	1.55	0.51
2:AB:163:PHE:HA	2:AB:185:ILE:O	2.11	0.51
20:CT:100:ILE:O	20:CT:102:GLY:N	2.44	0.51
20:CT:30:LYS:HD2	20:CT:30:LYS:O	2.11	0.51
31:DA:303:U:H2'	31:DA:304:G:C8	2.46	0.51
23:B1:10:LYS:HG2	23:B1:11:ARG:H	1.75	0.51
32:DB:65:C:H41	32:DB:109:C:C2'	2.23	0.51
34:DE:29:GLY:N	34:DE:51:PHE:HE2	2.08	0.51
1:AA:49:U:C2	1:AA:361:G:N2	2.79	0.51
27:B5:8:LYS:HD2	31:BA:2056:G:O2'	2.11	0.51
31:BA:1949:G:H2'	31:BA:1950:G:C8	2.45	0.51
1:AA:831:U:O2'	1:AA:832:C:H5'	2.10	0.51
1:AA:1097:C:O2'	1:AA:1098:C:H5'	2.11	0.51
28:B6:19:ARG:CG	28:B6:20:ASN:N	2.73	0.51
1:AA:307:C:C5	1:AA:308:C:C5	2.98	0.51
15:AO:55:GLY:HA2	15:AO:58:MET:CE	2.41	0.51
22:D0:31:VAL:CB	22:D0:35:ASN:ND2	2.71	0.51
31:BA:1786:A:H1'	31:BA:1938:A:H62	1.73	0.51
38:DI:101:LEU:HD23	38:DI:109:ILE:HG21	1.92	0.51
35:BF:203:GLN:O	35:BF:206:ILE:C	2.49	0.51
1:AA:1227:A:OP2	13:AM:111:LYS:HE2	2.11	0.51
31:DA:271(O):C:O2	31:DA:271(P):C:C5	2.64	0.51
1:AA:1133:G:N3	1:AA:1142:G:N2	2.58	0.51
1:AA:129(A):G:H4'	1:AA:130:A:H5''	1.93	0.51
37:BH:164:TYR:CB	37:BH:166:GLY:H	2.23	0.51
8:CH:9:MET:HG2	8:CH:10:LEU:HD23	1.93	0.51
38:BI:3:VAL:HA	38:BI:39:ALA:H	1.76	0.51
1:CA:160:A:H61	1:CA:347:G:H1'	1.76	0.51
8:AH:39:LEU:HD22	8:AH:39:LEU:N	2.26	0.51
1:CA:564:C:O2'	8:CH:91:ARG:NH2	2.44	0.51
28:B6:51:GLU:C	28:B6:52:VAL:HG23	2.31	0.51
31:BA:2884:U:H5	31:BA:2885:C:C4	2.29	0.51
1:CA:1304:G:C6	1:CA:1305:G:N1	2.78	0.51
33:BD:2:ALA:HB3	33:BD:20:ASP:HB2	1.93	0.51
44:DS:42:ASP:C	44:DS:44:LYS:H	2.14	0.51
31:DA:1845:G:H2'	31:DA:1846:G:C5'	2.41	0.51
1:CA:774:G:H2'	1:CA:775:G:C5'	2.41	0.51
3:AC:188:LEU:O	3:AC:189:ALA:HB2	2.11	0.51
31:DA:2590:A:H2'	31:DA:2591:C:H6	1.76	0.51
6:CF:39:LYS:O	6:CF:40:VAL:HB	2.11	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:296:C:O2'	31:DA:297:C:H5'	2.10	0.51
31:BA:1519:G:H5'	31:BA:1520:G:P	2.51	0.51
31:BA:2074:U:H2'	31:BA:2075:U:C6	2.46	0.51
1:AA:189(J):G:O2'	1:AA:189(K):U:H5'	2.10	0.51
31:DA:565:C:H4'	31:DA:1253:A:C6	2.46	0.51
4:AD:108:LEU:N	4:AD:108:LEU:HD12	2.26	0.51
31:BA:1215:G:C2'	31:BA:1216:G:H5'	2.40	0.51
34:BE:70:ALA:O	34:BE:73:GLU:HA	2.11	0.51
1:CA:1381:U:C2'	1:CA:1382:C:H5'	2.40	0.51
31:DA:733:G:H8	31:DA:733:G:O5'	1.94	0.51
31:BA:2611:U:C6	31:BA:2611:U:H5'	2.46	0.51
1:AA:952:U:H4'	1:AA:964:A:H61	1.76	0.51
31:BA:1814:G:H2'	31:BA:1815:A:C8	2.45	0.51
1:CA:1258:G:H2'	1:CA:1259:C:C6	2.47	0.51
37:DH:24:VAL:HB	37:DH:35:VAL:HB	1.93	0.51
38:DI:35:LEU:O	38:DI:36:ALA:HB2	2.11	0.51
14:CN:23:ARG:NH1	14:CN:30:ALA:HB2	2.26	0.51
11:CK:72:ALA:O	11:CK:77:MET:HB2	2.11	0.51
31:DA:1400:G:C6	31:DA:1401:G:C6	2.99	0.51
31:BA:1351:C:H4'	31:BA:1572:A:O4'	2.11	0.51
30:D8:29:LYS:O	30:D8:32:LEU:N	2.43	0.50
30:D8:34:TRP:O	30:D8:35:GLN:CB	2.51	0.50
55:DA:3320:TEL:O5	55:DA:3320:TEL:C14	2.30	0.50
31:DA:745:G:C2'	31:DA:746:A:H5'	2.41	0.50
41:DP:96:THR:HG22	41:DP:126:VAL:HG23	1.92	0.50
28:B6:32:ASN:O	28:B6:33:LYS:HB2	2.11	0.50
31:BA:2442:C:H2'	31:BA:2443:C:C6	2.46	0.50
31:BA:2580:U:O2	31:BA:2580:U:H2'	2.10	0.50
29:B7:16:HIS:HB3	29:B7:44:PRO:HG2	1.94	0.50
31:BA:1570:A:H2'	31:BA:1571:A:C8	2.46	0.50
31:DA:1394:U:C4	31:DA:1395:A:C5	2.98	0.50
31:DA:848:G:H5'	31:DA:848:G:C8	2.43	0.50
39:DN:56:ASN:HA	39:DN:125:GLY:N	2.26	0.50
39:DN:56:ASN:HA	39:DN:125:GLY:H	1.75	0.50
39:DN:40:PRO:CB	46:DU:68:ALA:HB2	2.41	0.50
47:DV:5:VAL:HG21	47:DV:36:PRO:HG2	1.92	0.50
37:BH:70:THR:HG22	37:BH:74:ASN:HD21	1.75	0.50
24:B2:44:LEU:O	24:B2:47:ASN:ND2	2.44	0.50
49:BX:78:LYS:H	49:BX:78:LYS:HD3	1.76	0.50
31:BA:2809:A:C2'	31:BA:2810:A:H5'	2.40	0.50
31:BA:1721:G:H5'	31:BA:1722:A:OP2	2.11	0.50
1:AA:39:G:C6	1:AA:40:C:C4	2.98	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:328:C:C2'	1:CA:328:C:O2	2.58	0.50
1:CA:47:C:O2	1:CA:49:U:C4	2.65	0.50
1:CA:509:A:H5''	4:CD:55:ALA:HB2	1.92	0.50
31:BA:1280:G:C6	31:BA:1281:G:C5	3.00	0.50
31:BA:1320:C:H4'	31:BA:1321:A:OP1	2.10	0.50
31:DA:2586:C:C5	31:DA:2608:G:N2	2.79	0.50
33:DD:209:ALA:C	33:DD:210:GLY:O	2.49	0.50
39:BN:66:LYS:O	39:BN:68:GLU:N	2.44	0.50
31:DA:2658:C:C2'	31:DA:2658:C:O2	2.58	0.50
37:DH:164:TYR:C	37:DH:166:GLY:H	2.13	0.50
31:DA:2808:U:C2'	31:DA:2809:A:C5'	2.88	0.50
31:BA:815:C:H2'	31:BA:816:C:H6	1.76	0.50
47:BV:36:PRO:HD2	47:BV:60:GLU:O	2.11	0.50
31:DA:962:G:C2'	31:DA:963:U:H5'	2.42	0.50
42:DQ:82:ARG:O	42:DQ:83:MET:HB2	2.12	0.50
1:AA:1277:C:H2'	1:AA:1278:U:H5'	1.92	0.50
22:D0:74:ARG:HH22	32:DB:13:A:C5'	2.24	0.50
1:AA:674:G:H2'	1:AA:675:A:C8	2.46	0.50
1:AA:683:G:C2	1:AA:708:C:N3	2.79	0.50
1:AA:738:C:H2'	1:AA:739:C:H6	1.76	0.50
27:B5:51:TYR:HB3	27:B5:52:TYR:CE2	2.46	0.50
31:DA:2043:C:C2	31:DA:2044:C:C5	3.00	0.50
27:D5:36:CYS:HB2	27:D5:49:CYS:SG	2.51	0.50
27:D5:40:LYS:HZ2	27:D5:46:CYS:H	1.59	0.50
31:DA:1659:U:C2'	31:DA:1660:C:H5'	2.41	0.50
1:AA:658:G:C4	1:AA:659:U:C5	2.99	0.50
1:CA:577:G:N3	1:CA:578:C:C6	2.79	0.50
31:DA:902:C:O2'	31:DA:903:C:H5'	2.11	0.50
43:BR:2:ARG:HB2	43:BR:5:LYS:HE3	1.93	0.50
31:BA:960:A:C8	31:BA:962:G:C8	2.99	0.50
1:AA:342:C:H2'	1:AA:343:U:O4'	2.10	0.50
9:CI:114:TYR:CE1	10:CJ:60:ARG:O	2.64	0.50
1:AA:586:C:O2'	1:AA:878:G:H4'	2.11	0.50
36:BG:120:LEU:O	36:BG:181:ARG:HB2	2.12	0.50
40:DO:101:PRO:HD2	45:DT:70:VAL:CG2	2.41	0.50
31:BA:1505:C:C6	31:BA:1505:C:C3'	2.94	0.50
45:BT:28:VAL:HG21	45:BT:46:GLU:CG	2.41	0.50
1:AA:270:A:C5	1:AA:271:C:C5	2.99	0.50
2:CB:173:ALA:HA	2:CB:176:GLU:HG3	1.92	0.50
31:BA:2829:C:C3'	31:BA:2830:G:H5''	2.40	0.50
33:BD:150:LYS:HE3	33:BD:150:LYS:HA	1.94	0.50
31:BA:2652:C:H2'	31:BA:2653:U:C5'	2.38	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:B0:26:TYR:HE2	31:BA:857:C:H1'	1.76	0.50
31:DA:2469:A:O2'	42:DQ:56:ARG:CG	2.59	0.50
1:AA:1496:C:H2'	1:AA:1497:G:O4'	2.11	0.50
18:CR:32:ARG:HA	18:CR:69:THR:HG21	1.93	0.50
31:DA:36:G:C6	31:DA:37:C:C4	2.99	0.50
31:DA:117:G:C6	31:DA:119:A:C6	2.99	0.50
36:BG:141:PHE:O	36:BG:143:GLU:N	2.44	0.50
31:DA:1940:U:C4	31:DA:1964:G:H4'	2.46	0.50
1:AA:538:G:P	12:AL:115:LYS:HB2	2.50	0.50
1:CA:805:C:O2'	1:CA:806:C:H5'	2.11	0.50
31:BA:2022:U:HO2'	31:BA:2617:C:H5'	1.74	0.50
31:BA:2099:U:H3	31:BA:2190:G:H1	1.59	0.50
1:AA:640:A:C2'	1:AA:641:U:H5'	2.40	0.50
31:BA:648:G:C2'	31:BA:649:G:H5'	2.40	0.50
1:AA:38:G:H4'	1:AA:547:A:N6	2.26	0.50
37:BH:130:ARG:HB2	37:BH:130:ARG:CZ	2.41	0.50
31:DA:628:G:C6	31:DA:629:G:C6	2.98	0.50
35:BF:9:ILE:HG12	35:BF:14:PRO:C	2.31	0.50
11:CK:48:ILE:HG21	11:CK:63:LEU:HD13	1.93	0.50
27:B5:22:HIS:CD2	31:BA:2046:G:O2'	2.64	0.50
38:BI:84:GLY:O	38:BI:85:GLU:CB	2.59	0.50
1:CA:1462:G:H2'	1:CA:1463:C:C6	2.46	0.50
4:CD:190:ASP:O	4:CD:191:ARG:C	2.48	0.50
37:DH:83:TYR:O	37:DH:84:SER:OG	2.26	0.50
40:BO:69:ILE:HD12	40:BO:69:ILE:N	2.27	0.50
31:DA:975:C:H2'	31:DA:975:C:O2	2.11	0.50
47:DV:83:ARG:HG3	47:DV:83:ARG:HH11	1.75	0.50
37:BH:99:VAL:O	37:BH:99:VAL:HG12	2.10	0.50
25:B3:4:LEU:O	25:B3:36:VAL:HA	2.11	0.50
1:AA:1334:G:C8	1:AA:1334:G:OP2	2.65	0.50
31:BA:2741:A:H2'	31:BA:2742:C:O4'	2.11	0.50
30:D8:22:VAL:HB	30:D8:53:PRO:HB3	1.94	0.50
31:DA:2392:A:C2	31:DA:2429:G:C2	2.99	0.50
30:D8:27:THR:HA	41:DP:62:LEU:HD11	1.92	0.50
31:BA:2360:A:O2'	31:BA:2361:A:H5''	2.11	0.50
55:BA:3362:TEL:C10	55:BA:3362:TEL:C12	2.89	0.50
31:BA:675:A:C4	31:BA:804:A:C2	2.99	0.50
41:BP:71:VAL:HG13	41:BP:72:PRO:HD3	1.90	0.50
31:BA:1568:G:OP1	33:BD:63:ARG:NH2	2.41	0.50
33:BD:24:ILE:HD11	33:BD:83:GLU:HA	1.93	0.50
36:BG:16:ARG:CB	36:BG:16:ARG:HH11	2.24	0.50
31:DA:142(A):C:H2'	31:DA:143:G:O4'	2.10	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:71:A:H2	49:DX:31:HIS:NE2	2.09	0.50
49:DX:36:LYS:O	49:DX:38:GLU:N	2.44	0.50
49:DX:84:ALA:C	49:DX:86:GLY:N	2.64	0.50
41:BP:86:LYS:HB2	41:BP:117:GLU:O	2.11	0.50
41:BP:90:ARG:O	41:BP:91:PHE:CB	2.59	0.50
31:DA:1159:U:H2'	31:DA:1160:G:H8	1.76	0.50
31:DA:997:G:O2'	31:DA:998:C:H5'	2.10	0.50
46:DU:83:LEU:CB	46:DU:88:ILE:HD11	2.39	0.50
24:B2:32:LEU:C	24:B2:32:LEU:HD12	2.30	0.50
31:BA:1343:G:H1	31:BA:1404:C:H42	1.60	0.50
31:BA:2631:G:N3	31:BA:2810:A:H2	2.10	0.50
31:BA:2811:G:H22	31:BA:2891:G:H1'	1.74	0.50
44:DS:97:ARG:O	44:DS:97:ARG:NE	2.42	0.50
1:AA:104:G:O2'	1:AA:105:G:H5'	2.11	0.50
4:AD:61:LYS:HD3	4:AD:62:GLN:N	2.26	0.50
1:CA:49:U:C4	1:CA:364:A:C5	3.00	0.50
1:CA:426:G:OP1	4:CD:38:TYR:OH	2.18	0.50
5:CE:101:ILE:HD13	5:CE:118:ILE:O	2.10	0.50
31:DA:1429:G:C5	31:DA:1568:G:C6	2.99	0.50
31:DA:764:A:H5''	33:DD:210:GLY:CA	2.40	0.50
31:DA:2544:G:O2'	31:DA:2545:G:H5'	2.11	0.50
31:DA:2563:U:O2	31:DA:2565:A:H8	1.93	0.50
31:BA:527:C:OP2	31:BA:2779:U:C5	2.55	0.50
31:DA:2785:C:H2'	31:DA:2786:U:H6	1.75	0.50
31:DA:2811:G:H22	31:DA:2891:G:H1'	1.75	0.50
31:BA:1795:C:H2'	31:BA:1796:U:C6	2.46	0.50
47:BV:32:THR:HG22	47:BV:33:VAL:N	2.20	0.50
31:DA:84:A:H3'	50:DY:9:LYS:HB2	1.93	0.50
31:BA:1508:A:OP1	31:BA:1509(A):A:C2	2.63	0.50
1:AA:331:G:OP1	1:AA:332:G:H8	1.94	0.50
1:AA:358:U:C2'	1:AA:359:U:O5'	2.60	0.50
33:DD:143:HIS:HD2	33:DD:144:ALA:HB2	1.76	0.50
6:AF:8:ILE:HG23	6:AF:85:VAL:HG13	1.93	0.50
1:AA:659:U:O2	1:AA:659:U:H2'	2.11	0.50
1:CA:1054:C:O2'	1:CA:1055:A:H5''	2.12	0.50
1:CA:1064:G:H4'	1:CA:1065:U:O5'	2.12	0.50
1:CA:1096:C:C2	1:CA:1097:C:C5	2.99	0.50
1:CA:1190:G:H3'	3:CC:3:ASN:ND2	2.27	0.50
4:AD:20:TYR:HD2	4:AD:26:CYS:CB	2.23	0.50
4:AD:31:CYS:O	4:AD:31:CYS:SG	2.69	0.50
15:CO:39:LEU:CD1	15:CO:56:LEU:HB2	2.40	0.50
32:DB:78:A:C2	32:DB:100:A:C4	2.99	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:909:A:H2'	31:BA:912:C:C5	2.39	0.50
1:AA:818:G:N1	1:AA:820:U:O2'	2.44	0.50
15:AO:55:GLY:HA2	15:AO:58:MET:HE3	1.93	0.50
1:AA:963:G:H21	10:AJ:55:LYS:HE2	1.76	0.50
38:DI:102:SER:N	38:DI:109:ILE:HD11	2.26	0.50
10:CJ:50:ILE:HG12	14:CN:41:ARG:HD3	1.93	0.50
1:CA:552:U:C4'	12:CL:86:ARG:HD2	2.41	0.50
31:DA:2870:C:H2'	31:DA:2871:C:C5'	2.34	0.50
45:DT:28:VAL:HG21	45:DT:46:GLU:CD	2.32	0.50
31:DA:78:A:C6	31:DA:109:G:C6	2.99	0.50
31:DA:1558:A:H1'	31:DA:1559:G:OP2	2.11	0.50
35:BF:158:THR:HG23	35:BF:160:ASN:H	1.76	0.50
13:CM:34:LEU:CD1	13:CM:41:PRO:HG3	2.41	0.50
31:BA:1884:A:C2	31:BA:1885:A:C4	3.00	0.50
31:DA:2841:C:H2'	31:DA:2842:G:H8	1.76	0.50
31:BA:856:C:H2'	31:BA:857:C:H6	1.76	0.50
5:AE:57:LYS:O	5:AE:61:TYR:CD2	2.64	0.50
1:CA:159:G:H2'	1:CA:161:A:OP2	2.11	0.50
31:DA:1131:G:OP2	31:DA:2515:C:H4'	2.10	0.50
45:BT:23:ARG:CB	45:BT:24:PRO:HD2	2.33	0.50
31:DA:271(K):U:H2'	31:DA:271(M):G:N2	2.25	0.50
31:DA:542:C:C2'	31:DA:543:C:OP1	2.57	0.50
1:AA:80:G:N1	1:AA:89:C:N4	2.57	0.50
2:AB:219:VAL:HA	2:AB:222:ILE:CD1	2.40	0.50
12:CL:42:THR:OG1	12:CL:52:LEU:HB3	2.11	0.50
13:AM:10:PRO:HG2	13:AM:18:ALA:HB1	1.93	0.50
51:DZ:130:PRO:HA	51:DZ:133:ILE:HG13	1.93	0.50
1:AA:166:G:H2'	1:AA:167:G:C8	2.44	0.50
31:DA:1933:G:C2'	31:DA:1934:C:O5'	2.59	0.50
45:DT:24:PRO:HA	45:DT:49:VAL:HG13	1.92	0.50
31:BA:128:C:H4'	31:BA:129:C:OP1	2.11	0.50
31:BA:129:C:H5''	31:BA:129:C:H6	1.76	0.50
13:AM:39:ILE:HD12	13:AM:56:LEU:HD23	1.93	0.50
1:AA:1313:U:H3	1:AA:1324:A:H61	1.59	0.50
31:DA:1374:G:C5	31:DA:1375:C:C4	2.99	0.50
1:CA:581:G:N3	1:CA:582:U:C5	2.78	0.50
31:DA:2192:G:C2'	31:DA:2193:G:H5'	2.42	0.50
6:CF:44:GLY:O	6:CF:45:LEU:C	2.49	0.50
1:AA:397:A:C6	1:AA:548:G:N7	2.80	0.50
1:CA:44:G:H2'	1:CA:45:U:O4'	2.10	0.50
1:CA:1480:G:C5	1:CA:1481:U:C5	2.99	0.50
1:CA:278:G:C1'	1:CA:282:A:H1'	2.41	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1562:A:H2'	31:DA:1563:G:C8	2.46	0.50
35:BF:78:ILE:H	35:BF:78:ILE:HD13	1.77	0.50
4:AD:108:LEU:HD11	4:AD:174:LEU:HD22	1.93	0.50
35:BF:170:LEU:HD23	35:BF:172:TRP:CZ2	2.46	0.50
34:DE:13:ARG:HA	34:DE:21:VAL:O	2.11	0.50
31:BA:2577:A:H5''	31:BA:2578:G:H5'	1.92	0.50
3:CC:77:ILE:O	3:CC:83:ARG:HB3	2.11	0.50
42:BQ:57:HIS:CE1	42:BQ:116:GLU:HB3	2.46	0.50
1:CA:421:U:N3	3:CC:127:ARG:NH1	2.59	0.50
35:DF:51:THR:HG21	35:DF:92:PRO:HD2	1.93	0.50
1:CA:636:U:H5'	17:CQ:2:PRO:HG3	1.92	0.50
27:D5:58:LEU:O	27:D5:59:GLU:HB3	2.11	0.50
31:DA:725:G:O5'	31:DA:725:G:H8	1.95	0.50
19:AS:45:VAL:O	19:AS:45:VAL:HG23	2.12	0.50
7:AG:75:VAL:HG21	7:AG:144:MET:HB3	1.93	0.50
41:BP:47:ASP:HB3	41:BP:48:PRO:CA	2.40	0.50
33:BD:83:GLU:HB2	33:BD:92:ILE:CD1	2.40	0.50
36:BG:28:VAL:HB	36:BG:29:TRP:CD1	2.46	0.50
31:DA:1403:C:H2'	31:DA:1404:C:O5'	2.12	0.50
31:DA:1469:A:H2'	31:DA:1470:G:H8	1.77	0.50
25:D3:11:SER:HG	25:D3:13:ILE:HG12	1.75	0.50
47:DV:18:LEU:HD22	47:DV:19:LYS:CA	2.41	0.50
47:DV:22:VAL:O	47:DV:23:GLU:CB	2.49	0.50
46:DU:102:GLU:HG3	47:DV:2:PHE:CZ	2.46	0.50
31:BA:2889:C:H2'	31:BA:2891:G:O4'	2.12	0.50
34:BE:55:ASN:ND2	34:BE:75:VAL:HG21	2.26	0.50
33:DD:233:HIS:CD2	33:DD:233:HIS:N	2.79	0.50
44:DS:52:SER:HB2	44:DS:55:ALA:HB3	1.94	0.50
4:AD:134:ASP:O	4:AD:136:PRO:HD3	2.11	0.50
1:CA:1430:C:C5'	31:DA:1704:G:H5''	2.41	0.50
31:DA:1705:G:C5	31:DA:1706:U:C4	2.99	0.50
33:DD:35:LYS:N	33:DD:64:ILE:HG23	2.26	0.50
39:BN:28:THR:HA	39:BN:106:MET:HE2	1.94	0.50
39:BN:42:TRP:H	46:BU:64:ARG:NH2	2.09	0.50
39:BN:87:LEU:HD23	39:BN:87:LEU:O	2.12	0.50
46:BU:31:SER:HB3	46:BU:34:LYS:HB2	1.93	0.50
31:BA:535:C:O3'	46:BU:53:ARG:NH1	2.44	0.50
1:AA:193:C:O2'	1:AA:194:C:H5'	2.11	0.50
31:BA:2704:C:H2'	31:BA:2705:A:O4'	2.12	0.50
4:AD:205:GLU:CD	5:AE:107:ARG:HH21	2.15	0.50
20:CT:30:LYS:HG3	20:CT:34:LYS:HE3	1.94	0.50
47:BV:66:ARG:HD2	47:BV:68:LYS:N	2.26	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:BV:73:SER:N	47:BV:88:ARG:HH22	2.09	0.50
47:BV:75:PHE:CD1	47:BV:89:GLN:HB3	2.44	0.50
50:DY:14:LEU:O	50:DY:72:VAL:HA	2.10	0.50
31:DA:1503:U:C4	31:DA:1504:C:N4	2.79	0.50
31:BA:1433:U:O2'	31:BA:1434:A:H5'	2.11	0.50
31:BA:1473:G:C5	31:BA:1474:C:C4	3.00	0.50
31:BA:1210:A:O5'	31:BA:1212:G:H5'	2.11	0.50
22:D0:10:THR:HG23	31:DA:2277:G:OP2	2.10	0.50
43:BR:12:ARG:HB3	43:BR:16:HIS:HB3	1.94	0.50
18:AR:74:ARG:HG3	18:AR:79:LEU:CB	2.37	0.50
1:AA:1418:A:H5''	1:AA:1419:G:OP2	2.12	0.50
42:BQ:75:THR:HG21	42:BQ:85:LYS:HE3	1.93	0.50
31:BA:66:C:C2	31:BA:89:G:C2	3.00	0.50
31:BA:2385:C:C2'	31:BA:2386:C:H5'	2.41	0.50
1:AA:28:G:C6	1:AA:29:G:C5	2.99	0.50
31:BA:962:G:O2'	31:BA:963:U:H5'	2.12	0.50
35:DF:205:ARG:O	35:DF:206:ILE:HG13	2.11	0.50
10:CJ:50:ILE:HA	10:CJ:60:ARG:CB	2.40	0.50
31:DA:2051:A:H5'	31:DA:2578:G:O4'	2.10	0.50
31:DA:688:U:O2	31:DA:787:U:H4'	2.12	0.50
31:DA:271(D):G:C2	31:DA:271(E):U:C2	3.00	0.50
48:BW:47:VAL:HA	48:BW:50:VAL:HG12	1.92	0.50
48:BW:20:VAL:CG2	48:BW:47:VAL:HG21	2.41	0.50
1:AA:1201:A:C1'	1:AA:1202:G:OP2	2.59	0.50
1:CA:659:U:N3	1:CA:660:G:N7	2.58	0.50
1:AA:450:G:OP1	16:AP:43:LYS:NZ	2.41	0.50
1:AA:651:C:O2'	1:AA:652:U:H5'	2.10	0.50
3:AC:106:VAL:HG12	3:AC:108:ASN:C	2.32	0.50
2:AB:20:GLU:HG3	2:AB:189:ASP:OD2	2.11	0.50
31:BA:2061:G:N3	31:BA:2063:C:C5	2.79	0.50
31:BA:2094:G:H2'	31:BA:2094:G:N3	2.25	0.50
1:CA:950:U:H2'	1:CA:951:G:H8	1.77	0.50
10:AJ:30:SER:HB2	10:AJ:80:LYS:HG3	1.92	0.50
6:AF:5:GLU:O	6:AF:7:ASN:ND2	2.44	0.50
31:DA:2600:A:H2'	31:DA:2601:C:H6	1.74	0.50
31:DA:363(D):G:C6	31:DA:363(E):U:C4	2.99	0.50
19:AS:6:LYS:HD2	19:AS:6:LYS:N	2.27	0.50
16:AP:70:ALA:O	16:AP:74:LEU:HG	2.10	0.50
3:CC:125:GLU:CD	3:CC:189:ALA:HA	2.32	0.50
35:DF:28:ILE:HG12	35:DF:119:ARG:HH21	1.77	0.50
6:AF:3:ARG:HD3	6:AF:64:GLN:OE1	2.10	0.50
7:AG:50:ILE:O	7:AG:54:THR:O	2.29	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:2714:G:H8	31:BA:2714:G:OP1	1.94	0.50
31:BA:255:A:C6	31:BA:256:A:C5	2.99	0.50
12:AL:38:THR:HG21	12:AL:65:GLU:OE2	2.11	0.50
17:CQ:45:HIS:HB2	17:CQ:65:ILE:HG12	1.94	0.50
31:BA:272(C):G:C2	31:BA:366:C:O2	2.64	0.50
11:AK:34:ASP:HB2	11:AK:35:PRO:HD2	1.92	0.50
1:AA:604:G:H2'	1:AA:605:U:O4'	2.10	0.50
31:DA:1754:C:H2'	31:DA:1755:A:O4'	2.11	0.50
36:BG:17:PRO:O	36:BG:21:ARG:HB3	2.11	0.50
2:CB:35:GLU:HA	2:CB:39:ILE:O	2.11	0.50
31:DA:561:G:O2'	46:DU:45:TYR:HE2	1.94	0.50
31:DA:1221:C:H2'	31:DA:1221(A):C:H6	1.75	0.50
12:CL:89:ARG:HA	12:CL:97:ARG:HA	1.93	0.50
1:CA:921:U:C2'	1:CA:922:G:OP2	2.58	0.50
30:D8:43:GLN:O	30:D8:44:LYS:CD	2.57	0.50
31:DA:2070:G:H2'	31:DA:2071:A:O4'	2.11	0.50
31:DA:2287:A:H2	31:DA:2346:A:H2	1.57	0.50
31:DA:828:U:C3'	31:DA:828:U:O2	2.59	0.50
31:BA:449:A:OP1	35:BF:84:VAL:O	2.30	0.50
41:BP:10:PRO:CD	41:BP:11:GLY:N	2.75	0.50
31:BA:1245:G:H5''	41:BP:16:ARG:NH2	2.25	0.50
33:BD:93:ALA:HB3	33:BD:105:ILE:HG23	1.94	0.50
44:BS:97:ARG:HH21	44:BS:98:VAL:HA	1.76	0.50
31:BA:1341:U:O4'	49:BX:57:LEU:HD11	2.12	0.50
49:BX:89:ILE:HD12	49:BX:92:LEU:HD12	1.93	0.50
31:DA:1899:G:C2'	31:DA:1900:A:OP2	2.59	0.50
32:DB:51:G:OP2	44:DS:62:LYS:HE2	2.11	0.50
1:CA:104:G:O2'	1:CA:105:G:H5'	2.11	0.50
8:CH:107:LEU:HD23	8:CH:107:LEU:H	1.75	0.50
31:DA:1796:U:O3'	33:DD:256:GLY:HA2	2.11	0.50
31:DA:764:A:O4'	33:DD:213:ARG:HG3	2.11	0.50
33:DD:16:MET:CG	33:DD:211:ARG:HH21	2.24	0.50
31:BA:1142(A):A:N7	31:BA:1144:G:C6	2.79	0.50
31:DA:2655:G:N3	31:DA:2664:G:O6	2.44	0.50
31:BA:570:G:H2'	31:BA:2030:A:C5	2.46	0.50
31:BA:729:G:OP2	33:BD:208:LYS:NZ	2.44	0.50
33:BD:159:ALA:O	33:BD:161:THR:N	2.44	0.50
31:DA:1508:A:OP1	31:DA:1509(A):A:C2	2.64	0.50
31:BA:2090:G:C6	31:BA:2091:U:C4	3.00	0.50
1:CA:445:G:H1	1:CA:489:C:H42	1.59	0.50
1:AA:322:C:H5	1:AA:328:C:C5	2.29	0.50
31:DA:2625:G:H2'	31:DA:2626:C:C6	2.47	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:958:U:C5'	42:BQ:14:ARG:HD3	2.41	0.50
42:BQ:16:ARG:HG2	42:BQ:17:LEU:H	1.75	0.50
1:CA:1095:U:H2'	1:CA:1096:C:C6	2.46	0.50
1:CA:1060:C:O2	1:CA:1198:G:C2	2.63	0.50
34:DE:167:VAL:HG22	34:DE:168:MET:H	1.77	0.50
31:BA:971:C:C2'	31:BA:972:G:H5'	2.42	0.50
2:AB:24:TRP:HZ3	2:AB:26:PRO:HA	1.75	0.50
31:BA:94:C:O2	31:BA:94:C:H2'	2.10	0.50
11:AK:123:LYS:HA	11:AK:126:ARG:HB3	1.94	0.50
15:AO:39:LEU:CD2	15:AO:42:HIS:HD2	2.24	0.50
45:BT:88:ILE:CG2	45:BT:89:VAL:N	2.67	0.50
1:CA:975:A:H61	10:CJ:48:THR:HB	1.77	0.50
31:BA:1833:U:O2	31:BA:1969:A:H2	1.95	0.50
24:D2:14:ARG:NE	24:D2:15:LYS:H	2.09	0.50
31:BA:1412:A:H3'	31:BA:1413:G:C8	2.46	0.50
31:BA:1412:A:O5'	31:BA:1412:A:H8	1.94	0.50
45:BT:52:ILE:HA	45:BT:61:PHE:HA	1.93	0.50
45:BT:22:PHE:CE2	45:BT:85:LYS:HE3	2.46	0.50
1:AA:124:G:C6	1:AA:125:U:N3	2.79	0.50
14:AN:4:LYS:HD2	14:AN:7:ILE:CD1	2.42	0.50
31:BA:2831:G:O4'	31:BA:2883:A:C2	2.64	0.50
39:BN:128:HIS:CD2	39:BN:131:GLN:HB2	2.46	0.50
1:CA:658:G:O2'	1:CA:659:U:H5'	2.10	0.50
31:DA:2579:C:C4	31:DA:2580:U:C5	3.00	0.50
49:DX:40:LYS:CG	49:DX:41:ASN:H	2.25	0.50
9:AI:105:ASP:C	9:AI:107:ARG:H	2.14	0.50
51:BZ:154:ASP:C	51:BZ:155:LEU:HG	2.31	0.50
1:AA:1158:C:O2	1:AA:1158:C:H2'	2.10	0.50
31:BA:542:C:H42	31:BA:543:C:N4	2.07	0.50
29:D7:19:ARG:HG2	29:D7:19:ARG:HH11	1.77	0.50
31:DA:51:G:N3	31:DA:119:A:C2	2.79	0.50
33:BD:11:PRO:O	33:BD:12:SER:CB	2.60	0.50
23:D1:37:ILE:O	23:D1:38:SER:HB2	2.11	0.50
31:BA:2092:U:C5	31:BA:2226:C:OP1	2.63	0.50
31:BA:2223:G:H2'	31:BA:2224:G:H5'	1.93	0.50
31:DA:756:C:C2'	31:DA:757:U:H5'	2.41	0.50
10:CJ:80:LYS:HB2	10:CJ:80:LYS:NZ	2.27	0.50
5:AE:35:GLY:HA3	5:AE:112:LEU:HB3	1.94	0.50
31:BA:1303:G:H1'	31:BA:1641:A:C2	2.46	0.50
50:DY:2:ARG:C	50:DY:4:LYS:N	2.64	0.50
1:AA:719:C:H3'	1:AA:720:C:H6	1.75	0.50
1:AA:719:C:H5	1:AA:720:C:C4	2.30	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1562:A:C2	31:DA:1563:G:C4	3.00	0.50
31:DA:1263:U:H2'	31:DA:1264:G:C8	2.47	0.50
51:BZ:63:ASP:C	51:BZ:65:GLN:H	2.14	0.50
4:AD:4:TYR:O	4:AD:5:ILE:HB	2.11	0.50
31:DA:2247:A:H2'	31:DA:2248:C:C6	2.47	0.50
31:BA:2498:C:O2'	31:BA:2499:C:H5'	2.12	0.50
34:DE:65:GLY:C	34:DE:67:PHE:H	2.15	0.50
36:DG:151:ALA:HB3	36:DG:153:ARG:HH12	1.76	0.50
3:CC:127:ARG:HD2	3:CC:127:ARG:N	2.26	0.50
7:AG:69:VAL:HG12	7:AG:69:VAL:O	2.10	0.50
43:BR:62:ALA:O	43:BR:66:VAL:HG23	2.12	0.50
19:CS:24:ALA:O	19:CS:25:LYS:HB2	2.11	0.50
5:CE:79:GLU:HB3	5:CE:92:LYS:HG3	1.92	0.50
8:AH:95:VAL:HG12	8:AH:99:GLU:HB2	1.93	0.50
10:AJ:90:LEU:N	10:AJ:91:PRO:HD3	2.25	0.50
1:CA:1136:U:H2'	1:CA:1136:U:O2	2.10	0.50
17:AQ:26:GLN:O	17:AQ:27:PHE:HB3	2.12	0.50
31:DA:2704:C:H2'	31:DA:2705:A:O4'	2.11	0.50
31:DA:258:G:C6	31:DA:259:G:N7	2.79	0.50
31:DA:649:G:H2'	31:DA:650:C:C6	2.46	0.50
31:DA:648:G:C2'	31:DA:649:G:H5'	2.42	0.50
31:DA:606:U:H4'	31:DA:658:C:H4'	1.93	0.50
31:DA:661:C:C4'	41:DP:18:ARG:HG2	2.41	0.50
31:DA:827:U:H2'	31:DA:2068:U:C2	2.47	0.50
28:B6:27:LYS:HG3	31:BA:2285:C:H5''	1.92	0.50
30:B8:34:TRP:O	30:B8:35:GLN:CB	2.49	0.50
30:B8:30:ARG:HH21	41:BP:62:LEU:CB	2.23	0.50
31:BA:48:G:O2'	31:BA:118:A:N1	2.40	0.50
33:BD:65:ILE:CD1	33:BD:67:PHE:CE1	2.89	0.50
44:BS:88:ASP:O	44:BS:92:TYR:HD2	1.95	0.50
31:DA:1450:G:C6	31:DA:1450(A):C:C4	3.00	0.50
31:DA:1450(A):C:N4	31:DA:1451:C:H41	2.08	0.50
47:DV:25:LEU:N	47:DV:94:LEU:CD1	2.75	0.50
47:DV:62:LEU:CB	47:DV:98:GLU:HA	2.23	0.50
24:B2:37:PHE:CE2	24:B2:40:SER:HA	2.46	0.50
24:B2:46:GLN:C	24:B2:48:HIS:N	2.62	0.50
31:BA:1342:A:O2'	31:BA:1344:G:OP2	2.21	0.50
31:DA:1313:U:C2'	31:DA:1610:A:C2	2.93	0.50
31:DA:1826:G:H2'	31:DA:1827:C:C6	2.47	0.50
31:BA:2859:G:O2'	31:BA:2860:A:P	2.70	0.50
32:DB:26:A:C5	32:DB:27:C:H5	2.29	0.50
1:CA:407:G:H4'	4:CD:115:ARG:O	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:729:G:O5'	33:DD:208:LYS:NZ	2.41	0.50
31:DA:729:G:OP2	33:DD:208:LYS:NZ	2.45	0.50
39:BN:91:LEU:HD23	39:BN:98:VAL:HG21	1.94	0.50
46:BU:83:LEU:HB3	46:BU:88:ILE:CD1	2.38	0.50
31:DA:2522:U:O2'	31:DA:2647:U:H5''	2.10	0.50
31:BA:763:G:O2'	31:BA:764:A:H3'	2.11	0.50
1:CA:189(B):C:O2'	1:CA:189(C):C:H5'	2.12	0.50
1:CA:706:A:H2	11:CK:42:TRP:CD1	2.29	0.50
31:BA:304:G:O2'	31:BA:305:U:H5'	2.11	0.50
22:D0:41:ARG:HB2	31:DA:2330:G:O2'	2.11	0.50
31:BA:356:G:N2	31:BA:357:A:N3	2.59	0.50
31:BA:622:G:H2'	31:BA:623:G:O4'	2.11	0.50
1:CA:445:G:N3	1:CA:446:G:C8	2.79	0.50
27:B5:6:VAL:HG13	27:B5:7:PRO:HD2	1.92	0.50
31:DA:1044:G:C6	31:DA:1112:G:N1	2.71	0.50
50:BY:76:CYS:CB	50:BY:77:PRO:CD	2.90	0.50
1:CA:1084:G:OP1	1:CA:1086:U:C5	2.64	0.50
1:AA:1085:U:C6	1:AA:1094:G:N1	2.80	0.50
12:AL:25:PRO:O	12:AL:27:LEU:HD22	2.10	0.50
1:AA:343:U:O2'	1:AA:346:G:O6	2.22	0.50
31:BA:1831:G:H2'	31:BA:1832:C:C6	2.46	0.50
12:CL:60:LEU:HD22	12:CL:60:LEU:H	1.76	0.50
31:DA:2523:G:C2'	31:DA:2524:G:C5'	2.78	0.50
31:DA:2574:G:C6	31:DA:2575:C:N3	2.79	0.50
24:D2:57:ILE:CG1	24:D2:59:ARG:HH11	2.24	0.50
31:BA:1410:G:H2'	31:BA:1411:C:C5	2.47	0.50
31:BA:1412:A:C8	31:BA:1412:A:O5'	2.65	0.50
1:CA:236:G:C5	1:CA:237:C:C5	2.99	0.50
31:BA:1484:G:H1	31:BA:1506:C:N4	2.07	0.50
35:BF:124:LEU:HD12	35:BF:125:LEU:H	1.75	0.50
37:BH:52:VAL:CG1	37:BH:69:ARG:HG3	2.42	0.50
10:CJ:40:LEU:HD23	10:CJ:40:LEU:H	1.75	0.50
31:BA:753:C:H2'	31:BA:754:C:H6	1.76	0.50
34:DE:201:THR:CG2	34:DE:202:LYS:N	2.74	0.50
11:CK:84:VAL:HG11	11:CK:95:ILE:HD11	1.93	0.50
31:BA:792:G:N3	31:BA:2072:G:O2'	2.34	0.50
12:CL:46:LYS:HD3	12:CL:94:PRO:HG3	1.93	0.50
31:DA:2022:U:HO2'	31:DA:2617:C:H5'	1.74	0.50
19:CS:6:LYS:HD2	19:CS:6:LYS:N	2.27	0.50
51:DZ:149:SER:CB	51:DZ:173:ALA:HA	2.41	0.50
31:DA:1889:A:H1'	31:DA:2087:G:O4'	2.12	0.50
1:AA:758:G:H5''	1:AA:880:C:H1'	1.93	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:640:A:C2'	1:CA:641:U:H5'	2.41	0.50
18:AR:53:ARG:NH2	18:AR:60:ALA:N	2.59	0.50
34:DE:70:ALA:O	34:DE:73:GLU:N	2.44	0.50
31:BA:1751:C:O2'	31:BA:1752:C:H5'	2.11	0.50
31:BA:524:U:H2'	31:BA:525:U:C6	2.47	0.50
46:BU:114:LYS:O	46:BU:117:GLN:N	2.45	0.50
51:DZ:41:LEU:O	51:DZ:42:VAL:C	2.50	0.50
1:AA:1136:U:H2'	1:AA:1136:U:O2	2.11	0.50
4:AD:59:ARG:NE	4:AD:59:ARG:HA	2.26	0.50
47:BV:45:THR:HG22	47:BV:45:THR:O	2.11	0.50
31:BA:628:G:H2'	31:BA:629:G:C8	2.47	0.50
31:DA:508:G:C5'	31:DA:509:C:OP1	2.59	0.50
30:D8:4:MET:HE1	31:DA:593:G:C1'	2.41	0.50
31:DA:1268:A:H2'	31:DA:1269:A:O4'	2.11	0.50
31:DA:2069:G:O2'	31:DA:2070:G:H5'	2.11	0.50
31:DA:588:U:H2'	31:DA:589:C:H6	1.74	0.50
31:DA:637:A:H4'	31:DA:638:G:O5'	2.12	0.50
31:DA:802:A:H2'	31:DA:803:U:C6	2.46	0.50
35:DF:75:HIS:CE1	35:DF:82:ILE:HD12	2.46	0.50
31:DA:588:U:C2	35:DF:90:PHE:CD1	2.98	0.50
31:DA:1187:G:H5''	47:DV:82:ARG:NH1	2.27	0.50
31:BA:1656:C:O2'	31:BA:1657:C:H5'	2.12	0.50
49:DX:32:PRO:HA	49:DX:75:ASP:HB2	1.94	0.50
49:DX:73:ARG:O	49:DX:75:ASP:N	2.45	0.50
47:DV:35:LEU:CD2	47:DV:61:VAL:HG22	2.42	0.50
31:BA:1458:C:O4'	31:BA:1458:C:O2	2.29	0.50
31:BA:1528:A:C2	31:BA:1544:A:N6	2.79	0.50
36:DG:110:ALA:O	36:DG:114:ILE:HD11	2.12	0.50
1:CA:1430:C:H5'	31:DA:1704:G:H5'	1.94	0.50
1:CA:60:A:N3	1:CA:61:G:H1'	2.26	0.50
31:BA:1286:A:C6	31:BA:1329:U:C2	3.00	0.50
31:BA:1313:U:C2'	31:BA:1610:A:C2	2.91	0.50
31:DA:1568:G:N3	33:DD:58:HIS:CE1	2.80	0.50
37:DH:140:LYS:O	37:DH:141:VAL:C	2.49	0.50
25:B3:8:LEU:CD1	25:B3:31:LEU:HD23	2.20	0.50
46:BU:33:ARG:O	46:BU:37:GLU:HG3	2.12	0.50
1:AA:224:C:H2'	1:AA:225:C:H6	1.77	0.50
31:BA:1651:G:C6	31:BA:1652:A:C5	3.00	0.50
31:BA:781:A:H5'	33:BD:219:PRO:HG2	1.94	0.50
47:BV:19:LYS:C	47:BV:20:LEU:HG	2.32	0.50
47:BV:93:GLU:O	47:BV:94:LEU:HB2	2.11	0.50
11:CK:85:ARG:HA	11:CK:112:THR:OG1	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:D0:40:GLN:NE2	22:D0:43:THR:CA	2.73	0.50
31:DA:2335:A:N7	31:DA:2337:G:C5	2.80	0.50
27:D5:16:ARG:HH12	27:D5:17:ASP:CG	2.13	0.50
1:AA:676:A:C4	1:AA:677:U:C5	2.99	0.50
31:BA:2681:C:O2	31:BA:2681:C:H2'	2.11	0.50
1:AA:784:C:C4'	31:BA:1837:C:OP1	2.51	0.50
31:BA:2680:C:OP2	34:BE:111:ARG:NH2	2.41	0.50
34:DE:171:GLU:O	34:DE:184:VAL:HA	2.11	0.50
1:CA:883:C:N4	1:CA:884:U:O4	2.45	0.50
31:BA:864:G:O2'	31:BA:865:C:H5'	2.11	0.50
45:BT:88:ILE:HG22	45:BT:89:VAL:H	1.75	0.50
45:BT:38:ASN:C	45:BT:38:ASN:HD22	2.14	0.50
40:BO:113:LYS:O	40:BO:117:LEU:HB2	2.10	0.50
31:DA:478:A:N6	31:DA:502:A:N6	2.60	0.50
13:AM:12:ASN:OD1	13:AM:46:LYS:HE2	2.12	0.50
1:CA:1201:A:C1'	1:CA:1202:G:OP2	2.59	0.50
24:B2:14:ARG:HH11	24:B2:57:ILE:CG2	2.23	0.50
24:B2:15:LYS:HA	24:B2:18:PRO:CD	2.42	0.50
31:DA:2072:G:H2'	31:DA:2073:C:O4'	2.12	0.50
2:AB:67:THR:OG1	2:AB:155:LEU:HG	2.12	0.50
48:BW:18:ARG:NH1	48:BW:18:ARG:CG	2.71	0.50
45:DT:22:PHE:CZ	45:DT:85:LYS:HE3	2.46	0.50
31:DA:1434:A:N6	31:DA:1558:A:N6	2.52	0.50
31:BA:271(O):C:O2	31:BA:271(P):C:C5	2.64	0.50
31:DA:1173:G:H3'	31:DA:1174:A:C5'	2.41	0.50
2:AB:173:ALA:HA	2:AB:176:GLU:HG3	1.93	0.50
47:DV:51:VAL:HG12	47:DV:52:VAL:N	2.26	0.50
1:AA:1350:A:OP1	9:AI:121:ARG:HG3	2.12	0.50
33:DD:2:ALA:HB3	33:DD:20:ASP:HB2	1.94	0.50
45:DT:106:SER:CB	45:DT:110:ILE:HD11	2.42	0.50
1:AA:1497:G:C2'	1:AA:1498:U:H5'	2.41	0.50
31:BA:2886:G:H2'	31:BA:2887:U:C6	2.38	0.50
1:AA:564:C:C5	17:AQ:31:LEU:HD21	2.47	0.50
31:DA:1839:G:C8	31:DA:1927:A:C1'	2.93	0.50
22:B0:18:ALA:HB2	31:BA:2272:U:OP2	2.12	0.50
31:DA:811:U:O2	31:DA:1250:G:H3'	2.11	0.50
1:CA:792:A:H4'	1:CA:793:U:O5'	2.12	0.50
31:DA:2086:U:H2'	31:DA:2087:G:C8	2.46	0.50
1:CA:997:U:H2'	1:CA:998:G:H8	1.76	0.50
35:DF:126:VAL:HG11	35:DF:142:TRP:CH2	2.46	0.50
35:DF:9:ILE:HG12	35:DF:14:PRO:C	2.32	0.50
1:CA:1350:A:OP1	9:CI:121:ARG:HG3	2.12	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:620:C:C2'	1:CA:621:A:H5'	2.42	0.50
1:CA:811:C:H4'	1:CA:900:A:H62	1.76	0.50
31:BA:2448:A:OP1	31:BA:2499:C:OP1	2.30	0.50
1:AA:1381:U:C2'	1:AA:1382:C:H5'	2.42	0.50
35:BF:115:ALA:O	35:BF:118:ALA:HB3	2.11	0.50
5:AE:145:LYS:O	5:AE:149:GLU:HG2	2.12	0.50
31:BA:1817:G:C6	31:BA:1818:U:C4	3.00	0.50
1:AA:1006:C:H42	1:AA:1024:G:H21	1.57	0.50
8:CH:119:LEU:HB2	8:CH:124:ALA:HB2	1.93	0.50
11:CK:50:TYR:HB3	11:CK:54:ARG:O	2.11	0.50
31:DA:1230:C:O5'	31:DA:1230:C:H6	1.94	0.50
38:DI:18:VAL:HG12	38:DI:18:VAL:O	2.11	0.50
31:DA:2063:C:C5	31:DA:2064:C:C5	3.00	0.50
31:DA:2445:G:OP1	35:DF:74:ARG:NH2	2.45	0.50
41:DP:23:PRO:HB2	41:DP:33:ARG:CG	2.20	0.50
28:B6:23:THR:HG21	31:BA:2419:U:H4'	1.93	0.50
28:B6:25:LYS:O	31:BA:2286:A:C2	2.57	0.50
30:B8:29:LYS:O	30:B8:32:LEU:N	2.45	0.50
30:B8:31:HIS:O	30:B8:33:ASN:N	2.45	0.50
31:BA:2415:G:O2'	31:BA:2416:C:H5'	2.12	0.50
31:BA:513:A:N1	31:BA:514:A:C5	2.80	0.50
31:BA:593:G:H2'	31:BA:594:U:C6	2.47	0.50
44:BS:20:ARG:NH1	44:BS:87:PHE:C	2.65	0.50
41:BP:85:LEU:HD12	41:BP:120:ALA:HB2	1.92	0.50
31:DA:1162:G:H1'	47:DV:91:TYR:OH	2.11	0.50
31:DA:814:C:N3	31:DA:1194:A:C2	2.80	0.50
47:DV:27:ALA:HB1	47:DV:64:HIS:CD2	2.47	0.50
31:BA:1404:C:O2	31:BA:1404:C:H2'	2.12	0.50
31:BA:1459:G:C5	31:BA:1461:G:C8	2.99	0.50
33:DD:231:HIS:CG	33:DD:232:PRO:HD2	2.46	0.50
32:DB:45:A:C2'	32:DB:46:A:H5'	2.42	0.50
1:AA:105:G:H2'	1:AA:106:C:C6	2.46	0.50
1:CA:543:C:H2'	1:CA:544:G:O4'	2.12	0.50
50:BY:8:LYS:NZ	50:BY:72:VAL:O	2.40	0.50
45:DT:102:ILE:O	45:DT:103:ARG:C	2.49	0.50
33:DD:35:LYS:CA	33:DD:64:ILE:CG2	2.90	0.50
33:DD:85:ASP:HB2	33:DD:92:ILE:CG1	2.39	0.50
33:DD:94:LEU:HD22	33:DD:94:LEU:C	2.32	0.50
43:DR:63:ARG:HA	43:DR:80:PHE:CE2	2.46	0.50
31:BA:1187:G:H5''	47:BV:82:ARG:NH1	2.27	0.50
31:DA:2637:U:O2'	31:DA:2638:G:H5'	2.11	0.50
33:BD:43:ARG:NH1	33:BD:44:ASN:ND2	2.60	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1162:G:H1'	47:BV:91:TYR:OH	2.12	0.50
50:DY:63:LYS:O	50:DY:64:GLU:O	2.30	0.50
31:DA:1505:C:H3'	31:DA:1505:C:C6	2.41	0.50
1:CA:682:G:H1'	1:CA:709:G:N2	2.27	0.50
51:DZ:97:GLU:O	51:DZ:98:MET:HB3	2.12	0.50
27:D5:16:ARG:NH1	27:D5:16:ARG:CG	2.70	0.50
51:BZ:149:SER:CB	51:BZ:173:ALA:HA	2.41	0.50
1:AA:115:G:H1	1:AA:312:C:H42	1.59	0.50
33:DD:133:LEU:HD13	33:DD:173:VAL:HG11	1.92	0.50
39:BN:17:ASP:C	39:BN:17:ASP:OD2	2.49	0.50
31:BA:956:G:OP2	42:BQ:14:ARG:NH2	2.45	0.50
3:AC:182:ILE:HG23	3:AC:202:ILE:C	2.32	0.50
36:DG:76:SER:CB	36:DG:83:ARG:HB3	2.33	0.50
22:B0:41:ARG:HD3	22:B0:44:ARG:HD3	1.94	0.50
1:AA:1102:A:C2'	1:AA:1103:C:H5'	2.41	0.50
2:AB:114:ARG:O	2:AB:118:LEU:HG	2.12	0.50
3:AC:47:LEU:HD23	3:AC:52:LEU:HD13	1.93	0.50
32:DB:80:U:H2'	32:DB:81:G:N2	2.23	0.50
24:B2:57:ILE:HG12	24:B2:59:ARG:HH11	1.71	0.50
38:BI:130:TYR:CB	38:BI:136:VAL:HG13	2.42	0.50
11:AK:105:VAL:O	11:AK:106:LYS:C	2.50	0.50
48:DW:42:ARG:C	48:DW:44:ALA:N	2.65	0.50
48:BW:43:GLY:O	48:BW:47:VAL:HG23	2.12	0.50
31:BA:1487:G:H2'	31:BA:1488:G:O5'	2.12	0.50
31:BA:343:C:O2	31:BA:343:C:H2'	2.11	0.50
45:BT:29:ARG:HG2	45:BT:85:LYS:CA	2.42	0.50
1:AA:237:C:O2'	1:AA:238:G:H5'	2.11	0.50
33:BD:70:TRP:CZ3	33:BD:150:LYS:HE3	2.46	0.50
31:BA:456:C:C4	49:BX:66:LEU:HD22	2.47	0.50
31:DA:2485:G:H5''	42:DQ:46:GLN:HE21	1.77	0.50
31:BA:1024:G:C3'	31:BA:1025:G:H5''	2.39	0.50
1:AA:1285:A:OP1	1:AA:1285:A:H8	1.95	0.50
18:CR:69:THR:O	18:CR:70:ILE:C	2.50	0.50
31:DA:1625:C:H2'	31:DA:1626:G:O4'	2.12	0.50
17:AQ:33:GLY:O	17:AQ:34:LYS:C	2.49	0.50
36:BG:55:LYS:O	36:BG:59:GLU:HB2	2.12	0.50
51:DZ:157:LEU:HD13	51:DZ:161:VAL:HG12	1.92	0.50
31:BA:1693:U:H1'	33:BD:14:ARG:NH2	2.26	0.50
1:CA:646:U:H2'	1:CA:647:C:C6	2.47	0.50
4:CD:173:TRP:CE3	4:CD:193:ASP:HB3	2.46	0.50
1:CA:1314:C:H5	19:CS:6:LYS:HZ3	1.58	0.50
23:D1:8:SER:HB3	31:DA:1364:G:OP1	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1845:G:H2'	31:DA:1846:G:H5'	1.92	0.50
31:BA:1349:A:H5'	31:BA:1349:A:N3	2.27	0.50
1:AA:240:C:H2'	1:AA:241:C:C6	2.47	0.50
4:CD:104:VAL:HG13	4:CD:108:LEU:HD13	1.94	0.50
33:DD:66:ASP:OD2	33:DD:69:ARG:HG2	2.12	0.50
16:CP:70:ALA:O	16:CP:74:LEU:HG	2.11	0.50
1:CA:487:A:H2'	1:CA:488:C:O4'	2.12	0.50
31:DA:1545:A:H2'	31:DA:1546:C:C5'	2.41	0.50
35:BF:127:GLU:CA	35:BF:127:GLU:OE1	2.60	0.50
31:BA:817:C:H2'	31:BA:818:G:C8	2.47	0.50
1:CA:1121:U:H3	1:CA:1152:A:H2	1.60	0.50
1:CA:872:A:C4	1:CA:874:G:N7	2.80	0.50
1:CA:875:C:H3'	1:CA:876:G:H5''	1.94	0.50
8:AH:119:LEU:HB2	8:AH:124:ALA:HB2	1.93	0.50
2:CB:59:GLU:HB2	2:CB:221:LEU:CD1	2.42	0.50
1:CA:910:C:H2'	1:CA:911:U:O4'	2.12	0.50
31:BA:2512:C:H2'	31:BA:2513:G:O4'	2.11	0.50
35:DF:93:LYS:HB3	35:DF:94:PRO:HD2	1.93	0.50
1:AA:638:G:O2'	1:AA:639:G:H5'	2.11	0.50
1:CA:1521:G:H2'	1:CA:1522:U:C6	2.47	0.50
1:CA:927:G:OP2	1:CA:1503:A:N9	2.45	0.50
28:D6:11:LEU:HD11	28:D6:26:ASN:ND2	2.27	0.50
28:D6:12:GLU:HB3	28:D6:23:THR:CG2	2.38	0.50
31:DA:258:G:C4	31:DA:259:G:C8	3.00	0.50
41:DP:41:ARG:HA	41:DP:41:ARG:CZ	2.41	0.50
31:BA:2069:G:H2'	31:BA:2070:G:H5'	1.94	0.50
31:BA:241:A:O4'	31:BA:243:U:C6	2.65	0.50
24:D2:52:ASP:OD1	31:DA:76:C:O4'	2.30	0.50
31:BA:637:A:OP1	41:BP:133:SER:HB3	2.11	0.50
31:DA:1005:C:O2'	39:DN:28:THR:CG2	2.58	0.50
46:DU:62:ILE:HA	46:DU:65:ILE:HD12	1.92	0.50
31:DA:1608:A:H1'	31:DA:1610:A:OP2	2.11	0.50
31:BA:1710:C:O2'	31:BA:1711:C:H5'	2.12	0.50
44:DS:74:ALA:CB	44:DS:103:GLU:HG3	2.21	0.50
44:DS:89:ARG:C	44:DS:92:TYR:HB3	2.32	0.50
4:AD:100:ARG:O	4:AD:103:ASN:N	2.40	0.50
4:AD:102:ASP:HA	4:AD:121:VAL:HG21	1.94	0.50
1:CA:1465:C:H2'	1:CA:1466:C:O4'	2.11	0.50
1:CA:378:G:O6	1:CA:385:C:N4	2.44	0.50
16:CP:6:LEU:HD23	16:CP:17:TYR:CG	2.47	0.50
50:BY:11:ASP:OD1	50:BY:28:LYS:HE2	2.12	0.50
33:DD:32:SER:O	33:DD:33:LEU:CB	2.60	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1353:A:H5''	33:DD:38:LYS:NZ	2.26	0.50
31:BA:995:C:N3	39:BN:4:TYR:CZ	2.79	0.50
31:BA:1186:G:H2'	31:BA:1187:G:O4'	2.11	0.50
31:DA:2773:C:H2'	31:DA:2774:C:H6	1.76	0.50
31:BA:1810:A:H2'	31:BA:1811:G:O4'	2.11	0.50
1:CA:184:G:N2	1:CA:194:C:C2	2.80	0.50
31:BA:842:G:N2	31:BA:937:U:C2	2.79	0.50
2:CB:163:PHE:HD2	2:CB:185:ILE:HG13	1.77	0.50
31:DA:2335:A:C8	31:DA:2337:G:N7	2.80	0.50
31:BA:658:C:H2'	31:BA:659:C:C6	2.46	0.50
1:AA:428:G:H5'	1:AA:430:A:O4'	2.11	0.50
20:AT:26:ASN:HB3	20:AT:71:THR:OG1	2.12	0.50
31:DA:2222:G:H5''	33:DD:186:HIS:CE1	2.46	0.50
31:BA:205:G:O2'	31:BA:206:U:P	2.70	0.50
1:CA:1099:G:C2	1:CA:1100:C:C2	3.00	0.50
2:CB:24:TRP:HZ3	2:CB:26:PRO:HA	1.75	0.50
28:B6:13:CYS:O	28:B6:21:TYR:HA	2.12	0.50
31:DA:856:C:H2'	31:DA:857:C:C6	2.46	0.50
1:AA:975:A:H61	10:AJ:48:THR:HB	1.76	0.50
24:B2:14:ARG:NE	24:B2:15:LYS:H	2.09	0.50
45:BT:65:LYS:CG	45:BT:66:VAL:H	2.25	0.50
31:DA:271(P):C:C2	31:DA:271(Q):G:N7	2.79	0.50
11:AK:21:ILE:N	11:AK:83:ILE:O	2.43	0.50
36:BG:110:ALA:O	36:BG:114:ILE:HD11	2.11	0.50
31:BA:1173:G:H3'	31:BA:1174:A:C5'	2.42	0.50
31:BA:271(F):C:H42	31:BA:271(R):G:H1	1.60	0.50
31:BA:271(G):C:O2	31:BA:271(G):C:H2'	2.11	0.50
33:BD:136:ILE:HD12	33:BD:136:ILE:N	2.26	0.50
8:AH:11:THR:HG22	8:AH:15:ASN:ND2	2.26	0.50
31:DA:2476:A:N3	31:DA:2477:C:C6	2.80	0.50
31:DA:2472:G:C6	31:DA:2477:C:OP1	2.65	0.50
11:CK:82:VAL:HB	11:CK:108:ILE:HG12	1.94	0.50
6:CF:79:LEU:CB	6:CF:88:VAL:HG21	2.41	0.50
18:AR:32:ARG:HA	18:AR:69:THR:HG21	1.92	0.50
12:AL:41:ARG:HG2	12:AL:42:THR:N	2.23	0.50
16:CP:48:TRP:HD1	16:CP:48:TRP:H	1.59	0.50
36:BG:139:LEU:HA	36:BG:144:ILE:HG23	1.92	0.50
9:AI:17:VAL:CG1	9:AI:81:ILE:HD13	2.40	0.50
31:DA:1949:G:H2'	31:DA:1950:G:C8	2.46	0.50
42:BQ:111:GLU:O	42:BQ:115:MET:HB2	2.11	0.50
1:CA:458:C:H2'	1:CA:460:G:H8	1.77	0.50
40:DO:46:ALA:O	40:DO:47:ILE:HB	2.12	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CJ:30:SER:HB2	10:CJ:80:LYS:HG3	1.94	0.50
31:DA:1853:A:N1	31:DA:2087:G:H1'	2.27	0.50
1:CA:665:A:H1'	1:CA:733:A:O4'	2.12	0.50
31:DA:2850:A:OP2	31:DA:2866:U:C5	2.62	0.50
31:DA:836:G:C5	31:DA:837:C:C5	3.00	0.50
1:CA:836:G:C6	1:CA:851:G:C6	2.99	0.50
50:BY:68:HIS:ND1	50:BY:70:SER:HB3	2.27	0.50
40:BO:86:ILE:O	40:BO:87:ILE:HD13	2.12	0.50
35:BF:155:LEU:HD22	35:BF:186:ILE:HA	1.93	0.50
45:BT:128:GLU:OE1	45:BT:129:ARG:N	2.45	0.50
23:B1:54:ALA:O	23:B1:56:GLN:N	2.44	0.50
1:AA:725:G:C2	1:AA:726:C:C6	3.00	0.50
1:CA:1425:U:H2'	1:CA:1426:C:C6	2.47	0.50
2:AB:112:VAL:HG22	2:AB:149:LEU:HD13	1.93	0.50
21:AU:6:ARG:HG2	21:AU:15:ARG:NH1	2.27	0.50
15:CO:28:GLN:O	15:CO:32:LEU:HG	2.12	0.50
31:BA:412:A:H2'	31:BA:413:C:H5'	1.94	0.50
1:CA:1272:G:C6	1:CA:1273:G:N7	2.80	0.50
1:AA:137:C:N3	1:AA:227:G:C2	2.80	0.50
31:DA:1631(A):A:C2'	31:DA:1632:A:H5'	2.42	0.50
31:DA:2674:G:O3'	40:DO:30:ALA:HA	2.11	0.50
11:CK:17:GLY:HA2	11:CK:35:PRO:HD3	1.93	0.50
8:AH:96:GLY:H	8:AH:99:GLU:CD	2.15	0.50
31:BA:523:C:H4'	31:BA:540:C:O2	2.12	0.50
31:DA:2813:A:C6	31:DA:2814:C:C4	3.00	0.50
31:DA:338:G:H2'	31:DA:339:U:H6	1.76	0.50
8:CH:114:THR:HG23	8:CH:117:GLY:O	2.12	0.50
47:DV:45:THR:O	47:DV:45:THR:HG22	2.11	0.50
33:BD:48:ARG:O	33:BD:50:THR:HG23	2.12	0.50
3:CC:111:LEU:HD11	3:CC:145:GLY:O	2.12	0.50
36:DG:17:PRO:O	36:DG:21:ARG:HB3	2.11	0.50
31:DA:2052:G:C4	31:DA:2053:G:C8	3.00	0.50
31:DA:2058:A:N1	55:DA:3320:TEL:O48	2.30	0.50
41:BP:50:ARG:CG	41:BP:50:ARG:HH21	2.25	0.50
24:D2:37:PHE:CE2	24:D2:40:SER:HA	2.47	0.50
31:DA:1405:U:H2'	31:DA:1406:U:H6	1.72	0.50
31:DA:1528:A:H8	31:DA:1528(A):A:C5	2.28	0.50
49:DX:85:PRO:O	49:DX:87:GLN:N	2.45	0.50
41:BP:105:LEU:O	41:BP:106:LEU:HB2	2.11	0.50
25:D3:26:LEU:HD21	25:D3:46:ASN:HB2	1.94	0.50
31:BA:1405:U:H2'	31:BA:1406:U:H6	1.72	0.50
31:BA:1468:C:O2'	31:BA:1469:A:H5'	2.12	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:71:A:N7	31:BA:73:A:C2	2.80	0.50
49:BX:74:PRO:O	49:BX:75:ASP:O	2.30	0.50
1:CA:1470:G:O2'	1:CA:1471:G:H5'	2.11	0.50
31:DA:763:G:O2'	31:DA:764:A:H3'	2.12	0.50
33:DD:39:LYS:HB2	33:DD:62:TYR:HB2	1.93	0.50
39:BN:46:VAL:O	39:BN:47:ALA:HB3	2.12	0.50
46:BU:82:GLY:O	46:BU:113:ALA:HA	2.12	0.50
46:BU:92:ARG:NH1	47:BV:11:GLN:O	2.45	0.50
31:DA:2892:A:N7	31:DA:2893:G:C8	2.80	0.50
34:DE:59:VAL:CG2	34:DE:63:LEU:HA	2.37	0.50
31:BA:692:C:C2	31:BA:771:G:C2	2.99	0.50
7:CG:111:ARG:HB3	7:CG:113:GLU:HG2	1.94	0.50
31:DA:2309:A:N3	31:DA:2310:A:C2	2.79	0.50
23:B1:87:PRO:CB	23:B1:91:LYS:NZ	2.75	0.50
31:DA:1499:C:H2'	31:DA:1500:G:C5'	2.42	0.50
31:BA:1478:G:O2'	31:BA:1558:A:C2	2.64	0.50
31:BA:356:G:C2	31:BA:357:A:C4	3.00	0.50
32:DB:66:A:C6	32:DB:109:C:C5	3.00	0.50
31:DA:874:G:N2	31:DA:875:G:H1'	2.27	0.50
31:DA:2803:C:H2'	31:DA:2804:C:O4'	2.12	0.50
31:BA:2641:G:OP1	39:BN:75:TYR:CD2	2.65	0.50
39:BN:17:ASP:OD2	39:BN:19:GLU:HB3	2.11	0.50
42:DQ:88:GLY:O	42:DQ:90:VAL:N	2.45	0.50
31:BA:997:G:O2'	31:BA:998:C:H5'	2.11	0.50
31:DA:743:G:H2'	31:DA:744:G:C5'	2.37	0.50
31:BA:1678:G:N2	31:BA:1989:G:N2	2.46	0.50
31:DA:1293:C:H2'	31:DA:1294:U:H6	1.75	0.50
43:DR:12:ARG:HB3	43:DR:16:HIS:HB3	1.94	0.50
31:BA:821:A:H2'	31:BA:946:G:H5''	1.93	0.50
2:CB:170:GLU:O	2:CB:174:VAL:HG23	2.11	0.50
15:CO:53:HIS:O	15:CO:56:LEU:HB3	2.12	0.50
34:BE:93:VAL:C	34:BE:95:ILE:N	2.64	0.50
45:BT:89:VAL:CG1	45:BT:91:ARG:HE	2.22	0.50
10:AJ:54:PHE:CZ	10:AJ:55:LYS:NZ	2.80	0.50
31:BA:79:G:C5	31:BA:80:G:N7	2.80	0.50
31:DA:1786:A:N1	31:DA:2606:C:O4'	2.44	0.50
31:DA:271(T):C:C2'	31:DA:271(U):G:H5'	2.41	0.50
24:D2:14:ARG:O	24:D2:17:SER:N	2.44	0.50
38:DI:133:HIS:HB2	38:DI:134:PRO:HD2	1.89	0.50
48:DW:36:LEU:HD12	48:DW:48:ALA:HA	1.94	0.50
48:BW:44:ALA:O	48:BW:45:TYR:C	2.48	0.50
1:CA:125:U:H2'	1:CA:126:G:C8	2.47	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1060:C:C2	1:AA:1198:G:C2	3.00	0.50
31:DA:1434:A:N6	31:DA:1558:A:H62	2.05	0.50
9:CI:118:LYS:CB	9:CI:118:LYS:NZ	2.74	0.50
10:CJ:7:LYS:O	10:CJ:96:ILE:HA	2.11	0.50
48:DW:86:LEU:HD12	48:DW:87:PRO:O	2.12	0.50
36:BG:22:ARG:HD2	36:BG:23:PHE:CZ	2.47	0.50
37:DH:136:ILE:O	37:DH:136:ILE:HG22	2.11	0.50
10:AJ:96:ILE:HD13	10:AJ:96:ILE:N	2.27	0.50
34:DE:101:ARG:HB3	34:DE:169:ASN:HD22	1.75	0.50
11:CK:92:GLU:C	11:CK:94:ALA:H	2.14	0.50
31:DA:523:C:H4'	31:DA:540:C:O2	2.12	0.50
18:CR:65:ILE:HD12	18:CR:65:ILE:C	2.33	0.50
31:BA:38:A:C2	31:BA:442:G:C2	3.00	0.50
31:BA:2224:G:H4'	31:BA:2226:C:C2	2.46	0.50
1:CA:458:C:H2'	1:CA:460:G:C8	2.47	0.50
31:BA:2556:C:C2'	31:BA:2557:G:H5'	2.42	0.50
1:AA:458:C:H3'	1:AA:460:G:C8	2.47	0.50
35:BF:141:ALA:O	35:BF:144:LYS:HB3	2.11	0.50
31:DA:128:C:C6	31:DA:128:C:C3'	2.95	0.50
19:AS:6:LYS:HG2	19:AS:7:LYS:CD	2.39	0.50
31:DA:272(B):G:C2'	31:DA:272(C):G:O5'	2.60	0.50
6:AF:49:ALA:HB2	18:AR:78:LEU:C	2.33	0.50
3:CC:188:LEU:O	3:CC:189:ALA:HB2	2.12	0.50
22:B0:56:ASP:OD2	31:BA:2364:C:H4'	2.11	0.50
21:CU:22:ARG:N	21:CU:23:PRO:HD3	2.27	0.50
37:DH:158:HIS:NE2	37:DH:168:PRO:HB2	2.27	0.50
31:DA:2619:C:H2'	31:DA:2620:C:H6	1.76	0.50
1:CA:1150:U:C4	1:CA:1151:A:N7	2.80	0.50
2:CB:63:MET:HB3	2:CB:225:ALA:HB1	1.94	0.50
3:AC:170:GLN:HG2	3:AC:171:GLY:H	1.77	0.50
35:BF:51:THR:HG21	35:BF:92:PRO:HD2	1.94	0.50
2:AB:82:ARG:HG3	2:AB:92:TYR:CZ	2.47	0.50
25:B3:30:ARG:O	25:B3:33:GLN:HB3	2.12	0.50
10:CJ:90:LEU:N	10:CJ:91:PRO:HD3	2.27	0.50
31:BA:429:A:H2'	31:BA:430:G:C8	2.47	0.50
31:DA:624:C:C2'	31:DA:625:G:H5'	2.42	0.49
31:DA:974:G:C4	31:DA:989:G:C2	2.99	0.49
41:DP:112:LEU:H	41:DP:128:HIS:HD2	1.58	0.49
31:BA:191:A:H2'	31:BA:192:C:C6	2.47	0.49
31:BA:2071:A:H2	31:BA:2440:C:H41	1.60	0.49
31:BA:661:C:C4'	41:BP:18:ARG:HG2	2.41	0.49
31:BA:466:A:H2'	31:BA:467:G:H5'	1.94	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1718:G:C2	31:DA:1745:C:O2	2.64	0.49
31:DA:1468:C:O2'	31:DA:1469:A:H5'	2.12	0.49
49:DX:21:PHE:N	49:DX:21:PHE:CD1	2.77	0.49
34:BE:37:ARG:O	34:BE:45:THR:N	2.42	0.49
36:DG:20:ILE:HG23	36:DG:25:TYR:HB2	1.93	0.49
4:AD:111:ALA:HB2	4:AD:120:LEU:HD12	1.94	0.49
1:CA:330:C:H2'	1:CA:331:G:H5'	1.93	0.49
1:CA:358:U:C4	1:CA:359:U:O4	2.65	0.49
1:CA:509:A:O2'	1:CA:510:A:C8	2.64	0.49
1:CA:544:G:C6	1:CA:545:C:C4	3.00	0.49
31:BA:2319:G:C2	31:BA:2320:A:N1	2.80	0.49
31:DA:1799:G:O2'	31:DA:1800:C:OP2	2.25	0.49
31:DA:1811:G:C5	31:DA:1812:A:C8	3.00	0.49
32:BB:82:G:H2'	32:BB:83:G:H5'	1.94	0.49
23:D1:70:VAL:O	23:D1:73:LEU:HB2	2.12	0.49
31:BA:1131:G:C8	31:BA:2025:C:H4'	2.47	0.49
51:DZ:99:TYR:CE2	51:DZ:125:LEU:HD12	2.46	0.49
31:DA:868:U:C4	31:DA:869:G:N7	2.79	0.49
34:DE:52:LEU:HD13	34:DE:76:ARG:CG	2.42	0.49
51:BZ:151:HIS:CD2	51:BZ:170:THR:HG22	2.46	0.49
6:AF:55:ASP:HB2	6:AF:86:ARG:HH12	1.77	0.49
32:BB:13:A:C6	32:BB:70:C:H5'	2.46	0.49
32:BB:15:A:C5'	32:BB:16:G:H8	2.16	0.49
32:BB:17:C:O2	32:BB:18:G:C8	2.65	0.49
1:CA:444:C:C2	1:CA:445:G:N7	2.80	0.49
1:AA:60:A:N3	1:AA:61:G:H1'	2.27	0.49
27:D5:42:PRO:O	27:D5:43:HIS:CB	2.56	0.49
1:CA:1097:C:O2'	1:CA:1098:C:H5'	2.12	0.49
22:B0:21:LEU:HD13	22:B0:41:ARG:HG3	1.93	0.49
31:BA:971:C:H2'	31:BA:972:G:C5'	2.41	0.49
31:BA:911:A:O5'	31:BA:912:C:H5''	2.12	0.49
1:AA:817:C:H4'	1:AA:818:G:OP1	2.12	0.49
1:AA:687:A:N1	1:AA:704:A:C5	2.80	0.49
1:AA:1226:C:OP1	13:AM:91:ARG:NH1	2.45	0.49
31:DA:271(G):C:H2'	31:DA:271(G):C:O2	2.11	0.49
36:BG:114:ILE:HG12	36:BG:140:ILE:HD12	1.94	0.49
48:BW:45:TYR:O	48:BW:48:ALA:HB3	2.12	0.49
31:DA:1593:G:C6	31:DA:1594:G:C5	3.00	0.49
31:DA:1972:A:H2'	31:DA:1973:G:C8	2.46	0.49
40:DO:63:VAL:HG23	40:DO:64:ARG:HG3	1.93	0.49
37:DH:19:VAL:HB	37:DH:44:VAL:HG13	1.94	0.49
1:AA:253:U:H2'	1:AA:254:G:H8	1.77	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:DV:47:VAL:CG1	47:DV:48:GLY:H	2.16	0.49
39:DN:128:HIS:HD2	39:DN:131:GLN:H	1.58	0.49
40:DO:2:ILE:HD11	40:DO:82:ASN:HB2	1.93	0.49
20:AT:100:ILE:O	20:AT:102:GLY:N	2.45	0.49
31:DA:2485:G:C2'	31:DA:2486:G:H5'	2.42	0.49
49:DX:40:LYS:HG3	49:DX:41:ASN:H	1.74	0.49
9:CI:65:VAL:HG21	9:CI:73:GLN:HB3	1.94	0.49
37:DH:32:GLU:O	37:DH:33:LEU:HD23	2.11	0.49
31:DA:2570:G:H2'	31:DA:2571:C:O4'	2.12	0.49
31:DA:184:C:C2	31:DA:185:U:C5	2.99	0.49
18:CR:31:LEU:O	18:CR:65:ILE:HD13	2.12	0.49
1:AA:155:C:H2'	1:AA:156:G:C8	2.47	0.49
45:DT:48:ILE:N	45:DT:48:ILE:HD12	2.27	0.49
1:CA:981:U:O4	1:CA:1222:G:O6	2.29	0.49
1:CA:458:C:N4	1:CA:474:G:H1	2.10	0.49
36:DG:141:PHE:O	36:DG:143:GLU:N	2.45	0.49
1:AA:458:C:H2'	1:AA:460:G:C8	2.47	0.49
31:BA:2192:G:C2'	31:BA:2193:G:H5'	2.42	0.49
43:DR:28:LEU:HD22	43:DR:28:LEU:O	2.11	0.49
1:CA:692:U:H2'	1:CA:694:A:OP2	2.12	0.49
31:DA:2364:C:C2'	31:DA:2365:G:H5'	2.41	0.49
16:CP:53:VAL:HG12	16:CP:79:VAL:CG2	2.42	0.49
31:DA:2880:C:HO2'	43:DR:90:ARG:HD3	1.77	0.49
31:DA:1849:G:N1	31:DA:1850:G:C5	2.80	0.49
34:BE:70:ALA:O	34:BE:71:GLY:C	2.50	0.49
31:BA:2835:A:N6	31:BA:2879:C:C6	2.79	0.49
34:BE:9:VAL:CG2	34:BE:10:GLY:N	2.75	0.49
2:AB:63:MET:HB3	2:AB:225:ALA:HB1	1.93	0.49
14:CN:23:ARG:CZ	14:CN:30:ALA:HB2	2.42	0.49
22:B0:37:LEU:C	22:B0:38:VAL:CG2	2.80	0.49
13:AM:49:THR:HG22	13:AM:51:ALA:H	1.77	0.49
9:AI:11:LYS:HG2	9:AI:11:LYS:O	2.11	0.49
12:AL:54:LYS:HD2	12:AL:54:LYS:N	2.27	0.49
31:DA:2716:U:O2'	31:DA:2717:G:H5'	2.12	0.49
31:DA:2442:C:H2'	31:DA:2443:C:C6	2.47	0.49
31:BA:389:G:N1	41:BP:71:VAL:HB	2.27	0.49
35:BF:75:HIS:CE1	35:BF:82:ILE:HD12	2.47	0.49
24:D2:54:LYS:H	24:D2:56:GLN:HG2	1.77	0.49
31:DA:1388:G:H2'	31:DA:1389:G:C8	2.45	0.49
31:DA:1462:C:H2'	31:DA:1462:C:O2	2.12	0.49
41:BP:143:GLY:CA	41:BP:145:PRO:HD3	2.42	0.49
31:DA:933:A:H2'	31:DA:934:G:C5'	2.42	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DN:28:THR:HA	39:DN:106:MET:HE2	1.94	0.49
47:DV:93:GLU:HG2	47:DV:94:LEU:H	1.77	0.49
24:B2:45:SER:HA	24:B2:47:ASN:ND2	2.27	0.49
31:BA:1462:C:H2'	31:BA:1462:C:O2	2.12	0.49
31:DA:2375:G:O2'	31:DA:2377:A:N7	2.35	0.49
36:DG:11:TYR:HD2	36:DG:12:TYR:CD1	2.30	0.49
1:CA:623:C:C4	1:CA:624:C:C5	3.00	0.49
31:DA:1682:G:H2'	31:DA:1683:C:C6	2.47	0.49
33:DD:35:LYS:HG2	33:DD:64:ILE:CG2	2.42	0.49
20:AT:104:LEU:O	20:AT:104:LEU:HD23	2.12	0.49
34:DE:63:LEU:O	34:DE:64:LYS:C	2.50	0.49
50:DY:41:GLY:O	50:DY:43:ASN:OD1	2.29	0.49
35:BF:5:ALA:HB2	35:BF:24:LEU:HD11	1.94	0.49
31:BA:84:A:N1	31:BA:98:G:O2'	2.34	0.49
48:BW:92:ARG:O	48:BW:93:ALA:CB	2.59	0.49
40:DO:93:PRO:HD3	40:DO:114:ILE:CD1	2.43	0.49
39:BN:71:ILE:HG22	39:BN:73:THR:H	1.77	0.49
27:D5:31:VAL:CG1	27:D5:42:PRO:HG3	2.42	0.49
3:CC:173:VAL:HG13	3:CC:182:ILE:HD13	1.93	0.49
1:CA:1099:G:H2'	1:CA:1099:G:N3	2.27	0.49
1:AA:1109:C:H2'	1:AA:1110:A:O4'	2.12	0.49
2:CB:178:ARG:NH1	2:CB:196:LEU:O	2.39	0.49
34:BE:111:ARG:CA	43:BR:2:ARG:HG3	2.36	0.49
31:DA:919:G:H4'	32:DB:81:G:H4'	1.94	0.49
34:DE:160:TYR:HD2	34:DE:161:GLY:N	2.10	0.49
50:DY:81:LYS:HB3	50:DY:96:ILE:HG22	1.94	0.49
31:BA:1048:A:OP2	31:BA:1110:G:N2	2.45	0.49
36:BG:82:LEU:CB	36:BG:87:PRO:HG3	2.39	0.49
38:DI:94:ALA:O	38:DI:98:ALA:HB2	2.12	0.49
1:CA:1058:G:H2'	1:CA:1059:C:O4'	2.12	0.49
31:BA:797:C:H2'	31:BA:798:G:H8	1.76	0.49
31:BA:773:U:H5''	33:BD:47:GLY:HA2	1.94	0.49
45:DT:20:PRO:O	45:DT:22:PHE:HD2	1.95	0.49
45:BT:30:VAL:HG22	45:BT:84:GLN:O	2.11	0.49
1:AA:236:G:C6	1:AA:237:C:C4	3.00	0.49
39:DN:134:ARG:HG3	39:DN:134:ARG:O	2.12	0.49
8:CH:10:LEU:HD23	8:CH:10:LEU:H	1.76	0.49
31:DA:2485:G:H5''	42:DQ:46:GLN:NE2	2.27	0.49
9:CI:5:TYR:CD2	9:CI:18:PHE:CE2	3.00	0.49
31:DA:2477:C:C6	31:DA:2481:G:O6	2.65	0.49
1:AA:1250:A:H2	1:AA:1370:G:H1'	1.76	0.49
31:BA:10:G:N1	31:BA:2629:A:C8	2.80	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:79:G:H4'	1:AA:80:G:OP1	2.11	0.49
9:AI:65:VAL:HG21	9:AI:73:GLN:HB3	1.94	0.49
2:AB:17:PHE:CD1	2:AB:41:ILE:HG23	2.48	0.49
31:DA:584:C:OP2	46:DU:10:ARG:NH2	2.45	0.49
1:CA:458:C:H3'	1:CA:460:G:C8	2.48	0.49
31:BA:1991:U:C2'	31:BA:1992:G:H5''	2.42	0.49
31:DA:1487:G:H2'	31:DA:1488:G:O5'	2.12	0.49
9:AI:48:GLU:H	9:AI:49:PRO:HD2	1.76	0.49
16:AP:53:VAL:HG12	16:AP:79:VAL:CG2	2.42	0.49
12:AL:119:LYS:C	12:AL:120:TYR:HD1	2.15	0.49
18:CR:51:LEU:O	18:CR:63:GLN:NE2	2.45	0.49
42:DQ:34:LEU:HB3	42:DQ:104:PHE:HB2	1.95	0.49
31:BA:1850:G:H2'	31:BA:1851:U:H6	1.77	0.49
36:BG:94:LEU:CD1	36:BG:99:MET:HA	2.43	0.49
31:DA:1439:A:C2	31:DA:1553:A:C4	3.00	0.49
21:AU:6:ARG:O	21:AU:12:LYS:HD3	2.12	0.49
1:AA:655:A:C2'	1:AA:656:C:H5'	2.42	0.49
15:CO:28:GLN:O	15:CO:31:LEU:HB2	2.12	0.49
31:BA:1782:C:O4'	31:BA:2609:U:C2	2.64	0.49
31:BA:1805:U:O2'	31:BA:1806:C:H5'	2.12	0.49
1:CA:276:G:H2'	1:CA:277:C:H5'	1.93	0.49
31:DA:553:G:C6	31:DA:554:U:C4	2.99	0.49
13:AM:68:GLY:CA	13:AM:71:ARG:HB3	2.42	0.49
31:BA:1446:C:H3'	31:BA:1446:C:C6	2.46	0.49
31:BA:1248:G:N2	35:BF:88:VAL:HG23	2.27	0.49
31:BA:2674:G:H5''	40:BO:26:LYS:HE2	1.95	0.49
4:AD:181:MET:O	4:AD:181:MET:HG3	2.12	0.49
1:AA:763:G:H2'	1:AA:764:C:H6	1.77	0.49
31:DA:1260:G:H2'	31:DA:1261:C:C6	2.47	0.49
44:DS:80:LEU:HD12	44:DS:80:LEU:H	1.77	0.49
31:BA:2623:G:H2'	31:BA:2624:G:H8	1.77	0.49
50:BY:52:SER:C	50:BY:54:LYS:H	2.15	0.49
31:DA:662:G:O2'	31:DA:663:G:H5'	2.12	0.49
31:DA:810:U:C2	41:DP:31:ALA:O	2.66	0.49
41:DP:89:ALA:C	41:DP:91:PHE:H	2.16	0.49
30:B8:27:THR:HA	41:BP:62:LEU:HD11	1.94	0.49
31:BA:1204:A:N1	31:BA:1241:A:C2	2.80	0.49
31:BA:449:A:H2'	31:BA:450:G:C5'	2.42	0.49
41:BP:5:ASP:CG	41:BP:6:LEU:H	2.16	0.49
44:BS:28:VAL:O	44:BS:29:PHE:CB	2.60	0.49
44:BS:67:ARG:C	44:BS:69:VAL:H	2.15	0.49
24:D2:56:GLN:CA	24:D2:56:GLN:NE2	2.51	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:DX:21:PHE:CD2	49:DX:90:GLU:HA	2.46	0.49
25:D3:11:SER:HB3	31:DA:988:A:P	2.53	0.49
31:DA:1006:C:H1'	39:DN:106:MET:HB3	1.93	0.49
31:BA:68:G:C5	31:BA:69:C:C5	3.00	0.49
31:BA:1844:C:H2'	31:BA:1845:G:H8	1.77	0.49
36:DG:120:LEU:O	36:DG:181:ARG:HB2	2.12	0.49
36:DG:16:ARG:CA	36:DG:19:LEU:HD12	2.37	0.49
44:DS:88:ASP:O	44:DS:92:TYR:HD2	1.96	0.49
1:AA:375:U:H4'	16:AP:17:TYR:CE2	2.46	0.49
4:AD:78:LEU:HD13	4:AD:97:LEU:HD23	1.94	0.49
1:CA:392:G:O3'	16:CP:13:HIS:HE1	1.95	0.49
1:CA:495:A:H4'	1:CA:496:A:OP1	2.11	0.49
1:CA:55:A:C5	1:CA:56:U:C4	3.01	0.49
4:CD:90:GLY:O	4:CD:94:LEU:HG	2.12	0.49
4:CD:57:ARG:NH2	5:CE:107:ARG:HD3	2.26	0.49
16:CP:8:ARG:HG2	16:CP:9:PHE:N	2.27	0.49
50:BY:26:LYS:O	50:BY:28:LYS:N	2.44	0.49
31:BA:2297:C:N3	31:BA:2320:A:C8	2.81	0.49
45:BT:50:ILE:HA	45:BT:99:LEU:HD11	1.94	0.49
45:BT:50:ILE:HD13	45:BT:64:ARG:HB3	1.95	0.49
1:AA:224:C:C2	1:AA:225:C:C5	3.01	0.49
20:CT:56:MET:HG2	20:CT:84:LEU:HD13	1.95	0.49
47:BV:18:LEU:HD12	47:BV:98:GLU:OE1	2.12	0.49
47:BV:35:LEU:CD2	47:BV:61:VAL:HG22	2.42	0.49
22:D0:43:THR:HG22	31:DA:2331:G:O3'	2.12	0.49
31:DA:2386:C:H2'	31:DA:2387:U:O4'	2.11	0.49
31:DA:2094:G:H2'	31:DA:2094:G:N3	2.26	0.49
51:BZ:19:ARG:NH1	51:BZ:84:GLU:OE2	2.45	0.49
40:DO:98:VAL:CG1	40:DO:117:LEU:HB3	2.43	0.49
31:BA:2773:C:H2'	31:BA:2774:C:C6	2.47	0.49
31:DA:856:C:O2'	31:DA:857:C:P	2.70	0.49
34:BE:47:VAL:HG21	34:BE:84:PHE:CD1	2.47	0.49
1:CA:561:U:HO2'	1:CA:562:C:P	2.35	0.49
1:AA:1501:C:H5''	1:AA:1502:A:OP2	2.12	0.49
1:CA:1442:G:C6	1:CA:1442(B):A:C2	3.00	0.49
31:BA:83:G:H1	31:BA:102:G:H2'	1.76	0.49
31:DA:2536:G:N7	31:DA:2537:U:C5	2.80	0.49
1:CA:955:U:H2'	1:CA:956:U:H6	1.76	0.49
38:DI:113:ARG:HB3	38:DI:131:LYS:O	2.12	0.49
38:DI:136:VAL:O	38:DI:136:VAL:HG22	2.12	0.49
31:DA:1409:C:O2'	31:DA:1410:G:H5'	2.12	0.49
31:DA:1831:G:H2'	31:DA:1832:C:C6	2.47	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DO:13:ASN:ND2	40:DO:97:ARG:N	2.55	0.49
2:CB:97:TRP:HH2	2:CB:176:GLU:CD	2.14	0.49
9:AI:112:LYS:HA	9:AI:119:ALA:HA	1.94	0.49
31:BA:1886:C:H2'	31:BA:1887:C:C6	2.46	0.49
31:DA:152:G:H2'	31:DA:153:C:C6	2.48	0.49
31:DA:460:A:C2	31:DA:470:A:C5	3.00	0.49
31:DA:471:A:H2'	31:DA:472:A:O5'	2.13	0.49
1:CA:343:U:O2'	1:CA:346:G:O6	2.26	0.49
1:CA:877:C:C5'	8:CH:88:LYS:HE3	2.36	0.49
31:DA:34:C:O2'	31:DA:35:G:OP1	2.29	0.49
31:BA:548:A:O2'	31:BA:549:G:OP1	2.26	0.49
1:AA:1116:C:C4	1:AA:1117:G:C8	3.00	0.49
50:BY:2:ARG:N	50:BY:4:LYS:HG2	2.27	0.49
4:CD:149:ALA:HB3	4:CD:152:SER:OG	2.12	0.49
10:AJ:50:ILE:HG12	14:AN:41:ARG:HD3	1.94	0.49
31:DA:1419:A:O2'	31:DA:1421:G:N7	2.36	0.49
1:AA:523:A:N1	12:AL:92:ASP:HB2	2.28	0.49
31:BA:318:C:H2'	31:BA:319:C:H6	1.77	0.49
31:DA:272(B):G:O2'	31:DA:272(C):G:O4'	2.31	0.49
31:DA:296:C:H2'	31:DA:297:C:C6	2.45	0.49
7:AG:70:LYS:O	7:AG:138:LYS:HE3	2.12	0.49
48:BW:16:LYS:O	48:BW:19:LEU:HB2	2.12	0.49
11:CK:127:LYS:HA	11:CK:127:LYS:HE2	1.94	0.49
15:CO:4:THR:OG1	15:CO:7:GLU:HB2	2.12	0.49
11:CK:62:GLN:C	11:CK:64:ALA:N	2.65	0.49
31:BA:335:C:H2'	31:BA:336:C:H6	1.77	0.49
31:BA:272(B):G:H2'	31:BA:272(C):G:H8	1.77	0.49
2:AB:59:GLU:HB2	2:AB:221:LEU:CD1	2.42	0.49
31:DA:1399:C:O2'	31:DA:1400:G:H5'	2.12	0.49
27:D5:29:THR:O	27:D5:30:LEU:HD23	2.12	0.49
15:CO:69:TYR:HD1	15:CO:72:ARG:HH22	1.60	0.49
46:BU:5:LYS:O	46:BU:6:THR:C	2.51	0.49
34:DE:66:HIS:CG	34:DE:66:HIS:O	2.66	0.49
40:DO:69:ILE:HD12	40:DO:69:ILE:N	2.27	0.49
45:BT:58:ASN:C	45:BT:58:ASN:HD22	2.16	0.49
38:DI:64:GLU:O	38:DI:68:LEU:HB2	2.12	0.49
1:CA:607:A:O2'	1:CA:608:A:H5'	2.12	0.49
31:DA:197:A:N6	31:DA:2430:A:H2'	2.28	0.49
48:DW:88:ARG:HB3	48:DW:92:ARG:CB	2.35	0.49
30:B8:30:ARG:O	30:B8:31:HIS:O	2.30	0.49
31:BA:198:C:H5'	31:BA:2244:U:OP1	2.12	0.49
31:BA:2377:A:H2'	31:BA:2378:A:C8	2.47	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BG:16:ARG:O	36:BG:20:ILE:HG13	2.12	0.49
31:DA:1750:G:O2'	31:DA:2860:A:N1	2.40	0.49
24:D2:32:LEU:C	24:D2:32:LEU:HD12	2.31	0.49
31:DA:1341:U:C3'	31:DA:1397:U:O2	2.60	0.49
31:DA:1408:C:C2	31:DA:1595:G:N2	2.80	0.49
49:DX:36:LYS:NZ	49:DX:38:GLU:C	2.65	0.49
31:DA:1159:U:O2'	31:DA:1160:G:H5'	2.13	0.49
24:B2:32:LEU:HA	24:B2:37:PHE:HB2	1.94	0.49
24:B2:28:LYS:HG3	24:B2:37:PHE:CE1	2.47	0.49
31:BA:1461:G:H2'	31:BA:1461:G:N3	2.27	0.49
32:DB:28:C:OP1	44:DS:36:TYR:OH	2.24	0.49
4:AD:61:LYS:HB2	4:AD:203:VAL:HG13	1.95	0.49
1:CA:437:U:C5	1:CA:438:G:N7	2.80	0.49
20:CT:12:ALA:H	20:CT:13:LEU:HD12	1.77	0.49
31:DA:1684:C:C2	31:DA:1705:G:C2	3.01	0.49
31:BA:1288:U:H4'	31:BA:1289:C:OP2	2.13	0.49
33:DD:89:SER:HB2	33:DD:158:ALA:O	2.12	0.49
31:BA:1005:C:O2	31:BA:1143:A:C6	2.65	0.49
25:B3:32:GLN:HB2	31:BA:1158:C:H4'	1.94	0.49
46:BU:83:LEU:CD1	46:BU:113:ALA:HB2	2.42	0.49
1:AA:185:A:H2'	1:AA:186:C:C6	2.40	0.49
1:AA:190:U:O2	20:AT:105:SER:HB2	2.12	0.49
5:AE:127:ASN:O	5:AE:128:PRO:C	2.49	0.49
31:BA:814:C:H5''	47:BV:86:GLY:HA3	1.93	0.49
46:BU:50:ARG:CZ	47:BV:75:PHE:CE2	2.95	0.49
47:BV:72:VAL:HA	47:BV:88:ARG:HH22	1.71	0.49
31:DA:306:U:H2'	31:DA:307:G:O4'	2.11	0.49
31:DA:2275:C:O2'	42:DQ:83:MET:CA	2.46	0.49
31:BA:2206:G:N3	31:BA:2206:G:H3'	2.27	0.49
1:AA:55:A:C5	1:AA:56:U:C5	3.01	0.49
27:D5:51:TYR:HB3	27:D5:52:TYR:CE2	2.47	0.49
20:AT:80:ARG:O	20:AT:84:LEU:HB2	2.13	0.49
6:AF:22:GLU:OE1	6:AF:84:ASN:HB2	2.12	0.49
22:B0:43:THR:N	31:BA:2331:G:H4'	2.26	0.49
1:CA:818:G:C3'	1:CA:819:A:H5'	2.42	0.49
31:DA:915:C:C5	31:DA:916:G:N7	2.80	0.49
31:DA:917:A:H2'	31:DA:918:A:O4'	2.12	0.49
1:CA:294:U:H2'	1:CA:295:C:H6	1.75	0.49
50:DY:76:CYS:CB	50:DY:77:PRO:CD	2.90	0.49
12:CL:25:PRO:O	12:CL:27:LEU:HD22	2.12	0.49
13:CM:103:THR:HB	13:CM:111:LYS:HE3	1.94	0.49
31:BA:2467:C:H2'	31:BA:2468:G:O4'	2.13	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AH:86:ILE:HG13	8:AH:133:LEU:CD1	2.42	0.49
13:AM:7:VAL:HG12	13:AM:7:VAL:O	2.12	0.49
38:DI:72:LEU:HA	38:DI:75:LEU:HB3	1.95	0.49
45:DT:38:ASN:C	45:DT:38:ASN:HD22	2.16	0.49
1:AA:1004:A:C2'	1:AA:1038:C:O2	2.57	0.49
31:BA:2524:G:H1'	31:BA:2740:A:N1	2.27	0.49
33:BD:186:HIS:CD2	33:BD:187:GLY:H	2.30	0.49
38:BI:31:LEU:CD2	38:BI:38:LEU:HG	2.43	0.49
31:DA:1887:C:C3'	31:DA:1888:G:H5'	2.42	0.49
8:CH:11:THR:HG22	8:CH:15:ASN:ND2	2.28	0.49
31:DA:1131:G:C8	31:DA:2025:C:H4'	2.47	0.49
31:DA:2038:G:H2'	31:DA:2039:C:O4'	2.12	0.49
33:DD:182:LEU:HB3	33:DD:271:ILE:HD12	1.94	0.49
31:DA:466:A:O4'	31:DA:683:C:H4'	2.12	0.49
41:DP:5:ASP:CG	41:DP:6:LEU:H	2.16	0.49
23:D1:15:ALA:HA	23:D1:46:LEU:HD21	1.93	0.49
1:AA:940:C:H2'	1:AA:941:G:C8	2.47	0.49
3:AC:125:GLU:CD	3:AC:189:ALA:HA	2.33	0.49
9:AI:114:TYR:CE1	10:AJ:60:ARG:O	2.63	0.49
35:DF:118:ALA:O	35:DF:120:GLU:N	2.42	0.49
15:AO:36:ILE:CD1	15:AO:63:ARG:HD3	2.42	0.49
1:AA:581:G:N3	1:AA:582:U:C5	2.80	0.49
1:CA:37:U:H2'	1:CA:38:G:O4'	2.12	0.49
1:AA:805:C:O2'	1:AA:806:C:H5'	2.13	0.49
11:CK:73:MET:SD	11:CK:103:LEU:CD2	3.01	0.49
31:BA:2826:A:C4	31:BA:2827:C:C6	3.01	0.49
34:BE:146:THR:HA	34:BE:147:PRO:C	2.33	0.49
43:BR:13:HIS:CE1	43:BR:15:SER:OG	2.65	0.49
35:BF:118:ALA:C	35:BF:120:GLU:H	2.15	0.49
1:AA:872:A:C2	1:AA:874:G:C5	3.00	0.49
38:DI:84:GLY:O	38:DI:85:GLU:CB	2.59	0.49
1:AA:785:G:C2'	1:AA:786:G:H5'	2.43	0.49
13:AM:68:GLY:H	13:AM:71:ARG:HB3	1.76	0.49
1:AA:159:G:O2'	1:AA:161:A:N7	2.45	0.49
34:DE:110:GLY:HA2	34:DE:162:ALA:N	2.26	0.49
40:BO:34:THR:HG22	40:BO:37:ASP:OD2	2.11	0.49
32:DB:10:C:C4	32:DB:11:C:C5	3.00	0.49
1:CA:396:G:H2'	1:CA:398:C:OP1	2.12	0.49
24:D2:35:LEU:HD23	24:D2:35:LEU:H	1.77	0.49
1:AA:839:U:O2	1:AA:839:U:H3'	2.13	0.49
1:AA:1330:U:C5'	1:AA:1331:G:O5'	2.60	0.49
20:CT:73:HIS:O	20:CT:76:ALA:HB3	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1504:G:C4'	1:CA:1505:G:OP2	2.61	0.49
30:D8:32:LEU:HD22	31:DA:2419:U:O5'	2.12	0.49
23:B1:25:LYS:C	23:B1:26:ARG:CG	2.80	0.49
55:BA:3362:TEL:O32	55:BA:3362:TEL:O18	2.30	0.49
31:DA:1741:A:N3	31:DA:1742:G:N2	2.60	0.49
31:BA:2564:A:C5	31:BA:2565:A:C6	3.00	0.49
31:BA:2732:G:H3'	31:BA:2733:A:C5'	2.42	0.49
41:BP:105:LEU:H	41:BP:105:LEU:CD1	2.20	0.49
31:DA:1142(A):A:C4	31:DA:1144:G:C8	3.01	0.49
31:DA:1225:G:OP1	47:DV:88:ARG:CB	2.61	0.49
32:DB:82:G:H2'	32:DB:83:G:H5'	1.94	0.49
39:DN:32:THR:O	39:DN:35:ARG:O	2.31	0.49
39:DN:40:PRO:CA	46:DU:64:ARG:HH22	2.26	0.49
49:BX:38:GLU:OE1	49:BX:38:GLU:CA	2.61	0.49
49:BX:82:GLN:HB3	49:BX:85:PRO:HG2	1.95	0.49
31:BA:2786:U:C2	31:BA:2787:C:C5	3.00	0.49
33:BD:241:PRO:O	33:BD:242:ARG:HB2	2.11	0.49
32:DB:117:G:N3	32:DB:118:G:C8	2.80	0.49
44:DS:99:LYS:O	44:DS:106:ARG:NH1	2.42	0.49
4:AD:79:PHE:O	4:AD:82:ALA:HB3	2.12	0.49
16:AP:15:PRO:O	16:AP:16:HIS:ND1	2.45	0.49
1:CA:352:C:O2'	1:CA:354:G:OP1	2.25	0.49
1:CA:376:G:H4'	16:CP:5:ARG:NH1	2.26	0.49
1:CA:407:G:C6	1:CA:436:C:N4	2.77	0.49
45:DT:50:ILE:HA	45:DT:99:LEU:CD1	2.42	0.49
31:BA:2306:C:C6	31:BA:2307:G:H1'	2.48	0.49
33:DD:43:ARG:NH1	33:DD:44:ASN:ND2	2.60	0.49
46:BU:68:ALA:O	46:BU:71:GLN:HB2	2.11	0.49
31:DA:2649:U:C2	31:DA:2672:G:N2	2.80	0.49
31:BA:1131:G:H8	31:BA:2025:C:H4'	1.77	0.49
31:BA:1131:G:OP1	39:BN:80:GLY:HA2	2.12	0.49
5:AE:102:ALA:H	5:AE:107:ARG:HH12	1.60	0.49
5:AE:105:VAL:HG21	5:AE:128:PRO:HA	1.92	0.49
31:BA:1790:C:H2'	31:BA:1791:A:C4	2.48	0.49
47:BV:36:PRO:HD3	47:BV:60:GLU:O	2.11	0.49
23:B1:66:HIS:CE1	31:BA:372:G:H5'	2.48	0.49
6:CF:55:ASP:HB2	6:CF:86:ARG:HH12	1.77	0.49
31:BA:303:U:H2'	31:BA:304:G:H8	1.78	0.49
48:DW:75:TYR:N	48:DW:75:TYR:CD1	2.79	0.49
32:DB:66:A:C4	32:DB:109:C:C4	3.01	0.49
34:DE:52:LEU:HD22	34:DE:76:ARG:CD	2.43	0.49
1:AA:501:C:O2'	1:AA:502:G:H5'	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:52:SER:O	4:AD:54:TYR:N	2.44	0.49
34:DE:2:LYS:HB3	34:DE:95:ILE:CG2	2.41	0.49
33:DD:126:GLN:C	33:DD:193:VAL:HG11	2.33	0.49
31:DA:2043:C:H1'	31:DA:2779:U:O4	2.11	0.49
1:CA:1191:A:P	3:CC:3:ASN:HD21	2.36	0.49
1:AA:291:C:O2'	1:AA:292:G:H5'	2.13	0.49
42:BQ:73:PRO:HA	42:BQ:93:TYR:CD2	2.47	0.49
31:BA:61:G:N2	31:BA:94:C:N3	2.54	0.49
31:DA:2698:U:H2'	31:DA:2699:C:C6	2.47	0.49
38:BI:72:LEU:HA	38:BI:75:LEU:HB3	1.95	0.49
31:DA:1688:U:O2	31:DA:1700:A:H8	1.95	0.49
31:DA:271(Q):G:O2'	31:DA:271(R):G:H8	1.93	0.49
11:CK:105:VAL:O	11:CK:106:LYS:C	2.49	0.49
31:DA:2722:G:O3'	43:DR:5:LYS:HG2	2.12	0.49
1:AA:261:U:H2'	1:AA:263:A:OP2	2.13	0.49
1:CA:1133:G:N3	1:CA:1142:G:N2	2.59	0.49
31:BA:2650:U:H2'	31:BA:2651:C:H6	1.73	0.49
31:BA:2653:U:C2'	31:BA:2654:A:OP1	2.60	0.49
31:BA:2662:A:H4'	31:BA:2663:G:O4'	2.12	0.49
31:BA:175:G:C2	31:BA:176:G:C4	3.01	0.49
20:AT:100:ILE:HD12	20:AT:100:ILE:N	2.28	0.49
19:AS:10:PHE:CZ	19:AS:70:LYS:HE2	2.38	0.49
45:DT:80:SER:CB	45:DT:81:PRO:HD3	2.37	0.49
45:BT:109:GLU:CA	45:BT:112:ARG:HG3	2.39	0.49
42:DQ:42:ILE:HD13	42:DQ:97:VAL:CB	2.42	0.49
31:DA:1213:A:O2'	31:DA:1214:A:H5'	2.12	0.49
41:DP:10:PRO:HD2	41:DP:11:GLY:H	1.78	0.49
2:AB:29:ALA:C	2:AB:31:TYR:N	2.66	0.49
2:AB:17:PHE:HD1	2:AB:41:ILE:HG23	1.77	0.49
31:BA:1866:C:H2'	31:BA:1876:A:O4'	2.12	0.49
1:CA:1313:U:H3	1:CA:1324:A:H61	1.60	0.49
31:DA:1198:U:H2'	31:DA:1199:U:H6	1.74	0.49
31:BA:2197:U:C6	31:BA:2224:G:C6	3.00	0.49
2:CB:17:PHE:CD1	2:CB:41:ILE:HG23	2.48	0.49
3:AC:186:PHE:CD1	3:AC:198:VAL:O	2.64	0.49
31:BA:1963:U:H2'	31:BA:1963:U:O2	2.11	0.49
31:DA:756:C:C4	31:DA:757:U:C5	3.00	0.49
1:AA:950:U:H2'	1:AA:951:G:H8	1.76	0.49
31:BA:1247:A:OP1	35:BF:95:ARG:NH2	2.39	0.49
4:CD:108:LEU:HD11	4:CD:174:LEU:CD2	2.43	0.49
31:BA:1997:G:O2'	31:BA:1998:G:H5'	2.12	0.49
1:AA:37:U:H2'	1:AA:38:G:O4'	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:D0:56:ASP:OD2	31:DA:2364:C:H4'	2.13	0.49
21:CU:6:ARG:HG2	21:CU:15:ARG:NH1	2.27	0.49
31:DA:1547:C:H2'	31:DA:1548:C:C6	2.48	0.49
9:CI:121:ARG:HD3	9:CI:122:ALA:O	2.13	0.49
46:BU:80:ILE:HG22	46:BU:81:HIS:N	2.28	0.49
45:BT:18:ASP:OD1	45:BT:19:LEU:HG	2.13	0.49
13:CM:10:PRO:HG2	13:CM:18:ALA:HB1	1.93	0.49
40:DO:87:ILE:CG2	40:DO:88:ASN:N	2.75	0.49
42:DQ:54:MET:SD	42:DQ:118:LEU:HD23	2.52	0.49
4:AD:47:ARG:NH2	4:AD:49:ARG:NH2	2.60	0.49
1:AA:159:G:H2'	1:AA:161:A:OP2	2.12	0.49
10:CJ:8:LEU:HB2	10:CJ:70:ARG:O	2.13	0.49
2:CB:221:LEU:O	2:CB:221:LEU:HD13	2.12	0.49
4:AD:162:LEU:HD13	4:AD:181:MET:CE	2.42	0.49
31:BA:452:G:C4	31:BA:458:G:C6	3.00	0.49
5:AE:20:GLN:O	5:AE:21:ALA:C	2.50	0.49
31:DA:2584:U:O2	31:DA:2584:U:O4'	2.29	0.49
31:DA:627:A:C5	31:DA:637:A:N7	2.80	0.49
31:DA:2052:G:O4'	34:DE:142:GLY:HA3	2.13	0.49
41:DP:34:GLY:O	41:DP:35:HIS:C	2.51	0.49
30:B8:32:LEU:O	30:B8:33:ASN:HB2	2.12	0.49
30:B8:3:LYS:HE3	31:BA:242:G:O5'	2.13	0.49
31:BA:2438:U:H5''	31:BA:2600:A:OP1	2.13	0.49
44:BS:90:GLY:N	44:BS:91:PRO:HD2	2.26	0.49
31:BA:2522:U:O2'	31:BA:2647:U:H5''	2.12	0.49
24:D2:48:HIS:NE2	31:DA:75:G:H4'	2.28	0.49
31:DA:1450(A):C:N3	31:DA:1451:C:N4	2.61	0.49
31:DA:1458:C:O2	31:DA:1458:C:O4'	2.30	0.49
31:DA:58:G:OP1	49:DX:72:LYS:HB2	2.11	0.49
41:BP:85:LEU:HA	41:BP:88:LEU:CB	2.41	0.49
47:DV:2:PHE:HD2	47:DV:42:GLY:HA2	1.77	0.49
31:BA:1545:A:H2'	31:BA:1546:C:C5'	2.42	0.49
33:BD:253:GLN:CB	33:BD:255:LYS:HZ3	2.26	0.49
1:CA:391:G:O3'	16:CP:8:ARG:NH2	2.46	0.49
4:CD:11:LEU:C	4:CD:13:ARG:N	2.64	0.49
4:CD:43:HIS:O	4:CD:45:GLN:N	2.46	0.49
16:CP:23:ASP:O	16:CP:24:ALA:C	2.51	0.49
1:AA:1442(A):G:H3'	1:AA:1442(B):A:C5'	2.41	0.49
50:BY:18:GLY:O	50:BY:19:LYS:C	2.50	0.49
31:BA:1327:C:H2'	31:BA:1328:G:O4'	2.13	0.49
45:BT:98:LYS:HG2	45:BT:100:TYR:OH	2.11	0.49
31:DA:696:G:O2'	31:DA:697:C:H5'	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:D1:10:LYS:O	23:D1:13:ILE:CG2	2.61	0.49
31:DA:2526:G:C6	31:DA:2527:C:C4	3.00	0.49
31:BA:2572:A:N7	34:BE:145:LYS:HB2	2.27	0.49
20:CT:104:LEU:O	20:CT:104:LEU:HD23	2.12	0.49
31:BA:933:A:H2'	31:BA:934:G:C5'	2.42	0.49
47:BV:5:VAL:HG21	47:BV:36:PRO:HB2	1.93	0.49
11:CK:41:THR:HG22	11:CK:42:TRP:N	2.27	0.49
31:BA:303:U:H2'	31:BA:304:G:C8	2.47	0.49
51:BZ:3:TYR:O	51:BZ:57:ILE:HA	2.12	0.49
51:BZ:5:LEU:HD12	51:BZ:47:VAL:HG23	1.94	0.49
32:BB:21:G:C6	32:BB:63:G:N1	2.81	0.49
33:DD:131:LEU:HB2	33:DD:136:ILE:CD1	2.38	0.49
31:BA:2773:C:H2'	31:BA:2774:C:H6	1.76	0.49
50:BY:87:LYS:HG3	50:BY:88:LYS:N	2.27	0.49
1:AA:658:G:C6	1:AA:749:C:N4	2.80	0.49
34:DE:103:ASP:OD2	34:DE:168:MET:HE1	2.12	0.49
1:AA:1089:G:C6	1:AA:1090:U:C4	3.00	0.49
3:CC:44:GLU:HA	3:CC:52:LEU:HD21	1.93	0.49
13:AM:86:CYS:SG	13:AM:89:GLY:HA3	2.52	0.49
24:D2:15:LYS:HA	24:D2:18:PRO:CD	2.43	0.49
1:CA:256:U:H2'	1:CA:257:G:C8	2.47	0.49
31:BA:1175:U:C4'	31:BA:1176:G:H2'	2.42	0.49
1:AA:1386:G:C2	1:AA:1387:G:N7	2.81	0.49
1:AA:701:C:OP1	1:AA:702:A:H2'	2.11	0.49
37:DH:89:ILE:H	37:DH:89:ILE:HD12	1.75	0.49
8:AH:38:ILE:HD11	8:AH:118:VAL:O	2.11	0.49
47:BV:51:VAL:HG12	47:BV:52:VAL:N	2.27	0.49
1:AA:1405:G:O2'	1:AA:1406:U:H5'	2.12	0.49
1:AA:790:A:N1	1:AA:1497:G:H5''	2.28	0.49
31:BA:1914:C:C5	31:BA:1915:U:C2	3.01	0.49
1:AA:991:U:O2'	1:AA:992:U:OP2	2.31	0.49
31:BA:2854:G:C5	31:BA:2855:C:C5	3.01	0.49
31:BA:2863:C:OP1	45:BT:93:ARG:NH1	2.46	0.49
1:AA:458:C:H3'	1:AA:460:G:H8	1.77	0.49
1:AA:1365:G:C6	1:AA:1366:C:C4	3.00	0.49
31:DA:2436:G:C5	31:DA:2437:U:C5	3.00	0.49
31:BA:1296:G:O2'	31:BA:1297:C:H5'	2.13	0.49
31:BA:1301:A:C4	31:BA:1303:G:N7	2.81	0.49
1:AA:243:A:C2	1:AA:246:A:C8	3.01	0.49
1:CA:853:G:C4	1:CA:854:G:C8	3.00	0.49
1:CA:854:G:H3'	1:CA:871:U:O4	2.12	0.49
31:DA:1008:C:N4	31:DA:1136:G:C6	2.81	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CG:50:ILE:O	7:CG:54:THR:O	2.31	0.49
21:CU:12:LYS:HG3	21:CU:17:THR:O	2.13	0.49
46:BU:8:VAL:O	46:BU:12:ARG:HG3	2.13	0.49
35:DF:182:ASN:O	35:DF:186:ILE:HG13	2.13	0.49
31:BA:1152:C:H5''	46:BU:80:ILE:CG2	2.43	0.49
8:CH:14:ARG:O	8:CH:18:ARG:HD3	2.12	0.49
15:AO:28:GLN:O	15:AO:31:LEU:HB2	2.12	0.49
33:BD:232:PRO:HG2	33:BD:248:SER:O	2.13	0.49
31:DA:2518:A:H5'	31:DA:2518:A:C8	2.47	0.49
42:BQ:54:MET:HG3	42:BQ:117:ALA:HB1	1.94	0.49
35:DF:41:LEU:O	35:DF:44:ARG:HG2	2.12	0.49
17:CQ:60:ILE:HG23	17:CQ:62:SER:OG	2.13	0.49
23:D1:28:GLY:C	23:D1:30:VAL:N	2.65	0.49
1:CA:324:G:O5'	1:CA:324:G:H8	1.94	0.49
43:DR:30:THR:HG22	43:DR:30:THR:O	2.11	0.49
19:CS:45:VAL:HG23	19:CS:45:VAL:O	2.13	0.49
1:CA:920:U:H2'	1:CA:922:G:C6	2.47	0.49
28:D6:13:CYS:HB2	28:D6:22:ALA:HB3	1.94	0.49
31:DA:194:G:C6	31:DA:195:A:C5	3.00	0.49
23:B1:23:LYS:O	23:B1:37:ILE:HG22	2.11	0.49
30:B8:62:LEU:N	30:B8:63:PRO:CD	2.75	0.49
30:B8:6:THR:HG22	30:B8:62:LEU:HD12	1.95	0.49
32:BB:24:G:N2	32:BB:56:G:H22	2.11	0.49
31:BA:2516:G:C5	31:BA:2517:C:C4	2.99	0.49
31:BA:2520:C:C6	31:BA:2567:G:H1'	2.48	0.49
41:BP:101:VAL:O	41:BP:103:ALA:N	2.46	0.49
31:DA:1153:C:OP1	46:DU:93:LYS:NZ	2.46	0.49
47:DV:72:VAL:HG12	47:DV:88:ARG:NH2	2.28	0.49
24:B2:55:ARG:C	24:B2:56:GLN:HE21	2.16	0.49
49:BX:84:ALA:O	49:BX:86:GLY:N	2.46	0.49
31:BA:1722:A:C5	31:BA:1741:A:C6	3.01	0.49
32:DB:38:C:H2'	32:DB:39:A:O4'	2.13	0.49
44:DS:63:THR:CA	44:DS:66:ALA:HB3	2.34	0.49
1:AA:620:C:C2'	1:AA:621:A:H5'	2.43	0.49
1:CA:103:C:C2	1:CA:104:G:C8	3.01	0.49
4:CD:134:ASP:O	4:CD:136:PRO:HD3	2.12	0.49
4:CD:78:LEU:HD13	4:CD:97:LEU:HD23	1.94	0.49
31:DA:1782:C:O4'	31:DA:2609:U:C2	2.66	0.49
31:DA:778:G:C6	31:DA:779:U:C4	3.00	0.49
31:BA:1141:U:H4'	31:BA:1142(A):A:O4'	2.12	0.49
31:DA:2572:A:C8	34:DE:144:ARG:HB3	2.47	0.49
31:BA:2025:C:H2'	31:BA:2026:C:H6	1.77	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BR:4:LEU:O	43:BR:6:SER:N	2.43	0.49
2:AB:54:THR:O	2:AB:57:PHE:HB3	2.12	0.49
31:BA:780:G:H21	31:BA:783:A:H62	1.59	0.49
20:CT:80:ARG:O	20:CT:84:LEU:HB2	2.13	0.49
2:CB:15:VAL:C	2:CB:16:HIS:CG	2.86	0.49
2:CB:204:ASN:HB3	2:CB:210:SER:HB3	1.94	0.49
31:BA:1562:A:H2'	31:BA:1563:G:H8	1.77	0.49
51:DZ:10:ARG:NH2	51:DZ:26:GLY:O	2.44	0.49
51:BZ:3:TYR:CG	51:BZ:51:ALA:HB2	2.48	0.49
27:B5:55:ARG:CG	27:B5:56:LYS:H	2.25	0.49
1:AA:512:U:H2'	1:AA:513:C:H6	1.77	0.49
33:DD:108:PRO:HD2	33:DD:111:LEU:HD22	1.94	0.49
31:DA:2628:C:O2'	31:DA:2781:A:H3'	2.12	0.49
2:CB:114:ARG:HD3	2:CB:114:ARG:O	2.12	0.49
34:DE:170:LEU:CD1	34:DE:170:LEU:N	2.75	0.49
1:AA:1086:U:H2'	1:AA:1087:G:O4'	2.13	0.49
1:CA:577:G:C8	1:CA:816:A:N1	2.81	0.49
31:DA:1497:U:O2	31:DA:1497:U:C2'	2.60	0.49
32:DB:78:A:H2'	32:DB:79:C:O4'	2.11	0.49
1:AA:816:A:OP2	1:AA:1527:C:H5'	2.12	0.49
1:AA:730:G:C5	1:AA:731:G:H1'	2.48	0.49
50:DY:76:CYS:HB3	50:DY:77:PRO:CD	2.43	0.49
1:AA:1412:C:C2	1:AA:1489:G:N2	2.80	0.49
36:BG:45:GLU:HB2	36:BG:47:LYS:CD	2.43	0.49
13:AM:103:THR:HB	13:AM:111:LYS:HE3	1.94	0.49
1:CA:954:G:N2	1:CA:1227:A:H62	1.98	0.49
48:BW:47:VAL:O	48:BW:50:VAL:HG12	2.13	0.49
31:DA:1411:C:O5'	31:DA:1411:C:H6	1.95	0.49
1:CA:124:G:H1	1:CA:237:C:H42	1.60	0.49
1:AA:1068:G:N3	1:AA:1191:A:C2	2.80	0.49
7:CG:4:ARG:HD3	7:CG:5:ARG:NH1	2.28	0.49
1:AA:1423:G:OP1	40:BO:48:PRO:HG3	2.12	0.49
1:AA:1346:A:H61	1:AA:1374:A:H3'	1.77	0.49
12:AL:102:ARG:HD2	12:AL:108:ALA:O	2.13	0.49
39:BN:128:HIS:O	39:BN:130:HIS:HB3	2.12	0.49
29:D7:40:TRP:CD2	31:DA:459:U:C5'	2.95	0.49
31:BA:753:C:O5'	31:BA:753:C:C6	2.65	0.49
31:DA:718:A:H3'	31:DA:719:C:H6	1.78	0.49
31:DA:1956:U:H2'	31:DA:1957:C:C5'	2.42	0.49
12:CL:92:ASP:O	12:CL:93:LEU:HD23	2.13	0.49
4:AD:173:TRP:CE3	4:AD:193:ASP:HB3	2.48	0.49
1:AA:981:U:O4	1:AA:1222:G:O6	2.30	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:148:VAL:HG13	4:CD:152:SER:HB2	1.95	0.49
42:BQ:27:VAL:HG21	42:BQ:134:ARG:HA	1.95	0.49
1:AA:473:G:H2'	1:AA:474:G:H8	1.76	0.49
1:CA:155:C:H2'	1:CA:156:G:C8	2.48	0.49
31:DA:1487:G:C2	31:DA:1488:G:C4	3.00	0.49
31:DA:811:U:P	41:DP:25:SER:O	2.71	0.49
10:CJ:32:ALA:HB1	10:CJ:75:ILE:CG1	2.43	0.49
31:BA:1444:G:C2	31:BA:1548:C:C2	3.01	0.49
31:BA:1921:G:C4	31:BA:1922:G:C8	3.00	0.49
6:AF:20:ALA:O	6:AF:23:LYS:HB2	2.13	0.49
1:AA:665:A:H1'	1:AA:733:A:O4'	2.13	0.49
31:BA:2233:U:H2'	31:BA:2234:G:C8	2.48	0.49
18:AR:51:LEU:O	18:AR:63:GLN:NE2	2.46	0.49
1:CA:477:A:C2'	1:CA:479:C:H5'	2.43	0.49
3:AC:91:LEU:HD11	3:AC:101:LEU:HD12	1.93	0.49
19:CS:15:LEU:HD13	19:CS:31:ILE:HD11	1.94	0.49
1:CA:655:A:C2'	1:CA:656:C:H5'	2.42	0.49
31:BA:483:A:H2'	31:BA:484:C:H5'	1.94	0.49
35:DF:7:TYR:HB3	35:DF:16:GLY:CA	2.43	0.49
22:D0:51:VAL:HG21	22:D0:79:VAL:HG12	1.94	0.49
27:B5:19:ARG:HA	31:BA:2046:G:O5'	2.13	0.49
1:AA:1076:C:C2	1:AA:1082:G:C2	3.01	0.49
42:DQ:43:THR:OG1	42:DQ:45:GLN:HG2	2.13	0.49
31:BA:1767:C:C2'	31:BA:1768:U:H5'	2.43	0.49
31:BA:1769:G:C5	31:BA:1984:G:C6	3.00	0.49
7:AG:49:ILE:HG22	7:AG:49:ILE:O	2.13	0.49
31:BA:136:G:C2'	31:BA:137:C:O5'	2.61	0.49
5:CE:20:GLN:O	5:CE:21:ALA:C	2.51	0.49
31:DA:2392:A:H2	31:DA:2424:C:N4	2.07	0.49
55:DA:3320:TEL:O32	55:DA:3320:TEL:O18	2.30	0.49
41:DP:112:LEU:H	41:DP:128:HIS:CD2	2.31	0.49
30:B8:12:LYS:HG2	41:BP:68:GLN:NE2	2.28	0.49
30:B8:40:GLU:O	30:B8:41:ILE:C	2.51	0.49
31:BA:246:C:C2'	31:BA:247:G:H5'	2.43	0.49
31:BA:812:C:H5''	31:BA:1250:G:O2'	2.12	0.49
31:BA:466:A:N3	31:BA:683:C:H1'	2.27	0.49
36:BG:11:TYR:O	36:BG:16:ARG:HG2	2.12	0.49
31:DA:985:C:O2'	31:DA:986:C:H5'	2.13	0.49
31:BA:1404:C:H5''	31:BA:1404:C:C6	2.48	0.49
31:BA:1528:A:O2'	31:BA:1528(A):A:C8	2.61	0.49
31:DA:1323:U:C2'	31:DA:1324:G:H5'	2.43	0.49
44:DS:56:LEU:O	44:DS:57:LYS:HB2	2.13	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:407:G:C6	1:AA:436:C:N4	2.77	0.49
1:CA:321:A:N7	1:CA:328:C:O2'	2.33	0.49
1:CA:542:G:H2'	1:CA:543:C:C6	2.43	0.49
4:CD:205:GLU:CD	5:CE:107:ARG:HH21	2.15	0.49
31:BA:2309:A:N3	31:BA:2310:A:C2	2.80	0.49
31:DA:1798:U:HO2'	31:DA:1802:A:HO2'	1.61	0.49
37:DH:70:THR:O	37:DH:71:LEU:C	2.50	0.49
31:DA:2564:A:C5	31:DA:2565:A:C6	3.01	0.49
1:AA:193:C:H4'	20:AT:61:SER:HB2	1.95	0.49
5:AE:78:HIS:HE1	5:AE:142:LEU:HA	1.78	0.49
47:BV:90:PRO:CG	47:BV:91:TYR:H	2.24	0.49
1:CA:683:G:C6	1:CA:684:A:C5	3.01	0.49
51:DZ:52:SER:OG	51:DZ:54:HIS:HD2	1.95	0.49
31:DA:953:A:C2	31:DA:954:G:C8	3.01	0.49
31:DA:2208:A:O2'	31:DA:2218:U:P	2.70	0.49
31:DA:358:U:H3'	31:DA:358:U:H6	1.78	0.49
31:BA:478:A:N6	31:BA:502:A:H62	2.11	0.49
18:AR:72:ARG:O	18:AR:75:ILE:N	2.45	0.49
1:AA:502:G:OP1	12:AL:117:ARG:N	2.45	0.49
1:AA:509:A:O2'	1:AA:510:A:P	2.71	0.49
27:B5:2:ALA:N	31:BA:2015:A:N3	2.60	0.49
39:BN:83:LYS:HE2	39:BN:85:ILE:CD1	2.39	0.49
46:BU:93:LYS:N	46:BU:93:LYS:CD	2.71	0.49
31:BA:64:A:C6	31:BA:65:C:C4	3.01	0.49
1:AA:659:U:N3	1:AA:660:G:N7	2.60	0.49
3:AC:44:GLU:HA	3:AC:52:LEU:HD21	1.94	0.49
1:AA:570:G:H2'	1:AA:571:U:C6	2.48	0.49
22:B0:10:THR:HG23	31:BA:2277:G:OP2	2.12	0.49
1:AA:728:A:C5	15:AO:54:ARG:HD2	2.48	0.49
40:BO:107:ARG:HH11	45:BT:35:LYS:HB2	1.78	0.49
38:DI:93:THR:HG22	38:DI:119:PRO:HB3	1.93	0.49
31:DA:2712(A):A:H5''	31:DA:2713:A:OP2	2.13	0.49
31:BA:78:A:H2'	31:BA:79:G:C8	2.48	0.49
10:CJ:50:ILE:N	10:CJ:50:ILE:HD13	2.27	0.49
1:AA:960:U:C5	1:AA:1225:A:H1'	2.47	0.49
38:BI:130:TYR:HB2	38:BI:136:VAL:HG13	1.94	0.49
31:DA:271(S):G:H2'	31:DA:271(T):C:O4'	2.12	0.49
31:BA:1176:G:C1'	31:BA:1177:A:OP1	2.61	0.49
1:AA:1423:G:H2'	1:AA:1424:C:O4'	2.13	0.49
1:AA:236:G:H2'	1:AA:237:C:H6	1.76	0.49
1:AA:258:G:C2	1:AA:259:G:C5	3.00	0.49
1:CA:877:C:H5''	8:CH:88:LYS:CE	2.36	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:756:C:C2'	31:BA:757:U:H5'	2.42	0.49
8:CH:6:ILE:CG2	8:CH:85:ARG:HH12	2.24	0.49
1:CA:1423:G:H2'	1:CA:1424:C:O4'	2.13	0.49
23:D1:23:LYS:O	23:D1:37:ILE:HG22	2.13	0.49
31:BA:34:C:O2'	31:BA:35:G:OP1	2.31	0.49
1:AA:458:C:H2'	1:AA:460:G:H8	1.78	0.49
1:CA:154:C:H2'	1:CA:155:C:C6	2.45	0.49
31:BA:266:G:H2'	31:BA:267:C:O5'	2.13	0.49
7:AG:66:VAL:O	7:AG:70:LYS:HG3	2.13	0.49
7:AG:73:MET:HA	7:AG:91:VAL:HG23	1.94	0.49
1:AA:120:A:C6	1:AA:122:G:C2	3.01	0.49
31:BA:2500:U:H2'	31:BA:2504:U:C5	2.47	0.49
34:DE:65:GLY:HA2	34:DE:70:ALA:HB2	1.95	0.49
1:AA:1150:U:C4	1:AA:1151:A:N7	2.80	0.49
31:DA:699:A:H4'	31:DA:1634:A:N7	2.27	0.49
31:BA:1572:A:H8	31:BA:1572:A:O5'	1.96	0.49
11:CK:22:HIS:O	11:CK:28:THR:HG23	2.12	0.49
31:BA:1221:C:H2'	31:BA:1221(A):C:H6	1.78	0.49
1:CA:971:G:H3'	1:CA:971:G:OP1	2.13	0.49
24:B2:35:LEU:HD23	24:B2:35:LEU:H	1.76	0.49
8:CH:80:ILE:HG22	8:CH:80:ILE:O	2.13	0.49
40:BO:9:GLU:HB3	40:BO:83:ALA:HB2	1.94	0.49
1:CA:924:C:H5'	1:CA:1399:C:OP2	2.13	0.49
1:CA:16:A:N1	1:CA:919:A:H2	2.10	0.49
28:D6:15:GLU:CD	28:D6:18:ARG:HG3	2.33	0.49
31:DA:2061:G:N3	31:DA:2063:C:C4	2.81	0.49
31:DA:2415:G:C6	31:DA:2416:C:C4	3.01	0.49
31:DA:251:A:OP1	41:DP:50:ARG:HD2	2.12	0.49
31:DA:579:G:C4	31:DA:580:C:C5	3.01	0.49
27:D5:2:ALA:HB3	31:DA:747:U:N1	2.28	0.49
41:DP:101:VAL:HG22	41:DP:102:ARG:N	2.26	0.49
28:B6:24:GLU:OE1	28:B6:24:GLU:CA	2.49	0.49
31:BA:671:C:OP1	41:BP:43:GLY:HA2	2.13	0.49
41:BP:66:GLY:O	41:BP:67:MET:O	2.31	0.49
33:BD:32:SER:HA	33:BD:36:PRO:HD3	1.94	0.49
36:BG:20:ILE:HG23	36:BG:25:TYR:HB2	1.93	0.49
44:BS:56:LEU:O	44:BS:57:LYS:HB2	2.12	0.49
24:D2:24:LEU:O	24:D2:27:GLU:HB2	2.12	0.49
41:BP:112:LEU:H	41:BP:128:HIS:HD2	1.60	0.49
31:DA:1142(A):A:C5	31:DA:1144:G:C5	3.00	0.49
39:DN:40:PRO:C	46:DU:64:ARG:NH2	2.62	0.49
39:DN:40:PRO:HB3	46:DU:68:ALA:HB2	1.93	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:557:U:O2	39:DN:45:ASN:HB2	2.13	0.49
39:DN:16:ILE:HG23	39:DN:54:VAL:HG22	1.95	0.49
39:DN:23:LEU:HD21	39:DN:62:VAL:HG23	1.95	0.49
31:BA:142:A:H5''	31:BA:142(A):C:H5	1.76	0.49
31:BA:1450(A):C:N4	31:BA:1451:C:H41	2.11	0.49
31:BA:74:A:H4'	31:BA:75:G:O5'	2.12	0.49
33:DD:223:GLY:HA3	33:DD:231:HIS:CE1	2.48	0.49
1:AA:408:A:C6	1:AA:409:G:C5	3.01	0.49
1:AA:41:G:C6	1:AA:402:G:C6	3.01	0.49
1:CA:1429:C:H2'	1:CA:1430:C:H6	1.77	0.49
1:CA:511:C:N3	1:CA:512:U:C4	2.81	0.49
1:CA:541:G:H2'	1:CA:542:G:C8	2.40	0.49
16:CP:28:ARG:CG	16:CP:28:ARG:NH1	2.67	0.49
50:BY:40:GLU:HA	50:BY:40:GLU:OE2	2.13	0.49
38:DI:123:LEU:HD13	38:DI:143:SER:O	2.13	0.49
31:BA:2297:C:C2'	31:BA:2298:A:H5'	2.43	0.49
2:AB:15:VAL:C	2:AB:16:HIS:CG	2.86	0.49
31:BA:1799:G:H4'	31:BA:1800:C:O5'	2.12	0.49
33:BD:17:THR:HG23	33:BD:205:VAL:N	2.22	0.49
1:CA:189:G:O6	1:CA:189(L):G:C6	2.66	0.49
32:DB:73:A:H5'	32:DB:74:U:OP2	2.12	0.49
31:DA:354:G:C6	31:DA:355:G:C5	3.01	0.49
48:BW:75:TYR:HE1	48:BW:104:THR:CG2	2.25	0.49
31:BA:1275:A:N3	31:BA:1276:A:H1'	2.27	0.49
27:B5:52:TYR:O	27:B5:53:ALA:C	2.50	0.49
1:AA:358:U:N3	1:AA:359:U:C4	2.81	0.49
31:DA:1296:G:O2'	31:DA:1297:C:H5'	2.13	0.49
31:BA:2386:C:H2'	31:BA:2387:U:O4'	2.13	0.49
31:BA:2688:U:O5'	31:BA:2688:U:O2	2.30	0.49
43:DR:4:LEU:C	43:DR:6:SER:H	2.15	0.49
50:DY:96:ILE:CG1	50:DY:99:CYS:SG	3.00	0.49
1:AA:973:G:O4'	10:AJ:55:LYS:HG2	2.12	0.49
38:BI:101:LEU:HD23	38:BI:109:ILE:HG21	1.94	0.49
31:DA:1170:G:OP2	31:DA:1170:G:H8	1.96	0.49
11:AK:84:VAL:HG11	11:AK:95:ILE:HD11	1.95	0.49
24:D2:18:PRO:O	24:D2:22:GLU:HB2	2.13	0.49
31:DA:1412:A:H3'	31:DA:1413:G:C8	2.48	0.49
31:DA:2870:C:H5''	43:DR:65:LEU:CD2	2.43	0.49
1:CA:253:U:H2'	1:CA:254:G:C8	2.47	0.49
1:AA:1061:G:C4	1:AA:1197:G:N2	2.81	0.49
1:AA:1207:G:H2'	1:AA:1208:C:C6	2.47	0.49
31:BA:2199:A:H5''	31:BA:2200:C:OP2	2.13	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:AN:24:CYS:SG	14:AN:40:CYS:HB3	2.51	0.49
40:DO:2:ILE:HG23	40:DO:6:THR:CG2	2.43	0.49
10:AJ:40:LEU:HD23	10:AJ:40:LEU:H	1.78	0.49
31:DA:340:A:H2'	31:DA:341:G:H5'	1.95	0.49
1:AA:1287:A:H2	1:AA:1353:G:N3	2.11	0.49
6:CF:75:LEU:O	6:CF:79:LEU:HG	2.13	0.49
1:AA:646:U:H2'	1:AA:647:C:C6	2.48	0.49
50:DY:53:PRO:HB3	50:DY:57:GLN:HA	1.94	0.49
12:AL:10:LEU:HB3	17:AQ:32:TYR:CE1	2.48	0.49
31:BA:2092:U:H4'	31:BA:2093:G:C5'	2.42	0.49
2:CB:20:GLU:HG3	2:CB:189:ASP:OD2	2.13	0.49
1:CA:458:C:H3'	1:CA:460:G:H8	1.77	0.49
37:DH:91:GLY:HA2	37:DH:160:LYS:NZ	2.27	0.49
1:CA:938:A:C6	1:CA:939:G:C5	3.00	0.49
1:AA:518:C:C5	1:AA:530:G:C8	3.01	0.49
31:BA:232:G:H22	31:BA:420:C:H5''	1.77	0.49
8:CH:44:PHE:HE2	8:CH:109:ILE:HG21	1.78	0.49
35:BF:57:VAL:HG11	35:BF:59:TYR:CD1	2.47	0.49
31:DA:2835:A:C6	31:DA:2879:C:C5	3.01	0.49
1:CA:1160:G:H2'	1:CA:1160:G:N3	2.28	0.49
42:DQ:93:TYR:N	42:DQ:93:TYR:CD1	2.79	0.49
1:CA:1386:G:H2'	1:CA:1387:G:H8	1.78	0.49
34:DE:65:GLY:C	34:DE:67:PHE:N	2.66	0.49
40:BO:115:VAL:HG12	40:BO:116:SER:N	2.27	0.49
17:CQ:5:VAL:CG1	17:CQ:6:LEU:N	2.75	0.49
31:BA:236:C:H2'	31:BA:237:C:C6	2.48	0.49
31:DA:1767:C:C2'	31:DA:1768:U:H5'	2.42	0.49
10:CJ:24:VAL:O	10:CJ:28:ARG:HG3	2.12	0.49
31:BA:292:C:C2	31:BA:349:G:N2	2.80	0.49
35:DF:170:LEU:HD23	35:DF:172:TRP:CZ2	2.47	0.49
46:BU:14:HIS:O	46:BU:15:LYS:C	2.51	0.49
31:BA:1925:C:C2'	31:BA:1926:U:H5'	2.43	0.49
31:DA:1929:G:N3	31:DA:1929:G:H5''	2.27	0.49
13:CM:7:VAL:HG12	13:CM:7:VAL:O	2.12	0.49
31:DA:645:C:O2	31:DA:645:C:H3'	2.13	0.49
31:DA:1268:A:C2	31:DA:2013:A:C4	3.01	0.49
30:D8:30:ARG:HB2	31:DA:2393:A:OP1	2.13	0.49
41:DP:107:LYS:C	41:DP:109:GLY:N	2.66	0.49
41:DP:88:LEU:O	41:DP:90:ARG:N	2.45	0.49
31:BA:2600:A:H2'	31:BA:2601:C:H6	1.77	0.49
33:BD:24:ILE:CD1	33:BD:83:GLU:HA	2.43	0.49
33:BD:35:LYS:CE	33:BD:65:ILE:HG22	2.43	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:DX:35:THR:O	49:DX:39:ILE:HG23	2.13	0.49
31:DA:1140:C:O4'	31:DA:1143:A:C2	2.66	0.49
31:DA:1139:G:H5'	39:DN:102:ALA:CB	2.43	0.49
39:DN:3:THR:HA	39:DN:4:TYR:CE1	2.48	0.49
47:DV:19:LYS:C	47:DV:20:LEU:HG	2.34	0.49
47:DV:90:PRO:CG	47:DV:91:TYR:N	2.75	0.49
37:BH:85:LYS:NZ	37:BH:133:VAL:CG2	2.73	0.49
31:BA:1528:A:H8	31:BA:1528(A):A:C5	2.31	0.49
31:BA:2810:A:C2'	34:BE:61:ARG:NH2	2.76	0.49
32:DB:28:C:H2'	32:DB:29:A:C8	2.48	0.49
32:DB:28:C:C2'	32:DB:29:A:O4'	2.59	0.49
1:CA:408:A:OP1	4:CD:115:ARG:HB2	2.13	0.49
31:DA:1819:A:OP1	33:DD:161:THR:HG21	2.13	0.49
33:DD:211:ARG:HA	33:DD:214:TRP:CD2	2.48	0.49
31:DA:2520:C:C4	31:DA:2567:G:C8	3.01	0.49
31:DA:2732:G:H3'	31:DA:2733:A:C5'	2.43	0.49
31:BA:2050:C:H1'	34:BE:156:MET:CE	2.42	0.49
31:BA:1799:G:H3'	31:BA:1799:G:P	2.53	0.49
1:CA:185:A:H2'	1:CA:186:C:C6	2.46	0.49
1:CA:224:C:H2'	1:CA:225:C:H6	1.77	0.49
46:BU:102:GLU:HG3	47:BV:2:PHE:CZ	2.48	0.49
1:AA:1125:U:O3'	1:AA:1126:U:C6	2.66	0.49
31:DA:287:C:H2'	31:DA:288:C:O4'	2.13	0.49
31:BA:2208:A:O2'	31:BA:2218:U:P	2.70	0.49
33:DD:150:LYS:HA	33:DD:150:LYS:HE3	1.95	0.49
31:BA:2681:C:C5	31:BA:2725:A:N6	2.64	0.49
1:AA:830:G:H2'	1:AA:831:U:H6	1.77	0.49
1:CA:1072:G:C6	1:CA:1104:G:N1	2.81	0.49
31:DA:2728:U:H2'	31:DA:2729:G:C8	2.47	0.49
1:AA:16:A:O2'	1:AA:17:U:H5'	2.13	0.49
1:AA:558:G:C5	1:AA:559:A:C2	3.00	0.49
1:AA:577:G:C2	1:AA:578:C:C6	3.01	0.49
50:DY:75:ILE:CG1	50:DY:79:CYS:HA	2.43	0.49
1:AA:342:C:C2	1:AA:348:G:C2	3.01	0.49
31:BA:819:A:N3	31:BA:1189:A:C2	2.80	0.49
1:CA:1523:G:C6	1:CA:1524:C:C4	3.01	0.49
11:CK:121:PRO:O	11:CK:126:ARG:HB2	2.13	0.49
32:BB:78:A:H2'	32:BB:79:C:O4'	2.13	0.49
1:CA:1057:G:C2	1:CA:1058:G:H1'	2.48	0.49
1:CA:973:G:O4'	10:CJ:55:LYS:HG2	2.12	0.49
10:CJ:54:PHE:CZ	10:CJ:55:LYS:NZ	2.81	0.49
13:CM:91:ARG:HB2	13:CM:98:VAL:CG2	2.39	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1409:C:C2'	31:BA:1410:G:H5'	2.43	0.49
31:BA:688:U:O2	31:BA:787:U:H4'	2.13	0.49
48:BW:6:ILE:HA	48:BW:103:ILE:O	2.13	0.49
40:DO:35:VAL:HG11	40:DO:103:ALA:HB3	1.95	0.49
31:DA:2000:G:C2	31:DA:2001:A:C8	3.00	0.49
37:DH:19:VAL:HG21	37:DH:44:VAL:HA	1.94	0.49
1:CA:1515:C:H2'	1:CA:1516:G:C8	2.47	0.49
31:BA:2202:C:O2	33:BD:151:LYS:NZ	2.38	0.49
31:BA:173:G:C6	31:BA:174:C:C4	3.01	0.49
36:BG:42:GLY:HA2	36:BG:89:GLY:HA2	1.95	0.49
1:CA:1280:A:H5'	10:CJ:40:LEU:HD12	1.95	0.49
31:DA:1131:G:H8	31:DA:2025:C:H4'	1.78	0.49
6:CF:8:ILE:HG23	6:CF:85:VAL:HG13	1.95	0.49
18:AR:31:LEU:O	18:AR:65:ILE:HD13	2.13	0.49
45:DT:109:GLU:C	45:DT:113:LYS:HE3	2.34	0.49
31:DA:2556:C:C2'	31:DA:2557:G:H5'	2.43	0.49
6:CF:100:ASN:N	18:CR:23:LYS:HZ2	2.11	0.49
36:DG:55:LYS:O	36:DG:59:GLU:HB2	2.12	0.49
38:BI:25:TYR:CD1	38:BI:30:LEU:HD11	2.48	0.49
43:DR:103:ARG:HB2	43:DR:109:ALA:O	2.12	0.49
1:CA:473:G:H2'	1:CA:474:G:H8	1.77	0.49
1:AA:473:G:H2'	1:AA:474:G:C8	2.48	0.49
10:AJ:32:ALA:HB1	10:AJ:75:ILE:CG1	2.43	0.49
31:DA:129:C:H5''	31:DA:129:C:H6	1.78	0.49
12:AL:46:LYS:HD3	12:AL:94:PRO:HG3	1.94	0.49
1:CA:789:U:H2'	1:CA:791:G:OP2	2.12	0.49
31:BA:363(C):G:H2'	31:BA:363(D):G:O4'	2.13	0.49
31:BA:363(E):U:H5''	31:BA:363(F):A:N3	2.27	0.49
31:BA:1358:G:H1'	31:BA:1373:A:H61	1.77	0.49
31:BA:1247:A:C4	31:BA:1249:U:C5	3.01	0.49
31:BA:2762:G:H8	31:BA:2762:G:H5''	1.78	0.49
31:DA:923:C:H2'	31:DA:924:C:H6	1.78	0.49
31:DA:2400:G:C6	31:DA:2401:U:C4	3.01	0.49
7:CG:73:MET:HA	7:CG:91:VAL:HG23	1.93	0.49
31:DA:1548:C:O2'	31:DA:1549:C:H5'	2.13	0.49
31:BA:414:C:H2'	31:BA:415:A:H8	1.77	0.49
31:BA:1933:G:C2'	31:BA:1934:C:O5'	2.61	0.49
1:AA:396:G:C2'	1:AA:398:C:OP1	2.61	0.49
31:BA:1307:A:N3	31:BA:1307:A:H2'	2.27	0.49
19:AS:36:ARG:HD2	19:AS:52:TYR:O	2.13	0.49
31:DA:1575:C:H2'	31:DA:1576:U:C6	2.47	0.49
1:CA:453:A:C5	1:CA:454:C:C4	3.01	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1754:C:H2'	31:BA:1755:A:O4'	2.13	0.49
1:CA:763:G:H2'	1:CA:764:C:H6	1.78	0.49
31:BA:338:G:H2'	31:BA:339:U:H6	1.77	0.49
1:CA:868:C:H2'	1:CA:869:G:O4'	2.12	0.48
30:D8:31:HIS:O	30:D8:33:ASN:N	2.46	0.48
31:DA:675:A:N6	31:DA:676:A:N6	2.60	0.48
41:DP:32:THR:HG21	41:DP:37:GLY:HA2	1.94	0.48
41:DP:39:LYS:HD3	41:DP:39:LYS:HA	1.56	0.48
41:DP:48:PRO:O	41:DP:50:ARG:N	2.45	0.48
31:BA:588:U:OP2	31:BA:588:U:C6	2.66	0.48
31:BA:697:C:C2	31:BA:698:C:C5	3.01	0.48
31:DA:1343:G:H1	31:DA:1404:C:H42	1.60	0.48
31:DA:142:A:H3'	31:DA:142(A):C:H5'	1.95	0.48
31:DA:94:C:O2	31:DA:94:C:H2'	2.12	0.48
25:D3:8:LEU:HG	25:D3:23:LEU:CD2	2.43	0.48
47:DV:13:ARG:HH11	47:DV:13:ARG:HG2	1.74	0.48
47:DV:2:PHE:O	47:DV:3:ALA:HB3	2.13	0.48
31:BA:71:A:C5	31:BA:73:A:N1	2.81	0.48
1:AA:408:A:OP1	4:AD:115:ARG:HB2	2.13	0.48
1:AA:626:U:C2	1:AA:627:G:N7	2.80	0.48
1:CA:353:A:C2'	1:CA:354:G:OP2	2.61	0.48
1:CA:358:U:N3	1:CA:359:U:N3	2.61	0.48
1:CA:438:G:OP1	4:CD:125:HIS:HE1	1.96	0.48
1:CA:515:G:H2'	1:CA:516:U:O4'	2.12	0.48
5:CE:103:GLY:O	5:CE:104:ALA:C	2.51	0.48
31:DA:1799:G:H5'	31:DA:1819:A:N6	2.27	0.48
33:DD:67:PHE:CE1	33:DD:157:ARG:NH2	2.81	0.48
31:BA:1156:A:H4'	31:BA:1157:G:OP2	2.13	0.48
31:DA:372:G:O2'	31:DA:373:U:P	2.71	0.48
31:DA:2572:A:N7	34:DE:145:LYS:HB2	2.28	0.48
34:DE:61:ARG:H	34:DE:62:PRO:HD2	1.76	0.48
1:CA:189(A):C:H2'	1:CA:189(B):C:H6	1.76	0.48
31:BA:932:G:H4'	31:BA:933:A:O5'	2.12	0.48
31:BA:370:G:H5''	31:BA:423:A:C6	2.46	0.48
23:B1:11:ARG:CG	23:B1:61:ARG:O	2.61	0.48
31:DA:1484:G:C6	31:DA:1506:C:N4	2.80	0.48
1:CA:676:A:C4	1:CA:677:U:C5	3.01	0.48
1:CA:681:C:C2	1:CA:710:G:N2	2.81	0.48
1:CA:682:G:N1	1:CA:683:G:C5	2.81	0.48
51:DZ:101:PRO:HA	51:DZ:123:ASP:HB3	1.94	0.48
22:D0:53:MET:HA	22:D0:58:THR:O	2.13	0.48
22:D0:74:ARG:HG2	32:DB:12:C:HO2'	1.73	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DB:21:G:C6	32:DB:63:G:N1	2.81	0.48
1:AA:682:G:H1'	1:AA:709:G:N2	2.28	0.48
1:AA:543:C:O2'	1:AA:544:G:H5'	2.13	0.48
1:AA:320:C:H2'	1:AA:321:A:O4'	2.13	0.48
1:AA:57:G:C6	1:AA:356:A:N1	2.81	0.48
20:AT:12:ALA:H	20:AT:13:LEU:HD12	1.77	0.48
33:DD:133:LEU:HD21	33:DD:191:ALA:HB2	1.94	0.48
38:BI:44:LEU:O	38:BI:47:LEU:HB2	2.13	0.48
1:CA:1109:C:H2'	1:CA:1110:A:O4'	2.12	0.48
31:BA:828:U:C3'	31:BA:828:U:O2	2.60	0.48
28:B6:48:VAL:CG2	28:B6:49:HIS:N	2.75	0.48
31:BA:2688:U:C5	31:BA:2720:U:OP2	2.65	0.48
31:BA:1575:C:H2'	31:BA:1576:U:C6	2.48	0.48
31:BA:1417:C:C2'	31:BA:1418:G:H5'	2.43	0.48
50:DY:87:LYS:HG3	50:DY:88:LYS:N	2.28	0.48
31:BA:873:G:H1	31:BA:904:C:H42	1.60	0.48
1:CA:1442(A):G:H3'	1:CA:1442(B):A:C5'	2.43	0.48
31:BA:1053:C:N4	31:BA:1107:G:H22	2.11	0.48
16:CP:4:ILE:HG13	16:CP:21:VAL:CG1	2.38	0.48
31:BA:859:G:O2'	31:BA:916:G:O6	2.29	0.48
31:DA:64:A:C6	31:DA:65:C:C4	3.01	0.48
12:CL:84:LEU:HB2	12:CL:105:TYR:CE1	2.48	0.48
31:DA:2740:A:C6	31:DA:2764:A:C8	3.01	0.48
31:DA:790:C:O2'	31:DA:791:C:C5'	2.61	0.48
1:CA:960:U:C5	1:CA:1225:A:H1'	2.48	0.48
11:AK:21:ILE:N	11:AK:21:ILE:HD12	2.28	0.48
1:CA:254:G:O2'	1:CA:255:G:H5'	2.13	0.48
33:DD:77:ALA:HB2	33:DD:97:TYR:CE2	2.48	0.48
45:BT:20:PRO:HD2	45:BT:85:LYS:HB3	1.93	0.48
40:DO:13:ASN:ND2	40:DO:97:ARG:HB2	2.28	0.48
1:AA:1346:A:H5''	9:AI:120:ARG:NH1	2.19	0.48
1:CA:1515:C:O2'	1:CA:1516:G:H5'	2.13	0.48
31:BA:2469:A:H5'	31:BA:2470:G:OP2	2.13	0.48
31:BA:2655:G:N3	31:BA:2664:G:O6	2.46	0.48
31:BA:2656:U:N3	31:BA:2665:A:H2	2.05	0.48
1:CA:159:G:N3	1:CA:161:A:OP2	2.46	0.48
31:DA:2486:G:H2'	31:DA:2487:G:O5'	2.13	0.48
1:AA:552:U:C4'	12:AL:86:ARG:HD2	2.43	0.48
8:CH:86:ILE:HG22	8:CH:87:SER:N	2.28	0.48
31:DA:2885:C:N3	31:DA:2886:G:H1'	2.28	0.48
31:DA:183:C:C2'	31:DA:184:C:H5'	2.42	0.48
1:AA:1515:C:O2'	1:AA:1516:G:H5'	2.13	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1916:A:H2'	31:BA:1916:A:N3	2.26	0.48
1:AA:652:U:O4	1:AA:752:G:O2'	2.24	0.48
37:BH:92:ILE:C	37:BH:94:TYR:H	2.15	0.48
51:BZ:157:LEU:HD13	51:BZ:161:VAL:HG12	1.94	0.48
40:BO:7:TYR:OH	40:BO:44:LYS:HG3	2.13	0.48
31:DA:1239:G:H2'	31:DA:1240:U:O4'	2.13	0.48
31:DA:1349:A:N3	31:DA:1349:A:H5'	2.28	0.48
35:BF:138:GLU:O	35:BF:141:ALA:HB3	2.13	0.48
9:CI:96:LEU:HD12	9:CI:101:PHE:HB2	1.95	0.48
31:BA:649:G:H2'	31:BA:650:C:C6	2.48	0.48
42:DQ:70:PRO:HG2	42:DQ:70:PRO:O	2.13	0.48
35:BF:28:ILE:N	35:BF:28:ILE:HD12	2.28	0.48
1:CA:380:G:C2	1:CA:384:G:C6	3.01	0.48
27:B5:11:THR:CG2	31:BA:1264:G:H5'	2.42	0.48
31:DA:1562:A:H2'	31:DA:1563:G:H8	1.78	0.48
1:CA:1416:G:C5	1:CA:1417:G:C5	3.01	0.48
8:AH:44:PHE:CE2	8:AH:109:ILE:HG21	2.47	0.48
34:BE:143:ASN:HB2	34:BE:147:PRO:HD2	1.95	0.48
31:DA:1053:C:N4	31:DA:1107:G:H22	2.10	0.48
1:CA:1462:G:H2'	1:CA:1463:C:H6	1.78	0.48
31:BA:1248:G:O2'	46:BU:3:ARG:HA	2.13	0.48
40:BO:34:THR:O	40:BO:37:ASP:HB2	2.13	0.48
34:DE:82:ARG:HG3	34:DE:83:ASP:N	2.28	0.48
41:DP:149:GLU:O	41:DP:149:GLU:HG3	2.12	0.48
31:DA:1762:A:H8	31:DA:1762:A:O5'	1.95	0.48
5:CE:19:MET:O	5:CE:20:GLN:CB	2.60	0.48
23:D1:26:ARG:CB	23:D1:34:THR:HB	2.42	0.48
41:DP:32:THR:O	41:DP:33:ARG:HB2	2.13	0.48
31:DA:1191:G:OP1	41:DP:35:HIS:ND1	2.46	0.48
31:BA:1675:C:N3	34:BE:128:SER:OG	2.45	0.48
31:BA:2080:G:N2	31:BA:2241:A:C4	2.81	0.48
31:BA:2579:C:H2'	31:BA:2580:U:O4'	2.13	0.48
31:BA:448:U:H1'	35:BF:84:VAL:CG1	2.43	0.48
31:BA:745:G:C2'	31:BA:746:A:H5'	2.43	0.48
41:BP:51:PHE:CB	41:BP:52:GLU:OE2	2.52	0.48
44:BS:106:ARG:O	44:BS:107:GLU:CB	2.60	0.48
24:D2:29:LYS:HZ3	49:DX:9:LEU:HA	1.76	0.48
31:DA:1341:U:HO2'	31:DA:1397:U:HO2'	1.55	0.48
49:DX:89:ILE:HD12	49:DX:92:LEU:HD12	1.95	0.48
41:BP:110:TYR:CG	41:BP:111:ARG:N	2.80	0.48
41:BP:138:LEU:N	41:BP:138:LEU:HD23	2.29	0.48
46:DU:92:ARG:HG2	46:DU:92:ARG:O	2.11	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1388:G:H2'	31:BA:1389:G:C8	2.47	0.48
31:BA:1404:C:H4'	31:BA:1404:C:OP1	2.12	0.48
31:BA:70:G:H21	31:BA:71:A:N6	2.09	0.48
49:BX:34:ALA:O	49:BX:36:LYS:HG3	2.13	0.48
1:AA:617:G:H1	1:AA:623:C:H42	1.59	0.48
1:CA:354:G:C4	1:CA:355:C:C5	3.01	0.48
1:CA:516:U:C5	1:CA:517:G:C6	3.01	0.48
1:CA:60:A:C4'	1:CA:61:G:O5'	2.61	0.48
4:CD:61:LYS:HB2	4:CD:203:VAL:HG13	1.95	0.48
4:CD:61:LYS:HD3	4:CD:62:GLN:N	2.28	0.48
5:CE:101:ILE:CD1	5:CE:119:LEU:HA	2.42	0.48
34:DE:60:ASN:OD1	34:DE:62:PRO:HD2	2.12	0.48
5:AE:78:HIS:CE1	5:AE:143:ARG:H	2.31	0.48
5:AE:12:LEU:HD13	5:AE:31:LEU:HB2	1.96	0.48
50:DY:26:LYS:HG2	50:DY:27:VAL:H	1.78	0.48
50:DY:38:ILE:N	50:DY:66:PRO:O	2.43	0.48
31:DA:1505:C:H5	31:DA:1506:C:C6	2.31	0.48
51:BZ:6:LYS:HG2	51:BZ:8:TYR:CZ	2.48	0.48
31:DA:2208:A:H1'	31:DA:2219:G:C5	2.47	0.48
31:DA:1039:G:N2	31:DA:1117:G:H1'	2.28	0.48
33:DD:70:TRP:CD1	33:DD:70:TRP:C	2.87	0.48
33:DD:70:TRP:CZ3	33:DD:150:LYS:HA	2.47	0.48
31:DA:1655:A:C8	31:DA:1656:C:C5	3.01	0.48
22:B0:53:MET:HB2	22:B0:59:LEU:CD2	2.43	0.48
1:CA:728:A:C6	15:CO:54:ARG:HD2	2.48	0.48
31:DA:1694:C:O2'	31:DA:1695:G:C5	2.67	0.48
31:DA:1581:G:C2'	31:DA:1582:C:H5'	2.43	0.48
34:BE:98:PRO:HD3	34:BE:175:VAL:HG13	1.95	0.48
31:BA:863:A:C2	31:BA:864:G:C4	3.01	0.48
31:BA:1952:A:OP1	40:BO:42:SER:OG	2.25	0.48
31:BA:2870:C:H5''	43:BR:65:LEU:HD21	1.95	0.48
31:DA:476:G:N2	31:DA:478:A:H3'	2.28	0.48
31:DA:1628:G:O2'	31:DA:1629:U:H5'	2.13	0.48
1:CA:270:A:C5	1:CA:271:C:C5	3.01	0.48
31:DA:1435:G:H2'	31:DA:1436:G:O4'	2.13	0.48
13:CM:24:GLY:C	13:CM:25:ILE:HD12	2.33	0.48
31:BA:1688:U:O2	31:BA:1700:A:H8	1.95	0.48
1:AA:260:G:H2'	1:AA:261:U:C6	2.47	0.48
13:CM:86:CYS:SG	13:CM:89:GLY:HA3	2.53	0.48
33:BD:260:ARG:HH22	33:BD:266:SER:HB2	1.77	0.48
31:BA:856:C:H4'	31:BA:857:C:OP1	2.13	0.48
1:CA:701:C:OP1	1:CA:702:A:H2'	2.14	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2580:U:H5'	34:DE:131:ALA:HB3	1.95	0.48
8:AH:39:LEU:HD22	8:AH:39:LEU:H	1.78	0.48
37:BH:44:VAL:HG12	37:BH:45:VAL:N	2.20	0.48
38:DI:15:VAL:O	38:DI:17:GLN:N	2.46	0.48
17:CQ:33:GLY:O	17:CQ:34:LYS:C	2.50	0.48
22:B0:49:LYS:HG3	22:B0:80:HIS:ND1	2.28	0.48
38:DI:12:LEU:N	38:DI:12:LEU:HD23	2.28	0.48
48:BW:8:ARG:HB3	48:BW:9:TYR:CD1	2.48	0.48
31:BA:38:A:C6	31:BA:39:C:N4	2.81	0.48
1:CA:1158:C:O2	1:CA:1158:C:C2'	2.61	0.48
51:BZ:130:PRO:O	51:BZ:133:ILE:HG13	2.12	0.48
12:CL:41:ARG:HG2	12:CL:42:THR:N	2.25	0.48
40:BO:61:VAL:O	40:BO:63:VAL:HG13	2.13	0.48
12:CL:119:LYS:C	12:CL:120:TYR:CD1	2.87	0.48
31:DA:1238:G:N2	31:DA:1239:G:H1'	2.28	0.48
31:DA:1204:A:H61	31:DA:1240:U:H2'	1.78	0.48
38:BI:29:TYR:HD2	38:BI:30:LEU:HD23	1.78	0.48
1:AA:515:G:N3	1:AA:537:G:C2	2.82	0.48
31:DA:1348:G:C2'	31:DA:1349:A:H5''	2.42	0.48
34:BE:120:TRP:CD1	34:BE:155:LYS:HB3	2.47	0.48
8:AH:51:VAL:O	8:AH:52:ASP:HB2	2.13	0.48
31:BA:1625:C:H2'	31:BA:1626:G:O4'	2.12	0.48
1:CA:484:G:C4'	1:CA:485:G:O5'	2.61	0.48
15:AO:4:THR:OG1	15:AO:7:GLU:HB2	2.13	0.48
31:DA:2826:A:C4	31:DA:2827:C:C6	3.01	0.48
35:BF:150:GLY:HA2	35:BF:172:TRP:CE3	2.48	0.48
31:DA:2050:C:H1'	34:DE:156:MET:HE2	1.93	0.48
35:DF:32:LEU:O	35:DF:32:LEU:HD23	2.13	0.48
20:CT:36:LEU:HD13	20:CT:36:LEU:HA	1.70	0.48
1:AA:137:C:O2'	1:AA:138:G:H5'	2.13	0.48
1:CA:1076:C:C2	1:CA:1082:G:C2	3.01	0.48
43:DR:83:ILE:O	43:DR:84:ALA:C	2.50	0.48
50:DY:52:SER:C	50:DY:54:LYS:H	2.16	0.48
33:DD:5:LYS:H	33:DD:5:LYS:HD2	1.78	0.48
31:BA:968:G:H2'	31:BA:969:U:O4'	2.12	0.48
31:BA:1895:C:H2'	31:BA:1896:G:O4'	2.14	0.48
1:CA:1330:U:C5'	1:CA:1331:G:O5'	2.62	0.48
1:CA:896:C:O2'	1:CA:897:C:H5'	2.13	0.48
31:DA:195:A:H2'	31:DA:198:C:N4	2.29	0.48
31:DA:2063:C:C4	31:DA:2064:C:C4	3.00	0.48
31:DA:2358:G:C5	31:DA:2359:C:C5	3.01	0.48
31:DA:2052:G:C8	34:DE:141:ILE:HD11	2.49	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:B6:27:LYS:O	28:B6:29:ASN:N	2.46	0.48
31:BA:2242:G:H2'	31:BA:2243:U:O5'	2.13	0.48
35:BF:68:LYS:HG2	35:BF:69:HIS:CE1	2.48	0.48
29:B7:5:TRP:HA	29:B7:5:TRP:HE3	1.78	0.48
33:BD:61:LEU:HA	33:BD:61:LEU:HD13	1.65	0.48
33:BD:63:ARG:CZ	33:BD:86:PRO:HD3	2.44	0.48
32:BB:25:A:C4	32:BB:26:A:C8	3.01	0.48
39:DN:58:ASP:C	39:DN:60:ILE:N	2.66	0.48
47:DV:60:GLU:O	47:DV:62:LEU:HG	2.13	0.48
47:DV:66:ARG:HD2	47:DV:68:LYS:N	2.29	0.48
31:BA:2759:G:C2'	31:BA:2760:C:H5'	2.43	0.48
49:BX:36:LYS:C	49:BX:38:GLU:N	2.67	0.48
31:DA:1324:G:C2	31:DA:1331:A:C2	3.00	0.48
32:DB:40:U:H1'	32:DB:45:A:N6	2.27	0.48
32:DB:55:U:OP2	32:DB:55:U:C6	2.65	0.48
44:DS:38:GLN:HG3	44:DS:47:THR:HG21	1.95	0.48
1:AA:373:A:N3	1:AA:374:A:C8	2.81	0.48
4:AD:68:TYR:CE2	4:AD:97:LEU:HB3	2.48	0.48
1:CA:105:G:H2'	1:CA:106:C:C6	2.48	0.48
1:CA:358:U:H2'	1:CA:359:U:H6	1.71	0.48
4:CD:79:PHE:CD1	4:CD:207:TYR:CD1	3.00	0.48
5:CE:139:LEU:HD23	5:CE:142:LEU:HD11	1.95	0.48
31:BA:1332:G:C8	31:BA:1332:G:H5'	2.48	0.48
33:DD:94:LEU:HA	33:DD:104:TYR:HA	1.94	0.48
37:DH:70:THR:O	37:DH:73:ALA:N	2.46	0.48
46:BU:37:GLU:O	46:BU:38:THR:C	2.51	0.48
31:DA:2773:C:H2'	31:DA:2774:C:C6	2.48	0.48
31:BA:570:G:H2'	31:BA:2030:A:C6	2.47	0.48
31:BA:1659:U:H2'	31:BA:1660:C:C5'	2.43	0.48
31:BA:705:A:C2	31:BA:727:A:H1'	2.48	0.48
47:BV:19:LYS:CG	47:BV:20:LEU:N	2.55	0.48
1:CA:734:G:C5	1:CA:735:C:C4	3.02	0.48
6:CF:48:LEU:HD13	6:CF:52:ILE:HG12	1.95	0.48
1:CA:1278:U:H5''	1:CA:1279:A:C1'	2.44	0.48
43:DR:96:ARG:NH2	43:DR:117:VAL:HG23	2.25	0.48
1:AA:1465:C:H2'	1:AA:1466:C:O4'	2.13	0.48
1:AA:355:C:N3	1:AA:356:A:N7	2.62	0.48
33:DD:173:VAL:HG12	33:DD:185:VAL:O	2.14	0.48
31:DA:528:A:N1	31:DA:2043:C:C5'	2.75	0.48
31:DA:956:G:OP2	42:DQ:14:ARG:NH2	2.46	0.48
2:AB:114:ARG:HD3	2:AB:114:ARG:O	2.13	0.48
31:DA:903:C:C3'	31:DA:904:C:H5''	2.43	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:919:G:H5'	32:DB:81:G:H1'	1.96	0.48
1:CA:303:A:O2'	1:CA:555:C:H4'	2.14	0.48
1:AA:561:U:HO2'	1:AA:562:C:P	2.35	0.48
1:CA:1442(A):G:C5	45:DT:118:ARG:NH2	2.80	0.48
1:AA:976:G:C5'	1:AA:1358:U:O2'	2.58	0.48
36:BG:73:ALA:HB3	36:BG:85:GLY:C	2.34	0.48
1:CA:952:U:H2'	1:CA:953:G:H8	1.78	0.48
24:D2:57:ILE:HG13	24:D2:57:ILE:O	2.12	0.48
38:DI:130:TYR:CG	38:DI:131:LYS:N	2.79	0.48
1:CA:254:G:OP1	17:CQ:68:ARG:HB3	2.14	0.48
2:AB:162:ILE:HD12	2:AB:184:VAL:HA	1.95	0.48
33:BD:235:GLY:C	33:BD:237:GLU:HG2	2.34	0.48
9:CI:5:TYR:HD2	9:CI:18:PHE:CE2	2.31	0.48
31:BA:754:C:O4'	31:BA:1618:A:H2	1.95	0.48
1:AA:792:A:H1'	1:AA:794:A:N7	2.29	0.48
29:D7:5:TRP:CD1	29:D7:7:PRO:HG3	2.48	0.48
1:CA:522:C:H5''	12:CL:120:TYR:OH	2.13	0.48
34:BE:101:ARG:HB3	34:BE:169:ASN:HD22	1.79	0.48
31:DA:1686:C:H2'	31:DA:1687:G:C5'	2.42	0.48
1:AA:425:G:O2'	1:AA:426:G:H5'	2.13	0.48
1:CA:166:G:H2'	1:CA:167:G:C8	2.47	0.48
6:AF:40:VAL:HA	6:AF:62:TRP:O	2.13	0.48
48:BW:73:ALA:HB3	48:BW:106:ILE:CD1	2.43	0.48
42:DQ:17:LEU:HD21	42:DQ:41:TRP:HE1	1.77	0.48
31:BA:363(D):G:C6	31:BA:363(E):U:O4	2.66	0.48
7:AG:91:VAL:O	7:AG:96:GLN:HG3	2.12	0.48
1:AA:241:C:C2	1:AA:286:G:C2	3.02	0.48
29:D7:15:THR:HG22	29:D7:16:HIS:CD2	2.49	0.48
7:CG:70:LYS:O	7:CG:138:LYS:HE3	2.13	0.48
23:D1:53:VAL:HG13	23:D1:54:ALA:N	2.28	0.48
1:AA:44:G:C6	1:AA:45:U:C2	3.02	0.48
6:AF:69:GLU:HG2	6:AF:70:ASP:H	1.78	0.48
5:CE:42:GLY:CA	5:CE:66:MET:HG2	2.43	0.48
11:AK:62:GLN:C	11:AK:64:ALA:N	2.66	0.48
33:BD:166:GLN:CA	33:BD:166:GLN:NE2	2.76	0.48
19:CS:29:ARG:HD2	19:CS:30:LEU:N	2.28	0.48
2:AB:167:PRO:HG3	2:AB:188:ALA:CB	2.43	0.48
1:AA:952:U:H2'	1:AA:953:G:H8	1.77	0.48
1:AA:1161:C:N3	1:AA:1176:A:N1	2.60	0.48
13:CM:4:ILE:HG13	13:CM:10:PRO:HD2	1.94	0.48
22:B0:51:VAL:N	22:B0:62:LEU:HD12	2.29	0.48
31:BA:2584:U:H2'	31:BA:2585:U:H5'	1.96	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:881:G:H2'	1:CA:882:C:O4'	2.13	0.48
34:BE:3:GLY:HA3	34:BE:81:ILE:HG21	1.95	0.48
46:BU:114:LYS:O	46:BU:115:ALA:C	2.50	0.48
31:DA:1265:A:C8	31:DA:1267:U:C2	3.02	0.48
20:AT:63:ILE:HD12	20:AT:81:LYS:HG3	1.95	0.48
31:BA:1049:C:O2	31:BA:1049:C:H2'	2.12	0.48
31:DA:405:U:H4'	31:DA:406:G:OP2	2.13	0.48
1:AA:1462:G:H2'	1:AA:1463:C:C6	2.49	0.48
1:CA:1504:G:H4'	1:CA:1505:G:OP2	2.13	0.48
31:DA:1188:U:O2'	31:DA:1189:A:H5'	2.13	0.48
31:DA:259:G:N2	31:DA:621:A:H8	2.12	0.48
31:DA:622:G:H2'	31:DA:623:G:O4'	2.13	0.48
28:B6:12:GLU:HA	28:B6:23:THR:CA	2.40	0.48
23:B1:34:THR:CG2	31:BA:388:G:OP1	2.59	0.48
34:BE:132:HIS:HD2	34:BE:135:HIS:CE1	2.19	0.48
31:BA:1657:C:OP1	34:BE:136:ARG:N	2.45	0.48
31:BA:1257:C:O2'	35:BF:84:VAL:HG23	2.13	0.48
33:BD:80:ALA:HB2	33:BD:96:HIS:CG	2.49	0.48
31:DA:1404:C:N3	31:DA:1405:U:C5	2.82	0.48
31:DA:1403:C:H2'	31:DA:1404:C:O4'	2.13	0.48
41:BP:90:ARG:O	41:BP:90:ARG:NH1	2.46	0.48
31:BA:2747:G:C2	31:BA:2756:U:C5	3.00	0.48
24:B2:30:ARG:H	24:B2:30:ARG:CD	2.11	0.48
34:BE:61:ARG:N	34:BE:62:PRO:CD	2.77	0.48
44:DS:94:TYR:C	44:DS:94:TYR:CD1	2.84	0.48
4:CD:10:ARG:HA	4:CD:13:ARG:HG3	1.95	0.48
1:CA:411:A:OP2	4:CD:25:ARG:NH2	2.47	0.48
4:CD:8:VAL:O	4:CD:11:LEU:HG	2.12	0.48
50:BY:45:VAL:HG13	50:BY:62:GLU:HG2	1.94	0.48
31:BA:1281:G:C2	31:BA:1290:C:C2	3.02	0.48
31:BA:1006:C:O2'	31:BA:1007:C:H5'	2.13	0.48
5:AE:12:LEU:HD22	5:AE:12:LEU:C	2.34	0.48
31:BA:705:A:C2	31:BA:706:A:C4	3.00	0.48
47:BV:72:VAL:HG12	47:BV:88:ARG:NH2	2.28	0.48
50:DY:11:ASP:N	50:DY:27:VAL:HA	2.28	0.48
11:CK:38:ASN:N	11:CK:38:ASN:ND2	2.60	0.48
31:BA:1235:G:C5	31:BA:1236:G:C6	3.01	0.48
51:DZ:6:LYS:HG2	51:DZ:8:TYR:OH	2.13	0.48
31:DA:911:A:C4	42:DQ:9:TYR:OH	2.60	0.48
32:DB:17:C:C2	32:DB:18:G:C8	3.01	0.48
51:DZ:19:ARG:NH1	51:DZ:19:ARG:CG	2.71	0.48
31:BA:1276:A:C2	31:BA:1277:G:C8	3.02	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DD:166:GLN:CA	33:DD:166:GLN:NE2	2.76	0.48
1:CA:1062:U:H2'	1:CA:1063:C:C6	2.49	0.48
1:CA:1091:U:C2'	1:CA:1091:U:O2	2.61	0.48
1:AA:308:C:H2'	1:AA:309:G:C8	2.46	0.48
1:AA:565:U:OP2	1:AA:566:G:O2'	2.22	0.48
31:BA:1108:U:H2'	31:BA:1109:C:H5'	1.94	0.48
1:CA:1355:G:H2'	1:CA:1356:G:C8	2.49	0.48
14:CN:24:CYS:SG	14:CN:40:CYS:N	2.86	0.48
31:BA:1972:A:O2'	31:BA:1973:G:H5'	2.12	0.48
31:DA:2574:G:C5	31:DA:2575:C:C4	3.02	0.48
1:AA:1205:U:HO2'	1:AA:1206:G:H8	1.60	0.48
43:BR:9:LYS:O	43:BR:10:LEU:CB	2.62	0.48
31:BA:2540:C:O2	31:BA:2740:A:H2	1.97	0.48
1:AA:255:G:C6	1:AA:256:U:C4	3.01	0.48
1:AA:264:U:O2'	17:AQ:64:PRO:HB2	2.13	0.48
43:DR:10:LEU:HD13	43:DR:17:ARG:HD2	1.94	0.48
10:CJ:96:ILE:N	10:CJ:96:ILE:HD13	2.28	0.48
12:AL:32:PHE:CB	12:AL:84:LEU:HD21	2.44	0.48
1:AA:142:G:C2	1:AA:143:A:N7	2.81	0.48
31:DA:1866:C:H2'	31:DA:1876:A:O4'	2.14	0.48
31:DA:1301:A:C4	31:DA:1303:G:N7	2.81	0.48
33:BD:3:VAL:O	33:BD:3:VAL:HG12	2.13	0.48
35:DF:117:ARG:HD3	35:DF:117:ARG:HA	1.57	0.48
4:CD:162:LEU:HD13	4:CD:181:MET:CE	2.42	0.48
1:CA:473:G:H2'	1:CA:474:G:C8	2.48	0.48
31:BA:1993:U:C5	31:BA:1994:C:C5	3.01	0.48
40:DO:47:ILE:HG13	40:DO:48:PRO:HD2	1.95	0.48
2:AB:235:SER:O	2:AB:239:VAL:CG2	2.61	0.48
31:BA:1939:U:OP1	31:BA:2604:U:O2'	2.28	0.48
31:BA:1357:U:H2'	31:BA:1358:G:O4'	2.13	0.48
31:DA:2100:G:O6	31:DA:2189:U:C4	2.67	0.48
6:CF:19:LEU:O	6:CF:23:LYS:HG3	2.13	0.48
31:DA:2454:G:H2'	31:DA:2455:G:H8	1.78	0.48
8:CH:103:VAL:HG21	8:CH:109:ILE:C	2.34	0.48
1:CA:719:C:H5	1:CA:720:C:C4	2.30	0.48
31:DA:1465:G:C2	31:DA:1466:G:C4	3.01	0.48
8:AH:44:PHE:HD1	8:AH:79:VAL:HG12	1.79	0.48
31:BA:2575:C:O5'	31:BA:2575:C:H6	1.96	0.48
31:DA:1914:C:C5	31:DA:1915:U:C2	3.02	0.48
19:AS:29:ARG:HB3	19:AS:47:HIS:HA	1.96	0.48
31:BA:2586:C:O2'	31:BA:2587:A:H5'	2.13	0.48
31:BA:979:G:C4	31:BA:982:C:N4	2.81	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:524:U:H4'	31:DA:555:U:H4'	1.96	0.48
31:DA:350:U:C2'	31:DA:351:G:O5'	2.61	0.48
31:DA:562:U:C4	31:DA:2036:C:O4'	2.66	0.48
1:CA:117:G:O2'	1:CA:118:U:H5'	2.14	0.48
19:AS:36:ARG:HH12	19:AS:75:ALA:HB3	1.78	0.48
11:CK:13:GLN:HB3	11:CK:75:TYR:O	2.13	0.48
27:B5:39:MET:HB2	48:BW:34:ASN:ND2	2.28	0.48
32:DB:71:C:H2'	32:DB:72:G:O4'	2.13	0.48
51:BZ:48:PHE:O	51:BZ:49:ARG:C	2.51	0.48
28:D6:20:ASN:O	28:D6:21:TYR:CD1	2.66	0.48
31:DA:631:A:H2	31:DA:2403:C:O2	1.97	0.48
31:DA:2251:G:C8	31:DA:2450:A:H4'	2.49	0.48
23:B1:33:LYS:HB3	31:BA:2395:C:O2'	2.13	0.48
31:BA:2070:G:H2'	31:BA:2071:A:H8	1.76	0.48
31:BA:2058:A:H61	55:BA:3362:TEL:C57	2.25	0.48
34:BE:132:HIS:O	34:BE:133:LYS:HG3	2.14	0.48
29:B7:19:ARG:HD3	31:BA:125:G:OP2	2.14	0.48
31:BA:1429:G:C5	31:BA:1568:G:C6	3.02	0.48
33:BD:25:THR:O	33:BD:25:THR:CG2	2.62	0.48
32:BB:32:C:C2	32:BB:51:G:C2	3.02	0.48
24:B2:48:HIS:CG	24:B2:48:HIS:O	2.66	0.48
31:BA:1528(A):A:N7	31:BA:1529:G:C8	2.81	0.48
44:DS:27:SER:HB2	44:DS:38:GLN:HB3	1.96	0.48
4:AD:109:GLY:O	4:AD:111:ALA:N	2.45	0.48
16:AP:8:ARG:C	16:AP:9:PHE:HD2	2.17	0.48
5:CE:100:VAL:HG13	5:CE:118:ILE:CG2	2.43	0.48
20:CT:26:ASN:HA	20:CT:29:LYS:HG2	1.96	0.48
31:DA:1452:A:C6	31:DA:2702:U:O2	2.67	0.48
5:AE:100:VAL:HG13	5:AE:118:ILE:CG2	2.44	0.48
5:AE:128:PRO:O	5:AE:129:ILE:C	2.52	0.48
31:BA:1796:U:H2'	31:BA:1797:C:H6	1.76	0.48
47:BV:21:ARG:HB3	47:BV:93:GLU:HG2	1.94	0.48
47:BV:62:LEU:HD22	47:BV:98:GLU:HB2	1.95	0.48
31:DA:303:U:H2'	31:DA:304:G:H8	1.78	0.48
31:BA:1435:G:H2'	31:BA:1436:G:O4'	2.13	0.48
31:BA:1210:A:C4'	31:BA:1211:U:OP2	2.60	0.48
31:BA:302:C:O2'	31:BA:303:U:H5'	2.13	0.48
31:BA:304:G:C2'	31:BA:305:U:H5'	2.44	0.48
51:DZ:10:ARG:HG3	51:DZ:18:LEU:HD21	1.96	0.48
22:D0:41:ARG:HD3	22:D0:44:ARG:HD3	1.95	0.48
1:AA:710:G:H2'	1:AA:711:G:C8	2.48	0.48
1:AA:1433:A:C6	1:AA:1434:A:C6	3.01	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DD:134:ARG:HG3	33:DD:187:GLY:HA3	1.94	0.48
31:DA:2626:C:O2'	31:DA:2627:G:H5'	2.13	0.48
9:CI:55:ALA:HB1	9:CI:59:PHE:CE1	2.47	0.48
31:BA:956:G:OP1	42:BQ:86:GLY:N	2.37	0.48
1:CA:1088:G:C4	1:CA:1089:G:C8	3.02	0.48
1:CA:1089:G:C6	1:CA:1090:U:C4	3.02	0.48
1:CA:1090:U:C2	1:CA:1091:U:H5	2.31	0.48
22:B0:40:GLN:NE2	22:B0:42:GLY:O	2.44	0.48
31:BA:825:C:H2'	31:BA:826:U:O5'	2.14	0.48
34:BE:24:THR:HG23	34:BE:184:VAL:CG2	2.44	0.48
51:BZ:27:VAL:O	51:BZ:87:ASP:HA	2.14	0.48
1:AA:27:G:H2'	1:AA:28:G:C8	2.48	0.48
12:AL:28:LYS:O	12:AL:29:GLY:C	2.52	0.48
50:DY:96:ILE:HG13	50:DY:99:CYS:SG	2.54	0.48
13:AM:97:PRO:O	13:AM:98:VAL:HG13	2.13	0.48
1:CA:1226:C:OP1	13:CM:91:ARG:NH1	2.46	0.48
45:DT:89:VAL:CG1	45:DT:91:ARG:HE	2.23	0.48
31:DA:1992:G:C2	31:DA:1997:G:C5	3.01	0.48
1:CA:1239:A:H2'	1:CA:1298:C:H42	1.78	0.48
45:DT:28:VAL:HG22	45:DT:46:GLU:HG3	1.96	0.48
1:AA:1064:G:H21	1:AA:1190:G:H2'	1.74	0.48
1:CA:173:U:C6	1:CA:197:A:C2	3.01	0.48
31:DA:1436:G:O2'	31:DA:1477:A:H4'	2.14	0.48
31:BA:271(P):C:C2	31:BA:271(Q):G:N7	2.82	0.48
14:AN:29:ARG:HD3	14:AN:40:CYS:SG	2.53	0.48
36:DG:92:VAL:HG22	36:DG:93:THR:N	2.21	0.48
39:BN:128:HIS:NE2	39:BN:131:GLN:HB3	2.29	0.48
31:BA:2472:G:H2'	31:BA:2529:G:N2	2.28	0.48
31:BA:174:C:C3'	31:BA:175:G:H5''	2.43	0.48
36:DG:71:THR:HB	36:DG:89:GLY:H	1.78	0.48
31:BA:2849:U:O4	45:BT:23:ARG:NH2	2.46	0.48
17:AQ:31:LEU:HG	17:AQ:32:TYR:CE2	2.49	0.48
23:D1:71:TYR:HE1	38:DI:27:ARG:HD2	1.73	0.48
31:BA:541:C:H2'	31:BA:542:C:C6	2.48	0.48
3:AC:157:ILE:C	3:AC:159:GLY:H	2.16	0.48
10:AJ:80:LYS:NZ	10:AJ:80:LYS:HB2	2.28	0.48
31:DA:881:G:N2	31:DA:896:A:H62	2.11	0.48
31:DA:271(A):A:N1	31:DA:272(D):G:O2'	2.39	0.48
1:CA:36:C:H2'	1:CA:37:U:C5'	2.43	0.48
27:B5:25:LEU:HD12	48:BW:19:LEU:HB3	1.95	0.48
1:AA:829:G:C6	1:AA:858:G:N2	2.81	0.48
3:AC:54:ARG:NH1	3:AC:56:ASP:HB2	2.28	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DQ:34:LEU:HD11	42:DQ:129:THR:CB	2.42	0.48
4:AD:104:VAL:HG13	4:AD:108:LEU:HD13	1.95	0.48
1:CA:299:G:N7	1:CA:300:A:N6	2.61	0.48
8:AH:103:VAL:HG21	8:AH:109:ILE:C	2.33	0.48
43:BR:103:ARG:HB2	43:BR:109:ALA:O	2.13	0.48
31:BA:1442:G:C2	31:BA:1443:G:C4	3.01	0.48
40:DO:60:ALA:HB2	40:DO:86:ILE:HA	1.96	0.48
31:BA:2584:U:O5'	31:BA:2584:U:O2	2.32	0.48
31:DA:2513:G:H2'	31:DA:2514:U:C6	2.48	0.48
31:BA:29:U:H2'	31:BA:30:G:C8	2.49	0.48
13:CM:68:GLY:HA2	13:CM:71:ARG:HB3	1.95	0.48
46:BU:114:LYS:O	46:BU:116:ALA:N	2.47	0.48
4:AD:180:GLY:HA3	4:AD:182:LYS:HE2	1.96	0.48
31:BA:45:C:H2'	31:BA:47:C:C6	2.48	0.48
6:AF:15:ASP:C	6:AF:17:SER:H	2.17	0.48
35:DF:157:VAL:HA	35:DF:176:LEU:O	2.13	0.48
43:BR:83:ILE:O	43:BR:84:ALA:C	2.51	0.48
31:DA:43:A:C2	31:DA:44:G:C4	3.02	0.48
34:BE:66:HIS:O	34:BE:66:HIS:CG	2.67	0.48
1:CA:839:U:H3'	1:CA:839:U:O2	2.14	0.48
30:D8:35:GLN:HB3	30:D8:36:LYS:HZ3	1.78	0.48
31:DA:259:G:H1'	31:DA:621:A:O2'	2.14	0.48
35:DF:39:TRP:CZ3	35:DF:106:ARG:HD2	2.49	0.48
41:DP:85:LEU:HD12	41:DP:120:ALA:HB2	1.96	0.48
30:B8:6:THR:CG2	31:BA:243:U:OP1	2.61	0.48
31:BA:2242:G:C2'	31:BA:2243:U:O5'	2.61	0.48
55:BA:3362:TEL:C14	55:BA:3362:TEL:O5	2.30	0.48
35:BF:31:HIS:HB2	41:BP:13:ASN:HD22	1.78	0.48
24:D2:26:ARG:NH1	24:D2:29:LYS:HE2	2.27	0.48
31:DA:1385:G:O2'	31:DA:1396:U:C6	2.63	0.48
25:D3:32:GLN:HB2	31:DA:1158:C:H4'	1.95	0.48
47:DV:72:VAL:HA	47:DV:88:ARG:HH22	1.74	0.48
24:B2:30:ARG:HD2	24:B2:30:ARG:N	2.20	0.48
24:B2:30:ARG:O	24:B2:32:LEU:O	2.32	0.48
31:BA:1468:C:C2	31:BA:1525:G:C2	3.02	0.48
49:BX:84:ALA:C	49:BX:86:GLY:N	2.67	0.48
49:BX:90:GLU:C	49:BX:92:LEU:N	2.67	0.48
31:DA:1287:A:C5	31:DA:1288:U:C4	3.01	0.48
1:AA:438:G:OP1	4:AD:125:HIS:HE1	1.97	0.48
1:AA:407:G:H4'	4:AD:115:ARG:O	2.13	0.48
1:CA:538:G:OP1	12:CL:115:LYS:HB2	2.14	0.48
4:CD:119:GLN:O	4:CD:123:HIS:HD2	1.97	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:91:SER:O	4:CD:94:LEU:HB2	2.14	0.48
1:AA:445:G:N3	1:AA:446:G:C8	2.82	0.48
33:DD:35:LYS:HZ3	33:DD:104:TYR:HD1	1.61	0.48
31:BA:1139:G:H5'	39:BN:102:ALA:CB	2.43	0.48
31:BA:2038:G:H2'	31:BA:2039:C:O4'	2.13	0.48
31:DA:2786:U:C2	31:DA:2787:C:C5	3.01	0.48
31:BA:1654:A:C1'	31:BA:2823:A:H5'	2.44	0.48
31:BA:707:G:C6	31:BA:708:C:C4	3.01	0.48
23:B1:60:PHE:HZ	23:B1:90:ILE:HG21	1.78	0.48
31:DA:2494:G:C5	31:DA:2495:G:N7	2.81	0.48
31:BA:258:G:C4	31:BA:259:G:C8	3.01	0.48
1:AA:675:A:C6	1:AA:676:A:C5	3.02	0.48
1:AA:683:G:C6	1:AA:684:A:C5	3.02	0.48
1:AA:734:G:H2'	1:AA:735:C:C6	2.48	0.48
32:BB:15:A:H1'	32:BB:110:G:C4	2.48	0.48
32:BB:69:G:C5	32:BB:70:C:C5	3.02	0.48
31:BA:393:C:C4	31:BA:394:A:N7	2.81	0.48
31:DA:528:A:C2	31:DA:2043:C:C4'	2.96	0.48
27:D5:46:CYS:SG	27:D5:47:PRO:CG	3.01	0.48
1:AA:1484:C:C1'	31:BA:1960:A:O2'	2.62	0.48
4:CD:33:MET:HA	4:CD:33:MET:CE	2.43	0.48
1:AA:658:G:O2'	1:AA:659:U:H5'	2.13	0.48
1:CA:577:G:H2'	1:CA:578:C:H6	1.78	0.48
1:CA:816:A:OP2	1:CA:1527:C:H5'	2.14	0.48
34:BE:111:ARG:NH1	43:BR:2:ARG:NH2	2.61	0.48
34:DE:24:THR:HG21	34:DE:188:VAL:CG1	2.42	0.48
31:BA:1419:A:O2'	31:BA:1421:G:N7	2.41	0.48
31:BA:1581:G:H2'	31:BA:1582:C:H5'	1.94	0.48
50:DY:80:GLY:O	50:DY:81:LYS:CB	2.61	0.48
45:BT:36:GLU:C	45:BT:38:ASN:H	2.17	0.48
38:DI:98:ALA:CA	38:DI:109:ILE:HD13	2.44	0.48
13:AM:91:ARG:HB2	13:AM:98:VAL:CG2	2.39	0.48
31:DA:1027:A:C6	31:DA:1126:A:C4	3.02	0.48
31:DA:1678:G:N2	31:DA:1989:G:N2	2.52	0.48
45:BT:65:LYS:CG	45:BT:66:VAL:N	2.77	0.48
51:DZ:27:VAL:CG2	51:DZ:36:LYS:HA	2.37	0.48
48:DW:13:SER:O	48:DW:16:LYS:HB2	2.13	0.48
34:DE:38:THR:HB	34:DE:41:LYS:HE3	1.95	0.48
40:DO:104:ARG:CB	40:DO:104:ARG:CZ	2.91	0.48
40:DO:107:ARG:HE	40:DO:115:VAL:HG11	1.78	0.48
31:BA:2740:A:C6	31:BA:2764:A:C8	3.02	0.48
31:DA:79:G:C4	31:DA:80:G:C8	3.01	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1517:G:H2'	31:DA:1518:U:O4'	2.14	0.48
17:AQ:59:ILE:HG22	17:AQ:71:PHE:CD1	2.49	0.48
2:CB:97:TRP:HH2	2:CB:176:GLU:HG3	1.79	0.48
49:BX:40:LYS:CG	49:BX:41:ASN:H	2.25	0.48
31:BA:2830:G:O2'	31:BA:2831:G:H5'	2.13	0.48
31:DA:441:U:H2'	31:DA:442:G:C8	2.48	0.48
49:DX:65:ARG:CZ	49:DX:66:LEU:N	2.75	0.48
8:AH:10:LEU:CD2	8:AH:10:LEU:N	2.77	0.48
37:DH:89:ILE:HD11	37:DH:129:THR:CB	2.40	0.48
31:BA:213:A:H2'	31:BA:214:G:O4'	2.13	0.48
31:BA:721:C:H5'	31:BA:722:A:OP2	2.14	0.48
19:CS:70:LYS:C	19:CS:72:GLY:H	2.16	0.48
31:DA:2291:U:C5'	31:DA:2380:C:O2	2.62	0.48
31:BA:1693:U:OP2	31:BA:1694:C:H5	1.96	0.48
14:AN:44:LEU:C	14:AN:44:LEU:HD12	2.34	0.48
1:CA:940:C:H2'	1:CA:941:G:C8	2.46	0.48
1:CA:563:A:N7	1:CA:567:G:H1'	2.28	0.48
8:AH:28:ALA:HB2	8:AH:58:TYR:O	2.13	0.48
1:AA:989:C:C1'	1:AA:1016:A:H2	2.26	0.48
40:BO:90:GLN:O	40:BO:91:LEU:HB2	2.13	0.48
18:CR:53:ARG:HG3	18:CR:63:GLN:HG2	1.95	0.48
31:DA:1848:A:O2'	31:DA:1849:G:H5'	2.13	0.48
4:CD:2:GLY:O	4:CD:4:TYR:N	2.46	0.48
37:DH:43:VAL:HG12	37:DH:53:GLU:HB2	1.95	0.48
19:AS:15:LEU:HD13	19:AS:31:ILE:HD11	1.95	0.48
2:CB:8:LYS:HZ2	2:CB:217:ARG:HH11	1.59	0.48
17:CQ:2:PRO:O	17:CQ:4:LYS:N	2.46	0.48
1:CA:396:G:O2'	1:CA:398:C:OP1	2.27	0.48
31:DA:2583:G:H2'	31:DA:2584:U:O2	2.14	0.48
49:BX:93:GLU:HG3	49:BX:93:GLU:O	2.13	0.48
23:B1:83:GLU:HG3	23:B1:83:GLU:O	2.14	0.48
33:DD:79:VAL:HG12	33:DD:79:VAL:O	2.13	0.48
18:AR:87:ARG:NH1	18:AR:87:ARG:HB3	2.29	0.48
12:CL:34:ARG:HG2	12:CL:35:GLY:N	2.28	0.48
1:CA:1047:G:H2'	1:CA:1048:G:H5'	1.96	0.48
36:DG:132:ASN:OD1	36:DG:158:ALA:HA	2.14	0.48
27:D5:20:ARG:HB3	27:D5:23:HIS:CD2	2.48	0.48
1:CA:529:G:O6	12:CL:49:ASN:ND2	2.46	0.48
1:CA:16:A:N1	1:CA:919:A:C2	2.82	0.48
23:B1:26:ARG:CB	23:B1:34:THR:HB	2.43	0.48
31:BA:2590:A:H2'	31:BA:2591:C:C6	2.48	0.48
31:BA:669:G:H8	31:BA:669:G:HO2'	1.55	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BP:10:PRO:O	41:BP:11:GLY:O	2.31	0.48
41:BP:8:PRO:O	41:BP:9:ASN:C	2.52	0.48
33:BD:35:LYS:HZ3	33:BD:104:TYR:HD1	1.61	0.48
44:BS:35:ILE:HD11	44:BS:99:LYS:HE2	1.94	0.48
31:BA:2520:C:N3	31:BA:2521:C:C5	2.82	0.48
24:D2:41:ILE:O	24:D2:43:GLN:N	2.47	0.48
24:D2:48:HIS:CG	24:D2:48:HIS:O	2.66	0.48
49:DX:73:ARG:O	49:DX:74:PRO:C	2.51	0.48
41:BP:112:LEU:H	41:BP:128:HIS:CD2	2.32	0.48
25:D3:8:LEU:HD22	25:D3:9:VAL:N	2.29	0.48
31:DA:848:G:O6	31:DA:928:G:H2'	2.14	0.48
47:DV:18:LEU:HD12	47:DV:98:GLU:OE1	2.14	0.48
47:DV:19:LYS:HE2	47:DV:20:LEU:CD1	2.41	0.48
47:DV:32:THR:HG22	47:DV:33:VAL:N	2.23	0.48
33:BD:255:LYS:CE	33:BD:255:LYS:H	2.26	0.48
20:CT:18:GLN:O	20:CT:19:SER:C	2.51	0.48
31:BA:1324:G:C4	31:BA:1328:G:O6	2.66	0.48
33:DD:16:MET:HG3	33:DD:211:ARG:HH21	1.79	0.48
33:DD:35:LYS:HE3	33:DD:65:ILE:HG22	1.96	0.48
31:DA:1567:A:H2'	33:DD:86:PRO:HB3	1.96	0.48
33:DD:91:ARG:CG	33:DD:91:ARG:HH11	2.23	0.48
31:BA:537:C:H5'	31:BA:538:G:OP2	2.13	0.48
31:DA:2563:U:O2	31:DA:2565:A:C8	2.67	0.48
31:DA:2653:U:C2'	31:DA:2654:A:OP1	2.61	0.48
31:BA:2030:A:H8	31:BA:2030:A:H5''	1.79	0.48
31:BA:526:A:O2'	31:BA:2043:C:H2'	2.13	0.48
5:AE:101:ILE:HD13	5:AE:118:ILE:O	2.14	0.48
31:BA:1824:G:C2'	31:BA:1825:A:H5'	2.44	0.48
31:BA:1824:G:OP1	33:BD:52:ARG:NH1	2.46	0.48
47:BV:19:LYS:HE2	47:BV:20:LEU:CD1	2.39	0.48
31:DA:315:G:H2'	31:DA:316:C:C6	2.49	0.48
1:CA:675:A:C6	1:CA:676:A:C5	3.02	0.48
1:CA:682:G:C4	1:CA:709:G:N1	2.82	0.48
1:CA:676:A:H5''	11:CK:113:PRO:HB2	1.96	0.48
1:CA:718:G:H5'	11:CK:117:ASN:HB2	1.95	0.48
51:DZ:3:TYR:CG	51:DZ:51:ALA:HB2	2.48	0.48
1:AA:540:G:H2'	1:AA:541:G:O4'	2.13	0.48
1:AA:358:U:O2'	1:AA:359:U:H5'	2.13	0.48
20:AT:26:ASN:HA	20:AT:29:LYS:HG2	1.95	0.48
23:B1:20:ARG:HD3	23:B1:41:ARG:HD3	1.94	0.48
9:AI:55:ALA:HB1	9:AI:59:PHE:CE1	2.46	0.48
31:DA:2830:G:O2'	31:DA:2831:G:H5'	2.12	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:832:C:O2'	1:AA:833:U:P	2.71	0.48
22:B0:40:GLN:NE2	22:B0:45:PHE:H	2.10	0.48
1:CA:817:C:H4'	1:CA:818:G:OP1	2.13	0.48
1:AA:19:C:H5''	5:AE:86:ALA:HB3	1.96	0.48
31:DA:2873:A:C2	43:DR:6:SER:HB2	2.49	0.48
1:AA:20:U:O2'	1:AA:21:G:H5'	2.13	0.48
36:BG:73:ALA:HB3	36:BG:85:GLY:O	2.13	0.48
36:BG:76:SER:CB	36:BG:83:ARG:HB3	2.33	0.48
45:DT:65:LYS:HG3	45:DT:66:VAL:N	2.28	0.48
11:AK:20:TYR:HA	11:AK:83:ILE:O	2.13	0.48
31:DA:1661:G:O2'	31:DA:1662:C:H5'	2.13	0.48
1:AA:264:U:H2'	1:AA:265:G:O4'	2.13	0.48
31:BA:2472:G:H1'	31:BA:2478:A:N6	2.29	0.48
37:BH:149:ARG:HD3	37:BH:164:TYR:CE1	2.45	0.48
31:DA:173:G:C6	31:DA:174:C:C4	3.01	0.48
19:AS:70:LYS:C	19:AS:72:GLY:H	2.16	0.48
31:BA:2561:A:H2'	31:BA:2562:U:O4'	2.14	0.48
10:AJ:7:LYS:HB2	10:AJ:97:GLU:CB	2.41	0.48
16:AP:39:TYR:CE1	16:AP:41:PRO:HA	2.49	0.48
47:BV:50:PRO:HG2	47:BV:51:VAL:H	1.79	0.48
1:AA:564:C:N1	17:AQ:31:LEU:HD11	2.28	0.48
1:CA:527:G:C2'	1:CA:528:C:H5'	2.44	0.48
45:BT:57:PHE:C	45:BT:59:THR:N	2.67	0.48
2:CB:17:PHE:HD1	2:CB:41:ILE:HG23	1.78	0.48
1:AA:516:U:C5	1:AA:517:G:C6	3.01	0.48
31:BA:36:G:C6	31:BA:37:C:C4	3.02	0.48
31:BA:1935:G:H1'	31:BA:1964:G:N2	2.29	0.48
31:DA:754:C:C2	31:DA:755:C:C5	3.01	0.48
31:BA:2193:G:C6	31:BA:2194:G:C5	3.01	0.48
31:DA:2600:A:C6	31:DA:2601:C:N4	2.82	0.48
11:AK:73:MET:SD	11:AK:103:LEU:CD2	3.01	0.48
16:CP:45:THR:HG23	16:CP:46:PRO:HD2	1.96	0.48
1:CA:582:U:C2	1:CA:760:G:C6	3.01	0.48
13:AM:106:ASN:OD1	13:AM:106:ASN:N	2.47	0.48
16:CP:51:VAL:HG12	16:CP:52:ASP:N	2.29	0.48
46:DU:12:ARG:HA	46:DU:15:LYS:HG2	1.96	0.48
31:DA:2448:A:OP1	31:DA:2499:C:OP1	2.31	0.48
31:DA:31:C:H2'	31:DA:32:C:O4'	2.14	0.48
31:DA:447:A:C5	31:DA:454:A:N7	2.82	0.48
6:CF:69:GLU:HG2	6:CF:70:ASP:H	1.79	0.48
4:AD:2:GLY:O	4:AD:4:TYR:N	2.47	0.48
3:CC:15:THR:CG2	3:CC:181:ASN:HA	2.43	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1367:A:N7	31:DA:1368:G:H1'	2.29	0.48
31:DA:1368:G:C2	31:DA:1369:G:C8	3.01	0.48
31:DA:2050:C:H1'	34:DE:156:MET:HE1	1.94	0.48
1:CA:1386:G:N3	1:CA:1387:G:C8	2.82	0.48
31:BA:2422:A:H4'	31:BA:2423:U:OP1	2.14	0.48
1:AA:1121:U:H3	1:AA:1152:A:H2	1.62	0.48
31:BA:1638:C:H4'	31:BA:2710:C:O2	2.13	0.48
1:CA:785:G:C2'	1:CA:786:G:H5'	2.43	0.48
1:CA:872:A:C2	1:CA:874:G:C5	3.02	0.48
34:BE:13:ARG:HA	34:BE:21:VAL:O	2.13	0.48
1:AA:1047:G:H2'	1:AA:1048:G:H5'	1.95	0.48
1:AA:505:G:C6	1:AA:535:A:C2	3.02	0.48
47:BV:81:TYR:CD2	47:BV:81:TYR:O	2.67	0.48
31:DA:2321:G:H5''	31:DA:2322:A:OP2	2.13	0.48
1:CA:861:G:O5'	1:CA:861:G:H8	1.96	0.48
28:D6:27:LYS:HE3	31:DA:2285:C:C5	2.49	0.48
31:DA:563:G:H1	31:DA:578:A:H61	1.62	0.48
31:DA:647:G:H8	31:DA:647:G:O5'	1.96	0.48
31:DA:819:A:H2	31:DA:943:U:O4'	1.97	0.48
41:DP:110:TYR:CG	41:DP:111:ARG:N	2.81	0.48
31:BA:2394:C:P	41:BP:63:PRO:CD	3.02	0.48
30:B8:8:LYS:HE2	31:BA:243:U:OP2	2.13	0.48
32:BB:45:A:N3	32:BB:45:A:H2'	2.29	0.48
24:D2:30:ARG:O	24:D2:32:LEU:O	2.31	0.48
24:D2:46:GLN:O	24:D2:49:LYS:N	2.46	0.48
31:DA:1528(A):A:N7	31:DA:1529:G:C8	2.82	0.48
47:DV:72:VAL:CG1	47:DV:88:ARG:HH22	2.27	0.48
49:BX:21:PHE:CD1	49:BX:21:PHE:N	2.78	0.48
49:BX:60:ARG:CG	49:BX:72:LYS:H	2.27	0.48
32:DB:7:G:H4'	44:DS:29:PHE:CD1	2.48	0.48
20:AT:16:HIS:O	20:AT:19:SER:N	2.47	0.48
1:CA:385:C:O2'	1:CA:386:C:H5'	2.14	0.48
1:CA:39:G:C6	1:CA:40:C:C4	3.01	0.48
4:CD:106:TYR:CE1	4:CD:113:SER:HA	2.49	0.48
5:CE:137:GLU:O	5:CE:141:GLN:HG3	2.13	0.48
31:DA:1779:U:C2	31:DA:1783:A:N7	2.82	0.48
31:BA:1138:G:H1'	39:BN:105:GLY:O	2.13	0.48
31:BA:994:C:OP1	46:BU:53:ARG:NH2	2.47	0.48
46:BU:61:TRP:O	46:BU:63:VAL:N	2.47	0.48
37:DH:151:ILE:HB	37:DH:162:ILE:HD11	1.95	0.48
47:BV:86:GLY:O	47:BV:87:HIS:CG	2.66	0.48
31:BA:312:G:H4'	31:BA:331:A:N3	2.29	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DB:15:A:O2'	32:DB:110:G:C8	2.59	0.48
35:BF:183:VAL:O	35:BF:184:TYR:C	2.52	0.48
34:DE:2:LYS:HD3	34:DE:95:ILE:HG22	1.94	0.48
1:AA:358:U:C2	1:AA:359:U:C2	3.02	0.48
1:CA:1189:C:H5''	3:CC:5:ILE:HG21	1.95	0.48
1:AA:1091:U:C2'	1:AA:1091:U:O2	2.61	0.48
34:BE:12:THR:O	34:BE:23:VAL:HG22	2.13	0.48
1:AA:303:A:H1'	1:AA:555:C:O2'	2.13	0.48
16:AP:20:VAL:HG21	16:AP:32:TYR:CD1	2.49	0.48
1:AA:1357:A:H5''	1:AA:1358:U:OP2	2.14	0.48
31:DA:497:A:C5	31:DA:498:G:C8	3.02	0.48
31:DA:1337:G:C4	31:DA:1338:G:C8	3.01	0.48
24:D2:57:ILE:HD12	24:D2:58:ALA:O	2.14	0.48
45:DT:89:VAL:HG12	45:DT:91:ARG:HG2	1.96	0.48
2:CB:85:ALA:O	2:CB:89:GLY:N	2.47	0.48
43:BR:17:ARG:HG2	43:BR:21:TYR:CE1	2.48	0.48
1:AA:269:C:H2'	1:AA:270:A:H8	1.79	0.48
31:BA:183:C:C2'	31:BA:184:C:H5'	2.44	0.48
1:CA:1285:A:H8	1:CA:1285:A:OP1	1.96	0.48
16:AP:38:TYR:O	16:AP:39:TYR:CB	2.61	0.48
31:DA:213:A:H2'	31:DA:214:G:O4'	2.14	0.48
1:CA:79:G:H4'	1:CA:80:G:OP1	2.12	0.48
31:BA:38:A:H2'	31:BA:39:C:H6	1.74	0.48
1:CA:989:C:C1'	1:CA:1016:A:H2	2.27	0.48
40:BO:7:TYR:C	40:BO:8:LEU:HD22	2.33	0.48
4:CD:148:VAL:HG12	4:CD:149:ALA:H	1.72	0.48
4:CD:172:PRO:CB	4:CD:187:ARG:HH22	2.24	0.48
31:BA:892:G:C6	31:BA:894:C:C4	3.02	0.48
1:CA:1261:A:H5'	1:CA:1284:C:OP1	2.13	0.48
1:CA:758:G:C5'	1:CA:880:C:H1'	2.43	0.48
1:CA:834:C:H2'	1:CA:835:U:H6	1.78	0.48
1:AA:868:C:H2'	1:AA:869:G:O4'	2.13	0.48
31:DA:979:G:H3'	31:DA:980:A:H5''	1.96	0.48
27:B5:11:THR:HG21	31:BA:1264:G:H5'	1.94	0.48
4:CD:176:LEU:CG	4:CD:178:VAL:HG22	2.43	0.48
1:AA:484:G:C4'	1:AA:485:G:O5'	2.61	0.48
36:DG:94:LEU:CD1	36:DG:99:MET:HA	2.44	0.48
1:AA:148:G:H1	1:AA:174:C:H42	1.61	0.48
31:BA:2051:A:H5'	31:BA:2578:G:O4'	2.13	0.48
20:AT:31:SER:HA	20:AT:34:LYS:HD2	1.96	0.48
38:BI:8:PRO:C	38:BI:9:LEU:HD23	2.34	0.48
19:AS:29:ARG:HD2	19:AS:30:LEU:N	2.28	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1052:C:N4	31:DA:1107:G:H1	2.12	0.48
2:AB:59:GLU:HB2	2:AB:221:LEU:HD11	1.95	0.48
5:AE:36:ASP:O	5:AE:37:ARG:HB2	2.14	0.48
31:BA:2623:G:H4'	31:BA:2825:C:O2	2.14	0.48
31:BA:1854:A:H2'	31:BA:1855:G:O4'	2.13	0.48
7:CG:49:ILE:O	7:CG:49:ILE:HG22	2.14	0.48
47:DV:81:TYR:O	47:DV:81:TYR:CD2	2.67	0.48
31:DA:407:G:H2'	31:DA:408:G:H8	1.78	0.48
1:CA:1242:C:P	21:CU:10:ARG:HH12	2.37	0.48
28:D6:14:THR:C	28:D6:16:CYS:H	2.17	0.48
30:D8:7:HIS:HD2	41:DP:50:ARG:HD3	1.78	0.48
35:DF:83:PHE:C	35:DF:84:VAL:HG23	2.33	0.48
41:DP:16:ARG:CG	41:DP:16:ARG:NH1	2.57	0.48
30:B8:29:LYS:NZ	30:B8:44:LYS:CB	2.77	0.48
44:BS:57:LYS:HG2	44:BS:58:LEU:H	1.78	0.48
44:BS:98:VAL:HG22	44:BS:99:LYS:N	2.29	0.48
31:DA:1142(A):A:O2'	31:DA:1143:A:H3'	2.14	0.48
39:DN:35:ARG:CB	39:DN:42:TRP:HZ3	2.27	0.48
31:BA:142(A):C:H2'	31:BA:143:G:O4'	2.14	0.48
31:BA:1450(A):C:H2'	31:BA:1451:C:C6	2.49	0.48
31:BA:1450(A):C:C4	31:BA:1451:C:N4	2.81	0.48
32:DB:57:A:N3	32:DB:58:A:H8	2.11	0.48
36:DG:11:TYR:CG	36:DG:100:TRP:CH2	3.01	0.48
44:DS:71:ARG:HG2	44:DS:101:LEU:CD1	2.44	0.48
44:DS:89:ARG:O	44:DS:92:TYR:CG	2.66	0.48
44:DS:98:VAL:HG22	44:DS:99:LYS:N	2.29	0.48
1:AA:392:G:O3'	16:AP:13:HIS:HE1	1.95	0.48
1:CA:320:C:H2'	1:CA:321:A:O4'	2.14	0.48
1:CA:425:G:O2'	1:CA:426:G:H5'	2.12	0.48
1:CA:509:A:P	1:CA:509:A:H3'	2.54	0.48
1:CA:515:G:N3	1:CA:537:G:C2	2.81	0.48
1:CA:618:C:H5''	1:CA:619:U:C5'	2.43	0.48
5:CE:139:LEU:C	5:CE:141:GLN:H	2.16	0.48
5:CE:139:LEU:O	5:CE:141:GLN:N	2.46	0.48
1:CA:375:U:OP1	16:CP:69:THR:HG21	2.13	0.48
1:AA:445:G:H1	1:AA:489:C:H42	1.62	0.48
31:DA:1783:A:N1	31:DA:2587:A:C4	2.82	0.48
39:BN:103:VAL:HG11	39:BN:120:LEU:HD23	1.96	0.48
31:BA:994:C:H1'	47:BV:10:LYS:NZ	2.28	0.48
23:D1:94:LEU:HD22	23:D1:95:LEU:N	2.29	0.48
31:DA:2653:U:H2'	31:DA:2654:A:C8	2.49	0.48
5:AE:103:GLY:O	5:AE:104:ALA:C	2.51	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:B1:9:GLY:O	23:B1:10:LYS:CB	2.57	0.48
1:CA:710:G:H2'	1:CA:711:G:C8	2.49	0.48
51:DZ:152:ALA:CB	51:DZ:167:PRO:HB2	2.44	0.48
1:AA:511:C:N3	1:AA:512:U:C4	2.82	0.48
1:AA:355:C:C2	1:AA:356:A:C8	3.02	0.48
31:DA:1040:C:H42	31:DA:1116:C:N4	2.10	0.48
27:D5:41:PRO:O	27:D5:42:PRO:C	2.52	0.48
27:D5:46:CYS:SG	27:D5:47:PRO:HG2	2.53	0.48
3:CC:182:ILE:HG23	3:CC:202:ILE:C	2.33	0.48
1:CA:1085:U:C6	1:CA:1094:G:N1	2.82	0.48
1:AA:1107:C:OP1	3:AC:174:PRO:HG3	2.14	0.48
1:CA:730:G:C5	1:CA:731:G:H1'	2.49	0.48
34:BE:116:VAL:O	34:BE:117:MET:HB3	2.13	0.48
31:DA:2681:C:C6	31:DA:2724:C:N4	2.82	0.48
1:AA:914:A:C4	1:AA:915:A:C8	3.02	0.48
31:BA:953:A:C2'	31:BA:954:G:H5'	2.44	0.48
1:AA:818:G:O2'	1:AA:820:U:H6	1.95	0.48
12:AL:25:PRO:C	12:AL:27:LEU:N	2.67	0.48
40:BO:104:ARG:C	40:BO:106:LEU:N	2.65	0.48
40:BO:107:ARG:HH11	45:BT:35:LYS:CB	2.27	0.48
41:DP:123:LEU:O	41:DP:124:LYS:C	2.52	0.48
1:AA:1391:U:O2'	1:AA:1392:G:H5'	2.13	0.48
16:CP:4:ILE:HB	16:CP:66:PRO:HB3	1.95	0.48
31:DA:2712:U:C1'	31:DA:2712(A):A:C8	2.93	0.48
1:CA:689:C:OP1	11:CK:27:ASN:ND2	2.46	0.48
14:CN:24:CYS:CB	14:CN:29:ARG:HB3	2.42	0.48
14:CN:4:LYS:HD2	14:CN:7:ILE:CD1	2.43	0.48
8:AH:86:ILE:O	8:AH:87:SER:C	2.51	0.48
8:AH:88:LYS:HB3	8:AH:89:PRO:HD2	1.96	0.48
45:DT:29:ARG:HB2	45:DT:85:LYS:HA	1.93	0.48
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.49	0.48
1:CA:171:A:H2'	1:CA:172:A:C8	2.49	0.48
45:BT:28:VAL:CG2	45:BT:46:GLU:HA	2.38	0.48
45:BT:61:PHE:CZ	45:BT:76:PHE:HB2	2.49	0.48
45:BT:30:VAL:CG2	45:BT:83:ILE:HG12	2.43	0.48
31:BA:2471:C:O2	31:BA:2471:C:C2'	2.59	0.48
43:DR:9:LYS:O	43:DR:10:LEU:CB	2.61	0.48
31:DA:455:C:N3	31:DA:472:A:H2'	2.28	0.48
31:DA:470:A:O2'	31:DA:471:A:H5'	2.14	0.48
37:BH:40:GLU:O	37:BH:41:MET:CB	2.61	0.48
49:DX:44:GLU:C	49:DX:46:ALA:H	2.17	0.48
4:AD:196:LEU:N	4:AD:196:LEU:HD12	2.29	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2469:A:C5	31:DA:2482:G:C8	3.01	0.48
31:DA:2886:G:H2'	31:DA:2887:U:C6	2.38	0.48
1:AA:781:A:H5'	1:AA:782:A:OP2	2.13	0.48
31:DA:548:A:O2'	31:DA:549:G:OP1	2.25	0.48
31:DA:464:U:C2'	31:DA:465:G:H5'	2.44	0.48
35:DF:34:TRP:CZ2	41:DP:12:ALA:HB2	2.49	0.48
31:DA:1363:C:H2'	31:DA:1364:G:C8	2.49	0.48
31:BA:1385:G:O2'	31:BA:1396:U:C6	2.61	0.48
10:AJ:50:ILE:N	10:AJ:50:ILE:HD13	2.29	0.48
1:AA:1030(D):A:N7	1:AA:1031:G:N3	2.62	0.48
31:BA:1598:C:H2'	31:BA:1599:C:H6	1.79	0.48
31:BA:1547:C:O2'	31:BA:1548:C:H5'	2.13	0.48
1:AA:672:U:H4'	6:AF:80:ARG:NH1	2.29	0.48
1:AA:36:C:H2'	1:AA:37:U:C5'	2.43	0.48
3:CC:54:ARG:NH1	3:CC:56:ASP:HB2	2.29	0.48
36:BG:37:VAL:CG2	36:BG:103:LEU:HD11	2.43	0.48
31:DA:1893:C:C6	31:DA:1894:C:C5	3.02	0.48
48:BW:86:LEU:HD12	48:BW:87:PRO:O	2.14	0.48
1:CA:1161:C:N3	1:CA:1176:A:N1	2.62	0.48
46:DU:70:ARG:O	46:DU:70:ARG:HG2	2.13	0.48
33:DD:221:VAL:HG22	33:DD:226:MET:HE3	1.96	0.48
40:DO:7:TYR:CZ	40:DO:44:LYS:HG3	2.49	0.48
31:BA:877:U:C2'	31:BA:878:A:H5''	2.44	0.48
35:DF:172:TRP:CE3	35:DF:173:VAL:HG23	2.49	0.48
7:AG:75:VAL:HG23	7:AG:75:VAL:O	2.12	0.48
2:AB:82:ARG:HG3	2:AB:92:TYR:CE1	2.49	0.48
31:BA:2674:G:H2'	31:BA:2675:A:O4'	2.14	0.48
4:AD:147:ALA:HA	4:AD:182:LYS:HA	1.95	0.48
20:AT:64:ASP:OD2	20:AT:81:LYS:NZ	2.46	0.48
2:AB:35:GLU:HA	2:AB:39:ILE:O	2.13	0.48
13:AM:11:ARG:CZ	36:BG:147:ASP:HB3	2.44	0.48
19:CS:69:HIS:HB2	19:CS:74:PHE:HE2	1.78	0.48
47:BV:55:ALA:C	47:BV:57:VAL:H	2.16	0.48
31:DA:194:G:C2'	31:DA:195:A:H5'	2.44	0.48
30:D8:13:ARG:NH2	31:DA:250:G:OP2	2.47	0.48
31:DA:389:G:N1	41:DP:70:GLN:HG3	2.29	0.48
30:D8:58:ILE:HG22	41:DP:49:ARG:CD	2.44	0.48
30:B8:62:LEU:C	30:B8:64:TYR:H	2.18	0.48
31:BA:1670:C:OP2	31:BA:2550:G:OP1	2.31	0.48
31:BA:387:U:C4'	31:BA:388:G:O5'	2.61	0.48
44:BS:28:VAL:HG12	44:BS:29:PHE:N	2.29	0.48
31:DA:1344:G:H4'	31:DA:1384:A:C5	2.49	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:D3:50:VAL:O	25:D3:51:ALA:C	2.53	0.48
31:DA:1141:U:C5	39:DN:64:GLY:CA	2.97	0.48
31:BA:1465:G:C6	31:BA:1466:G:C5	3.02	0.48
34:BE:63:LEU:O	34:BE:64:LYS:C	2.51	0.48
31:BA:1843:C:O2'	31:BA:1844:C:H5'	2.14	0.48
31:BA:1845:G:H2'	31:BA:1846:G:C5'	2.43	0.48
44:DS:28:VAL:O	44:DS:29:PHE:CB	2.61	0.48
1:CA:408:A:C6	1:CA:409:G:C5	3.02	0.48
1:CA:376:G:P	16:CP:67:THR:HG21	2.54	0.48
33:DD:159:ALA:N	33:DD:196:VAL:HG11	2.29	0.48
33:DD:53:PHE:HA	33:DD:218:ARG:HB2	1.96	0.48
25:B3:8:LEU:HG	25:B3:23:LEU:CD2	2.44	0.48
5:AE:110:LEU:HD12	5:AE:118:ILE:HG21	1.96	0.48
1:CA:130:A:H1'	1:CA:263:A:O2'	2.14	0.48
50:DY:15:VAL:CG1	50:DY:16:ALA:N	2.75	0.48
31:DA:1504:C:HO2'	31:DA:1505:C:C5'	2.24	0.48
31:BA:1474:C:H3'	31:BA:1475:G:H8	1.79	0.48
42:DQ:139:GLU:O	51:DZ:99:TYR:CE2	2.66	0.48
51:DZ:39:VAL:HG23	51:DZ:40:ASP:O	2.13	0.48
31:DA:2282:G:H5''	31:DA:2283:C:O4'	2.13	0.48
6:AF:48:LEU:HD13	6:AF:52:ILE:HG12	1.96	0.48
32:BB:66:A:C6	32:BB:109:C:C5	3.02	0.48
50:BY:80:GLY:O	50:BY:81:LYS:CB	2.61	0.48
1:CA:1205:U:H2'	1:CA:1206:G:C8	2.49	0.48
31:BA:2282:G:OP1	31:BA:2283:C:H1'	2.13	0.48
1:AA:1099:G:H2'	1:AA:1099:G:N3	2.29	0.48
1:CA:818:G:O2'	1:CA:820:U:H6	1.96	0.48
31:DA:1495:A:C2'	31:DA:1496:A:N3	2.67	0.48
1:AA:885:G:N3	1:AA:914:A:C2	2.82	0.48
31:BA:866:A:C2	31:BA:867:C:C4	3.01	0.48
33:BD:155:LEU:O	33:BD:156:ALA:C	2.51	0.48
1:AA:343:U:O2	1:AA:347:G:C2	2.67	0.48
31:DA:500:G:N2	31:DA:502:A:H3'	2.29	0.48
11:CK:53:SER:C	11:CK:55:LYS:N	2.66	0.48
31:DA:90:U:O2	31:DA:90:U:C2'	2.61	0.48
12:CL:60:LEU:CD2	12:CL:66:VAL:HG22	2.34	0.48
24:B2:57:ILE:CG1	24:B2:59:ARG:HH11	2.27	0.48
1:CA:952:U:H4'	1:CA:964:A:H61	1.77	0.48
31:DA:1411:C:C2'	31:DA:1412:A:C8	2.90	0.48
40:DO:35:VAL:HA	40:DO:62:VAL:CG1	2.44	0.48
1:CA:257:G:H1	1:CA:269:C:H42	1.61	0.48
31:BA:1505:C:H5	31:BA:1506:C:C6	2.32	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BD:77:ALA:HB2	33:BD:97:TYR:CE2	2.49	0.48
31:DA:109:G:C4	31:DA:110:G:C8	3.02	0.48
1:AA:254:G:OP1	17:AQ:68:ARG:HB3	2.13	0.48
39:DN:13:TRP:C	39:DN:135:PRO:HG2	2.34	0.48
31:BA:2469:A:C5	31:BA:2482:G:C8	3.02	0.48
36:BG:60:LEU:HD12	36:BG:68:PRO:HD3	1.96	0.48
36:BG:71:THR:HB	36:BG:89:GLY:H	1.78	0.48
1:AA:10:A:H2'	1:AA:11:G:H8	1.78	0.48
31:DA:2472:G:H1'	31:DA:2478:A:N6	2.29	0.48
1:CA:1321:C:H5''	1:CA:1322:C:C5'	2.39	0.48
31:DA:211:A:O2'	31:DA:212:G:H5'	2.14	0.48
6:CF:94:GLN:NE2	18:CR:32:ARG:HD2	2.29	0.48
18:CR:65:ILE:HD12	18:CR:66:LEU:N	2.28	0.48
31:BA:2072:G:H2'	31:BA:2073:C:O4'	2.14	0.48
1:CA:1305:G:C5'	21:CU:4:GLY:HA3	2.44	0.48
35:DF:138:GLU:O	35:DF:139:PHE:C	2.53	0.48
31:BA:2063:C:C5	31:BA:2064:C:C5	3.02	0.48
2:CB:29:ALA:C	2:CB:31:TYR:N	2.67	0.48
31:DA:2019:A:C6	31:DA:2020:A:N7	2.81	0.48
44:BS:33:LYS:O	44:BS:34:HIS:CD2	2.67	0.48
1:CA:518:C:C4	1:CA:530:G:N7	2.82	0.48
31:BA:1921:G:H2'	31:BA:1922:G:C8	2.49	0.48
1:AA:78:G:H1	1:AA:91:C:N4	2.10	0.48
1:AA:581:G:C2	1:AA:582:U:O4	2.67	0.48
33:DD:117:VAL:HA	33:DD:129:ASN:OD1	2.14	0.48
6:CF:44:GLY:HA2	6:CF:59:TYR:CD2	2.49	0.48
2:AB:158:LEU:N	2:AB:158:LEU:HD12	2.26	0.48
31:DA:30:G:H2'	31:DA:31:C:H6	1.79	0.48
15:CO:64:ARG:O	15:CO:65:ARG:C	2.51	0.48
1:CA:148:G:H1	1:CA:174:C:H42	1.61	0.48
1:CA:448:A:C2	1:CA:487:A:C2	3.01	0.48
43:BR:100:LEU:HD21	43:BR:113:LEU:CD1	2.44	0.48
31:DA:1545:A:H2'	31:DA:1546:C:H5'	1.94	0.48
1:CA:479:C:H2'	1:CA:480:U:O4'	2.13	0.48
31:DA:1847:A:H2'	31:DA:1847:A:N3	2.28	0.48
31:DA:414:C:H2'	31:DA:415:A:C8	2.48	0.48
31:BA:30:G:C5	31:BA:31:C:C4	3.02	0.48
31:BA:32:C:C2'	31:BA:33:U:H5'	2.42	0.48
31:BA:31:C:C4	31:BA:32:C:C5	3.01	0.48
1:AA:527:G:C2'	1:AA:528:C:H5'	2.44	0.48
10:AJ:16:LEU:CD1	10:AJ:70:ARG:HE	2.26	0.48
31:DA:350:U:H2'	31:DA:351:G:O5'	2.14	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CM:29:ARG:HA	13:CM:32:GLU:HB3	1.96	0.48
42:BQ:110:THR:HB	42:BQ:112:GLU:HG3	1.95	0.48
31:BA:2027:G:N2	31:BA:2037:G:C4	2.82	0.48
31:DA:1805:U:H2'	31:DA:1806:C:C6	2.49	0.48
1:AA:417:C:O2'	1:AA:418:C:H5'	2.13	0.48
33:DD:31:LYS:HZ2	33:DD:31:LYS:HB2	1.79	0.48
46:BU:27:LEU:N	46:BU:27:LEU:CD2	2.77	0.48
1:CA:1418:A:H5''	1:CA:1419:G:OP2	2.14	0.48
5:AE:135:THR:O	5:AE:138:ALA:HB3	2.13	0.48
42:BQ:43:THR:OG1	42:BQ:45:GLN:HG2	2.13	0.48
31:DA:225:A:H2'	31:DA:226:G:H5'	1.95	0.47
31:DA:2442:C:O2'	31:DA:2443:C:H5'	2.13	0.47
31:BA:1673:U:O4	34:BE:129:HIS:HD2	1.96	0.47
31:BA:2403:C:N3	31:BA:2415:G:C2	2.82	0.47
31:BA:449:A:H2'	31:BA:450:G:H5'	1.96	0.47
32:BB:57:A:H2'	32:BB:57:A:N3	2.28	0.47
44:BS:78:LEU:O	44:BS:79:ALA:C	2.53	0.47
31:DA:2859:G:HO2'	31:DA:2860:A:P	2.37	0.47
49:DX:83:VAL:O	49:DX:84:ALA:CB	2.62	0.47
41:BP:122:PRO:HB3	41:BP:141:ALA:O	2.13	0.47
25:D3:13:ILE:N	25:D3:13:ILE:HD13	2.28	0.47
31:DA:535:C:O3'	46:DU:53:ARG:NH1	2.47	0.47
46:DU:68:ALA:O	46:DU:71:GLN:CB	2.62	0.47
31:BA:1397:U:O2'	31:BA:1398:C:P	2.72	0.47
34:BE:32:PRO:HD2	34:BE:50:GLY:H	1.79	0.47
31:DA:1605:C:O4'	31:DA:1610:A:C6	2.67	0.47
36:DG:25:TYR:O	36:DG:26:GLN:HG2	2.13	0.47
44:DS:33:LYS:O	44:DS:34:HIS:CD2	2.67	0.47
4:AD:135:LEU:C	4:AD:137:SER:N	2.68	0.47
1:CA:356:A:C2'	1:CA:357:G:O5'	2.62	0.47
4:CD:102:ASP:HA	4:CD:121:VAL:HG21	1.96	0.47
20:CT:29:LYS:O	20:CT:33:ILE:HG12	2.14	0.47
50:BY:11:ASP:OD1	50:BY:11:ASP:C	2.52	0.47
50:BY:13:VAL:HG21	50:BY:28:LYS:NZ	2.28	0.47
31:BA:1187:G:O5'	31:BA:1187:G:H8	1.97	0.47
31:DA:2663:G:N7	31:DA:2664:G:C6	2.81	0.47
31:DA:2889:C:H2'	31:DA:2891:G:O4'	2.13	0.47
31:DA:2631:G:H22	34:DE:61:ARG:HH12	1.54	0.47
31:BA:1651:G:N2	31:BA:2007:C:C2	2.82	0.47
5:AE:102:ALA:O	5:AE:107:ARG:NH1	2.46	0.47
5:AE:129:ILE:O	5:AE:132:ALA:HB3	2.13	0.47
1:CA:673:G:C6	1:CA:734:G:C6	3.02	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:BZ:10:ARG:NH2	51:BZ:26:GLY:O	2.47	0.47
51:BZ:125:LEU:HD23	51:BZ:126:VAL:N	2.29	0.47
50:BY:46:LYS:CB	50:BY:47:LYS:HD2	2.44	0.47
27:B5:36:CYS:HB2	27:B5:49:CYS:SG	2.54	0.47
39:BN:83:LYS:CE	39:BN:85:ILE:HD11	2.37	0.47
4:CD:24:GLU:O	4:CD:26:CYS:N	2.47	0.47
31:DA:852:G:O2'	31:DA:853:G:H5'	2.14	0.47
38:BI:47:LEU:O	38:BI:51:ILE:HG12	2.12	0.47
31:DA:857:C:C2	31:DA:858:U:C5	3.01	0.47
31:DA:1696:G:C6	31:DA:1697:G:C5	3.02	0.47
1:CA:557:G:N1	1:CA:558:G:C2	2.82	0.47
1:CA:558:G:C5	1:CA:559:A:C2	3.02	0.47
1:AA:579:G:C5	1:AA:580:U:C5	3.02	0.47
1:AA:579:G:H2'	1:AA:580:U:H6	1.79	0.47
31:BA:902:C:H2'	31:BA:903:C:C6	2.49	0.47
31:BA:1052:C:N4	31:BA:1107:G:H1	2.12	0.47
40:BO:111:PHE:O	40:BO:113:LYS:N	2.47	0.47
31:DA:501:A:C6	31:DA:502:A:C6	3.02	0.47
13:AM:78:ILE:HA	13:AM:81:LEU:HD12	1.96	0.47
1:CA:965:A:C2	1:CA:969:A:N1	2.82	0.47
2:AB:67:THR:HG21	2:AB:155:LEU:CD2	2.44	0.47
31:BA:2712:U:C1'	31:BA:2712(A):A:C8	2.94	0.47
45:DT:74:ARG:HB3	45:DT:76:PHE:CE1	2.50	0.47
31:BA:1171:G:N7	31:BA:1173:G:H1'	2.29	0.47
1:AA:236:G:H5''	17:AQ:42:TYR:OH	2.14	0.47
45:BT:106:SER:CA	45:BT:110:ILE:HG13	2.39	0.47
39:DN:128:HIS:CD2	39:DN:131:GLN:CB	2.97	0.47
31:DA:1881:C:H3'	31:DA:1882:C:H6	1.79	0.47
29:D7:37:LYS:HE2	31:DA:469:G:O6	2.14	0.47
1:CA:1346:A:H61	1:CA:1374:A:H3'	1.78	0.47
37:BH:52:VAL:HG13	37:BH:65:HIS:NE2	2.29	0.47
31:BA:1579:A:H2'	31:BA:1580:A:C8	2.49	0.47
31:DA:2854:G:C5	31:DA:2855:C:C5	3.01	0.47
31:DA:1132:A:OP1	39:DN:82:LEU:HD23	2.14	0.47
37:BH:19:VAL:HG21	37:BH:44:VAL:HA	1.95	0.47
31:BA:756:C:C4	31:BA:757:U:C4	3.02	0.47
6:AF:94:GLN:NE2	18:AR:32:ARG:HD2	2.28	0.47
36:DG:146:TYR:HA	36:DG:149:VAL:HG22	1.96	0.47
51:DZ:154:ASP:C	51:DZ:155:LEU:HG	2.34	0.47
31:DA:686:G:H21	31:DA:788:A:H61	1.59	0.47
4:CD:180:GLY:HA3	4:CD:182:LYS:HE2	1.96	0.47
31:BA:1386:C:OP2	31:BA:1396:U:H5	1.97	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:792:A:N3	1:CA:794:A:C5	2.81	0.47
1:CA:853:G:N1	1:CA:854:G:C5	2.82	0.47
8:CH:44:PHE:CE2	8:CH:109:ILE:HG21	2.49	0.47
46:DU:44:ASN:ND2	46:DU:44:ASN:N	2.60	0.47
10:CJ:65:LEU:HD13	14:CN:56:VAL:CG2	2.44	0.47
3:AC:135:LYS:HZ2	5:AE:53:LEU:HD11	1.78	0.47
30:B8:19:SER:HB3	31:BA:651:G:H5'	1.95	0.47
34:DE:143:ASN:HB2	34:DE:147:PRO:HD2	1.96	0.47
18:CR:26:LEU:HD21	18:CR:42:ARG:HD2	1.95	0.47
31:DA:1519:G:H5'	31:DA:1520:G:P	2.54	0.47
11:AK:48:ILE:HG21	11:AK:63:LEU:HD13	1.95	0.47
1:AA:964:A:N6	1:AA:965:A:N6	2.62	0.47
21:AU:12:LYS:HG3	21:AU:17:THR:O	2.14	0.47
31:BA:2574:G:C5	31:BA:2575:C:C4	3.02	0.47
13:AM:29:ARG:HA	13:AM:32:GLU:HB3	1.95	0.47
31:DA:877:U:C2'	31:DA:878:A:H5''	2.44	0.47
31:BA:2674:G:O3'	40:BO:30:ALA:HA	2.14	0.47
46:BU:10:ARG:O	46:BU:11:ARG:C	2.51	0.47
31:DA:346:A:H2'	31:DA:347:A:O5'	2.14	0.47
20:CT:21:LYS:HB3	20:CT:25:ARG:NH2	2.29	0.47
31:DA:2670:A:H8	31:DA:2670:A:H5''	1.79	0.47
36:BG:132:ASN:OD1	36:BG:158:ALA:HA	2.14	0.47
42:DQ:78:PRO:C	42:DQ:79:LEU:HG	2.35	0.47
3:AC:27:LYS:HA	3:AC:27:LYS:NZ	2.28	0.47
35:DF:122:LYS:N	35:DF:122:LYS:HD3	2.28	0.47
30:D8:32:LEU:HG	30:D8:35:GLN:H	1.78	0.47
31:DA:2243:U:H2'	31:DA:2244:U:H6	1.78	0.47
31:DA:2244:U:H2'	31:DA:2245:U:O4'	2.14	0.47
30:D8:6:THR:CG2	31:DA:243:U:OP1	2.62	0.47
31:DA:2500:U:H2'	31:DA:2504:U:C5	2.47	0.47
31:DA:626:U:C5'	31:DA:627:A:H5'	2.44	0.47
31:DA:822:U:C2'	31:DA:823:G:H5'	2.44	0.47
41:DP:50:ARG:HH21	41:DP:50:ARG:CG	2.25	0.47
41:DP:73:GLY:O	41:DP:74:GLU:C	2.52	0.47
41:DP:90:ARG:O	41:DP:91:PHE:CB	2.60	0.47
31:BA:198:C:H6	31:BA:198:C:O5'	1.97	0.47
31:BA:197:A:N6	31:BA:2430:A:H2'	2.29	0.47
31:BA:251:A:C5'	41:BP:51:PHE:HZ	2.27	0.47
31:BA:390:A:H4'	31:BA:391:G:H5'	1.96	0.47
35:BF:83:PHE:C	35:BF:84:VAL:HG23	2.33	0.47
31:BA:1242:A:N1	41:BP:8:PRO:CG	2.77	0.47
32:BB:25:A:C2'	32:BB:26:A:C8	2.88	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1709:U:O2'	31:DA:2859:G:H1'	2.14	0.47
24:D2:54:LYS:N	24:D2:56:GLN:HG2	2.30	0.47
31:DA:1342:A:O2'	31:DA:1344:G:OP2	2.27	0.47
31:DA:1600:C:OP1	49:DX:35:THR:HG21	2.14	0.47
31:DA:534:U:O2'	46:DU:49:HIS:CD2	2.68	0.47
24:B2:21:LEU:HD13	24:B2:50:ILE:HG22	1.97	0.47
31:BA:143:G:H2'	31:BA:143(A):C:C6	2.49	0.47
31:DA:1323:U:H2'	31:DA:1324:G:H5'	1.96	0.47
36:DG:111:LEU:HD13	36:DG:120:LEU:HD21	1.96	0.47
1:CA:330:C:C2'	1:CA:331:G:H5'	2.44	0.47
1:CA:502:G:OP1	12:CL:117:ARG:N	2.44	0.47
4:CD:76:ARG:HD2	4:CD:207:TYR:CE1	2.49	0.47
31:DA:729:G:OP1	33:DD:10:THR:OG1	2.23	0.47
37:DH:135:GLY:C	37:DH:137:ASP:H	2.18	0.47
31:BA:1142(A):A:C4	31:BA:1144:G:C8	3.01	0.47
31:BA:985:C:H2'	31:BA:986:C:C6	2.49	0.47
31:BA:987:G:H2'	31:BA:988:A:O4'	2.14	0.47
5:AE:100:VAL:O	5:AE:107:ARG:NH2	2.47	0.47
5:AE:137:GLU:O	5:AE:141:GLN:HG3	2.14	0.47
31:BA:1789:A:H2'	31:BA:1790:C:O4'	2.14	0.47
31:BA:729:G:O2'	31:BA:763:G:H4'	2.14	0.47
33:BD:46:GLN:HG3	33:BD:46:GLN:H	1.32	0.47
46:BU:47:TYR:HA	46:BU:50:ARG:NH2	2.29	0.47
50:DY:13:VAL:HG21	50:DY:28:LYS:HZ2	1.79	0.47
6:CF:52:ILE:O	6:CF:53:ALA:HB3	2.15	0.47
51:DZ:6:LYS:HB3	51:DZ:8:TYR:CE1	2.48	0.47
43:BR:18:LEU:O	43:BR:22:ARG:HG3	2.15	0.47
32:DB:15:A:H1'	32:DB:110:G:C4	2.49	0.47
35:BF:39:TRP:O	35:BF:42:ALA:HB3	2.14	0.47
51:DZ:84:GLU:HA	51:DZ:84:GLU:OE2	2.14	0.47
27:B5:45:VAL:HG22	27:B5:51:TYR:CE1	2.49	0.47
34:DE:47:VAL:HG21	34:DE:84:PHE:CD1	2.48	0.47
31:DA:2195:C:H2'	31:DA:2196:C:O4'	2.14	0.47
1:AA:330:C:H2'	1:AA:331:G:H5'	1.95	0.47
1:AA:1420:C:H4'	31:BA:1950:G:OP1	2.14	0.47
31:DA:1108:U:H2'	31:DA:1109:C:H5'	1.96	0.47
36:DG:45:GLU:HB2	36:DG:47:LYS:CD	2.44	0.47
1:CA:1061:G:C4	1:CA:1197:G:N2	2.82	0.47
22:B0:40:GLN:HE22	22:B0:45:PHE:H	1.60	0.47
1:AA:1102:A:H2'	1:AA:1103:C:H5'	1.96	0.47
4:AD:20:TYR:CD2	4:AD:26:CYS:HB3	2.50	0.47
22:D0:23:VAL:HG12	22:D0:25:ARG:O	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:952:G:C6	31:BA:966:G:C6	3.03	0.47
1:CA:1357:A:H5''	1:CA:1358:U:OP2	2.14	0.47
38:BI:109:ILE:N	38:BI:109:ILE:HD12	2.28	0.47
10:CJ:49:VAL:HG22	14:CN:41:ARG:CB	2.44	0.47
2:AB:85:ALA:O	2:AB:89:GLY:N	2.47	0.47
38:DI:130:TYR:HB2	38:DI:136:VAL:HG13	1.96	0.47
38:DI:71:ILE:HG12	38:DI:72:LEU:HD22	1.96	0.47
51:DZ:27:VAL:O	51:DZ:87:ASP:HA	2.15	0.47
34:BE:170:LEU:HD21	34:BE:187:ALA:O	2.14	0.47
31:DA:2870:C:C5'	43:DR:65:LEU:HD21	2.43	0.47
1:CA:236:G:C6	1:CA:237:C:C4	3.02	0.47
1:CA:258:G:H2'	1:CA:259:G:H8	1.76	0.47
40:BO:46:ALA:O	40:BO:47:ILE:HB	2.12	0.47
1:AA:233:C:C6	1:AA:234:C:H5	2.32	0.47
1:AA:1200:C:O5'	1:AA:1201:A:H3'	2.13	0.47
2:AB:97:TRP:HH2	2:AB:176:GLU:CD	2.17	0.47
1:AA:782:A:O3'	1:AA:1515:C:H4'	2.14	0.47
1:CA:1157:A:C4	1:CA:1181:G:N2	2.82	0.47
31:DA:53:A:C8	31:DA:54:G:C8	3.02	0.47
31:DA:8:A:H2'	31:DA:9:U:C5	2.49	0.47
31:BA:2195:C:H2'	31:BA:2196:C:O4'	2.14	0.47
31:BA:2100:G:O6	31:BA:2189:U:C4	2.67	0.47
31:DA:601:C:O2	31:DA:605:C:H4'	2.14	0.47
9:AI:53:VAL:HG11	9:AI:85:LEU:HD13	1.96	0.47
31:BA:363(D):G:C6	31:BA:363(E):U:C4	3.02	0.47
31:BA:1921:G:O2'	31:BA:1922:G:H5'	2.15	0.47
31:DA:836:G:C8	31:DA:837:C:C5	3.02	0.47
1:CA:122:G:H8	1:CA:122:G:O5'	1.97	0.47
31:BA:1773:A:N7	31:BA:1829:A:H1'	2.28	0.47
2:AB:60:ASP:O	2:AB:64:ARG:HG2	2.14	0.47
1:AA:448:A:C2	1:AA:487:A:C2	3.02	0.47
1:CA:32:A:C2	1:CA:33:A:C4	3.01	0.47
17:AQ:56:VAL:O	17:AQ:76:LEU:HD12	2.14	0.47
31:BA:562:U:C4	31:BA:2036:C:O4'	2.67	0.47
1:AA:1417:G:C6	1:AA:1482:G:C6	3.01	0.47
31:BA:817:C:O2'	31:BA:839:U:H5''	2.13	0.47
48:BW:70:TYR:O	48:BW:107:LEU:HD12	2.13	0.47
1:CA:985:C:C2	1:CA:1221:G:N2	2.82	0.47
17:AQ:27:PHE:CZ	17:AQ:36:ILE:HD11	2.49	0.47
8:CH:119:LEU:HD12	8:CH:124:ALA:HA	1.96	0.47
22:B0:37:LEU:C	22:B0:38:VAL:HG23	2.33	0.47
31:DA:2584:U:H2'	31:DA:2585:U:H6	1.77	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1925:C:O2'	31:DA:1926:U:H5'	2.14	0.47
31:BA:1854:A:C8	31:BA:1855:G:C8	3.01	0.47
47:DV:81:TYR:CG	47:DV:81:TYR:O	2.67	0.47
49:DX:47:PHE:O	49:DX:48:LYS:C	2.51	0.47
1:CA:638:G:O2'	1:CA:639:G:H5'	2.15	0.47
31:DA:1272:A:H3'	31:DA:1273:U:C5'	2.44	0.47
31:BA:508:G:C5'	31:BA:509:C:OP1	2.61	0.47
20:AT:75:ASN:O	20:AT:78:ALA:HB3	2.14	0.47
8:AH:31:PHE:O	8:AH:35:ILE:HG13	2.13	0.47
3:CC:16:ARG:HH11	3:CC:16:ARG:HA	1.80	0.47
31:DA:2288:A:H4'	31:DA:2289:G:OP2	2.14	0.47
31:DA:259:G:H21	31:DA:621:A:H8	1.61	0.47
31:DA:448:U:C4	31:DA:583:G:H1'	2.49	0.47
31:DA:1257:C:H4'	35:DF:83:PHE:CE2	2.49	0.47
48:DW:92:ARG:O	48:DW:93:ALA:CB	2.62	0.47
41:BP:16:ARG:NH1	41:BP:18:ARG:HG3	2.29	0.47
41:BP:39:LYS:HD3	41:BP:39:LYS:HA	1.54	0.47
41:BP:71:VAL:CG1	41:BP:72:PRO:CD	2.88	0.47
31:BA:1380:G:N2	31:BA:1570:A:C2	2.81	0.47
33:BD:91:ARG:O	33:BD:107:ALA:HB3	2.13	0.47
31:BA:2377:A:H4'	44:BS:107:GLU:HB3	1.97	0.47
24:D2:21:LEU:CD1	24:D2:50:ILE:HG22	2.44	0.47
31:DA:1459:G:C4	31:DA:1461:G:C8	3.03	0.47
31:DA:1528(A):A:H2'	31:DA:1529:G:C4'	2.44	0.47
49:DX:60:ARG:HB2	49:DX:72:LYS:C	2.34	0.47
41:BP:105:LEU:CD1	41:BP:105:LEU:N	2.73	0.47
41:BP:110:TYR:CE2	41:BP:111:ARG:HD3	2.49	0.47
47:DV:13:ARG:NH1	47:DV:13:ARG:HG2	2.29	0.47
31:BA:1459:G:H8	31:BA:1461:G:H1'	1.77	0.47
49:BX:32:PRO:HA	49:BX:75:ASP:HB2	1.96	0.47
33:DD:224:ALA:O	33:DD:225:ALA:CB	2.62	0.47
1:AA:378:G:N2	1:AA:386:C:C2	2.83	0.47
1:CA:357:G:OP1	1:CA:366:C:O2'	2.27	0.47
5:CE:78:HIS:HE1	5:CE:142:LEU:HA	1.79	0.47
5:CE:12:LEU:HD13	5:CE:31:LEU:HB2	1.96	0.47
31:DA:762:U:H4'	31:DA:763:G:O5'	2.13	0.47
31:DA:689:A:O2'	31:DA:780:G:H5'	2.14	0.47
31:BA:1187:G:H5"	47:BV:82:ARG:CZ	2.43	0.47
31:DA:2543:G:H2'	31:DA:2544:G:H8	1.79	0.47
5:AE:101:ILE:CD1	5:AE:119:LEU:HA	2.42	0.47
31:BA:778:G:C5	31:BA:779:U:C5	3.02	0.47
47:BV:23:GLU:O	47:BV:24:LYS:C	2.53	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:BV:62:LEU:HD22	47:BV:98:GLU:CG	2.45	0.47
31:DA:2315:G:H3'	31:DA:2316:C:C6	2.49	0.47
8:AH:1:MET:CE	8:AH:1:MET:H3	2.06	0.47
23:B1:65:SER:OG	23:B1:66:HIS:HD2	1.97	0.47
31:BA:1434:A:N6	31:BA:1558:A:H62	2.09	0.47
31:BA:624:C:O5'	31:BA:624:C:H6	1.98	0.47
4:AD:43:HIS:O	4:AD:45:GLN:N	2.47	0.47
31:DA:528:A:H2	31:DA:2043:C:C5'	2.19	0.47
31:DA:381:G:C6	31:DA:394:A:C6	3.01	0.47
1:CA:1189:C:OP1	10:CJ:51:ARG:NH2	2.47	0.47
31:BA:828:U:O2	31:BA:828:U:C2'	2.62	0.47
42:BQ:11:LYS:H	42:BQ:73:PRO:HG2	1.78	0.47
31:BA:911:A:C2'	42:BQ:9:TYR:OH	2.57	0.47
12:AL:60:LEU:HD22	12:AL:60:LEU:H	1.78	0.47
45:BT:89:VAL:HG12	45:BT:91:ARG:HG2	1.96	0.47
16:AP:4:ILE:HB	16:AP:66:PRO:HB3	1.97	0.47
11:AK:24:SER:OG	11:AK:25:TYR:N	2.47	0.47
36:BG:81:LYS:O	36:BG:83:ARG:HG3	2.14	0.47
31:DA:1027:A:N6	31:DA:1126:A:C4	2.82	0.47
35:BF:22:ALA:C	35:BF:26:ALA:HB2	2.33	0.47
45:DT:30:VAL:HG23	45:DT:30:VAL:O	2.14	0.47
31:BA:1499:C:H2'	31:BA:1500:G:H5'	1.93	0.47
1:CA:932:C:H5'	7:CG:4:ARG:HG2	1.96	0.47
40:DO:2:ILE:HG23	40:DO:6:THR:HG21	1.96	0.47
31:DA:2476:A:C2	31:DA:2477:C:H5''	2.49	0.47
11:CK:91:ARG:O	11:CK:95:ILE:HG12	2.14	0.47
6:CF:8:ILE:HG22	6:CF:9:VAL:N	2.29	0.47
31:BA:2885:C:N3	31:BA:2886:G:H1'	2.29	0.47
48:DW:4:LYS:HG2	48:DW:106:ILE:CG2	2.43	0.47
29:D7:5:TRP:HB3	31:DA:1612:C:O3'	2.14	0.47
31:DA:1987:G:C4	31:DA:1988:C:C5	3.02	0.47
46:DU:27:LEU:HD22	46:DU:27:LEU:N	2.28	0.47
4:AD:148:VAL:HG13	4:AD:152:SER:HB2	1.96	0.47
4:AD:149:ALA:HB3	4:AD:152:SER:OG	2.13	0.47
31:DA:602:G:OP2	31:DA:602:G:C8	2.65	0.47
9:CI:48:GLU:H	9:CI:49:PRO:HD2	1.78	0.47
1:CA:38:G:H22	1:CA:397:A:P	2.38	0.47
1:CA:853:G:C2	1:CA:854:G:C5	3.02	0.47
31:BA:1996:C:C4'	31:BA:1997:G:OP1	2.62	0.47
31:DA:2400:G:H5'	31:DA:2401:U:OP2	2.14	0.47
1:AA:38:G:H22	1:AA:397:A:P	2.36	0.47
31:DA:1227:G:H5''	46:DU:16:LYS:HZ3	1.78	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:2400:G:C5	31:BA:2401:U:C5	3.02	0.47
11:AK:127:LYS:HE2	11:AK:127:LYS:HA	1.96	0.47
3:AC:15:THR:CG2	3:AC:181:ASN:HA	2.44	0.47
31:DA:1850:G:H2'	31:DA:1851:U:H6	1.79	0.47
18:CR:36:ASN:HD22	18:CR:39:VAL:HG11	1.80	0.47
8:CH:96:GLY:H	8:CH:99:GLU:CD	2.17	0.47
17:AQ:2:PRO:O	17:AQ:4:LYS:N	2.47	0.47
40:DO:34:THR:O	40:DO:37:ASP:HB2	2.13	0.47
8:AH:119:LEU:HD12	8:AH:124:ALA:HA	1.96	0.47
31:DA:1016:G:H2'	31:DA:1017:G:O4'	2.15	0.47
19:AS:60:VAL:HG21	19:AS:74:PHE:HB3	1.96	0.47
1:AA:495:A:H4'	1:AA:496:A:OP1	2.13	0.47
3:AC:6:HIS:ND1	14:AN:49:HIS:HB3	2.29	0.47
31:BA:1213:A:C8	31:BA:1237:A:C6	3.03	0.47
31:DA:1437:C:H6	31:DA:1437:C:H5''	1.79	0.47
1:AA:910:C:H2'	1:AA:911:U:O4'	2.13	0.47
1:CA:924:C:O5'	1:CA:924:C:H6	1.97	0.47
31:DA:2348:U:O4	31:DA:2382:G:C2	2.68	0.47
31:DA:258:G:C5	31:DA:259:G:N7	2.82	0.47
31:BA:2078:C:C4	31:BA:2079:U:C4	3.02	0.47
31:BA:2590:A:C2	31:BA:2605:U:C2	3.03	0.47
55:BA:3362:TEL:O48	55:BA:3362:TEL:H573	2.13	0.47
31:BA:662:G:P	41:BP:18:ARG:HD2	2.54	0.47
33:BD:83:GLU:OE1	33:BD:104:TYR:OH	2.26	0.47
31:DA:1384:A:N3	31:DA:1405:U:H1'	2.29	0.47
49:DX:30:VAL:HG12	49:DX:31:HIS:H	1.78	0.47
49:DX:85:PRO:O	49:DX:86:GLY:C	2.53	0.47
41:BP:79:ARG:HH22	41:BP:109:GLY:HA2	1.75	0.47
41:BP:91:PHE:CE2	41:BP:95:VAL:HG12	2.50	0.47
25:D3:8:LEU:O	25:D3:32:GLN:N	2.47	0.47
39:DN:58:ASP:O	39:DN:60:ILE:N	2.47	0.47
47:DV:2:PHE:O	47:DV:3:ALA:CB	2.62	0.47
31:BA:2751:G:N3	31:BA:2751:G:H2'	2.28	0.47
32:DB:24:G:N2	32:DB:28:C:N3	2.62	0.47
1:CA:373:A:H2'	1:CA:374:A:C8	2.46	0.47
1:CA:543:C:O2'	1:CA:544:G:H5'	2.13	0.47
31:BA:1142(A):A:C8	31:BA:1142(A):A:H5'	2.50	0.47
39:BN:65:LYS:HD2	39:BN:67:LEU:HB2	1.95	0.47
50:DY:45:VAL:CG1	50:DY:62:GLU:OE2	2.60	0.47
31:DA:570:G:H2'	31:DA:2030:A:C6	2.48	0.47
31:DA:2665:A:H2'	31:DA:2666:C:O4'	2.14	0.47
5:AE:12:LEU:CD1	5:AE:31:LEU:HB2	2.44	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1793:C:H2'	31:BA:1794:U:C6	2.49	0.47
47:BV:90:PRO:CG	47:BV:91:TYR:N	2.77	0.47
47:BV:98:GLU:O	47:BV:99:ILE:HD13	2.15	0.47
31:DA:2306:C:C6	31:DA:2307:G:H1'	2.48	0.47
2:CB:54:THR:O	2:CB:57:PHE:HB3	2.14	0.47
50:DY:41:GLY:O	50:DY:42:VAL:C	2.53	0.47
23:B1:94:LEU:HD22	23:B1:95:LEU:N	2.30	0.47
31:DA:1484:G:H1	31:DA:1506:C:N4	2.12	0.47
31:DA:1508:A:H2'	31:DA:1509:C:OP1	2.13	0.47
31:BA:1508:A:H2'	31:BA:1509:C:OP1	2.14	0.47
31:BA:330:A:H2	31:BA:1210:A:O2'	1.95	0.47
22:D0:21:LEU:HD13	22:D0:41:ARG:HG3	1.96	0.47
22:D0:40:GLN:HE21	22:D0:43:THR:CA	2.24	0.47
31:DA:864:G:C4	31:DA:865:C:C5	3.03	0.47
31:BA:358:U:C5	31:BA:359:A:N7	2.82	0.47
1:AA:1470:G:O2'	1:AA:1471:G:H5'	2.14	0.47
1:AA:51:A:C2	1:AA:116:A:H1'	2.50	0.47
39:BN:72:TYR:O	39:BN:73:THR:C	2.52	0.47
31:DA:204:A:O3'	31:DA:205:G:H4'	2.14	0.47
3:AC:173:VAL:HG13	3:AC:182:ILE:HD13	1.96	0.47
49:BX:61:GLY:O	49:BX:70:LEU:HB3	2.14	0.47
1:CA:1060:C:C2	1:CA:1198:G:C2	3.02	0.47
28:B6:20:ASN:CG	28:B6:21:TYR:H	2.16	0.47
28:B6:48:VAL:HG22	28:B6:49:HIS:H	1.78	0.47
34:BE:11:MET:HE3	34:BE:186:GLY:CA	2.44	0.47
34:DE:11:MET:HE3	34:DE:186:GLY:CA	2.42	0.47
31:DA:1588:C:O2	31:DA:1588:C:H2'	2.13	0.47
1:AA:689:C:OP1	11:AK:27:ASN:ND2	2.47	0.47
11:AK:53:SER:C	11:AK:55:LYS:N	2.67	0.47
31:DA:477:A:H2'	31:DA:478:A:C8	2.48	0.47
31:BA:2840:C:O2'	31:BA:2841:C:H5'	2.14	0.47
31:DA:787:U:C5	31:DA:791:C:C4	3.03	0.47
2:CB:91:PRO:HG3	2:CB:154:LEU:CB	2.36	0.47
45:DT:35:LYS:HG3	45:DT:36:GLU:N	2.29	0.47
31:DA:494:G:H2'	31:DA:495:G:C8	2.48	0.47
31:DA:1515:G:C2'	31:DA:1516:C:H5'	2.45	0.47
13:AM:24:GLY:C	13:AM:25:ILE:HD12	2.34	0.47
2:CB:97:TRP:HH2	2:CB:176:GLU:CG	2.27	0.47
1:CA:769:G:C2'	1:CA:770:C:H5'	2.44	0.47
31:BA:2882:A:H2'	31:BA:2883:A:O5'	2.15	0.47
33:BD:146:GLU:HB2	33:BD:189:CYS:HB3	1.96	0.47
2:AB:69:LEU:HB3	2:AB:162:ILE:CG2	2.36	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1287:A:H2	1:CA:1353:G:N3	2.12	0.47
10:AJ:7:LYS:O	10:AJ:96:ILE:HA	2.14	0.47
6:AF:94:GLN:HE21	18:AR:32:ARG:HH11	1.62	0.47
1:CA:452:A:OP1	16:CP:43:LYS:HE3	2.13	0.47
40:BO:61:VAL:O	40:BO:61:VAL:HG13	2.15	0.47
1:CA:523:A:N1	12:CL:92:ASP:HB2	2.29	0.47
8:CH:26:VAL:O	8:CH:59:LEU:N	2.47	0.47
31:BA:1839:G:C5'	31:BA:1839:G:C8	2.97	0.47
31:DA:2592:G:H2'	31:DA:2593:U:O4'	2.15	0.47
31:DA:363(E):U:C3'	31:DA:363(F):A:O4'	2.61	0.47
6:AF:63:TYR:N	6:AF:63:TYR:CD2	2.82	0.47
4:AD:14:ARG:HA	4:AD:39:PRO:HB3	1.97	0.47
16:AP:51:VAL:HG13	16:AP:52:ASP:N	2.29	0.47
31:DA:2400:G:C5	31:DA:2401:U:C5	3.02	0.47
1:AA:1228:C:H5''	13:AM:108:ARG:NH2	2.29	0.47
9:CI:53:VAL:HG11	9:CI:85:LEU:HD13	1.96	0.47
8:CH:111:ILE:HD11	8:CH:137:VAL:HG21	1.96	0.47
31:DA:30:G:C5	31:DA:31:C:C4	3.03	0.47
3:AC:34:LEU:HD23	3:AC:34:LEU:O	2.15	0.47
4:CD:3:ARG:HD3	4:CD:3:ARG:O	2.15	0.47
1:AA:811:C:H4'	1:AA:900:A:H62	1.79	0.47
1:CA:1386:G:C2	1:CA:1387:G:C8	3.03	0.47
8:AH:132:GLU:O	8:AH:134:ILE:N	2.47	0.47
31:BA:628:G:C6	31:BA:629:G:C6	3.03	0.47
31:BA:1213:A:H1'	31:BA:1238:G:N3	2.29	0.47
31:BA:1209:G:O2'	31:BA:1237:A:N1	2.44	0.47
8:CH:31:PHE:O	8:CH:35:ILE:HG13	2.14	0.47
31:BA:461:C:C2'	31:BA:462:C:H5'	2.44	0.47
31:DA:2003:G:H2'	31:DA:2004:G:O5'	2.14	0.47
9:CI:29:ASN:OD1	9:CI:64:THR:HG23	2.15	0.47
31:DA:461:C:C2'	31:DA:462:C:H5'	2.44	0.47
27:B5:12:SER:O	27:B5:13:LYS:C	2.52	0.47
33:BD:5:LYS:HD2	33:BD:5:LYS:H	1.77	0.47
31:BA:1195:G:H5''	31:BA:1195:G:H8	1.79	0.47
51:BZ:140:ASP:OD2	51:BZ:140:ASP:N	2.46	0.47
46:BU:66:ASN:HD21	46:BU:70:ARG:HH21	1.61	0.47
1:CA:417:C:O2'	1:CA:418:C:H5'	2.14	0.47
28:D6:20:ASN:CG	28:D6:21:TYR:N	2.67	0.47
30:D8:61:LEU:HA	30:D8:61:LEU:HD23	1.51	0.47
31:DA:1245:G:H5''	41:DP:16:ARG:NH2	2.28	0.47
28:D6:27:LYS:CD	31:DA:2285:C:OP2	2.61	0.47
30:B8:38:GLY:C	30:B8:40:GLU:H	2.16	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:196:A:C4	31:BA:805:G:C6	3.02	0.47
35:BF:34:TRP:HB2	41:BP:10:PRO:O	2.14	0.47
32:BB:40:U:N3	32:BB:44:G:OP2	2.43	0.47
31:BA:2733:A:H2'	31:BA:2734:A:O4'	2.14	0.47
31:DA:1397:U:O2'	31:DA:1398:C:P	2.73	0.47
31:DA:1450:G:P	31:DA:1530:C:N4	2.87	0.47
41:BP:141:ALA:H	25:D3:1:MET:CE	2.27	0.47
31:DA:985:C:H2'	31:DA:986:C:H6	1.79	0.47
46:DU:62:ILE:HG22	46:DU:63:VAL:N	2.29	0.47
31:BA:1845:G:O2'	31:BA:1846:G:H5'	2.13	0.47
1:AA:403:C:H5''	4:AD:136:PRO:HD2	1.95	0.47
16:AP:6:LEU:HD23	16:AP:17:TYR:CG	2.49	0.47
5:CE:12:LEU:CD1	5:CE:31:LEU:HB2	2.45	0.47
12:CL:117:ARG:HB2	12:CL:117:ARG:CZ	2.45	0.47
16:CP:23:ASP:O	16:CP:25:ARG:N	2.46	0.47
1:AA:1442:G:C5	1:AA:1442(B):A:N1	2.82	0.47
45:DT:98:LYS:HG2	45:DT:100:TYR:OH	2.14	0.47
31:BA:1609:A:H2'	31:BA:1610:A:H5'	1.96	0.47
33:DD:32:SER:HA	33:DD:36:PRO:HD3	1.96	0.47
43:DR:76:VAL:HG13	43:DR:80:PHE:CD2	2.49	0.47
31:BA:1452:A:C6	31:BA:2702:U:O2	2.67	0.47
34:DE:77:ILE:HG22	34:DE:78:LEU:O	2.13	0.47
31:BA:1793:C:H2'	31:BA:1794:U:H6	1.78	0.47
33:BD:215:LEU:HD13	33:BD:217:ARG:HH21	1.79	0.47
23:B1:90:ILE:O	23:B1:94:LEU:HB2	2.14	0.47
51:DZ:5:LEU:HA	51:DZ:5:LEU:HD23	1.60	0.47
31:BA:623:G:H2'	31:BA:624:C:C6	2.49	0.47
50:BY:47:LYS:HB3	50:BY:47:LYS:HZ3	1.78	0.47
50:BY:32:PRO:O	50:BY:35:TYR:N	2.48	0.47
1:AA:682:G:C4	1:AA:709:G:N1	2.82	0.47
27:B5:51:TYR:HD2	27:B5:52:TYR:CZ	2.30	0.47
16:AP:23:ASP:O	16:AP:24:ALA:C	2.52	0.47
40:DO:10:VAL:HG21	40:DO:16:ALA:C	2.31	0.47
31:DA:1276:A:O2'	43:DR:16:HIS:HE1	1.98	0.47
1:AA:1072:G:C6	1:AA:1104:G:N1	2.82	0.47
34:BE:116:VAL:CG2	34:BE:122:PHE:CD2	2.97	0.47
31:DA:2467:C:H2'	31:DA:2468:G:O4'	2.14	0.47
48:DW:29:LEU:CD1	48:DW:51:LEU:HD11	2.44	0.47
31:BA:1504:C:O2'	31:BA:1505:C:O5'	2.31	0.47
33:BD:133:LEU:HD21	33:BD:191:ALA:HB2	1.96	0.47
51:DZ:119:GLU:C	51:DZ:121:HIS:H	2.18	0.47
31:DA:2579:C:H2'	31:DA:2580:U:O4'	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:2392:A:H2	31:BA:2424:C:N4	2.04	0.47
31:DA:1131:G:H4'	39:DN:82:LEU:HB3	1.96	0.47
42:DQ:55:VAL:HG22	42:DQ:56:ARG:N	2.28	0.47
31:DA:2660:A:N3	31:DA:2660:A:O5'	2.47	0.47
1:AA:1495:U:O2	31:BA:1912:A:C2	2.61	0.47
3:CC:106:VAL:HG12	3:CC:108:ASN:C	2.35	0.47
1:CA:991:U:O2'	1:CA:992:U:P	2.72	0.47
31:DA:2291:U:H5''	31:DA:2380:C:O2	2.13	0.47
31:DA:443:A:C1'	31:DA:1201:C:O4'	2.61	0.47
31:DA:1320:C:H4'	31:DA:1321:A:OP1	2.14	0.47
9:AI:96:LEU:HD12	9:AI:101:PHE:HB2	1.96	0.47
12:CL:6:THR:OG1	12:CL:9:GLN:HG3	2.14	0.47
31:BA:923:C:H2'	31:BA:924:C:H6	1.77	0.47
1:CA:44:G:C6	1:CA:45:U:C2	3.02	0.47
31:DA:29:U:O5'	31:DA:29:U:H6	1.98	0.47
1:AA:1425:U:H2'	1:AA:1426:C:C6	2.50	0.47
1:CA:1130:A:N3	1:CA:1146:A:C2	2.83	0.47
36:DG:129:GLY:O	36:DG:130:ASN:CB	2.62	0.47
1:AA:479:C:H2'	1:AA:480:U:O4'	2.14	0.47
29:D7:29:LYS:NZ	31:DA:210:C:OP2	2.37	0.47
36:BG:129:GLY:O	36:BG:130:ASN:CB	2.63	0.47
31:DA:1622:G:C2	31:DA:1623:G:C8	3.02	0.47
31:BA:280:C:C2'	31:BA:281:G:O5'	2.62	0.47
1:AA:1273:G:H3'	1:AA:1274:G:C8	2.49	0.47
34:BE:46:ALA:HA	34:BE:82:ARG:O	2.15	0.47
38:DI:33:ARG:HB2	38:DI:35:LEU:HG	1.95	0.47
1:CA:1440:C:H2'	1:CA:1441:G:O4'	2.13	0.47
19:CS:36:ARG:HD2	19:CS:52:TYR:O	2.14	0.47
31:BA:975:C:O2	31:BA:975:C:H2'	2.14	0.47
31:DA:504:U:H3'	31:DA:504:U:H6	1.79	0.47
31:DA:389:G:H1	41:DP:71:VAL:N	2.12	0.47
31:DA:588:U:OP2	31:DA:588:U:H6	1.97	0.47
48:DW:88:ARG:NH1	48:DW:94:ASP:OD1	2.48	0.47
30:B8:29:LYS:HZ3	30:B8:44:LYS:HB2	1.80	0.47
30:B8:60:LEU:HB3	30:B8:63:PRO:HG2	1.97	0.47
35:BF:34:TRP:CZ2	41:BP:12:ALA:HB2	2.49	0.47
31:BA:53:A:C8	31:BA:54:G:C8	3.03	0.47
33:BD:28:GLU:CB	33:BD:29:PRO:CD	2.93	0.47
33:BD:35:LYS:NZ	33:BD:64:ILE:O	2.43	0.47
33:BD:92:ILE:O	33:BD:92:ILE:HD12	2.14	0.47
32:BB:24:G:N2	32:BB:28:C:N3	2.62	0.47
44:BS:99:LYS:O	44:BS:106:ARG:NH1	2.41	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1461:G:N3	31:DA:1461:G:H2'	2.29	0.47
31:DA:1005:C:C2	31:DA:1143:A:C6	3.02	0.47
49:BX:60:ARG:HB2	49:BX:72:LYS:C	2.35	0.47
49:BX:85:PRO:O	49:BX:87:GLN:HG2	2.15	0.47
44:DS:94:TYR:HE1	44:DS:98:VAL:HB	1.79	0.47
1:AA:623:C:C4	1:AA:624:C:C5	3.03	0.47
1:AA:624:C:H4'	16:AP:11:SER:H	1.78	0.47
16:AP:14:ASN:OD1	16:AP:16:HIS:HE1	1.97	0.47
1:CA:378:G:C5	1:CA:379:C:C4	3.03	0.47
1:CA:544:G:N1	1:CA:545:C:C4	2.83	0.47
4:CD:94:LEU:O	4:CD:97:LEU:HB2	2.14	0.47
33:DD:35:LYS:HE2	33:DD:65:ILE:HG22	1.96	0.47
46:BU:90:VAL:HG22	47:BV:39:LEU:CD1	2.42	0.47
23:D1:9:GLY:O	23:D1:10:LYS:CB	2.58	0.47
33:BD:159:ALA:C	33:BD:161:THR:N	2.66	0.47
31:BA:934:G:H2'	31:BA:935:C:C6	2.50	0.47
42:BQ:140:ALA:CB	51:BZ:99:TYR:HB2	2.44	0.47
51:BZ:5:LEU:HD23	51:BZ:5:LEU:HA	1.58	0.47
32:DB:17:C:O2	32:DB:18:G:C8	2.68	0.47
31:BA:225:A:H2'	31:BA:226:G:H5'	1.95	0.47
1:AA:1428:A:H2'	1:AA:1429:C:O4'	2.14	0.47
31:BA:271(L):U:H5''	31:BA:271(M):G:C5	2.50	0.47
1:CA:1086:U:H2'	1:CA:1087:G:O4'	2.15	0.47
1:CA:817:C:O2'	1:CA:1527:C:H4'	2.14	0.47
31:DA:1690:A:C8	31:DA:1691:C:C6	3.02	0.47
15:AO:43:LEU:CD1	15:AO:56:LEU:HD22	2.45	0.47
45:BT:33:LYS:HA	45:BT:33:LYS:HD3	1.33	0.47
1:AA:690:G:H2'	1:AA:691:G:O4'	2.15	0.47
1:CA:976:G:OP1	14:CN:32:SER:N	2.43	0.47
31:BA:919:G:H5'	32:BB:81:G:H1'	1.95	0.47
31:DA:2561:A:H2'	31:DA:2562:U:O4'	2.15	0.47
11:AK:82:VAL:CG1	11:AK:108:ILE:HG12	2.45	0.47
31:DA:1410:G:H2'	31:DA:1411:C:C5	2.49	0.47
31:DA:1652:A:H2'	31:DA:1653:G:H5'	1.95	0.47
1:AA:1064:G:C1'	1:AA:1065:U:OP2	2.63	0.47
31:DA:1175:U:C4'	31:DA:1176:G:H2'	2.43	0.47
2:CB:71:VAL:HB	2:CB:164:VAL:HG22	1.96	0.47
2:CB:97:TRP:CH2	2:CB:176:GLU:OE2	2.68	0.47
31:DA:459:U:C5	31:DA:469:G:N2	2.83	0.47
1:CA:342:C:N3	1:CA:348:G:C2	2.83	0.47
17:CQ:31:LEU:HG	17:CQ:32:TYR:CE2	2.48	0.47
1:AA:1285:A:H4'	1:AA:1286:A:O5'	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AI:121:ARG:HD3	9:AI:122:ALA:O	2.13	0.47
31:BA:2884:U:H5	31:BA:2885:C:C5	2.31	0.47
41:DP:21:ARG:O	41:DP:21:ARG:CG	2.62	0.47
31:DA:2557:G:C2'	31:DA:2558:C:H5'	2.44	0.47
33:DD:270:ILE:C	33:DD:271:ILE:HG13	2.34	0.47
34:BE:167:VAL:HG22	34:BE:168:MET:H	1.78	0.47
42:DQ:42:ILE:HD13	42:DQ:97:VAL:HG21	1.96	0.47
1:CA:979:C:H3'	1:CA:980:C:C5'	2.42	0.47
31:DA:1939:U:OP1	31:DA:2604:U:O2'	2.27	0.47
9:AI:78:LYS:HB2	9:AI:78:LYS:HZ2	1.80	0.47
31:DA:272:G:O6	31:DA:421:U:H2'	2.14	0.47
31:DA:2075:U:H2'	31:DA:2238:G:N2	2.29	0.47
31:DA:2099:U:H3	31:DA:2190:G:H1	1.61	0.47
31:DA:1543:C:OP2	31:DA:1543:C:H6	1.94	0.47
1:AA:758:G:C5'	1:AA:880:C:H1'	2.44	0.47
11:AK:38:ASN:ND2	11:AK:38:ASN:N	2.60	0.47
46:DU:15:LYS:HG3	46:DU:16:LYS:N	2.30	0.47
31:DA:2498:C:O2'	31:DA:2499:C:H5'	2.13	0.47
35:BF:7:TYR:HB3	35:BF:16:GLY:CA	2.44	0.47
51:DZ:4:ARG:CZ	51:DZ:58:VAL:HG11	2.45	0.47
36:BG:94:LEU:HB2	36:BG:98:ARG:HB2	1.96	0.47
34:BE:70:ALA:O	34:BE:73:GLU:N	2.47	0.47
7:AG:37:ASN:ND2	9:AI:40:LEU:HD22	2.30	0.47
31:DA:2248:C:H3'	31:DA:2249:U:H6	1.78	0.47
1:AA:840:C:H4'	1:AA:848:C:C2	2.49	0.47
1:AA:988:G:C2	1:AA:1218:C:O2	2.68	0.47
36:DG:151:ALA:O	36:DG:153:ARG:NH1	2.48	0.47
42:DQ:116:GLU:O	42:DQ:117:ALA:C	2.52	0.47
1:AA:1272:G:C6	1:AA:1273:G:N7	2.82	0.47
31:BA:524:U:H4'	31:BA:555:U:H4'	1.97	0.47
31:DA:2047:U:O2'	31:DA:2823:A:N1	2.43	0.47
19:AS:69:HIS:HB2	19:AS:74:PHE:HE2	1.79	0.47
31:BA:2034:U:O2'	31:BA:2035:G:H5'	2.14	0.47
34:DE:158:GLY:O	34:DE:159:HIS:C	2.51	0.47
31:BA:614:U:O2	31:BA:614:U:O5'	2.32	0.47
3:AC:16:ARG:HH11	3:AC:16:ARG:HA	1.79	0.47
31:BA:272(G):C:O2	31:BA:272(G):C:H2'	2.14	0.47
31:BA:400:G:H8	31:BA:400:G:O5'	1.98	0.47
48:DW:79:GLY:O	48:DW:80:PRO:C	2.52	0.47
31:DA:2346:A:H5''	31:DA:2383:G:C1'	2.41	0.47
31:DA:2415:G:C4	31:DA:2416:C:C5	3.02	0.47
41:DP:71:VAL:CG1	41:DP:72:PRO:CD	2.90	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:742:G:H2'	31:BA:743:G:C8	2.50	0.47
41:BP:34:GLY:O	41:BP:35:HIS:C	2.50	0.47
31:BA:1255:U:H5''	31:BA:1256:G:O5'	2.14	0.47
31:BA:251:A:H5''	41:BP:51:PHE:CZ	2.50	0.47
31:BA:2579:C:C4	31:BA:2580:U:C5	3.03	0.47
29:B7:15:THR:CG2	29:B7:16:HIS:CE1	2.98	0.47
31:BA:1429:G:C4	31:BA:1430:C:C5	3.03	0.47
31:DA:1722:A:C5	31:DA:1741:A:C6	3.03	0.47
31:DA:1449:A:H5'	31:DA:1450:G:OP2	2.15	0.47
31:DA:71:A:C5	31:DA:73:A:N1	2.83	0.47
49:DX:21:PHE:HB3	49:DX:90:GLU:HG3	1.96	0.47
24:D2:26:ARG:N	24:D2:26:ARG:CD	2.76	0.47
49:DX:38:GLU:OE1	49:DX:38:GLU:CA	2.62	0.47
49:DX:36:LYS:NZ	49:DX:39:ILE:CA	2.74	0.47
31:BA:637:A:H4'	31:BA:638:G:O5'	2.15	0.47
31:BA:627:A:C5	31:BA:637:A:N7	2.83	0.47
41:BP:91:PHE:HZ	41:BP:95:VAL:HB	1.78	0.47
31:DA:930:U:O4'	31:DA:930:U:O2	2.32	0.47
31:DA:995:C:N3	39:DN:4:TYR:CZ	2.83	0.47
46:DU:82:GLY:O	46:DU:113:ALA:HA	2.15	0.47
24:B2:45:SER:HA	24:B2:47:ASN:HD21	1.79	0.47
49:BX:73:ARG:O	49:BX:74:PRO:C	2.53	0.47
49:BX:52:VAL:HB	49:BX:80:ILE:HG21	1.95	0.47
33:DD:244:ARG:HA	33:DD:245:PRO:HA	1.67	0.47
31:BA:1845:G:H2'	31:BA:1846:G:H5'	1.95	0.47
31:BA:1718:G:C2	31:BA:1745:C:O2	2.68	0.47
36:DG:114:ILE:HG12	36:DG:140:ILE:HD12	1.97	0.47
36:DG:27:ASN:O	36:DG:30:GLU:HB3	2.15	0.47
44:DS:20:ARG:NH1	44:DS:87:PHE:C	2.67	0.47
1:AA:385:C:O2'	1:AA:386:C:H5'	2.15	0.47
32:DB:57:A:H2'	32:DB:57:A:N3	2.29	0.47
1:AA:438:G:H4'	4:AD:123:HIS:ND1	2.29	0.47
4:CD:72:GLU:OE1	4:CD:207:TYR:OH	2.33	0.47
1:CA:59:A:C8	1:CA:354:G:N1	2.83	0.47
1:AA:444:C:C2	1:AA:445:G:N7	2.82	0.47
1:AA:445:G:C2	1:AA:446:G:C4	3.02	0.47
1:AA:1442:G:C6	1:AA:1442(B):A:C2	3.03	0.47
31:BA:1318:C:C3'	31:BA:1319:G:H5''	2.44	0.47
31:BA:1331:A:HO2'	31:BA:1332:G:H8	1.63	0.47
31:DA:729:G:O2'	31:DA:763:G:H4'	2.15	0.47
33:DD:85:ASP:OD1	33:DD:86:PRO:HD2	2.15	0.47
31:BA:1159:U:H2'	31:BA:1160:G:H8	1.78	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:534:U:O2'	46:BU:49:HIS:CD2	2.67	0.47
50:DY:45:VAL:HG22	50:DY:62:GLU:HB3	1.87	0.47
31:DA:1455:G:C2'	31:DA:1456:G:H5'	2.44	0.47
23:D1:10:LYS:HG2	23:D1:11:ARG:H	1.77	0.47
31:DA:2731:G:C6	31:DA:2732:G:O6	2.68	0.47
31:DA:2734:A:H2'	31:DA:2735:G:H5'	1.97	0.47
1:CA:189(B):C:N4	1:CA:189(J):G:H1	2.12	0.47
31:BA:848:G:H5'	31:BA:848:G:C8	2.43	0.47
2:CB:201:ILE:CG2	2:CB:214:ILE:HG21	2.31	0.47
50:DY:13:VAL:HG21	50:DY:28:LYS:NZ	2.30	0.47
50:DY:8:LYS:HE2	50:DY:72:VAL:CG2	2.40	0.47
1:CA:683:G:C2	1:CA:708:C:N3	2.83	0.47
1:CA:682:G:C6	1:CA:683:G:N7	2.83	0.47
31:BA:1515:G:C2'	31:BA:1516:C:H5'	2.45	0.47
18:CR:72:ARG:O	18:CR:75:ILE:N	2.48	0.47
6:CF:50:TYR:CZ	18:CR:77:GLY:HA2	2.49	0.47
51:DZ:51:ALA:O	51:DZ:52:SER:HB3	2.15	0.47
51:DZ:53:ILE:HG13	51:DZ:53:ILE:O	2.14	0.47
22:D0:40:GLN:HE22	22:D0:45:PHE:H	1.63	0.47
51:BZ:56:VAL:O	51:BZ:57:ILE:HD13	2.14	0.47
31:DA:1279:G:H5'	43:DR:34:ILE:HD11	1.97	0.47
38:BI:88:ILE:HD11	38:BI:122:GLU:N	2.30	0.47
31:BA:85:G:OP1	50:BY:9:LYS:CB	2.63	0.47
1:AA:676:A:H5''	11:AK:113:PRO:HB2	1.97	0.47
39:BN:82:LEU:N	39:BN:82:LEU:HD12	2.30	0.47
50:BY:75:ILE:CG1	50:BY:79:CYS:HA	2.45	0.47
31:BA:958:U:OP2	42:BQ:14:ARG:NH1	2.48	0.47
49:BX:70:LEU:O	49:BX:71:GLY:C	2.52	0.47
1:CA:1101:A:H61	2:CB:103:THR:CB	2.26	0.47
1:CA:1102:A:C2'	1:CA:1103:C:H5'	2.45	0.47
31:DA:1496:A:H8	31:DA:1577:C:O2'	1.98	0.47
1:AA:562:C:C4	1:AA:884:U:C6	3.02	0.47
1:CA:30:U:H4'	1:CA:31:G:OP2	2.14	0.47
31:BA:950:G:C5	31:BA:951:C:C4	3.03	0.47
31:BA:870:A:H2'	31:BA:870:A:N3	2.29	0.47
35:DF:205:ARG:C	35:DF:206:ILE:HG13	2.34	0.47
3:CC:52:LEU:HD23	3:CC:52:LEU:N	2.22	0.47
36:BG:125:PHE:HB3	36:BG:166:ASP:HB2	1.96	0.47
22:B0:31:VAL:CB	22:B0:35:ASN:ND2	2.76	0.47
13:CM:12:ASN:OD1	13:CM:46:LYS:HE2	2.15	0.47
12:CL:28:LYS:O	12:CL:29:GLY:C	2.53	0.47
38:BI:130:TYR:CG	38:BI:131:LYS:N	2.81	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BG:114:ILE:HG22	36:BG:115:ARG:HG3	1.96	0.47
45:DT:36:GLU:C	45:DT:38:ASN:H	2.17	0.47
40:DO:107:ARG:HH11	45:DT:35:LYS:HB2	1.79	0.47
31:DA:2721:A:H2'	31:DA:2722:G:O4'	2.13	0.47
45:DT:82:LEU:HD12	45:DT:82:LEU:N	2.29	0.47
31:BA:1500:G:C5	31:BA:1501:C:C4	3.03	0.47
43:BR:10:LEU:HD13	43:BR:17:ARG:HD2	1.97	0.47
31:DA:1176:G:C1'	31:DA:1177:A:OP1	2.63	0.47
1:AA:66:G:N3	1:AA:66:G:H2'	2.30	0.47
1:AA:932:C:H5'	7:AG:4:ARG:HG2	1.96	0.47
1:AA:1432:G:O5'	1:AA:1432:G:H8	1.97	0.47
1:CA:770:C:O2'	1:CA:771:G:H5'	2.15	0.47
31:BA:2469:A:N7	31:BA:2482:G:C8	2.83	0.47
35:DF:178:PRO:HB3	35:DF:198:ALA:CB	2.45	0.47
1:CA:659:U:O2	1:CA:659:U:H2'	2.14	0.47
31:DA:1772:G:H2'	31:DA:1773:A:O3'	2.14	0.47
31:DA:157:U:H5''	31:DA:171:G:N2	2.22	0.47
33:BD:270:ILE:C	33:BD:271:ILE:HG13	2.35	0.47
1:AA:825:G:N2	8:AH:11:THR:HG21	2.30	0.47
9:CI:65:VAL:HG22	9:CI:66:ARG:N	2.30	0.47
9:CI:73:GLN:O	9:CI:77:ILE:HG13	2.14	0.47
1:AA:1371:G:C6	1:AA:1372:U:C4	3.03	0.47
6:CF:85:VAL:HG12	6:CF:85:VAL:O	2.14	0.47
18:AR:69:THR:O	18:AR:70:ILE:C	2.50	0.47
45:BT:24:PRO:HA	45:BT:49:VAL:HG13	1.96	0.47
45:DT:106:SER:CA	45:DT:110:ILE:HG13	2.41	0.47
1:AA:790:A:N6	1:AA:791:G:O6	2.47	0.47
15:CO:17:ARG:HG3	15:CO:17:ARG:NH1	2.23	0.47
1:AA:564:C:O2'	8:AH:91:ARG:NH2	2.47	0.47
31:BA:2052:G:C2	31:BA:2053:G:C8	3.03	0.47
51:BZ:143:GLY:O	51:BZ:144:LEU:HD13	2.15	0.47
9:AI:5:TYR:CD2	9:AI:18:PHE:CE2	3.03	0.47
45:BT:54:ARG:HA	45:BT:59:THR:HB	1.97	0.47
14:CN:57:ARG:HG2	14:CN:58:LYS:N	2.30	0.47
36:BG:138:GLN:O	36:BG:141:PHE:HD2	1.98	0.47
1:AA:979:C:H3'	1:AA:980:C:C5'	2.42	0.47
1:AA:984:C:N3	1:AA:1222:G:C2	2.83	0.47
33:DD:255:LYS:HZ1	33:DD:255:LYS:N	2.13	0.47
10:CJ:82:ILE:HD12	10:CJ:86:MET:HE2	1.97	0.47
1:CA:805:C:C2'	1:CA:806:C:H5'	2.44	0.47
1:AA:458:C:N4	1:AA:474:G:H1	2.13	0.47
37:DH:91:GLY:HA2	37:DH:160:LYS:HZ2	1.79	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:128:C:O2'	31:DA:129:C:P	2.72	0.47
31:BA:881:G:N2	31:BA:896:A:H62	2.13	0.47
44:BS:34:HIS:CD2	44:BS:54:LEU:HB2	2.49	0.47
9:AI:48:GLU:N	9:AI:49:PRO:CD	2.78	0.47
6:CF:40:VAL:HA	6:CF:62:TRP:O	2.14	0.47
35:DF:132:VAL:C	35:DF:134:GLY:N	2.66	0.47
31:BA:2603:G:C5	31:BA:2604:U:C5	3.03	0.47
1:AA:84:U:C5	1:AA:88:A:C4	3.02	0.47
31:DA:1151:G:O3'	46:DU:81:HIS:HB2	2.15	0.47
1:CA:581:G:HO2'	1:CA:582:U:H6	1.63	0.47
16:AP:51:VAL:HG13	16:AP:52:ASP:H	1.79	0.47
31:DA:2192:G:H2'	31:DA:2193:G:H5'	1.96	0.47
36:DG:37:VAL:CG2	36:DG:103:LEU:HD11	2.43	0.47
1:AA:774:G:H2'	1:AA:775:G:C5'	2.45	0.47
18:AR:57:GLY:O	18:AR:58:LEU:HD12	2.14	0.47
31:DA:945:A:C2	31:DA:2448:A:C6	3.03	0.47
8:CH:64:LYS:CG	8:CH:79:VAL:HG21	2.44	0.47
31:BA:1394:U:H3'	31:BA:1394:U:H6	1.80	0.47
1:AA:633:G:N7	1:AA:634:C:C5	2.83	0.47
46:BU:44:ASN:N	46:BU:44:ASN:ND2	2.62	0.47
31:DA:1446:C:C6	31:DA:1446:C:C3'	2.97	0.47
47:BV:83:ARG:CG	47:BV:83:ARG:HH11	2.27	0.47
33:BD:224:ALA:O	33:BD:225:ALA:HB2	2.14	0.47
19:CS:15:LEU:O	19:CS:19:VAL:HG23	2.15	0.47
31:BA:1223:G:N2	31:BA:1226:A:OP2	2.44	0.47
1:AA:965:A:C2	1:AA:969:A:N1	2.83	0.47
1:AA:1160:G:N3	1:AA:1160:G:H2'	2.29	0.47
31:BA:817:C:C2	31:BA:818:G:C8	3.03	0.47
1:CA:840:C:H4'	1:CA:848:C:C2	2.50	0.47
8:AH:17:THR:O	8:AH:20:TYR:N	2.47	0.47
8:AH:14:ARG:O	8:AH:18:ARG:HD3	2.15	0.47
1:CA:1273:G:H3'	1:CA:1274:G:C8	2.49	0.47
31:DA:1248:G:C2	46:DU:3:ARG:HD2	2.50	0.47
2:CB:233:SER:HB2	2:CB:234:PRO:HD2	1.96	0.47
1:CA:1293:G:O2'	1:CA:1294:G:H8	1.97	0.47
22:D0:24:LYS:HG3	22:D0:36:ILE:HD11	1.97	0.47
1:CA:786:G:C2	1:CA:787:A:C4	3.03	0.47
31:DA:2409:G:H2'	31:DA:2410:G:O4'	2.14	0.47
31:BA:1248:G:C8	46:BU:3:ARG:HB2	2.50	0.47
23:D1:28:GLY:C	23:D1:30:VAL:H	2.17	0.47
19:CS:60:VAL:HG21	19:CS:74:PHE:HB3	1.96	0.47
46:BU:70:ARG:O	46:BU:70:ARG:HG2	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:426:C:C2'	31:DA:427:U:H5'	2.45	0.47
1:CA:189(F):U:C2	17:CQ:72:ARG:NH1	2.82	0.47
1:CA:189(F):U:C4	17:CQ:72:ARG:NH2	2.83	0.47
10:CJ:83:GLU:HG2	10:CJ:83:GLU:O	2.13	0.47
10:AJ:83:GLU:HG2	10:AJ:83:GLU:O	2.15	0.47
4:CD:50:ARG:HA	4:CD:51:PRO:HD3	1.83	0.47
1:AA:1242:C:P	21:AU:10:ARG:HH12	2.37	0.47
31:BA:1759:A:H4'	31:BA:2715:C:O4'	2.14	0.47
42:BQ:78:PRO:C	42:BQ:79:LEU:HG	2.33	0.47
31:BA:1353:A:H5''	33:BD:38:LYS:NZ	2.30	0.47
38:BI:79:ILE:HA	38:BI:80:PRO:HD3	1.77	0.47
39:BN:109:LYS:HG2	39:BN:109:LYS:H	1.46	0.47
19:AS:9:VAL:HG12	19:AS:9:VAL:O	2.13	0.47
20:AT:21:LYS:HB3	20:AT:25:ARG:NH2	2.29	0.47
31:DA:620:G:H4'	31:DA:621:A:OP1	2.14	0.47
31:BA:2442:C:O2'	31:BA:2443:C:H5'	2.14	0.47
31:BA:588:U:H6	31:BA:588:U:OP2	1.98	0.47
31:BA:743:G:H2'	31:BA:744:G:C5'	2.45	0.47
31:BA:833:U:H1'	41:BP:55:ARG:HH11	1.80	0.47
44:BS:71:ARG:HG2	44:BS:101:LEU:CD1	2.45	0.47
24:D2:37:PHE:HE2	24:D2:40:SER:HA	1.80	0.47
49:DX:7:VAL:HG11	49:DX:39:ILE:HB	1.97	0.47
39:DN:58:ASP:OD2	39:DN:59:LYS:HE3	2.14	0.47
34:BE:34:VAL:CG2	34:BE:34:VAL:O	2.63	0.47
4:AD:119:GLN:O	4:AD:123:HIS:HD2	1.97	0.47
1:CA:436:C:O2'	1:CA:437:U:P	2.72	0.47
31:BA:1293:C:H2'	31:BA:1294:U:H6	1.79	0.47
31:DA:729:G:H2'	31:DA:1775:U:H1'	1.97	0.47
31:DA:695:G:C2	31:DA:768:G:C5	3.03	0.47
39:BN:65:LYS:O	39:BN:69:GLN:CB	2.49	0.47
47:BV:11:GLN:C	47:BV:12:TYR:CD2	2.88	0.47
31:DA:573:G:O6	31:DA:2030:A:H3'	2.15	0.47
31:DA:567:A:N1	31:DA:571:A:C8	2.82	0.47
31:BA:930:U:O4'	31:BA:930:U:O2	2.29	0.47
47:BV:66:ARG:HD2	47:BV:67:GLY:H	1.76	0.47
27:B5:31:VAL:HG23	27:B5:32:PRO:N	2.30	0.47
32:BB:17:C:N3	32:BB:18:G:C8	2.83	0.47
4:AD:11:LEU:C	4:AD:13:ARG:N	2.64	0.47
34:DE:95:ILE:HB	34:DE:96:PHE:HD1	1.78	0.47
27:D5:52:TYR:O	27:D5:53:ALA:C	2.51	0.47
50:BY:76:CYS:O	50:BY:78:ALA:N	2.48	0.47
34:BE:52:LEU:CB	34:BE:76:ARG:HB2	2.39	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:854:G:H3'	1:AA:871:U:O4	2.15	0.47
31:DA:2729:G:H1'	34:DE:187:ALA:CB	2.32	0.47
34:BE:111:ARG:HA	43:BR:2:ARG:CG	2.38	0.47
31:DA:2682:U:C5	34:DE:11:MET:HE1	2.50	0.47
31:DA:1747:G:C5	31:DA:1747(A):G:N7	2.83	0.47
1:AA:575:G:OP1	1:AA:576:G:OP1	2.32	0.47
40:BO:35:VAL:HA	40:BO:62:VAL:CG1	2.45	0.47
31:BA:1047:G:N2	31:BA:1111:A:N6	2.51	0.47
31:DA:2712:U:H1'	31:DA:2712(A):A:H8	1.76	0.47
1:CA:552:U:O2'	12:CL:86:ARG:O	2.32	0.47
31:BA:2875:C:C4'	45:BT:5:ALA:HB2	2.35	0.47
38:DI:130:TYR:CB	38:DI:136:VAL:HG13	2.45	0.47
40:DO:77:ILE:HG13	45:DT:74:ARG:HG2	1.96	0.47
1:CA:67:C:H1'	1:CA:171:A:C2	2.50	0.47
31:DA:2323:G:H2'	31:DA:2324:C:O4'	2.15	0.47
45:BT:27:THR:OG1	45:BT:28:VAL:N	2.47	0.47
45:BT:28:VAL:O	45:BT:29:ARG:CB	2.63	0.47
1:AA:125:U:H2'	1:AA:126:G:C8	2.49	0.47
1:AA:253:U:H2'	1:AA:254:G:C8	2.50	0.47
31:BA:1856:G:C2	31:BA:1887:C:N3	2.83	0.47
1:AA:1386:G:H2'	1:AA:1387:G:H8	1.80	0.47
8:CH:39:LEU:HD22	8:CH:39:LEU:H	1.79	0.47
1:CA:345:C:H4'	1:CA:346:G:O5'	2.15	0.47
42:DQ:134:ARG:O	42:DQ:136:ALA:N	2.47	0.47
31:BA:1987:G:C5	31:BA:1988:C:C5	3.02	0.47
31:DA:2469:A:H5'	31:DA:2470:G:OP2	2.15	0.47
31:BA:1913:A:H4'	31:BA:1914:C:H5''	1.97	0.47
9:AI:5:TYR:HD2	9:AI:18:PHE:CE2	2.33	0.47
8:CH:51:VAL:CG1	8:CH:60:ARG:HG3	2.43	0.47
41:DP:8:PRO:C	41:DP:10:PRO:HD3	2.35	0.47
31:DA:1932:A:H2'	31:DA:1933:G:H5'	1.97	0.47
19:AS:27:GLU:HB3	19:AS:28:LYS:H	1.58	0.47
31:DA:2018:G:H2'	31:DA:2019:A:C8	2.49	0.47
3:CC:157:ILE:C	3:CC:159:GLY:H	2.18	0.47
1:CA:1365:G:C6	1:CA:1366:C:C4	3.03	0.47
31:DA:272(H):C:N4	31:DA:363(C):G:H1	2.13	0.47
1:AA:241:C:H2'	1:AA:242:C:H6	1.80	0.47
31:DA:838:C:C4	31:DA:839:U:C5	3.03	0.47
1:CA:832:C:O2'	1:CA:833:U:P	2.73	0.47
1:AA:380:G:C2	1:AA:384:G:C6	3.03	0.47
36:DG:94:LEU:HB2	36:DG:98:ARG:HB2	1.96	0.47
34:BE:72:VAL:O	34:BE:73:GLU:C	2.53	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:7:PRO:O	3:CC:11:ARG:HG2	2.14	0.47
19:CS:29:ARG:HB3	19:CS:47:HIS:HA	1.96	0.47
1:AA:1293:G:O2'	1:AA:1294:G:P	2.73	0.47
6:AF:6:VAL:HA	6:AF:90:VAL:HA	1.96	0.47
31:DA:45:C:H2'	31:DA:47:C:H6	1.80	0.47
31:BA:272(B):G:O2'	31:BA:272(C):G:H5'	2.15	0.47
31:BA:272(B):G:O2'	31:BA:272(C):G:O4'	2.32	0.47
22:D0:37:LEU:O	22:D0:38:VAL:HG22	2.14	0.47
1:AA:875:C:C3'	1:AA:876:G:H5''	2.44	0.47
51:BZ:100:VAL:HG11	51:BZ:137:ILE:HG12	1.95	0.47
2:CB:59:GLU:HB2	2:CB:221:LEU:HD11	1.97	0.47
42:BQ:44:ALA:O	42:BQ:45:GLN:C	2.53	0.47
34:DE:112:GLY:O	34:DE:159:HIS:HA	2.15	0.47
35:BF:93:LYS:HB3	35:BF:94:PRO:HD2	1.97	0.47
39:DN:109:LYS:H	39:DN:109:LYS:HG2	1.45	0.47
3:AC:66:VAL:O	3:AC:66:VAL:HG12	2.15	0.47
31:BA:2003:G:H2'	31:BA:2004:G:O5'	2.15	0.47
31:DA:2059:A:H5''	35:DF:71:GLY:HA2	1.95	0.47
31:DA:246:C:C2'	31:DA:247:G:H5'	2.45	0.47
31:DA:259:G:C2	31:DA:260:G:C8	3.03	0.47
31:DA:259:G:C2'	31:DA:260:G:H5'	2.44	0.47
31:DA:419:C:O2'	31:DA:420:C:H5'	2.14	0.47
41:DP:105:LEU:H	41:DP:105:LEU:CD1	2.17	0.47
30:B8:29:LYS:NZ	30:B8:44:LYS:HB2	2.30	0.47
30:B8:5:LYS:HG2	31:BA:242:G:C8	2.50	0.47
28:B6:27:LYS:HG3	31:BA:2285:C:OP2	2.15	0.47
31:BA:582:G:H2'	31:BA:583:G:C8	2.50	0.47
30:B8:61:LEU:HD13	31:BA:593:G:O2'	2.15	0.47
31:BA:597:U:H2'	31:BA:598:G:C8	2.50	0.47
31:BA:675:A:C6	31:BA:676:A:C6	3.03	0.47
35:BF:38:ARG:HH11	41:BP:16:ARG:HH22	1.63	0.47
33:BD:58:HIS:CD2	33:BD:59:LYS:H	2.31	0.47
32:BB:40:U:H1'	32:BB:45:A:N6	2.30	0.47
36:BG:25:TYR:O	36:BG:26:GLN:HG2	2.14	0.47
44:BS:89:ARG:O	44:BS:92:TYR:CG	2.67	0.47
44:BS:87:PHE:HZ	44:BS:97:ARG:HH22	1.61	0.47
24:D2:26:ARG:HG3	49:DX:5:TYR:CB	2.45	0.47
24:D2:32:LEU:O	24:D2:33:MET:C	2.51	0.47
31:DA:1450(A):C:C2	31:DA:1451:C:C5	3.02	0.47
49:DX:36:LYS:O	49:DX:39:ILE:HG23	2.14	0.47
41:BP:80:TYR:CE1	41:BP:111:ARG:HB3	2.49	0.47
41:BP:85:LEU:HD12	41:BP:120:ALA:CB	2.45	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:933:A:H2'	31:DA:934:G:H5'	1.95	0.47
31:DA:995:C:C2	39:DN:4:TYR:OH	2.56	0.47
39:DN:55:VAL:O	39:DN:56:ASN:C	2.52	0.47
46:DU:49:HIS:CA	46:DU:52:ARG:HB2	2.35	0.47
39:DN:42:TRP:CG	46:DU:64:ARG:NH1	2.83	0.47
46:DU:90:VAL:HG22	47:DV:39:LEU:CD1	2.43	0.47
31:BA:1450(A):C:N3	31:BA:1451:C:N4	2.63	0.47
31:BA:2889:C:H3'	31:BA:2891:G:C8	2.47	0.47
33:DD:242:ARG:N	33:DD:242:ARG:HD2	2.30	0.47
31:BA:2859:G:H8	31:BA:2859:G:H3'	1.77	0.47
36:DG:7:LEU:HA	36:DG:7:LEU:HD23	1.80	0.47
1:CA:509:A:H2'	1:CA:510:A:C8	2.50	0.47
4:CD:67:ILE:HG22	4:CD:68:TYR:CD1	2.50	0.47
31:BA:1316:U:H2'	31:BA:1317:A:H8	1.78	0.47
31:DA:1792:G:O2'	31:DA:1793:C:H5'	2.15	0.47
31:DA:1799:G:O6	33:DD:178:PRO:HG2	2.15	0.47
33:DD:63:ARG:CZ	33:DD:86:PRO:HD3	2.45	0.47
37:DH:85:LYS:NZ	37:DH:145:ALA:CA	2.76	0.47
46:BU:62:ILE:HA	46:BU:65:ILE:HD12	1.96	0.47
23:D1:90:ILE:O	23:D1:94:LEU:HB2	2.15	0.47
31:DA:572:A:C2	31:DA:573:G:H1'	2.50	0.47
31:DA:2526:G:C5	31:DA:2527:C:C4	3.03	0.47
47:BV:13:ARG:HG2	47:BV:13:ARG:NH1	2.30	0.47
31:BA:1558:A:H1'	31:BA:1559:G:OP2	2.15	0.47
51:BZ:54:HIS:O	51:BZ:55:HIS:CG	2.68	0.47
31:BA:357:A:C2	31:BA:358:U:C2	3.02	0.47
31:DA:356:G:N2	31:DA:357:A:N3	2.63	0.47
7:AG:111:ARG:HB3	7:AG:113:GLU:HG2	1.96	0.47
31:BA:1275:A:H4'	31:BA:1276:A:O5'	2.15	0.47
32:BB:21:G:O2'	32:BB:22:U:O5'	2.32	0.47
1:AA:60:A:C8	1:AA:60:A:P	3.08	0.47
31:BA:203:C:H3'	31:BA:204:A:H5''	1.97	0.47
31:DA:1655:A:H3'	31:DA:1656:C:C6	2.50	0.47
31:BA:1747:G:C5	31:BA:1747(A):G:N7	2.83	0.47
36:DG:81:LYS:O	36:DG:83:ARG:HG3	2.15	0.47
4:AD:20:TYR:HD2	4:AD:26:CYS:HB3	1.80	0.47
31:DA:859:G:O2'	31:DA:916:G:O6	2.28	0.47
34:DE:111:ARG:HD2	34:DE:160:TYR:CD1	2.50	0.47
31:BA:867:C:C5	31:BA:868:U:C4	3.02	0.47
15:AO:53:HIS:O	15:AO:56:LEU:HB3	2.14	0.47
45:BT:89:VAL:HG12	45:BT:91:ARG:CG	2.45	0.47
31:BA:903:C:C3'	31:BA:904:C:H5''	2.44	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:666:G:C6	1:CA:741:G:C6	3.03	0.47
1:AA:922:G:C2	1:AA:1396:A:C2	3.03	0.47
31:DA:480:A:OP2	50:DY:46:LYS:HD3	2.15	0.47
31:DA:271(T):C:H2'	31:DA:271(U):G:H5'	1.96	0.47
24:D2:12:GLU:HA	24:D2:14:ARG:NH2	2.28	0.47
36:BG:111:LEU:HD13	36:BG:120:LEU:HD21	1.97	0.47
31:DA:1591:G:C2'	31:DA:1592:C:H5'	2.45	0.47
31:DA:1992:G:O5'	31:DA:1992:G:C8	2.68	0.47
45:DT:22:PHE:CE2	45:DT:85:LYS:HE3	2.50	0.47
31:DA:1515:G:H4'	31:DA:1556:C:O2'	2.14	0.47
41:BP:146:VAL:O	41:BP:147:LEU:O	2.33	0.47
1:AA:1431:C:C2'	1:AA:1432:G:H5'	2.44	0.47
1:CA:1371:G:C6	1:CA:1372:U:C4	3.03	0.47
9:CI:61:ALA:HB1	9:CI:63:ILE:HD11	1.97	0.47
47:BV:49:THR:HA	47:BV:50:PRO:HD3	1.82	0.47
31:BA:2235:G:H2'	31:BA:2236:C:H6	1.76	0.47
36:DG:22:ARG:HD2	36:DG:23:PHE:CZ	2.50	0.47
1:CA:1116:C:C4	1:CA:1117:G:C8	3.02	0.47
31:DA:1242:A:N1	41:DP:8:PRO:HG3	2.30	0.47
31:DA:1686:C:N4	31:DA:1687:G:C6	2.83	0.47
31:DA:1845:G:O2'	31:DA:1846:G:H5'	2.14	0.47
48:DW:41:LYS:HA	48:DW:41:LYS:HD2	1.63	0.47
46:DU:27:LEU:CD2	46:DU:27:LEU:N	2.78	0.47
15:AO:76:GLU:HG3	15:AO:77:ARG:N	2.30	0.47
1:CA:792:A:H1'	1:CA:794:A:N7	2.30	0.47
34:BE:203:LYS:HE3	34:BE:204:ALA:HB2	1.97	0.47
31:DA:1465:G:C6	31:DA:1466:G:C5	3.03	0.47
31:DA:564:C:H2'	31:DA:565:C:O4'	2.15	0.47
31:DA:483:A:H3'	31:DA:484:C:C6	2.50	0.47
15:CO:18:PHE:CZ	15:CO:21:ASP:HB2	2.49	0.47
1:AA:182:U:N3	1:AA:183:G:H1'	2.30	0.47
31:DA:699:A:H2'	31:DA:700:G:O4'	2.15	0.47
1:AA:421:U:N3	3:AC:127:ARG:NH1	2.62	0.47
31:DA:725:G:C6	31:DA:726:G:N1	2.82	0.47
40:BO:9:GLU:O	40:BO:83:ALA:HB1	2.15	0.47
31:DA:1925:C:C2'	31:DA:1926:U:H5'	2.45	0.47
31:DA:1808:U:H2'	31:DA:1809:A:O4'	2.15	0.47
51:BZ:92:SER:HB2	51:BZ:94:GLU:H	1.79	0.47
13:CM:48:LEU:HD11	13:CM:53:VAL:HG22	1.96	0.47
32:BB:71:C:H2'	32:BB:72:G:O4'	2.14	0.47
31:DA:1049:C:O2	31:DA:1049:C:H2'	2.14	0.47
41:BP:149:GLU:HG3	41:BP:149:GLU:O	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:CT:67:ALA:HB2	20:CT:77:ALA:HB2	1.96	0.47
30:D8:29:LYS:NZ	30:D8:44:LYS:HB3	2.29	0.47
31:DA:2360:A:O2'	31:DA:2361:A:O5'	2.33	0.47
41:DP:26:GLY:HA2	41:DP:30:THR:HG21	1.97	0.47
41:DP:47:ASP:OD1	41:DP:49:ARG:HB2	2.14	0.47
41:DP:91:PHE:HZ	41:DP:95:VAL:HB	1.80	0.47
31:BA:194:G:H2'	31:BA:195:A:O4'	2.14	0.47
33:BD:35:LYS:CE	33:BD:64:ILE:C	2.80	0.47
33:BD:30:GLU:OE1	33:BD:83:GLU:OE1	2.33	0.47
33:BD:94:LEU:HA	33:BD:104:TYR:HA	1.96	0.47
32:BB:55:U:N3	32:BB:56:G:N7	2.63	0.47
36:BG:5:VAL:HG21	36:BG:101:ILE:CG2	2.45	0.47
49:DX:82:GLN:HB3	49:DX:85:PRO:HG2	1.96	0.47
47:DV:36:PRO:HD3	47:DV:60:GLU:O	2.14	0.47
47:DV:66:ARG:HE	47:DV:94:LEU:HD11	1.80	0.47
24:B2:29:LYS:O	24:B2:33:MET:SD	2.73	0.47
24:B2:37:PHE:HE2	24:B2:40:SER:HA	1.79	0.47
31:BA:1341:U:HO2'	31:BA:1397:U:HO2'	1.63	0.47
49:BX:78:LYS:HE2	49:BX:78:LYS:O	2.14	0.47
34:BE:34:VAL:HG22	34:BE:48:GLN:NE2	2.24	0.47
31:BA:2636:U:H4'	34:BE:80:GLU:CD	2.35	0.47
32:DB:117:G:H4'	44:DS:55:ALA:HB1	1.97	0.47
44:DS:57:LYS:HG2	44:DS:58:LEU:H	1.80	0.47
44:DS:95:HIS:C	44:DS:97:ARG:N	2.67	0.47
44:DS:95:HIS:O	44:DS:97:ARG:O	2.33	0.47
1:AA:375:U:H2'	1:AA:376:G:H8	1.79	0.47
1:AA:386:C:C2'	1:AA:387:U:C5'	2.81	0.47
4:AD:61:LYS:HZ1	4:AD:62:GLN:NE2	2.13	0.47
4:AD:79:PHE:CD1	4:AD:207:TYR:CD1	2.98	0.47
1:CA:406:G:C2	1:CA:407:G:C8	3.03	0.47
4:CD:100:ARG:O	4:CD:103:ASN:N	2.40	0.47
4:CD:91:SER:HA	4:CD:94:LEU:HD12	1.96	0.47
5:CE:127:ASN:O	5:CE:128:PRO:C	2.53	0.47
5:CE:139:LEU:C	5:CE:141:GLN:N	2.69	0.47
12:CL:114:LYS:O	12:CL:117:ARG:HD3	2.15	0.47
31:DA:697:C:C2	31:DA:698:C:C5	3.03	0.47
33:DD:30:GLU:HG3	33:DD:63:ARG:NH2	2.30	0.47
31:BA:1141:U:C5	39:BN:64:GLY:CA	2.98	0.47
46:BU:61:TRP:CE2	46:BU:94:ASN:HA	2.49	0.47
1:AA:191:G:N9	20:AT:105:SER:HB3	2.28	0.47
1:AA:192:U:H4'	20:AT:103:GLY:HA2	1.95	0.47
31:DA:2811:G:OP1	34:DE:60:ASN:CB	2.63	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1803:A:O3'	33:BD:259:THR:HG22	2.14	0.47
31:DA:2297:C:N3	31:DA:2320:A:H8	2.13	0.47
22:D0:57:PHE:HE2	31:DA:2386:C:O4'	1.97	0.47
31:DA:869:G:N2	31:DA:870:A:H1'	2.30	0.47
31:DA:1493:C:O2	31:DA:1493:C:C2'	2.63	0.47
31:DA:356:G:C2	31:DA:357:A:C4	3.03	0.47
1:AA:1240:U:P	7:AG:116:ALA:HB2	2.55	0.47
31:BA:225:A:C2'	31:BA:226:G:H5'	2.45	0.47
51:BZ:120:ILE:H	51:BZ:172:ALA:HA	1.80	0.47
22:B0:74:ARG:HH22	32:BB:13:A:C5'	2.26	0.47
31:DA:2802:G:O2'	31:DA:2803:C:H5'	2.15	0.47
34:DE:92:THR:N	34:DE:95:ILE:HD11	2.30	0.47
1:AA:1434:A:H2'	1:AA:1435:G:O4'	2.15	0.47
1:AA:50:A:N6	1:AA:361:G:H4'	2.30	0.47
20:AT:83:ARG:O	20:AT:86:ARG:HB3	2.15	0.47
34:BE:7:VAL:HG12	34:BE:51:PHE:HE1	1.79	0.47
1:CA:766:A:O2'	1:CA:767:A:H5'	2.15	0.47
31:DA:873:G:H1	31:DA:904:C:H42	1.63	0.47
1:AA:16:A:N1	1:AA:919:A:H2	2.13	0.47
31:DA:1999:C:H5''	31:DA:2723:C:O2'	2.15	0.47
34:BE:91:VAL:HG13	34:BE:95:ILE:HD11	1.97	0.47
1:CA:303:A:H1'	1:CA:555:C:O2'	2.14	0.47
1:CA:883:C:H2'	1:CA:884:U:H5'	1.97	0.47
31:BA:1497:U:C2'	31:BA:1497:U:O2	2.63	0.47
1:AA:27:G:C4	1:AA:28:G:C8	3.03	0.47
42:BQ:8:LYS:HG3	42:BQ:9:TYR:H	1.78	0.47
1:AA:1524:C:OP1	11:AK:120:ARG:NH1	2.48	0.47
1:AA:881:G:H2'	1:AA:882:C:O4'	2.15	0.47
12:AL:62:SER:C	12:AL:64:TYR:N	2.57	0.47
40:BO:103:ALA:O	40:BO:106:LEU:HB2	2.13	0.47
1:AA:927:G:OP2	1:AA:1503:A:C4	2.68	0.47
1:AA:973:G:C1'	10:AJ:55:LYS:HG2	2.45	0.47
1:CA:973:G:C1'	10:CJ:55:LYS:HG2	2.44	0.47
42:BQ:19:GLY:C	42:BQ:21:THR:N	2.67	0.47
1:CA:965:A:C2	1:CA:969:A:C2	3.03	0.47
31:DA:271(D):G:H8	31:DA:271(D):G:O5'	1.98	0.47
42:DQ:24:GLY:N	51:DZ:78:LYS:HD2	2.29	0.47
33:BD:172:TYR:CD1	33:BD:186:HIS:CA	2.98	0.47
31:BA:2469:A:O2'	42:BQ:56:ARG:HG2	2.15	0.47
31:BA:2657:A:C2	31:BA:2664:G:N2	2.80	0.47
31:BA:2663:G:N7	31:BA:2664:G:C5	2.82	0.47
43:DR:10:LEU:HD22	43:DR:21:TYR:OH	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:118:LYS:HB3	9:CI:118:LYS:HZ3	1.77	0.47
37:BH:45:VAL:HG12	37:BH:46:GLU:N	2.28	0.47
31:DA:1303:G:H1'	31:DA:1641:A:C2	2.50	0.47
1:CA:991:U:O2'	1:CA:992:U:OP2	2.29	0.47
31:DA:2290:G:H2'	31:DA:2291:U:O4'	2.15	0.47
34:BE:103:ASP:OD2	34:BE:168:MET:HE1	2.15	0.47
35:DF:31:HIS:HB2	41:DP:13:ASN:HD22	1.80	0.47
11:CK:111:ASP:HA	18:CR:84:LYS:CE	2.41	0.47
31:BA:2061:G:N2	31:BA:2063:C:N1	2.63	0.47
2:CB:42:ILE:C	2:CB:42:ILE:HD13	2.36	0.47
1:AA:950:U:H2'	1:AA:951:G:C8	2.50	0.47
1:CA:25:C:H2'	1:CA:26:A:C8	2.50	0.47
1:AA:520:A:C2	1:AA:536:C:O2	2.67	0.47
6:AF:44:GLY:HA2	6:AF:59:TYR:CD2	2.51	0.47
1:CA:1228:C:H5''	13:CM:108:ARG:NH2	2.30	0.47
46:DU:14:HIS:O	46:DU:15:LYS:C	2.54	0.47
15:CO:9:GLN:HA	15:CO:12:ILE:HD12	1.97	0.47
31:DA:577:G:O5'	31:DA:577:G:H8	1.98	0.47
43:BR:76:VAL:HG13	43:BR:80:PHE:CD2	2.50	0.47
9:AI:94:ALA:O	9:AI:98:PRO:HG2	2.15	0.47
43:DR:59:ASP:O	43:DR:62:ALA:HB3	2.15	0.47
2:CB:8:LYS:O	2:CB:12:GLU:CD	2.54	0.47
1:CA:1152:A:O2'	1:CA:1153:C:H5'	2.15	0.47
31:DA:553:G:C5	31:DA:554:U:C5	3.03	0.47
1:AA:1521:G:H2'	1:AA:1522:U:H6	1.79	0.47
31:BA:1213:A:O2'	31:BA:1214:A:H5'	2.15	0.47
19:CS:36:ARG:HH12	19:CS:75:ALA:HB3	1.79	0.47
42:DQ:26:TYR:O	42:DQ:67:ARG:NH1	2.38	0.47
17:CQ:40:LYS:HD2	17:CQ:42:TYR:CZ	2.50	0.47
43:BR:51:LEU:HD22	43:BR:70:LEU:HD21	1.96	0.47
31:DA:225:A:C2'	31:DA:226:G:H5'	2.45	0.46
31:DA:2287:A:C4	31:DA:2289:G:N7	2.83	0.46
31:DA:197:A:H61	31:DA:2431:U:H5'	1.80	0.46
31:DA:387:U:C4'	31:DA:388:G:O5'	2.61	0.46
35:DF:36:VAL:HG11	35:DF:183:VAL:HG13	1.97	0.46
32:BB:117:G:H4'	44:BS:55:ALA:HB1	1.97	0.46
41:BP:84:ASN:HA	41:BP:115:LEU:HD12	1.97	0.46
31:DA:1018:C:C2'	31:DA:1019:U:H5'	2.45	0.46
24:B2:47:ASN:HD22	24:B2:48:HIS:H	1.61	0.46
31:DA:1827:C:OP2	33:DD:222:ARG:HD2	2.14	0.46
1:AA:627:G:C4	1:AA:628:G:N7	2.83	0.46
4:CD:10:ARG:C	4:CD:11:LEU:HD23	2.36	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:100:ARG:NH1	4:CD:137:SER:HA	2.29	0.46
16:CP:8:ARG:C	16:CP:9:PHE:CD2	2.89	0.46
31:BA:1280:G:C6	31:BA:1281:G:N7	2.83	0.46
31:DA:2030:A:H4'	31:DA:2031:A:OP1	2.14	0.46
2:AB:200:ILE:C	2:AB:201:ILE:HD13	2.36	0.46
20:CT:49:ALA:O	20:CT:50:GLU:C	2.54	0.46
47:BV:18:LEU:O	47:BV:19:LYS:CB	2.62	0.46
31:DA:327:G:C2	31:DA:336:C:C2	3.03	0.46
1:CA:1125:U:O3'	1:CA:1126:U:C6	2.68	0.46
31:DA:953:A:C2'	31:DA:954:G:H5'	2.46	0.46
31:BA:358:U:H6	31:BA:358:U:H3'	1.80	0.46
43:DR:34:ILE:HG23	43:DR:35:THR:N	2.30	0.46
48:BW:74:ALA:O	48:BW:75:TYR:HB3	2.15	0.46
12:AL:117:ARG:HB2	12:AL:117:ARG:CZ	2.45	0.46
16:AP:23:ASP:O	16:AP:25:ARG:N	2.48	0.46
31:DA:13:A:C2	31:DA:14:A:N6	2.83	0.46
31:BA:2802:G:O2'	31:BA:2803:C:H5'	2.15	0.46
50:BY:79:CYS:O	50:BY:80:GLY:O	2.32	0.46
4:AD:27:TYR:O	4:AD:28:SER:O	2.34	0.46
34:DE:116:VAL:O	34:DE:117:MET:CB	2.63	0.46
34:DE:160:TYR:CD2	34:DE:161:GLY:N	2.84	0.46
1:CA:22:G:H4'	1:CA:885:G:C8	2.50	0.46
40:BO:35:VAL:HG11	40:BO:103:ALA:HB3	1.97	0.46
31:BA:1188:U:C3'	31:BA:1189:A:H5'	2.43	0.46
38:BI:92:VAL:HG23	38:BI:96:ASP:CB	2.45	0.46
50:DY:46:LYS:HB3	50:DY:47:LYS:HE2	1.98	0.46
1:AA:1226:C:O2'	13:AM:111:LYS:NZ	2.49	0.46
1:CA:269:C:H2'	1:CA:270:A:H8	1.80	0.46
31:BA:1499:C:C2'	31:BA:1500:G:C5'	2.91	0.46
45:DT:54:ARG:HA	45:DT:59:THR:HB	1.97	0.46
1:AA:1422:G:O2'	40:BO:49:ARG:NH1	2.48	0.46
1:AA:130:A:H1'	1:AA:263:A:O2'	2.14	0.46
43:DR:21:TYR:OH	43:DR:43:GLU:HG2	2.15	0.46
10:CJ:7:LYS:HB2	10:CJ:97:GLU:CB	2.41	0.46
42:DQ:29:PHE:CD1	42:DQ:29:PHE:N	2.83	0.46
1:CA:1285:A:H4'	1:CA:1286:A:O5'	2.14	0.46
18:AR:65:ILE:C	18:AR:65:ILE:HD12	2.35	0.46
16:CP:38:TYR:O	16:CP:39:TYR:CB	2.63	0.46
1:AA:1306:A:H1'	1:AA:1332:A:C2	2.49	0.46
37:DH:23:ARG:HD3	37:DH:34:GLU:OE1	2.15	0.46
23:D1:46:LEU:H	23:D1:46:LEU:HD12	1.80	0.46
1:AA:1057:G:C2	1:AA:1058:G:H1'	2.50	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DD:239:ARG:O	33:DD:240:ALA:HB2	2.15	0.46
31:DA:1354:A:C8	31:DA:1355:G:C8	3.03	0.46
31:BA:267:C:O2'	31:BA:268:C:H5'	2.15	0.46
31:BA:1297:C:H2'	31:BA:1298:C:H6	1.79	0.46
31:BA:1641:A:H2'	31:BA:1642:G:O4'	2.14	0.46
31:BA:1772:G:H2'	31:BA:1773:A:O3'	2.15	0.46
1:CA:533:A:C1'	1:CA:534:U:OP1	2.62	0.46
43:BR:55:ALA:HA	43:BR:80:PHE:CE1	2.50	0.46
3:AC:135:LYS:HZ1	5:AE:53:LEU:HD11	1.80	0.46
1:CA:316:G:N2	1:CA:338:A:C4	2.83	0.46
1:AA:278:G:C1'	1:AA:282:A:H1'	2.45	0.46
1:CA:654:G:C2'	1:CA:655:A:H5'	2.45	0.46
43:DR:54:LEU:HA	43:DR:54:LEU:HD12	1.47	0.46
31:DA:1632:A:C5	31:DA:1633:G:C6	3.02	0.46
36:DG:39:ILE:HA	36:DG:157:ILE:HA	1.97	0.46
11:AK:34:ASP:HB2	11:AK:35:PRO:CD	2.45	0.46
31:DA:452:G:C2	31:DA:458:G:C5	3.03	0.46
33:BD:48:ARG:HG3	33:BD:48:ARG:NH1	2.28	0.46
25:B3:17:LYS:HG2	31:BA:969:U:OP1	2.14	0.46
1:CA:799:G:C2'	1:CA:800:G:H5'	2.46	0.46
2:AB:211:ILE:O	2:AB:215:LEU:HB2	2.15	0.46
3:CC:184:TYR:CG	3:CC:185:GLY:N	2.83	0.46
31:DA:2367:G:O5'	31:DA:2367:G:H8	1.98	0.46
3:CC:27:LYS:NZ	3:CC:27:LYS:HA	2.29	0.46
1:CA:585:G:N3	1:CA:879:C:H4'	2.30	0.46
29:B7:18:PHE:CD2	29:B7:18:PHE:C	2.88	0.46
3:CC:6:HIS:ND1	14:CN:49:HIS:HB3	2.30	0.46
31:DA:1190:G:H5''	31:DA:1190:G:H8	1.80	0.46
31:DA:2443:C:H2'	31:DA:2444:G:H8	1.80	0.46
31:DA:250:G:C5	31:DA:251:A:C5	3.03	0.46
27:D5:7:PRO:HA	31:DA:2615:U:C2	2.50	0.46
55:DA:3320:TEL:H573	55:DA:3320:TEL:O48	2.13	0.46
31:DA:646:A:H5'	31:DA:646:A:N3	2.30	0.46
41:DP:110:TYR:CE2	41:DP:111:ARG:HD3	2.49	0.46
41:DP:26:GLY:HA2	41:DP:30:THR:CG2	2.44	0.46
23:B1:37:ILE:CG2	31:BA:2080:G:O5'	2.64	0.46
31:BA:1245:G:O3'	41:BP:16:ARG:NH2	2.47	0.46
31:BA:513:A:C2	31:BA:514:A:C5	3.03	0.46
31:BA:466:A:C2'	31:BA:467:G:H5'	2.44	0.46
31:BA:1568:G:N3	33:BD:58:HIS:CE1	2.83	0.46
36:BG:27:ASN:O	36:BG:30:GLU:HB3	2.15	0.46
31:BA:2563:U:O2	31:BA:2565:A:H8	1.98	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1389:G:C2	31:BA:1390:U:C2	3.03	0.46
31:BA:2625:G:H2'	31:BA:2626:C:C6	2.50	0.46
31:DA:1313:U:H3'	31:DA:1314:C:H5'	1.98	0.46
1:AA:406:G:C2	1:AA:407:G:C8	3.03	0.46
4:AD:76:ARG:HD2	4:AD:207:TYR:CE1	2.50	0.46
1:CA:539:A:C6	1:CA:540:G:C6	3.04	0.46
5:CE:128:PRO:O	5:CE:129:ILE:C	2.54	0.46
31:BA:1286:A:C2	31:BA:1289:C:C6	3.03	0.46
33:DD:61:LEU:O	33:DD:63:ARG:NH1	2.47	0.46
33:DD:83:GLU:OE1	33:DD:104:TYR:CE2	2.68	0.46
39:BN:20:GLY:O	39:BN:61:ARG:CG	2.61	0.46
46:BU:24:TYR:CD1	46:BU:38:THR:HG21	2.49	0.46
47:BV:19:LYS:HZ3	47:BV:20:LEU:C	2.19	0.46
47:BV:73:SER:HG	47:BV:74:LYS:H	1.56	0.46
23:B1:11:ARG:CB	23:B1:12:PRO:CD	2.93	0.46
1:CA:677:U:H3	1:CA:713:G:N2	2.05	0.46
1:CA:735:C:C2'	1:CA:736:C:H5'	2.46	0.46
42:DQ:141:GLN:CD	51:DZ:70:LEU:HB2	2.35	0.46
31:BA:1278:A:O3'	43:BR:34:ILE:HG13	2.15	0.46
51:DZ:33:LEU:HD11	51:DZ:35:ARG:HG3	1.97	0.46
31:DA:960:A:H5''	31:DA:961:C:OP2	2.15	0.46
32:BB:73:A:H5'	32:BB:74:U:OP2	2.15	0.46
51:BZ:3:TYR:CE2	51:BZ:51:ALA:HB2	2.51	0.46
1:CA:73:G:N1	1:CA:97:G:C6	2.83	0.46
34:DE:96:PHE:O	34:DE:175:VAL:HG11	2.14	0.46
1:CA:490:G:O2'	1:CA:491:G:H5'	2.15	0.46
31:DA:2818:G:C2'	31:DA:2819:G:H5'	2.45	0.46
39:DN:78:TYR:CD1	39:DN:79:PRO:CB	2.98	0.46
1:AA:666:G:C6	1:AA:741:G:C6	3.03	0.46
1:CA:1107:C:C4	1:CA:1108:G:C8	3.03	0.46
1:CA:1207:G:H2'	1:CA:1208:C:C6	2.49	0.46
31:BA:970:C:H2'	31:BA:971:C:C6	2.50	0.46
1:AA:1107:C:C4	1:AA:1108:G:C8	3.04	0.46
2:AB:22:LYS:H	2:AB:40:HIS:CE1	2.33	0.46
31:DA:1495:A:H2'	31:DA:1496:A:C2	2.48	0.46
28:B6:17:LYS:O	28:B6:18:ARG:HD3	2.14	0.46
28:B6:40:CYS:SG	28:B6:45:LYS:HD2	2.55	0.46
31:DA:1696:G:H2'	31:DA:1697:G:H5'	1.97	0.46
1:CA:914:A:H2'	1:CA:915:A:C8	2.51	0.46
1:AA:817:C:O2'	1:AA:1527:C:H4'	2.15	0.46
50:DY:76:CYS:O	50:DY:78:ALA:N	2.48	0.46
1:AA:343:U:C2'	1:AA:346:G:O6	2.64	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DP:122:PRO:HB3	41:DP:141:ALA:O	2.15	0.46
31:DA:2199:A:OP2	31:DA:2200:C:N4	2.44	0.46
11:CK:24:SER:OG	11:CK:25:TYR:N	2.44	0.46
31:DA:2468:G:C5'	42:DQ:120:ILE:HD12	2.36	0.46
33:DD:235:GLY:C	33:DD:237:GLU:HG2	2.36	0.46
51:DZ:36:LYS:HG3	51:DZ:36:LYS:H	1.53	0.46
31:DA:1412:A:H2'	31:DA:1413:G:C8	2.50	0.46
40:DO:105:GLU:HA	40:DO:108:GLU:HG3	1.96	0.46
1:CA:264:U:H2'	1:CA:265:G:O4'	2.15	0.46
1:AA:1205:U:H2'	1:AA:1206:G:C8	2.50	0.46
31:DA:1173:G:H3'	31:DA:1174:A:H5'	1.97	0.46
1:AA:1423:G:OP1	40:BO:48:PRO:HB3	2.14	0.46
1:AA:236:G:C5	1:AA:237:C:C5	3.04	0.46
1:AA:266:G:H5''	1:AA:268:C:C5	2.50	0.46
1:CA:1519:A:N7	1:CA:1520:G:H1'	2.30	0.46
2:AB:97:TRP:HH2	2:AB:176:GLU:CG	2.29	0.46
1:CA:343:U:O2	1:CA:347:G:C2	2.68	0.46
8:CH:86:ILE:HG21	8:CH:133:LEU:CD1	2.45	0.46
11:CK:21:ILE:HD12	11:CK:21:ILE:N	2.30	0.46
1:AA:792:A:N3	1:AA:794:A:C5	2.83	0.46
51:DZ:130:PRO:O	51:DZ:133:ILE:HG13	2.14	0.46
31:DA:10:G:N1	31:DA:2629:A:C8	2.83	0.46
31:DA:1215:G:H2'	31:DA:1216:G:H5'	1.95	0.46
31:DA:2692:C:H1'	31:DA:2847:U:O2'	2.15	0.46
3:CC:134:ILE:HD11	3:CC:153:VAL:HG21	1.95	0.46
31:BA:2099:U:O2	31:BA:2099:U:C2'	2.61	0.46
31:DA:363(E):U:C6	31:DA:363(E):U:OP2	2.68	0.46
31:BA:1200:C:O2'	31:BA:1201:C:H5'	2.16	0.46
31:BA:1299:G:H8	31:BA:1299:G:O5'	1.98	0.46
1:AA:758:G:H2'	1:AA:759:A:OP2	2.14	0.46
51:BZ:152:ALA:CB	51:BZ:167:PRO:HB2	2.45	0.46
7:CG:72:ARG:HG3	7:CG:73:MET:HG3	1.97	0.46
1:CA:533:A:H1'	1:CA:534:U:OP1	2.15	0.46
31:DA:1862:G:O2'	31:DA:1863:G:H5'	2.15	0.46
3:AC:155:GLY:O	3:AC:156:ARG:CB	2.64	0.46
31:BA:412:A:OP2	31:BA:412:A:H8	1.98	0.46
31:BA:414:C:H4'	31:BA:1879:C:O2	2.14	0.46
33:DD:220:HIS:HD2	33:DD:221:VAL:N	2.13	0.46
35:BF:118:ALA:O	35:BF:120:GLU:N	2.47	0.46
31:DA:350:U:H2'	31:DA:351:G:O4'	2.15	0.46
43:BR:54:LEU:HA	43:BR:54:LEU:HD12	1.37	0.46
13:CM:68:GLY:CA	13:CM:71:ARG:HB3	2.45	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1929:G:H5''	31:BA:1929:G:N3	2.30	0.46
46:BU:27:LEU:N	46:BU:27:LEU:HD22	2.30	0.46
31:BA:1909:C:H5'	31:BA:1910:G:OP2	2.16	0.46
1:AA:529:G:O6	12:AL:49:ASN:ND2	2.48	0.46
31:DA:2489:G:C6	31:DA:2490:G:N1	2.83	0.46
20:CT:58:LYS:O	20:CT:58:LYS:HG3	2.14	0.46
8:CH:33:GLU:O	8:CH:34:GLU:C	2.53	0.46
1:CA:922:G:H8	5:CE:18:ARG:HB2	1.71	0.46
30:D8:29:LYS:NZ	30:D8:44:LYS:CB	2.78	0.46
31:DA:2052:G:N3	31:DA:2053:G:C8	2.83	0.46
31:DA:250:G:H2'	31:DA:251:A:C8	2.50	0.46
31:DA:828:U:C5	31:DA:829:A:N6	2.84	0.46
23:B1:32:LYS:HG2	31:BA:2396:G:O2'	2.15	0.46
30:B8:26:LYS:CB	30:B8:44:LYS:HG3	2.45	0.46
31:BA:811:U:O2'	31:BA:1250:G:H2'	2.15	0.46
41:BP:38:GLN:CG	41:BP:39:LYS:H	2.06	0.46
33:BD:83:GLU:OE1	33:BD:104:TYR:CE2	2.69	0.46
31:DA:142:A:C8	31:DA:1595:G:N2	2.67	0.46
31:DA:1450(A):C:C4	31:DA:1451:C:N4	2.81	0.46
49:DX:60:ARG:CD	49:DX:74:PRO:HD2	2.45	0.46
41:BP:123:LEU:O	41:BP:124:LYS:C	2.53	0.46
31:DA:557:U:C2'	31:DA:558:G:O5'	2.63	0.46
31:DA:557:U:H2'	31:DA:558:G:O5'	2.15	0.46
39:DN:43:THR:O	39:DN:46:VAL:HG12	2.14	0.46
24:B2:21:LEU:O	24:B2:25:VAL:HG12	2.16	0.46
31:BA:1527:G:C5'	31:BA:1528:A:OP1	2.63	0.46
49:BX:26:TYR:OH	49:BX:89:ILE:HB	2.15	0.46
31:DA:1826:G:H2'	31:DA:1827:C:H6	1.80	0.46
1:AA:498:U:C2	1:AA:499:A:C8	3.03	0.46
1:CA:358:U:O2'	1:CA:359:U:H5'	2.15	0.46
1:CA:543:C:N3	1:CA:544:G:C8	2.83	0.46
1:CA:627:G:C4	1:CA:628:G:N7	2.83	0.46
50:BY:15:VAL:HG12	50:BY:16:ALA:H	1.78	0.46
31:BA:2315:G:H3'	31:BA:2316:C:C6	2.50	0.46
33:DD:32:SER:HA	33:DD:35:LYS:O	2.15	0.46
33:DD:24:ILE:HD11	33:DD:84:TYR:H	1.80	0.46
50:DY:45:VAL:HG13	50:DY:62:GLU:HG2	1.96	0.46
31:DA:371:A:O3'	31:DA:372:G:H4'	2.15	0.46
2:AB:213:LEU:HD22	2:AB:214:ILE:HD13	1.96	0.46
31:DA:2318:G:HO2'	31:DA:2319:G:P	2.38	0.46
31:DA:304:G:C2'	31:DA:305:U:H5'	2.45	0.46
50:DY:15:VAL:HG12	50:DY:16:ALA:H	1.80	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CF:50:TYR:CE2	6:CF:52:ILE:CD1	2.97	0.46
31:BA:620:G:H8	31:BA:622:G:O6	1.99	0.46
1:CA:445:G:C2	1:CA:446:G:C4	3.03	0.46
1:AA:1429:C:H2'	1:AA:1430:C:H6	1.80	0.46
33:DD:145:VAL:HG11	33:DD:175:LEU:HD11	1.97	0.46
50:BY:81:LYS:CB	50:BY:96:ILE:HG22	2.45	0.46
31:DA:740:U:H2'	31:DA:741:G:H8	1.80	0.46
31:BA:2247:A:H2'	31:BA:2248:C:C6	2.48	0.46
31:BA:2248:C:H3'	31:BA:2249:U:H6	1.81	0.46
1:CA:766:A:H2'	1:CA:767:A:H5'	1.96	0.46
15:CO:54:ARG:O	15:CO:57:LEU:HB2	2.14	0.46
1:CA:914:A:C4	1:CA:915:A:C8	3.04	0.46
1:AA:801:U:H2'	1:AA:802:A:C8	2.48	0.46
11:AK:52:GLY:H	11:AK:55:LYS:HE2	1.81	0.46
31:BA:1771:C:O2'	31:BA:1786:A:H8	1.89	0.46
1:CA:552:U:H2'	1:CA:553:A:H5'	1.97	0.46
40:DO:104:ARG:NH1	40:DO:104:ARG:HB2	2.31	0.46
1:CA:126:G:C6	1:CA:127:G:N7	2.84	0.46
1:CA:237:C:O2'	1:CA:238:G:H5'	2.15	0.46
1:CA:255:G:C6	1:CA:256:U:C4	3.03	0.46
1:CA:266:G:H5''	1:CA:268:C:C5	2.50	0.46
43:BR:10:LEU:HD22	43:BR:17:ARG:HD2	1.98	0.46
17:AQ:18:THR:HG23	17:AQ:44:ALA:O	2.15	0.46
5:AE:113:ALA:HB3	5:AE:115:VAL:HG23	1.97	0.46
2:AB:97:TRP:HH2	2:AB:176:GLU:HG3	1.79	0.46
1:AA:450:G:C8	1:AA:481:G:C6	3.02	0.46
1:AA:450:G:H5''	16:AP:41:PRO:O	2.16	0.46
31:DA:2470:G:C2	31:DA:2471:C:H6	2.33	0.46
31:DA:2469:A:N7	31:DA:2482:G:C8	2.83	0.46
17:CQ:29:HIS:N	17:CQ:33:GLY:O	2.42	0.46
18:AR:67:ALA:O	18:AR:70:ILE:HB	2.15	0.46
31:BA:7:G:H1	31:BA:2896:C:H42	1.63	0.46
1:AA:991:U:O2'	1:AA:992:U:P	2.74	0.46
31:BA:547:A:H2'	31:BA:547:A:N3	2.31	0.46
2:AB:32:ILE:HG13	2:AB:34:ALA:N	2.31	0.46
45:DT:26:ASP:HA	45:DT:48:ILE:HA	1.96	0.46
31:BA:1385:G:H4'	31:BA:1386:C:OP1	2.15	0.46
31:BA:530:G:N1	31:BA:2022:U:OP1	2.48	0.46
31:BA:2192:G:H2'	31:BA:2193:G:H5'	1.97	0.46
1:CA:25:C:H5'	1:CA:524:G:H1'	1.98	0.46
3:CC:186:PHE:CD1	3:CC:198:VAL:O	2.64	0.46
31:BA:2762:G:C6	31:BA:2763:G:C4	3.04	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:602:G:O2'	31:BA:604:G:H4'	2.16	0.46
1:CA:240:C:H2'	1:CA:241:C:C6	2.49	0.46
6:AF:45:LEU:HD11	6:AF:57:GLN:OE1	2.16	0.46
6:CF:11:ASN:HB3	6:CF:14:LEU:HG	1.97	0.46
1:CA:831:U:O2'	1:CA:832:C:H5'	2.15	0.46
6:AF:75:LEU:O	6:AF:79:LEU:HG	2.14	0.46
1:AA:805:C:C2'	1:AA:806:C:H5'	2.45	0.46
36:BG:96:ARG:O	36:BG:98:ARG:N	2.48	0.46
31:BA:300:A:OP1	50:BY:84:ARG:NH2	2.48	0.46
31:DA:2248:C:H3'	31:DA:2249:U:C6	2.50	0.46
15:AO:18:PHE:CZ	15:AO:21:ASP:HB2	2.50	0.46
31:DA:349:G:O2'	31:DA:350:U:H5'	2.16	0.46
1:CA:1252:A:H2'	1:CA:1253:G:O4'	2.15	0.46
31:BA:504:U:H3'	31:BA:504:U:H6	1.80	0.46
33:DD:6:PHE:N	33:DD:6:PHE:CD1	2.83	0.46
8:CH:41:ARG:O	8:CH:41:ARG:HG2	2.16	0.46
11:CK:31:THR:HG23	11:CK:31:THR:O	2.14	0.46
17:AQ:11:VAL:HG23	17:AQ:20:THR:HG22	1.97	0.46
47:DV:55:ALA:C	47:DV:57:VAL:H	2.19	0.46
31:DA:2059:A:O2'	35:DF:69:HIS:CD2	2.61	0.46
31:DA:824:A:H1'	31:DA:2358:G:N7	2.31	0.46
31:DA:2417:C:O5'	31:DA:2417:C:H6	1.98	0.46
31:DA:972:G:C6	31:DA:973:A:C6	3.03	0.46
41:DP:81:GLN:HG2	41:DP:106:LEU:HA	1.95	0.46
30:B8:54:GLU:O	30:B8:58:ILE:HG12	2.16	0.46
31:BA:194:G:C6	31:BA:195:A:C5	3.03	0.46
31:BA:2550:G:C6	31:BA:2551:C:C4	3.03	0.46
31:BA:588:U:H2'	31:BA:589:C:H6	1.77	0.46
31:BA:746:A:H2'	31:BA:2612:C:H5''	1.97	0.46
31:BA:466:A:C3'	31:BA:467:G:H5'	2.45	0.46
32:BB:118:G:N2	32:BB:119:G:N7	2.63	0.46
44:BS:97:ARG:O	44:BS:97:ARG:NE	2.39	0.46
24:D2:55:ARG:C	24:D2:56:GLN:HE21	2.19	0.46
31:DA:71:A:H4'	31:DA:72:U:H5''	1.98	0.46
49:DX:60:ARG:CG	49:DX:72:LYS:H	2.28	0.46
41:BP:121:LYS:O	41:BP:123:LEU:HG	2.15	0.46
31:DA:1155:A:C4	31:DA:1157:G:C8	3.04	0.46
39:DN:23:LEU:CD2	39:DN:62:VAL:HG23	2.46	0.46
31:DA:1141:U:O5'	39:DN:63:THR:HG21	2.14	0.46
31:BA:57:C:C2'	31:BA:58:G:O5'	2.64	0.46
44:DS:93:LYS:CG	44:DS:93:LYS:O	2.59	0.46
1:CA:373:A:N3	1:CA:374:A:C8	2.83	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:540:G:H2'	1:CA:541:G:O4'	2.14	0.46
1:CA:546:G:P	4:CD:72:GLU:HB3	2.56	0.46
1:AA:441:A:H5'	1:AA:442:C:OP2	2.16	0.46
50:BY:45:VAL:HG13	50:BY:62:GLU:CD	2.36	0.46
31:BA:2019:A:C6	31:BA:2020:A:N7	2.84	0.46
23:D1:85:LEU:HD23	23:D1:85:LEU:HA	1.59	0.46
2:AB:214:ILE:O	2:AB:218:ALA:HB2	2.16	0.46
1:CA:191:G:N9	20:CT:105:SER:HB3	2.29	0.46
31:DA:2297:C:C2'	31:DA:2298:A:H5'	2.45	0.46
31:DA:1499:C:C2'	31:DA:1500:G:C5'	2.90	0.46
51:DZ:30:ASN:HB3	51:DZ:90:VAL:O	2.15	0.46
51:BZ:125:LEU:C	51:BZ:125:LEU:HD23	2.35	0.46
31:BA:286:C:C3'	31:BA:287:C:H5'	2.45	0.46
22:D0:74:ARG:NH2	32:DB:13:A:OP2	2.45	0.46
22:B0:74:ARG:NH2	32:BB:13:A:OP2	2.47	0.46
4:AD:38:TYR:HD1	4:AD:38:TYR:O	1.98	0.46
4:CD:27:TYR:O	4:CD:28:SER:O	2.33	0.46
34:BE:29:GLY:N	34:BE:51:PHE:HE2	2.14	0.46
31:BA:271(L):U:H5''	31:BA:271(M):G:C4	2.51	0.46
31:BA:271(N):U:H6	31:BA:271(N):U:OP1	1.99	0.46
31:DA:1281:G:H2'	31:DA:1282:U:O4'	2.16	0.46
1:CA:1060:C:O2'	1:CA:1061:G:H5'	2.15	0.46
31:BA:2329:G:H2'	31:BA:2330:G:C8	2.51	0.46
1:CA:819:A:C4'	1:CA:820:U:OP2	2.61	0.46
34:BE:160:TYR:CD2	34:BE:161:GLY:N	2.84	0.46
33:DD:8:PRO:HB3	33:DD:14:ARG:CB	2.43	0.46
1:CA:560:U:H5'	1:CA:566:G:H22	1.79	0.46
50:DY:97:ARG:O	50:DY:97:ARG:HG3	2.15	0.46
31:BA:772:C:C2'	31:BA:773:U:H5'	2.45	0.46
48:DW:12:ILE:HG23	48:DW:17:VAL:CG2	2.46	0.46
40:DO:79:PHE:HE2	40:DO:101:PRO:HG2	1.81	0.46
31:DA:1665:A:H4'	40:DO:67:LYS:HB2	1.97	0.46
31:DA:81:G:HO2'	31:DA:295:G:HO2'	1.62	0.46
1:AA:257:G:H1	1:AA:269:C:H42	1.62	0.46
9:AI:112:LYS:HA	9:AI:119:ALA:CA	2.46	0.46
33:DD:177:LEU:HD11	33:DD:183:ARG:HD2	1.96	0.46
37:DH:54:ARG:HB3	37:DH:65:HIS:HB2	1.97	0.46
31:BA:459:U:H2'	31:BA:460:A:C8	2.50	0.46
1:CA:748:C:O2	1:CA:749:C:H5	1.98	0.46
31:BA:856:C:O2'	31:BA:857:C:P	2.73	0.46
42:BQ:46:GLN:O	42:BQ:47:ILE:C	2.54	0.46
40:BO:23:ARG:NH1	40:BO:23:ARG:CG	2.69	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CL:43:VAL:HG22	12:CL:55:VAL:CG2	2.40	0.46
47:BV:51:VAL:CG1	47:BV:52:VAL:N	2.79	0.46
1:AA:592:G:H1	1:AA:647:C:N4	2.12	0.46
1:AA:1235:U:H2'	1:AA:1236:A:O4'	2.15	0.46
37:BH:23:ARG:HD3	37:BH:34:GLU:OE1	2.16	0.46
31:DA:2290:G:C2	31:DA:2343:C:O2	2.68	0.46
31:DA:2343:C:H4'	31:DA:2373:G:O3'	2.16	0.46
43:BR:28:LEU:CD1	43:BR:48:VAL:HG21	2.41	0.46
31:DA:530:G:N1	31:DA:2022:U:OP1	2.48	0.46
33:BD:8:PRO:HB3	33:BD:14:ARG:CB	2.43	0.46
4:CD:173:TRP:O	4:CD:173:TRP:CD1	2.69	0.46
31:DA:1895:C:H2'	31:DA:1896:G:O4'	2.15	0.46
1:CA:950:U:H2'	1:CA:951:G:C8	2.50	0.46
31:DA:1419:A:C3'	31:DA:1420:U:H5''	2.45	0.46
10:AJ:81:THR:HA	10:AJ:84:GLN:HB2	1.97	0.46
11:AK:73:MET:HG2	11:AK:103:LEU:HD21	1.96	0.46
1:AA:1314:C:H5	19:AS:6:LYS:HZ3	1.62	0.46
1:CA:790:A:N1	1:CA:1497:G:H5''	2.31	0.46
1:CA:790:A:N6	1:CA:791:G:C6	2.83	0.46
31:BA:363(E):U:C3'	31:BA:363(F):A:O4'	2.62	0.46
6:CF:46:ARG:HB2	6:CF:60:PHE:CE1	2.50	0.46
1:AA:299:G:C5	1:AA:300:A:N6	2.83	0.46
22:D0:39:ARG:HH21	31:DA:2355:C:H1'	1.80	0.46
25:B3:50:VAL:O	25:B3:51:ALA:C	2.53	0.46
36:DG:94:LEU:HD12	36:DG:98:ARG:C	2.36	0.46
36:BG:94:LEU:HD12	36:BG:98:ARG:C	2.36	0.46
36:BG:96:ARG:CD	36:BG:97:ASP:H	2.27	0.46
1:CA:724:G:C4	1:CA:725:G:C8	3.03	0.46
3:CC:34:LEU:HD23	3:CC:34:LEU:O	2.16	0.46
1:AA:724:G:C4	1:AA:725:G:C8	3.04	0.46
34:BE:69:LYS:C	34:BE:71:GLY:N	2.69	0.46
1:AA:32:A:C2	1:AA:33:A:C4	3.04	0.46
31:DA:484:C:H2'	31:DA:485:C:H6	1.81	0.46
31:BA:2610:C:H4'	31:BA:2611:U:OP2	2.15	0.46
31:BA:272(E):G:C5	31:BA:272(F):C:C5	3.03	0.46
22:B0:47:PRO:HB2	22:B0:51:VAL:O	2.16	0.46
31:BA:1782:C:C4	31:BA:2587:A:C2	3.04	0.46
2:CB:83:MET:SD	2:CB:234:PRO:HG2	2.55	0.46
31:BA:1751:C:HO2'	31:BA:1752:C:H5'	1.79	0.46
11:CK:34:ASP:HB2	11:CK:35:PRO:CD	2.46	0.46
17:AQ:4:LYS:HB3	17:AQ:61:GLU:OE2	2.14	0.46
31:DA:1221:C:H2'	31:DA:1221(A):C:C6	2.51	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:614:U:O4'	31:BA:614:U:O2	2.30	0.46
2:AB:198:ASP:OD2	2:AB:198:ASP:N	2.47	0.46
2:CB:198:ASP:OD2	2:CB:198:ASP:N	2.49	0.46
3:CC:33:LEU:HD21	14:CN:39:LEU:HD11	1.97	0.46
31:BA:405:U:H4'	31:BA:406:G:OP2	2.15	0.46
1:CA:1502:A:H4'	1:CA:1503:A:OP2	2.15	0.46
28:D6:24:GLU:HB3	28:D6:25:LYS:H	1.45	0.46
31:DA:943:U:OP2	41:DP:38:GLN:OE1	2.33	0.46
41:DP:101:VAL:O	41:DP:103:ALA:N	2.49	0.46
41:DP:111:ARG:HA	41:DP:128:HIS:CG	2.49	0.46
41:DP:80:TYR:CE1	41:DP:111:ARG:HB3	2.51	0.46
55:BA:3362:TEL:H242	55:BA:3362:TEL:H30	1.80	0.46
31:BA:670:A:H4'	31:BA:671:C:OP1	2.12	0.46
41:BP:8:PRO:C	41:BP:10:PRO:HD3	2.35	0.46
33:BD:35:LYS:CG	33:BD:64:ILE:H	2.29	0.46
31:BA:2544:G:O2'	31:BA:2545:G:H5'	2.15	0.46
1:AA:103:C:C2	1:AA:104:G:C8	3.03	0.46
1:CA:370:C:H2'	1:CA:371:G:C8	2.51	0.46
1:CA:626:U:C2	1:CA:627:G:C8	3.03	0.46
50:BY:38:ILE:N	50:BY:66:PRO:O	2.49	0.46
45:DT:51:ARG:HD3	45:DT:62:THR:HG23	1.96	0.46
31:BA:1331:A:H2'	31:BA:1333:C:H5	1.81	0.46
31:DA:1569:A:H2'	31:DA:1570:A:O4'	2.15	0.46
31:DA:1820:U:H5''	31:DA:1821:A:C8	2.50	0.46
33:DD:24:ILE:HD11	33:DD:83:GLU:HA	1.98	0.46
37:DH:85:LYS:HE2	37:DH:145:ALA:HB2	1.98	0.46
31:BA:1122:G:C2	31:BA:1123:C:C6	3.04	0.46
39:BN:30:ILE:HG21	39:BN:120:LEU:HD21	1.96	0.46
47:BV:38:LEU:HG	47:BV:39:LEU:N	2.30	0.46
2:AB:54:THR:HG23	2:AB:199:TYR:HB3	1.98	0.46
20:CT:63:ILE:HD12	20:CT:81:LYS:HG3	1.98	0.46
31:DA:49:A:H4'	31:DA:50:U:C5'	2.23	0.46
1:CA:1255:G:H5'	1:CA:1256:A:OP1	2.16	0.46
31:DA:2282:G:H5'	31:DA:2389:G:H1'	1.98	0.46
31:DA:866:A:H2	31:DA:867:C:C4	2.33	0.46
31:DA:962:G:O2'	31:DA:963:U:H5'	2.16	0.46
31:BA:287:C:H2'	31:BA:288:C:O4'	2.15	0.46
1:AA:713:G:C6	1:AA:714:G:O6	2.69	0.46
31:DA:2093:G:O2'	38:DI:25:TYR:HD2	1.98	0.46
38:DI:25:TYR:CD1	38:DI:30:LEU:HD11	2.51	0.46
33:DD:164:GLN:O	33:DD:175:LEU:HA	2.16	0.46
33:DD:193:VAL:HG12	33:DD:193:VAL:O	2.15	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1484:C:C2'	31:BA:1960:A:HO2'	2.27	0.46
1:AA:853:G:C4	1:AA:854:G:C8	3.04	0.46
1:CA:1106:G:H5''	3:CC:172:ARG:HD2	1.98	0.46
31:BA:2248:C:H3'	31:BA:2249:U:C6	2.51	0.46
34:BE:36:ARG:NH2	34:BE:88:GLY:CA	2.75	0.46
2:AB:22:LYS:NZ	2:AB:24:TRP:HE1	2.14	0.46
1:CA:728:A:H2'	1:CA:729:A:H8	1.80	0.46
28:B6:20:ASN:CG	28:B6:21:TYR:N	2.69	0.46
31:BA:904:C:O2'	31:BA:905:U:H5'	2.15	0.46
1:AA:926:G:C6	1:AA:1505:G:C6	3.03	0.46
14:CN:29:ARG:HD3	14:CN:40:CYS:SG	2.55	0.46
14:CN:44:LEU:O	14:CN:44:LEU:HD12	2.15	0.46
31:DA:90:U:H1'	31:DA:92:A:H5''	1.98	0.46
31:BA:1834:U:H2'	31:BA:1834:U:O2	2.15	0.46
12:CL:27:LEU:HB2	12:CL:33:ARG:HH11	1.81	0.46
35:BF:205:ARG:C	35:BF:206:ILE:HG13	2.35	0.46
31:BA:2841:C:H2'	31:BA:2842:G:C8	2.51	0.46
31:BA:2845:G:H2'	31:BA:2846:G:C8	2.50	0.46
42:DQ:19:GLY:C	42:DQ:21:THR:N	2.66	0.46
31:BA:797:C:H2'	31:BA:798:G:C8	2.51	0.46
5:AE:126:ARG:CG	5:AE:126:ARG:NH1	2.71	0.46
31:BA:2524:G:C8	31:BA:2524:G:H5'	2.44	0.46
31:DA:1475:G:C2	31:DA:1517:G:N3	2.83	0.46
35:BF:160:ASN:ND2	35:BF:163:VAL:H	2.14	0.46
1:AA:67:C:H4'	1:AA:172:A:H1'	1.98	0.46
45:BT:107:ASP:H	45:BT:110:ILE:HG13	1.80	0.46
1:CA:233:C:C6	1:CA:234:C:H5	2.33	0.46
9:CI:26:VAL:HA	9:CI:61:ALA:O	2.16	0.46
8:AH:4:ASP:OD2	8:AH:85:ARG:CZ	2.63	0.46
1:AA:602:A:C2	1:AA:603:U:C2	3.04	0.46
45:DT:92:GLY:C	45:DT:94:ALA:H	2.19	0.46
31:BA:2660:A:N3	31:BA:2660:A:C3'	2.77	0.46
35:DF:128:ALA:O	35:DF:129:PHE:CG	2.69	0.46
6:AF:99:ALA:HB1	18:AR:23:LYS:HZ2	1.80	0.46
6:AF:99:ALA:HB1	18:AR:23:LYS:NZ	2.31	0.46
1:AA:1495:U:C4	1:AA:1496:C:N4	2.84	0.46
1:CA:1306:A:H1'	1:CA:1332:A:C2	2.51	0.46
11:AK:111:ASP:HA	18:AR:84:LYS:CE	2.42	0.46
31:DA:2291:U:H2'	31:DA:2292:C:C6	2.51	0.46
31:BA:1205:U:C3'	31:BA:1206:G:H5'	2.45	0.46
1:CA:984:C:N3	1:CA:1222:G:C2	2.84	0.46
19:AS:22:LEU:O	19:AS:26:GLY:HA2	2.16	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:148:VAL:HG12	4:AD:149:ALA:H	1.73	0.46
1:CA:1030(D):A:N7	1:CA:1031:G:N3	2.64	0.46
1:CA:760:G:C2'	1:CA:761:G:H5'	2.46	0.46
50:DY:2:ARG:N	50:DY:4:LYS:HG2	2.31	0.46
31:DA:2193:G:C6	31:DA:2194:G:C5	3.04	0.46
1:CA:244:U:C6	1:CA:894:G:N2	2.84	0.46
31:DA:1223:G:C6	31:DA:1227:G:C6	3.04	0.46
31:BA:2596:U:H2'	31:BA:2597:G:C5'	2.46	0.46
31:BA:2599:G:H8	33:BD:236:GLY:HA2	1.81	0.46
1:CA:448:A:N7	1:CA:486:U:O4	2.49	0.46
31:DA:1564:C:O2'	31:DA:1565:C:H5'	2.16	0.46
1:AA:189(B):C:N4	1:AA:189(J):G:H1	2.14	0.46
31:DA:1466:G:H2'	31:DA:1466:G:N3	2.30	0.46
1:CA:1417:G:C6	1:CA:1482:G:C6	3.04	0.46
35:DF:109:GLY:O	35:DF:110:LEU:C	2.54	0.46
31:DA:272(E):G:C5	31:DA:272(F):C:C5	3.04	0.46
40:DO:90:GLN:O	40:DO:91:LEU:HB2	2.16	0.46
3:CC:122:GLU:O	3:CC:126:ARG:HG3	2.16	0.46
25:D3:17:LYS:N	31:DA:969:U:OP1	2.49	0.46
31:BA:1623:G:C2	31:BA:1624:G:C8	3.03	0.46
31:DA:1759:A:H4'	31:DA:2715:C:O4'	2.15	0.46
1:CA:396:G:C2'	1:CA:398:C:OP1	2.63	0.46
42:BQ:112:GLU:H	42:BQ:112:GLU:HG2	1.39	0.46
31:BA:1632:A:C6	31:BA:1633:G:C6	3.04	0.46
20:CT:37:SER:O	20:CT:40:ALA:HB3	2.15	0.46
16:CP:27:LYS:H	16:CP:27:LYS:HD2	1.80	0.46
1:AA:1440:C:H2'	1:AA:1441:G:O4'	2.15	0.46
46:DU:114:LYS:O	46:DU:117:GLN:N	2.49	0.46
27:D5:8:LYS:HE2	31:DA:2055:C:OP1	2.15	0.46
30:D8:12:LYS:HG2	41:DP:68:GLN:NE2	2.30	0.46
31:DA:2055:C:H5'	31:DA:2056:G:O5'	2.16	0.46
55:DA:3320:TEL:H572	55:DA:3320:TEL:H48	1.81	0.46
31:DA:627:A:C6	31:DA:637:A:C8	3.03	0.46
31:DA:943:U:O2'	31:DA:944:G:H5'	2.15	0.46
31:DA:821:A:H2'	31:DA:946:G:H5''	1.96	0.46
31:DA:2415:G:H4'	41:DP:66:GLY:CA	2.45	0.46
31:BA:24:G:H2'	31:BA:25:U:O4'	2.16	0.46
41:BP:64:LYS:O	41:BP:65:ARG:C	2.53	0.46
36:BG:7:LEU:HB3	36:BG:100:TRP:CZ3	2.51	0.46
44:BS:19:LYS:O	44:BS:19:LYS:CG	2.63	0.46
31:DA:1341:U:C2'	31:DA:1397:U:O2	2.63	0.46
31:DA:1459:G:N3	31:DA:1459:G:O5'	2.49	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:73:A:C2'	31:DA:74:A:OP2	2.62	0.46
31:DA:1012:U:OP1	46:DU:75:ASN:OD1	2.34	0.46
47:DV:7:THR:N	47:DV:10:LYS:O	2.40	0.46
37:BH:135:GLY:C	37:BH:137:ASP:H	2.18	0.46
31:BA:1528:A:H8	31:BA:1528(A):A:C8	2.33	0.46
31:BA:1600:C:O2'	31:BA:1601:G:H5'	2.16	0.46
44:DS:94:TYR:CD1	44:DS:95:HIS:N	2.84	0.46
1:CA:360:A:H2'	1:CA:361:G:O4'	2.16	0.46
12:CL:114:LYS:HB3	12:CL:114:LYS:HE2	1.80	0.46
25:B3:10:LYS:NZ	25:B3:15:TYR:OH	2.40	0.46
47:BV:7:THR:N	47:BV:10:LYS:O	2.45	0.46
23:D1:11:ARG:HA	23:D1:11:ARG:HD2	1.74	0.46
31:DA:2662:A:H4'	31:DA:2663:G:O4'	2.16	0.46
31:DA:2733:A:H2'	31:DA:2734:A:O4'	2.16	0.46
34:DE:34:VAL:HG22	34:DE:48:GLN:NE2	2.27	0.46
31:BA:1649:G:C6	31:BA:2009:G:C6	3.04	0.46
8:AH:104:ARG:O	8:AH:105:ARG:HB2	2.15	0.46
31:DA:49:A:H4'	31:DA:50:U:OP2	2.15	0.46
31:BA:814:C:N4	31:BA:1193:G:H1	2.14	0.46
47:BV:73:SER:HG	47:BV:74:LYS:N	2.12	0.46
31:DA:302:C:O2'	31:DA:303:U:H5'	2.16	0.46
43:BR:96:ARG:HD2	43:BR:98:LEU:HD11	1.97	0.46
31:DA:2275:C:C5'	31:DA:2275:C:H6	2.28	0.46
31:DA:2328:A:H2'	31:DA:2329:G:C8	2.50	0.46
31:DA:959:A:C6	31:DA:960:A:N1	2.84	0.46
38:BI:121:LYS:O	38:BI:122:GLU:HB2	2.16	0.46
1:AA:679:C:N3	1:AA:712:A:C2	2.84	0.46
27:B5:40:LYS:HE2	27:B5:46:CYS:CB	2.43	0.46
32:BB:19:G:C6	32:BB:20:C:C4	3.03	0.46
1:AA:1418:A:C2	31:BA:1948:G:N2	2.83	0.46
3:CC:116:VAL:CG2	3:CC:202:ILE:HD11	2.37	0.46
9:CI:4:TYR:CD1	9:CI:4:TYR:N	2.84	0.46
31:DA:1280:G:C6	31:DA:1281:G:C5	3.04	0.46
2:AB:193:ASP:O	2:AB:194:PRO:O	2.33	0.46
1:CA:728:A:H2'	1:CA:729:A:C8	2.51	0.46
28:B6:46:HIS:HA	28:B6:47:THR:HA	1.97	0.46
1:AA:884:U:H4'	1:AA:885:G:H5''	1.98	0.46
31:BA:2494:G:C5	31:BA:2495:G:N7	2.84	0.46
1:AA:575:G:HO2'	1:AA:821:G:H5'	1.81	0.46
15:AO:43:LEU:O	15:AO:45:VAL:N	2.49	0.46
10:CJ:49:VAL:HG22	14:CN:41:ARG:HB2	1.96	0.46
31:BA:2845:G:HO2'	31:BA:2846:G:H5'	1.75	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DQ:21:THR:O	42:DQ:22:LYS:HD2	2.16	0.46
40:DO:35:VAL:CG1	40:DO:105:GLU:HB2	2.46	0.46
1:AA:1191:A:P	3:AC:3:ASN:HD21	2.39	0.46
1:AA:1189:C:OP1	10:AJ:51:ARG:NH2	2.48	0.46
45:BT:28:VAL:HG22	45:BT:46:GLU:HG3	1.98	0.46
31:BA:1882:C:C5'	31:BA:1883:G:OP2	2.58	0.46
1:AA:262:A:N6	1:AA:263:A:N6	2.64	0.46
9:AI:116:LYS:HD2	9:AI:120:ARG:HA	1.97	0.46
1:AA:1202:G:O2'	14:AN:27:CYS:HB2	2.15	0.46
39:DN:131:GLN:CD	39:DN:134:ARG:HA	2.36	0.46
31:BA:157:U:H5''	31:BA:171:G:N2	2.21	0.46
33:BD:266:SER:O	33:BD:267:SER:CB	2.63	0.46
8:CH:10:LEU:HD13	8:CH:83:ILE:CG1	2.46	0.46
36:DG:71:THR:HB	36:DG:89:GLY:CA	2.45	0.46
8:CH:86:ILE:O	8:CH:87:SER:C	2.53	0.46
48:DW:73:ALA:HB3	48:DW:106:ILE:CD1	2.46	0.46
1:AA:1305:G:C5'	21:AU:4:GLY:HA3	2.46	0.46
29:D7:5:TRP:CZ3	31:DA:464:U:H4'	2.51	0.46
1:AA:1130:A:N3	1:AA:1146:A:C2	2.84	0.46
45:BT:92:GLY:C	45:BT:94:ALA:N	2.69	0.46
31:BA:1839:G:C8	31:BA:1927:A:C1'	2.97	0.46
1:CA:1233:G:H2'	1:CA:1234:C:C6	2.50	0.46
31:DA:128:C:O2'	31:DA:129:C:OP1	2.33	0.46
5:CE:112:LEU:HD23	5:CE:112:LEU:N	2.30	0.46
37:BH:86:GLU:HA	37:BH:132:ARG:HA	1.98	0.46
1:AA:119:A:C5	1:AA:240:C:C4	3.04	0.46
31:DA:2422:A:O2'	31:DA:2423:U:O5'	2.31	0.46
31:DA:817:C:C4	31:DA:818:G:C5	3.03	0.46
1:AA:989:C:H1'	1:AA:1016:A:C2	2.50	0.46
51:BZ:166:SER:CB	51:BZ:167:PRO:CA	2.93	0.46
5:AE:71:LEU:O	5:AE:72:GLN:CB	2.64	0.46
1:CA:1478:C:H2'	1:CA:1479:C:C6	2.49	0.46
31:DA:29:U:H2'	31:DA:30:G:C8	2.51	0.46
31:BA:1847:A:N3	31:BA:1847:A:H2'	2.30	0.46
1:CA:1387:G:C6	1:CA:1388:C:N4	2.84	0.46
2:AB:233:SER:HB2	2:AB:234:PRO:HD2	1.97	0.46
31:DA:1671:U:H2'	31:DA:1673:U:OP2	2.15	0.46
31:DA:1879:C:H2'	31:DA:1880:C:O4'	2.15	0.46
17:CQ:77:VAL:O	17:CQ:78:GLU:HB3	2.15	0.46
37:BH:98:LEU:HD13	37:BH:125:VAL:HG23	1.97	0.46
10:AJ:8:LEU:HB2	10:AJ:70:ARG:O	2.16	0.46
48:DW:24:ILE:O	48:DW:27:LYS:HG3	2.16	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:461:C:O2'	31:BA:462:C:H5'	2.16	0.46
23:B1:28:GLY:C	23:B1:30:VAL:N	2.67	0.46
40:DO:71:ARG:HB3	40:DO:72:PRO:HD2	1.97	0.46
31:DA:400:G:O5'	31:DA:400:G:H8	1.99	0.46
43:BR:95:THR:HG23	43:BR:95:THR:O	2.15	0.46
29:B7:26:GLY:O	29:B7:30:VAL:HG23	2.16	0.46
31:DA:130:C:H2'	31:DA:131:G:H5''	1.98	0.46
33:BD:221:VAL:HG22	33:BD:226:MET:CE	2.46	0.46
31:DA:2346:A:C2	31:DA:2383:G:C2	3.03	0.46
28:D6:45:LYS:CB	31:DA:2371:G:H4'	2.46	0.46
31:DA:588:U:O2'	31:DA:589:C:H5'	2.16	0.46
34:BE:129:HIS:C	34:BE:130:GLY:O	2.54	0.46
41:BP:30:THR:O	41:BP:31:ALA:C	2.54	0.46
31:BA:2734:A:H2'	31:BA:2735:G:H5'	1.97	0.46
24:D2:45:SER:HA	24:D2:47:ASN:ND2	2.30	0.46
49:DX:18:TYR:O	49:DX:20:GLY:N	2.48	0.46
49:DX:9:LEU:HD12	49:DX:30:VAL:O	2.16	0.46
41:BP:97:PRO:O	41:BP:98:GLU:CB	2.59	0.46
31:DA:1142(A):A:N7	31:DA:1144:G:C6	2.83	0.46
31:DA:849:A:H3'	31:DA:850:C:H6	1.80	0.46
39:DN:47:ALA:CB	39:DN:112:LEU:CD1	2.89	0.46
39:DN:26:LEU:HD11	39:DN:30:ILE:HD11	1.98	0.46
31:BA:1450:G:P	31:BA:1530:C:N4	2.89	0.46
31:BA:2626:C:O2'	31:BA:2627:G:H5'	2.15	0.46
31:BA:2892:A:N6	31:BA:2893:G:C2	2.83	0.46
31:DA:1826:G:C4'	33:DD:242:ARG:HH21	2.09	0.46
31:DA:1902:C:H4'	33:DD:244:ARG:HA	1.98	0.46
31:BA:1826:G:C4'	33:BD:242:ARG:HH21	2.11	0.46
36:DG:114:ILE:HG22	36:DG:115:ARG:HG3	1.98	0.46
32:DB:30:C:OP2	44:DS:32:LEU:HD11	2.16	0.46
1:AA:371:G:C2	1:AA:372:C:C5	3.04	0.46
16:CP:9:PHE:O	16:CP:10:GLY:O	2.34	0.46
31:BA:2318:G:C2'	31:BA:2319:G:OP1	2.63	0.46
31:DA:2750:A:H4'	31:DA:2751:G:OP2	2.15	0.46
31:DA:2752:C:C2'	31:DA:2752:C:O2	2.51	0.46
39:BN:47:ALA:CB	39:BN:112:LEU:CD1	2.86	0.46
46:BU:49:HIS:O	46:BU:53:ARG:N	2.44	0.46
31:BA:2031:A:H8	31:BA:2031:A:OP1	1.98	0.46
31:BA:2571:C:H5''	31:BA:2572:A:H5''	1.96	0.46
31:BA:848:G:O6	31:BA:928:G:H2'	2.16	0.46
23:B1:85:LEU:C	23:B1:87:PRO:CD	2.84	0.46
1:CA:679:C:H42	1:CA:711:G:H1	1.62	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1516:C:H2'	31:BA:1517:G:H5''	1.98	0.46
51:DZ:39:VAL:HG23	51:DZ:44:PHE:HB2	1.98	0.46
31:DA:2282:G:OP1	31:DA:2283:C:H1'	2.15	0.46
51:BZ:28:MET:CE	51:BZ:59:LEU:HD12	2.46	0.46
32:DB:19:G:C6	32:DB:20:C:C4	3.04	0.46
31:BA:85:G:OP1	50:BY:30:VAL:HG21	2.15	0.46
22:B0:74:ARG:HH22	32:BB:13:A:H8	1.62	0.46
1:AA:542:G:C2	1:AA:543:C:C5	3.03	0.46
1:CA:445:G:C6	1:CA:490:G:C6	3.04	0.46
1:AA:357:G:OP1	1:AA:366:C:O2'	2.27	0.46
1:AA:360:A:C2'	1:AA:361:G:H5'	2.46	0.46
31:BA:204:A:O3'	31:BA:205:G:H4'	2.15	0.46
34:BE:52:LEU:HD22	34:BE:76:ARG:CD	2.45	0.46
22:B0:43:THR:CG2	31:BA:2336:A:H61	2.28	0.46
31:BA:2330:G:H2'	31:BA:2331:G:O4'	2.16	0.46
34:DE:36:ARG:NH1	34:DE:85:ASN:ND2	2.63	0.46
1:AA:557:G:N1	1:AA:558:G:C2	2.83	0.46
31:BA:2277:G:C2'	31:BA:2278:A:H5'	2.45	0.46
1:AA:1523:G:C6	1:AA:1524:C:C4	3.03	0.46
1:AA:345:C:H4'	1:AA:346:G:O5'	2.15	0.46
40:BO:36:GLY:HA2	40:BO:106:LEU:HD21	1.97	0.46
50:DY:46:LYS:CB	50:DY:47:LYS:HD2	2.46	0.46
31:DA:1629:U:O2	31:DA:2698:U:H5''	2.15	0.46
31:DA:1630:G:H2'	31:DA:1631:C:C6	2.51	0.46
12:CL:60:LEU:HD22	12:CL:60:LEU:N	2.30	0.46
5:CE:113:ALA:HB3	5:CE:115:VAL:HG23	1.97	0.46
31:DA:1992:G:O2'	31:DA:1993:U:OP2	2.27	0.46
1:AA:1060:C:C5	3:AC:2:GLY:O	2.68	0.46
31:BA:2540:C:O2'	31:BA:2740:A:N3	2.44	0.46
31:BA:2469:A:O2'	42:BQ:56:ARG:CG	2.64	0.46
31:BA:2472:G:C5	31:BA:2475:C:C4	3.03	0.46
31:BA:2475:C:H2'	31:BA:2477:C:OP2	2.16	0.46
31:DA:174:C:C3'	31:DA:175:G:H5''	2.45	0.46
8:CH:83:ILE:HG12	8:CH:83:ILE:O	2.15	0.46
16:AP:48:TRP:HD1	16:AP:48:TRP:H	1.62	0.46
1:CA:564:C:N1	17:CQ:31:LEU:HD11	2.31	0.46
15:CO:76:GLU:HG3	15:CO:77:ARG:N	2.30	0.46
1:CA:450:G:C8	1:CA:481:G:C6	3.04	0.46
31:DA:1686:C:C4	31:DA:1687:G:C5	3.04	0.46
31:DA:1843:C:O2'	31:DA:1844:C:H5'	2.16	0.46
31:BA:1665:A:H4'	40:BO:67:LYS:HB2	1.97	0.46
10:AJ:49:VAL:O	10:AJ:60:ARG:HB2	2.16	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:30:SER:CB	10:AJ:81:THR:HG22	2.46	0.46
28:B6:42:TRP:CE2	31:BA:643:A:OP1	2.69	0.46
10:CJ:81:THR:HA	10:CJ:84:GLN:HB2	1.97	0.46
9:CI:78:LYS:HB2	9:CI:78:LYS:NZ	2.30	0.46
31:DA:2595:G:N1	31:DA:2599:G:C6	2.83	0.46
31:DA:2074:U:H4'	31:DA:2598:A:O4'	2.16	0.46
1:CA:671:G:N3	1:CA:672:U:C6	2.83	0.46
1:AA:132:C:O2'	1:AA:133:U:H5'	2.14	0.46
1:AA:665:A:C2	1:AA:733:A:C8	3.04	0.46
11:CK:73:MET:HG2	11:CK:103:LEU:HD21	1.97	0.46
23:B1:53:VAL:HG12	23:B1:58:ILE:HB	1.98	0.46
48:DW:55:ALA:O	48:DW:58:ALA:HB3	2.15	0.46
51:BZ:33:LEU:HD11	51:BZ:35:ARG:HG3	1.98	0.46
31:DA:482:A:H5''	31:DA:483:A:OP1	2.15	0.46
1:CA:1388:C:H2'	1:CA:1389:C:H6	1.81	0.46
31:DA:18:C:H2'	31:DA:19:C:H6	1.81	0.46
1:AA:1152:A:O2'	1:AA:1153:C:H5'	2.16	0.46
31:DA:1053:C:N4	31:DA:1107:G:N2	2.64	0.46
7:CG:75:VAL:O	7:CG:75:VAL:HG23	2.16	0.46
31:BA:554:U:O2'	31:BA:555:U:H5'	2.15	0.46
35:DF:150:GLY:HA2	35:DF:172:TRP:CE3	2.50	0.46
31:DA:1307:A:N3	31:DA:1307:A:H2'	2.30	0.46
31:DA:2582:G:C2	31:DA:2583:G:C8	3.04	0.46
34:BE:14:ILE:HG13	34:BE:21:VAL:HG23	1.97	0.46
31:DA:1805:U:H2'	31:DA:1806:C:H6	1.81	0.46
1:CA:995:C:O2'	1:CA:996:A:H5'	2.16	0.46
7:CG:6:ARG:O	7:CG:7:ALA:O	2.34	0.46
5:CE:135:THR:O	5:CE:138:ALA:HB3	2.16	0.46
1:CA:722:A:O3'	1:CA:723:U:C6	2.68	0.46
37:BH:77:LYS:HA	37:BH:80:SER:HB3	1.98	0.46
31:BA:1016:G:H2'	31:BA:1017:G:O4'	2.15	0.46
33:DD:4:LYS:HB2	33:DD:18:VAL:HG12	1.98	0.46
28:D6:25:LYS:CE	28:D6:27:LYS:HZ3	2.27	0.46
31:DA:2053:G:N2	31:DA:2054:A:C4	2.83	0.46
31:DA:990:A:N6	31:DA:1186:G:H1'	2.31	0.46
31:BA:1190:G:C5'	41:BP:35:HIS:HA	2.46	0.46
32:BB:45:A:C2'	32:BB:46:A:H5'	2.45	0.46
44:BS:89:ARG:CB	44:BS:92:TYR:HB3	2.42	0.46
31:DA:1719:G:C2'	31:DA:1720:U:C5'	2.91	0.46
39:DN:15:LEU:HD13	39:DN:15:LEU:C	2.35	0.46
47:DV:86:GLY:O	47:DV:87:HIS:CG	2.69	0.46
31:BA:112:U:O4	31:BA:113:G:C2	2.68	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:2633:G:H5'	31:BA:2811:G:O2'	2.16	0.46
31:BA:2811:G:OP1	34:BE:60:ASN:CB	2.63	0.46
36:DG:5:VAL:HG21	36:DG:101:ILE:CB	2.44	0.46
1:AA:369:C:O2'	1:AA:370:C:H5'	2.15	0.46
1:AA:373:A:C2	1:AA:374:A:C8	3.03	0.46
4:CD:100:ARG:O	4:CD:101:LEU:C	2.54	0.46
4:CD:106:TYR:HE1	4:CD:112:VAL:C	2.19	0.46
45:DT:50:ILE:O	45:DT:99:LEU:HD12	2.15	0.46
31:DA:768:G:O2'	31:DA:769:G:H5'	2.16	0.46
31:BA:1022:G:C6	31:BA:1140:C:C4	3.04	0.46
39:BN:42:TRP:HD1	46:BU:64:ARG:NE	2.14	0.46
46:BU:91:ASP:CG	46:BU:96:ALA:HB2	2.36	0.46
31:BA:1661:G:C6	31:BA:2000:G:C6	3.03	0.46
31:BA:708:C:O2	31:BA:708:C:H2'	2.15	0.46
31:BA:764:A:H5''	33:BD:210:GLY:CA	2.46	0.46
20:CT:84:LEU:C	20:CT:86:ARG:N	2.69	0.46
31:BA:1224:C:H2'	31:BA:1225:G:O4'	2.15	0.46
31:BA:814:C:H42	31:BA:1193:G:H1	1.61	0.46
2:CB:213:LEU:HD22	2:CB:214:ILE:HD13	1.98	0.46
35:DF:2:LYS:O	35:DF:25:PRO:HG2	2.15	0.46
31:DA:1235:G:C2	31:DA:1236:G:N2	2.84	0.46
31:BA:1279:G:H5'	43:BR:34:ILE:HD11	1.98	0.46
51:BZ:39:VAL:HG23	51:BZ:40:ASP:O	2.15	0.46
51:BZ:97:GLU:O	51:BZ:98:MET:HB3	2.16	0.46
31:DA:2206:G:N2	31:DA:2207:G:C5'	2.62	0.46
31:DA:1278:A:H5''	43:DR:36:THR:HG23	1.98	0.46
43:DR:35:THR:HA	43:DR:112:ALA:O	2.16	0.46
48:BW:75:TYR:O	48:BW:75:TYR:HD1	1.96	0.46
1:AA:735:C:H1'	18:AR:75:ILE:CD1	2.46	0.46
1:AA:51:A:N1	1:AA:116:A:C4	2.84	0.46
33:DD:143:HIS:CD2	33:DD:144:ALA:N	2.84	0.46
31:DA:2636:U:OP1	34:DE:80:GLU:HG3	2.16	0.46
31:BA:1132:A:OP1	39:BN:82:LEU:HD23	2.16	0.46
3:CC:112:SER:O	3:CC:116:VAL:HG23	2.15	0.46
1:CA:1091:U:O2	1:CA:1093:A:C8	2.69	0.46
22:B0:42:GLY:HA3	31:BA:2331:G:O4'	2.16	0.46
1:CA:577:G:C2	1:CA:578:C:C5	3.04	0.46
1:AA:1080:A:H5''	5:AE:16:THR:HG21	1.97	0.46
34:BE:47:VAL:HG21	34:BE:86:PRO:HD3	1.97	0.46
31:BA:962:G:C6	31:BA:963:U:C4	3.04	0.46
1:AA:922:G:O6	1:AA:923:A:C6	2.69	0.46
4:CD:209:ARG:CG	4:CD:209:ARG:NH1	2.53	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:B2:12:GLU:HA	24:B2:14:ARG:NH2	2.30	0.46
8:AH:102:ARG:N	8:AH:102:ARG:NE	2.59	0.46
45:DT:28:VAL:O	45:DT:29:ARG:CB	2.62	0.46
1:AA:1189:C:H5'	3:AC:5:ILE:HG21	1.97	0.46
31:BA:1174:A:OP1	31:BA:1175:U:OP1	2.34	0.46
31:BA:271(D):G:H8	31:BA:271(D):G:O5'	1.98	0.46
10:CJ:6:ILE:HD12	10:CJ:6:ILE:O	2.16	0.46
39:BN:131:GLN:NE2	39:BN:133:GLN:O	2.48	0.46
12:CL:102:ARG:HD2	12:CL:108:ALA:O	2.15	0.46
31:BA:2476:A:C6	31:BA:2477:C:C4	3.04	0.46
1:CA:233:C:H2'	1:CA:234:C:C6	2.35	0.46
37:BH:54:ARG:HB3	37:BH:65:HIS:HB2	1.98	0.46
9:CI:105:ASP:OD2	9:CI:107:ARG:HD3	2.15	0.46
8:CH:112:LEU:HB2	8:CH:133:LEU:HA	1.97	0.46
35:DF:129:PHE:CD2	35:DF:163:VAL:HG21	2.51	0.46
1:CA:564:C:H5'	12:CL:10:LEU:HD12	1.97	0.46
31:DA:2886:G:C2	31:DA:2887:U:C5	3.03	0.46
43:DR:33:ARG:CG	43:DR:115:GLU:HG2	2.38	0.46
31:DA:2555:U:C5	31:DA:2556:C:C6	3.04	0.46
7:AG:79:ARG:HG2	7:AG:84:ASN:HD21	1.81	0.46
31:DA:1308:A:N6	31:DA:1309:G:C2	2.84	0.46
9:AI:18:PHE:HD1	9:AI:62:TYR:HD2	1.64	0.46
9:AI:17:VAL:HG22	9:AI:63:ILE:CG1	2.46	0.46
40:BO:79:PHE:HE2	40:BO:101:PRO:HG2	1.81	0.46
11:CK:111:ASP:HA	18:CR:84:LYS:CG	2.43	0.46
31:BA:2064:C:H2'	31:BA:2065:C:C6	2.51	0.46
31:DA:2271:G:C6	31:DA:2272:U:C4	3.04	0.46
15:CO:30:ALA:HA	15:CO:85:LEU:HD11	1.97	0.46
1:CA:1497:G:C2'	1:CA:1498:U:H5'	2.45	0.46
42:DQ:16:ARG:CG	42:DQ:17:LEU:N	2.79	0.46
31:BA:363(E):U:OP2	31:BA:363(E):U:C6	2.69	0.46
6:CF:63:TYR:N	6:CF:63:TYR:CD2	2.83	0.46
1:AA:131:C:H2'	1:AA:132:C:C6	2.49	0.46
1:CA:833:U:O2	1:CA:854:G:C2	2.69	0.46
31:BA:2689:U:OP1	31:BA:2719:G:N2	2.46	0.46
35:DF:57:VAL:HG12	35:DF:58:ALA:N	2.31	0.46
22:D0:60:PHE:CZ	31:DA:2365:G:H4'	2.50	0.46
1:AA:945:G:C6	1:AA:1337:G:C6	3.04	0.46
1:CA:725:G:C2	1:CA:726:C:C6	3.04	0.46
1:CA:477:A:C2	1:CA:479:C:C5	3.04	0.46
31:DA:2032:G:H21	34:DE:146:THR:HG23	1.81	0.46
11:AK:48:ILE:HD13	11:AK:48:ILE:N	2.31	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1416:G:C5	1:AA:1417:G:C5	3.04	0.46
1:AA:1293:G:O2'	1:AA:1294:G:H8	1.97	0.46
34:DE:72:VAL:O	34:DE:73:GLU:C	2.54	0.46
42:DQ:116:GLU:O	42:DQ:119:ARG:N	2.48	0.46
1:CA:1025:U:HO2'	1:CA:1026:G:H8	1.60	0.46
22:D0:36:ILE:HG12	22:D0:37:LEU:N	2.31	0.46
31:BA:1925:C:O2'	31:BA:1926:U:H5'	2.15	0.46
29:D7:26:GLY:O	29:D7:30:VAL:HG23	2.15	0.46
24:B2:24:LEU:O	24:B2:27:GLU:HB2	2.16	0.46
37:DH:77:LYS:HA	37:DH:80:SER:HB3	1.97	0.46
22:D0:84:LEU:N	22:D0:84:LEU:HD12	2.31	0.46
49:BX:47:PHE:O	49:BX:48:LYS:C	2.53	0.46
2:CB:82:ARG:HG3	2:CB:92:TYR:CE1	2.51	0.46
2:CB:82:ARG:HG3	2:CB:92:TYR:CZ	2.50	0.46
38:BI:33:ARG:C	38:BI:35:LEU:H	2.18	0.46
31:DA:2063:C:C5	31:DA:2064:C:C4	3.04	0.46
31:DA:244:A:H4'	41:DP:74:GLU:HB2	1.98	0.46
31:DA:1245:G:O3'	41:DP:16:ARG:NH2	2.49	0.46
31:BA:2070:G:C4	31:BA:2071:A:C8	3.04	0.46
31:BA:2243:U:O2	31:BA:2434:A:C2	2.69	0.46
31:BA:631:A:OP1	41:BP:64:LYS:CE	2.46	0.46
31:BA:588:U:C2	35:BF:90:PHE:CE1	3.04	0.46
32:BB:116:G:N3	32:BB:117:G:C8	2.84	0.46
32:BB:38:C:H4'	44:BS:95:HIS:HE1	1.77	0.46
44:BS:67:ARG:CD	44:BS:101:LEU:HD23	2.46	0.46
44:BS:102:ALA:O	44:BS:104:GLY:N	2.49	0.46
31:DA:1000:A:C5	31:DA:1155:A:C5	3.03	0.46
47:DV:72:VAL:HG12	47:DV:88:ARG:HH22	1.80	0.46
31:BA:1344:G:H4'	31:BA:1384:A:C5	2.51	0.46
31:BA:1465:G:C2	31:BA:1466:G:C4	3.04	0.46
49:BX:53:LYS:CE	49:BX:55:ASN:HD21	2.28	0.46
31:BA:1719:G:C2'	31:BA:1720:U:C5'	2.89	0.46
32:DB:25:A:C2'	32:DB:26:A:C8	2.92	0.46
36:DG:31:VAL:C	36:DG:33:ARG:H	2.18	0.46
44:DS:89:ARG:HA	44:DS:89:ARG:NE	2.25	0.46
4:AD:121:VAL:O	4:AD:134:ASP:HA	2.14	0.46
1:CA:57:G:C6	1:CA:356:A:N1	2.84	0.46
1:CA:51:A:H61	1:CA:314:C:H1'	1.80	0.46
1:CA:617:G:H2'	1:CA:618:C:O5'	2.15	0.46
1:CA:627:G:C4	1:CA:628:G:C8	3.03	0.46
31:DA:1798:U:H5''	33:DD:259:THR:HB	1.98	0.46
37:DH:85:LYS:NZ	37:DH:133:VAL:CG2	2.77	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:D1:91:LYS:O	23:D1:92:LYS:HD2	2.16	0.46
31:BA:2705:A:H2'	31:BA:2706:G:O4'	2.16	0.46
31:BA:2619:C:H2'	31:BA:2620:C:H6	1.81	0.46
47:BV:72:VAL:CG1	47:BV:88:ARG:HH22	2.28	0.46
31:DA:336:C:HO2'	50:DY:35:TYR:HH	1.61	0.46
31:DA:1486:A:N6	31:DA:1504:C:H42	2.13	0.46
31:BA:2275:C:C5'	31:BA:2275:C:H6	2.29	0.46
42:DQ:140:ALA:CB	51:DZ:99:TYR:HB2	2.45	0.46
31:DA:863:A:H2	31:DA:914:C:H41	1.64	0.46
31:DA:864:G:N2	31:DA:913:U:C2	2.84	0.46
31:BA:288:C:H2'	31:BA:289:A:O5'	2.15	0.46
43:DR:116:LEU:HA	43:DR:116:LEU:HD23	1.61	0.46
1:AA:411:A:C2'	1:AA:412:A:H4'	2.42	0.46
1:AA:322:C:OP2	1:AA:328:C:N4	2.48	0.46
1:AA:330:C:C2'	1:AA:331:G:H5'	2.46	0.46
1:AA:59:A:H3'	1:AA:331:G:H22	1.80	0.46
31:DA:1045:A:H3'	31:DA:1045:A:N3	2.31	0.46
6:AF:30:LEU:O	6:AF:33:TYR:O	2.33	0.46
1:AA:1094:G:O2'	1:AA:1108:G:N1	2.49	0.46
2:CB:171:ALA:HA	2:CB:174:VAL:CG2	2.46	0.46
1:CA:728:A:C5	15:CO:54:ARG:HD2	2.50	0.46
3:CC:20:SER:HB2	3:CC:40:ARG:NH2	2.15	0.46
1:AA:920:U:H1'	1:AA:1080:A:N3	2.30	0.46
34:BE:2:LYS:HB3	34:BE:95:ILE:HG21	1.97	0.46
1:AA:30:U:H4'	1:AA:31:G:OP2	2.14	0.46
1:AA:914:A:C6	1:AA:915:A:C5	3.04	0.46
36:BG:127:GLY:CA	36:BG:166:ASP:HB3	2.33	0.46
31:DA:104:U:C5	31:DA:105:C:C4	3.03	0.46
6:CF:30:LEU:O	6:CF:33:TYR:O	2.34	0.46
31:DA:2711:A:N6	31:DA:2714:G:C5	2.84	0.46
31:DA:2714:G:H8	31:DA:2714:G:OP1	1.99	0.46
31:BA:78:A:C6	31:BA:109:G:C6	3.04	0.46
31:BA:78:A:C2	31:BA:79:G:C5	3.04	0.46
38:BI:132:PRO:C	38:BI:133:HIS:CD2	2.89	0.46
38:BI:133:HIS:CD2	38:BI:133:HIS:N	2.83	0.46
1:CA:964:A:N6	1:CA:965:A:N6	2.64	0.46
11:AK:66:LEU:HD23	11:AK:66:LEU:HA	1.70	0.46
31:BA:1590:U:H2'	31:BA:1591:G:O4'	2.16	0.46
48:DW:36:LEU:CD1	48:DW:48:ALA:HA	2.45	0.46
2:AB:172:ILE:H	2:AB:172:ILE:CD1	2.13	0.46
1:AA:1066:C:H42	1:AA:1191:A:H62	1.64	0.46
1:CA:67:C:H4'	1:CA:172:A:H1'	1.98	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:107:C:C2	31:DA:108:U:C5	3.04	0.46
31:DA:459:U:H2'	31:DA:460:A:C8	2.51	0.46
9:CI:112:LYS:HA	9:CI:119:ALA:HB2	1.97	0.46
8:AH:6:ILE:HB	8:AH:85:ARG:NH1	2.31	0.46
38:DI:6:LEU:HD23	38:DI:6:LEU:N	2.31	0.46
1:AA:769:G:C2'	1:AA:770:C:H5'	2.46	0.46
31:DA:543:C:HO2'	31:DA:543:C:H6	1.64	0.46
31:DA:547:A:N3	31:DA:547:A:H2'	2.30	0.46
1:AA:1157:A:C4	1:AA:1181:G:N2	2.84	0.46
46:DU:39:LEU:HA	46:DU:39:LEU:HD23	1.71	0.46
31:DA:2291:U:H5''	31:DA:2380:C:C2'	2.46	0.46
3:AC:134:ILE:HD11	3:AC:153:VAL:HG21	1.97	0.46
35:DF:31:HIS:CB	41:DP:13:ASN:HD22	2.29	0.46
34:DE:4:ILE:HD13	34:DE:28:ALA:CB	2.44	0.46
31:BA:1271:G:C2	31:BA:1617:C:H4'	2.51	0.46
22:D0:48:GLY:HA3	22:D0:80:HIS:CE1	2.51	0.46
1:CA:532:A:H61	3:CC:193:TYR:HB3	1.80	0.46
31:DA:2590:A:C2	31:DA:2605:U:C2	3.04	0.46
22:B0:1:MET:O	22:B0:2:ALA:HB3	2.16	0.46
31:DA:1356:G:C6	31:DA:1357:U:N3	2.84	0.46
31:BA:1355:G:C6	31:BA:1356:G:C5	3.04	0.46
3:CC:35:GLU:O	3:CC:39:ILE:HG13	2.16	0.46
1:CA:835:U:H3	1:CA:851:G:H1	1.64	0.46
29:D7:15:THR:HG22	29:D7:16:HIS:CE1	2.50	0.46
31:BA:1682:G:C5	31:BA:1683:C:C4	3.04	0.46
1:CA:1479:C:H2'	1:CA:1480:G:H8	1.80	0.46
1:CA:808:C:OP1	15:CO:48:LYS:HE3	2.16	0.46
31:DA:1442:G:C2	31:DA:1443:G:C4	3.03	0.46
35:BF:32:LEU:O	35:BF:32:LEU:HD23	2.16	0.46
1:CA:1014:A:H2	1:CA:1219:U:O2	1.99	0.46
40:DO:86:ILE:O	40:DO:87:ILE:HD13	2.15	0.46
1:CA:277:C:OP1	17:CQ:41:LYS:HE3	2.16	0.46
23:D1:18:ILE:N	23:D1:18:ILE:HD12	2.31	0.46
1:AA:1300:G:C5	1:AA:1334:G:C6	3.04	0.46
1:CA:1521:G:H2'	1:CA:1522:U:H6	1.80	0.46
2:CB:53:ARG:NH2	2:CB:198:ASP:O	2.48	0.46
27:B5:20:ARG:HB3	27:B5:23:HIS:CD2	2.51	0.46
3:AC:184:TYR:CG	3:AC:185:GLY:N	2.84	0.46
40:DO:56:ASP:O	40:DO:58:VAL:HG13	2.16	0.46
31:BA:2367:G:O5'	31:BA:2367:G:H8	1.99	0.46
31:BA:2518:A:H8	31:BA:2518:A:H5'	1.80	0.46
31:BA:346:A:H2'	31:BA:347:A:O5'	2.15	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:D8:35:GLN:CB	31:DA:2420:C:OP1	2.64	0.46
31:DA:239:U:H2'	31:DA:240:G:O4'	2.16	0.46
31:DA:245:G:C4	31:DA:246:C:C6	3.03	0.46
31:DA:255:A:C4	31:DA:256:A:C8	3.04	0.46
31:DA:832:G:H2'	31:DA:833:U:C6	2.51	0.46
30:B8:35:GLN:HG2	31:BA:2420:C:OP1	2.16	0.46
31:BA:389:G:H22	41:BP:72:PRO:HD3	1.79	0.46
41:BP:14:LYS:O	41:BP:15:ARG:HG3	2.16	0.46
41:BP:66:GLY:O	41:BP:68:GLN:HB3	2.15	0.46
30:B8:12:LYS:HG2	41:BP:68:GLN:HE22	1.81	0.46
33:BD:143:HIS:HD2	33:BD:144:ALA:HB2	1.81	0.46
33:BD:95:LEU:HD21	33:BD:105:ILE:HG21	1.95	0.46
44:BS:26:LEU:HG	44:BS:39:ILE:CD1	2.46	0.46
31:DA:1750:G:O2'	31:DA:1751:C:H5'	2.16	0.46
31:BA:2564:A:C6	31:BA:2565:A:N1	2.84	0.46
31:DA:1528:A:H8	31:DA:1528(A):A:C8	2.34	0.46
31:DA:1006:C:O2'	39:DN:106:MET:O	2.32	0.46
39:DN:30:ILE:HG21	39:DN:120:LEU:CD2	2.46	0.46
39:DN:35:ARG:HB3	39:DN:35:ARG:HE	1.39	0.46
31:BA:2752:C:C2'	31:BA:2752:C:O2	2.55	0.46
24:B2:30:ARG:HA	24:B2:33:MET:SD	2.56	0.46
31:BA:73:A:C2'	31:BA:74:A:OP2	2.64	0.46
49:BX:25:LYS:HG3	49:BX:26:TYR:H	1.81	0.46
31:BA:2808:U:C2'	31:BA:2809:A:C5'	2.90	0.46
34:BE:55:ASN:O	34:BE:57:LYS:N	2.49	0.46
36:DG:11:TYR:O	36:DG:11:TYR:CG	2.69	0.46
1:AA:378:G:C5	1:AA:379:C:C4	3.04	0.46
1:CA:1428:A:H2'	1:CA:1429:C:O4'	2.16	0.46
4:CD:111:ALA:HB2	4:CD:120:LEU:HD12	1.98	0.46
1:AA:443:C:C2	1:AA:444:C:C5	3.04	0.46
31:DA:1790:C:H2'	31:DA:1791:A:C4	2.51	0.46
31:DA:685:A:H1'	31:DA:689:A:N6	2.31	0.46
33:DD:159:ALA:HA	33:DD:196:VAL:HG12	1.98	0.46
33:DD:214:TRP:CD1	33:DD:214:TRP:N	2.83	0.46
39:BN:112:LEU:O	39:BN:113:GLY:C	2.53	0.46
31:DA:573:G:O6	31:DA:2029:G:H2'	2.15	0.46
31:BA:1651:G:OP1	43:BR:40:LYS:HG3	2.16	0.46
31:BA:764:A:N1	31:BA:781:A:C2	2.84	0.46
1:CA:190:U:O2	20:CT:105:SER:HB2	2.15	0.46
51:DZ:125:LEU:HD23	51:DZ:126:VAL:N	2.31	0.46
22:D0:45:PHE:O	22:D0:59:LEU:HD11	2.16	0.46
42:BQ:140:ALA:N	51:BZ:53:ILE:HD12	2.28	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:682:G:N3	1:AA:709:G:C2	2.84	0.46
34:DE:95:ILE:H	34:DE:95:ILE:HD12	1.81	0.46
1:AA:51:A:H61	1:AA:314:C:H1'	1.81	0.46
1:AA:365:U:C5'	1:AA:366:C:OP1	2.55	0.46
1:AA:363:A:C5	12:AL:31:PRO:HD2	2.51	0.46
27:B5:7:PRO:HA	31:BA:2615:U:N1	2.31	0.46
4:CD:30:LYS:C	4:CD:32:ALA:N	2.68	0.46
34:DE:132:HIS:HA	34:DE:135:HIS:CE1	2.51	0.46
1:AA:666:G:N1	1:AA:741:G:C5	2.84	0.46
1:CA:1060:C:C5	3:CC:2:GLY:O	2.68	0.46
31:BA:2282:G:H5'	31:BA:2389:G:C1'	2.46	0.46
31:BA:1952:A:C6	40:BO:22:ILE:CD1	2.97	0.46
41:DP:121:LYS:O	41:DP:123:LEU:HG	2.16	0.46
10:AJ:54:PHE:HZ	10:AJ:55:LYS:HZ1	1.64	0.46
31:BA:86:C:H4'	31:BA:104:U:H1'	1.98	0.46
1:CA:1203:C:H2'	1:CA:1204:A:H8	1.79	0.46
10:CJ:54:PHE:HZ	10:CJ:55:LYS:HZ1	1.58	0.46
48:DW:14:PRO:O	48:DW:17:VAL:N	2.49	0.46
31:DA:1590:U:H2'	31:DA:1591:G:O4'	2.15	0.46
31:DA:1516:C:H2'	31:DA:1517:G:H5''	1.98	0.46
45:BT:29:ARG:HD2	45:BT:29:ARG:HA	1.75	0.46
1:AA:233:C:C5	1:AA:234:C:H5	2.34	0.46
9:AI:118:LYS:O	9:AI:119:ALA:HB3	2.15	0.46
31:DA:2843:G:O2'	31:DA:2844:G:H5'	2.16	0.46
31:BA:2531:A:N3	31:BA:2531:A:H2'	2.31	0.46
31:DA:154:G:N3	31:DA:154(A):C:N3	2.64	0.46
8:AH:8:ASP:O	8:AH:9:MET:C	2.53	0.46
1:CA:1128:C:N3	1:CA:1139:G:C6	2.83	0.46
11:CK:109:VAL:HG22	18:CR:86:VAL:HG13	1.98	0.46
11:CK:94:ALA:O	11:CK:98:LEU:HG	2.16	0.46
35:DF:33:LEU:O	35:DF:37:VAL:HG23	2.15	0.46
31:DA:271(L):U:H5''	31:DA:271(M):G:C4	2.51	0.46
31:DA:271(L):U:H5''	31:DA:271(M):G:C5	2.50	0.46
31:BA:2291:U:H5''	31:BA:2380:C:H1'	1.98	0.46
31:DA:465:G:C2	31:DA:466:A:C2	3.04	0.46
12:CL:119:LYS:O	12:CL:120:TYR:CB	2.64	0.46
31:BA:2271:G:H8	31:BA:2271:G:O5'	1.98	0.46
12:AL:20:LYS:N	12:AL:20:LYS:HD3	2.25	0.46
14:AN:57:ARG:HG2	14:AN:58:LYS:N	2.31	0.46
31:DA:2492:U:C2	31:DA:2493:U:C5	3.04	0.46
31:DA:603:A:H1'	31:DA:604:G:O4'	2.16	0.46
31:DA:2603:G:C5	31:DA:2604:U:C5	3.04	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1313:U:OP2	19:AS:6:LYS:HB3	2.16	0.46
1:CA:1498:U:H6	1:CA:1498:U:O5'	1.99	0.46
31:BA:1547:C:H2'	31:BA:1548:C:C6	2.50	0.46
35:BF:132:VAL:C	35:BF:134:GLY:N	2.65	0.46
31:BA:1198:U:H2'	31:BA:1199:U:H6	1.81	0.46
31:DA:817:C:C2'	31:DA:818:G:C8	2.98	0.46
6:CF:20:ALA:O	6:CF:23:LYS:HB2	2.16	0.46
6:AF:79:LEU:CB	6:AF:88:VAL:HG21	2.45	0.46
13:AM:17:VAL:O	13:AM:20:THR:HB	2.16	0.46
18:AR:53:ARG:HG3	18:AR:63:GLN:HG2	1.98	0.46
31:BA:1635:G:H5'	31:BA:1635:G:H8	1.81	0.46
22:D0:50:ASN:C	22:D0:62:LEU:HB2	2.37	0.46
31:DA:2552:U:H2'	31:DA:2554:U:H5''	1.98	0.46
31:DA:1446:C:C4	31:DA:1447:G:N7	2.85	0.46
31:DA:1849:G:C2	31:DA:1850:G:C8	3.04	0.46
31:DA:1913:A:H4'	31:DA:1914:C:H5''	1.98	0.46
34:DE:69:LYS:C	34:DE:71:GLY:H	2.19	0.46
34:DE:69:LYS:C	34:DE:71:GLY:N	2.69	0.46
1:AA:1478:C:H2'	1:AA:1479:C:C6	2.52	0.46
1:CA:182:U:N3	1:CA:183:G:H1'	2.31	0.46
42:DQ:54:MET:O	42:DQ:57:HIS:N	2.48	0.46
43:DR:87:TYR:O	43:DR:89:ASP:N	2.49	0.46
5:CE:144:THR:O	5:CE:148:VAL:HG23	2.16	0.46
1:AA:421:U:C4	3:AC:127:ARG:NH1	2.84	0.46
35:DF:46:ARG:HH11	35:DF:46:ARG:CB	2.29	0.46
31:DA:561:G:O2'	46:DU:45:TYR:CE2	2.64	0.46
46:BU:30:LYS:HD3	46:BU:30:LYS:HA	1.85	0.46
1:AA:799:G:C2'	1:AA:800:G:H5'	2.46	0.46
19:CS:49:ILE:HD12	19:CS:49:ILE:H	1.81	0.46
1:CA:858:G:O6	1:CA:869:G:H3'	2.16	0.45
31:DA:2359:C:O2'	31:DA:2360:A:H5'	2.16	0.45
31:DA:2360:A:O2'	31:DA:2361:A:H5''	2.15	0.45
31:DA:514:A:C2	31:DA:515:A:C4	3.04	0.45
31:DA:516:C:H2'	31:DA:517:C:C6	2.51	0.45
28:B6:25:LYS:CE	28:B6:27:LYS:HZ3	2.29	0.45
30:B8:31:HIS:O	30:B8:32:LEU:C	2.55	0.45
31:BA:2418:A:C5	31:BA:2419:U:C5	3.04	0.45
31:BA:466:A:O4'	31:BA:683:C:H4'	2.17	0.45
33:BD:83:GLU:HB2	33:BD:92:ILE:HD11	1.97	0.45
44:BS:73:LEU:O	44:BS:74:ALA:C	2.55	0.45
31:DA:1386:C:OP2	31:DA:1396:U:H5	1.98	0.45
24:B2:25:VAL:HA	24:B2:28:LYS:HB2	1.97	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:B2:30:ARG:O	24:B2:31:GLU:C	2.54	0.45
24:B2:49:LYS:CD	24:B2:53:LEU:CD2	2.83	0.45
31:DA:1288:U:H4'	31:DA:1289:C:OP2	2.16	0.45
33:BD:244:ARG:HA	33:BD:245:PRO:HA	1.70	0.45
44:DS:95:HIS:O	44:DS:97:ARG:N	2.49	0.45
1:AA:377:G:C2'	1:AA:378:G:H5'	2.46	0.45
1:AA:389:A:C2'	1:AA:390:C:H5'	2.37	0.45
16:AP:28:ARG:NH1	16:AP:28:ARG:CG	2.65	0.45
1:CA:391:G:O6	1:CA:392:G:C6	2.69	0.45
31:BA:2311:A:H4'	36:BG:77:ILE:HD11	1.98	0.45
31:BA:1331:A:H2'	31:BA:1333:C:C5	2.51	0.45
39:BN:62:VAL:CG2	39:BN:66:LYS:HG3	2.46	0.45
31:BA:1141:U:O5'	39:BN:63:THR:HG21	2.15	0.45
31:DA:567:A:N1	31:DA:571:A:H8	2.14	0.45
31:DA:2784:C:H2'	31:DA:2785:C:H6	1.81	0.45
31:DA:2808:U:HO2'	31:DA:2809:A:H5'	1.80	0.45
31:BA:1661:G:H2'	31:BA:1662:C:C6	2.51	0.45
5:AE:139:LEU:HA	5:AE:142:LEU:CD1	2.46	0.45
31:BA:1820:U:O2'	33:BD:159:ALA:HB3	2.16	0.45
33:BD:211:ARG:HA	33:BD:214:TRP:CD2	2.51	0.45
33:BD:43:ARG:NH1	33:BD:44:ASN:CG	2.68	0.45
1:CA:192:U:H4'	20:CT:103:GLY:HA2	1.96	0.45
31:BA:933:A:H2'	31:BA:934:G:H5'	1.98	0.45
47:BV:18:LEU:CD1	47:BV:18:LEU:C	2.84	0.45
46:BU:50:ARG:CZ	47:BV:75:PHE:CD2	2.98	0.45
2:CB:54:THR:HG23	2:CB:199:TYR:HB3	1.97	0.45
31:DA:866:A:O2'	31:DA:867:C:H5'	2.16	0.45
32:BB:73:A:N3	32:BB:73:A:H2'	2.31	0.45
51:BZ:52:SER:OG	51:BZ:54:HIS:HD2	1.99	0.45
51:BZ:71:VAL:HG22	51:BZ:88:PHE:HE2	1.81	0.45
1:AA:1278:U:H5''	1:AA:1279:A:C1'	2.46	0.45
34:DE:195:LEU:HG	34:DE:196:VAL:N	2.31	0.45
31:DA:1651:G:OP1	43:DR:40:LYS:HG3	2.15	0.45
31:BA:497:A:C5	31:BA:498:G:C8	3.04	0.45
6:AF:50:TYR:CE2	6:AF:52:ILE:CD1	2.99	0.45
32:BB:66:A:C4	32:BB:109:C:C4	3.04	0.45
31:BA:2056:G:C2	31:BA:2057:A:C8	3.04	0.45
31:BA:1146:C:C4	31:BA:1147:C:C5	3.04	0.45
50:BY:76:CYS:HB3	50:BY:96:ILE:HD11	1.97	0.45
4:CD:26:CYS:HA	4:CD:31:CYS:HB2	1.98	0.45
42:BQ:42:ILE:HD13	42:BQ:97:VAL:CB	2.46	0.45
42:BQ:88:GLY:O	42:BQ:90:VAL:N	2.48	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1337:G:C4	31:BA:1338:G:C8	3.05	0.45
36:DG:82:LEU:CB	36:DG:87:PRO:HG3	2.41	0.45
1:AA:1072:G:C4	1:AA:1104:G:N2	2.85	0.45
31:BA:2721:A:H2'	31:BA:2722:G:O4'	2.16	0.45
34:DE:23:VAL:HA	34:DE:184:VAL:O	2.16	0.45
1:AA:29:G:N2	1:AA:554:C:O2	2.49	0.45
31:BA:911:A:C4	42:BQ:9:TYR:OH	2.63	0.45
16:AP:20:VAL:HG22	16:AP:21:VAL:N	2.31	0.45
38:BI:93:THR:HG22	38:BI:119:PRO:HB3	1.99	0.45
31:DA:86:C:H4'	31:DA:104:U:H1'	1.98	0.45
31:DA:2711:A:C8	31:DA:2714:G:H1'	2.51	0.45
12:CL:86:ARG:HG2	12:CL:87:GLY:N	2.31	0.45
11:AK:99:GLN:OE1	11:AK:105:VAL:HG11	2.16	0.45
31:BA:1411:C:HO2'	31:BA:1412:A:H8	1.63	0.45
31:DA:1411:C:C2'	31:DA:1412:A:H8	2.28	0.45
31:DA:1661:G:C6	31:DA:2000:G:C6	3.04	0.45
43:DR:26:LYS:HE2	43:DR:71:GLN:H	1.82	0.45
31:BA:1173:G:H3'	31:BA:1174:A:H5'	1.98	0.45
1:CA:1516:G:N1	1:CA:1519:A:OP2	2.50	0.45
1:CA:782:A:O3'	1:CA:1515:C:H4'	2.16	0.45
31:BA:2532:G:C6	31:BA:2533:A:C6	3.04	0.45
31:BA:2663:G:H8	31:BA:2664:G:N7	2.12	0.45
31:DA:456:C:C4	49:DX:66:LEU:HD22	2.52	0.45
5:AE:47:LYS:O	5:AE:57:LYS:HE2	2.16	0.45
1:CA:1250:A:C2	1:CA:1370:G:H1'	2.51	0.45
4:AD:188:LEU:HA	4:AD:189:PRO:HD2	1.76	0.45
31:DA:185:U:H2'	31:DA:186:G:C8	2.50	0.45
31:DA:186:G:O2'	31:DA:187:G:H5'	2.17	0.45
31:BA:8:A:H2'	31:BA:9:U:C5	2.50	0.45
31:BA:2380:C:HO2'	31:BA:2381:C:H5'	1.81	0.45
31:DA:1641:A:H2'	31:DA:1642:G:O4'	2.16	0.45
1:CA:989:C:H1'	1:CA:1016:A:C2	2.50	0.45
31:BA:2820:A:H2'	31:BA:2820:A:N3	2.31	0.45
31:DA:54:G:N2	31:DA:126:A:C2	2.83	0.45
31:DA:1839:G:C5'	31:DA:1839:G:C8	2.99	0.45
1:AA:154:C:H2'	1:AA:155:C:C6	2.47	0.45
1:AA:563:A:N7	1:AA:567:G:H1'	2.30	0.45
4:CD:173:TRP:HZ3	4:CD:193:ASP:HB3	1.79	0.45
31:BA:1839:G:C5'	31:BA:1839:G:H8	2.29	0.45
6:CF:49:ALA:HB1	18:CR:80:PRO:HA	1.98	0.45
31:DA:2340:G:HO2'	31:DA:2341:G:H5'	1.79	0.45
31:DA:1315:C:H2'	31:DA:1316:U:H6	1.81	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:558:G:P	39:BN:111:PRO:HG2	2.57	0.45
7:CG:66:VAL:HG12	7:CG:70:LYS:HE3	1.97	0.45
31:BA:1704:G:C2'	31:BA:1705:G:H5'	2.45	0.45
31:DA:1921:G:O2'	31:DA:1922:G:H5'	2.16	0.45
1:CA:1477:C:O2'	1:CA:1478:C:H5'	2.16	0.45
31:DA:266:G:C2'	31:DA:267:C:O5'	2.64	0.45
31:DA:1561:G:O2'	31:DA:1562:A:H5'	2.16	0.45
1:AA:945:G:N3	1:AA:945:G:H2'	2.31	0.45
36:DG:96:ARG:CD	36:DG:97:ASP:H	2.29	0.45
31:BA:18:C:H2'	31:BA:19:C:C6	2.51	0.45
31:DA:2835:A:N6	31:DA:2879:C:C6	2.84	0.45
31:BA:2791:C:H4'	31:BA:2792:G:O5'	2.16	0.45
46:DU:66:ASN:HA	46:DU:76:TYR:HB2	1.97	0.45
34:DE:70:ALA:O	34:DE:71:GLY:C	2.54	0.45
36:BG:39:ILE:HA	36:BG:157:ILE:HA	1.98	0.45
11:AK:34:ASP:HB3	11:AK:40:ILE:HD11	1.98	0.45
38:DI:92:VAL:HG23	38:DI:96:ASP:CB	2.45	0.45
1:CA:594:G:H1	1:CA:645:C:H42	1.62	0.45
1:CA:1300:G:C5	1:CA:1334:G:C6	3.04	0.45
31:DA:704:G:N3	31:DA:726:G:C2	2.84	0.45
15:CO:69:TYR:HD1	15:CO:72:ARG:NH2	2.13	0.45
3:CC:66:VAL:HG12	3:CC:66:VAL:O	2.16	0.45
2:CB:211:ILE:O	2:CB:215:LEU:HB2	2.16	0.45
27:D5:2:ALA:HA	31:DA:2015:A:C1'	2.30	0.45
30:D8:35:GLN:OE1	31:DA:2421:G:OP2	2.35	0.45
31:DA:1271:G:C2	31:DA:1617:C:H4'	2.51	0.45
31:DA:2067:G:O2'	31:DA:2069:G:H5'	2.16	0.45
31:DA:2418:A:C5	31:DA:2419:U:C5	3.05	0.45
31:DA:2615:U:O2'	31:DA:2616:C:H5'	2.16	0.45
35:DF:39:TRP:O	35:DF:42:ALA:HB3	2.16	0.45
28:B6:11:LEU:HD11	28:B6:26:ASN:ND2	2.30	0.45
30:B8:26:LYS:HB3	30:B8:44:LYS:HG3	1.98	0.45
31:BA:661:C:O3'	41:BP:18:ARG:HA	2.16	0.45
31:BA:2059:A:H5''	35:BF:71:GLY:HA2	1.98	0.45
32:BB:55:U:H2'	32:BB:56:G:H8	1.82	0.45
44:BS:94:TYR:HE1	44:BS:98:VAL:HB	1.82	0.45
49:DX:50:LYS:HE2	49:DX:82:GLN:HB2	1.98	0.45
47:DV:64:HIS:O	47:DV:66:ARG:N	2.50	0.45
31:BA:1403:C:H2'	31:BA:1404:C:O4'	2.16	0.45
31:BA:70:G:H2'	31:BA:113:G:O2'	2.17	0.45
34:BE:75:VAL:O	34:BE:77:ILE:N	2.46	0.45
31:BA:1900:A:N1	31:BA:1970:A:C6	2.84	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1710:C:H4'	31:BA:2858:C:O2	2.16	0.45
32:DB:45:A:H2'	32:DB:45:A:N3	2.31	0.45
36:DG:117:PHE:HZ	36:DG:179:PRO:HG2	1.82	0.45
44:DS:34:HIS:CD2	44:DS:54:LEU:HB2	2.51	0.45
44:DS:28:VAL:C	44:DS:89:ARG:HD2	2.35	0.45
1:AA:41:G:C4	1:AA:402:G:N2	2.84	0.45
1:AA:41:G:C5	1:AA:402:G:N1	2.85	0.45
1:AA:617:G:N1	1:AA:618:C:C4	2.83	0.45
1:AA:618:C:H5''	1:AA:619:U:C5'	2.43	0.45
1:AA:627:G:C4	1:AA:628:G:C8	3.04	0.45
4:AD:100:ARG:O	4:AD:101:LEU:C	2.55	0.45
1:CA:623:C:C4	1:CA:624:C:C4	3.05	0.45
1:AA:490:G:O2'	1:AA:491:G:H5'	2.17	0.45
31:BA:2308:G:N2	31:BA:2309:A:C6	2.84	0.45
33:DD:215:LEU:HD13	33:DD:217:ARG:HH21	1.80	0.45
39:BN:31:ALA:O	39:BN:32:THR:C	2.54	0.45
34:DE:144:ARG:HB3	34:DE:145:LYS:H	1.29	0.45
31:BA:526:A:O2'	31:BA:2043:C:C2'	2.64	0.45
34:DE:32:PRO:HD2	34:DE:50:GLY:H	1.82	0.45
2:AB:204:ASN:HB3	2:AB:210:SER:HB3	1.95	0.45
1:CA:195:A:H1'	1:CA:222:U:O2'	2.16	0.45
1:CA:224:C:C2	1:CA:225:C:C5	3.04	0.45
20:CT:79:ARG:HH11	20:CT:79:ARG:HB2	1.81	0.45
31:BA:814:C:H5	41:BP:27:HIS:CD2	2.35	0.45
47:BV:2:PHE:HB2	47:BV:42:GLY:HA2	1.88	0.45
47:BV:72:VAL:O	47:BV:73:SER:CB	2.64	0.45
50:DY:31:LEU:HB2	50:DY:36:ALA:H	1.82	0.45
1:CA:682:G:C4	1:CA:683:G:C8	3.05	0.45
22:D0:40:GLN:NE2	22:D0:43:THR:C	2.69	0.45
31:DA:870:A:N3	31:DA:870:A:H2'	2.32	0.45
31:DA:959:A:N1	31:DA:960:A:C2	2.84	0.45
51:BZ:30:ASN:HA	51:BZ:89:PHE:HE2	1.80	0.45
43:DR:96:ARG:HD2	43:DR:98:LEU:HD11	1.98	0.45
27:B5:47:PRO:C	27:B5:48:GLU:CG	2.84	0.45
1:AA:364:A:C2'	1:AA:365:U:O2	2.63	0.45
33:DD:143:HIS:HD2	33:DD:144:ALA:HB3	1.81	0.45
50:BY:79:CYS:O	50:BY:80:GLY:C	2.54	0.45
31:BA:271(M):G:C5'	38:BI:57:ARG:NH1	2.80	0.45
1:CA:1097:C:H2'	1:CA:1098:C:H6	1.81	0.45
22:B0:41:ARG:N	22:B0:41:ARG:HD2	2.10	0.45
43:BR:5:LYS:H	43:BR:5:LYS:CD	2.27	0.45
1:AA:292:G:C5	1:AA:293:G:H1'	2.52	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1747(A):G:C3'	31:DA:1748:G:H5''	2.42	0.45
1:AA:766:A:C2'	1:AA:767:A:H5'	2.45	0.45
1:CA:961:U:O2'	1:CA:962:C:H5'	2.15	0.45
31:DA:1603:A:H5'	31:DA:1603:A:C8	2.41	0.45
31:DA:518:G:C4	31:DA:519:U:C5	3.04	0.45
45:DT:67:SER:O	45:DT:69:GLY:N	2.48	0.45
1:CA:259:G:C2	1:CA:268:C:O2	2.69	0.45
1:CA:273:A:O2'	1:CA:274:A:H5'	2.16	0.45
31:DA:1556:C:H2'	31:DA:1557:C:C6	2.52	0.45
45:BT:29:ARG:HG2	45:BT:85:LYS:HA	1.98	0.45
1:AA:171:A:H2'	1:AA:172:A:C8	2.51	0.45
1:AA:69:G:C2	1:AA:70:G:C5	3.04	0.45
1:AA:273:A:O2'	1:AA:274:A:H5'	2.16	0.45
31:BA:1696:G:H2'	31:BA:1697:G:H5'	1.98	0.45
31:BA:2475:C:C5'	31:BA:2476:A:OP2	2.61	0.45
1:CA:1288:A:N1	1:CA:1371:G:H1'	2.32	0.45
1:CA:1352:C:O2	1:CA:1371:G:C2	2.69	0.45
9:CI:17:VAL:HG22	9:CI:63:ILE:CG1	2.45	0.45
9:AI:105:ASP:OD2	9:AI:107:ARG:HD3	2.17	0.45
1:AA:1515:C:H2'	1:AA:1516:G:C8	2.51	0.45
42:BQ:29:PHE:CD1	42:BQ:29:PHE:N	2.85	0.45
1:AA:1321:C:H5''	1:AA:1322:C:C5'	2.40	0.45
1:CA:1158:C:N4	1:CA:1181:G:H22	2.14	0.45
1:CA:198:G:C8	1:CA:220:G:N2	2.84	0.45
42:DQ:32:TYR:HB2	42:DQ:106:VAL:HG23	1.98	0.45
29:D7:10:ARG:O	29:D7:14:LYS:HB2	2.17	0.45
1:AA:1128:C:N3	1:AA:1139:G:C6	2.84	0.45
43:BR:28:LEU:HD22	43:BR:28:LEU:O	2.16	0.45
31:DA:1213:A:C8	31:DA:1237:A:C6	3.05	0.45
41:DP:7:ARG:HD2	41:DP:7:ARG:HA	1.59	0.45
31:BA:2093:G:O2'	38:BI:25:TYR:HD2	1.99	0.45
1:CA:457:C:H6	1:CA:457:C:O5'	1.99	0.45
31:BA:1665:A:O2'	31:BA:1666:G:H5'	2.16	0.45
31:DA:892:G:C6	31:DA:894:C:C4	3.04	0.45
31:BA:92:A:O2'	31:BA:93:G:H5'	2.16	0.45
3:CC:188:LEU:O	3:CC:189:ALA:CB	2.65	0.45
8:AH:51:VAL:HB	8:AH:52:ASP:H	1.48	0.45
31:DA:2865:U:C4	31:DA:2866:U:C4	3.04	0.45
1:AA:240:C:H2'	1:AA:241:C:H6	1.80	0.45
4:CD:108:LEU:HD21	4:CD:174:LEU:HD22	1.99	0.45
31:DA:1227:G:H5''	46:DU:16:LYS:NZ	2.30	0.45
1:CA:147:G:N2	1:CA:148:G:H1'	2.31	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:AQ:77:VAL:O	17:AQ:78:GLU:HB3	2.16	0.45
18:CR:36:ASN:O	18:CR:39:VAL:HB	2.16	0.45
35:DF:8:GLN:OE1	35:DF:8:GLN:HA	2.16	0.45
34:DE:181:LEU:HA	34:DE:181:LEU:HD13	1.63	0.45
6:CF:6:VAL:HA	6:CF:90:VAL:HA	1.99	0.45
1:AA:965:A:C2	1:AA:969:A:C2	3.04	0.45
31:DA:280:C:C2'	31:DA:281:G:O5'	2.63	0.45
1:AA:753:A:H4'	1:AA:754:C:O4'	2.15	0.45
33:BD:248:SER:HB2	33:BD:249:PRO:HD2	1.98	0.45
20:AT:36:LEU:HD13	20:AT:36:LEU:HA	1.67	0.45
42:DQ:118:LEU:HA	42:DQ:118:LEU:HD23	1.63	0.45
31:BA:2638:G:P	34:BE:82:ARG:NH2	2.89	0.45
31:DA:271(W):G:C2'	31:DA:271(X):G:H5'	2.45	0.45
9:CI:11:LYS:O	9:CI:11:LYS:HG2	2.17	0.45
48:BW:23:LEU:HD12	48:BW:23:LEU:HA	1.59	0.45
1:AA:1077:G:C6	1:AA:1081:G:O6	2.69	0.45
7:CG:40:ALA:O	7:CG:44:TYR:CD1	2.69	0.45
31:DA:192:C:H2'	31:DA:193:U:O5'	2.16	0.45
30:B8:35:GLN:CB	31:BA:2420:C:OP1	2.64	0.45
31:BA:2443:C:H2'	31:BA:2444:G:H8	1.81	0.45
31:BA:389:G:H1	41:BP:71:VAL:HB	1.82	0.45
31:BA:832:G:H2'	31:BA:833:U:C6	2.51	0.45
41:BP:45:LEU:HD22	41:BP:46:LYS:N	2.31	0.45
24:D2:30:ARG:O	24:D2:31:GLU:C	2.55	0.45
49:DX:90:GLU:C	49:DX:92:LEU:N	2.69	0.45
39:DN:19:GLU:O	39:DN:59:LYS:O	2.34	0.45
37:BH:70:THR:HG22	37:BH:71:LEU:N	2.31	0.45
37:BH:85:LYS:HE2	37:BH:145:ALA:HB2	1.97	0.45
31:BA:1843:C:H2'	31:BA:1844:C:C6	2.52	0.45
36:DG:5:VAL:HG21	36:DG:101:ILE:CG2	2.46	0.45
44:DS:67:ARG:C	44:DS:69:VAL:H	2.18	0.45
1:AA:617:G:H2'	1:AA:618:C:O5'	2.16	0.45
1:AA:546:G:P	4:AD:72:GLU:HB3	2.56	0.45
1:CA:51:A:C2	1:CA:116:A:H1'	2.50	0.45
1:CA:510:A:N3	1:CA:543:C:H1'	2.31	0.45
31:BA:1330:C:C2'	31:BA:1331:A:H5'	2.46	0.45
23:D1:87:PRO:HD2	23:D1:88:LYS:HG3	1.98	0.45
31:DA:2029:G:C4	31:DA:2031:A:OP2	2.69	0.45
1:AA:191:G:C6	1:AA:192:U:C4	3.05	0.45
31:BA:1661:G:H2'	31:BA:1662:C:H6	1.80	0.45
31:BA:781:A:C2'	31:BA:782:A:OP2	2.65	0.45
33:BD:17:THR:CG2	33:BD:205:VAL:H	2.26	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1192:G:O2'	31:BA:1193:G:H5'	2.16	0.45
31:BA:814:C:C2'	31:BA:815:C:H5'	2.45	0.45
31:DA:2311:A:H4'	36:DG:77:ILE:HD11	1.99	0.45
31:DA:310:A:C2	31:DA:330:A:C4	3.04	0.45
50:DY:13:VAL:HG13	50:DY:72:VAL:HB	1.97	0.45
31:BA:1515:G:C4	31:BA:1516:C:C5	3.05	0.45
31:BA:315:G:H2'	31:BA:316:C:C6	2.52	0.45
31:DA:288:C:H2'	31:DA:289:A:O5'	2.16	0.45
31:BA:1493:C:H5	31:BA:2206:G:O2'	1.99	0.45
31:BA:499:U:H2'	31:BA:500:G:O4'	2.17	0.45
50:BY:30:VAL:CG1	50:BY:31:LEU:H	2.14	0.45
1:AA:544:G:C6	1:AA:545:C:C4	3.05	0.45
31:BA:747:U:H5'	48:BW:90:ARG:NH1	2.31	0.45
31:DA:2816:C:O2	31:DA:2883:A:O2'	2.33	0.45
50:BY:86:ARG:HD2	50:BY:88:LYS:HD2	1.99	0.45
31:BA:998:C:H2'	31:BA:999:U:O4'	2.17	0.45
31:DA:851:U:C2	31:DA:927:G:C2	3.04	0.45
6:AF:8:ILE:HG22	6:AF:9:VAL:N	2.32	0.45
31:BA:1337:G:O2'	31:BA:1338:G:H5'	2.16	0.45
28:B6:34:LEU:HD22	28:B6:50:ARG:NH1	2.32	0.45
31:BA:2724:C:OP2	43:BR:2:ARG:NH2	2.49	0.45
43:DR:4:LEU:C	43:DR:6:SER:N	2.70	0.45
12:AL:27:LEU:HB2	12:AL:33:ARG:HH11	1.81	0.45
31:BA:1047:G:C2'	31:BA:1110:G:H22	2.29	0.45
16:CP:20:VAL:HG23	16:CP:34:GLU:O	2.16	0.45
13:AM:78:ILE:HG22	13:AM:93:ARG:HH22	1.81	0.45
45:DT:89:VAL:HG12	45:DT:91:ARG:CG	2.46	0.45
40:DO:107:ARG:HH11	45:DT:35:LYS:CB	2.29	0.45
45:DT:28:VAL:HG21	45:DT:46:GLU:CG	2.46	0.45
45:DT:60:THR:HG22	45:DT:77:PRO:HA	1.98	0.45
45:DT:76:PHE:HA	45:DT:77:PRO:HD2	1.76	0.45
31:BA:1176:G:H1'	31:BA:1177:A:OP1	2.16	0.45
31:DA:110:G:N2	31:DA:111:A:H1'	2.31	0.45
31:BA:271(T):C:C2'	31:BA:271(U):G:H5'	2.47	0.45
13:CM:15:VAL:O	13:CM:19:LEU:HD23	2.16	0.45
1:AA:257:G:C4	1:AA:258:G:C8	3.05	0.45
9:AI:118:LYS:HB3	9:AI:118:LYS:HZ3	1.80	0.45
41:BP:147:LEU:HB2	41:BP:148:LEU:H	1.47	0.45
13:CM:78:ILE:HA	13:CM:81:LEU:HD12	1.98	0.45
9:CI:112:LYS:HA	9:CI:119:ALA:HA	1.97	0.45
39:DN:71:ILE:HG22	39:DN:73:THR:H	1.81	0.45
39:DN:83:LYS:CE	39:DN:85:ILE:HD11	2.42	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:740:U:O4'	31:BA:1981:A:C4	2.70	0.45
1:CA:564:C:H5'	12:CL:10:LEU:CD1	2.47	0.45
1:AA:1287:A:N3	1:AA:1353:G:H1'	2.32	0.45
6:CF:79:LEU:HD12	6:CF:88:VAL:HG11	1.98	0.45
8:CH:4:ASP:OD2	8:CH:85:ARG:CZ	2.64	0.45
1:AA:1322:C:H5'	13:AM:100:GLY:HA3	1.97	0.45
33:DD:267:SER:O	33:DD:268:ARG:HB2	2.16	0.45
36:BG:59:GLU:OE2	36:BG:144:ILE:HD11	2.15	0.45
11:AK:111:ASP:HA	18:AR:84:LYS:CG	2.42	0.45
1:CA:198:G:N2	1:CA:199:G:C1'	2.76	0.45
31:BA:2817:G:H2'	31:BA:2818:G:C5'	2.45	0.45
4:CD:180:GLY:O	4:CD:181:MET:C	2.55	0.45
4:CD:147:ALA:HA	4:CD:182:LYS:HA	1.97	0.45
31:BA:2063:C:C4	31:BA:2064:C:C4	3.04	0.45
1:CA:458:C:C3'	1:CA:460:G:H8	2.30	0.45
1:CA:518:C:C5	1:CA:530:G:C8	3.05	0.45
31:DA:1373:A:N6	31:DA:1374:G:C2	2.84	0.45
31:BA:320:A:H5''	31:BA:321:G:OP1	2.16	0.45
31:BA:272(H):C:OP2	31:BA:272(H):C:C6	2.69	0.45
9:CI:48:GLU:N	9:CI:49:PRO:CD	2.79	0.45
31:BA:1354:A:H2'	31:BA:1355:G:O4'	2.17	0.45
31:BA:1374:G:H2'	31:BA:1375:C:C6	2.52	0.45
31:DA:838:C:C2'	31:DA:839:U:H5'	2.46	0.45
18:AR:36:ASN:HD22	18:AR:39:VAL:HG11	1.82	0.45
2:CB:60:ASP:O	2:CB:64:ARG:HG2	2.16	0.45
31:BA:2599:G:N7	33:BD:236:GLY:O	2.50	0.45
1:CA:448:A:P	1:CA:485:G:H22	2.38	0.45
36:DG:96:ARG:O	36:DG:98:ARG:N	2.50	0.45
4:AD:88:VAL:HG13	5:AE:97:GLY:CA	2.46	0.45
39:DN:24:GLY:HA2	39:DN:27:ALA:HB3	1.98	0.45
31:BA:699:A:H2'	31:BA:700:G:O4'	2.16	0.45
17:AQ:45:HIS:O	17:AQ:73:VAL:HG23	2.17	0.45
1:AA:811:C:C4'	1:AA:900:A:N6	2.79	0.45
16:AP:49:LEU:HG	16:AP:50:LYS:N	2.32	0.45
15:AO:28:GLN:O	15:AO:32:LEU:HG	2.16	0.45
31:DA:416:C:H5'	31:DA:417:C:OP2	2.16	0.45
1:AA:1159:U:C6	1:AA:1182:G:N3	2.85	0.45
22:D0:37:LEU:O	22:D0:38:VAL:CG2	2.64	0.45
38:DI:84:GLY:O	38:DI:85:GLU:CG	2.65	0.45
35:BF:46:ARG:HH11	35:BF:46:ARG:CB	2.30	0.45
31:BA:2894:G:H2'	31:BA:2894:G:N3	2.31	0.45
13:CM:29:ARG:HD3	13:CM:64:TRP:CZ2	2.51	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:AQ:3:LYS:O	17:AQ:4:LYS:C	2.54	0.45
31:DA:2639:A:C2'	31:DA:2640:G:H5'	2.46	0.45
31:BA:665:C:H2'	31:BA:666:G:H8	1.81	0.45
13:AM:48:LEU:HD11	13:AM:53:VAL:HG22	1.98	0.45
31:BA:1975:G:C2	31:BA:1976:U:C2	3.04	0.45
22:B0:84:LEU:N	22:B0:84:LEU:HD12	2.31	0.45
8:AH:41:ARG:O	8:AH:41:ARG:HG2	2.16	0.45
27:B5:29:THR:O	27:B5:30:LEU:HD23	2.16	0.45
31:BA:1808:U:H2'	31:BA:1809:A:O4'	2.16	0.45
31:DA:2361:A:H2'	31:DA:2362:G:O4'	2.16	0.45
31:DA:2428:G:H5''	31:DA:2429:G:O5'	2.16	0.45
31:DA:448:U:C3'	31:DA:449:A:C5'	2.93	0.45
31:DA:627:A:N1	31:DA:636:G:O2'	2.42	0.45
31:DA:636:G:H4'	31:DA:638:G:O3'	2.17	0.45
31:DA:663:G:C6	31:DA:664:C:C4	3.05	0.45
41:DP:62:LEU:CD1	41:DP:62:LEU:N	2.63	0.45
41:BP:61:ARG:N	41:BP:61:ARG:CD	2.72	0.45
32:BB:58:A:H5''	32:BB:59:A:OP2	2.15	0.45
24:D2:49:LYS:O	24:D2:53:LEU:HB3	2.17	0.45
49:DX:18:TYR:O	49:DX:19:ALA:C	2.54	0.45
49:DX:72:LYS:O	49:DX:73:ARG:HB3	2.16	0.45
31:DA:1002:G:C2	31:DA:1003:G:H1'	2.51	0.45
31:DA:998:C:H2'	31:DA:999:U:O4'	2.17	0.45
39:DN:103:VAL:HG11	39:DN:120:LEU:HD23	1.99	0.45
31:DA:1141:U:OP2	39:DN:63:THR:CG2	2.64	0.45
46:DU:102:GLU:HG3	47:DV:2:PHE:HE2	1.79	0.45
46:DU:91:ASP:CG	46:DU:96:ALA:HB2	2.36	0.45
37:BH:85:LYS:HZ3	37:BH:145:ALA:CB	2.28	0.45
31:DA:1900:A:N1	31:DA:1970:A:C5	2.85	0.45
1:CA:41:G:C6	1:CA:402:G:C6	3.04	0.45
4:CD:79:PHE:HD2	4:CD:79:PHE:C	2.19	0.45
16:CP:12:LYS:C	16:CP:14:ASN:H	2.18	0.45
1:CA:110:C:O2'	16:CP:25:ARG:O	2.28	0.45
45:DT:51:ARG:HB2	45:DT:98:LYS:HG3	1.98	0.45
31:BA:1313:U:H3'	31:BA:1314:C:H5'	1.99	0.45
33:DD:24:ILE:CD1	33:DD:83:GLU:HA	2.47	0.45
33:DD:28:GLU:CB	33:DD:29:PRO:CD	2.94	0.45
39:BN:3:THR:HG22	39:BN:4:TYR:N	2.30	0.45
23:D1:92:LYS:C	23:D1:94:LEU:H	2.17	0.45
1:AA:195:A:H1'	1:AA:222:U:O2'	2.17	0.45
31:DA:2810:A:C2'	34:DE:61:ARG:NH2	2.79	0.45
34:DE:55:ASN:ND2	34:DE:75:VAL:HG21	2.30	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DE:77:ILE:CG2	34:DE:79:ARG:HE	2.29	0.45
31:DA:2298:A:N6	31:DA:2318:G:H1'	2.32	0.45
31:DA:1480:G:N2	31:DA:1512:U:C2	2.84	0.45
1:CA:679:C:N3	1:CA:712:A:C2	2.84	0.45
31:BA:1212:G:C2	31:BA:1236:G:C4	3.05	0.45
31:BA:304:G:C6	31:BA:305:U:C4	3.05	0.45
31:DA:286:C:C3'	31:DA:287:C:H5'	2.46	0.45
1:AA:682:G:C2	1:AA:709:G:C6	3.04	0.45
1:AA:718:G:H5'	11:AK:117:ASN:HB2	1.98	0.45
27:B5:46:CYS:O	27:B5:48:GLU:N	2.47	0.45
31:DA:2195:C:C2	31:DA:2196:C:C6	3.04	0.45
1:AA:352:C:H6	1:AA:352:C:OP1	2.00	0.45
40:DO:111:PHE:HB3	40:DO:114:ILE:CG1	2.31	0.45
39:BN:78:TYR:HD1	39:BN:79:PRO:CB	2.28	0.45
50:BY:95:LYS:HG2	50:BY:101:LYS:N	2.30	0.45
31:DA:1655:A:H3'	31:DA:1656:C:H6	1.80	0.45
31:DA:1294:U:C2'	31:DA:1295:C:H5'	2.45	0.45
31:DA:1274:A:N3	31:DA:1297:C:H1'	2.32	0.45
1:AA:745:C:O2'	1:AA:746:A:H5'	2.16	0.45
1:CA:1103:C:H2'	1:CA:1104:G:O4'	2.15	0.45
31:BA:2257:U:O2'	31:BA:2258:C:H5'	2.16	0.45
1:AA:1090:U:C2	1:AA:1091:U:H5	2.35	0.45
28:B6:45:LYS:CB	31:BA:2371:G:H4'	2.47	0.45
31:BA:1421:G:C2	31:BA:1422:G:C8	3.04	0.45
1:AA:731:G:H5'	1:AA:766:A:H4'	1.98	0.45
50:DY:81:LYS:CB	50:DY:96:ILE:HG22	2.46	0.45
22:D0:29:GLN:O	22:D0:31:VAL:HG13	2.17	0.45
31:DA:476:G:N1	31:DA:479:A:OP2	2.49	0.45
31:BA:2842:G:O2'	31:BA:2843:G:H5'	2.16	0.45
1:CA:1226:C:O2'	13:CM:111:LYS:NZ	2.49	0.45
31:BA:1412:A:H2'	31:BA:1413:G:C8	2.51	0.45
34:DE:38:THR:CB	34:DE:41:LYS:HE3	2.46	0.45
31:BA:2507:C:C2	31:BA:2508:G:C8	3.05	0.45
45:BT:28:VAL:HG13	45:BT:46:GLU:HA	1.98	0.45
31:BA:1881:C:H5'	31:BA:1882:C:P	2.56	0.45
42:BQ:24:GLY:N	51:BZ:78:LYS:HD2	2.32	0.45
12:AL:102:ARG:HD3	12:AL:108:ALA:O	2.15	0.45
31:BA:2659:G:H1'	31:BA:2663:G:N2	2.30	0.45
37:BH:164:TYR:C	37:BH:166:GLY:N	2.69	0.45
29:D7:40:TRP:CE3	31:DA:459:U:H5''	2.51	0.45
31:DA:470:A:H2'	31:DA:471:A:C8	2.51	0.45
1:CA:1346:A:H5''	9:CI:120:ARG:NH1	2.23	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AE:48:ALA:C	5:AE:50:GLU:H	2.20	0.45
31:BA:718:A:H3'	31:BA:719:C:C6	2.50	0.45
8:CH:29:SER:O	8:CH:32:LYS:N	2.49	0.45
1:AA:1352:C:O2	1:AA:1371:G:C2	2.69	0.45
12:CL:119:LYS:C	12:CL:120:TYR:HD1	2.19	0.45
31:BA:2271:G:C6	31:BA:2272:U:C4	3.04	0.45
31:DA:1247:A:C5	31:DA:1249:U:C5	3.04	0.45
23:D1:46:LEU:H	23:D1:46:LEU:CD1	2.23	0.45
31:DA:1363:C:H2'	31:DA:1364:G:H8	1.82	0.45
10:AJ:49:VAL:HG22	14:AN:41:ARG:CB	2.46	0.45
1:AA:25:C:H5'	1:AA:524:G:H1'	1.98	0.45
31:BA:896:A:N3	31:BA:898:C:H5''	2.30	0.45
1:AA:671:G:N3	1:AA:672:U:C6	2.85	0.45
31:DA:1354:A:H2'	31:DA:1355:G:O4'	2.16	0.45
31:DA:1356:G:H2'	31:DA:1357:U:O4'	2.16	0.45
31:BA:443:A:N7	35:BF:45:ARG:HD2	2.31	0.45
31:DA:447:A:C5	31:DA:454:A:C5	3.05	0.45
48:BW:37:ARG:HG3	48:BW:37:ARG:NH1	2.29	0.45
48:BW:37:ARG:HG2	48:BW:38:TYR:CE2	2.52	0.45
1:CA:131:C:O2'	1:CA:132:C:H5'	2.15	0.45
43:BR:76:VAL:O	43:BR:77:ARG:C	2.55	0.45
36:BG:94:LEU:HD12	36:BG:99:MET:N	2.31	0.45
8:AH:64:LYS:CG	8:AH:79:VAL:HG21	2.46	0.45
43:DR:51:LEU:CD2	43:DR:70:LEU:HD21	2.46	0.45
4:CD:3:ARG:HD3	4:CD:5:ILE:CG1	2.46	0.45
31:DA:1439:A:C2	31:DA:1553:A:C5	3.04	0.45
20:AT:30:LYS:O	20:AT:30:LYS:HD2	2.17	0.45
31:DA:1814:G:H2'	31:DA:1815:A:N7	2.31	0.45
1:CA:988:G:C2	1:CA:1218:C:O2	2.69	0.45
2:CB:8:LYS:NZ	2:CB:217:ARG:HD2	2.30	0.45
39:BN:121:LYS:HE3	39:BN:121:LYS:HA	1.98	0.45
31:DA:123:G:C2'	31:DA:124:G:H5'	2.46	0.45
20:AT:94:ALA:O	20:AT:95:ALA:CB	2.64	0.45
2:CB:221:LEU:HD22	2:CB:221:LEU:HA	1.80	0.45
47:BV:81:TYR:O	47:BV:81:TYR:CG	2.70	0.45
31:DA:1805:U:C2	31:DA:1806:C:C5	3.05	0.45
1:CA:189(E):U:O2'	1:CA:189(F):U:H5'	2.16	0.45
33:BD:220:HIS:HD2	33:BD:221:VAL:N	2.13	0.45
46:BU:107:ALA:C	46:BU:109:LEU:N	2.70	0.45
8:CH:121:ASP:OD1	8:CH:121:ASP:N	2.49	0.45
1:AA:971:G:H3'	1:AA:971:G:OP1	2.16	0.45
33:BD:4:LYS:HB2	33:BD:18:VAL:HG12	1.97	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:260:G:C2	31:DA:261:G:H1'	2.51	0.45
35:DF:84:VAL:O	35:DF:86:GLY:N	2.50	0.45
30:D8:25:MET:C	41:DP:62:LEU:HD21	2.37	0.45
31:BA:200:U:O2	31:BA:386:G:N2	2.50	0.45
31:BA:250:G:H2'	31:BA:251:A:C8	2.52	0.45
31:BA:389:G:H1	41:BP:71:VAL:N	2.10	0.45
31:BA:806:C:OP2	41:BP:39:LYS:CG	2.65	0.45
41:BP:7:ARG:HA	41:BP:7:ARG:HD2	1.59	0.45
36:BG:31:VAL:C	36:BG:33:ARG:H	2.19	0.45
44:BS:29:PHE:N	44:BS:89:ARG:CD	2.70	0.45
49:DX:18:TYR:C	49:DX:20:GLY:N	2.70	0.45
49:DX:82:GLN:HG3	49:DX:85:PRO:HD2	1.93	0.45
41:BP:84:ASN:OD1	41:BP:116:GLY:HA3	2.17	0.45
31:DA:1224:C:H2'	31:DA:1225:G:O4'	2.17	0.45
39:DN:34:LEU:HA	39:DN:34:LEU:HD13	1.72	0.45
39:DN:35:ARG:HB2	39:DN:42:TRP:CZ3	2.51	0.45
47:DV:94:LEU:C	47:DV:94:LEU:HD23	2.37	0.45
34:BE:31:CYS:HA	34:BE:32:PRO:HD3	1.64	0.45
32:DB:40:U:N3	32:DB:44:G:OP2	2.46	0.45
32:DB:57:A:OP2	32:DB:58:A:OP2	2.34	0.45
36:DG:15:VAL:HG22	36:DG:175:LEU:O	2.16	0.45
1:AA:620:C:O2'	1:AA:621:A:H5'	2.17	0.45
4:AD:65:ARG:HD2	4:AD:72:GLU:HA	1.98	0.45
1:CA:511:C:H1'	4:CD:43:HIS:HE2	1.81	0.45
4:CD:206:PHE:CE2	4:CD:207:TYR:CE2	3.05	0.45
31:BA:1289:C:H2'	31:BA:1289:C:O2	2.16	0.45
39:BN:42:TRP:CG	46:BU:64:ARG:NH1	2.84	0.45
31:DA:2520:C:C6	31:DA:2567:G:H1'	2.52	0.45
31:DA:2648:C:H2'	31:DA:2649:U:H6	1.82	0.45
31:DA:2659:G:N3	31:DA:2663:G:N1	2.60	0.45
34:DE:34:VAL:O	34:DE:34:VAL:CG2	2.64	0.45
2:AB:16:HIS:HA	2:AB:210:SER:HB2	1.99	0.45
20:CT:50:GLU:H	20:CT:100:ILE:HD13	1.81	0.45
31:BA:49:A:C4'	31:BA:50:U:OP2	2.65	0.45
31:BA:1515:G:H4'	31:BA:1556:C:O2'	2.17	0.45
31:BA:310:A:C2	31:BA:330:A:C4	3.05	0.45
32:DB:73:A:H2'	32:DB:73:A:N3	2.30	0.45
51:BZ:89:PHE:CE1	51:BZ:96:VAL:HG21	2.51	0.45
31:BA:1778:U:O4	31:BA:1784:A:H1'	2.17	0.45
31:BA:606:U:H4'	31:BA:658:C:H4'	1.99	0.45
27:B5:36:CYS:O	27:B5:38:ALA:N	2.47	0.45
1:AA:502:G:C2	1:AA:503:C:C2	3.05	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:10:ARG:C	4:AD:11:LEU:HD23	2.37	0.45
31:BA:2056:G:H2'	31:BA:2056:G:N3	2.32	0.45
23:B1:41:ARG:NH2	31:BA:205:G:C6	2.84	0.45
9:AI:4:TYR:CD1	9:AI:4:TYR:N	2.84	0.45
31:BA:2641:G:C2'	31:BA:2642:G:H5'	2.47	0.45
27:D5:51:TYR:HB2	27:D5:54:GLY:HA3	1.98	0.45
39:BN:55:VAL:HG12	39:BN:126:PRO:CA	2.43	0.45
31:DA:742:G:H2'	31:DA:743:G:C8	2.52	0.45
6:AF:82:ARG:HH11	6:AF:82:ARG:HA	1.81	0.45
1:CA:1107:C:OP1	3:CC:174:PRO:HG3	2.17	0.45
34:DE:170:LEU:HD21	34:DE:187:ALA:O	2.17	0.45
22:B0:41:ARG:HB2	31:BA:2330:G:H1'	1.98	0.45
2:CB:193:ASP:O	2:CB:194:PRO:O	2.35	0.45
2:CB:22:LYS:HA	2:CB:24:TRP:HD1	1.81	0.45
2:CB:22:LYS:NZ	2:CB:24:TRP:HE1	2.15	0.45
1:CA:578:C:H1'	1:CA:729:A:H1'	1.99	0.45
31:BA:1577:C:H2'	31:BA:1578:U:C1'	2.46	0.45
1:AA:914:A:H2'	1:AA:915:A:C8	2.52	0.45
15:AO:56:LEU:HD21	31:BA:715:G:N3	2.30	0.45
38:BI:95:LYS:O	38:BI:98:ALA:HB3	2.16	0.45
31:DA:1170:G:OP2	31:DA:1170:G:C8	2.69	0.45
38:DI:94:ALA:O	38:DI:98:ALA:CB	2.65	0.45
1:AA:955:U:H2'	1:AA:956:U:H6	1.80	0.45
31:BA:787:U:C5	31:BA:791:C:C4	3.04	0.45
13:CM:66:LEU:O	13:CM:70:LEU:HB2	2.17	0.45
7:AG:4:ARG:HD3	7:AG:5:ARG:NH1	2.31	0.45
14:AN:24:CYS:CB	14:AN:29:ARG:HB3	2.46	0.45
31:BA:2816:C:O2	31:BA:2883:A:O2'	2.34	0.45
31:DA:1773:A:C5	31:DA:1829:A:H1'	2.51	0.45
1:CA:600:C:OP1	8:CH:97:VAL:HG12	2.17	0.45
31:BA:433:C:C4	31:BA:434:U:O4	2.69	0.45
41:DP:146:VAL:O	41:DP:147:LEU:O	2.34	0.45
31:DA:2886:G:N3	31:DA:2887:U:C5	2.85	0.45
31:DA:1301:A:N3	31:DA:1301:A:H2'	2.31	0.45
50:DY:49:VAL:HG12	50:DY:53:PRO:HG3	1.98	0.45
41:DP:10:PRO:CD	41:DP:11:GLY:N	2.78	0.45
41:DP:8:PRO:O	41:DP:9:ASN:C	2.54	0.45
12:AL:6:THR:N	12:AL:9:GLN:HE21	2.15	0.45
42:BQ:134:ARG:HB3	42:BQ:135:ASP:H	1.47	0.45
31:DA:1669:A:OP2	31:DA:1670:C:OP2	2.34	0.45
1:CA:806:C:H2'	1:CA:807:A:C8	2.52	0.45
31:BA:2557:G:C2'	31:BA:2558:C:H5'	2.47	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:BO:1:MET:CE	40:BO:67:LYS:HG2	2.44	0.45
10:AJ:49:VAL:HG22	14:AN:41:ARG:HB2	1.98	0.45
1:AA:1366:C:OP1	9:AI:117:HIS:CE1	2.70	0.45
31:DA:272(H):C:OP2	31:DA:272(H):C:C6	2.70	0.45
1:CA:78:G:H1	1:CA:91:C:N4	2.10	0.45
2:AB:212:GLN:CD	2:AB:235:SER:HB3	2.37	0.45
1:CA:1173:G:C5	1:CA:1174:G:N7	2.85	0.45
31:BA:2087:G:O2'	31:BA:2088:G:H5'	2.16	0.45
31:DA:980:A:C6	31:DA:981:A:C2	3.05	0.45
31:DA:708:C:H42	31:DA:723:G:H1	1.63	0.45
1:CA:151:A:N6	1:CA:152:A:C2	2.85	0.45
32:DB:42:C:C6	36:DG:69:ALA:HB2	2.51	0.45
31:DA:2748:A:C6	31:DA:2749:A:C5	3.04	0.45
4:AD:2:GLY:O	4:AD:3:ARG:C	2.54	0.45
31:DA:760:G:C2'	31:DA:761:A:H5'	2.47	0.45
1:AA:1218:C:H2'	1:AA:1219:U:C6	2.52	0.45
31:DA:236:C:H2'	31:DA:237:C:C6	2.51	0.45
31:BA:416:C:H5'	31:BA:417:C:OP2	2.16	0.45
1:AA:1477:C:H2'	1:AA:1478:C:H6	1.82	0.45
2:CB:95:GLN:HG3	2:CB:147:LYS:O	2.17	0.45
38:BI:143:SER:OG	38:BI:144:VAL:N	2.49	0.45
13:AM:32:GLU:OE2	13:AM:64:TRP:CH2	2.68	0.45
31:BA:1446:C:C3'	31:BA:1446:C:C6	2.99	0.45
31:DA:2584:U:C2'	31:DA:2585:U:H5'	2.46	0.45
17:AQ:74:LEU:HD12	17:AQ:75:ARG:HG2	1.98	0.45
35:DF:107:LYS:O	35:DF:108:LYS:C	2.54	0.45
31:BA:2695:C:H2'	31:BA:2696:U:C6	2.52	0.45
1:CA:7:G:H21	5:CE:121:LYS:HG2	1.80	0.45
49:DX:93:GLU:O	49:DX:93:GLU:HG3	2.17	0.45
31:BA:879:G:O5'	31:BA:879:G:H8	1.99	0.45
18:CR:87:ARG:NH1	18:CR:87:ARG:HB3	2.32	0.45
31:DA:1187:G:H8	31:DA:1187:G:O5'	1.99	0.45
31:DA:2059:A:H5''	31:DA:2060:A:OP2	2.16	0.45
31:DA:256:A:C2	31:DA:257:A:C4	3.05	0.45
31:DA:26:G:N1	31:DA:27:G:N2	2.65	0.45
31:DA:28:A:O2'	31:DA:583:G:H5'	2.16	0.45
31:DA:672:C:H2'	31:DA:673:C:C6	2.52	0.45
28:B6:12:GLU:HB3	28:B6:23:THR:CG2	2.40	0.45
29:B7:5:TRP:HB3	31:BA:1612:C:O3'	2.16	0.45
32:BB:30:C:OP2	44:BS:32:LEU:HD11	2.16	0.45
31:DA:140:G:N3	31:DA:142:A:N1	2.65	0.45
49:DX:78:LYS:HE2	49:DX:78:LYS:O	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BP:122:PRO:HD3	25:D3:1:MET:SD	2.57	0.45
47:DV:28:GLU:CB	47:DV:29:PRO:HD3	2.33	0.45
47:DV:85:LYS:C	47:DV:87:HIS:H	2.13	0.45
47:DV:93:GLU:O	47:DV:94:LEU:HB2	2.16	0.45
31:BA:1397:U:HO2'	31:BA:1398:C:P	2.40	0.45
31:BA:1459:G:C4	31:BA:1461:G:C8	3.05	0.45
31:BA:1528(A):A:H2'	31:BA:1529:G:C4'	2.46	0.45
31:BA:1545:A:H2'	31:BA:1546:C:H5'	1.98	0.45
31:BA:68:G:N2	31:BA:74:A:C4	2.84	0.45
32:DB:45:A:C2	32:DB:46:A:O4'	2.69	0.45
32:DB:46:A:C4	32:DB:47:C:C6	3.04	0.45
1:AA:498:U:N3	1:AA:499:A:N7	2.64	0.45
1:CA:116:A:OP2	1:CA:116:A:H8	1.98	0.45
1:CA:41:G:C4	1:CA:402:G:N2	2.85	0.45
33:DD:159:ALA:C	33:DD:161:THR:N	2.70	0.45
31:BA:1018:C:H2'	31:BA:1018:C:O2	2.17	0.45
31:BA:534:U:C4	31:BA:535:C:N4	2.84	0.45
46:BU:91:ASP:OD1	46:BU:96:ALA:HB2	2.17	0.45
43:DR:77:ARG:O	43:DR:78:LYS:C	2.55	0.45
31:DA:2532:G:C6	31:DA:2533:A:C6	3.04	0.45
31:DA:2659:G:H1'	31:DA:2663:G:N2	2.30	0.45
31:DA:2633:G:H5'	31:DA:2811:G:O2'	2.17	0.45
31:DA:2894:G:H2'	31:DA:2894:G:N3	2.30	0.45
5:AE:75:THR:OG1	5:AE:76:ILE:N	2.50	0.45
31:BA:1788:C:C2'	31:BA:1789:A:H5'	2.47	0.45
33:BD:16:MET:HE1	33:BD:208:LYS:HD2	1.99	0.45
1:CA:261:U:C5	20:CT:79:ARG:NE	2.85	0.45
31:DA:2308:G:N2	31:DA:2309:A:C6	2.85	0.45
2:CB:16:HIS:HA	2:CB:210:SER:HB2	1.99	0.45
31:BA:2275:C:C5'	31:BA:2275:C:C6	3.00	0.45
31:BA:1475:G:C2	31:BA:1517:G:N3	2.84	0.45
51:DZ:5:LEU:HD22	51:DZ:6:LYS:H	1.82	0.45
51:DZ:98:MET:HE3	51:DZ:99:TYR:O	2.16	0.45
22:D0:40:GLN:NE2	22:D0:45:PHE:H	2.15	0.45
51:BZ:10:ARG:HG3	51:BZ:18:LEU:HD21	1.98	0.45
51:DZ:151:HIS:CD2	51:DZ:170:THR:HG22	2.52	0.45
31:DA:2090:G:C6	31:DA:2091:U:C4	3.03	0.45
23:D1:47:GLN:HG3	31:DA:398:G:OP1	2.16	0.45
1:AA:51:A:C2	1:AA:116:A:N3	2.84	0.45
20:AT:23:ARG:O	20:AT:27:LYS:HB2	2.17	0.45
3:CC:182:ILE:CG1	3:CC:203:PHE:HD1	2.29	0.45
34:BE:154:LYS:HE3	34:BE:154:LYS:CA	2.31	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1040:C:H42	31:BA:1116:C:N4	2.08	0.45
22:B0:43:THR:HG21	31:BA:2336:A:H61	1.81	0.45
1:AA:1105:A:H2'	1:AA:1106:G:C8	2.51	0.45
1:CA:818:G:N1	1:CA:820:U:O2'	2.50	0.45
31:DA:1577:C:H2'	31:DA:1578:U:C1'	2.47	0.45
1:AA:453:A:C5	1:AA:454:C:C4	3.04	0.45
34:BE:11:MET:O	34:BE:12:THR:HG23	2.17	0.45
31:DA:1691:C:H2'	31:DA:1691:C:O2	2.16	0.45
1:CA:914:A:H2'	1:CA:915:A:H8	1.82	0.45
1:AA:690:G:C6	1:AA:691:G:C6	3.05	0.45
22:D0:34:GLY:O	22:D0:35:ASN:C	2.55	0.45
1:CA:1358:U:H5''	14:CN:33:VAL:O	2.15	0.45
14:CN:44:LEU:C	14:CN:44:LEU:HD12	2.36	0.45
31:DA:2524:G:C8	31:DA:2524:G:H5'	2.36	0.45
31:DA:776:G:C8	31:DA:793:A:N3	2.85	0.45
38:DI:113:ARG:HB2	38:DI:130:TYR:CE1	2.50	0.45
48:BW:42:ARG:C	48:BW:44:ALA:N	2.70	0.45
31:DA:1412:A:C8	31:DA:1412:A:O5'	2.70	0.45
31:DA:1593:G:C6	31:DA:1594:G:C6	3.05	0.45
31:DA:1995:U:C2	31:DA:1996:C:C5	3.05	0.45
48:DW:8:ARG:HB3	48:DW:9:TYR:CD1	2.51	0.45
31:BA:2199:A:C8	31:BA:2200:C:C5	3.05	0.45
33:DD:73:VAL:O	33:DD:75:ILE:N	2.50	0.45
31:BA:271(D):G:C2	31:BA:271(E):U:C2	3.04	0.45
45:BT:83:ILE:HG13	45:BT:84:GLN:HG2	1.97	0.45
1:AA:259:G:C2	1:AA:268:C:O2	2.69	0.45
31:BA:455:C:N3	31:BA:472:A:H2'	2.31	0.45
31:BA:2478:A:C2'	31:BA:2479:G:H5'	2.47	0.45
31:BA:2653:U:H3	31:BA:2667:C:N4	2.14	0.45
9:CI:118:LYS:O	9:CI:119:ALA:HB3	2.15	0.45
1:CA:342:C:C2	1:CA:348:G:C2	3.04	0.45
36:DG:60:LEU:HD12	36:DG:68:PRO:HD3	1.97	0.45
1:AA:1250:A:C2	1:AA:1370:G:H1'	2.52	0.45
31:DA:612:C:H2'	31:DA:613:G:O4'	2.16	0.45
18:AR:65:ILE:HD12	18:AR:66:LEU:N	2.32	0.45
31:DA:1300:U:H3'	31:DA:1301:A:C5'	2.46	0.45
31:BA:296:C:H2'	31:BA:297:C:C6	2.43	0.45
1:AA:1158:C:C2'	1:AA:1158:C:O2	2.64	0.45
31:BA:2052:G:C4	31:BA:2053:G:C8	3.04	0.45
31:DA:1949:G:C2	31:DA:1958:C:C2	3.04	0.45
31:BA:1268:A:C2	31:BA:2013:A:C4	3.05	0.45
51:BZ:119:GLU:C	51:BZ:121:HIS:H	2.20	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DD:255:LYS:CE	33:DD:255:LYS:H	2.30	0.45
1:AA:939:G:H5''	7:AG:102:ARG:HH12	1.82	0.45
1:CA:457:C:C2	1:CA:458:C:C5	3.05	0.45
44:BS:83:LYS:HE2	44:BS:84:GLN:HE22	1.81	0.45
16:AP:57:ARG:NH2	16:AP:79:VAL:O	2.50	0.45
12:CL:20:LYS:N	12:CL:20:LYS:HD3	2.26	0.45
31:DA:2599:G:N7	33:DD:236:GLY:O	2.50	0.45
43:DR:8:ARG:NE	43:DR:8:ARG:CA	2.79	0.45
31:BA:1296:G:N2	31:BA:1645:G:C4	2.84	0.45
13:CM:106:ASN:N	13:CM:106:ASN:OD1	2.49	0.45
31:BA:1635:G:H5'	31:BA:1635:G:C8	2.52	0.45
1:AA:448:A:N7	1:AA:486:U:O4	2.49	0.45
1:AA:448:A:P	1:AA:485:G:H22	2.36	0.45
31:BA:1849:G:N1	31:BA:1850:G:C5	2.84	0.45
36:DG:94:LEU:HD12	36:DG:99:MET:N	2.31	0.45
17:CQ:59:ILE:HG22	17:CQ:71:PHE:CD1	2.51	0.45
31:DA:2596:U:H2'	31:DA:2597:G:C5'	2.47	0.45
31:DA:1042:G:H3'	31:DA:1043:C:O4'	2.17	0.45
1:AA:477:A:C2'	1:AA:479:C:H5'	2.46	0.45
31:DA:483:A:H2'	31:DA:484:C:H5'	1.97	0.45
31:BA:1151:G:O3'	46:BU:81:HIS:HB2	2.17	0.45
33:DD:221:VAL:HG22	33:DD:226:MET:HE2	1.99	0.45
4:CD:59:ARG:CZ	4:CD:59:ARG:HA	2.47	0.45
7:CG:75:VAL:CG2	7:CG:144:MET:HB3	2.46	0.45
2:CB:59:GLU:O	2:CB:63:MET:HG2	2.16	0.45
31:DA:338:G:H2'	31:DA:339:U:C6	2.51	0.45
42:DQ:78:PRO:O	42:DQ:79:LEU:CB	2.64	0.45
31:DA:1444:G:H2'	31:DA:1445(A):C:C5	2.51	0.45
30:D8:32:LEU:O	30:D8:33:ASN:HB2	2.16	0.45
31:DA:2056:G:H2'	31:DA:2056:G:N3	2.32	0.45
31:DA:828:U:C2'	31:DA:828:U:O2	2.65	0.45
30:B8:30:ARG:C	30:B8:30:ARG:HD3	2.37	0.45
30:B8:8:LYS:CE	31:BA:243:U:OP2	2.64	0.45
31:BA:2080:G:C2	31:BA:2241:A:C4	3.04	0.45
31:BA:2286:A:H8	31:BA:2286:A:HO2'	1.55	0.45
31:BA:802:A:H2'	31:BA:803:U:C6	2.52	0.45
35:BF:31:HIS:CB	41:BP:13:ASN:HD22	2.30	0.45
29:B7:8:ASN:ND2	29:B7:11:LYS:H	2.15	0.45
24:D2:41:ILE:HG12	31:DA:94(A):G:N2	2.32	0.45
39:DN:55:VAL:CG1	39:DN:126:PRO:HA	2.40	0.45
47:DV:32:THR:HB	47:DV:64:HIS:CE1	2.52	0.45
47:DV:25:LEU:CG	47:DV:94:LEU:HD13	2.46	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:B2:49:LYS:O	24:B2:50:ILE:C	2.55	0.45
31:BA:1459:G:N3	31:BA:1459:G:O5'	2.49	0.45
33:DD:222:ARG:O	33:DD:223:GLY:C	2.53	0.45
44:DS:102:ALA:O	44:DS:104:GLY:N	2.49	0.45
44:DS:89:ARG:CB	44:DS:92:TYR:HB3	2.44	0.45
1:AA:405:U:H5''	1:AA:406:G:O4'	2.17	0.45
1:CA:369:C:O2'	1:CA:370:C:H5'	2.16	0.45
1:CA:355:C:H5'	1:CA:389:A:OP2	2.17	0.45
16:CP:10:GLY:O	16:CP:11:SER:O	2.34	0.45
45:BT:51:ARG:HD3	45:BT:62:THR:HG23	1.98	0.45
31:DA:1568:G:OP1	33:DD:63:ARG:NH2	2.50	0.45
31:DA:778:G:C5	31:DA:779:U:C5	3.05	0.45
33:DD:35:LYS:CE	33:DD:104:TYR:CD1	2.99	0.45
47:BV:40:LEU:CD1	47:BV:40:LEU:C	2.85	0.45
31:DA:2809:A:O2'	31:DA:2810:A:H5'	2.17	0.45
34:DE:31:CYS:HA	34:DE:32:PRO:HD3	1.61	0.45
34:DE:48:GLN:HE22	34:DE:64:LYS:HZ2	1.59	0.45
31:BA:1813:G:H4'	33:BD:44:ASN:O	2.17	0.45
20:CT:31:SER:HA	20:CT:34:LYS:HD2	1.98	0.45
47:BV:61:VAL:O	47:BV:99:ILE:HB	2.17	0.45
2:CB:11:LEU:O	2:CB:16:HIS:ND1	2.50	0.45
31:DA:301:G:C6	31:DA:317:G:C6	3.04	0.45
31:DA:335:C:H2'	31:DA:336:C:H6	1.81	0.45
23:B1:73:LEU:HD21	23:B1:94:LEU:HG	1.98	0.45
31:DA:1500:G:C5	31:DA:1501:C:C4	3.04	0.45
51:DZ:89:PHE:CE1	51:DZ:96:VAL:HG21	2.52	0.45
51:DZ:98:MET:O	51:DZ:125:LEU:HA	2.17	0.45
31:DA:910:A:C2'	31:DA:2264:C:O2'	2.65	0.45
31:DA:963:U:O2'	31:DA:964:C:H5'	2.16	0.45
31:DA:357:A:C2	31:DA:358:U:C2	3.03	0.45
31:DA:358:U:C5	31:DA:359:A:N7	2.85	0.45
32:DB:13:A:O2'	32:DB:15:A:O5'	2.35	0.45
27:B5:36:CYS:C	27:B5:38:ALA:N	2.70	0.45
4:AD:13:ARG:O	4:AD:15:GLU:N	2.50	0.45
1:CA:443:C:C2	1:CA:444:C:C5	3.05	0.45
1:AA:60:A:C4'	1:AA:61:G:O5'	2.64	0.45
23:B1:20:ARG:CG	23:B1:20:ARG:HH21	2.25	0.45
23:B1:40:ARG:HD3	23:B1:41:ARG:N	2.32	0.45
40:DO:98:VAL:HG12	40:DO:117:LEU:HB3	1.99	0.45
39:DN:78:TYR:HD1	39:DN:79:PRO:CG	2.30	0.45
38:BI:50:ARG:O	38:BI:54:GLN:CB	2.61	0.45
1:AA:1075:C:O5'	1:AA:1075:C:H6	2.00	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1095:U:H2'	1:AA:1096:C:H6	1.81	0.45
1:AA:1097:C:H2'	1:AA:1098:C:H6	1.81	0.45
31:DA:902:C:H2'	31:DA:903:C:C6	2.52	0.45
31:BA:2720:U:O2	31:BA:2720:U:C2'	2.61	0.45
34:BE:23:VAL:HA	34:BE:184:VAL:O	2.17	0.45
1:CA:27:G:H2'	1:CA:28:G:C8	2.51	0.45
1:AA:802:A:H2'	1:AA:803:G:O4'	2.17	0.45
41:DP:143:GLY:CA	41:DP:145:PRO:HD3	2.45	0.45
31:DA:2303:G:H4'	36:DG:124:SER:O	2.16	0.45
38:BI:94:ALA:O	38:BI:98:ALA:CB	2.65	0.45
1:CA:1202:G:O2'	14:CN:27:CYS:HB2	2.16	0.45
12:CL:25:PRO:C	12:CL:27:LEU:N	2.70	0.45
31:BA:774:A:H2	31:BA:787:U:HO2'	0.72	0.45
31:BA:790:C:O2'	31:BA:791:C:H5''	2.17	0.45
31:DA:1412:A:H8	31:DA:1412:A:O5'	1.99	0.45
31:DA:1991:U:C2'	31:DA:1992:G:H5''	2.47	0.45
1:CA:65:U:C4	1:CA:381:C:N3	2.84	0.45
1:CA:66:G:H2'	1:CA:66:G:N3	2.31	0.45
31:DA:79:G:C5	31:DA:80:G:N7	2.85	0.45
1:AA:70:G:H2'	1:AA:71:C:C6	2.52	0.45
1:AA:124:G:C5	1:AA:125:U:C4	3.05	0.45
17:AQ:40:LYS:HD2	17:AQ:42:TYR:CZ	2.52	0.45
31:DA:2839:G:H5'	43:DR:46:GLY:CA	2.47	0.45
31:DA:175:G:C2	31:DA:176:G:C4	3.05	0.45
31:DA:1952:A:N3	40:DO:22:ILE:HG13	2.32	0.45
33:BD:182:LEU:HD22	33:BD:182:LEU:HA	1.61	0.45
40:DO:2:ILE:HD11	40:DO:82:ASN:CB	2.46	0.45
36:BG:71:THR:HB	36:BG:89:GLY:N	2.32	0.45
1:CA:159:G:O2'	1:CA:161:A:N7	2.49	0.45
47:DV:51:VAL:CG1	47:DV:52:VAL:N	2.78	0.45
31:BA:2485:G:O2'	31:BA:2486:G:H5'	2.17	0.45
40:BO:23:ARG:HA	40:BO:23:ARG:HD3	1.66	0.45
1:AA:772:U:H3'	1:AA:772:U:H6	1.81	0.45
37:BH:156:ALA:O	37:BH:157:TYR:C	2.53	0.45
37:BH:92:ILE:CG2	37:BH:93:GLY:H	2.27	0.45
3:AC:50:ALA:HB1	3:AC:70:VAL:HG11	1.98	0.45
1:AA:564:C:H5'	12:AL:10:LEU:HD12	1.98	0.45
41:BP:21:ARG:CG	41:BP:21:ARG:O	2.63	0.45
3:AC:138:VAL:CG2	3:AC:151:VAL:HG23	2.46	0.45
9:AI:26:VAL:HA	9:AI:61:ALA:O	2.17	0.45
4:AD:173:TRP:HZ3	4:AD:193:ASP:HB3	1.79	0.45
42:DQ:42:ILE:CD1	42:DQ:97:VAL:HB	2.45	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:567:G:C2	1:AA:568:G:H1'	2.51	0.45
45:DT:24:PRO:CA	45:DT:49:VAL:HG13	2.46	0.45
31:BA:2061:G:H5''	31:BA:2503:A:C2	2.52	0.45
31:DA:2078:C:H2'	31:DA:2079:U:H6	1.81	0.45
7:CG:79:ARG:NE	7:CG:84:ASN:ND2	2.61	0.45
1:AA:938:A:C6	1:AA:939:G:C5	3.04	0.45
31:DA:2693:A:H2'	31:DA:2694:G:H8	1.82	0.45
8:AH:25:ASP:HA	8:AH:59:LEU:O	2.17	0.45
1:CA:34:C:H2'	1:CA:35:G:H8	1.81	0.45
1:CA:241:C:H2'	1:CA:242:C:H6	1.82	0.45
48:BW:13:SER:O	48:BW:16:LYS:HB2	2.17	0.45
1:AA:774:G:C2	1:AA:806:C:N3	2.85	0.45
31:DA:2619:C:H4'	34:DE:151:TYR:O	2.17	0.45
31:BA:1862:G:O2'	31:BA:1863:G:H5'	2.17	0.45
1:AA:1151:A:O2'	1:AA:1152:A:C8	2.69	0.45
17:AQ:60:ILE:HG23	17:AQ:62:SER:HG	1.80	0.45
13:CM:29:ARG:HD3	13:CM:64:TRP:CH2	2.52	0.45
1:AA:607:A:C2'	1:AA:608:A:H5'	2.47	0.45
31:BA:1622:G:C2	31:BA:1623:G:C8	3.05	0.45
31:BA:2409:G:H2'	31:BA:2410:G:O4'	2.17	0.45
31:DA:2581:G:H4'	31:DA:2582:G:C8	2.52	0.45
6:AF:15:ASP:O	6:AF:17:SER:N	2.50	0.45
49:DX:47:PHE:O	49:DX:49:VAL:HG22	2.16	0.45
38:BI:35:LEU:O	38:BI:36:ALA:HB2	2.16	0.45
1:AA:961:U:O2'	1:AA:962:C:H5'	2.17	0.45
31:DA:2789:C:H4'	31:DA:2789:C:OP1	2.16	0.45
1:AA:324:G:H8	1:AA:324:G:O5'	2.00	0.45
31:BA:2547:U:O2'	31:BA:2548:G:H5'	2.16	0.45
40:BO:55:GLY:O	40:BO:56:ASP:C	2.55	0.45
15:AO:69:TYR:HD1	15:AO:72:ARG:HH22	1.64	0.45
28:D6:13:CYS:SG	28:D6:22:ALA:HB3	2.57	0.45
31:DA:245:G:C4	31:DA:246:C:C5	3.05	0.45
31:DA:822:U:O2'	31:DA:823:G:H5'	2.17	0.45
31:DA:659:C:H1'	35:DF:102:PRO:CD	2.47	0.45
41:DP:105:LEU:O	41:DP:106:LEU:HB2	2.17	0.45
41:DP:84:ASN:HA	41:DP:115:LEU:HD12	1.98	0.45
31:BA:675:A:C8	31:BA:804:A:N1	2.85	0.45
34:BE:132:HIS:HD2	34:BE:135:HIS:HE1	1.57	0.45
31:BA:53:A:H2'	31:BA:54:G:O4'	2.16	0.45
31:BA:696:G:H2'	31:BA:697:C:H6	1.82	0.45
33:BD:61:LEU:O	33:BD:63:ARG:NH1	2.49	0.45
33:BD:91:ARG:HH11	33:BD:91:ARG:CG	2.19	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:D2:21:LEU:HD13	24:D2:50:ILE:HG22	1.99	0.45
31:DA:1394:U:H3'	31:DA:1394:U:C6	2.52	0.45
31:DA:143:G:H2'	31:DA:143(A):C:C6	2.52	0.45
31:DA:58:G:H1	31:DA:69:C:N4	2.15	0.45
46:DU:101:ARG:O	46:DU:102:GLU:C	2.55	0.45
31:BA:142:A:H3'	31:BA:142(A):C:H5'	1.98	0.45
1:AA:436:C:O2'	1:AA:437:U:P	2.75	0.45
16:AP:8:ARG:C	16:AP:9:PHE:CD2	2.91	0.45
20:AT:16:HIS:O	20:AT:19:SER:HB3	2.17	0.45
5:CE:100:VAL:O	5:CE:107:ARG:NH2	2.50	0.45
5:CE:105:VAL:HG21	5:CE:128:PRO:HA	1.98	0.45
38:DI:140:LEU:HG	38:DI:142:VAL:HG22	1.99	0.45
31:BA:1313:U:C2'	31:BA:1313:U:O2	2.63	0.45
31:DA:1380:G:N2	31:DA:1570:A:C2	2.84	0.45
33:DD:44:ASN:HB3	33:DD:49:ILE:N	2.32	0.45
39:BN:42:TRP:CD1	46:BU:64:ARG:NH1	2.85	0.45
31:DA:570:G:H2'	31:DA:2030:A:C5	2.52	0.45
31:DA:2784:C:H2'	31:DA:2785:C:C6	2.51	0.45
34:DE:61:ARG:N	34:DE:62:PRO:CD	2.79	0.45
33:BD:89:SER:HB2	33:BD:158:ALA:O	2.17	0.45
20:CT:63:ILE:HD13	20:CT:80:ARG:HB2	1.99	0.45
41:BP:27:HIS:CD2	41:BP:28:GLY:N	2.85	0.45
47:BV:66:ARG:HE	47:BV:94:LEU:HD11	1.82	0.45
50:DY:42:VAL:HG23	50:DY:67:LEU:HD13	1.99	0.45
23:B1:87:PRO:CG	23:B1:88:LYS:N	2.78	0.45
1:CA:734:G:C6	1:CA:735:C:C4	3.05	0.45
51:DZ:50:GLN:O	51:DZ:51:ALA:C	2.54	0.45
31:DA:912:C:N3	31:DA:913:U:C5	2.85	0.45
51:BZ:98:MET:O	51:BZ:125:LEU:HA	2.15	0.45
11:AK:29:ILE:HG13	11:AK:43:SER:C	2.37	0.45
1:AA:542:G:N3	1:AA:543:C:C6	2.84	0.45
39:BN:58:ASP:OD2	39:BN:59:LYS:HE3	2.16	0.45
34:BE:6:GLY:HA2	34:BE:51:PHE:CZ	2.52	0.45
1:AA:748:C:O2	1:AA:749:C:H5	1.99	0.45
1:AA:1091:U:O2	1:AA:1093:A:C8	2.70	0.45
1:AA:16:A:N1	1:AA:919:A:C2	2.85	0.45
31:DA:856:C:H3'	31:DA:857:C:C6	2.52	0.45
31:DA:2680:C:N4	31:DA:2681:C:H42	2.15	0.45
31:BA:866:A:O2'	31:BA:867:C:H5'	2.17	0.45
42:BQ:10:ARG:HB3	42:BQ:73:PRO:HG2	1.99	0.45
24:B2:41:ILE:O	24:B2:43:GLN:N	2.48	0.45
31:DA:496:G:C2	31:DA:497:A:H1'	2.52	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:501:A:N6	31:DA:502:A:C6	2.84	0.45
50:DY:47:LYS:HA	50:DY:60:PHE:CZ	2.52	0.45
31:DA:271(F):C:O2'	31:DA:271(G):C:H5'	2.17	0.45
11:CK:66:LEU:HD21	11:CK:101:SER:HA	1.98	0.45
48:DW:20:VAL:CG2	48:DW:47:VAL:HG21	2.47	0.45
1:AA:1190:G:H3'	3:AC:3:ASN:HD21	1.82	0.45
1:CA:64:G:H3'	1:CA:64:G:OP1	2.17	0.45
31:BA:1699:G:H4'	31:BA:1700:A:OP2	2.17	0.45
1:AA:256:U:H2'	1:AA:257:G:C8	2.51	0.45
9:AI:112:LYS:HA	9:AI:119:ALA:HB2	1.99	0.45
31:BA:1885:A:C5'	31:BA:1886:C:OP2	2.65	0.45
1:AA:1388:C:H2'	1:AA:1389:C:H6	1.81	0.45
39:BN:13:TRP:C	39:BN:135:PRO:HG2	2.37	0.45
31:BA:2476:A:C2	31:BA:2477:C:H5''	2.51	0.45
13:CM:78:ILE:HG22	13:CM:93:ARG:HH22	1.82	0.45
1:CA:233:C:C5	1:CA:234:C:H5	2.35	0.45
36:DG:88:ILE:CG2	36:DG:89:GLY:N	2.79	0.45
31:DA:1856:G:C2	31:DA:1887:C:N3	2.85	0.45
9:CI:18:PHE:HD1	9:CI:62:TYR:HD2	1.65	0.45
39:DN:72:TYR:O	39:DN:73:THR:C	2.54	0.45
18:AR:62:GLU:O	18:AR:65:ILE:HG13	2.15	0.45
31:DA:2380:C:C2'	31:DA:2381:C:H5'	2.47	0.45
9:AI:61:ALA:HB1	9:AI:63:ILE:HD11	1.98	0.45
9:AI:65:VAL:HG22	9:AI:66:ARG:N	2.31	0.45
4:AD:171:GLY:HA2	4:AD:172:PRO:HD3	1.68	0.45
31:DA:1668:A:O4'	31:DA:1669:A:C2	2.70	0.45
10:AJ:49:VAL:HG21	14:AN:44:LEU:HD23	1.99	0.45
1:AA:458:C:C3'	1:AA:460:G:H8	2.29	0.45
15:AO:30:ALA:HA	15:AO:85:LEU:HD11	1.99	0.45
3:AC:35:GLU:O	3:AC:39:ILE:HG13	2.16	0.45
31:DA:836:G:C4	31:DA:837:C:C5	3.05	0.45
1:AA:131:C:O2'	1:AA:132:C:H5'	2.17	0.45
7:CG:50:ILE:HD12	7:CG:61:VAL:HG11	1.98	0.45
31:DA:221:A:C4	31:DA:266:G:N7	2.84	0.45
31:DA:269:U:C2'	31:DA:269:U:O2	2.64	0.45
1:AA:276:G:C5	1:AA:277:C:C5	3.05	0.45
35:DF:7:TYR:HB3	35:DF:16:GLY:C	2.38	0.45
1:AA:654:G:C5	1:AA:655:A:C8	3.05	0.45
31:DA:414:C:H2'	31:DA:415:A:H8	1.82	0.45
42:BQ:118:LEU:HD23	42:BQ:118:LEU:HA	1.76	0.45
36:BG:133:LEU:HD12	36:BG:157:ILE:HG12	1.98	0.45
31:DA:2081:C:H2'	31:DA:2082:A:H8	1.81	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CJ:16:LEU:CD1	10:CJ:70:ARG:HE	2.28	0.45
31:DA:2584:U:O5'	31:DA:2584:U:O2	2.35	0.45
1:AA:521:G:O6	1:AA:529:G:C2	2.70	0.45
38:BI:33:ARG:HB2	38:BI:35:LEU:HG	1.98	0.45
31:BA:665:C:H2'	31:BA:666:G:C8	2.51	0.45
31:DA:1014:U:H2'	31:DA:1015:G:O4'	2.16	0.45
13:CM:14:ARG:H	13:CM:14:ARG:HG2	1.59	0.45
41:BP:77:ARG:HE	41:BP:77:ARG:HB3	1.63	0.45
48:BW:55:ALA:O	48:BW:58:ALA:HB3	2.17	0.45
36:BG:48:GLU:O	36:BG:49:ASP:CB	2.65	0.45
30:D8:26:LYS:CB	30:D8:44:LYS:HG3	2.47	0.45
30:D8:34:TRP:CZ3	30:D8:41:ILE:HG23	2.48	0.45
31:DA:2360:A:HO2'	31:DA:2361:A:P	2.26	0.45
31:DA:2615:U:H2'	31:DA:2616:C:H6	1.80	0.45
31:DA:821:A:H5''	31:DA:822:U:O5'	2.16	0.45
31:BA:2397:G:C5	31:BA:2398:U:C5	3.05	0.45
32:BB:118:G:H2'	32:BB:118:G:N3	2.32	0.45
44:BS:13:ARG:O	44:BS:15:ARG:N	2.50	0.45
44:BS:88:ASP:OD2	44:BS:89:ARG:N	2.47	0.45
24:D2:32:LEU:HA	24:D2:32:LEU:HD13	1.84	0.45
31:DA:1404:C:H4'	31:DA:1404:C:OP1	2.17	0.45
31:DA:1022:G:C5	31:DA:1140:C:N4	2.85	0.45
47:DV:23:GLU:O	47:DV:24:LYS:C	2.55	0.45
36:DG:7:LEU:HB3	36:DG:100:TRP:CZ3	2.51	0.45
1:CA:355:C:N3	1:CA:356:A:N7	2.65	0.45
1:CA:405:U:H5''	1:CA:406:G:O4'	2.17	0.45
1:CA:509:A:H2'	1:CA:510:A:N7	2.32	0.45
5:CE:110:LEU:HD12	5:CE:118:ILE:HG21	1.99	0.45
20:CT:23:ARG:O	20:CT:27:LYS:HB2	2.17	0.45
50:BY:42:VAL:HG23	50:BY:67:LEU:HD13	1.98	0.45
31:DA:1789:A:H2'	31:DA:1790:C:O4'	2.17	0.45
31:DA:1820:U:C4'	31:DA:1821:A:OP2	2.55	0.45
39:BN:35:ARG:NH2	39:BN:42:TRP:HH2	2.14	0.45
47:BV:38:LEU:HG	47:BV:39:LEU:H	1.81	0.45
31:BA:1163:G:C2'	31:BA:1164:G:H5'	2.46	0.45
31:BA:1131:G:OP2	31:BA:2515:C:H4'	2.16	0.45
34:DE:55:ASN:O	34:DE:57:LYS:N	2.50	0.45
31:BA:1652:A:C3'	31:BA:1653:G:H5'	2.47	0.45
4:AD:58:LEU:HD23	4:AD:206:PHE:CZ	2.52	0.45
31:BA:847:U:OP2	31:BA:928:G:O6	2.33	0.45
47:BV:28:GLU:CB	47:BV:29:PRO:HD3	2.31	0.45
31:DA:2298:A:H2'	31:DA:2299:G:O4'	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CF:50:TYR:CE1	18:CR:77:GLY:HA2	2.51	0.45
31:BA:1517:G:H2'	31:BA:1518:U:O4'	2.16	0.45
42:DQ:10:ARG:HB2	42:DQ:10:ARG:CZ	2.47	0.45
42:BQ:141:GLN:CD	51:BZ:70:LEU:HB2	2.36	0.45
31:BA:1784:A:H4'	31:BA:1785:A:H5''	1.98	0.45
31:BA:2207:G:H2'	31:BA:2207:G:N3	2.31	0.45
31:BA:2206:G:N3	31:BA:2207:G:H5'	2.32	0.45
34:DE:7:VAL:HA	34:DE:194:GLY:O	2.17	0.45
1:AA:676:A:N1	1:AA:715:A:N1	2.65	0.45
6:AF:50:TYR:CZ	18:AR:77:GLY:HA2	2.52	0.45
1:AA:411:A:OP2	4:AD:25:ARG:NH2	2.49	0.45
1:AA:434:U:N3	1:AA:435:C:C4	2.85	0.45
31:DA:958:U:OP2	42:DQ:14:ARG:NH1	2.50	0.45
42:BQ:14:ARG:CG	42:BQ:41:TRP:HH2	2.29	0.45
31:DA:1275:A:N3	31:DA:1276:A:H1'	2.32	0.45
1:AA:1089:G:C2	1:AA:1090:U:C2	3.05	0.45
2:CB:22:LYS:H	2:CB:40:HIS:CE1	2.35	0.45
2:AB:171:ALA:HA	2:AB:174:VAL:CG2	2.47	0.45
1:AA:861:G:H8	1:AA:861:G:O5'	1.99	0.45
34:BE:8:LYS:NZ	34:BE:188:VAL:O	2.44	0.45
31:DA:2681:C:C5	31:DA:2725:A:N6	2.67	0.45
31:BA:866:A:C6	31:BA:914:C:C5	3.05	0.45
15:AO:40:SER:HA	31:BA:715:G:N2	2.32	0.45
1:AA:1503:A:O2'	1:AA:1504:G:H5''	2.17	0.45
1:AA:1507:A:C8	1:AA:1530:G:N2	2.85	0.45
1:CA:976:G:C5'	1:CA:1358:U:O2'	2.59	0.45
38:DI:77:LEU:HD23	38:DI:77:LEU:HA	1.62	0.45
34:BE:38:THR:HB	34:BE:41:LYS:HE3	1.97	0.45
11:AK:83:ILE:HG12	11:AK:109:VAL:HB	1.99	0.45
11:CK:99:GLN:OE1	11:CK:105:VAL:HG11	2.17	0.45
8:AH:112:LEU:CB	8:AH:133:LEU:HA	2.47	0.45
1:AA:1054:C:OP1	1:AA:1197:G:OP2	2.35	0.45
31:BA:1486:A:N6	31:BA:1504:C:H42	2.15	0.45
31:DA:80:G:N2	31:DA:81:G:H1'	2.32	0.45
45:BT:28:VAL:CG2	45:BT:46:GLU:CG	2.94	0.45
10:AJ:6:ILE:O	10:AJ:6:ILE:HD12	2.17	0.45
1:AA:1386:G:N3	1:AA:1387:G:C8	2.85	0.45
33:BD:136:ILE:CG2	33:BD:140:THR:OG1	2.65	0.45
39:BN:128:HIS:N	39:BN:129:PRO:CD	2.80	0.45
31:DA:1773:A:N7	31:DA:1829:A:H1'	2.32	0.45
1:CA:1287:A:N3	1:CA:1353:G:H1'	2.31	0.45
37:BH:19:VAL:HB	37:BH:44:VAL:HG13	1.98	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2469:A:C2	31:DA:2470:G:C5	3.05	0.45
31:DA:298:G:H5''	31:DA:299:A:OP1	2.17	0.45
31:DA:2660:A:C3'	31:DA:2660:A:N3	2.75	0.45
7:AG:79:ARG:NE	7:AG:84:ASN:ND2	2.59	0.45
51:BZ:108:PRO:HA	51:BZ:142:SER:O	2.16	0.45
3:AC:134:ILE:HD12	3:AC:151:VAL:CG1	2.45	0.45
33:BD:11:PRO:O	33:BD:12:SER:OG	2.29	0.45
1:CA:592:G:H1	1:CA:647:C:N4	2.11	0.45
1:CA:1266:G:N2	1:CA:1270:C:C2	2.85	0.45
1:CA:806:C:H2'	1:CA:807:A:H8	1.81	0.45
31:DA:2019:A:O5'	31:DA:2019:A:H8	2.00	0.45
1:AA:1058:G:C6	1:AA:1059:C:C4	3.05	0.45
9:AI:114:TYR:H	9:AI:114:TYR:HD2	1.58	0.45
2:AB:180:LEU:O	2:AB:181:PHE:CB	2.63	0.45
31:BA:2865:U:C4	31:BA:2866:U:C4	3.04	0.45
31:DA:602:G:N2	31:DA:656:G:C5	2.85	0.45
1:CA:567:G:C2	1:CA:568:G:H1'	2.52	0.45
31:DA:11:G:H2'	31:DA:12:U:O4'	2.16	0.45
31:DA:1163:G:C2'	31:DA:1164:G:H5'	2.46	0.45
31:DA:817:C:C2	31:DA:818:G:C8	3.04	0.45
2:CB:235:SER:O	2:CB:239:VAL:CG2	2.65	0.45
1:AA:597:G:C8	1:AA:598:U:C5	3.04	0.45
31:DA:2748:A:N6	31:DA:2749:A:C6	2.85	0.45
30:D8:18:ALA:HB2	31:DA:628:G:O3'	2.17	0.45
2:CB:158:LEU:HD12	2:CB:158:LEU:N	2.30	0.45
31:BA:483:A:C8	31:BA:484:C:C5	3.04	0.45
7:CG:37:ASN:ND2	9:CI:40:LEU:HD22	2.31	0.45
51:DZ:100:VAL:HG21	51:DZ:134:PRO:HG2	1.99	0.45
1:CA:811:C:C4'	1:CA:900:A:N6	2.79	0.45
31:DA:409:C:O2'	31:DA:410:G:H5'	2.16	0.45
2:AB:87:ARG:HH21	2:AB:233:SER:HB3	1.81	0.45
1:AA:1480:G:C6	1:AA:1481:U:N3	2.85	0.45
1:CA:70:G:H2'	1:CA:71:C:C6	2.52	0.45
2:CB:67:THR:HG21	2:CB:155:LEU:CD2	2.46	0.45
1:AA:693:G:H2'	1:AA:694:A:C8	2.52	0.45
17:CQ:26:GLN:O	17:CQ:27:PHE:HB3	2.17	0.45
1:CA:875:C:C3'	1:CA:876:G:H5''	2.46	0.45
20:AT:95:ALA:O	20:AT:96:GLY:C	2.55	0.45
42:DQ:112:GLU:HG2	42:DQ:112:GLU:H	1.44	0.45
5:AE:82:VAL:HG21	5:AE:138:ALA:HA	1.98	0.45
31:DA:437:G:H2'	31:DA:438:G:O4'	2.17	0.45
50:BY:92:ASN:ND2	50:BY:93:GLY:H	2.15	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DR:111:LEU:HA	43:DR:111:LEU:HD23	1.77	0.45
38:BI:7:GLU:CD	38:BI:7:GLU:H	2.20	0.45
12:AL:123:LYS:HG2	12:AL:123:LYS:H	1.56	0.45
31:DA:2338:G:O2'	31:DA:2339:G:H5'	2.16	0.45
31:DA:593:G:C2	31:DA:665:C:C2	3.05	0.45
31:DA:672:C:H2'	31:DA:673:C:H6	1.81	0.45
35:DF:95:ARG:HG3	35:DF:97:TYR:CE2	2.51	0.45
41:DP:85:LEU:HD12	41:DP:120:ALA:CB	2.47	0.45
28:B6:28:ARG:HA	28:B6:32:ASN:HB3	1.99	0.45
31:BA:1655:A:C4	31:BA:1656:C:C6	3.05	0.45
31:BA:1673:U:O4	34:BE:129:HIS:CD2	2.70	0.45
31:BA:2078:C:H2'	31:BA:2079:U:O4'	2.17	0.45
31:BA:390:A:C6	41:BP:71:VAL:HG21	2.52	0.45
30:B8:61:LEU:CD1	31:BA:593:G:O2'	2.65	0.45
33:BD:24:ILE:HD11	33:BD:84:TYR:H	1.82	0.45
33:BD:85:ASP:OD1	33:BD:87:ASN:ND2	2.50	0.45
31:DA:1709:U:H2'	31:DA:1710:C:C6	2.52	0.45
49:DX:53:LYS:HZ2	49:DX:55:ASN:HD21	1.62	0.45
36:DG:15:VAL:HG12	36:DG:19:LEU:HG	1.99	0.45
44:DS:28:VAL:HG12	44:DS:29:PHE:N	2.32	0.45
44:DS:62:LYS:O	44:DS:66:ALA:CB	2.63	0.45
4:AD:106:TYR:CE1	4:AD:113:SER:HA	2.52	0.45
1:CA:356:A:N3	1:CA:368:U:O2'	2.45	0.45
1:CA:358:U:C2'	1:CA:359:U:O5'	2.65	0.45
1:CA:617:G:N1	1:CA:618:C:C4	2.84	0.45
5:CE:139:LEU:HA	5:CE:142:LEU:CD1	2.47	0.45
31:BA:2311:A:C4'	36:BG:77:ILE:HD11	2.47	0.45
31:DA:1811:G:C5	31:DA:1812:A:N7	2.85	0.45
31:DA:690:G:N2	31:DA:773:U:C2	2.85	0.45
33:DD:30:GLU:CG	33:DD:63:ARG:HE	2.25	0.45
39:BN:100:GLU:O	39:BN:101:HIS:C	2.56	0.45
31:BA:1141:U:OP2	39:BN:63:THR:CG2	2.65	0.45
23:D1:85:LEU:C	23:D1:87:PRO:CD	2.84	0.45
37:DH:149:ARG:HD3	37:DH:164:TYR:CE1	2.46	0.45
31:BA:527:C:P	31:BA:2779:U:H5	2.40	0.45
31:BA:778:G:H2'	31:BA:779:U:C6	2.52	0.45
47:BV:25:LEU:N	47:BV:94:LEU:CD1	2.80	0.45
31:DA:2318:G:C2'	31:DA:2319:G:OP1	2.63	0.45
48:DW:74:ALA:HA	48:DW:104:THR:O	2.17	0.45
31:DA:911:A:O4'	31:DA:2264:C:H4'	2.16	0.45
42:DQ:6:ARG:O	42:DQ:7:MET:HG2	2.17	0.45
32:DB:65:C:N4	32:DB:109:C:C2'	2.62	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DR:37:THR:OG1	43:DR:40:LYS:HG3	2.17	0.45
51:BZ:171:ILE:O	51:BZ:172:ALA:HB3	2.17	0.45
1:AA:681:C:C2	1:AA:710:G:N2	2.85	0.45
39:BN:55:VAL:O	39:BN:56:ASN:C	2.55	0.45
31:BA:1677:A:H2'	31:BA:1678:G:C8	2.51	0.45
1:CA:1072:G:C4	1:CA:1104:G:N2	2.85	0.45
1:CA:815:A:C2	1:CA:1529:G:C4	3.05	0.45
34:BE:92:THR:O	34:BE:93:VAL:HB	2.17	0.45
1:CA:22:G:C6	1:CA:23:C:C4	3.05	0.45
45:BT:115:ARG:O	45:BT:116:ALA:HB2	2.16	0.45
1:AA:342:C:C2	1:AA:348:G:N2	2.85	0.45
31:BA:1045:A:H3'	31:BA:1045:A:N3	2.32	0.45
1:AA:1358:U:H5''	14:AN:33:VAL:O	2.16	0.45
1:CA:1225:A:O2'	19:CS:78:ARG:HD3	2.17	0.45
36:BG:114:ILE:CG1	36:BG:140:ILE:HD12	2.47	0.45
31:BA:1266:G:O4'	48:BW:15:ARG:NH2	2.50	0.45
40:DO:104:ARG:NH2	45:DT:33:LYS:HD2	2.30	0.45
31:BA:2541:A:H4'	31:BA:2764:A:N1	2.32	0.45
1:AA:67:C:H1'	1:AA:171:A:C2	2.52	0.45
37:BH:123:PHE:CE2	37:BH:148:ILE:HD11	2.52	0.45
29:D7:34:ARG:HB2	29:D7:42:LEU:HD22	1.99	0.45
29:D7:34:ARG:NH1	29:D7:39:ARG:HG3	2.31	0.45
42:DQ:30:GLY:O	42:DQ:134:ARG:HD3	2.17	0.45
36:DG:89:GLY:O	36:DG:90:LEU:O	2.35	0.45
12:AL:69:TYR:CG	12:AL:70:ILE:N	2.85	0.45
38:DI:19:VAL:HG22	38:DI:20:ASP:N	2.31	0.45
34:DE:169:ASN:H	34:DE:201:THR:HG23	1.82	0.45
1:CA:564:C:C5	17:CQ:31:LEU:HD11	2.51	0.45
1:AA:1496:C:O4'	31:BA:1919:A:C2	2.69	0.45
31:BA:38:A:C5	31:BA:39:C:C4	3.04	0.45
31:DA:2292:C:HO2'	31:DA:2293:C:H5'	1.82	0.45
37:DH:153:LYS:CD	37:DH:153:LYS:N	2.80	0.45
31:BA:1548:C:O2'	31:BA:1549:C:H5'	2.17	0.45
6:AF:49:ALA:HB1	18:AR:80:PRO:HA	1.98	0.45
31:BA:90:U:H1'	31:BA:92:A:H5''	1.98	0.45
31:BA:1298:C:N4	31:BA:1299:G:C6	2.85	0.45
1:AA:284:G:H2'	1:AA:285:G:H8	1.79	0.45
1:CA:287:U:O2'	1:CA:288:A:H5'	2.17	0.45
1:CA:1301:U:H3'	1:CA:1302:U:C5'	2.46	0.45
1:CA:852:G:C6	1:CA:853:G:N7	2.85	0.45
31:BA:564:C:H2'	31:BA:565:C:O4'	2.17	0.45
1:CA:632:A:H8	1:CA:633:G:C8	2.33	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DP:75:ILE:N	41:DP:75:ILE:CD1	2.78	0.45
16:CP:49:LEU:HG	16:CP:50:LYS:N	2.32	0.45
31:DA:451:C:H41	31:DA:454:A:H5'	1.81	0.45
32:BB:42:C:C6	36:BG:69:ALA:HB2	2.52	0.45
51:BZ:156:LYS:O	51:BZ:158:PRO:CD	2.65	0.45
1:AA:722:A:O3'	1:AA:723:U:C6	2.70	0.45
1:AA:32:A:C3'	1:AA:33:A:H8	2.30	0.45
1:CA:945:G:H2'	1:CA:945:G:N3	2.31	0.45
45:DT:7:ILE:O	45:DT:11:GLU:OE1	2.35	0.45
31:DA:1623:G:C2	31:DA:1624:G:C8	3.05	0.45
2:AB:87:ARG:CZ	2:AB:233:SER:HB3	2.47	0.45
31:DA:444:C:H2'	31:DA:445:C:H6	1.82	0.45
31:DA:414:C:H4'	31:DA:1879:C:O2	2.17	0.45
38:DI:41:GLU:O	38:DI:42:SER:C	2.54	0.45
38:DI:8:PRO:C	38:DI:9:LEU:HD23	2.37	0.45
17:AQ:52:LYS:HD2	17:AQ:52:LYS:N	2.32	0.45
13:AM:29:ARG:HD3	13:AM:64:TRP:CZ2	2.52	0.45
17:CQ:4:LYS:HB3	17:CQ:61:GLU:OE2	2.17	0.45
5:AE:19:MET:O	5:AE:20:GLN:CB	2.64	0.45
1:CA:189(E):U:O2'	1:CA:189(F):U:C5'	2.65	0.45
31:DA:1149:G:H2'	31:DA:1150:C:C6	2.52	0.45
48:DW:62:HIS:O	48:DW:63:ASP:C	2.55	0.45
35:DF:62:ARG:HH21	35:DF:64:ILE:HA	1.82	0.45
31:BA:1014:U:H2'	31:BA:1015:G:O4'	2.17	0.45
31:BA:1891:G:C6	31:BA:1892:C:C4	3.05	0.45
1:AA:336:C:H2'	1:AA:337:C:H6	1.82	0.45
35:BF:107:LYS:O	35:BF:108:LYS:C	2.55	0.45
48:BW:79:GLY:O	48:BW:80:PRO:C	2.56	0.45
30:D8:54:GLU:O	30:D8:58:ILE:HG12	2.16	0.44
31:DA:2415:G:H2'	31:DA:2416:C:C6	2.52	0.44
31:DA:672:C:C2'	31:DA:673:C:H5'	2.47	0.44
41:DP:71:VAL:HG13	41:DP:72:PRO:HD3	1.96	0.44
30:B8:32:LEU:CD2	30:B8:35:GLN:O	2.65	0.44
31:BA:2058:A:H61	55:BA:3362:TEL:H572	1.82	0.44
31:BA:2244:U:H2'	31:BA:2245:U:O4'	2.17	0.44
30:B8:41:ILE:HG21	31:BA:2419:U:OP1	2.17	0.44
31:BA:118:A:H3'	31:BA:119:A:H5''	1.99	0.44
31:BA:686:G:N2	31:BA:788:A:H61	2.15	0.44
36:BG:105:LYS:HZ2	36:BG:105:LYS:HB2	1.82	0.44
31:DA:58:G:H5''	49:DX:72:LYS:HB2	1.99	0.44
31:DA:842:G:H2'	31:DA:843:G:O4'	2.17	0.44
34:BE:77:ILE:CG2	34:BE:79:ARG:HE	2.30	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DG:16:ARG:HG3	36:DG:16:ARG:NH1	2.32	0.44
44:DS:73:LEU:O	44:DS:77:ALA:CB	2.65	0.44
1:AA:370:C:H2'	1:AA:371:G:C8	2.53	0.44
1:AA:391:G:O6	1:AA:392:G:C6	2.70	0.44
1:CA:407:G:N1	1:CA:408:A:C5	2.85	0.44
1:CA:57:G:C2	1:CA:58:C:C2	3.05	0.44
1:CA:617:G:C2	1:CA:618:C:C4	3.05	0.44
4:CD:74:GLN:HA	4:CD:77:ASN:HB2	1.99	0.44
45:DT:50:ILE:HD13	45:DT:64:ARG:HB3	1.97	0.44
31:DA:698:C:O2'	31:DA:734:A:N6	2.50	0.44
31:DA:693:C:C2	31:DA:770:G:C2	3.06	0.44
31:DA:2751:G:H2'	31:DA:2751:G:N3	2.32	0.44
31:DA:2759:G:C2'	31:DA:2760:C:H5'	2.48	0.44
25:B3:8:LEU:O	25:B3:32:GLN:N	2.50	0.44
46:BU:88:ILE:CD1	46:BU:88:ILE:C	2.86	0.44
31:DA:573:G:H1	31:DA:2030:A:H3'	1.83	0.44
31:DA:2530:A:C2'	31:DA:2531:A:H5''	2.46	0.44
31:DA:2631:G:H22	34:DE:61:ARG:NH1	2.11	0.44
31:BA:2873:A:C2	43:BR:6:SER:HB2	2.51	0.44
1:CA:260:G:H2'	1:CA:261:U:C6	2.52	0.44
31:DA:49:A:C4'	31:DA:50:U:OP2	2.64	0.44
31:BA:814:C:H4'	31:BA:1224:C:O2	2.16	0.44
31:BA:842:G:H2'	31:BA:843:G:O4'	2.17	0.44
50:DY:25:GLY:HA3	50:DY:39:VAL:HG13	2.00	0.44
23:B1:89:GLU:N	23:B1:89:GLU:CD	2.57	0.44
1:CA:675:A:H1'	11:CK:116:HIS:CD2	2.51	0.44
11:CK:29:ILE:HG13	11:CK:43:SER:C	2.37	0.44
1:CA:1125:U:C2'	1:CA:1126:U:OP2	2.65	0.44
31:DA:950:G:C5	31:DA:951:C:C4	3.06	0.44
51:BZ:30:ASN:HB3	51:BZ:90:VAL:O	2.17	0.44
31:BA:500:G:N2	31:BA:502:A:H3'	2.33	0.44
1:AA:735:C:C2'	1:AA:736:C:H5'	2.47	0.44
32:BB:17:C:O2	32:BB:18:G:O4'	2.34	0.44
12:AL:114:LYS:O	12:AL:117:ARG:HD3	2.16	0.44
31:DA:2093:G:H2'	31:DA:2094:G:H8	1.82	0.44
38:DI:25:TYR:O	38:DI:26:ALA:C	2.56	0.44
31:DA:1115:G:N3	31:DA:1116:C:C5	2.86	0.44
31:DA:2817:G:C2	31:DA:2830:G:C4	3.05	0.44
36:DG:73:ALA:HB3	36:DG:85:GLY:C	2.36	0.44
1:AA:836:G:O6	1:AA:851:G:C6	2.70	0.44
1:AA:15:G:C4	1:AA:16:A:C8	3.05	0.44
1:CA:884:U:H4'	1:CA:885:G:H5''	1.98	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:559:A:N7	1:AA:561:U:C4	2.86	0.44
15:AO:43:LEU:O	15:AO:44:LYS:C	2.56	0.44
41:DP:118:GLY:O	41:DP:119:GLU:CG	2.53	0.44
31:BA:1409:C:O2'	31:BA:1410:G:H5'	2.16	0.44
31:BA:1411:C:C2'	31:BA:1412:A:H8	2.29	0.44
45:BT:28:VAL:HG21	45:BT:46:GLU:HG3	1.98	0.44
45:DT:55:ASN:HB3	45:DT:57:PHE:O	2.17	0.44
31:DA:2842:G:O2'	31:DA:2843:G:H5'	2.17	0.44
45:DT:5:ALA:O	45:DT:6:LEU:C	2.56	0.44
31:BA:460:A:C2	31:BA:470:A:C5	3.05	0.44
1:CA:659:U:O4	1:CA:746:A:N1	2.50	0.44
33:BD:182:LEU:HB3	33:BD:271:ILE:CD1	2.47	0.44
10:CJ:38:ILE:HG13	10:CJ:38:ILE:O	2.16	0.44
1:CA:161:A:H8	1:CA:161:A:O5'	2.00	0.44
38:BI:10:GLU:C	38:BI:12:LEU:H	2.21	0.44
1:CA:1322:C:H5'	13:CM:100:GLY:HA3	1.99	0.44
1:AA:1519:A:N7	1:AA:1520:G:H1'	2.31	0.44
28:B6:51:GLU:CG	28:B6:52:VAL:N	2.70	0.44
45:DT:107:ASP:H	45:DT:110:ILE:HG13	1.81	0.44
31:DA:1642:G:O2'	31:DA:1643:G:H5'	2.16	0.44
31:BA:2818:G:C2'	31:BA:2819:G:H5'	2.46	0.44
1:AA:166:G:C2'	1:AA:167:G:H5'	2.45	0.44
34:BE:103:ASP:OD1	34:BE:201:THR:HG23	2.17	0.44
8:CH:52:ASP:OD2	8:CH:56:LYS:N	2.50	0.44
1:CA:142:G:C2	1:CA:143:A:N7	2.85	0.44
31:DA:1203:G:H4'	41:DP:7:ARG:HG2	1.98	0.44
1:CA:1313:U:OP2	19:CS:6:LYS:HB3	2.18	0.44
31:DA:2080:G:N2	31:DA:2241:A:C4	2.85	0.44
3:CC:134:ILE:HD11	3:CC:153:VAL:CG2	2.48	0.44
1:AA:25:C:H2'	1:AA:26:A:C8	2.51	0.44
1:CA:568:G:C6	12:CL:5:PRO:HD3	2.51	0.44
37:BH:43:VAL:HG12	37:BH:53:GLU:HB2	1.99	0.44
31:DA:2085:C:O2'	31:DA:2086:U:H5'	2.18	0.44
6:CF:46:ARG:HB2	6:CF:60:PHE:CD1	2.52	0.44
6:AF:3:ARG:NH1	6:AF:38:GLU:OE1	2.50	0.44
38:BI:5:LEU:HD21	38:BI:19:VAL:HG11	1.99	0.44
40:BO:87:ILE:HG22	40:BO:88:ASN:O	2.17	0.44
43:BR:55:ALA:HB2	43:BR:79:LEU:CD1	2.47	0.44
10:AJ:65:LEU:HD13	14:AN:56:VAL:CG2	2.46	0.44
18:CR:39:VAL:HG12	18:CR:40:LEU:HD23	1.98	0.44
1:CA:1388:C:H2'	1:CA:1389:C:C6	2.52	0.44
31:BA:2574:G:C6	31:BA:2575:C:N3	2.85	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:2422:A:C4'	31:BA:2423:U:OP1	2.66	0.44
33:BD:231:HIS:CE1	33:BD:232:PRO:HD2	2.51	0.44
34:DE:9:VAL:CG2	34:DE:10:GLY:N	2.80	0.44
1:AA:396:G:C2	1:AA:398:C:C4	3.05	0.44
13:AM:68:GLY:N	13:AM:71:ARG:HB3	2.32	0.44
33:BD:50:THR:O	33:BD:51:VAL:HG23	2.17	0.44
31:DA:426:C:C2	31:DA:427:U:C6	3.05	0.44
31:BA:1631(A):A:C2'	31:BA:1632:A:H5'	2.46	0.44
8:AH:82:HIS:HB3	8:AH:138:TRP:CE2	2.52	0.44
1:CA:1296:C:C5	1:CA:1297:C:C5	3.05	0.44
13:AM:58:GLU:O	13:AM:62:ASN:HB3	2.17	0.44
42:DQ:62:GLY:O	51:DZ:178:GLU:HG2	2.16	0.44
7:CG:145:ALA:O	7:CG:147:ALA:N	2.49	0.44
31:BA:407:G:H2'	31:BA:408:G:H8	1.82	0.44
6:AF:89:MET:HG2	6:AF:89:MET:O	2.16	0.44
2:CB:44:LEU:H	2:CB:44:LEU:HD12	1.82	0.44
41:DP:77:ARG:HB3	41:DP:77:ARG:HE	1.64	0.44
2:CB:124:SER:OG	2:CB:125:PRO:HD2	2.17	0.44
48:DW:31:GLU:O	48:DW:32:ALA:C	2.55	0.44
23:D1:33:LYS:HB3	31:DA:2395:C:O2'	2.16	0.44
30:D8:53:PRO:O	30:D8:54:GLU:C	2.54	0.44
30:D8:41:ILE:HG21	31:DA:2419:U:OP1	2.16	0.44
31:DA:663:G:OP1	41:DP:20:GLY:HA2	2.17	0.44
31:DA:745:G:H2'	31:DA:746:A:H5'	1.99	0.44
31:BA:2359:C:O2'	31:BA:2360:A:H5'	2.17	0.44
31:BA:943:U:OP1	41:BP:38:GLN:HB3	2.18	0.44
32:BB:29:A:H2'	32:BB:30:C:O4'	2.16	0.44
31:BA:2517:C:C6	31:BA:2542:A:C2	3.05	0.44
31:DA:58:G:O2'	31:DA:59:U:O5'	2.33	0.44
41:BP:83:VAL:HG11	41:BP:112:LEU:HD21	1.96	0.44
41:BP:140:ALA:O	41:BP:141:ALA:HB2	2.17	0.44
31:DA:846:C:C4	31:DA:930:U:C4	3.05	0.44
39:DN:31:ALA:O	39:DN:32:THR:C	2.55	0.44
39:DN:31:ALA:O	39:DN:34:LEU:N	2.50	0.44
31:DA:814:C:H5	41:DP:27:HIS:CD2	2.35	0.44
37:BH:135:GLY:HA3	37:BH:141:VAL:HG23	1.98	0.44
31:BA:1344:G:H4'	31:BA:1384:A:N7	2.33	0.44
31:DA:1331:A:HO2'	31:DA:1332:G:H8	1.64	0.44
1:AA:373:A:H2'	1:AA:374:A:C8	2.47	0.44
16:AP:12:LYS:C	16:AP:14:ASN:H	2.21	0.44
1:CA:1435:G:H2'	1:CA:1436:U:H6	1.71	0.44
1:CA:367:U:C6	1:CA:394:G:N2	2.85	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1442(A):G:N7	45:BT:118:ARG:CZ	2.80	0.44
31:DA:1799:G:N7	33:DD:179:SER:OG	2.50	0.44
39:BN:37:LYS:HD3	46:BU:63:VAL:HG13	1.99	0.44
39:BN:40:PRO:HA	46:BU:64:ARG:HH22	1.82	0.44
31:DA:2030:A:H8	31:DA:2030:A:H5''	1.81	0.44
31:DA:2532:G:N2	31:DA:2663:G:O2'	2.45	0.44
31:DA:2809:A:C2'	31:DA:2810:A:H5'	2.48	0.44
5:AE:139:LEU:HD23	5:AE:142:LEU:HD11	1.99	0.44
1:CA:191:G:C6	1:CA:192:U:C4	3.06	0.44
20:CT:64:ASP:OD2	20:CT:81:LYS:NZ	2.50	0.44
1:CA:678:U:H2'	1:CA:679:C:H6	1.79	0.44
1:CA:705:U:C5	1:CA:706:A:C5	3.04	0.44
1:AA:1125:U:C2'	1:AA:1126:U:OP2	2.64	0.44
43:BR:96:ARG:O	43:BR:114:VAL:HA	2.18	0.44
31:DA:910:A:C6	31:DA:911:A:C6	3.06	0.44
32:DB:17:C:N3	32:DB:18:G:C8	2.85	0.44
32:BB:111:G:H2'	32:BB:112:U:H6	1.82	0.44
1:AA:543:C:N3	1:AA:544:G:C8	2.85	0.44
31:DA:2224:G:H4'	31:DA:2226:C:C2	2.52	0.44
1:AA:354:G:C6	1:AA:355:C:N4	2.85	0.44
1:AA:358:U:C5	1:AA:359:U:C4	3.06	0.44
31:BA:2016:U:C4	31:BA:2017:U:C4	3.06	0.44
31:BA:1677:A:H2'	31:BA:1678:G:O5'	2.17	0.44
1:CA:1064:G:C1'	1:CA:1065:U:OP2	2.64	0.44
31:BA:2259:G:C6	31:BA:2282:G:O6	2.70	0.44
4:AD:24:GLU:O	4:AD:26:CYS:N	2.50	0.44
2:AB:22:LYS:HA	2:AB:24:TRP:HD1	1.81	0.44
1:CA:578:C:C1'	1:CA:729:A:H1'	2.47	0.44
1:CA:1412:C:C2	1:CA:1489:G:N2	2.86	0.44
1:AA:22:G:C6	1:AA:23:C:N4	2.85	0.44
1:AA:22:G:C5	1:AA:23:C:C4	3.05	0.44
1:AA:304:U:H2'	1:AA:305:G:C8	2.51	0.44
1:AA:579:G:H5'	1:AA:728:A:C1'	2.42	0.44
1:AA:1399:C:C4'	1:AA:1400:C:H5''	2.40	0.44
31:BA:79:G:C6	31:BA:80:G:N7	2.85	0.44
24:B2:18:PRO:C	24:B2:20:GLU:N	2.70	0.44
31:DA:2740:A:C6	31:DA:2741:A:C6	3.05	0.44
11:AK:95:ILE:HG23	11:AK:108:ILE:HD11	1.99	0.44
37:BH:89:ILE:CG1	37:BH:90:LYS:N	2.78	0.44
24:D2:59:ARG:HD2	24:D2:59:ARG:HA	1.58	0.44
13:AM:7:VAL:HG21	36:BG:137:GLU:OE2	2.18	0.44
1:CA:1298:C:C4'	1:CA:1299:A:C4	2.97	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:124:G:C6	1:CA:125:U:N3	2.85	0.44
1:AA:1206:G:O4'	3:AC:194:GLY:HA2	2.16	0.44
31:BA:1499:C:H2'	31:BA:1500:G:C5'	2.47	0.44
31:BA:271(F):C:O2'	31:BA:271(G):C:H5'	2.17	0.44
31:BA:271(H):G:O2'	31:BA:271(I):G:OP2	2.32	0.44
31:DA:1171:G:N7	31:DA:1173:G:H1'	2.31	0.44
1:CA:658:G:C6	1:CA:749:C:N4	2.84	0.44
28:D6:51:GLU:CG	28:D6:52:VAL:N	2.68	0.44
31:DA:470:A:H2'	31:DA:471:A:O4'	2.17	0.44
5:CE:47:LYS:O	5:CE:57:LYS:HE2	2.17	0.44
1:CA:652:U:O4	1:CA:752:G:O2'	2.28	0.44
12:AL:34:ARG:HG2	12:AL:35:GLY:N	2.31	0.44
33:DD:17:THR:CG2	33:DD:205:VAL:HB	2.46	0.44
31:DA:299:A:C2	31:DA:322:A:C4	3.04	0.44
1:AA:1288:A:N1	1:AA:1371:G:H1'	2.32	0.44
31:DA:2886:G:C4	31:DA:2887:U:C6	3.05	0.44
18:AR:29:PHE:CE1	18:AR:31:LEU:HD22	2.52	0.44
31:BA:39:C:H2'	31:BA:40:C:H6	1.82	0.44
19:CS:22:LEU:O	19:CS:26:GLY:HA2	2.18	0.44
35:BF:40:GLN:O	35:BF:43:LYS:HG2	2.17	0.44
9:AI:18:PHE:CD1	9:AI:62:TYR:HD2	2.35	0.44
4:CD:149:ALA:O	4:CD:153:ARG:HG3	2.17	0.44
31:DA:2845:G:C2'	31:DA:2846:G:H5'	2.48	0.44
9:AI:78:LYS:HB2	9:AI:78:LYS:NZ	2.32	0.44
1:CA:1496:C:H2'	1:CA:1497:G:C1'	2.48	0.44
31:DA:1374:G:C6	31:DA:1375:C:N3	2.85	0.44
31:BA:1374:G:H2'	31:BA:1375:C:O4'	2.17	0.44
7:AG:66:VAL:HG12	7:AG:70:LYS:HE3	2.00	0.44
13:AM:105:THR:O	13:AM:106:ASN:O	2.35	0.44
1:CA:832:C:O2'	1:CA:833:U:O5'	2.35	0.44
31:BA:646:A:C2'	31:BA:647:G:H5'	2.47	0.44
6:AF:36:ARG:O	6:AF:38:GLU:HG3	2.17	0.44
31:DA:2718:G:C5	31:DA:2719:G:C8	3.05	0.44
31:BA:2364:C:H2'	31:BA:2365:G:C5'	2.46	0.44
1:CA:633:G:N7	1:CA:634:C:C5	2.85	0.44
1:AA:533:A:C1'	1:AA:534:U:OP1	2.65	0.44
1:AA:189:G:C6	1:AA:189(A):C:C4	3.05	0.44
3:AC:14:ILE:HG23	3:AC:15:THR:N	2.32	0.44
33:BD:164:GLN:CB	33:BD:166:GLN:HE22	2.29	0.44
42:BQ:6:ARG:O	42:BQ:6:ARG:CG	2.65	0.44
31:DA:1836:C:H2'	31:DA:1837:C:H6	1.82	0.44
1:AA:1478:C:O2'	1:AA:1479:C:H5'	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:447:A:C6	31:BA:454:A:C8	3.06	0.44
7:CG:144:MET:O	7:CG:148:ASN:HB2	2.17	0.44
31:DA:433:C:C4	31:DA:434:U:O4	2.71	0.44
31:BA:1767:C:O2'	31:BA:1768:U:H5'	2.18	0.44
31:DA:1575:C:H2'	31:DA:1576:U:H6	1.83	0.44
33:DD:31:LYS:HZ1	33:DD:31:LYS:HA	1.82	0.44
48:BW:52:GLU:O	48:BW:55:ALA:HB3	2.17	0.44
31:DA:1907:G:O2'	31:DA:1908:C:H5'	2.18	0.44
2:AB:124:SER:OG	2:AB:125:PRO:HD2	2.17	0.44
2:AB:44:LEU:HD12	2:AB:44:LEU:H	1.82	0.44
20:CT:24:LEU:HD13	20:CT:24:LEU:C	2.38	0.44
1:AA:1252:A:H2'	1:AA:1253:G:O4'	2.16	0.44
13:CM:58:GLU:O	13:CM:62:ASN:HB3	2.17	0.44
31:DA:503:A:C5	31:DA:506:G:C6	3.05	0.44
1:CA:1077:G:C6	1:CA:1081:G:O6	2.70	0.44
23:D1:33:LYS:HB2	23:D1:33:LYS:HE3	1.75	0.44
28:D6:25:LYS:O	31:DA:2286:A:C2	2.58	0.44
28:D6:46:HIS:HA	28:D6:47:THR:HA	1.99	0.44
31:DA:831:G:C2	31:DA:832:G:H1'	2.52	0.44
41:DP:50:ARG:O	41:DP:57:THR:HG23	2.17	0.44
31:BA:192:C:H2'	31:BA:193:U:O5'	2.17	0.44
31:BA:193:U:H2'	31:BA:194:G:H5'	1.99	0.44
31:BA:2580:U:H5'	34:BE:131:ALA:CB	2.47	0.44
31:BA:1257:C:H4'	35:BF:83:PHE:CE2	2.52	0.44
31:BA:118:A:H3'	31:BA:119:A:C5'	2.47	0.44
31:DA:1721:G:H5'	31:DA:1722:A:OP2	2.17	0.44
31:BA:2516:G:C6	31:BA:2517:C:N4	2.85	0.44
31:DA:1138:G:H5''	31:DA:1139:G:OP2	2.17	0.44
47:DV:72:VAL:O	47:DV:73:SER:OG	2.35	0.44
49:BX:60:ARG:HB2	49:BX:73:ARG:CA	2.47	0.44
31:BA:1899:G:O2'	31:BA:1900:A:OP2	2.35	0.44
1:AA:617:G:C2	1:AA:618:C:C4	3.05	0.44
4:AD:100:ARG:NH2	4:AD:118:ARG:HH22	2.15	0.44
4:AD:106:TYR:HE1	4:AD:112:VAL:C	2.20	0.44
4:AD:116:GLN:NE2	4:AD:157:LEU:HD21	2.32	0.44
1:CA:42:G:O2'	1:CA:622:A:N1	2.46	0.44
5:CE:129:ILE:O	5:CE:132:ALA:HB3	2.17	0.44
50:BY:8:LYS:HB2	50:BY:28:LYS:HZ1	1.83	0.44
31:DA:1788:C:C2'	31:DA:1789:A:H5'	2.47	0.44
33:DD:206:LEU:N	33:DD:206:LEU:CD2	2.78	0.44
33:DD:33:LEU:HB3	33:DD:34:VAL:H	1.62	0.44
33:DD:83:GLU:HB2	33:DD:92:ILE:HD11	1.98	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BN:96:GLU:O	39:BN:100:GLU:HG3	2.17	0.44
31:DA:2783:G:H2'	31:DA:2784:C:C6	2.53	0.44
31:DA:2893:G:H5'	31:DA:2894:G:OP1	2.17	0.44
34:DE:61:ARG:C	34:DE:63:LEU:H	2.21	0.44
47:BV:1:MET:H2	47:BV:44:LYS:HD2	1.82	0.44
2:CB:200:ILE:C	2:CB:201:ILE:HD13	2.36	0.44
31:BA:372:G:HO2'	31:BA:373:U:P	2.41	0.44
31:DA:1512:U:C2'	31:DA:1512:U:O2	2.56	0.44
31:BA:2275:C:O2'	42:BQ:83:MET:CA	2.46	0.44
51:DZ:3:TYR:CE2	51:DZ:51:ALA:HB2	2.52	0.44
1:AA:1126:U:H2'	1:AA:1127:G:O4'	2.17	0.44
31:DA:2330:G:H2'	31:DA:2331:G:O4'	2.17	0.44
31:DA:953:A:N1	31:DA:964:C:O2	2.50	0.44
51:DZ:166:SER:CB	51:DZ:167:PRO:CA	2.96	0.44
4:AD:52:SER:O	4:AD:55:ALA:N	2.51	0.44
4:AD:60:GLU:O	4:AD:63:LYS:HB3	2.17	0.44
1:AA:114:U:H2'	1:AA:115:G:H8	1.79	0.44
31:DA:527:C:OP2	31:DA:2779:U:C5	2.65	0.44
27:D5:31:VAL:HG23	27:D5:32:PRO:N	2.32	0.44
1:AA:1418:A:H2	31:BA:1948:G:C2	2.29	0.44
31:BA:1115:G:N3	31:BA:1116:C:C5	2.85	0.44
39:DN:78:TYR:HD1	39:DN:79:PRO:HD3	1.82	0.44
31:DA:904:C:C5'	31:DA:904:C:H6	2.31	0.44
1:AA:17:U:O2'	1:AA:1079:G:N3	2.45	0.44
34:DE:8:LYS:NZ	34:DE:188:VAL:O	2.47	0.44
1:AA:303:A:O2'	1:AA:555:C:H4'	2.17	0.44
15:AO:56:LEU:HD21	31:BA:715:G:N1	2.30	0.44
50:DY:95:LYS:HG2	50:DY:101:LYS:N	2.32	0.44
1:AA:1503:A:O2'	1:AA:1504:G:C5'	2.65	0.44
1:CA:1442(B):A:OP1	1:CA:1442(B):A:H4'	2.16	0.44
31:BA:1053:C:N4	31:BA:1107:G:N2	2.65	0.44
31:DA:497:A:C6	31:DA:498:G:C5	3.05	0.44
1:CA:690:G:H2'	1:CA:691:G:O4'	2.18	0.44
24:B2:18:PRO:O	24:B2:20:GLU:N	2.51	0.44
1:CA:1226:C:C5	13:CM:104:ARG:HB2	2.51	0.44
2:AB:85:ALA:HB1	2:AB:90:MET:O	2.18	0.44
5:CE:34:VAL:O	5:CE:41:VAL:HG12	2.18	0.44
36:BG:117:PHE:HZ	36:BG:179:PRO:HG2	1.80	0.44
45:DT:29:ARG:NE	45:DT:86:ILE:HG22	2.32	0.44
31:DA:1176:G:H1'	31:DA:1177:A:OP1	2.18	0.44
40:DO:13:ASN:ND2	40:DO:97:ARG:CB	2.80	0.44
31:BA:2653:U:H2'	31:BA:2654:A:C8	2.52	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:B0:23:VAL:HG12	22:B0:25:ARG:O	2.17	0.44
36:DG:60:LEU:CD1	36:DG:64:THR:HG21	2.46	0.44
31:BA:2660:A:N3	31:BA:2660:A:O5'	2.51	0.44
12:AL:84:LEU:HB2	12:AL:105:TYR:CE1	2.52	0.44
12:AL:86:ARG:HG2	12:AL:87:GLY:N	2.32	0.44
42:DQ:52:VAL:O	42:DQ:55:VAL:HG13	2.18	0.44
33:DD:182:LEU:HA	33:DD:182:LEU:HD22	1.57	0.44
1:CA:198:G:O6	1:CA:219:C:N4	2.51	0.44
51:BZ:143:GLY:N	51:BZ:144:LEU:HD22	2.31	0.44
51:DZ:139:VAL:C	51:DZ:141:VAL:H	2.21	0.44
31:BA:2061:G:N3	31:BA:2063:C:C4	2.86	0.44
1:CA:1266:G:N2	1:CA:1270:C:N3	2.66	0.44
31:BA:2223:G:H2'	31:BA:2224:G:O4'	2.18	0.44
22:D0:82:ARG:HA	22:D0:83:PRO:HD2	1.82	0.44
46:DU:33:ARG:O	46:DU:37:GLU:HG3	2.17	0.44
3:AC:188:LEU:O	3:AC:189:ALA:CB	2.64	0.44
31:BA:1992:G:C8	31:BA:1992:G:O5'	2.70	0.44
51:BZ:146:ILE:HG22	51:BZ:174:VAL:HG12	1.99	0.44
6:AF:46:ARG:HB2	6:AF:60:PHE:CE1	2.52	0.44
22:D0:66:VAL:HG12	22:D0:67:VAL:N	2.32	0.44
4:CD:14:ARG:HA	4:CD:39:PRO:HB3	1.99	0.44
1:CA:758:G:H2'	1:CA:759:A:OP2	2.18	0.44
1:AA:90:U:O3'	1:AA:91:C:C6	2.70	0.44
1:AA:1261:A:H5'	1:AA:1284:C:OP1	2.16	0.44
18:AR:26:LEU:HD21	18:AR:42:ARG:HD2	1.99	0.44
11:AK:58:PRO:O	11:AK:61:ALA:HB3	2.16	0.44
9:CI:94:ALA:O	9:CI:98:PRO:HG2	2.18	0.44
8:AH:44:PHE:HA	8:AH:79:VAL:CG1	2.46	0.44
48:DW:57:ASN:O	48:DW:58:ALA:C	2.55	0.44
3:CC:204:LEU:HB3	3:CC:205:GLY:H	1.50	0.44
31:DA:1862:G:N2	31:DA:1863:G:C4	2.86	0.44
34:DE:3:GLY:HA2	34:DE:198:VAL:O	2.18	0.44
35:DF:167:ALA:HB1	35:DF:173:VAL:HG11	1.98	0.44
16:CP:71:ARG:O	16:CP:72:ARG:C	2.55	0.44
1:CA:995:C:O4'	14:CN:8:GLU:CD	2.56	0.44
3:AC:33:LEU:HD21	14:AN:39:LEU:HD11	1.98	0.44
14:AN:39:LEU:HD13	14:AN:47:LEU:HD12	1.99	0.44
31:DA:879:G:O5'	31:DA:879:G:H8	2.00	0.44
31:BA:2417:C:O5'	31:BA:2417:C:H6	2.00	0.44
8:AH:45:ILE:HB	8:AH:47:GLY:H	1.82	0.44
31:BA:2639:A:C2'	31:BA:2640:G:H5'	2.48	0.44
1:CA:1503:A:O2'	1:CA:1504:G:C5'	2.66	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:D8:61:LEU:HD13	31:DA:593:G:O2'	2.18	0.44
30:D8:62:LEU:C	30:D8:64:TYR:H	2.20	0.44
31:DA:232:G:N2	31:DA:420:C:H5''	2.32	0.44
30:B8:32:LEU:CG	30:B8:34:TRP:HB3	2.45	0.44
30:B8:37:SER:HB2	30:B8:38:GLY:H	1.46	0.44
31:BA:245:G:H2'	31:BA:246:C:H6	1.82	0.44
55:BA:3362:TEL:H7	55:BA:3362:TEL:H233	1.68	0.44
31:BA:388:G:C6	31:BA:390:A:C2	3.05	0.44
34:BE:132:HIS:HA	34:BE:135:HIS:CE1	2.52	0.44
35:BF:81:PRO:CB	35:BF:89:VAL:HG23	2.47	0.44
30:B8:12:LYS:HG2	41:BP:68:GLN:CD	2.38	0.44
32:BB:46:A:C4	32:BB:47:C:C6	3.05	0.44
32:BB:7:G:H4'	44:BS:29:PHE:CD1	2.52	0.44
44:BS:27:SER:OG	44:BS:40:ILE:HD12	2.16	0.44
24:D2:32:LEU:HA	24:D2:37:PHE:HB2	1.99	0.44
31:DA:1406:U:C2'	31:DA:1407:C:O5'	2.65	0.44
49:DX:60:ARG:HE	49:DX:74:PRO:HG3	1.79	0.44
46:DU:61:TRP:CZ3	46:DU:94:ASN:HB2	2.51	0.44
31:BA:1342:A:HO2'	31:BA:1344:G:P	2.39	0.44
31:BA:2636:U:P	34:BE:80:GLU:HG3	2.57	0.44
31:DA:1330:C:C2'	31:DA:1331:A:H5'	2.46	0.44
32:DB:32:C:C2	32:DB:51:G:C2	3.05	0.44
36:DG:105:LYS:HB2	36:DG:105:LYS:HZ2	1.83	0.44
36:DG:114:ILE:CG1	36:DG:140:ILE:HD12	2.48	0.44
1:AA:498:U:O2	1:AA:499:A:C8	2.70	0.44
1:AA:626:U:C2	1:AA:627:G:C8	3.06	0.44
1:CA:373:A:C2	1:CA:374:A:C8	3.06	0.44
31:BA:2318:G:HO2'	31:BA:2319:G:P	2.41	0.44
31:DA:1800:C:O2	31:DA:1802:A:C8	2.70	0.44
31:DA:1803:A:C2'	31:DA:1804:C:H5'	2.46	0.44
31:DA:1813:G:H4'	33:DD:44:ASN:O	2.17	0.44
31:DA:769:G:C2'	31:DA:770:G:H5'	2.47	0.44
31:DA:780:G:H21	31:DA:783:A:H62	1.64	0.44
33:DD:35:LYS:CD	33:DD:64:ILE:N	2.81	0.44
39:BN:3:THR:HA	39:BN:4:TYR:CE1	2.52	0.44
39:BN:67:LEU:O	39:BN:68:GLU:HB2	2.18	0.44
39:BN:5:VAL:HA	39:BN:6:PRO:HD3	1.76	0.44
46:BU:92:ARG:HG2	46:BU:92:ARG:O	2.15	0.44
43:DR:60:LEU:O	43:DR:63:ARG:HB3	2.18	0.44
23:D1:11:ARG:HG2	23:D1:61:ARG:O	2.17	0.44
31:DA:2785:C:H2'	31:DA:2786:U:O4'	2.17	0.44
48:BW:40:ASN:O	48:BW:40:ASN:CG	2.55	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:163:PHE:CD2	2:AB:185:ILE:HG13	2.52	0.44
1:CA:195:A:N7	1:CA:196:A:C6	2.85	0.44
20:CT:83:ARG:O	20:CT:86:ARG:HB3	2.17	0.44
47:BV:23:GLU:OE2	47:BV:91:TYR:OH	2.21	0.44
31:DA:316:C:H2'	31:DA:317:G:O5'	2.18	0.44
42:DQ:140:ALA:C	51:DZ:53:ILE:HB	2.38	0.44
1:CA:1126:U:H2'	1:CA:1127:G:O4'	2.17	0.44
31:DA:2206:G:N3	31:DA:2207:G:H5'	2.31	0.44
51:BZ:151:HIS:HB3	51:BZ:169:GLU:O	2.18	0.44
1:AA:509:A:H2'	1:AA:510:A:C8	2.52	0.44
34:DE:96:PHE:CD1	34:DE:96:PHE:N	2.85	0.44
1:AA:1466:C:H2'	1:AA:1467:G:C5'	2.47	0.44
1:AA:57:G:C2	1:AA:58:C:C2	3.06	0.44
33:DD:186:HIS:CD2	33:DD:187:GLY:H	2.35	0.44
39:BN:56:ASN:CA	39:BN:125:GLY:H	2.30	0.44
39:BN:18:ALA:HB3	39:BN:26:LEU:CD2	2.40	0.44
36:DG:47:LYS:HE2	36:DG:81:LYS:HB2	2.00	0.44
1:AA:659:U:O4	1:AA:746:A:N1	2.50	0.44
1:AA:835:U:H3	1:AA:851:G:H1	1.65	0.44
1:AA:852:G:C6	1:AA:853:G:N7	2.86	0.44
1:AA:294:U:C2	1:AA:295:C:C5	3.06	0.44
1:AA:767:A:H2'	1:AA:768:A:O4'	2.18	0.44
31:BA:2839:G:C5	31:BA:2840:C:C4	3.06	0.44
42:BQ:35:VAL:HG23	42:BQ:101:ARG:O	2.17	0.44
1:CA:955:U:O5'	1:CA:955:U:H6	2.01	0.44
11:AK:66:LEU:HD21	11:AK:101:SER:HA	1.99	0.44
2:AB:90:MET:CE	2:AB:90:MET:HA	2.47	0.44
8:AH:112:LEU:HB3	8:AH:133:LEU:HD23	1.98	0.44
36:BG:114:ILE:HA	36:BG:140:ILE:HD12	1.99	0.44
48:BW:17:VAL:O	48:BW:18:ARG:C	2.56	0.44
1:CA:126:G:H2'	1:CA:127:G:O5'	2.18	0.44
1:AA:1386:G:C2	1:AA:1387:G:C8	3.05	0.44
41:BP:146:VAL:CG1	41:BP:147:LEU:H	2.14	0.44
31:DA:1024:G:C3'	31:DA:1025:G:H5''	2.40	0.44
29:B7:40:TRP:CD2	31:BA:459:U:C5'	3.00	0.44
12:CL:102:ARG:HD3	12:CL:108:ALA:O	2.16	0.44
33:BD:237:GLU:HB3	33:BD:238:GLY:H	1.69	0.44
36:DG:42:GLY:HA2	36:DG:89:GLY:HA2	1.98	0.44
20:AT:48:LYS:O	20:AT:49:ALA:HB2	2.18	0.44
45:DT:93:ARG:O	45:DT:94:ALA:O	2.35	0.44
31:BA:721:C:H3'	31:BA:722:A:H8	1.82	0.44
47:DV:49:THR:HG22	47:DV:51:VAL:HG23	2.00	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:451:A:H2'	1:AA:481:G:O6	2.17	0.44
35:DF:158:THR:HG21	35:DF:160:ASN:HB3	1.99	0.44
33:DD:3:VAL:HG12	33:DD:3:VAL:O	2.16	0.44
31:DA:271(N):U:OP1	31:DA:271(N):U:H6	2.01	0.44
31:BA:9:U:C6	31:BA:2629:A:N6	2.86	0.44
8:CH:6:ILE:H	8:CH:6:ILE:CD1	2.19	0.44
31:BA:440:G:H2'	31:BA:441:U:C6	2.52	0.44
31:DA:1301:A:O2'	31:DA:1303:G:N7	2.43	0.44
16:CP:43:LYS:HB3	16:CP:48:TRP:CG	2.52	0.44
4:AD:172:PRO:CB	4:AD:187:ARG:HH22	2.26	0.44
31:DA:1935:G:H1	31:DA:1962:C:H2'	1.80	0.44
1:CA:1314:C:N4	19:CS:4:SER:N	2.65	0.44
3:AC:125:GLU:OE2	3:AC:189:ALA:HA	2.18	0.44
36:DG:138:GLN:O	36:DG:141:PHE:HD2	2.00	0.44
37:DH:92:ILE:C	37:DH:94:TYR:N	2.71	0.44
31:DA:1355:G:C6	31:DA:1356:G:C5	3.06	0.44
46:BU:36:ARG:HG3	46:BU:36:ARG:NH1	2.31	0.44
29:D7:15:THR:CG2	29:D7:16:HIS:CE1	3.00	0.44
51:DZ:146:ILE:HG22	51:DZ:174:VAL:HG12	1.99	0.44
1:CA:597:G:C8	1:CA:598:U:C5	3.05	0.44
34:BE:181:LEU:HD13	34:BE:181:LEU:HA	1.67	0.44
1:CA:147:G:O2'	1:CA:148:G:H5'	2.18	0.44
35:BF:13:SER:HA	35:BF:14:PRO:HD3	1.88	0.44
1:CA:349:A:C2	1:CA:350:G:C4	3.06	0.44
5:AE:42:GLY:CA	5:AE:66:MET:HG2	2.46	0.44
31:DA:2620:C:H1'	34:DE:156:MET:HB2	1.99	0.44
31:BA:1680:U:O2	31:BA:1763:G:H3'	2.17	0.44
31:BA:280:C:H42	31:BA:360:G:H1	1.64	0.44
1:CA:1137:C:H6	1:CA:1137:C:H3'	1.82	0.44
1:AA:1137:C:H3'	1:AA:1137:C:H6	1.82	0.44
36:BG:151:ALA:O	36:BG:153:ARG:NH1	2.49	0.44
1:CA:1293:G:O2'	1:CA:1294:G:P	2.75	0.44
13:CM:32:GLU:OE2	13:CM:64:TRP:CH2	2.69	0.44
20:CT:95:ALA:O	20:CT:96:GLY:C	2.55	0.44
34:DE:110:GLY:HA3	34:DE:162:ALA:HB2	2.00	0.44
1:AA:188:C:H3'	1:AA:188:C:H6	1.81	0.44
3:AC:75:VAL:O	3:AC:75:VAL:HG12	2.17	0.44
31:DA:199:A:C6	31:DA:2434:A:C6	3.05	0.44
31:DA:253:C:C2'	31:DA:254:G:H5'	2.48	0.44
28:D6:42:TRP:CZ2	31:DA:643:A:OP1	2.70	0.44
31:DA:642:G:N2	31:DA:646:A:H2	2.14	0.44
31:DA:663:G:H2'	31:DA:664:C:H6	1.82	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DF:39:TRP:HB2	35:DF:101:LEU:HD22	1.99	0.44
41:DP:81:GLN:HB3	41:DP:106:LEU:HD12	1.99	0.44
31:BA:1190:G:H8	31:BA:1190:G:H5'	1.82	0.44
31:BA:253:C:C2'	31:BA:254:G:H5'	2.48	0.44
31:BA:631:A:O2'	41:BP:67:MET:CB	2.64	0.44
35:BF:31:HIS:HB2	41:BP:13:ASN:HB3	1.98	0.44
29:B7:5:TRP:CH2	31:BA:686:G:N7	2.85	0.44
31:DA:2859:G:H8	31:DA:2859:G:H3'	1.79	0.44
24:D2:28:LYS:HG3	24:D2:37:PHE:CE1	2.52	0.44
24:D2:30:ARG:H	24:D2:30:ARG:CD	2.12	0.44
24:D2:49:LYS:NZ	24:D2:53:LEU:CD2	2.76	0.44
49:DX:16:LYS:O	49:DX:19:ALA:HB3	2.18	0.44
25:D3:31:LEU:HA	25:D3:31:LEU:HD23	1.80	0.44
31:DA:1144:G:C6	31:DA:1145:C:N4	2.85	0.44
31:DA:1156:A:H4'	31:DA:1157:G:OP2	2.18	0.44
39:DN:2:LYS:O	39:DN:4:TYR:CE1	2.71	0.44
24:B2:29:LYS:C	24:B2:33:MET:SD	2.96	0.44
31:DA:1827:C:O2'	31:DA:1970:A:H1'	2.18	0.44
1:AA:375:U:H2'	1:AA:376:G:C8	2.53	0.44
4:CD:60:GLU:O	4:CD:63:LYS:HB3	2.17	0.44
31:BA:2317:C:O2	31:BA:2318:G:O4'	2.35	0.44
31:BA:1291:C:H2'	31:BA:1292:U:H6	1.82	0.44
31:BA:1313:U:H2'	31:BA:1610:A:N1	2.33	0.44
33:DD:53:PHE:O	33:DD:218:ARG:N	2.47	0.44
31:BA:977:G:C6	31:BA:987:G:C6	3.06	0.44
23:D1:10:LYS:CB	23:D1:14:VAL:H	2.26	0.44
31:DA:2771:C:H2'	31:DA:2772:C:H6	1.82	0.44
31:BA:573:G:O6	31:BA:2029:G:H2'	2.17	0.44
1:CA:189:G:C6	1:CA:189(A):C:C4	3.05	0.44
47:BV:15:GLU:CB	47:BV:16:PRO:HD2	2.46	0.44
47:BV:72:VAL:HA	47:BV:88:ARG:NH2	2.32	0.44
31:DA:327:G:N2	31:DA:336:C:C2	2.85	0.44
50:DY:11:ASP:H	50:DY:27:VAL:HA	1.83	0.44
23:B1:87:PRO:HD2	23:B1:88:LYS:HG3	1.99	0.44
31:BA:1564:C:O2'	31:BA:1565:C:H5'	2.17	0.44
10:CJ:99:LYS:HA	10:CJ:99:LYS:HD3	1.78	0.44
32:DB:105:A:O4'	51:DZ:29:TYR:HE1	2.00	0.44
31:DA:953:A:N3	31:DA:954:G:C8	2.85	0.44
31:DA:960:A:C2	31:DA:2495:G:O2'	2.70	0.44
31:BA:478:A:H62	31:BA:502:A:N6	2.14	0.44
1:AA:685:G:O2'	1:AA:686:U:C5'	2.56	0.44
27:B5:31:VAL:CG1	27:B5:42:PRO:HG3	2.47	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BB:110:G:C4	32:BB:111:G:C8	3.06	0.44
32:BB:13:A:O2'	32:BB:15:A:O5'	2.35	0.44
32:BB:65:C:H41	32:BB:109:C:C2'	2.28	0.44
23:D1:47:GLN:C	23:D1:47:GLN:OE1	2.56	0.44
1:AA:327:A:C6	1:AA:329:A:C5	3.06	0.44
33:DD:166:GLN:HA	33:DD:166:GLN:NE2	2.33	0.44
31:DA:526:A:O2'	31:DA:2043:C:H2'	2.17	0.44
31:BA:1116:C:C2'	31:BA:1117:G:H5'	2.48	0.44
25:D3:45:GLY:HA3	31:DA:852:G:H5'	1.99	0.44
3:AC:178:LEU:C	3:AC:180:ALA:H	2.21	0.44
1:AA:830:G:H2'	1:AA:831:U:C6	2.51	0.44
31:BA:828:U:C5	31:BA:829:A:N6	2.85	0.44
31:BA:972:G:P	31:BA:974:G:H5''	2.58	0.44
2:AB:22:LYS:NZ	2:AB:40:HIS:CE1	2.86	0.44
34:BE:2:LYS:HB3	34:BE:95:ILE:CG2	2.47	0.44
34:BE:2:LYS:HD3	34:BE:95:ILE:HG22	1.99	0.44
1:CA:304:U:H2'	1:CA:305:G:C8	2.52	0.44
12:AL:27:LEU:HD11	12:AL:64:TYR:CD1	2.52	0.44
1:AA:922:G:C5	1:AA:923:A:C5	3.06	0.44
10:AJ:52:GLY:C	10:AJ:54:PHE:H	2.21	0.44
16:CP:21:VAL:O	16:CP:33:ILE:HB	2.18	0.44
31:DA:479:A:HO2'	31:DA:481:G:H8	1.61	0.44
13:AM:91:ARG:HD3	19:AS:81:ARG:HH21	1.82	0.44
31:BA:2880:C:HO2'	43:BR:90:ARG:HD3	1.81	0.44
31:BA:790:C:H6	31:BA:790:C:H2'	1.59	0.44
17:CQ:67:LYS:O	17:CQ:69:LYS:N	2.51	0.44
1:CA:67:C:H5'	1:CA:172:A:O2'	2.18	0.44
45:BT:29:ARG:NE	45:BT:86:ILE:HG22	2.32	0.44
45:BT:82:LEU:N	45:BT:82:LEU:HD12	2.32	0.44
39:BN:128:HIS:CD2	39:BN:131:GLN:CB	3.01	0.44
31:BA:2478:A:H2'	31:BA:2479:G:O4'	2.17	0.44
31:BA:2663:G:H2'	31:BA:2664:G:C8	2.52	0.44
43:DR:17:ARG:HG2	43:DR:21:TYR:CE1	2.53	0.44
1:CA:745:C:O2'	1:CA:746:A:H5'	2.18	0.44
33:BD:181:GLU:O	33:BD:182:LEU:HD23	2.18	0.44
12:AL:34:ARG:HG3	12:AL:105:TYR:CE1	2.52	0.44
31:BA:721:C:H5'	31:BA:722:A:P	2.57	0.44
36:BG:92:VAL:HG22	36:BG:93:THR:N	2.22	0.44
11:CK:95:ILE:HG23	11:CK:108:ILE:HD11	1.99	0.44
45:DT:109:GLU:O	45:DT:110:ILE:C	2.55	0.44
31:DA:718:A:H3'	31:DA:719:C:C6	2.53	0.44
1:CA:992:U:C1'	1:CA:993:G:OP2	2.60	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:994:A:C2	14:CN:5:ALA:HA	2.52	0.44
31:BA:2822:G:OP2	34:BE:110:GLY:O	2.36	0.44
19:CS:27:GLU:HB3	19:CS:28:LYS:H	1.58	0.44
12:CL:93:LEU:HA	12:CL:93:LEU:HD23	1.75	0.44
31:DA:1199:U:H2'	31:DA:1200:C:C6	2.52	0.44
2:CB:20:GLU:HG3	2:CB:191:ASP:HB2	1.99	0.44
2:CB:84:GLU:O	2:CB:219:VAL:HG21	2.18	0.44
31:DA:1349:A:N6	31:DA:1598:C:H42	2.14	0.44
31:BA:1598:C:H2'	31:BA:1599:C:C6	2.53	0.44
44:DS:83:LYS:HE2	44:DS:84:GLN:HE22	1.83	0.44
5:AE:112:LEU:N	5:AE:112:LEU:HD23	2.33	0.44
3:CC:186:PHE:CE2	3:CC:188:LEU:CD2	3.00	0.44
1:AA:78:G:H22	1:AA:91:C:N4	2.16	0.44
1:AA:757:U:H2'	1:AA:758:G:O4'	2.17	0.44
3:AC:35:GLU:HG2	3:AC:39:ILE:HD11	2.00	0.44
2:CB:61:LEU:HG	2:CB:68:ILE:HD11	1.98	0.44
6:CF:15:ASP:C	6:CF:17:SER:H	2.21	0.44
31:BA:2075:U:H2'	31:BA:2238:G:H22	1.83	0.44
7:CG:85:TYR:CD1	7:CG:154:TYR:CE1	3.04	0.44
3:CC:15:THR:HG23	3:CC:181:ASN:HA	2.00	0.44
31:DA:384:U:H2'	31:DA:385:C:C6	2.52	0.44
31:BA:1442:G:N2	31:BA:1443:G:C4	2.86	0.44
31:DA:55:G:O2'	31:DA:56:A:H5'	2.17	0.44
31:DA:1671:U:O2'	31:DA:1673:U:H5	2.01	0.44
19:AS:19:VAL:O	19:AS:19:VAL:HG12	2.17	0.44
12:CL:21:LYS:N	12:CL:21:LYS:HD2	2.32	0.44
36:DG:152:LEU:O	36:DG:153:ARG:HB2	2.17	0.44
2:AB:59:GLU:O	2:AB:63:MET:HG2	2.17	0.44
5:AE:144:THR:O	5:AE:145:LYS:C	2.56	0.44
31:DA:339:U:O5'	31:DA:339:U:H6	2.00	0.44
1:AA:1462:G:H2'	1:AA:1463:C:H6	1.81	0.44
38:BI:79:ILE:HD13	38:BI:79:ILE:HA	1.79	0.44
1:AA:1077:G:N1	1:AA:1081:G:C6	2.86	0.44
1:AA:1046:A:N6	1:AA:1213:A:N1	2.60	0.44
7:AG:13:GLN:O	7:AG:24:THR:HG21	2.18	0.44
31:BA:1400:G:C6	31:BA:1401:G:C6	3.05	0.44
3:CC:75:VAL:O	3:CC:75:VAL:HG12	2.16	0.44
43:DR:55:ALA:HB2	43:DR:79:LEU:HD11	2.00	0.44
23:D1:83:GLU:HG3	23:D1:83:GLU:O	2.17	0.44
7:CG:12:LEU:HD13	7:CG:24:THR:OG1	2.18	0.44
51:DZ:92:SER:HB2	51:DZ:94:GLU:H	1.82	0.44
1:AA:287:U:O2'	1:AA:288:A:H5'	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AG:46:ALA:HB1	7:AG:121:ALA:HB2	2.00	0.44
23:D1:25:LYS:C	23:D1:26:ARG:CG	2.84	0.44
30:D8:22:VAL:O	30:D8:49:VAL:HG23	2.17	0.44
31:DA:513:A:N1	31:DA:514:A:C5	2.85	0.44
31:DA:581:C:H2'	31:DA:582:G:H8	1.82	0.44
35:DF:65:TRP:HZ3	35:DF:75:HIS:CD2	2.19	0.44
41:DP:14:LYS:O	41:DP:15:ARG:CB	2.65	0.44
41:DP:90:ARG:O	41:DP:90:ARG:NH1	2.46	0.44
30:B8:29:LYS:O	30:B8:30:ARG:C	2.55	0.44
30:B8:22:VAL:HB	30:B8:53:PRO:HB2	1.97	0.44
31:BA:2287:A:C4	31:BA:2289:G:N7	2.86	0.44
31:BA:250:G:C5	31:BA:251:A:C5	3.06	0.44
41:BP:57:THR:HB	41:BP:59:LEU:H	1.80	0.44
32:BB:33:G:C6	32:BB:50:G:C6	3.06	0.44
31:DA:1714:G:N2	31:DA:1717:G:C4	2.86	0.44
49:DX:36:LYS:C	49:DX:38:GLU:N	2.71	0.44
39:DN:46:VAL:HG13	39:DN:48:MET:HG3	2.00	0.44
39:DN:65:LYS:O	39:DN:69:GLN:CB	2.44	0.44
39:DN:65:LYS:HD2	39:DN:67:LEU:HB2	1.98	0.44
39:DN:42:TRP:CD1	46:DU:64:ARG:NH1	2.86	0.44
31:DA:1286:A:C6	31:DA:1329:U:C2	3.05	0.44
31:DA:1324:G:C4	31:DA:1328:G:O6	2.70	0.44
33:BD:255:LYS:O	33:BD:255:LYS:HD2	2.18	0.44
31:BA:1709:U:O2'	31:BA:2859:G:H1'	2.18	0.44
31:DA:2334:G:N3	44:DS:15:ARG:NH1	2.65	0.44
36:DG:16:ARG:NH1	36:DG:16:ARG:CG	2.79	0.44
44:DS:87:PHE:HZ	44:DS:97:ARG:HH22	1.64	0.44
31:BA:2316:C:C6	31:BA:2317:C:H5	2.36	0.44
31:DA:1799:G:H5'	31:DA:1819:A:H61	1.83	0.44
33:DD:215:LEU:CD1	33:DD:217:ARG:HH21	2.31	0.44
25:B3:31:LEU:HD23	25:B3:31:LEU:HA	1.79	0.44
31:BA:1142:U:H5''	31:BA:1142(A):A:H5''	2.00	0.44
31:BA:985:C:H2'	31:BA:986:C:H6	1.82	0.44
46:BU:83:LEU:CB	46:BU:88:ILE:HD11	2.42	0.44
23:D1:87:PRO:C	23:D1:91:LYS:HD2	2.37	0.44
31:DA:572:A:N3	31:DA:573:G:H1'	2.32	0.44
31:BA:1662:C:C2'	31:BA:1663:C:H5'	2.48	0.44
31:BA:784:A:C5	33:BD:229:VAL:CG2	3.01	0.44
2:CB:163:PHE:CD2	2:CB:185:ILE:HG13	2.53	0.44
23:B1:67:ILE:N	23:B1:68:PRO:CD	2.80	0.44
31:BA:371:A:O3'	31:BA:372:G:H4'	2.17	0.44
50:DY:31:LEU:CB	50:DY:32:PRO:HA	2.31	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1478:G:O2'	31:BA:1479:G:H5'	2.18	0.44
31:BA:1480:G:C6	31:BA:1481:U:N3	2.86	0.44
1:CA:1277:C:O2'	1:CA:1279:A:H1'	2.17	0.44
51:DZ:54:HIS:O	51:DZ:55:HIS:CG	2.70	0.44
51:DZ:44:PHE:HE2	51:DZ:88:PHE:CZ	2.35	0.44
31:DA:2261:C:O5'	31:DA:2261:C:H6	2.01	0.44
31:DA:864:G:C5	31:DA:865:C:C5	3.06	0.44
51:BZ:51:ALA:O	51:BZ:52:SER:HB3	2.17	0.44
1:AA:1255:G:H5'	1:AA:1256:A:OP1	2.18	0.44
31:BA:476:G:N2	31:BA:478:A:H3'	2.32	0.44
1:AA:679:C:H42	1:AA:711:G:H1	1.66	0.44
1:AA:109:A:H4'	1:AA:110:C:OP2	2.18	0.44
1:AA:110:C:O2'	16:AP:25:ARG:O	2.28	0.44
31:BA:2015:A:C2'	31:BA:2016:U:H5'	2.48	0.44
39:BN:78:TYR:CD1	39:BN:79:PRO:CD	2.90	0.44
39:BN:78:TYR:CD1	39:BN:79:PRO:CG	3.01	0.44
31:BA:1042:G:H3'	31:BA:1043:C:O4'	2.17	0.44
31:BA:271(N):U:C6	31:BA:271(N):U:OP1	2.71	0.44
1:CA:1067:A:O2'	1:CA:1068:G:OP2	2.34	0.44
1:CA:1054:C:OP1	1:CA:1197:G:OP2	2.36	0.44
34:DE:36:ARG:HH11	34:DE:85:ASN:ND2	2.15	0.44
1:AA:920:U:C1'	1:AA:1080:A:C2	2.99	0.44
34:BE:11:MET:HB3	34:BE:24:THR:HB	2.00	0.44
34:BE:24:THR:HG21	34:BE:188:VAL:CG1	2.48	0.44
31:DA:919:G:H5'	32:DB:81:G:C1'	2.47	0.44
1:AA:565:U:C4	1:AA:566:G:C5	3.06	0.44
12:AL:26:ALA:O	12:AL:27:LEU:HB2	2.18	0.44
12:AL:60:LEU:HD22	12:AL:60:LEU:N	2.33	0.44
16:AP:21:VAL:HG22	16:AP:34:GLU:O	2.18	0.44
31:BA:1170:G:OP2	31:BA:1170:G:H8	2.01	0.44
32:BB:80:U:H2'	32:BB:81:G:N2	2.28	0.44
1:CA:1200:C:O5'	1:CA:1201:A:H3'	2.17	0.44
31:BA:2840:C:H2'	31:BA:2841:C:C6	2.53	0.44
38:BI:113:ARG:HB2	38:BI:130:TYR:CE1	2.52	0.44
31:BA:790:C:O2'	31:BA:791:C:H5'	2.17	0.44
1:CA:264:U:O2'	17:CQ:64:PRO:HB2	2.17	0.44
31:BA:1491:G:C6	31:BA:1500:G:C2	3.06	0.44
43:BR:43:GLU:OE2	43:BR:43:GLU:HA	2.18	0.44
17:AQ:43:LEU:O	17:AQ:69:LYS:HG3	2.18	0.44
17:AQ:59:ILE:HG22	17:AQ:71:PHE:HD1	1.82	0.44
9:AI:112:LYS:HG2	9:AI:119:ALA:N	2.29	0.44
33:BD:70:TRP:CZ3	33:BD:150:LYS:HA	2.52	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:2649:U:C2	31:BA:2672:G:N2	2.85	0.44
37:BH:153:LYS:N	37:BH:153:LYS:CD	2.80	0.44
37:BH:151:ILE:HB	37:BH:162:ILE:HD11	1.99	0.44
43:DR:10:LEU:HD22	43:DR:17:ARG:HD2	2.00	0.44
8:AH:11:THR:HG22	8:AH:15:ASN:HD22	1.83	0.44
1:CA:343:U:C2'	1:CA:346:G:O6	2.65	0.44
36:DG:71:THR:HB	36:DG:89:GLY:N	2.32	0.44
31:BA:211:A:O2'	31:BA:212:G:H5'	2.18	0.44
31:DA:2476:A:C6	31:DA:2477:C:C4	3.05	0.44
31:DA:340:A:C2'	31:DA:341:G:H5'	2.47	0.44
33:DD:3:VAL:N	33:DD:20:ASP:HB2	2.31	0.44
31:DA:2556:C:H2'	31:DA:2557:G:C5'	2.48	0.44
31:BA:340:A:C2'	31:BA:341:G:H5'	2.47	0.44
1:CA:1235:U:H2'	1:CA:1236:A:O4'	2.17	0.44
51:DZ:157:LEU:HA	51:DZ:158:PRO:HD2	1.89	0.44
31:DA:118:A:H3'	31:DA:119:A:H5''	2.00	0.44
45:DT:26:ASP:C	45:DT:26:ASP:OD2	2.56	0.44
31:DA:1675:C:N3	34:DE:128:SER:OG	2.49	0.44
31:DA:884:C:H6	31:DA:884:C:H3'	1.82	0.44
1:CA:1495:U:C4	1:CA:1496:C:N4	2.86	0.44
31:BA:1374:G:C5	31:BA:1375:C:C4	3.05	0.44
31:BA:1247:A:C2	31:BA:1249:U:C6	3.05	0.44
1:AA:584:G:H8	1:AA:584:G:O5'	2.01	0.44
1:AA:230:G:H2'	1:AA:231:G:O4'	2.17	0.44
1:AA:994:A:C2	14:AN:5:ALA:HA	2.53	0.44
42:BQ:34:LEU:CD1	42:BQ:129:THR:HB	2.46	0.44
35:BF:28:ILE:H	35:BF:28:ILE:CD1	2.18	0.44
1:AA:533:A:H1'	1:AA:534:U:OP1	2.18	0.44
1:AA:487:A:H3'	1:AA:488:C:H6	1.81	0.44
1:CA:298:A:H2'	1:CA:299:G:O4'	2.18	0.44
8:AH:120:THR:OG1	8:AH:123:GLU:HG3	2.17	0.44
31:DA:2827:C:H2'	31:DA:2828:C:C6	2.53	0.44
14:CN:51:GLY:C	14:CN:53:LEU:N	2.71	0.44
31:DA:384:U:C5	31:DA:385:C:C5	3.06	0.44
31:DA:210:C:H4'	31:DA:1367:A:H1'	1.98	0.44
31:BA:838:C:C2'	31:BA:839:U:H5'	2.47	0.44
20:AT:30:LYS:HG3	20:AT:34:LYS:CE	2.47	0.44
31:BA:272:G:O4'	31:BA:272(B):G:O5'	2.36	0.44
1:AA:152:A:N6	1:AA:170:U:C2	2.85	0.44
1:CA:874:G:H2'	1:CA:875:C:C6	2.53	0.44
31:DA:1854:A:H2'	31:DA:1855:G:O4'	2.17	0.44
35:DF:46:ARG:HB2	35:DF:46:ARG:NH1	2.32	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1259:C:H42	1:CA:1276:G:H1	1.66	0.44
1:AA:1333:A:H2'	1:AA:1334:G:O4'	2.17	0.44
1:CA:396:G:C2	1:CA:398:C:C4	3.06	0.44
31:BA:1758:G:H4'	31:BA:1759:A:OP2	2.18	0.44
42:BQ:78:PRO:O	42:BQ:79:LEU:CB	2.63	0.44
38:BI:79:ILE:HG23	38:BI:80:PRO:HD2	1.98	0.44
1:CA:999:C:H2'	1:CA:1000:U:C6	2.53	0.44
31:DA:738:G:H1'	31:DA:759:G:N2	2.33	0.44
35:BF:122:LYS:N	35:BF:122:LYS:HD3	2.32	0.44
30:D8:37:SER:HB2	30:D8:38:GLY:H	1.47	0.44
31:DA:579:G:C8	31:DA:2017:U:C4	3.06	0.44
35:DF:65:TRP:O	35:DF:66:PRO:C	2.56	0.44
31:BA:199:A:C8	31:BA:2433:A:C6	3.06	0.44
31:BA:245:G:C5	31:BA:246:C:C5	3.06	0.44
31:BA:2592:G:H2'	31:BA:2593:U:O4'	2.17	0.44
31:BA:563:G:H1	31:BA:578:A:H61	1.66	0.44
35:BF:89:VAL:CG1	35:BF:90:PHE:N	2.71	0.44
31:BA:54:G:N2	31:BA:126:A:C2	2.86	0.44
36:BG:11:TYR:CD2	36:BG:12:TYR:CD1	3.06	0.44
36:BG:11:TYR:HA	36:BG:15:VAL:HB	2.00	0.44
24:D2:52:ASP:OD1	31:DA:72:U:O2	2.35	0.44
31:DA:71:A:N7	31:DA:73:A:C2	2.85	0.44
49:DX:35:THR:O	49:DX:39:ILE:CG2	2.66	0.44
25:D3:8:LEU:HD22	25:D3:8:LEU:C	2.38	0.44
31:DA:534:U:C4	31:DA:535:C:N4	2.86	0.44
46:DU:88:ILE:CA	46:DU:90:VAL:HG23	2.48	0.44
37:BH:70:THR:HG22	37:BH:71:LEU:H	1.83	0.44
24:B2:54:LYS:N	24:B2:56:GLN:HG2	2.32	0.44
49:BX:60:ARG:CD	49:BX:74:PRO:HD2	2.47	0.44
31:BA:2809:A:O2'	31:BA:2810:A:H5'	2.17	0.44
33:BD:246:PRO:HB2	33:BD:255:LYS:CG	2.47	0.44
31:BA:1722:A:C5	31:BA:1741:A:N1	2.85	0.44
32:DB:29:A:H2'	32:DB:30:C:C6	2.53	0.44
32:DB:58:A:H5''	32:DB:59:A:OP2	2.18	0.44
1:CA:391:G:C6	1:CA:392:G:C5	3.06	0.44
1:CA:405:U:O2'	1:CA:498:U:H5'	2.18	0.44
31:BA:1289:C:O2'	31:BA:1290:C:H5'	2.18	0.44
31:DA:1795:C:O2'	31:DA:1796:U:H5'	2.18	0.44
31:DA:778:G:H2'	31:DA:779:U:C6	2.53	0.44
31:BA:2008:C:H2'	31:BA:2009:G:C8	2.49	0.44
5:AE:12:LEU:O	5:AE:13:ILE:HD12	2.18	0.44
31:BA:764:A:OP1	33:BD:208:LYS:HE2	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:190:U:O2'	1:CA:191:G:H5'	2.17	0.44
31:BA:847:U:H2'	31:BA:848:G:C5'	2.43	0.44
2:CB:11:LEU:O	2:CB:16:HIS:CE1	2.70	0.44
2:CB:214:ILE:O	2:CB:218:ALA:HB2	2.17	0.44
31:DA:1484:G:O2'	31:DA:1485:G:C4'	2.66	0.44
1:CA:682:G:N3	1:CA:709:G:C2	2.86	0.44
43:BR:96:ARG:NH2	43:BR:117:VAL:HG23	2.30	0.44
31:DA:2260:C:O2'	31:DA:2261:C:H5'	2.18	0.44
31:DA:957:A:C6	31:DA:959:A:C4	3.05	0.44
42:DQ:9:TYR:O	42:DQ:9:TYR:HD2	1.93	0.44
42:DQ:8:LYS:CD	42:DQ:9:TYR:N	2.73	0.44
32:BB:75:G:N3	51:BZ:85:HIS:CE1	2.86	0.44
32:DB:21:G:O2'	32:DB:22:U:O5'	2.35	0.44
35:BF:39:TRP:CZ3	35:BF:106:ARG:HD2	2.52	0.44
31:DA:2006:C:H6	31:DA:2006:C:O5'	2.00	0.44
1:AA:677:U:C2'	1:AA:678:U:H5'	2.47	0.44
1:AA:682:G:C6	1:AA:683:G:N7	2.86	0.44
1:AA:706:A:H2	11:AK:42:TRP:CD1	2.35	0.44
18:AR:71:LYS:O	18:AR:74:ARG:HB2	2.18	0.44
1:AA:113:G:O2'	1:AA:114:U:H5'	2.18	0.44
31:DA:2779:U:C2	31:DA:2781:A:C2	3.06	0.44
31:DA:2815:C:H2'	31:DA:2816:C:C6	2.53	0.44
31:BA:1115:G:C2	31:BA:1116:C:C4	3.06	0.44
31:DA:1297:C:H2'	31:DA:1298:C:C6	2.51	0.44
36:DG:73:ALA:HB3	36:DG:85:GLY:O	2.18	0.44
22:B0:57:PHE:HE2	31:BA:2386:C:O4'	2.00	0.44
22:B0:41:ARG:HB2	31:BA:2330:G:O2'	2.17	0.44
31:BA:2335:A:N7	31:BA:2337:G:C5	2.86	0.44
1:AA:1084:G:N7	1:AA:1085:U:N3	2.66	0.44
31:DA:1415:U:H2'	31:DA:1416:G:H4'	2.00	0.44
1:CA:20:U:H2'	1:CA:21:G:O4'	2.17	0.44
1:AA:294:U:H2'	1:AA:295:C:H6	1.81	0.44
41:DP:140:ALA:O	41:DP:141:ALA:HB2	2.17	0.44
16:AP:20:VAL:HG23	16:AP:34:GLU:O	2.18	0.44
31:BA:1048:A:OP2	31:BA:1109:C:N4	2.51	0.44
12:AL:47:LYS:CB	12:AL:48:PRO:CD	2.96	0.44
1:AA:973:G:C4	10:AJ:55:LYS:HE2	2.52	0.44
1:CA:687:A:N1	1:CA:704:A:C5	2.85	0.44
12:CL:86:ARG:HB2	12:CL:101:VAL:HG22	1.98	0.44
1:AA:957:U:H2'	1:AA:959:A:N7	2.33	0.44
11:AK:94:ALA:O	11:AK:98:LEU:HG	2.18	0.44
40:DO:103:ALA:O	40:DO:106:LEU:HB2	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1993:U:C5	31:DA:1994:C:C5	3.05	0.44
1:CA:256:U:H2'	1:CA:257:G:H8	1.82	0.44
10:AJ:51:ARG:HG2	10:AJ:61:GLU:HB2	1.99	0.44
31:BA:1501:C:H2'	31:BA:1502:C:C6	2.37	0.44
17:AQ:67:LYS:O	17:AQ:69:LYS:N	2.51	0.44
33:BD:134:ARG:HG3	33:BD:187:GLY:HA3	2.00	0.44
2:AB:71:VAL:HB	2:AB:164:VAL:HG22	1.99	0.44
2:AB:97:TRP:CH2	2:AB:176:GLU:OE2	2.71	0.44
31:BA:2530:A:C2'	31:BA:2531:A:H5''	2.47	0.44
31:DA:343:C:O2	31:DA:343:C:C2'	2.66	0.44
42:DQ:134:ARG:HB3	42:DQ:135:ASP:H	1.50	0.44
1:CA:602:A:C2	1:CA:603:U:C2	3.06	0.44
9:CI:26:VAL:HG13	9:CI:61:ALA:HB3	2.00	0.44
42:BQ:47:ILE:HG12	42:BQ:68:ILE:CD1	2.48	0.44
38:DI:19:VAL:HG22	38:DI:20:ASP:H	1.82	0.44
1:AA:652:U:C4	1:AA:752:G:N3	2.86	0.44
31:BA:2291:U:O2'	31:BA:2374:C:O2	2.35	0.44
6:CF:99:ALA:HB1	18:CR:23:LYS:NZ	2.31	0.44
31:DA:1303:G:N2	31:DA:1304:C:C2	2.85	0.44
36:DG:59:GLU:OE2	36:DG:144:ILE:HD11	2.17	0.44
51:DZ:108:PRO:HA	51:DZ:142:SER:O	2.18	0.44
29:D7:19:ARG:HG2	29:D7:19:ARG:NH1	2.32	0.44
1:AA:414:A:C4	1:AA:415:A:C8	3.06	0.44
45:BT:109:GLU:C	45:BT:113:LYS:HE3	2.38	0.44
45:BT:54:ARG:HA	45:BT:59:THR:CB	2.48	0.44
7:CG:79:ARG:HG2	7:CG:84:ASN:HD21	1.82	0.44
31:DA:2008:C:H2'	31:DA:2009:G:C8	2.50	0.44
31:DA:2271:G:H8	31:DA:2271:G:O5'	2.00	0.44
1:CA:458:C:C2'	1:CA:460:G:H8	2.30	0.44
31:DA:753:C:H2'	31:DA:754:C:C6	2.52	0.44
1:AA:1271:G:H5'	1:AA:1314:C:C5'	2.46	0.44
10:CJ:75:ILE:HG13	10:CJ:76:ASN:N	2.32	0.44
31:BA:272(H):C:N4	31:BA:363(C):G:H1	2.16	0.44
31:DA:2850:A:H2'	31:DA:2851:A:O4'	2.18	0.44
6:CF:3:ARG:HG3	6:CF:3:ARG:NH1	2.29	0.44
1:AA:1315:U:O4	1:AA:1316:G:C2	2.71	0.44
22:B0:60:PHE:CZ	31:BA:2365:G:H4'	2.52	0.44
35:BF:157:VAL:HA	35:BF:176:LEU:O	2.17	0.44
31:DA:1223:G:N2	31:DA:1226:A:OP2	2.49	0.44
31:DA:1921:G:C4	31:DA:1922:G:C8	3.05	0.44
31:DA:706:A:C2'	31:DA:707:G:H5'	2.48	0.44
34:BE:69:LYS:C	34:BE:71:GLY:H	2.20	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:384:U:C6	31:DA:385:C:H5	2.35	0.44
34:BE:9:VAL:HG22	34:BE:25:VAL:O	2.17	0.44
51:DZ:100:VAL:CG1	51:DZ:137:ILE:HG12	2.48	0.44
1:AA:189(F):U:C2	17:AQ:72:ARG:NH1	2.85	0.44
1:CA:1218:C:H2'	1:CA:1219:U:C6	2.53	0.44
43:BR:87:TYR:O	43:BR:89:ASP:N	2.51	0.44
1:AA:1480:G:C5	1:AA:1481:U:C5	3.06	0.44
35:DF:127:GLU:OE1	35:DF:127:GLU:CA	2.65	0.44
31:DA:2674:G:H2'	31:DA:2675:A:O4'	2.18	0.44
1:AA:872:A:C4	1:AA:874:G:C8	3.05	0.44
20:AT:92:LEU:C	20:AT:94:ALA:H	2.21	0.44
31:BA:2637:U:O2'	31:BA:2638:G:H5'	2.17	0.44
31:BA:1363:C:H2'	31:BA:1364:G:C8	2.53	0.44
31:DA:608:A:C6	31:DA:609:A:C6	3.06	0.44
35:DF:70:THR:HB	35:DF:72:ARG:H	1.83	0.44
33:DD:248:SER:HB2	33:DD:249:PRO:HD2	1.99	0.44
51:DZ:115:GLY:HA2	51:DZ:177:PRO:HD3	2.00	0.44
39:BN:36:GLY:O	39:BN:39:ARG:N	2.47	0.44
51:DZ:140:ASP:OD2	51:DZ:140:ASP:N	2.46	0.44
11:AK:31:THR:O	11:AK:31:THR:HG23	2.17	0.44
8:AH:33:GLU:O	8:AH:34:GLU:C	2.56	0.44
1:CA:15:G:C4	1:CA:16:A:C8	3.05	0.44
1:CA:921:U:O4'	1:CA:922:G:C5	2.70	0.44
30:D8:32:LEU:HB3	30:D8:34:TRP:N	2.32	0.44
30:D8:6:THR:HG21	31:DA:243:U:OP1	2.18	0.44
31:DA:388:G:C6	31:DA:390:A:C2	3.06	0.44
47:DV:80:GLN:OE1	47:DV:80:GLN:C	2.56	0.44
48:DW:92:ARG:NH1	48:DW:92:ARG:CG	2.74	0.44
31:BA:2360:A:O2'	31:BA:2361:A:O5'	2.36	0.44
31:BA:663:G:C5	31:BA:664:C:C5	3.05	0.44
41:BP:58:THR:C	41:BP:61:ARG:HD2	2.38	0.44
33:BD:65:ILE:HD13	33:BD:65:ILE:O	2.18	0.44
32:BB:23:G:C2	32:BB:24:G:O6	2.71	0.44
31:DA:1405:U:C2	31:DA:1406:U:C5	3.06	0.44
49:DX:80:ILE:HG23	49:DX:81:VAL:N	2.32	0.44
39:DN:3:THR:HG22	39:DN:4:TYR:N	2.30	0.44
46:DU:91:ASP:OD1	46:DU:96:ALA:HB2	2.18	0.44
47:DV:73:SER:O	47:DV:74:LYS:CB	2.65	0.44
24:B2:26:ARG:HG3	49:BX:5:TYR:CB	2.45	0.44
34:BE:61:ARG:C	34:BE:63:LEU:H	2.21	0.44
33:DD:242:ARG:CB	33:DD:244:ARG:H	2.31	0.44
33:BD:242:ARG:CB	33:BD:244:ARG:H	2.31	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BD:246:PRO:HG2	33:BD:255:LYS:HG2	1.99	0.44
44:DS:90:GLY:N	44:DS:91:PRO:HD2	2.30	0.44
4:AD:74:GLN:HA	4:AD:77:ASN:HB2	2.00	0.44
16:AP:8:ARG:HA	16:AP:17:TYR:HA	1.99	0.44
1:CA:355:C:C2	1:CA:356:A:C8	3.06	0.44
1:CA:389:A:C2'	1:CA:390:C:H5'	2.41	0.44
1:CA:51:A:N1	1:CA:116:A:C4	2.85	0.44
1:CA:60:A:P	1:CA:60:A:C8	3.11	0.44
4:CD:38:TYR:HD1	4:CD:38:TYR:O	2.01	0.44
4:CD:78:LEU:O	4:CD:79:PHE:C	2.55	0.44
31:BA:1287:A:C5	31:BA:1288:U:C4	3.05	0.44
31:DA:1429:G:C4	31:DA:1430:C:C5	3.05	0.44
31:DA:1778:U:C2'	31:DA:1784:A:N6	2.69	0.44
31:BA:1141:U:OP2	39:BN:63:THR:OG1	2.24	0.44
31:DA:2521:C:H5''	31:DA:2522:U:OP2	2.18	0.44
1:AA:192:U:H4'	20:AT:57:ARG:CD	2.39	0.44
31:BA:1455:G:C2'	31:BA:1456:G:H5'	2.48	0.44
31:DA:2784:C:O2'	31:DA:2785:C:H5'	2.17	0.44
5:AE:10:MET:SD	5:AE:13:ILE:HD13	2.57	0.44
5:AE:13:ILE:CG2	5:AE:14:ARG:N	2.81	0.44
31:BA:422:A:H2'	31:BA:423:A:O4'	2.18	0.44
1:CA:718:G:H1	18:CR:74:ARG:HH22	1.64	0.44
31:BA:301:G:C6	31:BA:317:G:C6	3.06	0.44
31:DA:909:A:C4	31:DA:912:C:C5	3.06	0.44
31:BA:1493:C:C2'	31:BA:1493:C:O2	2.65	0.44
31:DA:2007:C:H2'	31:DA:2007:C:O2	2.18	0.44
43:DR:100:LEU:CD2	43:DR:113:LEU:HD13	2.44	0.44
43:DR:36:THR:HB	43:DR:37:THR:H	1.70	0.44
43:DR:96:ARG:O	43:DR:114:VAL:HA	2.18	0.44
1:AA:682:G:C4	1:AA:683:G:C8	3.06	0.44
1:AA:734:G:O2'	18:AR:71:LYS:HD3	2.18	0.44
31:DA:2223:G:H2'	31:DA:2224:G:C5'	2.48	0.44
27:B5:8:LYS:O	31:BA:2017:U:H4'	2.17	0.44
31:DA:1048:A:OP2	31:DA:1109:C:N4	2.51	0.44
34:BE:7:VAL:HG12	34:BE:51:PHE:CE1	2.53	0.44
1:AA:833:U:O2	1:AA:854:G:C2	2.71	0.44
2:CB:168:THR:HG21	2:CB:192:SER:HA	2.00	0.44
2:CB:194:PRO:HB2	2:CB:195:ASP:H	1.60	0.44
1:CA:730:G:O2'	1:CA:766:A:H5'	2.18	0.44
1:AA:17:U:H1'	1:AA:1080:A:H1'	2.00	0.44
31:DA:856:C:H4'	31:DA:857:C:OP1	2.17	0.44
31:BA:917:A:H2'	31:BA:918:A:O4'	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1056:U:O2'	1:CA:1057:G:H5'	2.18	0.44
1:CA:973:G:C4	10:CJ:55:LYS:HE2	2.53	0.44
13:AM:90:LEU:O	13:AM:91:ARG:HB2	2.18	0.44
31:BA:2839:G:H5'	43:BR:46:GLY:HA2	2.00	0.44
13:CM:91:ARG:HD3	19:CS:81:ARG:HH21	1.83	0.44
31:DA:1515:G:C4	31:DA:1516:C:C5	3.05	0.44
35:BF:160:ASN:ND2	35:BF:162:LEU:N	2.66	0.44
31:BA:1881:C:H3'	31:BA:1882:C:H6	1.81	0.44
45:DT:54:ARG:HA	45:DT:59:THR:CB	2.48	0.44
13:CM:15:VAL:CG2	13:CM:41:PRO:HA	2.47	0.44
1:AA:66:G:C4'	1:AA:173:U:C4	3.01	0.44
1:AA:67:C:H5'	1:AA:172:A:O2'	2.18	0.44
1:AA:234:C:O2	1:AA:235:C:C6	2.70	0.44
5:AE:34:VAL:O	5:AE:41:VAL:HG12	2.17	0.44
31:BA:1124:C:N4	31:BA:1125:G:C6	2.86	0.44
31:DA:2840:C:O2'	31:DA:2841:C:H5'	2.18	0.44
31:BA:2472:G:C2	31:BA:2477:C:OP1	2.71	0.44
31:BA:2530:A:C3'	31:BA:2531:A:H5''	2.48	0.44
42:BQ:53:ALA:O	42:BQ:56:ARG:HB3	2.18	0.44
8:AH:10:LEU:HD23	8:AH:10:LEU:H	1.81	0.44
36:BG:88:ILE:CG2	36:BG:89:GLY:N	2.80	0.44
49:DX:8:ILE:CD1	49:DX:43:VAL:HA	2.47	0.44
8:CH:112:LEU:O	8:CH:112:LEU:HD12	2.18	0.44
31:BA:2464:C:O2'	31:BA:2465:C:OP2	2.35	0.44
45:DT:109:GLU:HB3	45:DT:113:LYS:CE	2.45	0.44
31:BA:7:G:C2'	31:BA:8:A:O4'	2.62	0.44
34:DE:120:TRP:CG	34:DE:155:LYS:HB3	2.53	0.44
42:DQ:32:TYR:HA	42:DQ:132:VAL:O	2.18	0.44
29:D7:8:ASN:ND2	29:D7:11:LYS:H	2.16	0.44
31:DA:9:U:C6	31:DA:2629:A:N6	2.86	0.44
31:DA:1839:G:H8	31:DA:1839:G:C5'	2.31	0.44
1:AA:155:C:H2'	1:AA:156:G:H8	1.82	0.44
1:CA:414:A:C4	1:CA:415:A:C8	3.06	0.44
1:AA:563:A:C6	1:AA:567:G:C4	3.06	0.44
1:AA:563:A:C6	1:AA:567:G:N3	2.86	0.44
1:AA:563:A:C6	1:AA:567:G:C2	3.06	0.44
46:DU:10:ARG:O	46:DU:11:ARG:C	2.56	0.44
3:CC:138:VAL:CG2	3:CC:151:VAL:HG23	2.47	0.44
1:AA:1056:U:O2'	1:AA:1057:G:H5'	2.18	0.44
1:AA:1030:C:H2'	1:AA:1030(A):G:H5'	2.00	0.44
31:BA:892:G:C5	31:BA:893:C:C5	3.06	0.44
31:BA:2191:G:HO2'	31:BA:2192:G:P	2.41	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:892:G:N3	31:DA:892:G:C3'	2.79	0.44
31:DA:1356:G:C6	31:DA:1357:U:C4	3.06	0.44
31:DA:921:G:H2'	31:DA:922:U:H6	1.79	0.44
13:CM:17:VAL:O	13:CM:20:THR:HB	2.18	0.44
1:AA:995:C:O2'	1:AA:996:A:H5'	2.18	0.44
22:D0:39:ARG:NH2	31:DA:2363:C:O2	2.47	0.44
31:DA:268:C:H2'	31:DA:269:U:O4'	2.18	0.44
31:DA:2076:U:C5	31:DA:2596:U:C2	3.06	0.44
1:CA:19:C:H5''	5:CE:86:ALA:HB3	1.99	0.44
4:AD:3:ARG:HD3	4:AD:5:ILE:CG1	2.47	0.44
1:CA:1410:G:C4	1:CA:1491:G:N2	2.86	0.44
4:AD:176:LEU:CG	4:AD:178:VAL:HG22	2.48	0.44
2:AB:8:LYS:O	2:AB:12:GLU:CD	2.55	0.44
17:CQ:52:LYS:HB3	17:CQ:52:LYS:HE3	1.83	0.44
35:BF:46:ARG:HB3	35:BF:46:ARG:HH11	1.82	0.44
20:AT:67:ALA:HB2	20:AT:77:ALA:HB2	1.99	0.44
1:CA:521:G:O6	1:CA:529:G:C2	2.71	0.44
31:DA:2670:A:C2'	31:DA:2671:A:H5'	2.47	0.44
31:DA:2489:G:C5	31:DA:2490:G:C6	3.05	0.44
16:AP:75:ARG:HA	16:AP:80:PHE:HD1	1.82	0.44
7:CG:105:VAL:O	7:CG:109:ASN:ND2	2.50	0.44
15:AO:9:GLN:HA	15:AO:12:ILE:HD12	1.99	0.44
25:D3:39:ASP:CG	25:D3:39:ASP:O	2.56	0.44
1:AA:924:C:O5'	1:AA:924:C:H6	2.00	0.44
31:BA:733:G:H8	31:BA:733:G:O5'	2.01	0.44
1:AA:896:C:O2'	1:AA:897:C:H5'	2.18	0.44
30:D8:22:VAL:HG12	30:D8:22:VAL:O	2.17	0.44
30:D8:35:GLN:NE2	30:D8:36:LYS:HG3	2.33	0.44
31:DA:575:A:H4'	31:DA:2500:U:H4'	2.00	0.44
31:DA:745:G:C3'	31:DA:746:A:H5'	2.48	0.44
35:DF:83:PHE:O	35:DF:84:VAL:C	2.53	0.44
30:B8:2:PRO:HA	31:BA:591:C:H1'	2.00	0.44
30:B8:53:PRO:O	30:B8:54:GLU:C	2.56	0.44
31:BA:2358:G:C5	31:BA:2359:C:C5	3.06	0.44
35:BF:31:HIS:NE2	35:BF:35:GLU:OE1	2.47	0.44
41:BP:25:SER:O	41:BP:30:THR:HG23	2.18	0.44
33:BD:106:ILE:HG12	33:BD:107:ALA:N	2.31	0.44
44:BS:62:LYS:O	44:BS:66:ALA:CB	2.65	0.44
31:BA:636:G:H4'	31:BA:638:G:O3'	2.18	0.44
25:D3:10:LYS:HG3	25:D3:11:SER:N	2.33	0.44
47:DV:11:GLN:C	47:DV:12:TYR:CD2	2.91	0.44
47:DV:16:PRO:HA	47:DV:98:GLU:OE2	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DS:78:LEU:O	44:DS:79:ALA:C	2.56	0.44
1:AA:623:C:C2'	1:AA:624:C:H5'	2.48	0.44
1:CA:134:A:N6	16:CP:25:ARG:NH1	2.53	0.44
1:CA:408:A:C5'	4:CD:116:GLN:HB2	2.48	0.44
1:CA:515:G:C2	1:CA:516:U:C2	3.05	0.44
4:CD:13:ARG:O	4:CD:15:GLU:N	2.50	0.44
38:DI:121:LYS:O	38:DI:122:GLU:HB2	2.18	0.44
31:BA:2317:C:C3'	31:BA:2318:G:C5'	2.96	0.44
31:BA:1322:A:C5	31:BA:1323:U:C5	3.06	0.44
33:DD:105:ILE:HD12	33:DD:106:ILE:H	1.82	0.44
33:DD:25:THR:O	33:DD:27:THR:CB	2.65	0.44
33:DD:35:LYS:HA	33:DD:36:PRO:HA	1.55	0.44
33:DD:43:ARG:NH1	33:DD:44:ASN:CG	2.67	0.44
33:DD:91:ARG:O	33:DD:107:ALA:CB	2.66	0.44
31:DA:2530:A:C3'	31:DA:2531:A:H5''	2.48	0.44
31:BA:1811:G:C6	31:BA:1812:A:N7	2.86	0.44
50:DY:26:LYS:HE2	50:DY:27:VAL:HG23	1.99	0.44
6:CF:48:LEU:HB2	6:CF:56:PRO:O	2.18	0.44
31:DA:2275:C:C5'	31:DA:2275:C:C6	3.00	0.44
42:BQ:140:ALA:C	51:BZ:53:ILE:HB	2.38	0.44
31:DA:2207:G:N3	31:DA:2207:G:H2'	2.32	0.44
32:DB:17:C:N4	32:DB:109:C:O2	2.47	0.44
31:BA:260:G:N2	31:BA:261:G:H1'	2.33	0.44
20:AT:23:ARG:HA	20:AT:26:ASN:ND2	2.33	0.44
23:B1:19:GLN:O	23:B1:42:GLN:HB3	2.17	0.44
31:DA:526:A:O2'	31:DA:2043:C:C2'	2.66	0.44
27:D5:36:CYS:HG	27:D5:49:CYS:H	1.65	0.44
27:D5:46:CYS:CB	27:D5:47:PRO:HD2	2.45	0.44
31:DA:2816:C:C2	31:DA:2831:G:C2	3.06	0.44
31:DA:1044:G:O2'	31:DA:1047:G:H1'	2.18	0.44
31:BA:64:A:OP1	49:BX:70:LEU:HD12	2.18	0.44
1:CA:1106:G:C6	1:CA:1107:C:C4	3.06	0.44
1:CA:1206:G:O4'	3:CC:194:GLY:HA2	2.17	0.44
1:AA:1088:G:C4	1:AA:1089:G:N7	2.86	0.44
2:CB:25:ASN:HA	2:CB:26:PRO:HD2	1.76	0.44
1:CA:731:G:H5'	1:CA:766:A:H4'	2.00	0.44
31:DA:856:C:C3'	31:DA:857:C:H6	2.31	0.44
31:BA:1495:A:H2'	31:BA:1496:A:C2	2.50	0.44
31:BA:963:U:H2'	31:BA:964:C:C6	2.52	0.44
1:AA:728:A:H2'	1:AA:729:A:C8	2.53	0.44
50:DY:86:ARG:HD2	50:DY:88:LYS:HD2	1.99	0.44
1:AA:340:U:H2'	1:AA:341:C:O4'	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:925:G:C4	1:AA:1392:G:N2	2.86	0.44
1:CA:1523:G:OP1	11:CK:123:LYS:HD3	2.18	0.44
31:BA:861:A:H2'	31:BA:862:G:O4'	2.18	0.44
1:CA:961:U:OP2	1:CA:1223:C:H4'	2.18	0.44
10:CJ:58:ASP:O	10:CJ:59:SER:C	2.56	0.44
31:DA:1338:G:N2	31:DA:1339:G:C4	2.85	0.44
31:DA:2523:G:N2	31:DA:2764:A:N3	2.64	0.44
31:DA:2507:C:C2	31:DA:2508:G:C8	3.06	0.44
31:DA:786:C:O2'	31:DA:787:U:H5'	2.17	0.44
31:BA:1266:G:O5'	48:BW:15:ARG:NH2	2.51	0.44
45:DT:61:PHE:CE2	45:DT:76:PHE:HB2	2.53	0.44
35:BF:160:ASN:HD22	35:BF:162:LEU:N	2.16	0.44
1:AA:1432:G:OP1	45:BT:108:ARG:N	2.46	0.44
31:BA:2659:G:N3	31:BA:2663:G:N1	2.58	0.44
1:CA:233:C:C2'	1:CA:234:C:H5'	2.48	0.44
8:AH:83:ILE:HG23	8:AH:83:ILE:O	2.18	0.44
31:DA:2475:C:H2'	31:DA:2477:C:OP2	2.17	0.44
11:CK:109:VAL:HG13	18:CR:85:LEU:O	2.18	0.44
31:DA:721:C:H5'	31:DA:722:A:OP2	2.18	0.44
31:DA:721:C:C2'	31:DA:721:C:O2	2.54	0.44
31:BA:2053:G:N2	31:BA:2054:A:C4	2.86	0.44
31:DA:683:C:C2	31:DA:684:G:C8	3.05	0.44
9:AI:63:ILE:N	9:AI:63:ILE:HD12	2.32	0.44
2:AB:42:ILE:C	2:AB:42:ILE:HD13	2.38	0.44
4:CD:171:GLY:HA2	4:CD:172:PRO:HD3	1.68	0.44
1:AA:1233:G:H2'	1:AA:1234:C:C6	2.52	0.44
31:BA:2223:G:H2'	31:BA:2224:G:C5'	2.47	0.44
38:BI:28:ASN:C	38:BI:32:PRO:HG2	2.38	0.44
46:DU:31:SER:C	46:DU:33:ARG:N	2.71	0.44
31:DA:812:C:H1'	31:DA:1250:G:N2	2.32	0.44
37:DH:86:GLU:HA	37:DH:132:ARG:HA	2.00	0.44
4:CD:108:LEU:HD11	4:CD:174:LEU:HD22	1.99	0.44
1:AA:582:U:C2	1:AA:760:G:C6	3.06	0.44
1:CA:119:A:C5	1:CA:288:A:C2	3.06	0.44
9:CI:96:LEU:CD2	9:CI:102:LEU:HD12	2.48	0.44
1:CA:692:U:O2	1:CA:695:A:H8	2.01	0.44
46:BU:39:LEU:HA	46:BU:39:LEU:HD23	1.66	0.44
35:DF:57:VAL:HG11	35:DF:59:TYR:CD1	2.53	0.44
1:AA:995:C:O4'	14:AN:8:GLU:CD	2.56	0.44
13:CM:106:ASN:O	13:CM:107:ALA:CB	2.66	0.44
2:AB:64:ARG:O	2:AB:65:GLY:C	2.56	0.44
1:CA:1480:G:C6	1:CA:1481:U:N3	2.86	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BF:119:ARG:HH11	35:BF:119:ARG:HG2	1.83	0.44
3:AC:7:PRO:O	3:AC:11:ARG:HG2	2.18	0.44
31:DA:1262:A:C5	31:DA:1263:U:C5	3.06	0.44
48:DW:52:GLU:O	48:DW:55:ALA:HB3	2.17	0.44
46:DU:66:ASN:HD21	46:DU:70:ARG:HH21	1.66	0.44
8:CH:20:TYR:HA	8:CH:65:TYR:CE2	2.53	0.44
31:DA:375:C:H2'	31:DA:376:C:C6	2.53	0.44
48:BW:24:ILE:CD1	48:BW:71:VAL:HG11	2.48	0.44
48:BW:24:ILE:HD12	48:BW:24:ILE:C	2.38	0.44
31:BA:2586:C:H6	31:BA:2586:C:O5'	2.00	0.44
43:DR:59:ASP:OD1	43:DR:61:HIS:HB3	2.17	0.44
32:DB:1:U:H5'	32:DB:2:C:OP2	2.17	0.44
31:DA:292:C:C2	31:DA:349:G:C2	3.06	0.44
1:CA:1333:A:H2'	1:CA:1334:G:O4'	2.18	0.44
31:DA:2705:A:H2'	31:DA:2706:G:O4'	2.18	0.44
33:BD:48:ARG:HH11	33:BD:48:ARG:CG	2.30	0.44
4:AD:158:ILE:O	4:AD:158:ILE:HD12	2.18	0.44
8:CH:45:ILE:HB	8:CH:47:GLY:H	1.82	0.44
20:CT:35:THR:O	20:CT:38:LYS:HB2	2.17	0.44
23:B1:80:LEU:HA	23:B1:80:LEU:HD23	1.80	0.44
31:DA:2895:U:H3'	31:DA:2895:U:H6	1.83	0.44
12:CL:123:LYS:H	12:CL:123:LYS:HG2	1.57	0.44
44:DS:12:PHE:O	44:DS:12:PHE:CD1	2.70	0.44
31:BA:2789:C:OP1	31:BA:2789:C:H4'	2.18	0.44
43:BR:74:LYS:HD2	43:BR:74:LYS:HA	1.76	0.44
31:BA:2684:U:O2'	40:BO:68:GLU:HG3	2.18	0.44
1:CA:1509:C:H2'	1:CA:1510:U:O4'	2.18	0.43
23:D1:26:ARG:CB	23:D1:34:THR:HA	2.38	0.43
30:D8:26:LYS:HB3	30:D8:44:LYS:HG3	1.99	0.43
31:DA:2243:U:O2'	31:DA:2244:U:H5'	2.18	0.43
31:DA:648:G:O4'	31:DA:2351:G:H5''	2.18	0.43
31:DA:2427:C:H5''	31:DA:2428:G:OP1	2.18	0.43
31:DA:2503:A:H4'	31:DA:2504:U:OP1	2.17	0.43
31:DA:824:A:C2'	31:DA:825:C:H5'	2.48	0.43
41:DP:98:GLU:HA	41:DP:101:VAL:CG1	2.47	0.43
30:B8:30:ARG:CB	31:BA:2393:A:P	3.06	0.43
30:B8:35:GLN:OE1	31:BA:2421:G:OP2	2.36	0.43
31:BA:832:G:H21	41:BP:53:GLY:HA3	1.81	0.43
33:BD:35:LYS:HG2	33:BD:64:ILE:CG2	2.47	0.43
31:DA:1718:G:H1	31:DA:1744:C:H42	1.66	0.43
24:D2:30:ARG:HA	24:D2:33:MET:SD	2.58	0.43
31:DA:1344:G:OP1	31:DA:1345:C:H5	2.00	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:DX:11:PRO:HB2	49:DX:13:LEU:HD21	1.99	0.43
25:D3:26:LEU:HD11	25:D3:47:VAL:N	2.33	0.43
47:DV:66:ARG:HD3	47:DV:94:LEU:HA	1.98	0.43
31:BA:2751:G:H3'	31:BA:2752:C:C6	2.41	0.43
31:BA:1469:A:C4	31:BA:1470:G:C8	3.06	0.43
49:BX:77:LYS:CD	49:BX:78:LYS:HG3	2.48	0.43
31:BA:2627:G:O2'	31:BA:2781:A:N1	2.35	0.43
32:DB:23:G:C2	32:DB:24:G:O6	2.71	0.43
1:AA:391:G:C6	1:AA:392:G:C5	3.06	0.43
1:CA:41:G:C5	1:CA:402:G:N1	2.86	0.43
1:CA:498:U:C2	1:CA:499:A:C8	3.06	0.43
1:CA:542:G:C2	1:CA:543:C:C5	3.06	0.43
1:CA:542:G:N3	1:CA:543:C:C6	2.85	0.43
1:CA:60:A:N6	1:CA:110:C:N3	2.66	0.43
4:CD:64:LEU:HB2	4:CD:198:VAL:HG11	1.99	0.43
1:CA:363:A:C5	12:CL:31:PRO:HD2	2.53	0.43
50:BY:13:VAL:CG1	50:BY:14:LEU:N	2.80	0.43
31:BA:2313:C:H6	31:BA:2313:C:H3'	1.82	0.43
31:DA:1779:U:C5	31:DA:1783:A:C8	3.05	0.43
31:DA:1793:C:H2'	31:DA:1794:U:C6	2.53	0.43
31:DA:691:C:H4'	33:DD:43:ARG:HG2	2.00	0.43
31:BA:2019:A:O5'	31:BA:2019:A:H8	2.01	0.43
23:D1:60:PHE:CE2	23:D1:91:LYS:HE2	2.53	0.43
37:DH:105:LEU:HD13	37:DH:105:LEU:N	2.33	0.43
31:DA:2791:C:H4'	31:DA:2792:G:O5'	2.17	0.43
5:AE:101:ILE:O	5:AE:101:ILE:HG12	2.18	0.43
47:BV:13:ARG:CG	47:BV:13:ARG:NH1	2.67	0.43
47:BV:72:VAL:HG12	47:BV:88:ARG:HH22	1.82	0.43
50:DY:40:GLU:HA	50:DY:40:GLU:OE2	2.18	0.43
11:CK:29:ILE:HG13	11:CK:44:SER:HA	2.00	0.43
31:BA:1477:A:C6	31:BA:1515:G:C6	3.06	0.43
31:BA:1510:G:H2'	31:BA:1511:C:H6	1.83	0.43
1:AA:1127:G:H1'	1:AA:1148:U:N3	2.33	0.43
43:BR:18:LEU:O	43:BR:19:ALA:C	2.55	0.43
31:BA:501:A:C6	31:BA:502:A:C5	3.06	0.43
32:BB:69:G:C4	32:BB:70:C:C6	3.06	0.43
1:AA:427:U:P	4:AD:13:ARG:NH2	2.91	0.43
1:AA:509:A:H2'	1:AA:510:A:N7	2.33	0.43
1:AA:513:C:O2	1:AA:513:C:H2'	2.19	0.43
4:AD:52:SER:O	4:AD:53:ASP:C	2.56	0.43
4:AD:63:LYS:HE3	4:AD:63:LYS:HB2	1.79	0.43
1:CA:441:A:H5'	1:CA:442:C:OP2	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2094:G:H1'	31:DA:2198:A:H61	1.81	0.43
1:AA:51:A:N3	1:AA:116:A:H1'	2.33	0.43
33:DD:108:PRO:HD2	33:DD:111:LEU:CD2	2.48	0.43
27:D5:46:CYS:SG	27:D5:47:PRO:N	2.91	0.43
3:CC:178:LEU:C	3:CC:180:ALA:H	2.21	0.43
20:AT:84:LEU:HD22	20:AT:88:VAL:HG23	2.00	0.43
50:BY:76:CYS:O	50:BY:77:PRO:C	2.56	0.43
31:DA:1659:U:H2'	31:DA:1660:C:C5'	2.48	0.43
1:CA:1067:A:H1'	1:CA:1068:G:O4'	2.18	0.43
1:CA:1096:C:O2'	1:CA:1097:C:H5'	2.18	0.43
1:AA:1084:G:OP1	1:AA:1086:U:C4	2.71	0.43
1:AA:1103:C:H2'	1:AA:1104:G:O4'	2.18	0.43
1:CA:577:G:H1'	1:CA:816:A:N3	2.33	0.43
1:AA:861:G:O2'	1:AA:862:C:H5'	2.18	0.43
34:DE:104:VAL:HG11	34:DE:188:VAL:CG2	2.41	0.43
1:CA:914:A:C6	1:CA:915:A:C5	3.06	0.43
1:AA:819:A:C4'	1:AA:820:U:OP2	2.61	0.43
50:DY:88:LYS:NZ	50:DY:95:LYS:HE3	2.32	0.43
31:BA:1044:G:O2'	31:BA:1047:G:H1'	2.17	0.43
31:BA:1112:G:N2	31:BA:1113:U:O2	2.50	0.43
40:BO:98:VAL:CG1	40:BO:117:LEU:HB3	2.47	0.43
16:CP:22:THR:CG2	16:CP:32:TYR:HA	2.44	0.43
38:DI:101:LEU:HB3	38:DI:109:ILE:HG12	2.00	0.43
1:CA:552:U:H4'	12:CL:86:ARG:HG3	2.00	0.43
1:AA:1226:C:C5	13:AM:104:ARG:HB2	2.51	0.43
36:BG:163:ALA:O	36:BG:164:GLU:HG3	2.18	0.43
43:BR:56:LYS:NZ	43:BR:90:ARG:O	2.38	0.43
31:DA:776:G:C5	31:DA:793:A:C4	3.06	0.43
31:BA:1412:A:H3'	31:BA:1413:G:H8	1.81	0.43
31:BA:1593:G:C6	31:BA:1594:G:C5	3.06	0.43
48:DW:50:VAL:HG22	48:DW:105:VAL:HG23	1.99	0.43
48:DW:51:LEU:HD23	48:DW:105:VAL:HG11	2.00	0.43
48:BW:103:ILE:H	48:BW:103:ILE:HD12	1.82	0.43
40:DO:107:ARG:HH12	45:DT:35:LYS:HE2	1.82	0.43
45:DT:29:ARG:HD2	45:DT:29:ARG:HA	1.78	0.43
35:BF:129:PHE:CE1	35:BF:142:TRP:CZ2	3.05	0.43
31:DA:154:G:C2	31:DA:154(A):C:N3	2.86	0.43
31:DA:1884:A:C4	31:DA:1885:A:C8	3.06	0.43
9:CI:18:PHE:CD1	9:CI:62:TYR:HD2	2.36	0.43
1:AA:1250:A:H2'	1:AA:1251:A:O4'	2.18	0.43
1:AA:1372:U:OP1	9:AI:72:GLY:N	2.51	0.43
38:DI:10:GLU:C	38:DI:12:LEU:H	2.20	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1406:U:H2'	1:AA:1407:C:H6	1.82	0.43
31:DA:551:G:C4	31:DA:552:G:C8	3.05	0.43
31:DA:2023:G:H4'	31:DA:2617:C:O3'	2.18	0.43
40:BO:65:THR:HA	40:BO:82:ASN:CB	2.42	0.43
31:BA:1386:C:OP2	31:BA:1396:U:C5	2.72	0.43
31:DA:1649:G:C6	31:DA:2009:G:C6	3.06	0.43
1:AA:939:G:H1'	1:AA:1375:A:H2	1.81	0.43
15:AO:17:ARG:CG	15:AO:17:ARG:HH11	2.25	0.43
31:DA:190:A:C8	31:DA:207:A:C6	3.06	0.43
10:AJ:57:LYS:HD3	10:AJ:60:ARG:NH1	2.32	0.43
1:CA:166:G:C2'	1:CA:167:G:H5'	2.48	0.43
31:DA:811:U:O2'	31:DA:1250:G:H2'	2.18	0.43
31:DA:2602:A:H4'	31:DA:2603:G:O5'	2.17	0.43
31:BA:1374:G:C6	31:BA:1375:C:C4	3.06	0.43
8:AH:52:ASP:OD2	8:AH:56:LYS:N	2.51	0.43
31:BA:602:G:N2	31:BA:656:G:C5	2.86	0.43
1:CA:283:C:H2'	1:CA:284:G:O4'	2.18	0.43
3:CC:35:GLU:HG2	3:CC:39:ILE:HD11	2.00	0.43
33:DD:69:ARG:HH12	33:DD:117:VAL:HG23	1.79	0.43
1:AA:244:U:C6	1:AA:894:G:C2	3.06	0.43
1:AA:34:C:H2'	1:AA:35:G:H8	1.82	0.43
31:BA:2364:C:H2'	31:BA:2365:G:O4'	2.18	0.43
2:AB:158:LEU:H	2:AB:158:LEU:CD1	2.31	0.43
7:AG:50:ILE:HD12	7:AG:61:VAL:HG11	2.00	0.43
8:CH:44:PHE:HA	8:CH:79:VAL:CG1	2.46	0.43
1:CA:1118:C:H1'	1:CA:1179:A:C5	2.53	0.43
11:CK:58:PRO:O	11:CK:61:ALA:HB3	2.18	0.43
34:DE:203:LYS:HE3	34:DE:204:ALA:HB2	2.00	0.43
31:DA:1252:G:O2'	31:DA:1253:A:C8	2.69	0.43
8:AH:111:ILE:HD11	8:AH:137:VAL:HG21	2.00	0.43
1:AA:722:A:N6	1:AA:724:G:C2	2.86	0.43
1:CA:944:G:N2	1:CA:1338:G:C8	2.86	0.43
31:DA:2048:G:C5	31:DA:2049:G:C8	3.06	0.43
1:AA:900:A:H2'	1:AA:901:A:O4'	2.17	0.43
1:AA:1014:A:H2	1:AA:1219:U:O2	2.00	0.43
31:DA:1914:C:O4'	31:DA:1914:C:O2	2.36	0.43
29:D7:1:MET:HE2	29:D7:1:MET:HB2	1.78	0.43
31:BA:1879:C:H2'	31:BA:1880:C:O4'	2.17	0.43
34:BE:3:GLY:HA2	34:BE:198:VAL:O	2.18	0.43
1:CA:69:G:C2	1:CA:70:G:C5	3.06	0.43
17:AQ:52:LYS:N	17:AQ:55:ASP:OD2	2.50	0.43
31:BA:2081:C:H2'	31:BA:2082:A:H8	1.82	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1221(A):C:H2'	31:BA:1222:C:C6	2.53	0.43
42:BQ:43:THR:O	42:BQ:44:ALA:C	2.55	0.43
35:DF:192:LEU:HD13	35:DF:194:MET:HE3	2.00	0.43
31:BA:272(J):C:C2'	31:BA:274:G:OP1	2.66	0.43
39:DN:104:LYS:HB2	39:DN:104:LYS:HE3	1.87	0.43
7:AG:105:VAL:O	7:AG:109:ASN:ND2	2.50	0.43
1:CA:336:C:H2'	1:CA:337:C:C6	2.53	0.43
1:CA:921:U:O2'	1:CA:922:G:P	2.75	0.43
31:DA:196:A:H2'	31:DA:196:A:N3	2.31	0.43
31:DA:2287:A:C4	31:DA:2289:G:C8	3.05	0.43
41:DP:23:PRO:HB3	41:DP:34:GLY:H	1.82	0.43
41:DP:85:LEU:HB2	41:DP:120:ALA:HB2	2.00	0.43
31:BA:1204:A:H61	31:BA:1240:U:H2'	1.83	0.43
31:BA:827:U:H2'	31:BA:2068:U:C2	2.53	0.43
31:BA:26:G:H1'	31:BA:515:A:H61	1.83	0.43
31:BA:662:G:OP1	41:BP:18:ARG:NH1	2.49	0.43
31:BA:672:C:C2	31:BA:809:G:N2	2.86	0.43
31:BA:742:G:H2'	31:BA:743:G:H8	1.82	0.43
31:DA:1525:G:H2'	31:DA:1526:G:O4'	2.17	0.43
31:DA:57:C:C2'	31:DA:58:G:O5'	2.66	0.43
31:DA:68:G:C6	31:DA:69:C:C4	3.06	0.43
41:BP:81:GLN:HB3	41:BP:106:LEU:HD12	2.01	0.43
31:DA:996:A:C6	31:DA:1160:G:C6	3.06	0.43
39:DN:22:THR:HA	39:DN:61:ARG:O	2.18	0.43
47:DV:18:LEU:O	47:DV:19:LYS:CB	2.66	0.43
47:DV:4:ILE:O	47:DV:39:LEU:CB	2.61	0.43
31:BA:1525:G:H2'	31:BA:1526:G:O4'	2.17	0.43
49:BX:53:LYS:HE3	49:BX:55:ASN:HD21	1.83	0.43
49:BX:60:ARG:HE	49:BX:74:PRO:HG3	1.80	0.43
31:BA:1718:G:H1	31:BA:1744:C:H42	1.64	0.43
32:DB:39:A:C2	32:DB:44:G:N3	2.86	0.43
36:DG:173:LEU:HD13	36:DG:178:PHE:CE2	2.54	0.43
36:DG:11:TYR:HD1	36:DG:176:LEU:HD21	1.83	0.43
1:CA:385:C:C2'	1:CA:386:C:H5'	2.48	0.43
1:CA:408:A:N6	1:CA:409:G:C6	2.86	0.43
4:CD:122:ARG:O	4:CD:134:ASP:HB2	2.18	0.43
4:AD:132:ARG:H	4:AD:132:ARG:HG3	1.61	0.43
38:DI:81:VAL:HG11	38:DI:123:LEU:HD21	2.00	0.43
31:DA:1798:U:O2'	31:DA:1802:A:O2'	2.34	0.43
33:DD:65:ILE:CD1	33:DD:67:PHE:CE1	2.96	0.43
31:DA:2747:G:C6	31:DA:2754:U:C5	3.07	0.43
31:BA:1005:C:O2'	39:BN:28:THR:CG2	2.63	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BU:92:ARG:HH22	47:BV:10:LYS:HB3	1.83	0.43
31:DA:2807:G:N2	31:DA:2892:A:N6	2.62	0.43
33:BD:53:PHE:O	33:BD:218:ARG:N	2.47	0.43
51:DZ:50:GLN:HB3	51:DZ:51:ALA:H	1.66	0.43
32:DB:17:C:O2	32:DB:18:G:O4'	2.35	0.43
31:BA:620:G:H4'	31:BA:621:A:OP1	2.18	0.43
1:AA:683:G:C6	1:AA:684:A:C6	3.06	0.43
6:AF:91:VAL:HG12	6:AF:92:LYS:N	2.32	0.43
32:BB:110:G:C6	32:BB:111:G:N7	2.86	0.43
1:AA:510:A:N3	1:AA:543:C:H1'	2.33	0.43
31:BA:2642:G:C2	31:BA:2773:C:C2	3.06	0.43
39:BN:75:TYR:CE2	39:BN:83:LYS:NZ	2.85	0.43
27:D5:55:ARG:HG3	27:D5:56:LYS:H	1.82	0.43
42:DQ:85:LYS:O	42:DQ:86:GLY:C	2.56	0.43
31:DA:741:G:O2'	31:DA:742:G:H5'	2.19	0.43
6:AF:25:ILE:O	6:AF:29:ALA:N	2.51	0.43
10:CJ:51:ARG:HG2	10:CJ:61:GLU:HB2	1.99	0.43
1:CA:579:G:C5	1:CA:580:U:C4	3.06	0.43
31:DA:2679:A:H4'	34:DE:165:VAL:HG11	1.99	0.43
31:DA:1417:C:C2'	31:DA:1418:G:H5'	2.48	0.43
1:AA:768:A:OP1	1:AA:804:U:H4'	2.18	0.43
1:AA:821:G:O2'	1:AA:822:C:H5'	2.18	0.43
40:BO:104:ARG:CZ	40:BO:104:ARG:CB	2.95	0.43
45:BT:35:LYS:HG3	45:BT:36:GLU:N	2.34	0.43
1:AA:975:A:C4'	1:AA:976:G:H5''	2.35	0.43
34:BE:38:THR:CB	34:BE:41:LYS:HE3	2.48	0.43
11:CK:52:GLY:H	11:CK:55:LYS:HE2	1.80	0.43
10:CJ:49:VAL:O	10:CJ:60:ARG:HB2	2.19	0.43
24:B2:18:PRO:O	24:B2:22:GLU:HB2	2.18	0.43
31:DA:1699:G:H4'	31:DA:1700:A:OP2	2.17	0.43
48:DW:48:ALA:O	48:DW:51:LEU:HB3	2.18	0.43
1:AA:1003:G:N2	1:AA:1039:C:C2	2.86	0.43
45:DT:29:ARG:HG2	45:DT:85:LYS:HA	1.98	0.43
17:CQ:18:THR:HG23	17:CQ:44:ALA:O	2.18	0.43
17:CQ:63:ARG:HG2	17:CQ:64:PRO:N	2.32	0.43
31:DA:1477:A:C6	31:DA:1515:G:C6	3.05	0.43
13:AM:15:VAL:O	13:AM:19:LEU:HD23	2.18	0.43
31:DA:2875:C:C4'	45:DT:5:ALA:HB2	2.41	0.43
32:BB:93:G:N2	32:BB:94:C:C2	2.86	0.43
31:DA:1774:C:O5'	31:DA:1774:C:H6	2.01	0.43
9:CI:112:LYS:HA	9:CI:119:ALA:CA	2.47	0.43
37:BH:41:MET:HG3	37:BH:55:PRO:HD3	2.00	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:DZ:119:GLU:OE2	51:DZ:122:ARG:HB2	2.18	0.43
31:DA:1884:A:C2	31:DA:1885:A:C4	3.05	0.43
40:BO:43:VAL:HG11	40:BO:53:LYS:O	2.17	0.43
12:AL:86:ARG:HB2	12:AL:101:VAL:HG22	1.99	0.43
1:AA:1280:A:H5'	10:AJ:40:LEU:HD12	1.99	0.43
11:CK:21:ILE:HD13	11:CK:82:VAL:HG13	2.00	0.43
1:AA:1493:A:C4	31:BA:1913:A:C2	3.06	0.43
18:CR:62:GLU:O	18:CR:64:ARG:N	2.51	0.43
1:CA:451:A:H2'	1:CA:481:G:O6	2.18	0.43
1:AA:1158:C:N4	1:AA:1181:G:H22	2.15	0.43
51:DZ:156:LYS:O	51:DZ:158:PRO:CD	2.66	0.43
31:BA:612:C:H2'	31:BA:613:G:O4'	2.17	0.43
31:DA:2023:G:C2	31:DA:2024:G:C8	3.06	0.43
41:DP:7:ARG:HB3	41:DP:8:PRO:CD	2.42	0.43
31:DA:1932:A:C2'	31:DA:1933:G:H5'	2.48	0.43
4:CD:152:SER:O	4:CD:158:ILE:HG21	2.18	0.43
4:CD:173:TRP:HB2	4:CD:187:ARG:HG2	2.01	0.43
1:AA:939:G:H1'	1:AA:1375:A:N3	2.34	0.43
15:AO:74:ASP:HA	15:AO:75:PRO:HD2	1.91	0.43
31:BA:892:G:N3	31:BA:892:G:C3'	2.80	0.43
10:AJ:75:ILE:HG13	10:AJ:76:ASN:N	2.34	0.43
12:AL:119:LYS:O	12:AL:120:TYR:CB	2.65	0.43
1:CA:520:A:C2	1:CA:536:C:O2	2.68	0.43
31:DA:272:G:O4'	31:DA:272(B):G:O5'	2.36	0.43
1:AA:760:G:C2'	1:AA:761:G:H5'	2.49	0.43
1:CA:244:U:O4	1:CA:906:G:H1'	2.18	0.43
31:DA:980:A:C4	31:DA:1136:G:O4'	2.71	0.43
31:BA:2399:G:H2'	31:BA:2400:G:C8	2.53	0.43
43:BR:55:ALA:HB2	43:BR:79:LEU:HD11	1.99	0.43
43:BR:77:ARG:O	43:BR:78:LYS:C	2.56	0.43
4:CD:2:GLY:O	4:CD:3:ARG:C	2.56	0.43
31:BA:17:G:H2'	31:BA:18:C:C6	2.53	0.43
31:BA:957:A:C6	31:BA:959:A:C4	3.06	0.43
19:AS:15:LEU:O	19:AS:19:VAL:HG23	2.19	0.43
6:CF:25:ILE:O	6:CF:29:ALA:N	2.50	0.43
38:BI:84:GLY:O	38:BI:85:GLU:CG	2.66	0.43
48:DW:24:ILE:HD12	48:DW:24:ILE:C	2.38	0.43
1:AA:607:A:H2'	1:AA:608:A:O4'	2.17	0.43
2:CB:63:MET:CB	2:CB:225:ALA:HB1	2.48	0.43
3:CC:110:ASN:HB3	3:CC:144:SER:OG	2.19	0.43
20:CT:73:HIS:O	20:CT:74:LYS:O	2.36	0.43
43:BR:41:ALA:O	43:BR:42:LYS:C	2.57	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AH:126:LYS:C	8:AH:128:GLY:N	2.72	0.43
30:D8:16:ILE:HD12	30:D8:57:ARG:HD2	2.00	0.43
45:BT:78:LEU:O	45:BT:79:HIS:CG	2.71	0.43
31:BA:1149:G:H2'	31:BA:1150:C:C6	2.53	0.43
39:BN:117:PHE:C	39:BN:117:PHE:CD2	2.91	0.43
7:AG:6:ARG:O	7:AG:7:ALA:O	2.35	0.43
17:CQ:11:VAL:HG23	17:CQ:20:THR:HG22	1.99	0.43
31:DA:2243:U:O2	31:DA:2434:A:C2	2.71	0.43
31:DA:2394:C:P	41:DP:63:PRO:CD	3.06	0.43
31:DA:256:A:O2'	31:DA:257:A:H5'	2.18	0.43
31:DA:28:A:N6	31:DA:512:G:H1'	2.33	0.43
31:DA:970:C:H2'	31:DA:971:C:C6	2.53	0.43
31:DA:972:G:P	31:DA:974:G:H5''	2.59	0.43
41:DP:84:ASN:OD1	41:DP:116:GLY:HA3	2.19	0.43
30:D8:59:LYS:HD2	41:DP:50:ARG:HB3	1.99	0.43
31:DA:389:G:C2	41:DP:71:VAL:HG12	2.53	0.43
31:BA:590:A:C5	31:BA:591:C:C4	3.07	0.43
35:BF:117:ARG:HD3	35:BF:117:ARG:HA	1.54	0.43
31:BA:1569:A:H2'	31:BA:1570:A:O4'	2.17	0.43
31:BA:2377:A:H4'	44:BS:107:GLU:CB	2.48	0.43
32:BB:38:C:H2'	32:BB:39:A:O4'	2.17	0.43
24:D2:26:ARG:HA	24:D2:26:ARG:HD2	1.68	0.43
24:D2:48:HIS:HE2	31:DA:75:G:C3'	2.29	0.43
31:DA:1022:G:N1	31:DA:1140:C:C2	2.87	0.43
47:DV:75:PHE:CD1	47:DV:89:GLN:HB3	2.48	0.43
24:B2:54:LYS:H	24:B2:56:GLN:HG2	1.82	0.43
49:BX:52:VAL:HB	49:BX:80:ILE:HG23	2.00	0.43
49:BX:73:ARG:N	49:BX:74:PRO:CD	2.74	0.43
49:BX:25:LYS:NZ	49:BX:90:GLU:HB2	2.33	0.43
49:BX:90:GLU:O	49:BX:92:LEU:N	2.51	0.43
31:BA:2785:C:H2'	31:BA:2786:U:O4'	2.18	0.43
32:DB:35:U:H2'	32:DB:36:C:O4'	2.18	0.43
36:DG:106:LEU:HA	36:DG:110:ALA:CB	2.35	0.43
44:DS:39:ILE:HA	44:DS:39:ILE:HD13	1.75	0.43
4:AD:101:LEU:HG	4:AD:121:VAL:CG1	2.49	0.43
4:AD:78:LEU:O	4:AD:79:PHE:C	2.56	0.43
5:CE:10:MET:SD	5:CE:13:ILE:HD13	2.58	0.43
16:CP:28:ARG:O	16:CP:30:GLY:N	2.49	0.43
1:AA:445:G:N2	1:AA:446:G:C4	2.86	0.43
50:BY:14:LEU:O	50:BY:72:VAL:HA	2.18	0.43
31:DA:1799:G:H4'	31:DA:1800:C:O5'	2.19	0.43
33:DD:51:VAL:HG12	33:DD:54:ARG:HG2	2.01	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DD:94:LEU:HD22	33:DD:95:LEU:N	2.33	0.43
31:BA:1033:U:C5'	31:BA:1034:G:OP1	2.64	0.43
31:DA:2528:U:H2'	31:DA:2530:A:O5'	2.18	0.43
31:DA:2649:U:O2'	31:DA:2650:U:H5'	2.18	0.43
31:DA:2631:G:N3	31:DA:2810:A:C2	2.86	0.43
31:BA:2006:C:H6	31:BA:2006:C:O5'	2.01	0.43
47:BV:27:ALA:HB1	47:BV:64:HIS:CD2	2.53	0.43
50:DY:7:VAL:HB	50:DY:8:LYS:NZ	2.33	0.43
23:B1:60:PHE:CE2	23:B1:91:LYS:HE2	2.53	0.43
31:BA:1509(B):A:C2'	31:BA:1510:G:C8	2.97	0.43
42:DQ:140:ALA:CB	51:DZ:53:ILE:HG13	2.40	0.43
9:AI:8:GLY:O	9:AI:14:VAL:HG13	2.18	0.43
31:DA:910:A:H2'	31:DA:2264:C:O2'	2.18	0.43
31:DA:867:C:C4	31:DA:868:U:C4	3.06	0.43
1:AA:705:U:C5	1:AA:706:A:C5	3.06	0.43
1:AA:718:G:C1'	11:AK:116:HIS:HA	2.48	0.43
1:AA:360:A:H2'	1:AA:361:G:O4'	2.18	0.43
32:BB:86:G:H1	32:BB:91:C:H42	1.66	0.43
3:CC:182:ILE:HG12	3:CC:203:PHE:CD1	2.53	0.43
34:BE:52:LEU:O	34:BE:53:PRO:C	2.56	0.43
31:BA:2335:A:C8	31:BA:2337:G:N7	2.86	0.43
1:AA:1106:G:H5''	3:AC:172:ARG:HD2	2.00	0.43
31:BA:639:U:C2'	31:BA:640:C:H5'	2.45	0.43
4:AD:31:CYS:HB3	4:AD:33:MET:HB3	2.00	0.43
31:DA:904:C:C6	31:DA:904:C:C5'	3.01	0.43
34:BE:96:PHE:N	34:BE:96:PHE:CD1	2.86	0.43
50:DY:79:CYS:O	50:DY:80:GLY:C	2.56	0.43
45:BT:38:ASN:ND2	45:BT:38:ASN:C	2.72	0.43
45:BT:41:ARG:O	45:BT:42:ILE:C	2.56	0.43
1:AA:1508:G:H2'	1:AA:1509:C:O4'	2.17	0.43
1:CA:1442:G:C5	1:CA:1442(B):A:N1	2.81	0.43
31:BA:1047:G:C2	31:BA:1111:A:N6	2.85	0.43
1:CA:1524:C:OP1	11:CK:120:ARG:NH1	2.51	0.43
1:AA:1355:G:O2'	1:AA:1356:G:H5'	2.18	0.43
31:DA:83:G:N1	31:DA:102:G:H2'	2.33	0.43
31:BA:852:G:H2'	31:BA:853:G:H8	1.84	0.43
37:BH:89:ILE:HD12	37:BH:129:THR:O	2.18	0.43
24:D2:14:ARG:HG2	24:D2:15:LYS:N	2.33	0.43
2:AB:67:THR:HG22	2:AB:90:MET:HE3	2.01	0.43
1:CA:1003:G:N2	1:CA:1039:C:C2	2.86	0.43
48:DW:47:VAL:O	48:DW:50:VAL:CG1	2.66	0.43
48:BW:50:VAL:HG13	48:BW:105:VAL:HG21	2.00	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:DT:67:SER:N	45:DT:70:VAL:O	2.40	0.43
35:BF:126:VAL:HG21	35:BF:129:PHE:CZ	2.52	0.43
40:BO:47:ILE:HG13	40:BO:48:PRO:HD2	1.99	0.43
31:BA:455:C:H3'	31:BA:456:C:H5''	2.01	0.43
10:CJ:40:LEU:HB2	10:CJ:41:PRO:CD	2.42	0.43
1:CA:825:G:N2	8:CH:11:THR:HG21	2.33	0.43
1:CA:825:G:C6	1:CA:826:C:C4	3.06	0.43
31:BA:494:G:H2'	31:BA:495:G:C8	2.51	0.43
45:BT:24:PRO:CA	45:BT:49:VAL:HG13	2.48	0.43
1:AA:165:C:H2'	1:AA:166:G:C8	2.53	0.43
1:AA:167:G:H2'	1:AA:168:G:C8	2.54	0.43
31:DA:1247:A:C2	31:DA:1249:U:C6	3.07	0.43
31:DA:1844:C:H2'	31:DA:1845:G:H8	1.83	0.43
1:CA:774:G:C2	1:CA:806:C:N3	2.86	0.43
15:AO:26:GLU:OE2	15:AO:77:ARG:NH1	2.51	0.43
31:BA:1990:C:H2'	31:BA:1991:U:O4'	2.19	0.43
31:DA:128:C:H2'	31:DA:129:C:H5''	2.00	0.43
15:CO:30:ALA:O	15:CO:33:THR:HB	2.18	0.43
1:CA:671:G:C5	1:CA:672:U:C5	3.05	0.43
8:AH:26:VAL:O	8:AH:59:LEU:N	2.51	0.43
31:DA:1151:G:H4'	46:DU:81:HIS:CG	2.53	0.43
31:BA:1301:A:C8	31:BA:1303:G:C8	3.06	0.43
1:CA:758:G:H8	1:CA:758:G:O5'	2.01	0.43
1:AA:581:G:C2	1:AA:582:U:C5	3.07	0.43
1:CA:836:G:O6	1:CA:851:G:C6	2.71	0.43
15:AO:64:ARG:HH12	15:AO:88:ARG:HH12	1.64	0.43
38:BI:6:LEU:HD23	38:BI:6:LEU:N	2.33	0.43
38:BI:69:LYS:O	38:BI:69:LYS:HG2	2.18	0.43
1:CA:1315:U:O4	1:CA:1316:G:C2	2.72	0.43
34:BE:181:LEU:HG	45:BT:11:GLU:OE2	2.18	0.43
40:BO:86:ILE:H	40:BO:86:ILE:HD12	1.83	0.43
13:CM:105:THR:O	13:CM:106:ASN:O	2.36	0.43
31:DA:707:G:C5	31:DA:708:C:C5	3.05	0.43
23:D1:56:GLN:H	23:D1:58:ILE:CD1	2.31	0.43
15:CO:64:ARG:HH22	15:CO:88:ARG:CZ	2.31	0.43
1:CA:32:A:C3'	1:CA:33:A:H8	2.31	0.43
1:CA:131:C:H2'	1:CA:132:C:C6	2.52	0.43
36:DG:96:ARG:HD2	36:DG:97:ASP:OD1	2.18	0.43
31:BA:1151:G:H4'	46:BU:81:HIS:CG	2.53	0.43
6:CF:6:VAL:HG22	6:CF:90:VAL:HG13	1.99	0.43
13:AM:37:THR:HG22	13:AM:59:TYR:CB	2.48	0.43
31:BA:447:A:C5	31:BA:454:A:N7	2.86	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:CQ:52:LYS:N	17:CQ:52:LYS:HD2	2.33	0.43
11:CK:34:ASP:HB3	11:CK:40:ILE:HD11	2.00	0.43
35:BF:46:ARG:NH1	35:BF:46:ARG:CB	2.81	0.43
20:CT:92:LEU:C	20:CT:94:ALA:H	2.22	0.43
4:AD:158:ILE:HG23	4:AD:162:LEU:HD12	1.99	0.43
25:B3:17:LYS:HA	25:B3:17:LYS:HD3	1.78	0.43
48:BW:34:ASN:O	48:BW:35:ILE:C	2.56	0.43
31:BA:940:G:H2'	31:BA:941:A:O4'	2.19	0.43
35:BF:29:ASN:OD1	35:BF:29:ASN:C	2.56	0.43
28:D6:28:ARG:HA	28:D6:32:ASN:HB3	2.00	0.43
30:D8:2:PRO:HA	31:DA:591:C:H1'	2.00	0.43
31:DA:1188:U:C3'	31:DA:1189:A:H5'	2.46	0.43
31:DA:2368:C:H2'	31:DA:2369:A:H8	1.84	0.43
31:DA:593:G:H2'	31:DA:594:U:H6	1.81	0.43
31:DA:670:A:H4'	31:DA:671:C:OP1	2.18	0.43
30:D8:12:LYS:HG2	41:DP:68:GLN:HE22	1.82	0.43
41:DP:94:GLU:O	41:DP:96:THR:HG23	2.19	0.43
23:B1:33:LYS:HE3	23:B1:33:LYS:HB2	1.77	0.43
30:B8:32:LEU:HA	30:B8:32:LEU:HD12	1.80	0.43
31:BA:1655:A:C8	31:BA:1656:C:C5	3.06	0.43
31:BA:2361:A:H2'	31:BA:2362:G:O4'	2.19	0.43
31:BA:2580:U:C2'	31:BA:2580:U:O2	2.65	0.43
31:BA:942:G:H2'	31:BA:943:U:C5'	2.49	0.43
29:B7:15:THR:HG22	29:B7:16:HIS:CE1	2.53	0.43
33:BD:39:LYS:HZ3	33:BD:60:ARG:HH11	1.67	0.43
32:BB:44:G:O2'	32:BB:45:A:OP2	2.35	0.43
32:BB:58:A:C5'	32:BB:59:A:OP2	2.66	0.43
32:BB:57:A:C4	36:BG:29:TRP:HB2	2.52	0.43
44:BS:74:ALA:CB	44:BS:103:GLU:HG3	2.20	0.43
44:BS:95:HIS:O	44:BS:97:ARG:O	2.36	0.43
31:DA:69:C:O2	31:DA:73:A:O2'	2.32	0.43
49:DX:4:ALA:C	49:DX:6:ASP:N	2.68	0.43
41:BP:121:LYS:CG	41:BP:122:PRO:HD2	2.37	0.43
31:DA:1001:A:H2'	31:DA:1002:G:O4'	2.17	0.43
46:DU:93:LYS:HD3	46:DU:93:LYS:N	2.15	0.43
47:DV:73:SER:N	47:DV:88:ARG:HH22	2.16	0.43
36:DG:114:ILE:HA	36:DG:140:ILE:HD12	1.99	0.43
1:AA:367:U:C6	1:AA:394:G:N2	2.87	0.43
1:CA:102:G:C6	1:CA:103:C:N4	2.87	0.43
1:CA:55:A:C5	1:CA:56:U:C5	3.06	0.43
4:CD:100:ARG:NH2	4:CD:118:ARG:HH22	2.16	0.43
4:CD:121:VAL:O	4:CD:134:ASP:HA	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1442(A):G:C5	45:BT:118:ARG:CD	3.01	0.43
50:BY:8:LYS:CB	50:BY:28:LYS:HZ3	2.30	0.43
45:BT:51:ARG:HB2	45:BT:98:LYS:HG3	2.00	0.43
31:DA:1816:G:C8	33:DD:62:TYR:CZ	3.05	0.43
39:BN:22:THR:HA	39:BN:61:ARG:O	2.19	0.43
47:BV:38:LEU:HD23	47:BV:54:GLY:HA3	2.01	0.43
23:D1:73:LEU:HD21	23:D1:94:LEU:HG	2.00	0.43
20:AT:89:ARG:HD2	20:AT:104:LEU:CD1	2.49	0.43
31:BA:2619:C:O2'	31:BA:2620:C:H5'	2.18	0.43
31:BA:1791:A:H1'	33:BD:207:GLY:O	2.19	0.43
31:BA:1798:U:C5'	33:BD:259:THR:HB	2.47	0.43
31:DA:2311:A:C4'	36:DG:77:ILE:HD11	2.48	0.43
31:DA:1510:G:N2	31:DA:1511:C:C2	2.86	0.43
31:BA:49:A:N3	31:BA:49:A:H2'	2.32	0.43
31:BA:1475:G:C2	31:BA:1517:G:C4	3.06	0.43
43:BR:18:LEU:HA	43:BR:18:LEU:HD23	1.77	0.43
31:DA:2282:G:H5'	31:DA:2389:G:C1'	2.48	0.43
51:BZ:69:THR:CG2	51:BZ:90:VAL:HG22	2.48	0.43
1:AA:1254:C:H2'	1:AA:1255:G:C8	2.54	0.43
31:BA:258:G:C5	31:BA:259:G:N7	2.86	0.43
31:BA:258:G:C6	31:BA:259:G:N7	2.86	0.43
1:AA:673:G:C6	1:AA:734:G:C6	3.06	0.43
1:AA:734:G:C6	1:AA:735:C:C4	3.07	0.43
1:AA:1484:C:H1'	31:BA:1960:A:O2'	2.18	0.43
42:BQ:85:LYS:O	42:BQ:86:GLY:C	2.56	0.43
1:AA:853:G:C2	1:AA:854:G:C5	3.07	0.43
1:AA:853:G:N1	1:AA:854:G:C5	2.86	0.43
1:CA:1104:G:C4	1:CA:1105:A:C8	3.06	0.43
1:CA:729:A:H2'	1:CA:730:G:H8	1.83	0.43
15:CO:39:LEU:HD23	15:CO:39:LEU:HA	1.62	0.43
31:DA:860:U:H1'	31:DA:2268:A:H5'	2.00	0.43
1:AA:914:A:H2'	1:AA:915:A:H8	1.83	0.43
22:B0:17:GLN:NE2	31:BA:2261:C:OP1	2.51	0.43
1:CA:975:A:C4'	1:CA:976:G:H5''	2.35	0.43
38:BI:101:LEU:HB3	38:BI:109:ILE:HG12	2.00	0.43
16:CP:21:VAL:O	16:CP:33:ILE:HG12	2.18	0.43
31:DA:1636:C:H2'	31:DA:1637:A:H8	1.80	0.43
31:DA:92:A:O2'	31:DA:93:G:H5'	2.18	0.43
31:DA:2547:U:O2	40:DO:23:ARG:NH2	2.51	0.43
31:DA:795:C:C2'	31:DA:796:C:H5'	2.48	0.43
31:BA:2468:G:C5'	42:BQ:120:ILE:HD12	2.39	0.43
1:AA:877:C:OP1	8:AH:88:LYS:HE3	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DI:133:HIS:N	38:DI:133:HIS:CD2	2.87	0.43
31:BA:2712:U:H1'	31:BA:2712(A):A:H8	1.78	0.43
45:DT:40:THR:O	45:DT:41:ARG:HB2	2.17	0.43
31:DA:1490:A:H2'	31:DA:1490:A:N3	2.34	0.43
31:DA:1557:C:P	31:DA:1558:A:HO2'	2.39	0.43
45:BT:45:PHE:CE2	45:BT:63:VAL:CG2	3.02	0.43
1:AA:65:U:C4	1:AA:381:C:N3	2.86	0.43
1:AA:126:G:H2'	1:AA:127:G:O5'	2.18	0.43
31:BA:1696:G:C5	31:BA:1697:G:N7	2.86	0.43
33:BD:131:LEU:HB2	33:BD:136:ILE:CD1	2.41	0.43
33:BD:137:PRO:HB2	33:BD:140:THR:HG23	1.99	0.43
31:DA:2841:C:H2'	31:DA:2842:G:C8	2.52	0.43
31:BA:2656:U:N3	31:BA:2665:A:C2	2.81	0.43
40:DO:22:ILE:HA	40:DO:22:ILE:HD12	1.40	0.43
8:AH:9:MET:HG2	8:AH:10:LEU:CD2	2.48	0.43
1:CA:1353:G:H2'	1:CA:1354:C:C6	2.54	0.43
48:DW:86:LEU:HB2	48:DW:96:ILE:HG22	1.99	0.43
2:CB:69:LEU:HB3	2:CB:162:ILE:CG2	2.39	0.43
31:BA:2072:G:C2'	31:BA:2073:C:H5'	2.48	0.43
1:AA:564:C:H5'	12:AL:10:LEU:CD1	2.48	0.43
2:AB:84:GLU:O	2:AB:219:VAL:HG21	2.18	0.43
1:AA:1157:A:H4'	1:AA:1158:C:C5'	2.49	0.43
36:BG:146:TYR:HA	36:BG:149:VAL:HG22	1.99	0.43
31:DA:721:C:H5'	31:DA:722:A:P	2.59	0.43
42:DQ:33:GLY:O	42:DQ:132:VAL:HG23	2.18	0.43
1:CA:783:C:H2'	1:CA:784:C:H5'	1.96	0.43
31:DA:1214:A:H2'	31:DA:1215:G:O4'	2.18	0.43
31:BA:2862:G:C3'	31:BA:2863:C:H5''	2.48	0.43
1:AA:198:G:C8	1:AA:220:G:N2	2.87	0.43
2:CB:20:GLU:CG	2:CB:191:ASP:HB2	2.48	0.43
31:DA:2342:C:OP2	31:DA:2342:C:C6	2.61	0.43
1:AA:457:C:C2	1:AA:458:C:C5	3.05	0.43
1:CA:1030:C:H2'	1:CA:1030(A):G:H5'	1.99	0.43
1:CA:939:G:H1'	1:CA:1375:A:N3	2.33	0.43
1:CA:938:A:C6	1:CA:939:G:C6	3.06	0.43
31:BA:1303:G:N2	31:BA:1304:C:C2	2.86	0.43
1:CA:760:G:H2'	1:CA:761:G:C5'	2.47	0.43
1:AA:581:G:N2	1:AA:582:U:O4	2.52	0.43
1:CA:695:A:H2'	1:CA:696:A:C8	2.53	0.43
31:DA:2364:C:H2'	31:DA:2365:G:O4'	2.18	0.43
36:DG:135:LEU:O	36:DG:154:GLY:HA3	2.18	0.43
1:CA:282:A:N3	1:CA:282:A:H2'	2.31	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BP:75:ILE:N	41:BP:75:ILE:CD1	2.80	0.43
35:BF:119:ARG:HG2	35:BF:119:ARG:O	2.18	0.43
31:BA:298:G:H5'	31:BA:299:A:OP1	2.18	0.43
31:BA:1261:C:C2'	31:BA:1262:A:O5'	2.67	0.43
1:CA:654:G:C5	1:CA:655:A:C8	3.06	0.43
20:AT:31:SER:HA	20:AT:34:LYS:CD	2.48	0.43
22:B0:50:ASN:C	22:B0:62:LEU:HB2	2.39	0.43
1:CA:1138:G:N3	1:CA:1138:G:H3'	2.33	0.43
48:DW:107:LEU:HA	48:DW:107:LEU:HD12	1.61	0.43
1:AA:1138:G:H3'	1:AA:1138:G:N3	2.33	0.43
31:DA:136:G:H2'	31:DA:137:C:O5'	2.18	0.43
17:AQ:87:LYS:O	17:AQ:88:TYR:C	2.56	0.43
31:DA:123:G:H2'	31:DA:124:G:H5'	1.99	0.43
1:AA:786:G:C2	1:AA:787:A:C4	3.06	0.43
1:AA:594:G:H1	1:AA:645:C:H42	1.66	0.43
1:CA:1418:A:C2	1:CA:1483:A:C2	3.06	0.43
46:BU:26:GLY:O	46:BU:30:LYS:HG2	2.18	0.43
15:AO:69:TYR:HD1	15:AO:72:ARG:NH2	2.16	0.43
1:AA:895:G:H2'	1:AA:896:C:C6	2.54	0.43
5:AE:147:ASP:HA	5:AE:150:ARG:HB3	1.99	0.43
1:AA:1296:C:C5	1:AA:1297:C:C5	3.06	0.43
31:DA:939:G:C5	31:DA:940:G:N7	2.86	0.43
43:DR:18:LEU:O	43:DR:19:ALA:C	2.55	0.43
36:DG:48:GLU:O	36:DG:49:ASP:CB	2.66	0.43
7:AG:136:LYS:O	7:AG:140:ASP:HB2	2.19	0.43
7:AG:145:ALA:O	7:AG:147:ALA:N	2.48	0.43
8:CH:82:HIS:HB3	8:CH:138:TRP:CE2	2.53	0.43
11:CK:74:ALA:C	11:CK:76:GLY:H	2.22	0.43
1:CA:860:A:N6	1:CA:861:G:C2	2.86	0.43
28:D6:20:ASN:CG	28:D6:21:TYR:H	2.16	0.43
30:D8:30:ARG:HB3	31:DA:2393:A:OP2	2.19	0.43
31:DA:2417:C:C4	31:DA:2418:A:N7	2.86	0.43
31:DA:2431:U:O2	31:DA:2433:A:C8	2.71	0.43
31:DA:563:G:H1	31:DA:578:A:N6	2.15	0.43
41:DP:16:ARG:NH1	41:DP:18:ARG:HG3	2.33	0.43
41:DP:91:PHE:CE2	41:DP:95:VAL:HG12	2.54	0.43
31:DA:747:U:H5'	48:DW:90:ARG:NH1	2.34	0.43
30:B8:22:VAL:HG12	30:B8:22:VAL:O	2.17	0.43
31:BA:1254:A:C8	31:BA:1256:G:C8	3.07	0.43
31:BA:2590:A:C2	31:BA:2605:U:O2	2.71	0.43
31:BA:26:G:N1	31:BA:27:G:N2	2.66	0.43
29:B7:16:HIS:CD2	31:BA:686:G:H1	2.35	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:768:G:C5	31:BA:769:G:N7	2.87	0.43
33:BD:35:LYS:CA	33:BD:64:ILE:CG2	2.96	0.43
36:BG:5:VAL:HG21	36:BG:101:ILE:CB	2.43	0.43
44:BS:92:TYR:O	44:BS:93:LYS:C	2.57	0.43
31:BA:2543:G:C6	31:BA:2544:G:C6	3.07	0.43
31:DA:61:G:N2	31:DA:94:C:N3	2.59	0.43
49:DX:39:ILE:HA	49:DX:42:ALA:HB3	2.00	0.43
31:DA:1012:U:O4	39:DN:25:ARG:HA	2.17	0.43
31:DA:846:C:H4'	31:DA:847:U:O5'	2.18	0.43
37:BH:138:LYS:O	37:BH:139:GLN:C	2.56	0.43
31:BA:1388:G:H4'	31:BA:1525:G:O2'	2.19	0.43
31:BA:1827:C:O2'	31:BA:1970:A:H1'	2.18	0.43
33:BD:245:PRO:O	33:BD:246:PRO:C	2.55	0.43
44:DS:77:ALA:O	44:DS:78:LEU:C	2.57	0.43
1:CA:329:A:C6	1:CA:332:G:C2	3.06	0.43
4:CD:135:LEU:C	4:CD:137:SER:N	2.71	0.43
50:BY:42:VAL:CG2	50:BY:67:LEU:HD13	2.49	0.43
39:BN:23:LEU:HD21	39:BN:62:VAL:HG23	2.00	0.43
31:DA:2663:G:H2'	31:DA:2664:G:C8	2.53	0.43
31:BA:2048:G:C5	31:BA:2049:G:C8	3.06	0.43
47:BV:17:GLY:O	47:BV:18:LEU:HB3	2.18	0.43
1:CA:1240:U:P	7:CG:116:ALA:HB2	2.58	0.43
31:DA:329:G:H4'	31:DA:330:A:OP2	2.19	0.43
31:BA:2275:C:H6	31:BA:2275:C:H5''	1.83	0.43
1:CA:1254:C:H2'	1:CA:1255:G:C8	2.53	0.43
51:DZ:28:MET:HA	51:DZ:88:PHE:O	2.18	0.43
1:AA:1126:U:O4'	1:AA:1126:U:OP1	2.36	0.43
10:CJ:3:LYS:N	10:CJ:74:ILE:O	2.52	0.43
1:AA:1277:C:O2'	1:AA:1279:A:H1'	2.18	0.43
50:BY:9:LYS:O	50:BY:10:GLY:C	2.56	0.43
1:AA:734:G:C5	1:AA:735:C:C4	3.07	0.43
32:BB:17:C:N3	32:BB:18:G:N7	2.67	0.43
1:CA:445:G:N2	1:CA:446:G:C4	2.86	0.43
1:AA:329:A:C6	1:AA:332:G:C2	3.06	0.43
31:DA:1115:G:C2	31:DA:1116:C:C4	3.05	0.43
31:BA:2772:C:H2'	31:BA:2773:C:H6	1.82	0.43
50:BY:81:LYS:HD3	50:BY:97:ARG:CG	2.48	0.43
50:BY:88:LYS:NZ	50:BY:95:LYS:HE3	2.33	0.43
39:BN:21:LYS:HA	39:BN:21:LYS:HD3	1.86	0.43
2:AB:25:ASN:HA	2:AB:26:PRO:HD2	1.76	0.43
28:B6:13:CYS:HB2	28:B6:22:ALA:CB	2.48	0.43
31:BA:1496:A:H8	31:BA:1577:C:O2'	1.99	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:661:G:N2	1:CA:662:G:C4	2.86	0.43
36:DG:32:PRO:CB	36:DG:163:ALA:HB2	2.47	0.43
45:DT:124:ASP:C	45:DT:126:ALA:N	2.72	0.43
31:DA:86:C:O2'	31:DA:87:C:H5'	2.18	0.43
31:DA:1946:U:C2'	31:DA:1947:C:O5'	2.66	0.43
31:BA:918:A:C5	31:BA:919:G:H1'	2.53	0.43
31:DA:1629:U:H2'	31:DA:1630:G:O4'	2.18	0.43
1:CA:1057:G:C5	1:CA:1204:A:C2	3.07	0.43
1:CA:1057:G:C6	1:CA:1058:G:C4	3.07	0.43
38:BI:113:ARG:HB3	38:BI:131:LYS:O	2.18	0.43
31:DA:1786:A:N9	31:DA:1938:A:N6	2.67	0.43
31:DA:2073:C:O3'	33:DD:228:PRO:HB3	2.19	0.43
36:BG:106:LEU:HA	36:BG:110:ALA:CB	2.38	0.43
48:DW:13:SER:O	48:DW:14:PRO:C	2.56	0.43
31:DA:1473:G:C5	31:DA:1474:C:C5	3.07	0.43
31:DA:1475:G:C2	31:DA:1517:G:C4	3.06	0.43
31:DA:1173:G:H2'	31:DA:1175:U:C5	2.54	0.43
31:BA:2655:G:HO2'	31:BA:2656:U:H5	1.60	0.43
37:BH:103:LEU:HD21	37:BH:105:LEU:HD11	2.01	0.43
1:CA:340:U:H2'	1:CA:341:C:O4'	2.19	0.43
31:DA:2580:U:H2'	31:DA:2580:U:O2	2.17	0.43
1:AA:552:U:H4'	12:AL:86:ARG:HG3	2.00	0.43
10:AJ:38:ILE:HG13	10:AJ:38:ILE:O	2.18	0.43
1:AA:1353:G:H2'	1:AA:1354:C:C6	2.54	0.43
6:CF:82:ARG:O	6:CF:85:VAL:HB	2.18	0.43
8:CH:4:ASP:OD2	8:CH:7:ALA:HB2	2.19	0.43
18:CR:62:GLU:O	18:CR:65:ILE:HG13	2.19	0.43
33:BD:3:VAL:N	33:BD:20:ASP:HB2	2.31	0.43
4:AD:173:TRP:O	4:AD:173:TRP:CD1	2.71	0.43
42:DQ:42:ILE:N	42:DQ:42:ILE:HD12	2.33	0.43
31:DA:2078:C:C2	31:DA:2079:U:C6	3.07	0.43
31:BA:2093:G:H4'	38:BI:25:TYR:H	1.83	0.43
22:D0:82:ARG:O	22:D0:82:ARG:HG3	2.18	0.43
31:DA:1670:C:C2	34:DE:129:HIS:HE1	2.36	0.43
10:CJ:86:MET:O	10:CJ:86:MET:HG3	2.18	0.43
10:CJ:84:GLN:O	10:CJ:88:LEU:CB	2.66	0.43
1:CA:670:G:N2	1:CA:671:G:H1'	2.33	0.43
35:DF:119:ARG:HG2	35:DF:119:ARG:O	2.19	0.43
18:AR:40:LEU:C	18:AR:42:ARG:N	2.72	0.43
31:DA:614:U:O2	31:DA:614:U:O4'	2.36	0.43
45:BT:10:VAL:CG1	45:BT:11:GLU:N	2.79	0.43
16:CP:51:VAL:HG13	16:CP:52:ASP:N	2.32	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CS:42:PRO:O	19:CS:43:GLU:CB	2.65	0.43
1:AA:276:G:H5'	17:AQ:15:MET:HE1	2.00	0.43
1:AA:632:A:H8	1:AA:633:G:C8	2.33	0.43
48:DW:64:MET:HE3	48:DW:109:GLU:HG3	2.01	0.43
31:DA:1441:G:N3	31:DA:1442:G:C8	2.86	0.43
31:DA:1033:U:C5'	31:DA:1034:G:OP1	2.66	0.43
31:DA:485:C:H2'	31:DA:486:C:H6	1.80	0.43
1:CA:620:C:O2'	1:CA:621:A:H5'	2.18	0.43
31:BA:272(E):G:C5	31:BA:272(F):C:C4	3.06	0.43
51:BZ:4:ARG:CZ	51:BZ:58:VAL:HG11	2.48	0.43
1:AA:1134:G:C2'	1:AA:1135:U:H5'	2.48	0.43
1:AA:1159:U:O4'	1:AA:1182:G:N2	2.51	0.43
31:BA:451:C:H41	31:BA:454:A:H5'	1.83	0.43
1:CA:872:A:C4	1:CA:874:G:C8	3.06	0.43
31:DA:181:A:H2	31:DA:434:U:O4'	2.02	0.43
10:CJ:22:LYS:C	10:CJ:24:VAL:H	2.22	0.43
32:BB:3:C:H5''	32:BB:4:C:OP2	2.17	0.43
38:BI:84:GLY:O	38:BI:85:GLU:HB2	2.19	0.43
3:AC:126:ARG:O	3:AC:127:ARG:HB2	2.18	0.43
31:DA:2623:G:H4'	31:DA:2825:C:O2	2.18	0.43
31:BA:452:G:C2	31:BA:458:G:C5	3.07	0.43
6:AF:15:ASP:C	6:AF:17:SER:N	2.71	0.43
12:CL:34:ARG:O	12:CL:61:THR:HG23	2.19	0.43
31:DA:272(J):C:C2'	31:DA:274:G:OP1	2.67	0.43
31:BA:1764:G:N2	31:BA:1765:C:C2	2.87	0.43
7:CG:26:PHE:O	7:CG:30:ILE:HG12	2.18	0.43
5:CE:20:GLN:HB3	5:CE:20:GLN:HE21	1.60	0.43
28:D6:44:ARG:HB3	28:D6:45:LYS:H	1.63	0.43
30:D8:41:ILE:HD12	30:D8:42:ARG:N	2.34	0.43
30:D8:61:LEU:C	30:D8:63:PRO:HD2	2.39	0.43
31:DA:2418:A:C5	31:DA:2419:U:C4	3.06	0.43
31:DA:510:C:H2'	31:DA:511:U:O4'	2.18	0.43
28:B6:24:GLU:HB3	28:B6:25:LYS:H	1.48	0.43
35:BF:31:HIS:O	35:BF:34:TRP:N	2.52	0.43
35:BF:62:ARG:HH21	35:BF:64:ILE:HA	1.84	0.43
31:BA:695:G:C4	31:BA:696:G:C8	3.07	0.43
33:BD:35:LYS:HE3	33:BD:65:ILE:HG22	1.99	0.43
31:DA:1710:C:H4'	31:DA:2858:C:O2	2.19	0.43
49:DX:25:LYS:NZ	49:DX:90:GLU:HB2	2.34	0.43
41:BP:84:ASN:C	41:BP:86:LYS:N	2.72	0.43
39:DN:91:LEU:HD21	39:DN:98:VAL:HG21	1.98	0.43
31:BA:2747:G:O2'	37:BH:67:LEU:CD1	2.66	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:B2:46:GLN:CG	24:B2:47:ASN:N	2.75	0.43
31:BA:2636:U:OP1	34:BE:80:GLU:HG3	2.18	0.43
32:DB:24:G:N2	32:DB:56:G:H22	2.17	0.43
1:AA:408:A:C5'	4:AD:116:GLN:HB2	2.48	0.43
16:AP:14:ASN:N	16:AP:15:PRO:HD3	2.33	0.43
1:CA:321:A:H2'	1:CA:322:C:C6	2.54	0.43
1:CA:352:C:OP1	1:CA:352:C:H6	2.01	0.43
50:BY:26:LYS:HE2	50:BY:27:VAL:HG23	2.00	0.43
31:DA:2586:C:O2'	31:DA:2587:A:H5'	2.18	0.43
33:DD:159:ALA:HB1	33:DD:198:ASN:O	2.18	0.43
33:DD:27:THR:O	33:DD:28:GLU:CB	2.67	0.43
23:D1:10:LYS:HB2	23:D1:14:VAL:CA	2.48	0.43
23:D1:48:LYS:O	23:D1:62:VAL:O	2.35	0.43
31:DA:422:A:O5'	31:DA:422:A:H8	2.01	0.43
31:DA:2645:G:H3'	31:DA:2646:C:C5'	2.47	0.43
31:DA:2638:G:C4	31:DA:2775:A:C2	3.06	0.43
20:CT:30:LYS:HZ1	20:CT:80:ARG:NH1	2.17	0.43
50:DY:9:LYS:O	50:DY:10:GLY:C	2.56	0.43
31:BA:310:A:C4	31:BA:312:G:C8	3.06	0.43
31:DA:2275:C:H6	31:DA:2275:C:H5''	1.82	0.43
31:DA:2283:C:H2'	31:DA:2284:C:O4'	2.18	0.43
51:BZ:53:ILE:H	51:BZ:53:ILE:HG12	1.56	0.43
1:AA:1255:G:O2'	1:AA:1258:G:O2'	2.23	0.43
32:DB:110:G:C6	32:DB:111:G:N7	2.86	0.43
31:BA:257:A:H2'	31:BA:258:G:O4'	2.18	0.43
31:BA:259:G:N2	31:BA:621:A:C8	2.85	0.43
31:BA:259:G:H1'	31:BA:621:A:O2'	2.19	0.43
31:DA:1278:A:H2'	31:DA:1279:G:H8	1.84	0.43
1:AA:709:G:O2'	1:AA:710:G:H5'	2.19	0.43
1:AA:737:A:C6	1:AA:738:C:N4	2.87	0.43
27:B5:40:LYS:HZ1	27:B5:49:CYS:CB	2.32	0.43
34:DE:2:LYS:HA	34:DE:84:PHE:CE2	2.53	0.43
31:DA:2197:U:C5	31:DA:2224:G:C6	3.07	0.43
1:AA:321:A:H2'	1:AA:322:C:C6	2.53	0.43
32:BB:86:G:O5'	32:BB:86:G:H8	2.01	0.43
31:DA:2636:U:H4'	34:DE:80:GLU:CD	2.39	0.43
15:CO:39:LEU:HD21	15:CO:42:HIS:HD2	1.82	0.43
34:DE:24:THR:HG23	34:DE:184:VAL:CG2	2.48	0.43
34:BE:95:ILE:HD12	34:BE:95:ILE:H	1.84	0.43
22:B0:8:GLY:O	22:B0:10:THR:N	2.52	0.43
31:BA:966:G:C6	31:BA:967:C:C4	3.07	0.43
40:BO:35:VAL:CG1	40:BO:105:GLU:HB2	2.49	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:922:G:C6	1:AA:923:A:N1	2.87	0.43
1:AA:700:G:H4'	1:AA:704:A:H1'	2.00	0.43
1:AA:699:C:H2'	1:AA:700:G:H5'	2.00	0.43
1:CA:779:C:H1'	11:CK:120:ARG:HD2	2.00	0.43
38:BI:92:VAL:HG23	38:BI:96:ASP:HB2	2.01	0.43
16:CP:21:VAL:HG22	16:CP:34:GLU:O	2.18	0.43
31:DA:64:A:OP1	49:DX:70:LEU:HD12	2.18	0.43
43:BR:53:HIS:O	43:BR:56:LYS:HB3	2.18	0.43
25:B3:45:GLY:HA3	31:BA:852:G:H5'	2.00	0.43
31:BA:852:G:H2'	31:BA:853:G:C8	2.53	0.43
1:AA:1239:A:H2'	1:AA:1298:C:H42	1.82	0.43
1:CA:960:U:O2	1:CA:960:U:C2'	2.66	0.43
11:AK:95:ILE:HG23	11:AK:108:ILE:CD1	2.49	0.43
31:DA:1833:U:C5	31:DA:1834:U:C5	3.06	0.43
13:AM:15:VAL:CG2	13:AM:41:PRO:HA	2.46	0.43
1:AA:68:G:N2	1:AA:69:G:C4	2.86	0.43
47:DV:47:VAL:HG22	47:DV:48:GLY:N	2.33	0.43
31:DA:1882:C:C2	31:DA:1883:G:C8	3.06	0.43
31:DA:154(A):C:OP2	31:DA:154(A):C:C2	2.71	0.43
29:D7:40:TRP:CZ3	31:DA:459:U:H4'	2.53	0.43
10:CJ:38:ILE:HG12	10:CJ:71:LEU:O	2.19	0.43
36:BG:71:THR:HB	36:BG:89:GLY:CA	2.47	0.43
31:DA:2465:C:C2	31:DA:2486:G:C2	3.06	0.43
1:CA:1287:A:N6	1:CA:1288:A:N6	2.66	0.43
1:AA:600:C:OP1	8:AH:97:VAL:HG12	2.19	0.43
31:DA:2469:A:C6	31:DA:2470:G:C4	3.07	0.43
1:AA:1372:U:H2'	1:AA:1373:G:O4'	2.19	0.43
18:AR:59:SER:HB3	18:AR:62:GLU:OE2	2.18	0.43
1:AA:1406:U:H2'	1:AA:1407:C:C6	2.54	0.43
1:AA:142:G:N2	1:AA:143:A:C8	2.86	0.43
31:DA:543:C:N4	31:DA:551:G:N1	2.66	0.43
31:BA:2290:G:H2'	31:BA:2291:U:O4'	2.18	0.43
1:CA:991:U:C2'	1:CA:992:U:OP2	2.66	0.43
51:DZ:108:PRO:HA	51:DZ:142:SER:CA	2.44	0.43
31:BA:2273:A:C2	31:BA:2274:A:C5	3.07	0.43
31:DA:1206:G:C6	31:DA:1207:C:C4	3.05	0.43
23:B1:16:ASN:N	23:B1:16:ASN:OD1	2.50	0.43
31:BA:749:C:H4'	31:BA:1271:G:N3	2.34	0.43
42:BQ:32:TYR:HB2	42:BQ:106:VAL:HG23	2.00	0.43
31:DA:1649:G:N1	31:DA:2009:G:C6	2.86	0.43
43:DR:103:ARG:O	43:DR:104:ARG:C	2.57	0.43
15:AO:77:ARG:HA	15:AO:80:ALA:HB3	2.01	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:58:ASP:O	10:AJ:59:SER:C	2.57	0.43
31:DA:1422:G:C4	31:DA:1423:G:C8	3.06	0.43
10:AJ:84:GLN:O	10:AJ:88:LEU:CB	2.65	0.43
31:DA:1315:C:H2'	31:DA:1316:U:C6	2.53	0.43
12:AL:53:ARG:CB	12:AL:93:LEU:HD11	2.49	0.43
31:BA:1444:G:N2	31:BA:1548:C:C2	2.87	0.43
6:CF:63:TYR:O	6:CF:65:VAL:HG13	2.18	0.43
1:CA:693:G:H2'	1:CA:694:A:C8	2.54	0.43
33:DD:124:PRO:HG2	33:DD:129:ASN:ND2	2.34	0.43
15:AO:64:ARG:O	15:AO:65:ARG:C	2.57	0.43
31:BA:1773:A:C5	31:BA:1829:A:H1'	2.53	0.43
31:DA:263:C:H2'	31:DA:264:C:O4'	2.19	0.43
1:CA:32:A:C2	1:CA:33:A:C5	3.07	0.43
31:DA:1465:G:N1	31:DA:1466:G:C5	2.87	0.43
31:BA:327:G:C2	31:BA:336:C:C2	3.06	0.43
33:BD:224:ALA:O	33:BD:225:ALA:CB	2.67	0.43
18:CR:57:GLY:O	18:CR:58:LEU:HD12	2.17	0.43
1:CA:753:A:H4'	1:CA:754:C:O4'	2.19	0.43
34:BE:143:ASN:OD1	34:BE:147:PRO:HD2	2.19	0.43
31:DA:1248:G:C5	46:DU:3:ARG:HB2	2.53	0.43
38:DI:92:VAL:HG23	38:DI:96:ASP:HB2	2.01	0.43
1:CA:1334:G:OP2	1:CA:1334:G:H8	2.01	0.43
1:CA:763:G:C5	1:CA:764:C:C5	3.07	0.43
49:DX:93:GLU:O	49:DX:95:LEU:N	2.52	0.43
31:DA:939:G:C4	31:DA:940:G:C8	3.07	0.43
31:BA:2670:A:H5''	31:BA:2670:A:H8	1.82	0.43
51:BZ:115:GLY:HA2	51:BZ:177:PRO:HD3	1.99	0.43
46:BU:21:ALA:HB2	46:BU:35:ALA:HB1	2.00	0.43
20:AT:58:LYS:O	20:AT:58:LYS:HG3	2.19	0.43
43:BR:111:LEU:HD23	43:BR:111:LEU:HA	1.80	0.43
46:DU:5:LYS:O	46:DU:6:THR:C	2.57	0.43
1:CA:861:G:O2'	1:CA:862:C:H5'	2.19	0.43
28:D6:15:GLU:OE2	28:D6:41:PRO:HG3	2.18	0.43
31:DA:195:A:H61	31:DA:198:C:H3'	1.84	0.43
31:DA:449:A:H2'	31:DA:450:G:H5'	2.00	0.43
35:DF:97:TYR:N	35:DF:97:TYR:CD2	2.86	0.43
31:BA:2418:A:C5	31:BA:2419:U:C4	3.06	0.43
31:BA:734:A:C4	31:BA:735:A:C8	3.07	0.43
32:BB:55:U:C4	32:BB:56:G:N7	2.87	0.43
36:BG:15:VAL:HG12	36:BG:19:LEU:HG	2.00	0.43
31:DA:1722:A:C5	31:DA:1741:A:N1	2.86	0.43
24:D2:29:LYS:C	24:D2:33:MET:SD	2.97	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:D2:45:SER:HB3	24:D2:48:HIS:CB	2.48	0.43
31:DA:1449:A:N6	31:DA:1450:G:C4	2.87	0.43
49:DX:35:THR:HB	49:DX:75:ASP:CG	2.37	0.43
31:DA:999:U:H5''	31:DA:1154:G:O6	2.19	0.43
46:DU:50:ARG:CZ	47:DV:75:PHE:CE2	3.02	0.43
47:DV:70:ILE:HG13	47:DV:71:LEU:N	2.34	0.43
47:DV:96:ILE:HG22	47:DV:97:LYS:N	2.34	0.43
24:B2:30:ARG:HG3	24:B2:30:ARG:NH1	2.34	0.43
31:BA:1450(A):C:C2	31:BA:1451:C:C5	3.07	0.43
31:BA:2807:G:C3'	31:BA:2808:U:H5''	2.42	0.43
31:BA:1902:C:H4'	33:BD:244:ARG:HB2	2.00	0.43
44:DS:13:ARG:O	44:DS:15:ARG:N	2.51	0.43
44:DS:26:LEU:HG	44:DS:39:ILE:CD1	2.48	0.43
1:AA:623:C:C4	1:AA:624:C:C4	3.07	0.43
4:AD:79:PHE:C	4:AD:79:PHE:HD2	2.22	0.43
1:CA:358:U:N3	1:CA:359:U:C4	2.86	0.43
33:DD:53:PHE:HB3	33:DD:218:ARG:O	2.18	0.43
39:BN:91:LEU:HD21	39:BN:98:VAL:HG21	1.99	0.43
46:BU:62:ILE:HG13	46:BU:76:TYR:CE1	2.54	0.43
47:BV:80:GLN:C	47:BV:80:GLN:OE1	2.57	0.43
31:DA:2786:U:H2'	31:DA:2786:U:O2	2.18	0.43
31:BA:1803:A:C2'	31:BA:1804:C:H5'	2.48	0.43
1:CA:189(K):U:H2'	1:CA:189(L):G:H8	1.82	0.43
47:BV:19:LYS:O	47:BV:20:LEU:HG	2.19	0.43
35:BF:24:LEU:O	35:BF:25:PRO:C	2.56	0.43
18:CR:73:ALA:CB	18:CR:79:LEU:HD12	2.49	0.43
31:BA:330:A:O2'	31:BA:331:A:H8	2.01	0.43
32:DB:73:A:C8	32:DB:104:U:O4	2.72	0.43
32:DB:75:G:N3	51:DZ:85:HIS:CE1	2.87	0.43
31:DA:864:G:H2'	31:DA:865:C:C6	2.53	0.43
31:DA:966:G:C6	31:DA:967:C:C4	3.07	0.43
31:DA:354:G:C8	31:DA:354:G:O5'	2.60	0.43
1:AA:684:A:C6	1:AA:685:G:C6	3.07	0.43
27:B5:51:TYR:CB	27:B5:52:TYR:O	2.67	0.43
4:AD:10:ARG:O	4:AD:13:ARG:HB2	2.18	0.43
31:DA:2092:U:C5	31:DA:2226:C:OP1	2.68	0.43
1:AA:1433:A:C4	1:AA:1468:A:C2	3.07	0.43
31:DA:380:U:C2	31:DA:381:G:C8	3.05	0.43
31:BA:271(M):G:O2'	38:BI:53:ALA:CB	2.67	0.43
1:AA:745:C:H1'	1:AA:836:G:O2'	2.19	0.43
1:CA:1072:G:H2'	1:CA:1073:U:H6	1.77	0.43
31:DA:1690:A:C8	31:DA:1691:C:C5	3.07	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:864:G:N2	31:BA:913:U:C2	2.86	0.43
31:BA:866:A:C6	31:BA:914:C:C6	3.07	0.43
1:AA:575:G:C5	1:AA:881:G:C2	3.06	0.43
50:DY:88:LYS:HB3	50:DY:90:LEU:HG	2.00	0.43
45:BT:31:SER:HB2	45:BT:33:LYS:HZ1	1.84	0.43
31:BA:1169:G:H3'	31:BA:1169:G:C8	2.54	0.43
1:CA:1446:U:O2'	1:CA:1447:A:C8	2.70	0.43
1:CA:700:G:H4'	1:CA:704:A:H1'	2.00	0.43
12:CL:26:ALA:O	12:CL:27:LEU:HB2	2.18	0.43
45:DT:33:LYS:HD3	45:DT:33:LYS:HA	1.24	0.43
43:DR:5:LYS:CD	43:DR:5:LYS:N	2.70	0.43
45:DT:28:VAL:CG2	45:DT:46:GLU:CG	2.96	0.43
1:AA:1064:G:H5'	1:AA:1066:C:C1'	2.43	0.43
31:BA:1687:G:H2'	31:BA:1688:U:H6	1.84	0.43
31:BA:1027:A:N6	31:BA:1126:A:C4	2.87	0.43
1:CA:1405:G:O4'	1:CA:1519:A:H4'	2.18	0.43
31:BA:2836:U:C4	31:BA:2883:A:N6	2.87	0.43
33:BD:137:PRO:HB2	33:BD:140:THR:CG2	2.49	0.43
1:AA:702:A:H4'	1:AA:703:G:OP2	2.19	0.43
29:D7:40:TRP:CG	31:DA:459:U:H5''	2.54	0.43
36:BG:89:GLY:O	36:BG:90:LEU:O	2.36	0.43
1:CA:1288:A:O2'	1:CA:1289:A:H5'	2.19	0.43
39:DN:82:LEU:O	39:DN:83:LYS:C	2.57	0.43
31:DA:2472:G:C5	31:DA:2475:C:C4	3.06	0.43
1:AA:1285:A:OP1	1:AA:1285:A:C8	2.71	0.43
50:BY:49:VAL:HG12	50:BY:53:PRO:HG3	2.00	0.43
6:CF:8:ILE:HG12	6:CF:88:VAL:HG22	2.00	0.43
18:AR:31:LEU:O	18:AR:32:ARG:HB2	2.18	0.43
31:BA:1914:C:O4'	31:BA:1914:C:O2	2.36	0.43
31:DA:1876:A:C2	31:DA:1877:A:C5	3.07	0.43
16:CP:39:TYR:CE1	16:CP:41:PRO:HA	2.54	0.43
42:DQ:106:VAL:CG2	42:DQ:114:ALA:HB1	2.44	0.43
35:DF:140:LEU:O	35:DF:141:ALA:C	2.57	0.43
34:BE:103:ASP:CG	34:BE:168:MET:HE2	2.39	0.43
1:CA:592:G:C2	1:CA:648:A:C2	3.07	0.43
2:AB:20:GLU:HG3	2:AB:191:ASP:HB2	1.99	0.43
1:CA:977:A:C2'	1:CA:978:A:H5'	2.48	0.43
2:CB:32:ILE:HG13	2:CB:34:ALA:N	2.33	0.43
31:BA:884:C:H3'	31:BA:884:C:H6	1.84	0.43
37:DH:92:ILE:CG2	37:DH:93:GLY:H	2.29	0.43
1:AA:1313:U:OP2	19:AS:6:LYS:CB	2.66	0.43
1:AA:1173:G:C5	1:AA:1174:G:N7	2.87	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:43:ALA:HA	9:CI:74:ILE:HD13	2.01	0.43
8:AH:51:VAL:CG1	8:AH:60:ARG:HG3	2.44	0.43
31:BA:603:A:H1'	31:BA:604:G:O4'	2.18	0.43
1:CA:830:G:H2'	1:CA:831:U:H6	1.84	0.43
48:DW:103:ILE:H	48:DW:103:ILE:HD12	1.84	0.43
6:AF:3:ARG:HG3	6:AF:3:ARG:NH1	2.31	0.43
1:AA:316:G:N2	1:AA:338:A:C4	2.87	0.43
31:BA:1853:A:N1	31:BA:2087:G:H1'	2.34	0.43
1:AA:997:U:H2'	1:AA:998:G:H8	1.77	0.43
16:CP:49:LEU:HD21	16:CP:77:ALA:HB2	2.00	0.43
2:AB:61:LEU:HG	2:AB:68:ILE:HD11	1.99	0.43
31:BA:1848:A:O2'	31:BA:1849:G:H5'	2.17	0.43
1:AA:725:G:C2	1:AA:726:C:C5	3.07	0.43
1:CA:945:G:C6	1:CA:1337:G:C6	3.07	0.43
4:AD:3:ARG:HD3	4:AD:3:ARG:O	2.18	0.43
1:CA:900:A:H2'	1:CA:901:A:O4'	2.19	0.43
31:BA:1783:A:C2	31:BA:2587:A:C5	3.06	0.43
17:CQ:100:LYS:HA	17:CQ:100:LYS:HD3	1.85	0.43
31:BA:1629:U:H2'	31:BA:1630:G:C8	2.53	0.43
20:CT:94:ALA:O	20:CT:95:ALA:CB	2.66	0.43
7:AG:144:MET:O	7:AG:148:ASN:HB2	2.19	0.43
50:BY:52:SER:O	50:BY:54:LYS:N	2.51	0.43
20:AT:24:LEU:C	20:AT:24:LEU:HD13	2.39	0.43
31:DA:2489:G:C6	31:DA:2490:G:C6	3.06	0.43
40:DO:71:ARG:O	40:DO:74:GLY:N	2.49	0.43
43:DR:55:ALA:HB2	43:DR:79:LEU:CD1	2.49	0.43
38:BI:41:GLU:O	38:BI:42:SER:C	2.56	0.43
31:DA:2738:A:C2	31:DA:2739:U:H1'	2.53	0.43
33:BD:157:ARG:HA	33:BD:196:VAL:HG21	2.01	0.43
2:AB:179:LYS:NZ	2:AB:179:LYS:HB2	2.34	0.43
31:DA:2441:C:H4'	31:DA:2441:C:OP1	2.19	0.43
38:DI:79:ILE:HA	38:DI:80:PRO:HD3	1.77	0.43
1:CA:1077:G:N1	1:CA:1081:G:C6	2.86	0.43
1:CA:1399:C:C4'	1:CA:1400:C:H5''	2.41	0.43
1:CA:15:G:H1	1:CA:922:G:H1	1.60	0.43
1:CA:829:G:C6	1:CA:858:G:N2	2.86	0.43
28:D6:12:GLU:HB2	28:D6:21:TYR:HD2	1.83	0.43
30:D8:36:LYS:HE2	30:D8:36:LYS:HB2	1.83	0.43
31:DA:244:A:H2'	31:DA:245:G:O4'	2.19	0.43
55:DA:3320:TEL:H582	55:DA:3320:TEL:H541	1.61	0.43
31:DA:974:G:N2	31:DA:989:G:H1'	2.33	0.43
31:BA:2059:A:O2'	35:BF:69:HIS:CD2	2.64	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:2246:G:H1'	31:BA:2426:A:C2	2.53	0.43
31:BA:197:A:H61	31:BA:2431:U:H5'	1.83	0.43
31:BA:676:A:H2	31:BA:802:A:N6	1.97	0.43
31:BA:745:G:C3'	31:BA:746:A:H5'	2.48	0.43
30:B8:13:ARG:HB3	41:BP:63:PRO:HA	2.01	0.43
31:BA:125:G:C4'	31:BA:126:A:OP2	2.65	0.43
24:D2:27:GLU:O	24:D2:28:LYS:C	2.57	0.43
31:DA:1341:U:OP2	31:DA:1394:U:O2'	2.23	0.43
31:DA:59:U:O2'	31:DA:73:A:H2'	2.17	0.43
49:DX:72:LYS:O	49:DX:73:ARG:CB	2.66	0.43
41:BP:85:LEU:HB2	41:BP:120:ALA:HB2	2.01	0.43
31:DA:1022:G:C6	31:DA:1141:U:C5	3.07	0.43
31:DA:1000:A:N6	31:DA:1155:A:C8	2.87	0.43
39:DN:55:VAL:HG12	39:DN:126:PRO:CA	2.40	0.43
24:B2:29:LYS:O	24:B2:32:LEU:HB3	2.18	0.43
31:BA:1343:G:H1	31:BA:1404:C:N4	2.16	0.43
31:BA:1405:U:C2	31:BA:1406:U:C5	3.07	0.43
31:DA:2333:A:C2'	31:DA:2334:G:OP2	2.67	0.43
1:AA:385:C:C2'	1:AA:386:C:H5'	2.49	0.43
1:AA:408:A:N6	1:AA:409:G:C6	2.87	0.43
4:CD:65:ARG:HD2	4:CD:72:GLU:HA	2.01	0.43
50:BY:7:VAL:HB	50:BY:8:LYS:NZ	2.33	0.43
38:DI:88:ILE:HG23	38:DI:88:ILE:HD13	1.72	0.43
31:BA:1326:U:O2'	31:BA:1327:C:H5'	2.19	0.43
25:B3:13:ILE:HD13	25:B3:13:ILE:N	2.33	0.43
31:BA:1139:G:H5'	39:BN:102:ALA:HB1	2.01	0.43
39:BN:34:LEU:HD13	39:BN:34:LEU:HA	1.92	0.43
46:BU:90:VAL:CG1	46:BU:91:ASP:H	2.19	0.43
37:DH:149:ARG:O	37:DH:152:ARG:O	2.37	0.43
31:BA:1820:U:C4'	31:BA:1821:A:OP2	2.56	0.43
31:DA:2495:G:C6	31:DA:2496:C:C4	3.07	0.43
27:B5:16:ARG:NH1	27:B5:16:ARG:CG	2.71	0.43
11:AK:41:THR:CG2	11:AK:42:TRP:N	2.81	0.43
1:AA:59:A:C8	1:AA:354:G:N1	2.87	0.43
33:DD:133:LEU:HD21	33:DD:191:ALA:CB	2.49	0.43
31:DA:2627:G:O2'	31:DA:2781:A:N1	2.33	0.43
20:AT:79:ARG:HB2	20:AT:79:ARG:HH11	1.84	0.43
31:DA:1047:G:C2'	31:DA:1110:G:H22	2.31	0.43
50:BY:96:ILE:HG13	50:BY:100:ALA:O	2.19	0.43
31:DA:1291:C:H2'	31:DA:1292:U:H6	1.79	0.43
1:CA:1089:G:C2	1:CA:1090:U:C2	3.07	0.43
31:BA:2428:G:H5''	31:BA:2429:G:O5'	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:171:ALA:HA	2:CB:174:VAL:HG23	2.00	0.43
31:DA:915:C:C5	31:DA:916:G:C5	3.06	0.43
31:BA:1419:A:C3'	31:BA:1420:U:H5''	2.48	0.43
31:BA:1576:U:N3	31:BA:1577:C:C5	2.87	0.43
50:DY:80:GLY:O	50:DY:81:LYS:HB3	2.19	0.43
45:BT:31:SER:HA	45:BT:32:TYR:CD2	2.54	0.43
22:D0:32:ARG:H	22:D0:35:ASN:ND2	2.12	0.43
1:AA:976:G:C8	1:AA:1362:C:N4	2.86	0.43
38:BI:77:LEU:HD22	38:BI:104:GLN:OE1	2.19	0.43
31:DA:498:G:C6	31:DA:499:U:C4	3.06	0.43
50:DY:46:LYS:O	50:DY:60:PHE:CE2	2.72	0.43
31:BA:919:G:H4'	32:BB:81:G:H4'	2.01	0.43
1:CA:962:C:H42	1:CA:974:A:N6	2.17	0.43
31:BA:2844:G:N2	31:BA:2845:G:H1'	2.34	0.43
31:DA:775:G:C2	31:DA:777:A:N6	2.87	0.43
11:AK:65:ALA:HB3	11:AK:97:ALA:CB	2.48	0.43
48:DW:14:PRO:O	48:DW:15:ARG:C	2.57	0.43
2:CB:90:MET:HA	2:CB:90:MET:CE	2.48	0.43
31:DA:1831:G:H2'	31:DA:1832:C:H6	1.84	0.43
8:CH:102:ARG:N	8:CH:102:ARG:NE	2.59	0.43
45:DT:30:VAL:HG22	45:DT:84:GLN:O	2.18	0.43
1:AA:1060:C:O2'	1:AA:1061:G:H5'	2.19	0.43
31:BA:2323:G:H2'	31:BA:2324:C:O4'	2.18	0.43
31:BA:344:G:O2'	31:BA:345:A:H5'	2.19	0.43
13:CM:66:LEU:HB2	13:CM:67:GLU:H	1.55	0.43
31:BA:1689:A:N6	31:BA:1698:A:H2	2.17	0.43
1:AA:258:G:N3	1:AA:259:G:C8	2.86	0.43
1:AA:1388:C:H2'	1:AA:1389:C:C6	2.54	0.43
8:CH:36:LEU:CA	8:CH:39:LEU:HD23	2.40	0.43
31:DA:1772:G:N1	31:DA:1980:G:C6	2.87	0.43
31:BA:721:C:C2	31:BA:722:A:C8	3.06	0.43
33:DD:17:THR:CG2	33:DD:205:VAL:H	2.24	0.43
39:DN:85:ILE:HA	39:DN:86:PRO:HD2	1.83	0.43
31:DA:2478:A:H2'	31:DA:2479:G:O4'	2.18	0.43
31:DA:183:C:H2'	31:DA:184:C:H5'	2.00	0.43
1:AA:1516:G:N1	1:AA:1519:A:OP2	2.51	0.43
1:AA:781:A:C3'	1:AA:782:A:H5'	2.48	0.43
42:BQ:63:LYS:HD2	51:BZ:175:VAL:HG21	1.99	0.43
31:BA:39:C:C2'	31:BA:40:C:H5'	2.49	0.43
3:CC:50:ALA:HB1	3:CC:70:VAL:HG11	2.00	0.43
2:AB:88:ALA:CB	2:AB:219:VAL:HG13	2.44	0.43
31:BA:2063:C:O2	31:BA:2450:A:N1	2.52	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BN:49:GLY:O	39:BN:119:ARG:NH1	2.52	0.43
31:BA:1269:A:H2'	31:BA:1270:C:C6	2.53	0.43
42:BQ:134:ARG:C	42:BQ:136:ALA:N	2.72	0.43
1:CA:1366:C:OP1	9:CI:117:HIS:CE1	2.72	0.43
36:BG:178:PHE:HB3	36:BG:180:PHE:CE1	2.54	0.43
31:DA:1321:A:C6	31:DA:1322:A:C5	3.07	0.43
31:DA:2591:C:OP2	33:DD:239:ARG:HB2	2.18	0.43
31:BA:2603:G:C4	31:BA:2604:U:C6	3.07	0.43
6:AF:46:ARG:HB2	6:AF:60:PHE:CD1	2.53	0.43
31:DA:2838:G:OP1	43:DR:8:ARG:HD2	2.18	0.43
3:CC:125:GLU:HG2	3:CC:190:ARG:H	1.84	0.43
15:CO:36:ILE:CD1	15:CO:63:ARG:HD3	2.48	0.43
1:CA:37:U:C2'	1:CA:38:G:H5'	2.49	0.43
6:AF:11:ASN:O	6:AF:14:LEU:HD12	2.18	0.43
1:AA:397:A:C5	1:AA:548:G:C8	3.06	0.43
46:DU:20:LEU:N	46:DU:20:LEU:CD2	2.81	0.43
1:CA:147:G:C4	1:CA:148:G:C8	3.07	0.43
1:CA:151:A:C6	1:CA:152:A:C4	3.07	0.43
35:BF:8:GLN:OE1	35:BF:8:GLN:HA	2.19	0.43
20:AT:43:LEU:CD1	20:AT:55:ILE:HG13	2.49	0.43
48:BW:64:MET:O	48:BW:65:LEU:HB2	2.19	0.43
31:BA:272(E):G:C6	31:BA:364:C:N4	2.87	0.43
15:AO:25:THR:HA	15:AO:28:GLN:HE21	1.84	0.43
1:AA:1121:U:C4	1:AA:1122:U:C4	3.06	0.43
39:DN:121:LYS:HA	39:DN:121:LYS:HE3	2.00	0.43
31:DA:413:C:HO2'	31:DA:1880:C:HO2'	1.64	0.43
31:DA:1769:G:C6	31:DA:1984:G:C6	3.07	0.43
1:CA:277:C:P	17:CQ:41:LYS:HE3	2.59	0.43
31:BA:1630:G:H2'	31:BA:1631:C:C6	2.54	0.43
3:AC:122:GLU:O	3:AC:126:ARG:HG3	2.18	0.43
37:DH:35:VAL:O	37:DH:37:VAL:HG23	2.19	0.43
15:CO:69:TYR:HA	15:CO:72:ARG:NH2	2.33	0.43
31:BA:1221:C:H2'	31:BA:1221(A):C:C6	2.53	0.43
1:CA:336:C:H2'	1:CA:337:C:H6	1.83	0.43
50:BY:73:ARG:HH21	50:BY:82:PRO:HD3	1.83	0.43
5:AE:18:ARG:HE	5:AE:25:ARG:HB3	1.84	0.43
9:CI:21:PRO:HA	9:CI:58:ARG:O	2.18	0.43
31:BA:882:G:H8	31:BA:882:G:O5'	2.02	0.43
31:BA:2895:U:H6	31:BA:2895:U:H3'	1.82	0.43
17:CQ:86:GLU:O	17:CQ:90:ILE:HG12	2.19	0.43
3:AC:110:ASN:HB3	3:AC:144:SER:OG	2.19	0.43
31:DA:1186:G:H2'	31:DA:1187:G:O4'	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2013:A:N6	31:DA:2014:A:C6	2.87	0.43
31:DA:597:U:H2'	31:DA:598:G:C8	2.53	0.43
28:B6:26:ASN:ND2	28:B6:32:ASN:ND2	2.63	0.43
30:B8:58:ILE:O	30:B8:61:LEU:CG	2.63	0.43
32:BB:35:U:H2'	32:BB:36:C:O4'	2.18	0.43
32:BB:58:A:C2'	32:BB:58:A:N3	2.80	0.43
31:DA:70:G:H2'	31:DA:113:G:O2'	2.18	0.43
49:DX:27:THR:OG1	49:DX:77:LYS:HA	2.19	0.43
49:DX:89:ILE:O	49:DX:89:ILE:CG2	2.66	0.43
41:BP:121:LYS:HG3	25:D3:2:PRO:CD	2.49	0.43
31:DA:1192:G:C2'	31:DA:1193:G:H5'	2.48	0.43
46:DU:47:TYR:CE2	46:DU:51:LYS:HE2	2.54	0.43
39:DN:37:LYS:CD	46:DU:63:VAL:HG13	2.48	0.43
47:DV:62:LEU:HA	47:DV:99:ILE:HG12	1.99	0.43
37:BH:141:VAL:HG12	37:BH:142:GLY:H	1.79	0.43
24:B2:52:ASP:OD1	31:BA:76:C:O4'	2.36	0.43
31:DA:1328:G:H2'	31:DA:1330:C:C5	2.53	0.43
48:DW:84:ARG:HG2	48:DW:98:LYS:HE3	2.01	0.43
44:DS:97:ARG:HH21	44:DS:98:VAL:HA	1.83	0.43
1:AA:42:G:O2'	1:AA:622:A:N1	2.46	0.43
4:AD:72:GLU:OE1	4:AD:207:TYR:OH	2.37	0.43
1:CA:322:C:OP2	1:CA:328:C:N4	2.51	0.43
1:CA:50:A:N6	1:CA:361:G:H4'	2.34	0.43
1:CA:425:G:O3'	4:CD:45:GLN:NE2	2.52	0.43
1:CA:498:U:N3	1:CA:499:A:N7	2.66	0.43
31:DA:1682:G:C5	31:DA:1683:C:C4	3.06	0.43
50:BY:13:VAL:HG13	50:BY:72:VAL:HB	1.99	0.43
31:DA:1819:A:H3'	33:DD:178:PRO:HB2	2.00	0.43
25:B3:52:HIS:N	25:B3:52:HIS:HD2	2.17	0.43
31:BA:1018:C:C2'	31:BA:1019:U:H5'	2.49	0.43
32:BB:82:G:O2'	32:BB:83:G:H5'	2.19	0.43
39:BN:46:VAL:HG13	39:BN:48:MET:HG3	2.01	0.43
46:BU:92:ARG:CB	47:BV:11:GLN:NE2	2.60	0.43
50:DY:44:ILE:CG2	50:DY:45:VAL:H	2.28	0.43
23:D1:87:PRO:CG	23:D1:88:LYS:N	2.78	0.43
37:DH:164:TYR:N	37:DH:164:TYR:CD1	2.87	0.43
1:AA:195:A:N7	1:AA:196:A:C6	2.86	0.43
34:DE:77:ILE:HG21	34:DE:79:ARG:HE	1.84	0.43
2:AB:55:PHE:CZ	2:AB:218:ALA:HA	2.53	0.43
31:BA:1799:G:O6	33:BD:178:PRO:HG2	2.18	0.43
47:BV:32:THR:HB	47:BV:64:HIS:CE1	2.54	0.43
47:BV:64:HIS:O	47:BV:66:ARG:N	2.51	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:737:A:H1'	6:CF:73:ASN:OD1	2.19	0.43
31:DA:962:G:C6	31:DA:963:U:C4	3.06	0.43
42:BQ:139:GLU:O	51:BZ:99:TYR:CD2	2.71	0.43
7:AG:108:ALA:HB1	7:AG:120:ILE:HD13	2.01	0.43
35:BF:36:VAL:HG11	35:BF:183:VAL:CG1	2.48	0.43
31:BA:479:A:HO2'	31:BA:481:G:H8	1.63	0.43
50:BY:31:LEU:HB2	50:BY:36:ALA:H	1.84	0.43
6:AF:12:PRO:HG3	6:AF:55:ASP:HB3	2.00	0.43
27:B5:33:CYS:HA	27:B5:34:PRO:HD2	1.76	0.43
32:BB:18:G:C6	32:BB:19:G:C5	3.07	0.43
1:AA:539:A:C6	1:AA:540:G:C6	3.07	0.43
1:AA:329:A:C2	1:AA:332:G:C4	3.07	0.43
31:DA:527:C:O4'	31:DA:527:C:O2	2.33	0.43
31:BA:2771:C:H2'	31:BA:2772:C:H6	1.84	0.43
31:BA:1153:C:OP1	46:BU:93:LYS:NZ	2.51	0.43
31:DA:1656:C:O2'	31:DA:1657:C:H5'	2.19	0.43
31:BA:64:A:C2'	31:BA:65:C:H5'	2.49	0.43
1:AA:834:C:H2'	1:AA:835:U:H6	1.82	0.43
1:CA:1074:G:C4	1:CA:1102:A:C2	3.07	0.43
1:CA:1094:G:O2'	1:CA:1108:G:N1	2.52	0.43
1:AA:73:G:N1	1:AA:97:G:C6	2.87	0.43
31:BA:2328:A:H2'	31:BA:2329:G:C8	2.54	0.43
1:AA:1072:G:H2'	1:AA:1073:U:H6	1.83	0.43
4:AD:33:MET:HA	4:AD:33:MET:CE	2.48	0.43
43:BR:2:ARG:HD3	43:BR:5:LYS:HZ2	1.84	0.43
31:DA:1695:G:C8	33:DD:8:PRO:HG2	2.54	0.43
1:CA:293:G:C5	1:CA:294:U:C5	3.07	0.43
1:AA:577:G:H2'	1:AA:578:C:H6	1.83	0.43
15:AO:39:LEU:O	15:AO:40:SER:C	2.57	0.43
50:DY:97:ARG:O	50:DY:98:VAL:C	2.57	0.43
40:BO:107:ARG:HH12	45:BT:35:LYS:HE2	1.83	0.43
40:BO:107:ARG:HH12	45:BT:35:LYS:CE	2.32	0.43
41:DP:93:GLY:O	41:DP:123:LEU:HB2	2.19	0.43
31:DA:2199:A:C8	31:DA:2200:C:C5	3.07	0.43
1:CA:780:A:H1'	1:CA:803:G:N2	2.34	0.43
1:CA:1053:G:C2	1:CA:1199:U:C4	3.07	0.43
31:DA:89:G:OP1	31:DA:90:U:O2	2.37	0.43
31:BA:2692:C:H1'	31:BA:2847:U:O2'	2.19	0.43
35:BF:22:ALA:HB1	35:BF:26:ALA:CB	2.49	0.43
1:CA:966:G:H5''	1:CA:969:A:N7	2.34	0.43
8:AH:112:LEU:CD2	8:AH:133:LEU:HD23	2.48	0.43
45:DT:30:VAL:HG21	45:DT:84:GLN:H	1.84	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1489:U:O2'	31:BA:1490:A:H5''	2.19	0.43
40:BO:77:ILE:HG13	45:BT:74:ARG:HG2	1.99	0.43
31:BA:1700:A:H2'	31:BA:1701:A:O5'	2.19	0.43
39:BN:128:HIS:O	39:BN:129:PRO:C	2.57	0.43
31:BA:2476:A:C4	31:BA:2477:C:C6	3.06	0.43
31:DA:40:C:H2'	31:DA:41:C:C6	2.54	0.43
10:CJ:7:LYS:HA	10:CJ:71:LEU:HD12	2.01	0.43
31:DA:2463:C:C2'	31:DA:2464:C:C5'	2.91	0.43
1:AA:452:A:OP1	16:AP:43:LYS:HE3	2.19	0.43
11:CK:30:VAL:HG21	11:CK:68:ALA:HB2	2.01	0.43
6:CF:82:ARG:HA	6:CF:82:ARG:HH11	1.83	0.43
45:DT:113:LYS:C	45:DT:114:LEU:HD23	2.40	0.43
33:BD:117:VAL:HA	33:BD:129:ASN:OD1	2.19	0.43
12:AL:11:VAL:HG13	17:AQ:29:HIS:HD2	1.84	0.43
31:BA:2052:G:C8	34:BE:141:ILE:HD11	2.54	0.43
51:BZ:108:PRO:O	51:BZ:109:ALA:C	2.57	0.43
31:DA:1670:C:OP2	31:DA:2550:G:OP1	2.36	0.43
31:DA:2009:G:H1'	43:DR:107:ASP:O	2.19	0.43
1:AA:458:C:C2'	1:AA:460:G:H8	2.31	0.43
31:BA:2100:G:H2'	31:BA:2100:G:N3	2.32	0.43
31:DA:896:A:N3	31:DA:898:C:H5''	2.32	0.43
9:AI:96:LEU:CD2	9:AI:102:LEU:HD12	2.49	0.43
1:AA:1266:G:N2	1:AA:1270:C:N3	2.67	0.43
16:AP:57:ARG:CZ	16:AP:79:VAL:O	2.66	0.43
1:CA:671:G:N2	1:CA:672:U:H1'	2.34	0.43
3:CC:125:GLU:OE2	3:CC:189:ALA:HA	2.18	0.43
31:BA:1274:A:N3	31:BA:1297:C:H1'	2.33	0.43
1:CA:584:G:H8	1:CA:584:G:O5'	2.01	0.43
1:CA:665:A:C2	1:CA:733:A:C8	3.07	0.43
31:DA:921:G:C6	31:DA:922:U:C4	3.06	0.43
1:CA:119:A:C5	1:CA:240:C:C4	3.07	0.43
1:CA:241:C:H2'	1:CA:242:C:C6	2.54	0.43
6:AF:11:ASN:HB3	6:AF:14:LEU:HG	2.00	0.43
18:AR:36:ASN:O	18:AR:39:VAL:HB	2.19	0.43
1:CA:640:A:N3	8:CH:115:SER:HB2	2.34	0.43
12:CL:69:TYR:CG	12:CL:70:ILE:N	2.87	0.43
2:AB:60:ASP:C	2:AB:64:ARG:HG2	2.39	0.43
36:BG:96:ARG:CG	36:BG:97:ASP:N	2.81	0.43
50:BY:83:THR:HG22	50:BY:84:ARG:H	1.83	0.43
17:AQ:5:VAL:HG13	17:AQ:6:LEU:H	1.84	0.43
1:CA:958:A:N1	19:CS:54:GLY:HA3	2.34	0.43
36:DG:43:LEU:HD22	36:DG:43:LEU:N	2.34	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:126:ARG:O	3:CC:127:ARG:HB2	2.18	0.43
5:CE:144:THR:O	5:CE:145:LYS:C	2.56	0.43
7:AG:75:VAL:CG2	7:AG:144:MET:HB3	2.49	0.43
31:BA:507:A:O4'	31:BA:509:C:C2	2.72	0.43
23:B1:28:GLY:C	23:B1:30:VAL:H	2.20	0.43
40:DO:55:GLY:O	40:DO:56:ASP:C	2.57	0.43
13:CM:14:ARG:NH1	13:CM:42:ALA:HA	2.34	0.43
1:AA:967:C:H5''	1:AA:968:A:OP2	2.18	0.43
7:AG:40:ALA:O	7:AG:44:TYR:CD1	2.72	0.43
39:BN:104:LYS:HE3	39:BN:104:LYS:HB2	1.77	0.43
43:BR:107:ASP:C	43:BR:107:ASP:OD2	2.57	0.43
31:BA:2439:A:C5'	31:BA:2439:A:C8	3.01	0.43
1:AA:1268:A:O2'	21:AU:19:GLY:HA2	2.19	0.43
31:DA:641:C:O2'	31:DA:2350:C:OP1	2.25	0.43
50:DY:21:LYS:HD2	50:DY:22:GLY:N	2.34	0.43
28:D6:26:ASN:ND2	28:D6:32:ASN:ND2	2.62	0.43
31:DA:192:C:C2'	31:DA:193:U:O5'	2.67	0.43
31:DA:635:C:C2'	31:DA:636:G:H5'	2.48	0.43
41:DP:30:THR:O	41:DP:32:THR:N	2.52	0.43
41:DP:38:GLN:CG	41:DP:39:LYS:N	2.75	0.43
28:B6:30:THR:O	28:B6:31:PRO:C	2.57	0.43
30:B8:27:THR:N	41:BP:62:LEU:HD11	2.34	0.43
31:BA:2436:G:C5	31:BA:2437:U:C5	3.06	0.43
31:BA:2591:C:H2'	31:BA:2592:G:C8	2.54	0.43
41:BP:14:LYS:O	41:BP:15:ARG:CB	2.67	0.43
31:BA:117:G:C6	31:BA:119:A:C6	3.06	0.43
32:BB:39:A:C2	32:BB:44:G:N3	2.87	0.43
32:BB:51:G:P	44:BS:61:ASN:HD22	2.42	0.43
31:DA:1341:U:H2'	31:DA:1397:U:O2	2.19	0.43
31:DA:1469:A:H2'	31:DA:1470:G:C8	2.53	0.43
41:BP:121:LYS:HG3	25:D3:2:PRO:HD2	2.01	0.43
32:DB:82:G:O2'	32:DB:83:G:H5'	2.19	0.43
46:DU:61:TRP:O	46:DU:63:VAL:N	2.51	0.43
39:DN:40:PRO:HA	46:DU:64:ARG:HH22	1.82	0.43
31:BA:1466:G:H2'	31:BA:1466:G:N3	2.32	0.43
49:BX:60:ARG:HB2	49:BX:73:ARG:HA	2.01	0.43
49:BX:89:ILE:O	49:BX:89:ILE:CG2	2.66	0.43
31:BA:1709:U:H2'	31:BA:1710:C:C6	2.54	0.43
44:DS:31:SER:O	44:DS:32:LEU:HG	2.19	0.43
1:AA:405:U:O2'	1:AA:498:U:H5'	2.19	0.43
1:AA:614:A:C6	1:AA:615:C:C4	3.07	0.43
4:AD:122:ARG:O	4:AD:134:ASP:HB2	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:114:U:H2'	1:CA:115:G:H8	1.78	0.43
1:CA:360:A:C2'	1:CA:361:G:H5'	2.49	0.43
4:CD:116:GLN:NE2	4:CD:157:LEU:HD21	2.34	0.43
1:CA:403:C:H5''	4:CD:136:PRO:HD2	2.00	0.43
4:CD:46:LYS:O	4:CD:48:ALA:N	2.52	0.43
50:BY:20:TYR:CD1	50:BY:20:TYR:N	2.87	0.43
50:BY:41:GLY:O	50:BY:42:VAL:C	2.57	0.43
31:BA:2308:G:H2'	31:BA:2309:A:C8	2.54	0.43
33:DD:43:ARG:HD2	33:DD:44:ASN:OD1	2.19	0.43
33:DD:44:ASN:HB2	33:DD:45:ASN:H	1.74	0.43
46:BU:61:TRP:CZ3	46:BU:94:ASN:HB2	2.53	0.43
31:BA:528:A:C4	31:BA:2042:A:C2	3.06	0.43
31:BA:2009:G:H4'	48:BW:40:ASN:O	2.19	0.43
8:AH:107:LEU:HD23	8:AH:107:LEU:H	1.81	0.43
31:BA:846:C:C4	31:BA:930:U:C4	3.06	0.43
31:DA:2317:C:C3'	31:DA:2318:G:C5'	2.97	0.43
50:DY:26:LYS:O	50:DY:28:LYS:N	2.51	0.43
31:DA:85:G:OP1	50:DY:30:VAL:HG21	2.19	0.43
1:CA:709:G:O2'	1:CA:710:G:H5'	2.19	0.43
1:CA:1279:A:C2	10:CJ:43:ARG:NH1	2.87	0.43
31:DA:866:A:C6	31:DA:914:C:C5	3.06	0.43
31:DA:913:U:H4'	31:DA:914:C:OP1	2.18	0.43
42:BQ:140:ALA:CB	51:BZ:53:ILE:HG13	2.41	0.43
32:DB:18:G:C6	32:DB:19:G:C5	3.07	0.43
31:BA:226:G:C2	31:BA:227:A:C6	3.06	0.43
31:BA:497:A:C6	31:BA:498:G:C5	3.06	0.43
50:BY:47:LYS:NZ	50:BY:47:LYS:CB	2.79	0.43
51:DZ:19:ARG:HA	51:DZ:23:LYS:O	2.17	0.43
1:AA:113:G:C4	1:AA:114:U:C5	3.06	0.43
33:DD:166:GLN:HE21	33:DD:166:GLN:CA	2.31	0.43
31:DA:1047:G:C2	31:DA:1111:A:N6	2.87	0.43
31:DA:2642:G:H4'	39:DN:78:TYR:OH	2.19	0.43
1:CA:1105:A:H2'	1:CA:1106:G:C8	2.53	0.43
1:AA:1084:G:N7	1:AA:1085:U:C4	2.87	0.43
31:BA:911:A:O4'	31:BA:2264:C:H4'	2.19	0.43
1:AA:577:G:N3	1:AA:578:C:C6	2.87	0.43
12:AL:60:LEU:HD23	12:AL:64:TYR:HB3	2.01	0.43
1:AA:343:U:H2'	1:AA:346:G:O6	2.18	0.43
31:BA:904:C:C5'	31:BA:904:C:H6	2.32	0.43
1:AA:1502:A:H4'	1:AA:1503:A:OP2	2.19	0.43
31:BA:859:G:O3'	31:BA:860:U:O2	2.37	0.43
31:BA:1833:U:C5	31:BA:1834:U:C5	3.07	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CL:27:LEU:HD11	12:CL:64:TYR:CD1	2.54	0.43
35:BF:205:ARG:O	35:BF:206:ILE:HG13	2.19	0.43
1:AA:1298:C:C4'	1:AA:1299:A:C4	2.98	0.43
11:CK:66:LEU:HD23	11:CK:66:LEU:HA	1.70	0.43
36:BG:111:LEU:CD2	36:BG:114:ILE:HD12	2.46	0.43
45:DT:41:ARG:O	45:DT:42:ILE:C	2.57	0.43
31:BA:1484:G:O2'	31:BA:1485:G:C4'	2.67	0.43
31:BA:154(A):C:OP2	31:BA:154(A):C:C2	2.71	0.43
31:DA:455:C:H3'	31:DA:456:C:H5''	2.00	0.43
36:BG:60:LEU:CD1	36:BG:64:THR:HG21	2.48	0.43
1:CA:343:U:H2'	1:CA:346:G:O6	2.18	0.43
1:CA:652:U:C4	1:CA:752:G:N3	2.87	0.43
12:AL:83:VAL:CG1	12:AL:84:LEU:N	2.82	0.43
1:AA:552:U:O2'	12:AL:86:ARG:O	2.37	0.43
31:BA:2464:C:O2'	31:BA:2465:C:O5'	2.36	0.43
38:DI:3:VAL:HA	38:DI:39:ALA:H	1.84	0.43
10:AJ:7:LYS:HA	10:AJ:71:LEU:CD1	2.49	0.43
1:AA:1350:A:N6	1:AA:1373:G:N2	2.67	0.43
8:CH:6:ILE:HB	8:CH:85:ARG:NH1	2.34	0.43
12:AL:41:ARG:CG	12:AL:42:THR:N	2.81	0.43
1:CA:198:G:N7	1:CA:220:G:N2	2.67	0.43
1:CA:523:A:H61	12:CL:53:ARG:NH1	2.16	0.43
40:BO:2:ILE:N	40:BO:2:ILE:HD13	2.33	0.43
36:BG:135:LEU:O	36:BG:154:GLY:HA3	2.19	0.43
31:DA:1215:G:O2'	31:DA:1216:G:H5'	2.19	0.43
2:AB:20:GLU:CG	2:AB:191:ASP:HB2	2.48	0.43
40:BO:1:MET:HE3	40:BO:67:LYS:CG	2.47	0.43
1:AA:1057:G:C6	1:AA:1058:G:C4	3.07	0.43
40:DO:43:VAL:HG21	40:DO:52:VAL:CG1	2.49	0.43
36:DG:62:LEU:O	36:DG:143:GLU:HB2	2.19	0.43
44:BS:53:SER:HB3	44:BS:54:LEU:H	1.59	0.43
44:DS:84:GLN:NE2	44:DS:105:ALA:HB1	2.31	0.43
1:CA:939:G:H1'	1:CA:1375:A:H2	1.80	0.43
31:BA:266:G:C6	31:BA:267:C:C4	3.07	0.43
12:CL:6:THR:N	12:CL:9:GLN:HE21	2.12	0.43
31:BA:1356:G:H2'	31:BA:1357:U:O4'	2.19	0.43
1:CA:1164:G:C5	1:CA:1173:G:N1	2.87	0.43
8:AH:28:ALA:N	8:AH:58:TYR:HA	2.34	0.43
38:DI:139:GLN:NE2	38:DI:141:LYS:HE2	2.34	0.43
1:CA:797:C:OP1	11:CK:124:LYS:HE2	2.19	0.43
17:AQ:95:TYR:O	17:AQ:98:LEU:N	2.40	0.43
1:AA:858:G:O6	1:AA:869:G:H3'	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:61:LEU:CG	2:CB:68:ILE:HD11	2.49	0.43
13:CM:108:ARG:NE	13:CM:114:ARG:HG2	2.34	0.43
51:BZ:166:SER:HB2	51:BZ:167:PRO:C	2.39	0.43
40:BO:88:ASN:O	40:BO:91:LEU:HA	2.19	0.43
31:BA:2598:A:N7	31:BA:2599:G:H1'	2.33	0.43
35:BF:7:TYR:HB3	35:BF:16:GLY:C	2.39	0.43
31:BA:836:G:C5	31:BA:837:C:C5	3.06	0.43
35:BF:57:VAL:HG12	35:BF:58:ALA:N	2.33	0.43
1:AA:147:G:N2	1:AA:148:G:H1'	2.34	0.43
34:BE:67:PHE:HD2	34:BE:68:ALA:N	2.16	0.43
31:DA:280:C:H42	31:DA:360:G:H1	1.66	0.43
1:AA:987:G:N2	1:AA:1219:U:C2	2.86	0.43
3:AC:86:VAL:O	3:AC:90:GLU:HG2	2.18	0.43
4:AD:158:ILE:HA	4:AD:158:ILE:HD13	1.78	0.43
31:BA:136:G:H2'	31:BA:137:C:O5'	2.19	0.43
31:DA:461:C:O2'	31:DA:462:C:H5'	2.19	0.43
1:AA:999:C:H2'	1:AA:1000:U:C6	2.53	0.43
1:AA:585:G:N3	1:AA:879:C:H4'	2.34	0.43
8:AH:121:ASP:OD1	8:AH:121:ASP:N	2.52	0.43
31:DA:2881:C:O2'	31:DA:2882:A:H5'	2.19	0.43
9:AI:29:ASN:OD1	9:AI:64:THR:HG23	2.19	0.43
1:CA:289:G:C2	1:CA:312:C:C2	3.07	0.43
48:BW:66:GLU:O	48:BW:67:ASP:C	2.57	0.43
30:D8:26:LYS:HE2	30:D8:47:LYS:HG2	2.00	0.42
31:DA:2014:A:H2'	31:DA:2015:A:C4	2.54	0.42
31:DA:390:A:C6	41:DP:71:VAL:HG21	2.53	0.42
31:DA:620:G:H8	31:DA:622:G:O6	2.01	0.42
35:DF:101:LEU:O	35:DF:106:ARG:NH1	2.42	0.42
31:BA:2443:C:H2'	31:BA:2444:G:C8	2.54	0.42
31:BA:663:G:C6	31:BA:664:C:C4	3.07	0.42
34:BE:129:HIS:O	34:BE:130:GLY:C	2.56	0.42
41:BP:16:ARG:CG	41:BP:18:ARG:H	2.24	0.42
31:BA:686:G:H21	31:BA:788:A:H61	1.67	0.42
36:BG:11:TYR:CG	36:BG:100:TRP:CH2	3.04	0.42
44:BS:77:ALA:O	44:BS:78:LEU:C	2.57	0.42
31:DA:1385:G:H4'	31:DA:1386:C:OP1	2.18	0.42
49:DX:52:VAL:HG23	49:DX:82:GLN:HA	2.01	0.42
49:DX:26:TYR:OH	49:DX:89:ILE:HB	2.19	0.42
31:DA:1002:G:H2'	31:DA:1003:G:O4'	2.18	0.42
31:DA:814:C:C2'	31:DA:815:C:H5'	2.47	0.42
47:DV:4:ILE:HG13	47:DV:40:LEU:HD11	2.01	0.42
31:BA:1406:U:C2'	31:BA:1407:C:O5'	2.67	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1469:A:H2'	31:BA:1470:G:C8	2.52	0.42
31:BA:1467:C:C2	31:BA:1526:G:N2	2.87	0.42
49:BX:33:LYS:O	49:BX:34:ALA:C	2.56	0.42
31:BA:1711:C:O2'	31:BA:1712:C:H5'	2.18	0.42
31:DA:2334:G:C4	44:DS:15:ARG:NH1	2.87	0.42
4:AD:64:LEU:HB2	4:AD:198:VAL:HG11	2.01	0.42
5:CE:78:HIS:CE1	5:CE:143:ARG:H	2.37	0.42
31:BA:1319:G:C2	31:BA:1334:G:C5	3.07	0.42
31:DA:2609:U:H4'	31:DA:2609:U:OP1	2.18	0.42
31:DA:2531:A:H2'	31:DA:2531:A:N3	2.34	0.42
31:BA:691:C:C2'	31:BA:692:C:H5'	2.48	0.42
33:BD:45:ASN:C	33:BD:45:ASN:OD1	2.57	0.42
47:BV:61:VAL:C	47:BV:62:LEU:HD23	2.37	0.42
23:B1:94:LEU:HD22	23:B1:95:LEU:C	2.40	0.42
31:BA:259:G:C2'	31:BA:260:G:H5'	2.49	0.42
1:AA:501:C:H3'	1:AA:501:C:H6	1.84	0.42
1:AA:544:G:N1	1:AA:545:C:C4	2.87	0.42
23:B1:20:ARG:CG	23:B1:20:ARG:NH2	2.81	0.42
39:BN:16:ILE:HG23	39:BN:54:VAL:HG22	2.00	0.42
50:BY:75:ILE:HD13	50:BY:76:CYS:H	1.81	0.42
31:DA:1281:G:C2	31:DA:1290:C:N3	2.87	0.42
1:CA:1067:A:N3	1:CA:1068:G:N9	2.67	0.42
31:BA:2679:A:H4'	34:BE:165:VAL:HG11	2.01	0.42
1:CA:565:U:C4	1:CA:566:G:C5	3.07	0.42
1:AA:292:G:N2	1:AA:309:G:C4	2.87	0.42
31:BA:863:A:H2	31:BA:914:C:H41	1.66	0.42
40:BO:22:ILE:HD12	40:BO:22:ILE:HA	1.49	0.42
31:DA:2303:G:O3'	36:DG:124:SER:HA	2.19	0.42
31:BA:1169:G:N2	31:BA:1181:C:C2	2.87	0.42
31:BA:78:A:O2'	31:BA:79:G:H5'	2.19	0.42
24:B2:57:ILE:HD12	24:B2:58:ALA:O	2.19	0.42
38:DI:113:ARG:CB	38:DI:130:TYR:CZ	3.02	0.42
38:DI:110:ASP:OD2	38:DI:113:ARG:HG3	2.18	0.42
31:DA:1652:A:C3'	31:DA:1653:G:H5'	2.49	0.42
1:CA:235:C:H2'	1:CA:236:G:H8	1.84	0.42
1:CA:273:A:C6	1:CA:274:A:N7	2.86	0.42
31:DA:493:G:H2'	31:DA:494:G:O4'	2.19	0.42
31:BA:1490:A:H2'	31:BA:1490:A:N3	2.34	0.42
31:DA:109:G:C5	31:DA:110:G:C8	3.07	0.42
45:BT:28:VAL:O	45:BT:29:ARG:HD3	2.19	0.42
13:AM:66:LEU:O	13:AM:70:LEU:HB2	2.19	0.42
31:BA:1027:A:C6	31:BA:1126:A:C4	3.06	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:129:U:H3	1:CA:232:G:H1	1.65	0.42
1:CA:232:G:H2'	1:CA:233:C:O4'	2.19	0.42
37:BH:52:VAL:O	37:BH:52:VAL:CG1	2.67	0.42
38:BI:3:VAL:HG12	38:BI:38:LEU:CA	2.41	0.42
20:AT:50:GLU:H	20:AT:100:ILE:HD13	1.85	0.42
17:CQ:31:LEU:HG	17:CQ:32:TYR:CD2	2.54	0.42
6:CF:79:LEU:O	6:CF:85:VAL:HG11	2.18	0.42
1:AA:781:A:C5'	1:AA:782:A:OP2	2.68	0.42
1:AA:792:A:H4'	1:AA:793:U:O5'	2.18	0.42
33:BD:124:PRO:HG2	33:BD:129:ASN:ND2	2.34	0.42
31:BA:2052:G:O4'	34:BE:142:GLY:HA3	2.19	0.42
1:AA:992:U:C1'	1:AA:993:G:OP2	2.60	0.42
51:DZ:95:PRO:HA	51:DZ:128:VAL:O	2.19	0.42
31:DA:48:G:O2'	31:DA:118:A:N1	2.51	0.42
40:BO:44:LYS:HA	40:BO:44:LYS:HD3	1.74	0.42
2:AB:42:ILE:HG21	2:AB:203:GLY:HA2	2.01	0.42
38:BI:25:TYR:HD1	38:BI:30:LEU:HD11	1.84	0.42
1:AA:515:G:C2	1:AA:516:U:C2	3.07	0.42
31:DA:2694:G:C6	31:DA:2695:C:C4	3.07	0.42
31:DA:893:C:H6	31:DA:894:C:C6	2.37	0.42
31:DA:1357:U:H2'	31:DA:1358:G:O4'	2.19	0.42
1:AA:1164:G:C5	1:AA:1173:G:N1	2.87	0.42
31:DA:2100:G:N3	31:DA:2100:G:H2'	2.33	0.42
46:BU:36:ARG:HG3	46:BU:36:ARG:HH11	1.84	0.42
1:AA:890:G:O2'	1:AA:906:G:O6	2.22	0.42
6:CF:17:SER:O	6:CF:21:LEU:HD22	2.19	0.42
51:BZ:166:SER:OG	51:BZ:168:GLU:N	2.51	0.42
18:AR:53:ARG:HH21	18:AR:60:ALA:HA	1.83	0.42
31:BA:2400:G:H5'	31:BA:2401:U:OP2	2.19	0.42
31:BA:1453:U:OP1	43:BR:77:ARG:NH1	2.52	0.42
12:AL:18:VAL:HG23	12:AL:19:ARG:N	2.34	0.42
48:BW:86:LEU:C	48:BW:86:LEU:CD1	2.87	0.42
5:CE:15:ARG:HG3	5:CE:26:PHE:HB3	2.00	0.42
34:DE:73:GLU:HA	34:DE:74:PRO:HD2	1.87	0.42
1:CA:1137:C:H4'	1:CA:1138:G:N1	2.34	0.42
17:CQ:56:VAL:O	17:CQ:76:LEU:HD12	2.19	0.42
34:BE:105:THR:HG21	34:BE:164:ARG:CZ	2.49	0.42
31:DA:2674:G:H5''	40:DO:26:LYS:CE	2.49	0.42
38:DI:144:VAL:O	38:DI:145:VAL:CB	2.67	0.42
38:DI:84:GLY:O	38:DI:85:GLU:HB2	2.19	0.42
51:DZ:48:PHE:O	51:DZ:49:ARG:C	2.56	0.42
31:DA:2623:G:H2'	31:DA:2624:G:C8	2.54	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:59:ARG:HA	4:AD:59:ARG:CZ	2.49	0.42
22:B0:36:ILE:HG12	22:B0:37:LEU:N	2.34	0.42
31:DA:2639:A:H2'	31:DA:2640:G:H5'	2.00	0.42
48:DW:30:GLU:O	48:DW:31:GLU:C	2.56	0.42
31:DA:503:A:C6	31:DA:505:A:C6	3.07	0.42
13:AM:14:ARG:HG2	13:AM:14:ARG:H	1.57	0.42
4:CD:161:ASN:O	4:CD:165:MET:HB2	2.19	0.42
2:CB:179:LYS:HA	8:CH:72:PRO:HG3	2.01	0.42
1:AA:697:U:H2'	1:AA:698:G:H5'	2.01	0.42
38:DI:53:ALA:HA	38:DI:56:LYS:HG2	2.01	0.42
19:CS:48:THR:HG22	19:CS:61:TYR:CD1	2.54	0.42
19:AS:49:ILE:HD12	19:AS:49:ILE:H	1.84	0.42
2:AB:121:LEU:O	2:AB:121:LEU:HD23	2.19	0.42
31:DA:2077:A:H1'	31:DA:2435:A:O4'	2.19	0.42
31:BA:21:A:O2'	31:BA:22:C:H5'	2.20	0.42
1:CA:921:U:O2'	1:CA:922:G:C2'	2.67	0.42
30:D8:4:MET:HE2	30:D8:4:MET:HB2	1.38	0.42
31:DA:241:A:H5'	31:DA:243:U:O4'	2.19	0.42
31:DA:24:G:H2'	31:DA:25:U:O4'	2.18	0.42
31:DA:587:C:N4	31:DA:671:C:C2	2.87	0.42
31:DA:941:A:H2'	31:DA:942:G:C8	2.54	0.42
41:DP:84:ASN:HD22	41:DP:84:ASN:H	1.67	0.42
30:B8:41:ILE:O	30:B8:42:ARG:C	2.57	0.42
31:BA:579:G:C4	31:BA:580:C:C5	3.06	0.42
41:BP:59:LEU:CA	41:BP:61:ARG:HD2	2.48	0.42
30:B8:13:ARG:HD2	41:BP:61:ARG:HD3	2.01	0.42
36:BG:15:VAL:HG22	36:BG:175:LEU:O	2.19	0.42
36:BG:16:ARG:HA	36:BG:19:LEU:HB2	2.01	0.42
44:BS:58:LEU:HD21	44:BS:68:GLN:OE1	2.19	0.42
44:BS:95:HIS:C	44:BS:97:ARG:N	2.72	0.42
24:D2:47:ASN:C	24:D2:49:LYS:H	2.22	0.42
24:D2:49:LYS:O	24:D2:50:ILE:C	2.57	0.42
24:D2:54:LYS:C	24:D2:56:GLN:H	2.17	0.42
31:DA:1343:G:H1	31:DA:1404:C:N4	2.16	0.42
31:DA:71:A:H4'	31:DA:72:U:C5'	2.48	0.42
39:DN:28:THR:CA	39:DN:106:MET:CE	2.95	0.42
39:DN:87:LEU:O	39:DN:88:GLU:C	2.57	0.42
47:DV:1:MET:H1	47:DV:44:LYS:HD2	1.84	0.42
31:BA:1449:A:H5'	31:BA:1450:G:OP2	2.18	0.42
31:BA:71:A:H4'	31:BA:72:U:H5''	2.01	0.42
49:BX:35:THR:O	49:BX:39:ILE:CG2	2.67	0.42
36:DG:137:GLU:HB2	36:DG:140:ILE:HD13	2.00	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DS:67:ARG:CD	44:DS:101:LEU:HD23	2.48	0.42
1:AA:623:C:H2'	1:AA:624:C:H5'	2.01	0.42
1:CA:321:A:C2	1:CA:322:C:C2	3.07	0.42
16:CP:14:ASN:N	16:CP:15:PRO:HD3	2.34	0.42
16:CP:8:ARG:HA	16:CP:17:TYR:HA	2.01	0.42
31:DA:1704:G:C2'	31:DA:1705:G:H5'	2.50	0.42
37:DH:71:LEU:HD12	37:DH:71:LEU:HA	1.90	0.42
46:BU:88:ILE:CA	46:BU:90:VAL:HG23	2.48	0.42
31:BA:2007:C:C2	31:BA:2008:C:C5	3.07	0.42
31:BA:2823:A:OP1	34:BE:113:PHE:HB2	2.19	0.42
31:BA:1825:A:O4'	33:BD:254:THR:HG21	2.19	0.42
31:BA:842:G:C2	31:BA:937:U:C2	3.07	0.42
8:AH:1:MET:N	8:AH:1:MET:HE2	2.06	0.42
23:B1:92:LYS:C	23:B1:94:LEU:H	2.21	0.42
31:DA:1480:G:C6	31:DA:1481:U:N3	2.87	0.42
1:CA:675:A:N1	1:CA:716:A:C2	2.87	0.42
31:DA:2282:G:H4'	31:DA:2389:G:O2'	2.19	0.42
32:DB:21:G:O6	32:DB:63:G:C2	2.72	0.42
34:DE:52:LEU:O	34:DE:53:PRO:O	2.38	0.42
31:BA:225:A:O2'	31:BA:257:A:H4'	2.19	0.42
31:BA:498:G:C6	31:BA:499:U:C4	3.08	0.42
43:BR:12:ARG:NE	43:BR:20:LEU:HD22	2.34	0.42
32:BB:111:G:O2'	32:BB:112:U:H5'	2.19	0.42
1:AA:1470:G:H2'	1:AA:1471:G:H5'	2.01	0.42
31:BA:1115:G:C2'	31:BA:1116:C:C6	2.91	0.42
4:CD:33:MET:HE1	4:CD:37:PRO:HA	1.95	0.42
42:BQ:75:THR:HA	42:BQ:89:ASN:H	1.84	0.42
31:DA:1655:A:H1'	34:DE:113:PHE:CD2	2.54	0.42
34:BE:29:GLY:H	34:BE:51:PHE:HE2	1.65	0.42
23:D1:41:ARG:NH2	31:DA:205:G:H1	2.18	0.42
3:AC:112:SER:O	3:AC:116:VAL:HG23	2.18	0.42
31:DA:1296:G:C2	31:DA:1645:G:C4	3.08	0.42
1:CA:1074:G:C2	1:CA:1075:C:C2	3.07	0.42
31:DA:860:U:C2'	31:DA:861:A:H5'	2.49	0.42
32:DB:95:C:C2	32:DB:96:U:C6	3.07	0.42
31:DA:1696:G:C2'	31:DA:1697:G:H5'	2.49	0.42
1:CA:294:U:C2	1:CA:295:C:C5	3.07	0.42
31:BA:867:C:O2	31:BA:913:U:H5'	2.19	0.42
31:BA:901:A:H2'	31:BA:901:A:N3	2.34	0.42
1:AA:1392:G:H2'	1:AA:1393:U:C5'	2.49	0.42
1:CA:802:A:H2'	1:CA:803:G:O4'	2.18	0.42
1:CA:1355:G:O2'	1:CA:1356:G:H5'	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:B0:34:GLY:O	22:B0:35:ASN:C	2.56	0.42
38:BI:96:ASP:C	38:BI:98:ALA:H	2.21	0.42
1:CA:1202:G:C2'	1:CA:1203:C:H5'	2.49	0.42
31:DA:2536:G:H2'	31:DA:2537:U:O4'	2.19	0.42
42:BQ:35:VAL:HA	42:BQ:101:ARG:O	2.19	0.42
31:DA:1688:U:H1'	31:DA:1701:A:N6	2.32	0.42
31:DA:271(H):G:O2'	31:DA:271(I):G:OP2	2.32	0.42
31:DA:271(H):G:C6	31:DA:271(Q):G:N1	2.87	0.42
11:AK:30:VAL:HG21	11:AK:68:ALA:HB2	2.01	0.42
24:D2:12:GLU:C	24:D2:14:ARG:HH21	2.23	0.42
45:DT:115:ARG:O	45:DT:116:ALA:HB2	2.19	0.42
31:DA:1968:G:O3'	31:DA:1969:A:C4'	2.67	0.42
45:DT:35:LYS:HD2	45:DT:41:ARG:HG3	2.01	0.42
40:DO:77:ILE:HG23	40:DO:77:ILE:O	2.19	0.42
31:DA:1474:C:H3'	31:DA:1475:G:H8	1.84	0.42
1:AA:124:G:H1	1:AA:237:C:N4	2.17	0.42
1:AA:265:G:H5'	17:AQ:64:PRO:O	2.18	0.42
31:BA:1690:A:H5''	31:BA:1691:C:OP2	2.18	0.42
1:AA:1202:G:C2'	1:AA:1203:C:H5'	2.50	0.42
37:DH:41:MET:HG3	37:DH:55:PRO:HD3	2.00	0.42
1:CA:746:A:C8	1:CA:747:C:C5	3.07	0.42
31:DA:154:G:C2	31:DA:154(A):C:N4	2.86	0.42
33:BD:260:ARG:HH22	33:BD:266:SER:CB	2.32	0.42
31:BA:2486:G:C2'	31:BA:2487:G:O5'	2.65	0.42
35:DF:158:THR:CG2	35:DF:160:ASN:HB3	2.48	0.42
11:CK:65:ALA:HB3	11:CK:97:ALA:CB	2.49	0.42
6:CF:81:ILE:O	6:CF:83:ASP:N	2.52	0.42
31:DA:271(K):U:O2	38:DI:50:ARG:NH1	2.53	0.42
37:BH:91:GLY:HA2	37:BH:160:LYS:NZ	2.34	0.42
37:BH:92:ILE:C	37:BH:94:TYR:N	2.72	0.42
36:DG:139:LEU:HD23	36:DG:149:VAL:HG21	2.00	0.42
31:DA:1309:G:H2'	31:DA:1310:G:O4'	2.19	0.42
31:DA:2080:G:C2	31:DA:2241:A:C4	3.06	0.42
1:CA:457:C:H42	1:CA:474:G:H1	1.67	0.42
3:CC:157:ILE:HD11	3:CC:166:GLU:HB2	2.00	0.42
31:BA:893:C:H6	31:BA:894:C:C6	2.37	0.42
1:CA:165:C:H2'	1:CA:166:G:C8	2.54	0.42
36:BG:34:LEU:HD22	36:BG:35:GLU:H	1.85	0.42
10:CJ:30:SER:CB	10:CJ:81:THR:HG22	2.49	0.42
31:BA:1354:A:C8	31:BA:1355:G:C8	3.07	0.42
1:AA:283:C:H2'	1:AA:284:G:O4'	2.19	0.42
22:B0:29:GLN:HG2	31:BA:923:C:H4'	2.01	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2191:G:HO2'	31:DA:2192:G:P	2.41	0.42
6:CF:3:ARG:HH12	6:CF:66:GLU:HB2	1.84	0.42
18:AR:39:VAL:HG12	18:AR:40:LEU:HD23	2.01	0.42
31:BA:646:A:N3	31:BA:646:A:H5'	2.34	0.42
1:AA:1301:U:H3'	1:AA:1302:U:C5'	2.45	0.42
18:AR:58:LEU:HD22	18:AR:63:GLN:OE1	2.19	0.42
31:BA:2400:G:C6	31:BA:2401:U:C4	3.07	0.42
31:DA:945:A:C5	31:DA:2448:A:N3	2.87	0.42
1:CA:484:G:C1'	1:CA:485:G:O5'	2.68	0.42
31:DA:1442:G:N2	31:DA:1443:G:C4	2.87	0.42
1:CA:230:G:H2'	1:CA:231:G:O4'	2.18	0.42
31:BA:1001:A:H2'	31:BA:1002:G:O4'	2.18	0.42
48:BW:64:MET:O	48:BW:65:LEU:HB3	2.19	0.42
8:CH:120:THR:OG1	8:CH:123:GLU:HG3	2.19	0.42
1:AA:966:G:H5''	1:AA:969:A:N7	2.34	0.42
40:DO:86:ILE:HD12	40:DO:86:ILE:N	2.35	0.42
31:BA:272(B):G:C2'	31:BA:272(C):G:O5'	2.67	0.42
1:CA:70:G:H2'	1:CA:71:C:H6	1.83	0.42
1:AA:1159:U:C6	1:AA:1182:G:C2	3.07	0.42
1:CA:505:G:C5	1:CA:535:A:C2	3.06	0.42
31:DA:2034:U:C5'	31:DA:2034:U:H6	2.32	0.42
3:CC:155:GLY:O	3:CC:156:ARG:CB	2.66	0.42
25:D3:17:LYS:HG2	31:DA:969:U:OP1	2.19	0.42
1:AA:607:A:H2'	1:AA:608:A:H8	1.84	0.42
1:CA:607:A:H2'	1:CA:608:A:O4'	2.19	0.42
16:AP:75:ARG:HA	16:AP:80:PHE:CD1	2.54	0.42
19:AS:48:THR:HG22	19:AS:61:TYR:CD1	2.54	0.42
8:CH:126:LYS:C	8:CH:128:GLY:N	2.73	0.42
8:AH:24:THR:HG22	8:AH:24:THR:O	2.19	0.42
38:BI:18:VAL:O	38:BI:18:VAL:HG12	2.17	0.42
1:CA:188:C:H3'	1:CA:188:C:H6	1.84	0.42
15:CO:11:VAL:HG21	15:CO:34:LEU:HD22	2.01	0.42
1:CA:571:U:O2	1:CA:918:A:H5'	2.19	0.42
55:DA:3320:TEL:H233	55:DA:3320:TEL:H7	1.68	0.42
31:DA:1245:G:C5'	41:DP:16:ARG:HH21	2.30	0.42
41:DP:22:GLY:HA2	41:DP:23:PRO:HD3	1.88	0.42
31:DA:251:A:H5'	41:DP:51:PHE:HZ	1.84	0.42
41:DP:84:ASN:HB3	41:DP:86:LYS:HB3	2.00	0.42
30:B8:2:PRO:O	30:B8:3:LYS:C	2.58	0.42
31:BA:662:G:O2'	31:BA:663:G:H5'	2.19	0.42
31:BA:698:C:O2'	31:BA:734:A:N6	2.52	0.42
32:BB:57:A:N6	36:BG:29:TRP:NE1	2.66	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:2563:U:O2	31:BA:2565:A:C8	2.72	0.42
24:D2:29:LYS:O	24:D2:32:LEU:HB3	2.19	0.42
46:DU:88:ILE:HD12	46:DU:88:ILE:N	2.34	0.42
31:BA:1384:A:N3	31:BA:1405:U:H1'	2.34	0.42
31:BA:2811:G:C6	31:BA:2891:G:N2	2.87	0.42
31:BA:2892:A:N7	31:BA:2893:G:N9	2.68	0.42
16:AP:13:HIS:C	16:AP:15:PRO:HD3	2.40	0.42
4:CD:116:GLN:O	4:CD:120:LEU:HG	2.18	0.42
20:CT:16:HIS:O	20:CT:19:SER:HB3	2.19	0.42
31:BA:1323:U:H2'	31:BA:1324:G:H5'	2.01	0.42
31:DA:2586:C:O5'	31:DA:2586:C:H6	2.02	0.42
31:BA:1006:C:N3	31:BA:1138:G:C2	2.87	0.42
31:BA:1021:A:N6	31:BA:1141:U:H3	2.15	0.42
23:D1:66:HIS:CE1	31:DA:372:G:H5'	2.54	0.42
31:DA:422:A:H2'	31:DA:423:A:O4'	2.19	0.42
31:DA:2520:C:H2'	31:DA:2521:C:H6	1.84	0.42
31:BA:2620:C:H1'	34:BE:156:MET:HB2	2.01	0.42
31:BA:764:A:C5	31:BA:781:A:C2	3.07	0.42
31:BA:1791:A:H4'	33:BD:206:LEU:HB2	2.01	0.42
20:CT:31:SER:HA	20:CT:34:LYS:CD	2.50	0.42
47:BV:73:SER:O	47:BV:74:LYS:CB	2.64	0.42
47:BV:93:GLU:HG2	47:BV:94:LEU:H	1.85	0.42
31:DA:309:G:N3	31:DA:329:G:O2'	2.50	0.42
1:CA:673:G:C4	1:CA:734:G:C2	3.07	0.42
1:CA:1127:G:H1'	1:CA:1148:U:N3	2.34	0.42
48:DW:74:ALA:O	48:DW:75:TYR:CB	2.68	0.42
31:DA:2387:U:C5'	31:DA:2388:A:OP2	2.64	0.42
7:AG:108:ALA:O	7:AG:111:ARG:HB2	2.19	0.42
50:BY:47:LYS:HA	50:BY:60:PHE:CZ	2.54	0.42
50:BY:31:LEU:HA	50:BY:31:LEU:HD22	1.50	0.42
12:AL:114:LYS:HB3	12:AL:114:LYS:HE2	1.79	0.42
31:DA:1116:C:C2'	31:DA:1117:G:H5'	2.48	0.42
31:DA:1112:G:N2	31:DA:1113:U:O2	2.51	0.42
3:AC:182:ILE:CG1	3:AC:203:PHE:HD1	2.32	0.42
31:DA:1282:U:H2'	31:DA:1283:G:O4'	2.19	0.42
31:BA:2427:C:H5''	31:BA:2428:G:OP1	2.19	0.42
31:BA:947:G:N3	31:BA:984:A:H2	2.18	0.42
4:AD:30:LYS:C	4:AD:32:ALA:N	2.67	0.42
15:CO:54:ARG:HG2	15:CO:58:MET:HE2	2.00	0.42
31:DA:856:C:C2'	31:DA:857:C:H6	2.31	0.42
34:DE:104:VAL:O	34:DE:166:THR:HA	2.20	0.42
34:BE:95:ILE:HB	34:BE:96:PHE:HD1	1.85	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:558:G:OP1	1:CA:560:U:OP1	2.36	0.42
1:AA:302:G:C6	1:AA:303:A:C5	3.07	0.42
31:BA:2494:G:H2'	31:BA:2495:G:H8	1.84	0.42
1:AA:1523:G:OP1	11:AK:123:LYS:HD3	2.19	0.42
40:BO:108:GLU:HG2	40:BO:108:GLU:H	1.46	0.42
12:AL:47:LYS:HB3	12:AL:48:PRO:CD	2.36	0.42
31:DA:478:A:C2	31:DA:480:A:C4	3.08	0.42
31:DA:2713:A:C3'	31:DA:2714:G:C5'	2.97	0.42
31:BA:1930:G:H22	31:BA:1969:A:H5''	1.83	0.42
45:DT:31:SER:HB2	45:DT:33:LYS:HZ1	1.84	0.42
31:DA:2686:G:H3'	31:DA:2687:U:H6	1.84	0.42
31:DA:2820:A:H2'	31:DA:2820:A:N3	2.34	0.42
31:DA:1174:A:OP1	31:DA:1175:U:OP1	2.37	0.42
31:BA:1859:A:N6	31:BA:1883:G:O2'	2.52	0.42
31:BA:2665:A:H2'	31:BA:2666:C:O4'	2.19	0.42
31:BA:152:G:H2'	31:BA:153:C:C6	2.54	0.42
31:DA:171:G:H2'	31:DA:172:C:C1'	2.49	0.42
37:BH:41:MET:HG2	37:BH:55:PRO:HD3	2.00	0.42
37:DH:89:ILE:CG1	37:DH:90:LYS:N	2.82	0.42
1:AA:552:U:H2'	1:AA:553:A:C5'	2.48	0.42
38:DI:2:LYS:O	38:DI:39:ALA:N	2.51	0.42
47:BV:43:GLU:CA	47:BV:48:GLY:CA	2.97	0.42
40:DO:73:ASP:OD1	45:DT:32:TYR:CE1	2.72	0.42
31:BA:2849:U:H6	31:BA:2849:U:H2'	1.54	0.42
1:AA:1496:C:H2'	1:AA:1497:G:C1'	2.49	0.42
18:CR:59:SER:HB3	18:CR:62:GLU:OE2	2.19	0.42
29:D7:14:LYS:HA	29:D7:14:LYS:HD2	1.79	0.42
1:AA:250:A:C1'	1:AA:251:G:OP2	2.66	0.42
43:BR:48:VAL:O	43:BR:49:ASP:C	2.57	0.42
12:CL:93:LEU:O	12:CL:94:PRO:C	2.57	0.42
40:BO:65:THR:HA	40:BO:82:ASN:HA	2.02	0.42
31:BA:1308:A:N6	31:BA:1309:G:C2	2.87	0.42
41:DP:10:PRO:O	41:DP:11:GLY:O	2.38	0.42
31:DA:114:U:H3'	31:DA:115:C:C6	2.53	0.42
31:DA:1934:C:H2'	31:DA:1935:G:O4'	2.19	0.42
31:DA:584:C:N4	31:DA:585:G:C6	2.87	0.42
31:BA:1268:A:H2'	31:BA:1269:A:O4'	2.20	0.42
23:D1:37:ILE:CG2	31:DA:2080:G:O5'	2.67	0.42
22:D0:49:LYS:HG3	22:D0:80:HIS:ND1	2.34	0.42
1:AA:1058:G:C5	1:AA:1059:C:C4	3.07	0.42
31:BA:1348:G:C6	31:BA:1349:A:N1	2.87	0.42
31:DA:601:C:H2'	31:DA:602:G:O4'	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AL:119:LYS:HB2	12:AL:120:TYR:HD1	1.84	0.42
31:BA:321:G:H5'	35:BF:134:GLY:O	2.18	0.42
1:AA:1316:G:O3'	14:AN:18:VAL:HG22	2.19	0.42
40:BO:60:ALA:HB2	40:BO:86:ILE:HA	2.01	0.42
31:BA:1636:C:O2'	31:BA:1760:A:H1'	2.19	0.42
31:DA:1034:G:H2'	31:DA:1035:U:O4'	2.20	0.42
46:BU:8:VAL:HG13	46:BU:12:ARG:HD2	2.01	0.42
1:AA:32:A:C2	1:AA:33:A:C5	3.07	0.42
43:DR:99:LYS:CB	43:DR:99:LYS:NZ	2.82	0.42
31:BA:1367:A:N7	31:BA:1368:G:H1'	2.34	0.42
33:DD:48:ARG:O	33:DD:50:THR:HG23	2.19	0.42
1:AA:1152:A:H2'	1:AA:1153:C:C6	2.55	0.42
3:CC:86:VAL:O	3:CC:90:GLU:HG2	2.18	0.42
13:CM:68:GLY:N	13:CM:71:ARG:HB3	2.34	0.42
31:BA:1926:U:C2	31:BA:1929:G:C2	3.07	0.42
31:BA:338:G:H2'	31:BA:339:U:C6	2.54	0.42
1:AA:336:C:H2'	1:AA:337:C:C6	2.54	0.42
31:BA:1764:G:C2	31:BA:1765:C:C2	3.07	0.42
5:CE:147:ASP:HA	5:CE:150:ARG:HB3	2.00	0.42
7:CG:46:ALA:HB1	7:CG:121:ALA:HB2	2.02	0.42
14:CN:13:THR:N	14:CN:14:PRO:CD	2.82	0.42
46:DU:26:GLY:O	46:DU:30:LYS:HG2	2.19	0.42
25:B3:39:ASP:CG	25:B3:39:ASP:O	2.58	0.42
31:BA:2813:A:C6	31:BA:2814:C:C4	3.07	0.42
36:BG:51:ARG:HB3	36:BG:53:LEU:HD23	2.01	0.42
31:DA:253:C:H2'	31:DA:254:G:O4'	2.19	0.42
41:DP:39:LYS:O	41:DP:41:ARG:N	2.52	0.42
41:DP:83:VAL:HG12	41:DP:112:LEU:CD2	2.41	0.42
31:BA:1257:C:H5'	35:BF:75:HIS:CE1	2.55	0.42
31:BA:2437:U:H2'	31:BA:2438:U:C6	2.53	0.42
31:BA:2612:C:H2'	31:BA:2613:U:C5'	2.48	0.42
31:BA:588:U:O2'	31:BA:589:C:H5'	2.19	0.42
31:BA:1257:C:H5'	35:BF:75:HIS:NE2	2.34	0.42
31:BA:52:A:OP2	31:BA:117:G:N1	2.39	0.42
44:BS:46:VAL:CG1	44:BS:47:THR:H	2.33	0.42
31:DA:1741:A:H2'	31:DA:1742:G:C4	2.54	0.42
24:D2:46:GLN:O	24:D2:48:HIS:N	2.52	0.42
31:DA:1342:A:HO2'	31:DA:1344:G:P	2.42	0.42
31:DA:1388:G:H4'	31:DA:1525:G:O2'	2.19	0.42
31:DA:1528:A:C8	31:DA:1528(A):A:C4	3.07	0.42
31:DA:1528:A:H8	31:DA:1528(A):A:C4	2.37	0.42
31:DA:1157:G:C4	31:DA:1158:C:C5	3.08	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:815:C:H2'	31:DA:816:C:C6	2.54	0.42
39:DN:25:ARG:NH1	39:DN:25:ARG:CG	2.72	0.42
46:DU:61:TRP:CH2	46:DU:94:ASN:HB2	2.55	0.42
49:BX:60:ARG:N	49:BX:60:ARG:HD3	2.28	0.42
49:BX:72:LYS:O	49:BX:73:ARG:CB	2.68	0.42
49:BX:72:LYS:O	49:BX:73:ARG:HB3	2.19	0.42
31:BA:2631:G:N3	31:BA:2810:A:C2	2.87	0.42
33:BD:242:ARG:HD2	33:BD:242:ARG:N	2.33	0.42
36:DG:178:PHE:HD1	36:DG:178:PHE:H	1.67	0.42
36:DG:178:PHE:HB3	36:DG:180:PHE:CE1	2.54	0.42
31:DA:2377:A:H4'	44:DS:107:GLU:HB3	2.02	0.42
1:AA:407:G:N1	1:AA:408:A:C5	2.88	0.42
16:AP:28:ARG:O	16:AP:30:GLY:N	2.49	0.42
1:CA:109:A:H4'	1:CA:110:C:OP2	2.20	0.42
1:CA:411:A:C2'	1:CA:412:A:H4'	2.42	0.42
1:CA:502:G:C2	1:CA:503:C:C2	3.07	0.42
31:BA:1288:U:C2	31:BA:1327:C:C2	3.06	0.42
31:BA:1322:A:N6	31:BA:1331:A:H61	2.17	0.42
31:BA:1331:A:O2'	31:BA:1332:G:C8	2.56	0.42
33:DD:83:GLU:OE1	33:DD:104:TYR:HE2	2.02	0.42
33:DD:93:ALA:HB2	33:DD:107:ALA:HB2	2.01	0.42
31:BA:1157:G:C4	31:BA:1158:C:C5	3.08	0.42
39:BN:30:ILE:HG21	39:BN:120:LEU:CD2	2.49	0.42
39:BN:120:LEU:HD11	39:BN:122:VAL:CG2	2.28	0.42
43:DR:76:VAL:O	43:DR:77:ARG:C	2.57	0.42
31:DA:2649:U:H2'	31:DA:2650:U:C6	2.54	0.42
31:BA:1649:G:N1	31:BA:2009:G:C6	2.88	0.42
43:BR:3:HIS:O	43:BR:4:LEU:HB3	2.19	0.42
2:AB:11:LEU:O	2:AB:16:HIS:ND1	2.53	0.42
31:BA:1811:G:C4	31:BA:1812:A:C8	3.07	0.42
31:BA:815:C:H2'	31:BA:816:C:C6	2.54	0.42
31:DA:2315:G:C2	31:DA:2316:C:N3	2.88	0.42
50:DY:18:GLY:O	50:DY:19:LYS:C	2.57	0.42
50:DY:42:VAL:CG2	50:DY:67:LEU:HD13	2.50	0.42
50:DY:7:VAL:HB	50:DY:8:LYS:HD2	2.02	0.42
31:BA:1475:G:H5'	31:BA:1476:C:OP2	2.20	0.42
31:BA:1563:G:O2'	31:BA:1564:C:H5'	2.19	0.42
31:BA:1278:A:H5"	43:BR:36:THR:HG23	2.02	0.42
31:DA:954:G:C6	31:DA:955:C:C4	3.08	0.42
51:DZ:151:HIS:HB3	51:DZ:169:GLU:O	2.19	0.42
51:DZ:165:VAL:HG12	51:DZ:166:SER:OG	2.19	0.42
1:AA:718:G:H1'	11:AK:116:HIS:HA	2.01	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:322:C:O2	1:AA:332:G:N2	2.51	0.42
48:BW:89:ALA:O	48:BW:92:ARG:HB2	2.20	0.42
32:BB:76:G:H2'	32:BB:77:U:O4'	2.19	0.42
31:DA:2202:C:O2	33:DD:151:LYS:NZ	2.43	0.42
32:BB:86:G:H2'	32:BB:87:G:O4'	2.19	0.42
31:BA:2642:G:H2'	31:BA:2643:G:O5'	2.19	0.42
39:BN:19:GLU:O	39:BN:59:LYS:O	2.37	0.42
31:BA:1042:G:C4	31:BA:1114:G:N2	2.87	0.42
38:BI:52:ARG:HA	38:BI:55:ALA:CB	2.32	0.42
1:AA:663:A:H2'	1:AA:664:G:H5'	2.00	0.42
1:AA:832:C:N3	1:AA:855:G:C2	2.88	0.42
1:CA:1190:G:H3'	3:CC:3:ASN:HD21	1.83	0.42
1:AA:1103:C:H5''	2:AB:98:LEU:HD22	2.01	0.42
31:BA:2722:G:H2'	31:BA:2723:C:C6	2.54	0.42
31:DA:859:G:O3'	31:DA:860:U:O2	2.37	0.42
24:B2:41:ILE:HG12	31:BA:94(A):G:N2	2.34	0.42
1:AA:728:A:H2'	1:AA:729:A:H8	1.85	0.42
11:AK:121:PRO:O	11:AK:126:ARG:HB2	2.19	0.42
1:AA:346:G:H5''	45:BT:41:ARG:NE	2.34	0.42
1:AA:922:G:C6	1:AA:923:A:C5	3.07	0.42
1:AA:922:G:N1	1:AA:923:A:C2	2.87	0.42
1:CA:1523:G:C5	1:CA:1524:C:C5	3.07	0.42
38:BI:77:LEU:HA	38:BI:77:LEU:HD23	1.56	0.42
31:DA:1635:G:O2'	31:DA:1636:C:H5'	2.19	0.42
11:AK:66:LEU:C	11:AK:68:ALA:N	2.71	0.42
31:BA:786:C:O2'	31:BA:787:U:H5'	2.19	0.42
31:BA:2882:A:C2'	31:BA:2883:A:O5'	2.67	0.42
31:BA:456:C:C6	49:BX:66:LEU:HD21	2.53	0.42
31:DA:38:A:C5	31:DA:39:C:C4	3.08	0.42
31:DA:2484:G:C2	31:DA:2485:G:C8	3.07	0.42
1:CA:1372:U:H2'	1:CA:1373:G:O4'	2.19	0.42
1:CA:1372:U:OP1	9:CI:72:GLY:N	2.52	0.42
4:CD:189:PRO:HB2	4:CD:194:LEU:CD2	2.42	0.42
47:BV:46:VAL:O	47:BV:47:VAL:HB	2.19	0.42
1:AA:1373:G:O5'	1:AA:1373:G:H8	2.02	0.42
31:DA:2555:U:C5	31:DA:2556:C:C2	3.07	0.42
31:DA:541:C:H6	31:DA:541:C:O5'	2.02	0.42
15:CO:26:GLU:OE2	15:CO:77:ARG:NH1	2.53	0.42
1:CA:1157:A:H4'	1:CA:1158:C:C5'	2.48	0.42
17:AQ:31:LEU:HG	17:AQ:32:TYR:CD2	2.55	0.42
51:DZ:143:GLY:O	51:DZ:144:LEU:HD13	2.19	0.42
31:DA:2617:C:H2'	31:DA:2618:G:O4'	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1375:A:H4'	7:AG:29:LYS:HD3	2.01	0.42
31:BA:667:U:C3'	31:BA:668:G:H5'	2.49	0.42
9:AI:43:ALA:HA	9:AI:74:ILE:HD13	2.01	0.42
1:AA:1314:C:N4	19:AS:4:SER:N	2.67	0.42
1:AA:523:A:H61	12:AL:53:ARG:NH1	2.18	0.42
1:CA:939:G:H2'	1:CA:940:C:C6	2.54	0.42
1:AA:758:G:H8	1:AA:758:G:O5'	2.02	0.42
18:AR:41:LYS:C	18:AR:43:PHE:H	2.23	0.42
31:BA:648:G:C4'	31:BA:2351:G:H5''	2.48	0.42
31:DA:221:A:N1	31:DA:265:A:O2'	2.45	0.42
31:BA:1893:C:C2'	31:BA:1894:C:H5'	2.49	0.42
47:BV:83:ARG:CG	47:BV:83:ARG:NH1	2.82	0.42
3:CC:100:ALA:O	3:CC:101:LEU:HB2	2.18	0.42
17:AQ:5:VAL:O	17:AQ:6:LEU:HD23	2.19	0.42
34:DE:181:LEU:HG	45:DT:11:GLU:OE2	2.20	0.42
31:BA:725:G:C6	31:BA:726:G:C6	3.07	0.42
20:AT:30:LYS:HG3	20:AT:34:LYS:HE3	2.01	0.42
2:AB:63:MET:CB	2:AB:225:ALA:HB1	2.49	0.42
2:AB:8:LYS:NZ	2:AB:217:ARG:HD2	2.35	0.42
13:AM:29:ARG:HD3	13:AM:64:TRP:CH2	2.54	0.42
27:D5:22:HIS:NE2	31:DA:2046:G:H1'	2.34	0.42
2:AB:95:GLN:HG3	2:AB:147:LYS:O	2.20	0.42
31:DA:2584:U:H2'	31:DA:2585:U:H5'	1.99	0.42
31:DA:2321:G:N3	31:DA:2321:G:H2'	2.34	0.42
38:BI:35:LEU:HD23	38:BI:35:LEU:N	2.34	0.42
7:AG:12:LEU:HD13	7:AG:24:THR:OG1	2.20	0.42
8:CH:108:GLY:HA2	8:CH:138:TRP:HB3	2.00	0.42
46:DU:30:LYS:HD3	46:DU:30:LYS:HA	1.82	0.42
31:BA:271(W):G:C2'	31:BA:271(X):G:H5'	2.49	0.42
46:BU:18:LEU:O	46:BU:19:LYS:C	2.57	0.42
4:CD:159:ARG:O	4:CD:163:GLU:N	2.53	0.42
17:CQ:74:LEU:HD12	17:CQ:75:ARG:HG2	2.01	0.42
35:DF:88:VAL:HG13	35:DF:91:GLY:H	1.84	0.42
16:AP:27:LYS:H	16:AP:27:LYS:HD2	1.84	0.42
1:AA:812:C:OP1	1:AA:903:G:H1'	2.20	0.42
23:D1:33:LYS:O	23:D1:34:THR:HG22	2.19	0.42
31:DA:200:U:O2	31:DA:386:G:N2	2.52	0.42
31:DA:2056:G:OP2	31:DA:2057:A:OP2	2.38	0.42
31:DA:2418:A:C4	31:DA:2419:U:C5	3.07	0.42
31:DA:594:U:N3	31:DA:595:C:C4	2.88	0.42
31:DA:947:G:C2	31:DA:971:C:C2	3.08	0.42
31:BA:195:A:H61	31:BA:198:C:H3'	1.85	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:2415:G:C6	31:BA:2416:C:C4	3.07	0.42
31:BA:196:A:OP2	41:BP:51:PHE:CZ	2.72	0.42
33:BD:35:LYS:CD	33:BD:64:ILE:N	2.83	0.42
24:D2:46:GLN:C	24:D2:48:HIS:H	2.23	0.42
49:DX:60:ARG:HB2	49:DX:73:ARG:CA	2.49	0.42
49:DX:85:PRO:O	49:DX:87:GLN:HG2	2.19	0.42
41:BP:115:LEU:HB2	41:BP:116:GLY:H	1.68	0.42
25:D3:8:LEU:HB2	25:D3:28:LEU:CD1	2.37	0.42
31:BA:1407:C:N3	31:BA:1596:A:C2	2.87	0.42
31:BA:1465:G:C6	31:BA:1466:G:N7	2.87	0.42
49:BX:32:PRO:HG3	49:BX:72:LYS:HD3	2.01	0.42
49:BX:27:THR:OG1	49:BX:77:LYS:HA	2.19	0.42
31:BA:2632:A:N3	34:BE:61:ARG:CD	2.82	0.42
36:DG:7:LEU:HD12	36:DG:100:TRP:O	2.19	0.42
44:DS:53:SER:HB3	44:DS:54:LEU:H	1.57	0.42
32:DB:51:G:P	44:DS:61:ASN:HD22	2.42	0.42
1:AA:394:G:C5	1:AA:395:C:C5	3.08	0.42
1:AA:620:C:C2	4:AD:135:LEU:HG	2.54	0.42
16:AP:9:PHE:O	16:AP:10:GLY:O	2.37	0.42
1:CA:370:C:H2'	1:CA:371:G:H8	1.85	0.42
1:CA:374:A:C2	1:CA:375:U:C2	3.08	0.42
5:CE:75:THR:OG1	5:CE:76:ILE:N	2.53	0.42
8:CH:104:ARG:O	8:CH:105:ARG:HB2	2.18	0.42
4:AD:127:THR:O	4:AD:128:VAL:HG23	2.18	0.42
33:DD:35:LYS:CE	33:DD:65:ILE:HA	2.49	0.42
46:BU:49:HIS:CA	46:BU:52:ARG:HB2	2.37	0.42
31:DA:2516:G:C5	31:DA:2517:C:C4	3.07	0.42
2:CB:15:VAL:HG21	2:CB:209:ARG:HH21	1.84	0.42
51:DZ:6:LYS:HG2	51:DZ:8:TYR:CZ	2.54	0.42
43:BR:34:ILE:HD12	43:BR:34:ILE:HA	1.83	0.42
51:BZ:101:PRO:HA	51:BZ:123:ASP:HB3	2.00	0.42
35:BF:102:PRO:HB2	35:BF:105:VAL:CG2	2.47	0.42
6:AF:1:MET:HA	6:AF:67:MET:O	2.19	0.42
1:AA:53:A:C2	1:AA:359:U:O2	2.72	0.42
27:B5:7:PRO:HA	31:BA:2615:U:C2	2.55	0.42
33:DD:130:ALA:HA	33:DD:192:THR:HA	2.01	0.42
31:DA:14:A:C2	31:DA:526:A:H2	2.38	0.42
31:DA:2636:U:P	34:DE:80:GLU:HG3	2.60	0.42
31:BA:2802:G:OP2	31:BA:2803:C:OP2	2.37	0.42
27:D5:56:LYS:HB2	27:D5:57:VAL:H	1.55	0.42
31:BA:1956:U:H2'	31:BA:1957:C:C5'	2.45	0.42
6:AF:8:ILE:HG21	6:AF:26:ILE:HD13	2.02	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:271(K):U:O2	38:BI:50:ARG:NH1	2.53	0.42
1:CA:1102:A:H2'	1:CA:1103:C:H5'	2.01	0.42
1:CA:1104:G:C5	1:CA:1105:A:N7	2.87	0.42
31:DA:918:A:C5	31:DA:919:G:H1'	2.55	0.42
31:BA:1575:C:H2'	31:BA:1576:U:H6	1.84	0.42
31:BA:2494:G:H2'	31:BA:2495:G:O5'	2.19	0.42
45:BT:33:LYS:CB	45:BT:41:ARG:HB3	2.42	0.42
41:DP:144:GLU:N	41:DP:145:PRO:CD	2.72	0.42
1:CA:976:G:C8	1:CA:1362:C:N4	2.87	0.42
16:CP:75:ARG:HA	16:CP:80:PHE:HD1	1.84	0.42
1:AA:955:U:H3	1:AA:1225:A:N6	2.16	0.42
24:B2:59:ARG:HD2	24:B2:59:ARG:HA	1.57	0.42
48:DW:50:VAL:HG13	48:DW:105:VAL:HG21	2.01	0.42
1:CA:257:G:H2'	1:CA:258:G:H8	1.84	0.42
31:BA:1503:U:H6	31:BA:1503:U:H3'	1.84	0.42
31:BA:1175:U:H4'	31:BA:1176:G:H8	1.85	0.42
31:DA:1515:G:C6	31:DA:1516:C:C4	3.07	0.42
49:BX:44:GLU:C	49:BX:46:ALA:H	2.23	0.42
45:BT:106:SER:CB	45:BT:110:ILE:HD11	2.48	0.42
1:CA:1406:U:C2'	1:CA:1407:C:H5'	2.50	0.42
31:DA:2843:G:C5	31:DA:2844:G:N7	2.87	0.42
1:CA:658:G:O4'	15:CO:22:THR:O	2.37	0.42
31:DA:38:A:C6	31:DA:39:C:N4	2.88	0.42
47:DV:50:PRO:HG2	47:DV:51:VAL:H	1.85	0.42
31:BA:114:U:H3'	31:BA:115:C:C6	2.53	0.42
31:BA:758:C:O2'	31:BA:1981:A:N3	2.46	0.42
31:DA:2476:A:C4	31:DA:2477:C:C6	3.07	0.42
1:CA:1157:A:C8	1:CA:1181:G:N2	2.87	0.42
17:AQ:29:HIS:HA	17:AQ:30:PRO:HD2	1.82	0.42
51:BZ:139:VAL:C	51:BZ:141:VAL:H	2.22	0.42
51:DZ:143:GLY:N	51:DZ:144:LEU:HD22	2.33	0.42
31:DA:466:A:H1'	31:DA:683:C:O4'	2.19	0.42
31:BA:1206:G:C6	31:BA:1207:C:C4	3.08	0.42
40:BO:6:THR:HG22	40:BO:7:TYR:N	2.33	0.42
31:BA:2862:G:H2'	31:BA:2863:C:H5''	2.02	0.42
22:D0:68:GLU:OE1	22:D0:82:ARG:HB3	2.19	0.42
3:CC:159:GLY:HA2	3:CC:193:TYR:CD1	2.53	0.42
31:BA:2556:C:H2'	31:BA:2557:G:C5'	2.49	0.42
31:BA:2554:U:N3	31:BA:2555:U:C4	2.87	0.42
31:BA:884:C:O2'	31:BA:892:G:C8	2.48	0.42
5:CE:112:LEU:C	5:CE:114:GLY:N	2.73	0.42
1:CA:563:A:C8	1:CA:567:G:C1'	3.03	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:563:A:C6	1:CA:567:G:C4	3.07	0.42
1:CA:563:A:C6	1:CA:567:G:N3	2.87	0.42
31:DA:272(D):G:H1	31:DA:364:C:H42	1.65	0.42
31:BA:2762:G:O6	31:BA:2763:G:C2	2.72	0.42
31:DA:817:C:C3'	31:DA:818:G:H8	2.32	0.42
1:CA:397:A:N7	1:CA:548:G:H8	2.16	0.42
1:CA:853:G:N3	1:CA:854:G:C8	2.87	0.42
31:BA:11:G:H2'	31:BA:12:U:O4'	2.18	0.42
1:AA:640:A:C2	8:AH:115:SER:HB3	2.54	0.42
18:AR:57:GLY:C	18:AR:58:LEU:HD12	2.40	0.42
31:BA:2074:U:H4'	31:BA:2598:A:O4'	2.19	0.42
7:AG:22:LEU:HG	7:AG:62:PHE:CE2	2.51	0.42
15:CO:64:ARG:HH12	15:CO:88:ARG:HH12	1.66	0.42
1:AA:276:G:C6	1:AA:277:C:C5	3.07	0.42
1:CA:152:A:N6	1:CA:170:U:C2	2.87	0.42
46:BU:44:ASN:H	46:BU:44:ASN:HD22	1.65	0.42
1:CA:1312:G:H1	1:CA:1325:C:H42	1.68	0.42
1:AA:1267:C:N3	1:AA:1327:C:H4'	2.34	0.42
17:AQ:7:THR:HA	17:AQ:57:VAL:O	2.19	0.42
31:BA:1002:G:H2'	31:BA:1003:G:O4'	2.20	0.42
17:CQ:59:ILE:HG22	17:CQ:71:PHE:HD1	1.84	0.42
31:BA:1152:C:H5''	46:BU:80:ILE:HG22	2.02	0.42
34:DE:14:ILE:HG13	34:DE:21:VAL:CG2	2.49	0.42
1:AA:654:G:H2'	1:AA:655:A:H5'	2.01	0.42
31:DA:47:C:H6	31:DA:47:C:O5'	2.01	0.42
1:CA:987:G:N2	1:CA:1219:U:C2	2.88	0.42
2:CB:87:ARG:CZ	2:CB:233:SER:HB3	2.49	0.42
50:DY:73:ARG:NH2	50:DY:82:PRO:HD3	2.35	0.42
35:DF:46:ARG:CB	35:DF:46:ARG:NH1	2.82	0.42
4:AD:180:GLY:O	4:AD:181:MET:C	2.57	0.42
1:CA:607:A:C2'	1:CA:608:A:H5'	2.49	0.42
35:DF:41:LEU:HD23	35:DF:41:LEU:N	2.34	0.42
29:B7:18:PHE:CE2	29:B7:22:MET:HG3	2.55	0.42
14:CN:39:LEU:HD13	14:CN:47:LEU:HD12	2.01	0.42
38:BI:99:GLU:HG2	38:BI:103:ARG:HD2	2.02	0.42
1:CA:595:G:H8	1:CA:595:G:O5'	2.02	0.42
2:CB:121:LEU:O	2:CB:121:LEU:HD23	2.20	0.42
2:CB:230:VAL:HB	2:CB:231:GLU:H	1.69	0.42
1:CA:1503:A:O2'	1:CA:1504:G:H5''	2.18	0.42
30:D8:4:MET:SD	30:D8:61:LEU:CD1	2.99	0.42
27:D5:2:ALA:N	31:DA:2015:A:N3	2.67	0.42
31:DA:2418:A:C6	31:DA:2419:U:C4	3.08	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:2068:U:O2	31:DA:2430:A:H2	2.03	0.42
31:DA:515:A:H1'	31:DA:581:C:C1'	2.47	0.42
31:DA:661:C:H2'	31:DA:662:G:C8	2.55	0.42
41:DP:51:PHE:O	41:DP:52:GLU:CB	2.64	0.42
30:B8:43:GLN:O	30:B8:44:LYS:CD	2.64	0.42
31:BA:2415:G:H2'	31:BA:2416:C:H5'	2.00	0.42
29:B7:15:THR:HG22	29:B7:16:HIS:ND1	2.34	0.42
33:BD:108:PRO:HD2	33:BD:111:LEU:HD22	2.01	0.42
33:BD:35:LYS:N	33:BD:64:ILE:HG23	2.34	0.42
44:BS:39:ILE:HG22	44:BS:39:ILE:O	2.19	0.42
31:DA:1464:C:O2'	31:DA:1528:A:H1'	2.20	0.42
49:DX:27:THR:HB	49:DX:77:LYS:HG2	2.00	0.42
41:BP:82:GLY:HA2	41:BP:113:LYS:O	2.20	0.42
41:BP:84:ASN:C	41:BP:86:LYS:H	2.23	0.42
25:D3:52:HIS:HD2	25:D3:52:HIS:N	2.16	0.42
31:DA:1022:G:C6	31:DA:1140:C:N3	2.88	0.42
41:DP:27:HIS:CD2	41:DP:28:GLY:N	2.87	0.42
47:DV:90:PRO:HG2	47:DV:91:TYR:H	1.84	0.42
31:BA:2628:C:O2'	31:BA:2781:A:H3'	2.20	0.42
31:BA:1714:G:N2	31:BA:1717:G:C4	2.88	0.42
32:DB:25:A:C4	32:DB:26:A:C8	3.08	0.42
44:DS:73:LEU:O	44:DS:74:ALA:C	2.58	0.42
4:AD:89:THR:O	4:AD:90:GLY:C	2.57	0.42
20:AT:18:GLN:O	20:AT:19:SER:C	2.57	0.42
1:CA:611:A:O2'	1:CA:612:C:H5'	2.19	0.42
1:CA:511:C:O3'	4:CD:43:HIS:CE1	2.73	0.42
16:CP:6:LEU:HB3	16:CP:17:TYR:CD2	2.55	0.42
46:BU:88:ILE:H	46:BU:88:ILE:HD12	1.82	0.42
23:D1:10:LYS:HB2	23:D1:14:VAL:C	2.40	0.42
31:BA:1796:U:H4'	33:BD:256:GLY:CA	2.49	0.42
20:CT:89:ARG:HD2	20:CT:104:LEU:CD1	2.49	0.42
47:BV:21:ARG:HE	47:BV:21:ARG:H	1.68	0.42
31:DA:2305:A:OP1	31:DA:2305:A:H4'	2.19	0.42
31:DA:304:G:C5	31:DA:305:U:C5	3.07	0.42
1:CA:683:G:C6	1:CA:684:A:C6	3.07	0.42
51:DZ:28:MET:CE	51:DZ:59:LEU:HD12	2.49	0.42
31:DA:867:C:O2	31:DA:913:U:H5'	2.20	0.42
42:DQ:8:LYS:HG3	42:DQ:9:TYR:H	1.83	0.42
1:AA:1279:A:C2	10:AJ:43:ARG:NH1	2.88	0.42
32:DB:111:G:H2'	32:DB:112:U:H6	1.84	0.42
31:DA:2815:C:H2'	31:DA:2816:C:O4'	2.19	0.42
31:BA:1947:C:C2	31:BA:1960:A:C2	3.07	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:D1:20:ARG:HG2	23:D1:20:ARG:NH2	2.34	0.42
1:CA:1084:G:OP1	1:CA:1086:U:C4	2.72	0.42
15:CO:43:LEU:O	15:CO:44:LYS:C	2.57	0.42
1:AA:19:C:H4'	1:AA:864:A:O4'	2.19	0.42
31:DA:860:U:C1'	31:DA:2268:A:H5'	2.49	0.42
31:DA:860:U:O2	31:DA:860:U:O4'	2.37	0.42
31:DA:862:G:H5'	32:DB:79:C:H4'	2.01	0.42
31:DA:1581:G:H2'	31:DA:1582:C:H5'	2.00	0.42
31:BA:1420:U:H6	31:BA:1420:U:H2'	1.48	0.42
1:AA:1053:G:C2	1:AA:1199:U:C4	3.08	0.42
38:DI:100:ALA:O	38:DI:104:GLN:HB2	2.20	0.42
45:DT:65:LYS:CG	45:DT:66:VAL:H	2.33	0.42
31:DA:1629:U:O2	31:DA:2698:U:C5'	2.67	0.42
31:DA:1635:G:H8	31:DA:1635:G:H5'	1.84	0.42
31:DA:2710:C:H2'	31:DA:2711:A:O4'	2.20	0.42
31:BA:109:G:C4	31:BA:110:G:C8	3.07	0.42
31:BA:109:G:H2'	31:BA:110:G:O4'	2.20	0.42
1:CA:690:G:C6	1:CA:691:G:C6	3.07	0.42
10:CJ:49:VAL:HG21	14:CN:44:LEU:HD23	2.02	0.42
31:DA:66:C:C2	31:DA:89:G:N2	2.88	0.42
13:AM:87:TYR:C	13:AM:89:GLY:N	2.73	0.42
24:B2:14:ARG:HH11	24:B2:57:ILE:HG22	1.84	0.42
38:BI:133:HIS:O	38:BI:134:PRO:C	2.57	0.42
37:BH:89:ILE:HG13	37:BH:129:THR:HA	2.01	0.42
38:DI:132:PRO:C	38:DI:133:HIS:CD2	2.92	0.42
1:AA:1065:U:H4'	1:AA:1066:C:O5'	2.19	0.42
1:CA:66:G:C4'	1:CA:173:U:C4	3.02	0.42
1:AA:64:G:OP1	1:AA:64:G:H3'	2.20	0.42
1:AA:232:G:H2'	1:AA:233:C:O4'	2.20	0.42
1:AA:259:G:O2'	1:AA:260:G:H5'	2.19	0.42
1:AA:931:C:N3	1:AA:1387:G:C6	2.88	0.42
37:DH:52:VAL:HG13	37:DH:65:HIS:NE2	2.34	0.42
31:BA:2472:G:C6	31:BA:2475:C:C4	3.07	0.42
29:D7:35:ARG:HG3	29:D7:42:LEU:HD11	2.02	0.42
31:DA:2037:G:C6	31:DA:2038:G:C6	3.08	0.42
47:DV:49:THR:HA	47:DV:50:PRO:HD3	1.84	0.42
31:BA:2465:C:C2	31:BA:2486:G:C2	3.07	0.42
31:DA:2887:U:O2	31:DA:2887:U:H2'	2.19	0.42
31:DA:2610:C:H4'	31:DA:2611:U:OP2	2.20	0.42
22:B0:71:ASP:C	22:B0:72:ARG:HG2	2.40	0.42
31:BA:441:U:H2'	31:BA:442:G:C8	2.55	0.42
1:AA:991:U:C2'	1:AA:992:U:OP2	2.67	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BD:12:SER:C	33:BD:14:ARG:N	2.71	0.42
34:BE:169:ASN:HD22	34:BE:169:ASN:HA	1.61	0.42
37:DH:20:ALA:CB	37:DH:21:PRO:CD	2.92	0.42
31:BA:2093:G:H2'	31:BA:2094:G:H8	1.85	0.42
34:DE:126:PRO:HB2	34:DE:128:SER:O	2.20	0.42
31:DA:812:C:H5''	31:DA:1250:G:O2'	2.20	0.42
31:BA:128:C:O2'	31:BA:129:C:P	2.76	0.42
1:CA:90:U:O3'	1:CA:91:C:C6	2.72	0.42
42:DQ:16:ARG:CG	42:DQ:17:LEU:H	2.31	0.42
31:DA:272(B):G:H2'	31:DA:272(C):G:O5'	2.20	0.42
35:DF:28:ILE:HG21	35:DF:116:ASP:HB2	2.02	0.42
1:CA:581:G:C2	1:CA:582:U:C5	3.07	0.42
37:DH:86:GLU:OE2	37:DH:132:ARG:HD3	2.19	0.42
1:AA:640:A:N3	8:AH:115:SER:HB2	2.34	0.42
1:CA:308:C:H2'	1:CA:309:G:C8	2.46	0.42
1:CA:150:C:N4	1:CA:170:U:C2	2.87	0.42
1:AA:484:G:C1'	1:AA:485:G:O5'	2.68	0.42
31:BA:1002:G:C2	31:BA:1003:G:H1'	2.53	0.42
3:AC:204:LEU:HB3	3:AC:205:GLY:H	1.49	0.42
19:CS:19:VAL:O	19:CS:19:VAL:HG12	2.20	0.42
1:AA:151:A:N6	1:AA:152:A:C2	2.88	0.42
1:CA:1152:A:H2'	1:CA:1153:C:C6	2.55	0.42
31:BA:350:U:H2'	31:BA:351:G:O5'	2.19	0.42
43:BR:59:ASP:O	43:BR:62:ALA:HB3	2.19	0.42
20:AT:73:HIS:O	20:AT:74:LYS:O	2.38	0.42
31:BA:1814:G:C6	31:BA:1815:A:C6	3.08	0.42
38:DI:33:ARG:C	38:DI:35:LEU:H	2.22	0.42
1:CA:642:A:C4	8:CH:114:THR:O	2.72	0.42
31:DA:407:G:H2'	31:DA:408:G:C8	2.55	0.42
31:BA:1632:A:C5	31:BA:1633:G:C6	3.08	0.42
1:AA:336:C:O2'	1:AA:337:C:H5'	2.19	0.42
31:BA:2639:A:H2'	31:BA:2640:G:H5'	2.01	0.42
35:BF:29:ASN:O	35:BF:30:PRO:C	2.58	0.42
39:DN:97:ARG:O	39:DN:100:GLU:N	2.53	0.42
31:BA:730:C:OP2	31:BA:731:C:OP2	2.37	0.42
31:BA:2588:G:O2'	31:BA:2589:A:H5'	2.20	0.42
1:CA:1390:U:H2'	1:CA:1391:U:H6	1.85	0.42
33:DD:11:PRO:O	33:DD:12:SER:CB	2.68	0.42
10:CJ:23:ILE:HG22	10:CJ:23:ILE:O	2.20	0.42
49:BX:13:LEU:N	49:BX:13:LEU:HD23	2.34	0.42
42:DQ:60:ARG:HG2	42:DQ:60:ARG:O	2.20	0.42
47:DV:56:SER:O	47:DV:58:VAL:HG23	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:D8:52:LYS:O	30:D8:52:LYS:HG3	2.19	0.42
31:DA:2070:G:C4	31:DA:2071:A:C8	3.08	0.42
31:DA:2442:C:C2	31:DA:2443:C:C5	3.08	0.42
31:DA:2615:U:H2'	31:DA:2616:C:C6	2.55	0.42
31:DA:825:C:H2'	31:DA:826:U:O5'	2.20	0.42
23:B1:37:ILE:CD1	31:BA:2079:U:O3'	2.68	0.42
31:BA:449:A:C2'	31:BA:450:G:H5'	2.49	0.42
31:BA:832:G:C4	31:BA:833:U:C5	3.08	0.42
31:BA:942:G:C2'	31:BA:943:U:C5'	2.97	0.42
33:BD:107:ALA:HA	33:BD:108:PRO:HD2	1.78	0.42
33:BD:27:THR:O	33:BD:28:GLU:CB	2.67	0.42
32:BB:28:C:C2	32:BB:29:A:C8	3.07	0.42
44:BS:17:ARG:O	44:BS:18:ILE:HB	2.19	0.42
31:DA:1711:C:O2'	31:DA:1712:C:H5'	2.19	0.42
41:BP:141:ALA:H	25:D3:1:MET:HE1	1.84	0.42
25:D3:46:ASN:O	25:D3:49:LYS:N	2.53	0.42
31:DA:1009:A:C5	31:DA:1010:A:C6	3.08	0.42
46:DU:92:ARG:NH2	47:DV:10:LYS:HG2	2.35	0.42
24:B2:46:GLN:O	24:B2:49:LYS:N	2.52	0.42
31:BA:143:G:H2'	31:BA:143(A):C:H6	1.84	0.42
34:BE:34:VAL:HG23	34:BE:34:VAL:O	2.19	0.42
33:BD:255:LYS:HZ2	33:BD:255:LYS:C	2.23	0.42
32:DB:116:G:N3	32:DB:117:G:C8	2.87	0.42
32:DB:118:G:N2	32:DB:119:G:N7	2.68	0.42
32:DB:33:G:C6	32:DB:50:G:C6	3.07	0.42
44:DS:69:VAL:O	44:DS:72:ALA:HB3	2.19	0.42
4:AD:68:TYR:O	4:AD:69:GLY:C	2.58	0.42
1:CA:1466:C:H2'	1:CA:1467:G:C5'	2.48	0.42
1:CA:1430:C:C2	1:CA:1471:G:C2	3.08	0.42
1:CA:499:A:C4'	1:CA:500:G:OP1	2.61	0.42
1:CA:511:C:O2'	1:CA:512:U:H5''	2.20	0.42
4:CD:100:ARG:HH12	4:CD:137:SER:HB3	1.84	0.42
20:CT:26:ASN:HB3	20:CT:71:THR:OG1	2.19	0.42
33:DD:58:HIS:CD2	33:DD:59:LYS:H	2.38	0.42
31:BA:2018:G:H2'	31:BA:2019:A:C8	2.55	0.42
46:BU:92:ARG:NH2	47:BV:11:GLN:H	2.18	0.42
31:DA:372:G:O2'	31:DA:373:U:OP2	2.36	0.42
31:DA:2544:G:H1'	31:DA:2646:C:C4'	2.43	0.42
37:DH:123:PHE:CE2	37:DH:148:ILE:HD11	2.55	0.42
31:BA:2702:U:H5	31:BA:2705:A:N6	2.18	0.42
31:BA:2040:C:H2'	31:BA:2041:U:O4'	2.20	0.42
31:BA:2620:C:C1'	34:BE:156:MET:HB2	2.49	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AE:76:ILE:HD11	5:AE:142:LEU:CD1	2.50	0.42
33:BD:9:TYR:CZ	33:BD:13:ARG:HG2	2.54	0.42
31:BA:993:G:OP1	46:BU:50:ARG:NH2	2.53	0.42
31:DA:330:A:HO2'	31:DA:331:A:H8	1.62	0.42
31:DA:866:A:C6	31:DA:914:C:C6	3.08	0.42
31:DA:911:A:O5'	31:DA:912:C:H5''	2.19	0.42
34:DE:7:VAL:HG12	34:DE:51:PHE:HE1	1.84	0.42
51:DZ:19:ARG:NH1	51:DZ:84:GLU:OE2	2.52	0.42
31:BA:1275:A:C8	43:BR:16:HIS:CD2	3.08	0.42
6:AF:52:ILE:O	6:AF:53:ALA:HB3	2.19	0.42
27:B5:48:GLU:O	27:B5:49:CYS:C	2.58	0.42
27:B5:55:ARG:HG3	27:B5:56:LYS:H	1.85	0.42
23:B1:20:ARG:HG2	23:B1:20:ARG:NH2	2.30	0.42
31:BA:1338:G:N2	31:BA:1339:G:C4	2.88	0.42
1:CA:1091:U:O2	1:CA:1093:A:H8	2.03	0.42
31:BA:2331:G:O2'	31:BA:2336:A:N1	2.45	0.42
31:BA:824:A:C2'	31:BA:825:C:H5'	2.50	0.42
1:CA:667:G:C2	1:CA:740:U:O2	2.73	0.42
15:CO:39:LEU:HD13	15:CO:43:LEU:HD11	2.02	0.42
31:BA:2263:C:O2'	31:BA:2264:C:H5'	2.20	0.42
50:DY:76:CYS:O	50:DY:77:PRO:C	2.56	0.42
43:BR:65:LEU:HD12	43:BR:65:LEU:HA	1.67	0.42
16:CP:80:PHE:O	16:CP:81:ARG:C	2.58	0.42
31:DA:475:U:C4	31:DA:481:G:O6	2.72	0.42
31:DA:1169:G:C8	31:DA:1169:G:H3'	2.55	0.42
31:BA:862:G:H5'	32:BB:79:C:H4'	2.02	0.42
45:DT:38:ASN:C	45:DT:38:ASN:ND2	2.73	0.42
45:DT:82:LEU:O	45:DT:83:ILE:C	2.57	0.42
1:CA:273:A:N6	1:CA:274:A:N6	2.67	0.42
31:BA:1881:C:C4	31:BA:1882:C:C5	3.08	0.42
1:CA:781:A:C3'	1:CA:782:A:H5'	2.50	0.42
31:DA:1881:C:H5'	31:DA:1882:C:P	2.60	0.42
43:DR:9:LYS:HG3	43:DR:43:GLU:OE2	2.19	0.42
31:BA:154:G:N3	31:BA:154(A):C:N3	2.67	0.42
33:BD:176:ARG:HA	33:BD:182:LEU:CD2	2.49	0.42
31:BA:855:G:H2'	31:BA:856:C:C6	2.55	0.42
31:DA:2486:G:C2'	31:DA:2487:G:O5'	2.68	0.42
4:CD:196:LEU:HD12	4:CD:196:LEU:N	2.34	0.42
12:AL:105:TYR:C	12:AL:107:ALA:N	2.72	0.42
31:DA:2474:C:H5''	31:DA:2475:C:H5	1.85	0.42
9:AI:105:ASP:C	9:AI:107:ARG:N	2.73	0.42
37:BH:155:SER:C	37:BH:157:TYR:N	2.72	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:B0:75:LEU:HD23	22:B0:75:LEU:HA	1.71	0.42
16:CP:43:LYS:HG2	16:CP:48:TRP:CE3	2.55	0.42
24:D2:34:GLU:O	24:D2:34:GLU:CD	2.58	0.42
31:BA:543:C:HO2'	31:BA:543:C:H6	1.66	0.42
31:DA:48:G:H4'	31:DA:52:A:O4'	2.19	0.42
3:AC:157:ILE:HD11	3:AC:166:GLU:HB2	2.02	0.42
9:AI:26:VAL:HG13	9:AI:61:ALA:HB3	2.02	0.42
35:DF:30:PRO:HB2	35:DF:31:HIS:H	1.74	0.42
1:AA:198:G:O6	1:AA:219:C:N4	2.53	0.42
1:AA:977:A:C2'	1:AA:978:A:H5'	2.49	0.42
31:DA:2849:U:H4'	31:DA:2868:A:C2	2.54	0.42
31:BA:2303:G:H4'	36:BG:124:SER:O	2.20	0.42
1:AA:457:C:H42	1:AA:474:G:H1	1.68	0.42
31:DA:128:C:C2'	31:DA:129:C:H5''	2.49	0.42
15:CO:63:ARG:O	15:CO:67:LEU:HD12	2.20	0.42
1:CA:397:A:C6	1:CA:548:G:N7	2.87	0.42
1:CA:1316:G:O3'	14:CN:18:VAL:HG22	2.20	0.42
42:BQ:34:LEU:HB3	42:BQ:104:PHE:HB2	2.02	0.42
35:BF:57:VAL:CG1	35:BF:59:TYR:CD1	3.01	0.42
31:BA:1216:G:OP1	46:BU:8:VAL:HG22	2.20	0.42
1:AA:147:G:C4	1:AA:148:G:C8	3.07	0.42
48:BW:64:MET:HE3	48:BW:109:GLU:HG3	2.02	0.42
35:DF:110:LEU:HD22	35:DF:202:PHE:HE1	1.84	0.42
18:CR:40:LEU:HA	18:CR:43:PHE:HD1	1.85	0.42
31:BA:210:C:H4'	31:BA:1367:A:H1'	2.00	0.42
31:BA:817:C:C5	31:BA:818:G:N7	2.88	0.42
2:AB:83:MET:SD	2:AB:234:PRO:HG2	2.59	0.42
31:BA:2584:U:H6	31:BA:2585:U:C5	2.37	0.42
37:BH:83:TYR:C	37:BH:84:SER:OG	2.58	0.42
20:AT:37:SER:O	20:AT:41:ILE:HG12	2.20	0.42
17:CQ:15:MET:HB2	17:CQ:15:MET:HE3	1.96	0.42
1:AA:161:A:O5'	1:AA:161:A:H8	2.02	0.42
31:DA:507:A:O4'	31:DA:509:C:C2	2.72	0.42
3:CC:110:ASN:O	3:CC:111:LEU:HD23	2.19	0.42
31:BA:2027:G:C2'	31:BA:2028:U:H5'	2.50	0.42
31:BA:2547:U:H2'	31:BA:2548:G:C8	2.54	0.42
31:DA:735:A:H3'	31:DA:736:C:H6	1.85	0.42
10:AJ:23:ILE:HG22	10:AJ:23:ILE:O	2.20	0.42
7:CG:51:GLN:OE1	7:CG:51:GLN:HA	2.20	0.42
30:B8:16:ILE:HD12	30:B8:57:ARG:HD2	2.02	0.42
1:CA:12:U:H4'	1:CA:526:C:H4'	2.01	0.42
28:D6:32:ASN:O	28:D6:33:LYS:CG	2.68	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:D8:14:VAL:HG13	30:D8:23:VAL:O	2.20	0.42
31:DA:2358:G:C4	31:DA:2359:C:C6	3.08	0.42
31:DA:244:A:C2	31:DA:255:A:C5	3.08	0.42
31:DA:388:G:N7	31:DA:390:A:C4	2.88	0.42
41:DP:14:LYS:O	41:DP:15:ARG:HG3	2.20	0.42
31:BA:465:G:C2	31:BA:466:A:C2	3.08	0.42
31:BA:769:G:C2'	31:BA:770:G:H5'	2.50	0.42
44:BS:95:HIS:O	44:BS:97:ARG:N	2.52	0.42
31:DA:977:G:C6	31:DA:987:G:C5	3.07	0.42
39:DN:42:TRP:HD1	46:DU:64:ARG:NE	2.17	0.42
39:DN:63:THR:O	39:DN:64:GLY:O	2.38	0.42
39:DN:37:LYS:HD3	46:DU:63:VAL:HG13	2.01	0.42
31:BA:1408:C:C2	31:BA:1595:G:C2	3.08	0.42
31:BA:1465:G:C5	31:BA:1466:G:C8	3.08	0.42
31:DA:1326:U:O2'	31:DA:1327:C:H5'	2.20	0.42
32:DB:45:A:C2	32:DB:46:A:C1'	3.03	0.42
1:AA:39:G:C5	1:AA:40:C:C5	3.07	0.42
1:AA:437:U:C2'	1:AA:438:G:C5'	2.91	0.42
1:AA:611:A:O2'	1:AA:612:C:H5'	2.19	0.42
4:AD:116:GLN:O	4:AD:120:LEU:HG	2.19	0.42
1:CA:375:U:H2'	1:CA:376:G:H8	1.84	0.42
1:CA:501:C:C6	1:CA:501:C:H3'	2.55	0.42
16:CP:13:HIS:C	16:CP:15:PRO:HD3	2.39	0.42
1:CA:375:U:C4'	16:CP:17:TYR:CE2	3.03	0.42
31:BA:1324:G:N2	31:BA:1331:A:C4	2.88	0.42
31:DA:1803:A:C8	31:DA:1804:C:C5	3.07	0.42
31:DA:1811:G:H2'	31:DA:1812:A:O4'	2.20	0.42
23:D1:87:PRO:HD2	23:D1:89:GLU:OE2	2.20	0.42
31:DA:2772:C:C2	31:DA:2773:C:C5	3.07	0.42
31:DA:2633:G:H2'	31:DA:2634:G:O4'	2.20	0.42
31:DA:2892:A:N6	31:DA:2893:G:C2	2.88	0.42
2:AB:15:VAL:HG21	2:AB:209:ARG:HH21	1.85	0.42
31:BA:707:G:C5	31:BA:708:C:C5	3.07	0.42
31:DA:2317:C:O2	31:DA:2318:G:O4'	2.38	0.42
1:CA:1255:G:H2'	1:CA:1255:G:N3	2.34	0.42
31:DA:2262:U:C4	31:DA:2279:G:N1	2.88	0.42
51:BZ:28:MET:HA	51:BZ:88:PHE:O	2.19	0.42
4:AD:46:LYS:O	4:AD:48:ALA:N	2.52	0.42
34:DE:92:THR:O	34:DE:93:VAL:HB	2.19	0.42
31:DA:1115:G:C2'	31:DA:1116:C:C6	2.91	0.42
51:BZ:19:ARG:CG	51:BZ:19:ARG:NH1	2.73	0.42
31:BA:380:U:O2	31:BA:381:G:C8	2.73	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:20:TYR:CD2	4:CD:26:CYS:CB	3.02	0.42
31:BA:821:A:H5''	31:BA:822:U:O5'	2.20	0.42
2:AB:168:THR:HG21	2:AB:192:SER:HA	2.01	0.42
16:AP:71:ARG:O	16:AP:72:ARG:C	2.57	0.42
1:AA:453:A:H4'	16:AP:72:ARG:HB2	2.02	0.42
1:CA:27:G:C5	1:CA:557:G:C2	3.08	0.42
1:CA:666:G:N1	1:CA:741:G:C5	2.87	0.42
1:AA:1390:U:H2'	1:AA:1391:U:C6	2.55	0.42
40:BO:98:VAL:HG12	40:BO:117:LEU:HB3	2.01	0.42
36:BG:47:LYS:HE2	36:BG:81:LYS:HB2	2.02	0.42
38:DI:93:THR:HB	38:DI:119:PRO:HB3	2.01	0.42
1:AA:957:U:C2'	1:AA:959:A:N7	2.82	0.42
40:DO:23:ARG:CG	40:DO:23:ARG:NH1	2.64	0.42
1:CA:954:G:N2	1:CA:1226:C:O2	2.51	0.42
31:DA:271(H):G:N1	31:DA:271(Q):G:C6	2.87	0.42
31:BA:773:U:H2'	31:BA:774:A:H5'	2.01	0.42
48:DW:45:TYR:O	48:DW:48:ALA:HB3	2.19	0.42
48:BW:18:ARG:NH1	48:BW:76:VAL:O	2.53	0.42
48:BW:29:LEU:HD11	48:BW:51:LEU:HD11	2.02	0.42
1:CA:64:G:H5'	1:CA:66:G:OP1	2.20	0.42
31:BA:1173:G:H2'	31:BA:1175:U:C5	2.55	0.42
31:BA:2532:G:N2	31:BA:2663:G:O2'	2.45	0.42
31:BA:151:C:C2	31:BA:176:G:N2	2.88	0.42
37:BH:41:MET:SD	37:BH:55:PRO:CB	3.05	0.42
31:BA:182:A:C2'	31:BA:433:C:O2'	2.67	0.42
8:AH:36:LEU:CA	8:AH:39:LEU:HD23	2.41	0.42
31:DA:2863:C:OP1	45:DT:93:ARG:NH1	2.52	0.42
45:DT:92:GLY:C	45:DT:94:ALA:N	2.73	0.42
12:AL:77:LEU:HD21	12:AL:107:ALA:HA	2.02	0.42
39:DN:82:LEU:N	39:DN:82:LEU:HD12	2.32	0.42
38:DI:31:LEU:HA	38:DI:31:LEU:HD12	1.71	0.42
31:BA:2290:G:C2	31:BA:2343:C:O2	2.72	0.42
12:AL:10:LEU:O	12:AL:14:GLY:HA2	2.19	0.42
33:DD:266:SER:O	33:DD:267:SER:CB	2.67	0.42
1:CA:1236:A:OP1	21:CU:3:LYS:NZ	2.40	0.42
31:DA:687:C:O2	31:DA:788:A:H5'	2.19	0.42
3:AC:134:ILE:HD11	3:AC:153:VAL:CG2	2.50	0.42
3:AC:133:ALA:C	3:AC:134:ILE:HD13	2.40	0.42
2:AB:189:ASP:OD1	2:AB:189:ASP:N	2.51	0.42
3:CC:134:ILE:HD12	3:CC:151:VAL:CG1	2.47	0.42
10:AJ:53:PRO:HA	14:AN:42:ILE:HD12	2.02	0.42
1:CA:155:C:H2'	1:CA:156:G:H8	1.84	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1599:C:OP1	49:BX:37:THR:N	2.53	0.42
1:CA:563:A:C6	1:CA:567:G:C2	3.08	0.42
31:DA:2191:G:C2'	31:DA:2192:G:O5'	2.68	0.42
6:CF:11:ASN:O	6:CF:14:LEU:HD12	2.19	0.42
17:AQ:95:TYR:O	17:AQ:97:SER:N	2.53	0.42
42:DQ:69:PHE:CG	42:DQ:70:PRO:HD2	2.55	0.42
1:AA:996:A:H2'	1:AA:997:U:O4'	2.20	0.42
2:AB:61:LEU:CA	2:AB:64:ARG:HG2	2.49	0.42
1:AA:148:G:C2	1:AA:149:A:N7	2.88	0.42
17:CQ:95:TYR:O	17:CQ:98:LEU:N	2.40	0.42
8:AH:109:ILE:CD1	8:AH:111:ILE:HG12	2.49	0.42
1:CA:1383:C:H2'	1:CA:1384:C:C6	2.54	0.42
19:CS:15:LEU:CD1	19:CS:31:ILE:HD11	2.50	0.42
1:CA:754:C:C3'	1:CA:754:C:O2	2.68	0.42
1:CA:146:G:O6	1:CA:176:C:N3	2.53	0.42
21:AU:12:LYS:HB3	21:AU:22:ARG:HD2	2.01	0.42
29:B7:34:ARG:NH1	29:B7:39:ARG:CG	2.82	0.42
40:DO:88:ASN:O	40:DO:91:LEU:HA	2.20	0.42
1:AA:1151:A:O2'	1:AA:1152:A:H8	2.03	0.42
36:DG:43:LEU:HD13	36:DG:153:ARG:HD2	2.02	0.42
32:DB:3:C:H5''	32:DB:4:C:OP2	2.18	0.42
1:CA:1121:U:C4	1:CA:1122:U:C4	3.08	0.42
51:DZ:45:ASP:OD1	51:DZ:49:ARG:HG2	2.20	0.42
7:AG:69:VAL:HG11	7:AG:104:LEU:HD22	2.02	0.42
31:DA:1925:C:C6	31:DA:1925:C:H3'	2.55	0.42
17:CQ:72:ARG:HE	17:CQ:72:ARG:HB2	1.66	0.42
1:AA:961:U:OP2	1:AA:1223:C:H4'	2.19	0.42
20:AT:35:THR:O	20:AT:38:LYS:HB2	2.19	0.42
42:DQ:25:ASP:HB3	42:DQ:102:VAL:HG23	2.01	0.42
1:CA:957:U:H2'	1:CA:959:A:N7	2.35	0.42
31:DA:1909:C:H5'	31:DA:1910:G:OP2	2.19	0.42
31:BA:689:A:O2'	31:BA:690:G:H5'	2.20	0.42
43:BR:30:THR:HG22	43:BR:30:THR:O	2.19	0.42
10:AJ:99:LYS:HD3	10:AJ:99:LYS:HA	1.75	0.42
6:AF:98:LEU:CD1	6:AF:101:ALA:HA	2.50	0.42
9:CI:79:LEU:HD11	9:CI:83:ARG:CZ	2.49	0.42
1:CA:1502:A:C2	1:CA:1505:G:N1	2.59	0.42
1:CA:921:U:O2	1:CA:922:G:H2'	2.20	0.42
31:DA:633:A:N3	31:DA:2403:C:H4'	2.34	0.42
31:DA:589:C:H2'	31:DA:590:A:C8	2.55	0.42
35:DF:84:VAL:HB	35:DF:85:GLY:H	1.40	0.42
28:B6:25:LYS:HB2	28:B6:25:LYS:HE3	1.83	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:587:C:OP2	41:BP:33:ARG:NH2	2.46	0.42
29:B7:15:THR:HG22	29:B7:16:HIS:CD2	2.55	0.42
29:B7:15:THR:HG22	29:B7:16:HIS:N	2.32	0.42
33:BD:94:LEU:O	33:BD:94:LEU:HD13	2.19	0.42
32:BB:29:A:H2'	32:BB:30:C:C6	2.54	0.42
41:BP:110:TYR:CE2	41:BP:111:ARG:CD	3.03	0.42
31:DA:557:U:O2'	31:DA:558:G:C5'	2.67	0.42
31:DA:535:C:C2	31:DA:559:G:C2	3.07	0.42
31:DA:999:U:O2'	31:DA:1000:A:H5'	2.20	0.42
46:DU:68:ALA:CB	46:DU:99:ALA:HB1	2.50	0.42
31:BA:1528:A:C8	31:BA:1528(A):A:C4	3.07	0.42
24:B2:48:HIS:NE2	31:BA:75:G:H4'	2.35	0.42
49:BX:31:HIS:O	49:BX:32:PRO:C	2.58	0.42
49:BX:39:ILE:HA	49:BX:42:ALA:HB3	2.01	0.42
32:DB:59:A:C4	32:DB:60:C:C6	3.08	0.42
1:CA:1434:A:H2'	1:CA:1435:G:O4'	2.20	0.42
1:CA:1470:G:H2'	1:CA:1471:G:H5'	2.00	0.42
1:CA:515:G:C4	1:CA:537:G:C2	3.07	0.42
5:CE:142:LEU:HD23	5:CE:142:LEU:HA	1.81	0.42
1:AA:1442(B):A:OP1	1:AA:1442(B):A:H4'	2.18	0.42
31:BA:2306:C:P	31:BA:2307:G:C8	3.13	0.42
31:BA:2304:G:N2	31:BA:2312:U:H3	2.18	0.42
31:BA:1292:U:O2'	31:BA:1293:C:H5'	2.20	0.42
31:DA:1804:C:O5'	31:DA:1804:C:H6	2.03	0.42
31:BA:533:G:H5'	46:BU:24:TYR:CE2	2.55	0.42
39:BN:40:PRO:CB	46:BU:68:ALA:HB2	2.48	0.42
43:DR:60:LEU:O	43:DR:60:LEU:HG	2.20	0.42
31:DA:2517:C:C2	31:DA:2542:A:N6	2.87	0.42
31:BA:2032:G:C8	31:BA:2032:G:OP1	2.72	0.42
33:BD:53:PHE:C	33:BD:218:ARG:HB2	2.40	0.42
47:BV:73:SER:N	47:BV:88:ARG:NH2	2.66	0.42
35:BF:2:LYS:O	35:BF:25:PRO:HG2	2.19	0.42
6:CF:53:ALA:O	6:CF:54:LYS:HB2	2.18	0.42
18:CR:71:LYS:O	18:CR:74:ARG:HB2	2.19	0.42
31:BA:1509:C:OP1	31:BA:1509:C:H4'	2.20	0.42
51:DZ:26:GLY:HA2	51:DZ:85:HIS:CD2	2.54	0.42
22:D0:43:THR:C	22:D0:45:PHE:N	2.73	0.42
51:BZ:98:MET:HE3	51:BZ:99:TYR:O	2.18	0.42
32:DB:15:A:H2'	32:DB:16:G:OP1	2.19	0.42
1:AA:682:G:N1	1:AA:683:G:C5	2.88	0.42
1:AA:711:G:N2	1:AA:712:A:N3	2.67	0.42
1:AA:354:G:C5	1:AA:355:C:C5	3.08	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DD:136:ILE:CG2	33:DD:140:THR:OG1	2.67	0.42
33:DD:148:GLU:C	33:DD:189:CYS:SG	2.98	0.42
27:D5:31:VAL:HG23	27:D5:32:PRO:CD	2.49	0.42
31:DA:2830:G:N3	31:DA:2883:A:H2	2.17	0.42
34:DE:132:HIS:CG	34:DE:135:HIS:CE1	3.04	0.42
31:BA:271(K):U:O2'	31:BA:271(M):G:C2	2.72	0.42
1:AA:1104:G:C5	1:AA:1105:A:N7	2.88	0.42
1:CA:577:G:C1'	1:CA:816:A:C4	3.03	0.42
31:DA:861:A:H2'	31:DA:862:G:O4'	2.20	0.42
31:BA:1496:A:N7	31:BA:1498:C:N3	2.68	0.42
11:CK:122:LYS:O	11:CK:126:ARG:HB2	2.20	0.42
31:DA:475:U:C5	31:DA:481:G:O6	2.73	0.42
31:DA:1180:C:C4	31:DA:1181:C:C4	3.08	0.42
31:BA:104:U:C5	31:BA:105:C:C4	3.08	0.42
31:BA:80:G:N2	31:BA:81:G:H1'	2.34	0.42
1:CA:691:G:N7	11:CK:26:ASN:CB	2.82	0.42
12:CL:28:LYS:O	12:CL:30:ALA:N	2.53	0.42
1:AA:955:U:O5'	1:AA:955:U:H6	2.03	0.42
31:DA:1027:A:C6	31:DA:1126:A:C5	3.08	0.42
31:DA:1688:U:C2	31:DA:1700:A:H5''	2.54	0.42
31:BA:2467:C:O2'	31:BA:2468:G:H5'	2.19	0.42
38:DI:130:TYR:O	38:DI:131:LYS:HB2	2.19	0.42
31:DA:1266:G:O4'	48:DW:15:ARG:NH2	2.51	0.42
48:DW:29:LEU:HD11	48:DW:51:LEU:HD11	2.00	0.42
31:DA:2686:G:H3'	31:DA:2687:U:C6	2.55	0.42
45:DT:83:ILE:HG13	45:DT:84:GLN:HG2	2.02	0.42
31:BA:1488:G:N2	31:BA:1502:C:C6	2.88	0.42
33:DD:75:ILE:HG21	33:DD:99:ASP:HB2	2.01	0.42
45:BT:30:VAL:HG21	45:BT:84:GLN:H	1.83	0.42
1:AA:235:C:H2'	1:AA:236:G:H8	1.84	0.42
5:AE:41:VAL:HG13	5:AE:113:ALA:HA	2.02	0.42
31:BA:2488:A:H2'	31:BA:2489:G:O4'	2.20	0.42
37:BH:103:LEU:HG	37:BH:104:GLU:N	2.33	0.42
31:DA:151:C:C2	31:DA:176:G:N2	2.88	0.42
9:CI:116:LYS:HD2	9:CI:120:ARG:HA	2.00	0.42
31:DA:1858:G:OP2	31:DA:1858:G:H8	2.01	0.42
9:CI:105:ASP:C	9:CI:107:ARG:N	2.73	0.42
9:CI:63:ILE:HD12	9:CI:63:ILE:N	2.35	0.42
10:AJ:38:ILE:HG12	10:AJ:71:LEU:O	2.20	0.42
35:DF:37:VAL:HA	35:DF:40:GLN:HG3	2.01	0.42
1:AA:649:G:C4	1:AA:650:G:C8	3.08	0.42
31:BA:2887:U:H2'	31:BA:2887:U:O2	2.20	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:CR:31:LEU:O	18:CR:32:ARG:HB2	2.19	0.42
48:DW:73:ALA:C	48:DW:106:ILE:HD13	2.39	0.42
1:CA:1117:G:O5'	9:CI:104:ARG:NH1	2.53	0.42
37:DH:155:SER:C	37:DH:157:TYR:N	2.73	0.42
31:DA:118:A:H3'	31:DA:119:A:C5'	2.49	0.42
31:DA:53:A:H2'	31:DA:54:G:O4'	2.20	0.42
45:BT:112:ARG:O	45:BT:112:ARG:HD3	2.20	0.42
31:DA:1963:U:P	31:DA:1963:U:H3'	2.60	0.42
33:DD:246:PRO:HG2	33:DD:255:LYS:HG2	2.00	0.42
9:AI:45:ALA:O	9:AI:78:LYS:HE3	2.20	0.42
9:AI:79:LEU:HD11	9:AI:83:ARG:CZ	2.50	0.42
1:AA:670:G:C4	1:AA:671:G:C8	3.08	0.42
1:AA:122:G:H8	1:AA:122:G:O5'	2.01	0.42
31:BA:2348:U:O4	31:BA:2382:G:C2	2.73	0.42
1:CA:240:C:H2'	1:CA:241:C:H6	1.83	0.42
1:AA:246:A:C4	1:AA:279:A:C6	3.08	0.42
1:AA:298:A:H2'	1:AA:299:G:O4'	2.19	0.42
2:CB:60:ASP:C	2:CB:64:ARG:HG2	2.40	0.42
7:CG:150:ALA:HB1	11:CK:57:THR:HG21	2.01	0.42
48:DW:64:MET:O	48:DW:65:LEU:HB2	2.20	0.42
31:DA:1465:G:C6	31:DA:1466:G:N7	2.88	0.42
3:AC:11:ARG:O	3:AC:14:ILE:N	2.52	0.42
42:DQ:63:LYS:HD2	51:DZ:175:VAL:HG21	2.01	0.42
18:CR:56:THR:OG1	18:CR:57:GLY:N	2.52	0.42
31:BA:18:C:H2'	31:BA:19:C:H6	1.84	0.42
31:DA:384:U:C5	31:DA:385:C:H5	2.37	0.42
51:BZ:29:TYR:HA	51:BZ:33:LEU:O	2.20	0.42
16:AP:49:LEU:HD21	16:AP:77:ALA:HB2	2.01	0.42
31:BA:2454:G:H2'	31:BA:2455:G:H8	1.85	0.42
34:DE:67:PHE:HD2	34:DE:68:ALA:N	2.18	0.42
7:CG:69:VAL:HG11	7:CG:104:LEU:HD22	2.02	0.42
1:AA:807:A:C6	1:AA:808:C:C4	3.08	0.42
37:BH:35:VAL:O	37:BH:37:VAL:HG23	2.20	0.42
31:BA:349:G:O2'	31:BA:350:U:H5'	2.20	0.42
31:BA:350:U:C2'	31:BA:351:G:O5'	2.68	0.42
1:CA:1333:A:H3'	1:CA:1334:G:H8	1.85	0.42
34:DE:46:ALA:HA	34:DE:82:ARG:O	2.20	0.42
31:BA:939:G:C4	31:BA:940:G:C8	3.08	0.42
14:AN:13:THR:N	14:AN:14:PRO:CD	2.82	0.42
1:AA:595:G:O5'	1:AA:595:G:H8	2.03	0.42
41:BP:32:THR:HG21	41:BP:37:GLY:HA2	2.02	0.42
30:D8:32:LEU:CD2	30:D8:35:GLN:O	2.67	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:D8:39:LYS:CG	30:D8:42:ARG:NH1	2.83	0.42
31:DA:1257:C:H5'	35:DF:75:HIS:CE1	2.54	0.42
31:DA:193:U:C2'	31:DA:194:G:H5'	2.49	0.42
30:D8:35:GLN:HG2	31:DA:2420:C:OP1	2.20	0.42
31:DA:942:G:H2'	31:DA:943:U:C5'	2.50	0.42
35:DF:45:ARG:HD3	35:DF:97:TYR:CD1	2.54	0.42
30:B8:27:THR:HG1	31:BA:2361:A:P	2.43	0.42
30:B8:6:THR:HG21	31:BA:243:U:OP1	2.19	0.42
31:BA:2590:A:H2'	31:BA:2591:C:H6	1.85	0.42
31:BA:389:G:H1	41:BP:71:VAL:CB	2.32	0.42
34:BE:129:HIS:O	34:BE:130:GLY:O	2.37	0.42
31:BA:673:C:H5''	35:BF:81:PRO:HD2	2.02	0.42
41:BP:13:ASN:O	41:BP:15:ARG:N	2.53	0.42
31:BA:48:G:H4'	31:BA:52:A:O4'	2.19	0.42
32:BB:51:G:C5'	32:BB:52:A:OP2	2.63	0.42
31:BA:2645:G:H3'	31:BA:2646:C:C5'	2.48	0.42
31:DA:1386:C:OP2	31:DA:1396:U:C5	2.72	0.42
31:DA:60:G:C2	31:DA:74:A:C5	3.08	0.42
49:DX:78:LYS:CD	49:DX:78:LYS:H	2.31	0.42
41:BP:143:GLY:C	41:BP:145:PRO:CD	2.77	0.42
31:DA:1021:A:N6	31:DA:1141:U:H3	2.15	0.42
31:DA:850:C:H2'	31:DA:850:C:O2	2.20	0.42
47:DV:2:PHE:HE1	47:DV:13:ARG:NE	2.16	0.42
24:B2:47:ASN:HD22	24:B2:47:ASN:N	2.18	0.42
31:DA:1289:C:O2	31:DA:1289:C:H2'	2.19	0.42
1:CA:437:U:C2'	1:CA:438:G:C5'	2.90	0.42
1:CA:625:G:C6	1:CA:626:U:C4	3.08	0.42
5:CE:12:LEU:O	5:CE:13:ILE:HD12	2.20	0.42
38:DI:88:ILE:HD11	38:DI:122:GLU:N	2.34	0.42
45:BT:50:ILE:HA	45:BT:99:LEU:CD1	2.50	0.42
31:DA:1429:G:N3	31:DA:1568:G:C2	2.88	0.42
31:DA:692:C:O2'	31:DA:693:C:H5'	2.20	0.42
33:DD:89:SER:CB	33:DD:158:ALA:O	2.68	0.42
39:BN:43:THR:O	39:BN:46:VAL:HG12	2.19	0.42
31:DA:2564:A:C6	31:DA:2565:A:N1	2.88	0.42
31:BA:2048:G:H1'	31:BA:2823:A:N6	2.35	0.42
2:AB:200:ILE:O	2:AB:201:ILE:HD13	2.20	0.42
31:BA:707:G:H2'	31:BA:708:C:O4'	2.20	0.42
33:BD:53:PHE:HA	33:BD:218:ARG:HB2	2.01	0.42
47:BV:16:PRO:HA	47:BV:98:GLU:OE2	2.20	0.42
47:BV:62:LEU:HA	47:BV:99:ILE:HG12	2.01	0.42
31:DA:2319:G:N3	31:DA:2320:A:C2	2.88	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:707:C:HO2'	1:CA:708:C:H5'	1.84	0.42
51:DZ:53:ILE:H	51:DZ:53:ILE:HG12	1.59	0.42
22:D0:53:MET:HB2	22:D0:59:LEU:CD2	2.46	0.42
51:BZ:28:MET:O	51:BZ:34:ASN:HA	2.20	0.42
31:BA:288:C:C2'	31:BA:289:A:O5'	2.68	0.42
32:DB:69:G:C5	32:DB:70:C:C5	3.08	0.42
31:BA:478:A:N6	31:BA:502:A:N6	2.68	0.42
1:AA:713:G:C6	1:AA:714:G:C6	3.07	0.42
33:DD:70:TRP:CE3	33:DD:150:LYS:HE3	2.55	0.42
31:DA:2203:U:H1'	33:DD:151:LYS:CE	2.50	0.42
31:BA:202:U:H2'	31:BA:203:C:O4'	2.19	0.42
39:BN:55:VAL:CG1	39:BN:126:PRO:HA	2.43	0.42
42:BQ:16:ARG:C	42:BQ:17:LEU:HD23	2.38	0.42
34:DE:167:VAL:C	34:DE:168:MET:HG2	2.37	0.42
1:AA:1074:G:C2	1:AA:1075:C:C2	3.07	0.42
1:CA:579:G:C4	1:CA:580:U:C5	3.08	0.42
15:CO:54:ARG:HG2	15:CO:58:MET:HE1	2.01	0.42
31:DA:862:G:H8	31:DA:862:G:O5'	2.03	0.42
32:DB:93:G:N2	32:DB:94:C:C2	2.87	0.42
31:DA:2681:C:C2'	31:DA:2681:C:O2	2.67	0.42
31:DA:1692:U:O2'	31:DA:1693:U:H2'	2.20	0.42
34:BE:96:PHE:CD2	34:BE:102:VAL:HG11	2.55	0.42
31:BA:910:A:C6	31:BA:911:A:C6	3.08	0.42
31:BA:952:G:H2'	31:BA:953:A:O5'	2.20	0.42
42:BQ:7:MET:O	42:BQ:10:ARG:CZ	2.68	0.42
1:AA:779:C:H2'	1:AA:780:A:H5'	2.01	0.42
1:AA:780:A:H1'	1:AA:803:G:N2	2.34	0.42
31:BA:1588:C:O2	31:BA:1588:C:H2'	2.19	0.42
40:BO:39:ILE:HG13	40:BO:40:VAL:O	2.20	0.42
40:BO:13:ASN:HD22	40:BO:97:ARG:HB2	1.85	0.42
1:CA:663:A:H2'	1:CA:664:G:H5'	2.01	0.42
36:DG:124:SER:O	36:DG:125:PHE:C	2.58	0.42
31:BA:2870:C:C5	31:BA:2871:C:C5	3.08	0.42
31:BA:1107:G:N7	31:BA:1108:U:C5	2.87	0.42
31:BA:1180:C:C4	31:BA:1181:C:C4	3.07	0.42
38:BI:110:ASP:OD2	38:BI:113:ARG:HG3	2.20	0.42
31:BA:775:G:O2'	31:BA:794:G:N7	2.49	0.42
48:DW:47:VAL:CA	48:DW:50:VAL:HG12	2.50	0.42
31:DA:1990:C:H2'	31:DA:1991:U:O4'	2.19	0.42
31:DA:1995:U:N3	31:DA:1996:C:C4	2.88	0.42
45:DT:27:THR:OG1	45:DT:28:VAL:N	2.51	0.42
1:CA:124:G:H1	1:CA:237:C:N4	2.17	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1478:G:O2'	31:DA:1479:G:H5'	2.19	0.42
31:BA:1884:A:C4	31:BA:1885:A:C8	3.08	0.42
49:BX:8:ILE:CD1	49:BX:43:VAL:HA	2.49	0.42
31:BA:2652:C:C2'	31:BA:2653:U:C5'	2.89	0.42
31:BA:856:C:H2'	31:BA:857:C:C6	2.55	0.42
37:BH:52:VAL:O	37:BH:52:VAL:HG13	2.19	0.42
1:CA:701:C:H1'	1:CA:703:G:C6	2.55	0.42
1:CA:1250:A:H2'	1:CA:1251:A:O4'	2.20	0.42
48:DW:96:ILE:HD13	48:DW:96:ILE:HG21	1.75	0.42
37:BH:45:VAL:CG1	37:BH:46:GLU:N	2.81	0.42
8:CH:112:LEU:CD2	8:CH:133:LEU:HD23	2.50	0.42
11:CK:83:ILE:HG12	11:CK:109:VAL:HB	2.02	0.42
11:CK:32:ILE:HD11	11:CK:68:ALA:CB	2.42	0.42
45:DT:112:ARG:C	45:DT:112:ARG:HD3	2.41	0.42
31:DA:2556:C:H2'	31:DA:2557:G:H5'	2.02	0.42
36:BG:139:LEU:HD23	36:BG:149:VAL:HG21	2.01	0.42
1:AA:990:C:H2'	1:AA:991:U:C6	2.55	0.42
1:CA:993:G:O2'	1:CA:994:A:N7	2.53	0.42
51:DZ:128:VAL:CG1	51:DZ:133:ILE:HG12	2.49	0.42
29:D7:5:TRP:CH2	31:DA:686:G:C5	3.07	0.42
40:BO:63:VAL:HG23	40:BO:64:ARG:HG3	2.01	0.42
40:BO:20:MET:HE3	40:BO:44:LYS:CE	2.50	0.42
8:CH:12:ARG:NH1	8:CH:58:TYR:HE2	2.15	0.42
51:BZ:119:GLU:OE2	51:BZ:122:ARG:HB2	2.20	0.42
31:BA:1992:G:C2'	31:BA:1993:U:OP2	2.68	0.42
31:BA:1963:U:H3'	31:BA:1963:U:P	2.60	0.42
9:AI:114:TYR:CD2	9:AI:114:TYR:O	2.73	0.42
1:CA:950:U:H5''	13:CM:102:ARG:HH22	1.84	0.42
1:AA:1367:C:H2'	1:AA:1367:C:O2	2.19	0.42
1:AA:1266:G:N2	1:AA:1270:C:C2	2.87	0.42
31:DA:892:G:C5	31:DA:893:C:C5	3.08	0.42
31:DA:1374:G:H2'	31:DA:1375:C:O4'	2.18	0.42
1:AA:695:A:H2'	1:AA:696:A:C8	2.55	0.42
31:DA:11:G:H2'	31:DA:12:U:H5'	2.00	0.42
31:DA:2085:C:H2'	31:DA:2086:U:O4'	2.20	0.42
50:DY:2:ARG:N	50:DY:4:LYS:HE2	2.35	0.42
31:DA:2391:G:O2'	31:DA:2422:A:N7	2.53	0.42
13:CM:108:ARG:HD2	13:CM:108:ARG:N	2.34	0.42
7:CG:54:THR:HG1	7:CG:56:GLN:HB2	1.82	0.42
1:CA:1416:G:C2	1:CA:1485:U:O2	2.73	0.42
33:BD:166:GLN:CA	33:BD:166:GLN:HE21	2.33	0.42
18:CR:40:LEU:C	18:CR:42:ARG:N	2.73	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1118:C:H1'	1:AA:1179:A:C5	2.55	0.42
1:AA:477:A:C2	1:AA:479:C:C5	3.07	0.42
7:AG:85:TYR:CD1	7:AG:154:TYR:CE1	3.05	0.42
17:AQ:45:HIS:HB3	17:AQ:72:ARG:HG2	2.01	0.42
39:DN:121:LYS:HG3	39:DN:123:TYR:CZ	2.55	0.42
8:AH:20:TYR:HA	8:AH:65:TYR:CE2	2.55	0.42
40:DO:27:GLY:H	40:DO:30:ALA:HB2	1.85	0.42
38:BI:144:VAL:O	38:BI:145:VAL:CB	2.67	0.42
31:DA:124:G:OP1	31:DA:1376:C:O2'	2.24	0.42
1:CA:1463:C:H2'	1:CA:1464:G:O4'	2.20	0.42
31:BA:2674:G:H5''	40:BO:26:LYS:CE	2.50	0.42
15:AO:69:TYR:HA	15:AO:72:ARG:NH2	2.34	0.42
43:DR:18:LEU:O	43:DR:22:ARG:HG3	2.19	0.42
6:AF:98:LEU:HD13	6:AF:101:ALA:HA	2.00	0.42
23:B1:18:ILE:N	23:B1:18:ILE:HD12	2.35	0.42
29:D7:21:ARG:O	29:D7:27:GLY:HA3	2.20	0.42
31:BA:2338:G:O2'	31:BA:2339:G:H5'	2.20	0.42
3:AC:165:THR:O	3:AC:165:THR:HG23	2.20	0.42
31:BA:2276:G:OP2	42:BQ:84:GLY:N	2.51	0.42
7:CG:32:ARG:O	7:CG:33:ASP:CB	2.68	0.42
1:CA:926:G:C2	1:CA:1505:G:C8	3.08	0.41
5:CE:18:ARG:HE	5:CE:25:ARG:HB3	1.85	0.41
30:D8:29:LYS:O	30:D8:30:ARG:C	2.58	0.41
31:DA:1190:G:C5'	41:DP:35:HIS:HA	2.50	0.41
31:DA:638:G:C6	31:DA:639:U:C4	3.08	0.41
28:D6:42:TRP:HZ2	31:DA:642:G:O3'	2.03	0.41
31:DA:676:A:C2	31:DA:802:A:N6	2.72	0.41
31:DA:947:G:H2'	31:DA:948:G:C8	2.55	0.41
41:DP:97:PRO:HD3	41:DP:126:VAL:C	2.39	0.41
30:B8:36:LYS:HE2	30:B8:36:LYS:HB2	1.78	0.41
31:BA:2069:G:O2'	31:BA:2070:G:H5'	2.20	0.41
31:BA:2078:C:H2'	31:BA:2079:U:C6	2.55	0.41
31:BA:2415:G:H4'	41:BP:66:GLY:CA	2.49	0.41
31:BA:2245:U:O2	31:BA:2436:G:C8	2.73	0.41
31:BA:662:G:H2'	31:BA:663:G:H8	1.85	0.41
41:BP:23:PRO:HB3	41:BP:34:GLY:H	1.85	0.41
29:B7:5:TRP:CZ3	31:BA:464:U:H4'	2.55	0.41
31:BA:2564:A:C6	31:BA:2565:A:C6	3.08	0.41
25:D3:10:LYS:NZ	25:D3:15:TYR:OH	2.42	0.41
46:DU:51:LYS:O	46:DU:52:ARG:C	2.58	0.41
47:DV:27:ALA:CB	47:DV:64:HIS:CD2	3.03	0.41
31:BA:58:G:H5''	49:BX:72:LYS:HB2	2.02	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:BX:9:LEU:HD12	49:BX:30:VAL:O	2.20	0.41
44:DS:19:LYS:CG	44:DS:19:LYS:O	2.68	0.41
1:CA:430:A:H2'	1:CA:431:A:C5'	2.33	0.41
16:CP:12:LYS:C	16:CP:14:ASN:N	2.74	0.41
50:BY:62:GLU:HB3	50:BY:63:LYS:H	1.60	0.41
31:BA:1321:A:C6	31:BA:1322:A:C5	3.08	0.41
31:DA:1820:U:O2'	33:DD:159:ALA:HB3	2.20	0.41
33:DD:159:ALA:O	33:DD:161:THR:N	2.53	0.41
25:B3:31:LEU:HD22	25:B3:32:GLN:H	1.84	0.41
31:BA:1159:U:O2'	31:BA:1160:G:H5'	2.20	0.41
31:DA:1452:A:O2'	31:DA:1453:U:H2'	2.19	0.41
43:DR:63:ARG:HA	43:DR:80:PHE:CZ	2.55	0.41
33:BD:9:TYR:O	33:BD:10:THR:HG22	2.20	0.41
33:BD:44:ASN:HB3	33:BD:49:ILE:N	2.35	0.41
47:BV:62:LEU:CB	47:BV:98:GLU:HA	2.27	0.41
31:DA:2305:A:H2'	31:DA:2306:C:O4'	2.19	0.41
31:DA:2313:C:H3'	31:DA:2313:C:H6	1.84	0.41
31:DA:2305:A:H5'	36:DG:156:ASP:HB3	2.02	0.41
35:BF:5:ALA:O	35:BF:6:VAL:CG2	2.68	0.41
23:B1:10:LYS:HB2	23:B1:14:VAL:C	2.41	0.41
1:CA:685:G:N2	1:CA:706:A:N6	2.68	0.41
1:CA:738:C:C2	1:CA:739:C:C5	3.08	0.41
1:CA:684:A:O4'	11:CK:38:ASN:OD1	2.37	0.41
31:BA:1475:G:C2	31:BA:1517:G:C2	3.08	0.41
42:DQ:139:GLU:O	51:DZ:99:TYR:CD2	2.73	0.41
42:DQ:141:GLN:OXT	51:DZ:54:HIS:HA	2.19	0.41
31:BA:1278:A:P	43:BR:36:THR:HG22	2.56	0.41
51:BZ:50:GLN:O	51:BZ:51:ALA:C	2.55	0.41
32:DB:110:G:C4	32:DB:111:G:C8	3.08	0.41
32:DB:13:A:N6	32:DB:70:C:H5'	2.34	0.41
51:DZ:166:SER:OG	51:DZ:168:GLU:N	2.53	0.41
31:BA:478:A:N6	31:BA:480:A:C6	2.88	0.41
27:B5:55:ARG:HD3	27:B5:55:ARG:HA	1.81	0.41
32:BB:19:G:C6	32:BB:20:C:N4	2.88	0.41
32:BB:21:G:O6	32:BB:63:G:C2	2.73	0.41
33:DD:136:ILE:N	33:DD:136:ILE:HD12	2.35	0.41
33:DD:146:GLU:HB2	33:DD:189:CYS:HB3	2.02	0.41
33:DD:164:GLN:CB	33:DD:166:GLN:HE22	2.32	0.41
23:B1:44:PRO:HG2	23:B1:44:PRO:O	2.20	0.41
27:D5:48:GLU:O	27:D5:49:CYS:C	2.59	0.41
50:BY:95:LYS:CD	50:BY:101:LYS:H	2.33	0.41
4:CD:19:LEU:O	4:CD:26:CYS:SG	2.78	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DN:78:TYR:CD1	39:DN:79:PRO:HD3	2.55	0.41
38:BI:57:ARG:HB3	38:BI:57:ARG:CZ	2.50	0.41
1:AA:832:C:O2'	1:AA:833:U:O5'	2.33	0.41
1:CA:1106:G:H2'	1:CA:1107:C:C6	2.54	0.41
4:AD:26:CYS:HA	4:AD:31:CYS:HB2	2.02	0.41
28:B6:34:LEU:HD22	28:B6:50:ARG:HH12	1.84	0.41
16:AP:21:VAL:O	16:AP:33:ILE:HG12	2.20	0.41
1:AA:689:C:H2'	1:AA:690:G:O4'	2.20	0.41
31:BA:110:G:N2	31:BA:111:A:H1'	2.35	0.41
1:AA:1307:U:C4	1:AA:1308:U:C4	3.08	0.41
31:BA:2840:C:H5''	43:BR:53:HIS:CD2	2.54	0.41
2:CB:172:ILE:CD1	2:CB:172:ILE:H	2.15	0.41
31:DA:2820:A:O4'	43:DR:5:LYS:HG3	2.19	0.41
1:CA:258:G:C2	1:CA:259:G:C5	3.08	0.41
31:BA:1506:C:O2	31:BA:1506:C:C2'	2.68	0.41
31:BA:2658:C:H5'	31:BA:2659:G:OP2	2.20	0.41
42:BQ:52:VAL:O	42:BQ:55:VAL:HG13	2.20	0.41
37:DH:89:ILE:HD12	37:DH:129:THR:O	2.19	0.41
49:DX:40:LYS:O	49:DX:43:VAL:N	2.53	0.41
31:BA:184:C:O4'	31:BA:216:A:H2	2.02	0.41
8:CH:5:PRO:HB2	8:CH:32:LYS:HE2	2.01	0.41
31:DA:2027:G:N2	31:DA:2037:G:C4	2.88	0.41
31:BA:754:C:C2	31:BA:755:C:C5	3.08	0.41
35:DF:129:PHE:CE2	35:DF:163:VAL:HG21	2.55	0.41
1:CA:9:G:OP1	5:CE:122:GLU:N	2.44	0.41
31:DA:2884:U:C5	31:DA:2885:C:C5	3.08	0.41
11:CK:32:ILE:CD1	11:CK:68:ALA:HB1	2.44	0.41
31:BA:493:G:H2'	31:BA:494:G:O4'	2.20	0.41
18:CR:29:PHE:CE1	18:CR:31:LEU:HD22	2.54	0.41
48:DW:72:LYS:HB3	48:DW:106:ILE:HG12	2.02	0.41
40:BO:2:ILE:HD11	40:BO:82:ASN:CB	2.50	0.41
35:DF:31:HIS:O	35:DF:34:TRP:N	2.53	0.41
2:AB:17:PHE:O	2:AB:18:GLY:O	2.38	0.41
1:CA:978:A:C5'	1:CA:979:C:OP2	2.68	0.41
31:DA:2078:C:H2'	31:DA:2079:U:O4'	2.20	0.41
22:D0:71:ASP:C	22:D0:72:ARG:HG2	2.39	0.41
15:AO:78:TYR:O	15:AO:79:ARG:C	2.57	0.41
1:AA:1029:C:H2'	1:AA:1030:C:C5	2.55	0.41
1:AA:457:C:H6	1:AA:457:C:O5'	2.02	0.41
31:DA:2601:C:H2'	31:DA:2603:G:C8	2.55	0.41
51:DZ:148:ASP:HB2	51:DZ:149:SER:H	1.69	0.41
31:DA:321:G:H5'	35:DF:134:GLY:O	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AG:72:ARG:HG3	7:AG:73:MET:HG3	2.01	0.41
1:AA:759:A:C2'	1:AA:760:G:H5'	2.50	0.41
31:DA:817:C:H3'	31:DA:818:G:H8	1.85	0.41
1:CA:284:G:H2'	1:CA:285:G:H8	1.83	0.41
1:CA:851:G:H2'	1:CA:852:G:C8	2.55	0.41
1:AA:349:A:C2	1:AA:350:G:C4	3.08	0.41
31:DA:2689:U:OP1	31:DA:2719:G:N2	2.50	0.41
7:AG:50:ILE:O	7:AG:54:THR:HG23	2.20	0.41
1:CA:487:A:H3'	1:CA:488:C:H6	1.84	0.41
1:CA:1267:C:N3	1:CA:1327:C:H4'	2.34	0.41
25:B3:26:LEU:HD23	25:B3:26:LEU:HA	1.65	0.41
1:AA:189:G:C6	1:AA:189(L):G:C2	3.08	0.41
36:DG:98:ARG:N	36:DG:98:ARG:HD3	2.35	0.41
31:BA:1215:G:H2'	31:BA:1216:G:H5'	2.01	0.41
48:BW:64:MET:HE3	48:BW:64:MET:HB3	1.74	0.41
15:CO:78:TYR:O	15:CO:79:ARG:C	2.58	0.41
31:DA:733:G:O6	31:DA:761:A:C8	2.73	0.41
9:CI:40:LEU:HD11	9:CI:70:LYS:HG2	2.02	0.41
1:AA:189(F):U:C4	17:AQ:72:ARG:NH2	2.88	0.41
1:CA:136:C:N4	1:CA:227:G:H1	2.16	0.41
31:BA:945:A:C5	31:BA:2448:A:N3	2.88	0.41
31:DA:429:A:C5	31:DA:430:G:C6	3.08	0.41
1:AA:1383:C:H2'	1:AA:1384:C:C6	2.55	0.41
31:BA:30:G:C6	31:BA:31:C:C4	3.08	0.41
1:CA:1151:A:O2'	1:CA:1152:A:C8	2.69	0.41
31:BA:2709:G:H2'	31:BA:2710:C:C6	2.55	0.41
1:AA:874:G:H2'	1:AA:875:C:C6	2.55	0.41
1:AA:763:G:C5	1:AA:764:C:C5	3.08	0.41
31:BA:2716:U:O2'	31:BA:2717:G:H5'	2.20	0.41
49:BX:47:PHE:O	49:BX:49:VAL:HG22	2.19	0.41
51:DZ:115:GLY:CA	51:DZ:177:PRO:HD3	2.50	0.41
1:CA:957:U:C2'	1:CA:959:A:N7	2.83	0.41
4:AD:161:ASN:O	4:AD:165:MET:HB2	2.20	0.41
6:CF:77:ARG:O	6:CF:78:GLU:C	2.57	0.41
46:DU:55:ARG:HG2	46:DU:55:ARG:H	1.55	0.41
25:B3:58:VAL:HG12	25:B3:59:VAL:N	2.35	0.41
32:DB:9:G:N2	32:DB:113:G:C4	2.88	0.41
31:BA:437:G:H2'	31:BA:438:G:O4'	2.21	0.41
30:D8:2:PRO:O	30:D8:3:LYS:C	2.59	0.41
35:DF:36:VAL:HG11	35:DF:183:VAL:HG11	2.01	0.41
41:DP:111:ARG:HG3	41:DP:128:HIS:CG	2.55	0.41
41:DP:30:THR:O	41:DP:31:ALA:C	2.57	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DP:84:ASN:C	41:DP:86:LYS:N	2.74	0.41
30:B8:4:MET:HE2	30:B8:4:MET:HB2	1.42	0.41
31:BA:2397:G:H2'	31:BA:2398:U:H6	1.85	0.41
31:BA:676:A:H1'	31:BA:2443:C:O4'	2.20	0.41
31:BA:1670:C:C2	34:BE:129:HIS:HE1	2.37	0.41
31:BA:463:G:C6	31:BA:467:G:C6	3.08	0.41
44:BS:56:LEU:CD2	44:BS:57:LYS:N	2.82	0.41
31:BA:2516:G:C6	31:BA:2517:C:C4	3.08	0.41
31:DA:68:G:C4	31:DA:69:C:C6	3.09	0.41
41:BP:84:ASN:HB3	41:BP:86:LYS:HB3	2.01	0.41
31:DA:1005:C:OP2	31:DA:1011:G:H2'	2.19	0.41
24:B2:32:LEU:HD12	24:B2:33:MET:O	2.20	0.41
31:BA:1465:G:C5	31:BA:1466:G:N7	2.88	0.41
31:BA:1528:A:H8	31:BA:1528(A):A:C4	2.38	0.41
34:BE:59:VAL:HG22	34:BE:63:LEU:CA	2.40	0.41
36:DG:11:TYR:HA	36:DG:15:VAL:HB	2.02	0.41
44:DS:63:THR:HA	44:DS:66:ALA:CB	2.40	0.41
1:AA:102:G:C6	1:AA:103:C:N4	2.87	0.41
1:AA:390:C:H3'	1:AA:390:C:H6	1.85	0.41
1:AA:625:G:C6	1:AA:626:U:C4	3.08	0.41
1:CA:327:A:C6	1:CA:329:A:C5	3.08	0.41
31:BA:2296:U:H4'	31:BA:2297:C:OP1	2.20	0.41
31:BA:2304:G:H22	31:BA:2312:U:H3	1.68	0.41
31:BA:2297:C:N3	31:BA:2320:A:H8	2.18	0.41
31:DA:693:C:H2'	31:DA:694:U:O5'	2.20	0.41
31:DA:695:G:OP1	31:DA:1380:G:C4'	2.65	0.41
31:DA:764:A:N1	31:DA:1789:A:O2'	2.49	0.41
33:DD:93:ALA:HB3	33:DD:105:ILE:HG23	2.02	0.41
33:DD:157:ARG:HA	33:DD:196:VAL:HG21	2.02	0.41
33:DD:35:LYS:HG2	33:DD:64:ILE:CA	2.51	0.41
39:BN:74:ARG:NH2	39:BN:101:HIS:HB3	2.35	0.41
39:BN:35:ARG:HB3	39:BN:35:ARG:HE	1.39	0.41
39:BN:95:PRO:C	39:BN:97:ARG:N	2.74	0.41
46:BU:68:ALA:O	46:BU:71:GLN:CB	2.68	0.41
31:DA:2773:C:C2	31:DA:2774:C:C5	3.08	0.41
37:DH:149:ARG:HA	37:DH:162:ILE:HD12	2.01	0.41
31:BA:1650:G:H2'	31:BA:1651:G:O4'	2.21	0.41
48:BW:41:LYS:HA	48:BW:41:LYS:HD2	1.60	0.41
2:AB:70:PHE:HA	2:AB:163:PHE:O	2.20	0.41
31:BA:1824:G:O2'	31:BA:1825:A:H5'	2.19	0.41
31:BA:729:G:P	33:BD:208:LYS:NZ	2.93	0.41
47:BV:66:ARG:HD3	47:BV:94:LEU:HA	2.02	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1210:A:C4'	31:DA:1211:U:OP2	2.67	0.41
31:DA:85:G:C5	31:DA:98:G:C2	3.08	0.41
50:DY:28:LYS:CD	50:DY:28:LYS:N	2.71	0.41
50:DY:68:HIS:N	50:DY:71:LYS:HZ3	2.17	0.41
31:DA:1509:C:OP1	31:DA:1509:C:H4'	2.20	0.41
31:DA:1511:C:H2'	31:DA:1512:U:C6	2.55	0.41
1:CA:1277:C:C2'	1:CA:1278:U:H5'	2.50	0.41
1:CA:1126:U:O2'	1:CA:1127:G:H5'	2.20	0.41
31:DA:863:A:H2	31:DA:914:C:N4	2.17	0.41
22:D0:74:ARG:HH22	32:DB:13:A:H8	1.64	0.41
40:BO:10:VAL:CG2	40:BO:17:ARG:HA	2.51	0.41
31:BA:476:G:N1	31:BA:479:A:OP2	2.53	0.41
1:AA:678:U:H2'	1:AA:679:C:H6	1.84	0.41
1:AA:718:G:H1	18:AR:74:ARG:HH22	1.67	0.41
6:AF:48:LEU:HB2	6:AF:56:PRO:O	2.20	0.41
1:AA:511:C:O3'	4:AD:43:HIS:CE1	2.73	0.41
4:AD:10:ARG:C	4:AD:13:ARG:HB2	2.40	0.41
33:DD:70:TRP:CD2	33:DD:150:LYS:HE2	2.55	0.41
1:CA:1067:A:N1	1:CA:1108:G:O2'	2.45	0.41
22:B0:43:THR:HG22	31:BA:2331:G:O2'	2.20	0.41
31:BA:828:U:O2'	31:BA:829:A:H5'	2.20	0.41
1:AA:864:A:H3'	1:AA:865:A:C8	2.55	0.41
31:DA:2679:A:H2'	31:DA:2680:C:O4'	2.20	0.41
34:DE:11:MET:O	34:DE:12:THR:HG23	2.20	0.41
31:BA:953:A:N1	31:BA:964:C:O2	2.54	0.41
1:AA:814:A:C8	1:AA:816:A:C8	3.08	0.41
16:AP:22:THR:CG2	16:AP:32:TYR:HA	2.43	0.41
31:BA:108:U:C2	31:BA:109:G:C8	3.08	0.41
1:CA:688:G:C4	1:CA:689:C:C5	3.08	0.41
10:CJ:52:GLY:C	10:CJ:54:PHE:H	2.22	0.41
31:BA:1831:G:H2'	31:BA:1832:C:H6	1.84	0.41
36:BG:32:PRO:CB	36:BG:163:ALA:HB2	2.46	0.41
48:BW:36:LEU:HD13	48:BW:48:ALA:N	2.35	0.41
40:DO:107:ARG:HH12	45:DT:35:LYS:CE	2.33	0.41
31:DA:2687:U:C4	31:DA:2688:U:C4	3.09	0.41
45:DT:45:PHE:CE2	45:DT:63:VAL:CG2	3.03	0.41
45:DT:77:PRO:O	45:DT:78:LEU:CB	2.68	0.41
10:AJ:51:ARG:HE	10:AJ:61:GLU:HB2	1.85	0.41
35:BF:126:VAL:HG11	35:BF:142:TRP:HH2	1.84	0.41
35:BF:129:PHE:CD2	35:BF:163:VAL:HG21	2.54	0.41
13:CM:23:TYR:HE1	13:CM:70:LEU:HD22	1.84	0.41
47:DV:46:VAL:O	47:DV:47:VAL:HB	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:B7:40:TRP:CE3	31:BA:459:U:H5''	2.55	0.41
31:BA:470:A:H2'	31:BA:471:A:O4'	2.19	0.41
31:BA:2529:G:H5''	31:BA:2530:A:H5''	2.02	0.41
29:D7:34:ARG:NH1	29:D7:39:ARG:CG	2.83	0.41
31:DA:470:A:C2'	31:DA:471:A:H5'	2.50	0.41
1:CA:159:G:O2'	1:CA:160:A:C8	2.60	0.41
36:DG:54:GLU:O	36:DG:57:ALA:HB3	2.19	0.41
31:DA:2569:G:C2	31:DA:2570:G:C8	3.09	0.41
38:DI:4:ILE:O	38:DI:5:LEU:C	2.58	0.41
38:DI:4:ILE:O	38:DI:6:LEU:HD23	2.20	0.41
31:DA:322:A:H3'	35:DF:169:ASN:HD21	1.83	0.41
31:DA:185:U:H2'	31:DA:186:G:O4'	2.19	0.41
31:BA:2291:U:H5''	31:BA:2380:C:C2'	2.49	0.41
15:CO:77:ARG:HA	15:CO:80:ALA:HB3	2.01	0.41
12:CL:41:ARG:CG	12:CL:42:THR:N	2.82	0.41
31:DA:1579:A:C6	31:DA:1580:A:C6	3.08	0.41
29:D7:9:ARG:NH1	31:DA:1309:G:H3'	2.36	0.41
31:BA:614(C):A:N6	35:BF:177:ALA:HB3	2.36	0.41
36:BG:63:ILE:HA	36:BG:143:GLU:CD	2.40	0.41
10:CJ:82:ILE:HD13	10:CJ:82:ILE:HA	1.95	0.41
1:AA:939:G:H2'	1:AA:940:C:C6	2.55	0.41
1:CA:1030(C):G:H2'	1:CA:1030(D):A:H8	1.85	0.41
10:CJ:78:ASN:HB3	10:CJ:80:LYS:H	1.85	0.41
31:DA:2074:U:N3	31:DA:2075:U:C4	2.88	0.41
31:BA:1300:U:H3'	31:BA:1301:A:C5'	2.50	0.41
1:AA:241:C:H2'	1:AA:242:C:C6	2.54	0.41
31:BA:1996:C:P	40:BO:31:LYS:NZ	2.94	0.41
31:DA:2718:G:C6	31:DA:2719:G:C5	3.08	0.41
7:CG:47:CYS:HA	7:CG:50:ILE:CG1	2.50	0.41
31:BA:2713:A:C3'	31:BA:2714:G:C5'	2.98	0.41
31:DA:1446:C:C2	31:DA:1466:G:C2	3.08	0.41
31:DA:1252:G:O6	46:DU:36:ARG:HD2	2.20	0.41
46:DU:36:ARG:HG3	46:DU:36:ARG:NH1	2.35	0.41
36:DG:96:ARG:CG	36:DG:97:ASP:N	2.82	0.41
1:CA:1410:G:C6	1:CA:1411:C:N4	2.88	0.41
1:CA:931:C:N3	1:CA:1387:G:C6	2.88	0.41
31:BA:2578:G:H4'	31:BA:2578:G:OP2	2.20	0.41
1:AA:1410:G:C4	1:AA:1491:G:N2	2.88	0.41
43:DR:61:HIS:O	43:DR:62:ALA:C	2.59	0.41
31:BA:447:A:N6	31:BA:454:A:C4	2.87	0.41
31:BA:2101:G:O6	31:BA:2188:C:N4	2.48	0.41
1:AA:642:A:C4	8:AH:114:THR:O	2.73	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BB:1:U:H5'	32:BB:2:C:OP2	2.20	0.41
25:B3:4:LEU:HA	25:B3:4:LEU:HD23	1.77	0.41
31:DA:508:G:H5''	31:DA:509:C:OP1	2.20	0.41
31:BA:2513:G:H2'	31:BA:2514:U:C6	2.55	0.41
1:CA:398:C:H6	1:CA:398:C:P	2.43	0.41
42:DQ:44:ALA:O	42:DQ:45:GLN:C	2.58	0.41
1:AA:1463:C:H2'	1:AA:1464:G:O4'	2.20	0.41
31:DA:1272:A:H3'	31:DA:1273:U:H5''	2.02	0.41
2:AB:53:ARG:NH2	2:AB:198:ASP:O	2.52	0.41
7:CG:13:GLN:O	7:CG:24:THR:HG21	2.20	0.41
13:AM:14:ARG:NH1	13:AM:42:ALA:HA	2.35	0.41
2:CB:179:LYS:NZ	2:CB:179:LYS:HB2	2.35	0.41
4:AD:131:ARG:N	4:AD:131:ARG:HD3	2.35	0.41
16:AP:76:GLN:HG2	16:AP:76:GLN:O	2.20	0.41
27:D5:12:SER:O	27:D5:13:LYS:C	2.58	0.41
22:D0:70:GLN:O	22:D0:78:TYR:N	2.49	0.41
31:DA:199:A:C8	31:DA:2433:A:C6	3.09	0.41
31:DA:231:C:C2'	31:DA:232:G:H5'	2.50	0.41
31:DA:971:C:OP1	31:DA:974:G:C8	2.73	0.41
30:B8:41:ILE:CD1	30:B8:42:ARG:H	2.33	0.41
31:BA:28:A:O2'	31:BA:583:G:H5'	2.19	0.41
31:BA:578:A:H5''	31:BA:579:G:OP2	2.20	0.41
31:BA:745:G:H2'	31:BA:746:A:H5'	2.01	0.41
41:BP:16:ARG:CG	41:BP:16:ARG:NH1	2.57	0.41
32:BB:118:G:N2	32:BB:119:G:C8	2.88	0.41
31:DA:1387:C:C2	31:DA:1388:G:C8	3.07	0.41
49:DX:31:HIS:ND1	49:DX:32:PRO:HD2	2.35	0.41
41:BP:111:ARG:HG3	41:BP:128:HIS:CG	2.54	0.41
31:DA:1155:A:C5	31:DA:1157:G:C5	3.08	0.41
46:DU:101:ARG:C	46:DU:102:GLU:HG2	2.41	0.41
47:DV:23:GLU:OE2	47:DV:91:TYR:OH	2.22	0.41
24:B2:26:ARG:HD2	24:B2:26:ARG:HA	1.65	0.41
31:DA:1313:U:H2'	31:DA:1610:A:N1	2.34	0.41
31:BA:1900:A:C2	31:BA:1970:A:C4	3.08	0.41
36:DG:120:LEU:HG	36:DG:179:PRO:HG2	2.02	0.41
44:DS:17:ARG:C	44:DS:19:LYS:N	2.74	0.41
1:CA:615:C:C2	1:CA:616:G:C8	3.08	0.41
1:CA:617:G:C2'	1:CA:618:C:O5'	2.68	0.41
16:CP:14:ASN:OD1	16:CP:16:HIS:CE1	2.72	0.41
50:BY:44:ILE:CG2	50:BY:45:VAL:N	2.81	0.41
31:BA:1280:G:C5	31:BA:1281:G:N7	2.89	0.41
31:DA:783:A:H4'	31:DA:1779:U:O2	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1803:A:H2'	31:DA:1804:C:H5'	2.02	0.41
33:DD:32:SER:OG	33:DD:33:LEU:N	2.54	0.41
31:BA:1021:A:O2'	31:BA:1123:C:H5''	2.20	0.41
31:BA:1034:G:H2'	31:BA:1035:U:O4'	2.19	0.41
31:BA:533:G:C6	31:BA:534:U:N3	2.88	0.41
39:BN:42:TRP:CD1	39:BN:43:THR:N	2.88	0.41
46:BU:83:LEU:CD2	46:BU:88:ILE:HG12	2.49	0.41
31:BA:1812:A:H2'	31:BA:1813:G:C8	2.55	0.41
2:CB:200:ILE:O	2:CB:201:ILE:HD13	2.20	0.41
50:DY:8:LYS:HE3	50:DY:74:PRO:HD3	2.01	0.41
31:DA:1506:C:O2	31:DA:1506:C:C2'	2.68	0.41
1:CA:737:A:C6	1:CA:738:C:N4	2.88	0.41
1:AA:1125:U:O4	10:AJ:73:ASP:OD2	2.39	0.41
10:CJ:5:ARG:HG3	10:CJ:73:ASP:OD1	2.21	0.41
27:B5:52:TYR:O	27:B5:54:GLY:N	2.53	0.41
27:B5:56:LYS:HB2	27:B5:57:VAL:H	1.54	0.41
32:BB:110:G:C2	32:BB:111:G:C5	3.08	0.41
1:AA:542:G:P	4:AD:10:ARG:HH21	2.43	0.41
1:AA:511:C:H1'	4:AD:43:HIS:HE2	1.85	0.41
38:DI:25:TYR:HD1	38:DI:30:LEU:HD11	1.85	0.41
33:DD:108:PRO:HG2	33:DD:111:LEU:HB2	2.02	0.41
33:DD:133:LEU:O	33:DD:134:ARG:C	2.58	0.41
27:D5:55:ARG:C	27:D5:56:LYS:CG	2.83	0.41
50:BY:81:LYS:NZ	50:BY:97:ARG:HG3	2.35	0.41
31:BA:999:U:H5''	31:BA:1154:G:O6	2.20	0.41
31:BA:829:A:N7	31:BA:2247:A:O2'	2.47	0.41
2:AB:22:LYS:C	2:AB:24:TRP:H	2.24	0.41
15:CO:43:LEU:O	15:CO:45:VAL:N	2.52	0.41
31:DA:904:C:O2'	31:DA:905:U:H5'	2.19	0.41
34:BE:119:ARG:HG2	34:BE:160:TYR:HB2	2.03	0.41
1:CA:565:U:OP2	1:CA:566:G:O2'	2.21	0.41
31:BA:2494:G:C2'	31:BA:2495:G:O5'	2.68	0.41
1:AA:578:C:C1'	1:AA:729:A:H1'	2.49	0.41
31:BA:1416:G:O2'	31:BA:1417:C:P	2.78	0.41
22:D0:31:VAL:HB	22:D0:35:ASN:HD22	1.79	0.41
31:DA:2199:A:H5'	31:DA:2200:C:OP2	2.21	0.41
10:AJ:54:PHE:CZ	10:AJ:55:LYS:CE	3.04	0.41
50:DY:47:LYS:NZ	50:DY:47:LYS:CB	2.81	0.41
10:CJ:53:PRO:HA	14:CN:42:ILE:HD12	2.02	0.41
23:D1:78:LYS:HE2	31:DA:271(R):G:H5''	2.02	0.41
40:DO:101:PRO:HD2	45:DT:70:VAL:HG23	2.02	0.41
31:DA:2722:G:H5''	31:DA:2820:A:N7	2.35	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:265:G:O3'	17:CQ:66:SER:HA	2.20	0.41
31:DA:109:G:H2'	31:DA:110:G:O4'	2.19	0.41
31:BA:271(H):G:C6	31:BA:271(Q):G:N1	2.88	0.41
1:AA:64:G:H5'	1:AA:66:G:OP1	2.20	0.41
33:BD:173:VAL:HG12	33:BD:185:VAL:O	2.20	0.41
37:DH:41:MET:HG2	37:DH:55:PRO:HD3	2.00	0.41
31:BA:2533:A:H5''	31:BA:2665:A:O2'	2.20	0.41
31:DA:758:C:O2	31:DA:758:C:H2'	2.18	0.41
31:BA:2485:G:H5''	42:BQ:46:GLN:HE21	1.86	0.41
1:AA:1285:A:C4'	1:AA:1286:A:O5'	2.68	0.41
1:AA:1371:G:O3'	9:AI:69:GLY:HA3	2.20	0.41
11:CK:95:ILE:HG23	11:CK:108:ILE:CD1	2.50	0.41
1:AA:1407:C:O5'	1:AA:1407:C:H6	2.02	0.41
31:BA:2292:C:HO2'	31:BA:2293:C:H5'	1.82	0.41
31:BA:792:G:H4'	31:BA:793:A:H5'	2.02	0.41
12:CL:50:SER:O	12:CL:51:ALA:CB	2.67	0.41
36:DG:144:ILE:O	36:DG:144:ILE:HG23	2.20	0.41
31:DA:721:C:C2	31:DA:722:A:C8	3.07	0.41
1:CA:989:C:H1'	1:CA:1016:A:H2	1.85	0.41
1:CA:990:C:H2'	1:CA:991:U:C6	2.55	0.41
31:DA:466:A:N3	31:DA:683:C:H1'	2.35	0.41
8:CH:28:ALA:HB2	8:CH:58:TYR:O	2.20	0.41
31:DA:632:A:O2'	31:DA:2404:C:H5'	2.20	0.41
1:CA:1313:U:OP2	19:CS:6:LYS:CB	2.68	0.41
31:BA:2094:G:H1'	31:BA:2198:A:H61	1.84	0.41
22:D0:46:LYS:NZ	22:D0:75:LEU:O	2.45	0.41
43:DR:104:ARG:NH1	43:DR:107:ASP:OD1	2.53	0.41
10:AJ:78:ASN:HB3	10:AJ:80:LYS:H	1.85	0.41
31:BA:2536:G:H2'	31:BA:2537:U:O4'	2.20	0.41
9:CI:45:ALA:O	9:CI:78:LYS:HE3	2.21	0.41
31:BA:1199:U:H2'	31:BA:1200:C:C6	2.55	0.41
1:AA:84:U:H5	1:AA:88:A:C5	2.39	0.41
39:BN:115:ARG:HA	39:BN:118:LYS:CE	2.51	0.41
1:CA:757:U:H2'	1:CA:758:G:O4'	2.20	0.41
31:DA:1165:U:H2'	31:DA:1166:C:C6	2.56	0.41
31:DA:838:C:H2'	31:DA:839:U:O4'	2.20	0.41
31:BA:1252:G:O6	46:BU:36:ARG:HD2	2.21	0.41
1:AA:989:C:H1'	1:AA:1016:A:H2	1.84	0.41
31:DA:447:A:C6	31:DA:454:A:C5	3.08	0.41
23:D1:53:VAL:HG12	23:D1:58:ILE:HB	2.03	0.41
38:DI:69:LYS:HG2	38:DI:69:LYS:O	2.21	0.41
1:AA:189(K):U:H2'	1:AA:189(L):G:H8	1.82	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:229:U:H2'	1:CA:230:G:H8	1.84	0.41
1:AA:944:G:N2	1:AA:1338:G:C8	2.88	0.41
3:AC:100:ALA:O	3:AC:101:LEU:HB2	2.20	0.41
31:DA:272(E):G:C5	31:DA:272(F):C:C4	3.08	0.41
31:BA:1932:A:H2'	31:BA:1933:G:H5'	2.02	0.41
31:DA:2102:U:O4'	31:DA:2102:U:O2	2.38	0.41
31:DA:2046:G:N3	31:DA:2046:G:H2'	2.35	0.41
10:AJ:22:LYS:C	10:AJ:24:VAL:H	2.23	0.41
33:BD:48:ARG:HH11	33:BD:48:ARG:HG3	1.85	0.41
31:BA:1248:G:O5'	35:BF:92:PRO:HD3	2.21	0.41
49:BX:93:GLU:O	49:BX:95:LEU:N	2.54	0.41
31:DA:346:A:C2'	31:DA:347:A:O5'	2.68	0.41
1:AA:909:A:H2'	1:AA:910:C:O4'	2.20	0.41
43:BR:47:PHE:O	43:BR:51:LEU:HD12	2.19	0.41
31:DA:271(W):G:O5'	31:DA:271(W):G:H8	2.04	0.41
31:BA:130:C:H2'	31:BA:131:G:H5''	2.02	0.41
7:CG:88:PRO:HD2	7:CG:151:TYR:O	2.21	0.41
23:D1:39:LYS:HE3	31:DA:201:C:OP1	2.20	0.41
1:CA:1508:G:H2'	1:CA:1509:C:O4'	2.20	0.41
31:DA:2056:G:N2	31:DA:2057:A:C1'	2.84	0.41
31:DA:2286:A:H5''	31:DA:2287:A:P	2.60	0.41
31:DA:2287:A:C2	31:DA:2289:G:H1'	2.55	0.41
31:DA:590:A:C6	31:DA:668:G:N1	2.88	0.41
31:DA:806:C:OP1	31:DA:831:G:H5''	2.20	0.41
41:DP:45:LEU:HA	41:DP:45:LEU:HD23	1.75	0.41
28:B6:25:LYS:HE3	28:B6:27:LYS:HZ3	1.85	0.41
30:B8:30:ARG:HD3	30:B8:31:HIS:N	2.35	0.41
31:BA:742:G:H4'	31:BA:1676:A:H5'	2.02	0.41
31:BA:2420:C:O5'	31:BA:2420:C:H6	2.03	0.41
32:BB:59:A:C4	32:BB:60:C:C6	3.09	0.41
36:BG:25:TYR:HB3	36:BG:30:GLU:CD	2.41	0.41
31:DA:1139:G:H5'	39:DN:102:ALA:HB1	2.02	0.41
31:DA:1141:U:P	39:DN:63:THR:CG2	3.05	0.41
31:DA:814:C:N4	31:DA:1193:G:H1	2.17	0.41
31:DA:558:G:P	39:DN:111:PRO:HG2	2.60	0.41
39:DN:5:VAL:HA	39:DN:6:PRO:HD3	1.80	0.41
46:DU:90:VAL:CG1	46:DU:91:ASP:H	2.20	0.41
24:B2:32:LEU:HD13	24:B2:32:LEU:HA	1.86	0.41
49:BX:23:GLU:CG	49:BX:24:GLY:H	2.27	0.41
49:BX:35:THR:O	49:BX:39:ILE:HG23	2.19	0.41
34:BE:75:VAL:O	34:BE:75:VAL:HG23	2.21	0.41
32:DB:118:G:H2'	32:DB:118:G:N3	2.35	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DB:29:A:H2'	32:DB:30:C:O4'	2.19	0.41
36:DG:16:ARG:HB3	36:DG:16:ARG:HH11	1.85	0.41
1:AA:617:G:C2	1:AA:618:C:C5	3.07	0.41
4:AD:112:VAL:HG12	4:AD:116:GLN:OE1	2.20	0.41
1:CA:321:A:H4'	1:CA:1435:G:O2'	2.21	0.41
1:CA:386:C:C2'	1:CA:387:U:C5'	2.84	0.41
1:CA:424:G:C4	1:CA:425:G:C8	3.08	0.41
1:CA:438:G:N2	1:CA:495:A:C8	2.88	0.41
1:CA:623:C:C2'	1:CA:624:C:H5'	2.51	0.41
5:CE:107:ARG:O	5:CE:108:ALA:C	2.58	0.41
50:BY:26:LYS:O	50:BY:27:VAL:C	2.58	0.41
31:BA:2298:A:H2'	31:BA:2299:G:O4'	2.20	0.41
31:BA:1281:G:H2'	31:BA:1282:U:O4'	2.21	0.41
31:DA:1353:A:O4'	31:DA:1569:A:H2	2.02	0.41
50:DY:45:VAL:HG13	50:DY:62:GLU:CD	2.40	0.41
31:DA:2701:C:C3'	31:DA:2702:U:C5'	2.69	0.41
2:AB:11:LEU:O	2:AB:16:HIS:CE1	2.73	0.41
47:BV:98:GLU:C	47:BV:98:GLU:CD	2.79	0.41
2:CB:185:ILE:HA	2:CB:199:TYR:O	2.20	0.41
35:DF:3:GLU:O	35:DF:19:GLU:CA	2.69	0.41
23:B1:87:PRO:O	23:B1:91:LYS:N	2.39	0.41
1:CA:675:A:N6	1:CA:676:A:C6	2.89	0.41
1:CA:682:G:C2	1:CA:709:G:C6	3.08	0.41
1:CA:737:A:C2'	1:CA:738:C:C6	2.91	0.41
1:CA:1278:U:O4	10:CJ:99:LYS:HE3	2.20	0.41
1:AA:1125:U:H4'	1:AA:1126:U:H5	1.85	0.41
31:DA:2260:C:H2'	31:DA:2261:C:C6	2.56	0.41
32:BB:73:A:N1	51:BZ:34:ASN:ND2	2.68	0.41
51:BZ:69:THR:HG22	51:BZ:90:VAL:HG22	2.02	0.41
31:BA:624:C:O2'	31:BA:625:G:H5'	2.21	0.41
31:DA:1278:A:H2'	31:DA:1279:G:C8	2.56	0.41
1:AA:711:G:N2	1:AA:712:A:C2	2.89	0.41
1:AA:737:A:C2'	1:AA:738:C:C6	2.89	0.41
6:AF:53:ALA:O	6:AF:54:LYS:HB2	2.20	0.41
4:AD:38:TYR:HD2	4:AD:45:GLN:HB3	1.85	0.41
31:DA:2222:G:O2'	33:DD:148:GLU:HG2	2.20	0.41
40:DO:17:ARG:HA	40:DO:17:ARG:HD3	1.93	0.41
31:BA:1114:G:C8	31:BA:1115:G:N7	2.89	0.41
1:AA:750:G:C2	1:AA:751:U:C6	3.09	0.41
31:BA:2259:G:N1	31:BA:2282:G:C6	2.88	0.41
1:AA:1104:G:C4	1:AA:1105:A:C8	3.08	0.41
31:DA:903:C:H2'	31:DA:904:C:H6	1.85	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:904:C:H5''	31:DA:904:C:H6	1.85	0.41
1:AA:571:U:O2	1:AA:918:A:H5'	2.21	0.41
34:DE:11:MET:HB3	34:DE:24:THR:HB	2.02	0.41
31:DA:1693:U:H1'	33:DD:14:ARG:NH2	2.35	0.41
31:BA:2870:C:H5''	43:BR:65:LEU:CD2	2.50	0.41
38:DI:93:THR:CB	38:DI:119:PRO:HB3	2.51	0.41
31:DA:776:G:C8	31:DA:793:A:C2	3.08	0.41
24:D2:12:GLU:O	24:D2:14:ARG:NH2	2.51	0.41
34:BE:170:LEU:N	34:BE:170:LEU:CD1	2.83	0.41
31:BA:518:G:H2'	31:BA:519:U:H6	1.82	0.41
31:DA:1666:G:C2'	31:DA:1667:G:H5'	2.50	0.41
45:BT:76:PHE:HA	45:BT:77:PRO:HD2	1.75	0.41
13:AM:23:TYR:HE1	13:AM:70:LEU:HD22	1.85	0.41
31:BA:2476:A:C6	31:BA:2477:C:C5	3.07	0.41
37:BH:164:TYR:N	37:BH:164:TYR:CD1	2.89	0.41
1:CA:746:A:H2'	1:CA:747:C:H6	1.82	0.41
31:DA:1982:C:O5'	31:DA:1982:C:H6	2.03	0.41
31:DA:2485:G:O2'	31:DA:2486:G:H5'	2.21	0.41
31:DA:2012:G:H8	31:DA:2012:G:O5'	2.02	0.41
16:AP:43:LYS:HB3	16:AP:48:TRP:CG	2.56	0.41
12:CL:10:LEU:O	12:CL:14:GLY:HA2	2.19	0.41
47:BV:49:THR:HG22	47:BV:51:VAL:HG23	2.01	0.41
31:BA:1911:U:H2'	31:BA:1918:A:N1	2.35	0.41
1:AA:592:G:H2'	1:AA:593:G:H8	1.85	0.41
31:BA:2380:C:C2'	31:BA:2381:C:H5'	2.50	0.41
1:CA:450:G:O3'	16:CP:41:PRO:HB2	2.21	0.41
51:DZ:108:PRO:O	51:DZ:109:ALA:C	2.58	0.41
1:AA:1117:G:O5'	9:AI:104:ARG:NH1	2.53	0.41
1:AA:563:A:C8	1:AA:567:G:O4'	2.73	0.41
4:CD:158:ILE:HD12	4:CD:158:ILE:O	2.20	0.41
31:DA:1247:A:C5	31:DA:1249:U:C4	3.08	0.41
22:D0:75:LEU:HD23	22:D0:75:LEU:HA	1.71	0.41
31:BA:2554:U:C4	31:BA:2555:U:O4	2.74	0.41
31:DA:1423:G:H2'	31:DA:1424:G:H8	1.86	0.41
31:BA:530:G:N7	31:BA:2023:G:OP1	2.53	0.41
31:BA:577:G:H8	31:BA:577:G:O5'	2.03	0.41
1:CA:1260:C:H4'	1:CA:1284:C:C5'	2.46	0.41
31:BA:443:A:C1'	31:BA:1201:C:O4'	2.64	0.41
8:AH:78:GLN:O	8:AH:81:HIS:CE1	2.74	0.41
6:CF:37:VAL:HA	6:CF:65:VAL:HG12	2.02	0.41
2:CB:212:GLN:CD	2:CB:235:SER:HB3	2.39	0.41
6:CF:36:ARG:O	6:CF:38:GLU:HG3	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CF:15:ASP:O	6:CF:17:SER:N	2.53	0.41
34:BE:181:LEU:N	34:BE:181:LEU:HD22	2.36	0.41
7:CG:50:ILE:O	7:CG:54:THR:HG23	2.21	0.41
21:CU:12:LYS:HB3	21:CU:22:ARG:HD2	2.02	0.41
3:AC:15:THR:HG23	3:AC:181:ASN:HA	2.01	0.41
14:CN:51:GLY:O	14:CN:53:LEU:N	2.54	0.41
1:AA:189(E):U:O2'	1:AA:189(F):U:C5'	2.68	0.41
31:BA:2511:U:O4	31:BA:2575:C:N3	2.53	0.41
31:BA:2584:U:H2'	31:BA:2585:U:C6	2.54	0.41
1:CA:1272:G:C5	1:CA:1273:G:C8	3.09	0.41
5:AE:26:PHE:CD1	5:AE:26:PHE:N	2.88	0.41
36:BG:43:LEU:HD13	36:BG:153:ARG:HD2	2.02	0.41
43:DR:84:ALA:HB3	43:DR:85:PRO:CD	2.50	0.41
20:AT:73:HIS:HB3	20:AT:74:LYS:H	1.52	0.41
17:CQ:87:LYS:HA	17:CQ:87:LYS:HE2	2.02	0.41
17:CQ:87:LYS:O	17:CQ:88:TYR:C	2.59	0.41
31:BA:2623:G:H2'	31:BA:2624:G:C8	2.56	0.41
17:CQ:60:ILE:HG23	17:CQ:62:SER:HG	1.86	0.41
1:CA:453:A:H4'	16:CP:72:ARG:HB2	2.03	0.41
1:CA:189(F):U:C4	17:CQ:72:ARG:CZ	3.04	0.41
5:CE:80:ILE:CD1	5:CE:138:ALA:HB1	2.51	0.41
31:BA:2518:A:C8	31:BA:2518:A:H5'	2.55	0.41
31:DA:1149:G:H2'	31:DA:1150:C:H6	1.85	0.41
8:AH:108:GLY:HA2	8:AH:138:TRP:HB3	2.02	0.41
1:CA:1390:U:H2'	1:CA:1391:U:C6	2.55	0.41
31:DA:2276:G:OP2	42:DQ:84:GLY:N	2.50	0.41
40:DO:119:PRO:HB2	45:DT:68:TYR:CD1	2.55	0.41
31:BA:2412:A:H2'	31:BA:2413:G:O4'	2.19	0.41
31:BA:1942:C:C4	31:BA:1943:U:C4	3.08	0.41
42:DQ:80:GLU:HA	42:DQ:80:GLU:OE2	2.20	0.41
1:AA:12:U:H4'	1:AA:526:C:H4'	2.02	0.41
5:CE:39:GLY:O	5:CE:69:VAL:N	2.52	0.41
6:AF:77:ARG:O	6:AF:78:GLU:C	2.59	0.41
6:CF:41:GLU:O	6:CF:43:LEU:N	2.54	0.41
31:DA:401:A:C6	31:DA:402:A:C6	3.07	0.41
30:D8:35:GLN:HB3	30:D8:35:GLN:HE21	1.56	0.41
30:D8:52:LYS:N	30:D8:54:GLU:HG2	2.36	0.41
55:DA:3320:TEL:H7	55:DA:3320:TEL:H13	1.60	0.41
31:DA:640:C:H6	31:DA:640:C:O5'	2.04	0.41
31:DA:671:C:H2'	31:DA:672:C:C6	2.55	0.41
31:DA:823:G:C6	31:DA:835:A:C6	3.08	0.41
31:DA:942:G:C2'	31:DA:943:U:C5'	2.96	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:B6:28:ARG:O	28:B6:32:ASN:HB3	2.21	0.41
30:B8:30:ARG:O	30:B8:32:LEU:O	2.37	0.41
23:B1:37:ILE:HD12	31:BA:2079:U:O2'	2.20	0.41
31:BA:744:G:P	34:BE:132:HIS:HB3	2.61	0.41
31:BA:251:A:OP1	41:BP:50:ARG:HD2	2.21	0.41
30:B8:7:HIS:HD2	41:BP:50:ARG:HD3	1.81	0.41
32:BB:116:G:N2	32:BB:117:G:C4	2.89	0.41
36:BG:16:ARG:NH1	36:BG:16:ARG:CG	2.81	0.41
36:BG:27:ASN:N	36:BG:30:GLU:OE1	2.48	0.41
44:BS:89:ARG:HA	44:BS:89:ARG:NE	2.24	0.41
31:DA:1005:C:H2'	31:DA:1006:C:C6	2.54	0.41
31:DA:994:C:H1'	47:DV:10:LYS:HZ2	1.84	0.41
39:DN:21:LYS:O	39:DN:61:ARG:N	2.50	0.41
46:DU:83:LEU:CD2	46:DU:88:ILE:HG12	2.51	0.41
47:DV:72:VAL:HA	47:DV:88:ARG:NH2	2.34	0.41
47:DV:89:GLN:HE21	47:DV:89:GLN:HB2	1.60	0.41
47:DV:98:GLU:O	47:DV:99:ILE:HD13	2.21	0.41
37:BH:85:LYS:CE	37:BH:145:ALA:HB2	2.51	0.41
49:BX:50:LYS:HE2	49:BX:82:GLN:HB2	2.01	0.41
49:BX:82:GLN:HG3	49:BX:85:PRO:HD2	1.98	0.41
1:AA:42:G:C2	1:AA:401:C:O2	2.73	0.41
4:AD:207:TYR:HD2	4:AD:207:TYR:HA	1.75	0.41
1:CA:51:A:N3	1:CA:116:A:H1'	2.35	0.41
1:CA:363:A:N1	1:CA:364:A:C2	2.88	0.41
1:CA:542:G:P	4:CD:10:ARG:HH21	2.42	0.41
31:DA:1784:A:H4'	31:DA:1785:A:H5''	2.02	0.41
31:DA:696:G:N2	31:DA:697:C:C2	2.89	0.41
31:DA:764:A:C4	31:DA:781:A:N1	2.89	0.41
37:DH:73:ALA:O	37:DH:76:VAL:HB	2.20	0.41
32:BB:82:G:H2'	32:BB:83:G:C5'	2.51	0.41
39:BN:22:THR:O	39:BN:23:LEU:C	2.59	0.41
46:BU:92:ARG:NE	47:BV:11:GLN:HG3	2.36	0.41
23:D1:89:GLU:CD	23:D1:89:GLU:N	2.58	0.41
31:DA:2029:G:C3'	31:DA:2030:A:H5'	2.50	0.41
31:DA:2031:A:OP1	31:DA:2031:A:H8	2.03	0.41
31:BA:1165:U:H2'	31:BA:1166:C:C6	2.55	0.41
31:BA:1799:G:H5'	31:BA:1819:A:N6	2.35	0.41
47:BV:94:LEU:CD2	47:BV:96:ILE:HG13	2.50	0.41
1:CA:682:G:C5	1:CA:683:G:N7	2.88	0.41
1:AA:1126:U:O2'	1:AA:1127:G:H5'	2.20	0.41
48:DW:75:TYR:HD1	48:DW:75:TYR:N	2.16	0.41
31:DA:2328:A:C2'	31:DA:2329:G:O4'	2.68	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:911:A:N9	42:DQ:9:TYR:OH	2.47	0.41
1:AA:1259:C:H42	1:AA:1276:G:H1	1.68	0.41
32:DB:19:G:C6	32:DB:20:C:N4	2.89	0.41
32:DB:21:G:N3	32:DB:21:G:H2'	2.34	0.41
31:BA:85:G:OP1	50:BY:9:LYS:HB2	2.20	0.41
32:BB:67:G:C6	32:BB:68:C:C5	3.07	0.41
1:AA:1433:A:C6	1:AA:1468:A:C4	3.08	0.41
33:DD:131:LEU:N	33:DD:131:LEU:HD12	2.35	0.41
27:D5:33:CYS:HA	27:D5:34:PRO:HD2	1.81	0.41
50:BY:96:ILE:H	50:BY:96:ILE:HG12	1.36	0.41
31:DA:1295:C:H2'	31:DA:1296:G:H8	1.86	0.41
31:BA:822:U:O2'	31:BA:823:G:H5'	2.21	0.41
1:AA:1096:C:O2'	1:AA:1097:C:H5'	2.20	0.41
2:CB:196:LEU:HA	8:CH:74:PRO:HG3	2.01	0.41
2:AB:196:LEU:HA	8:AH:74:PRO:HG3	2.01	0.41
15:CO:57:LEU:HA	15:CO:57:LEU:HD23	1.87	0.41
1:CA:292:G:C5	1:CA:293:G:H1'	2.55	0.41
1:CA:302:G:C6	1:CA:303:A:C5	3.08	0.41
1:CA:559:A:C4'	1:CA:560:U:H3'	2.48	0.41
1:AA:27:G:C5	1:AA:557:G:C2	3.09	0.41
31:BA:962:G:C5	31:BA:963:U:C5	3.08	0.41
1:AA:578:C:H1'	1:AA:729:A:H1'	2.02	0.41
15:AO:40:SER:HA	31:BA:715:G:H21	1.86	0.41
40:BO:104:ARG:HB2	40:BO:104:ARG:NH1	2.36	0.41
31:BA:1188:U:O2'	31:BA:1189:A:H5'	2.21	0.41
16:AP:22:THR:HG22	16:AP:32:TYR:CB	2.51	0.41
1:AA:1390:U:H2'	1:AA:1391:U:H6	1.84	0.41
1:AA:921:U:N3	1:AA:922:G:C5	2.88	0.41
45:DT:124:ASP:C	45:DT:126:ALA:H	2.23	0.41
10:AJ:62:HIS:O	10:AJ:62:HIS:HD2	2.03	0.41
38:BI:139:GLN:NE2	38:BI:141:LYS:HE2	2.35	0.41
31:BA:1833:U:C2	31:BA:1834:U:C6	3.08	0.41
42:DQ:35:VAL:HG23	42:DQ:100:GLY:C	2.40	0.41
31:DA:1700:A:H2'	31:DA:1701:A:O5'	2.20	0.41
31:DA:794:G:C4	31:DA:795:C:C5	3.09	0.41
31:DA:797:C:C2	31:DA:798:G:C8	3.08	0.41
11:AK:99:GLN:C	11:AK:101:SER:N	2.74	0.41
1:AA:587:G:O2'	1:AA:588:G:OP2	2.28	0.41
31:BA:790:C:HO2'	31:BA:791:C:H5''	1.85	0.41
38:DI:70:GLU:O	38:DI:71:ILE:HG22	2.21	0.41
48:DW:19:LEU:HA	48:DW:19:LEU:HD12	1.75	0.41
2:CB:90:MET:HE2	2:CB:90:MET:HA	2.02	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1067:A:N3	1:AA:1068:G:N9	2.68	0.41
31:BA:1882:C:C2	31:BA:1883:G:C8	3.09	0.41
1:AA:129(A):G:C6	1:AA:189(H):G:H1'	2.55	0.41
1:AA:233:C:C2'	1:AA:234:C:H5'	2.50	0.41
1:AA:233:C:C4	1:AA:234:C:C5	3.08	0.41
1:AA:266:G:H8	1:AA:266:G:H2'	1.76	0.41
17:AQ:44:ALA:HA	17:AQ:71:PHE:O	2.21	0.41
31:BA:2815:C:H2'	31:BA:2816:C:C6	2.55	0.41
31:BA:2655:G:C2'	31:BA:2655:G:N3	2.83	0.41
31:BA:183:C:H1'	31:BA:433:C:H1'	2.01	0.41
1:CA:1373:G:O5'	1:CA:1373:G:H8	2.02	0.41
31:DA:2476:A:H2	31:DA:2477:C:H5''	1.85	0.41
12:CL:11:VAL:HG21	17:CQ:34:LYS:HD3	2.02	0.41
45:BT:48:ILE:HD12	45:BT:48:ILE:N	2.36	0.41
31:DA:271(N):U:C6	31:DA:271(N):U:OP1	2.73	0.41
31:BA:2291:U:C4'	31:BA:2380:C:O2	2.65	0.41
18:CR:67:ALA:O	18:CR:70:ILE:HB	2.21	0.41
1:CA:1157:A:C4	1:CA:1181:G:C2	3.09	0.41
10:AJ:86:MET:O	10:AJ:86:MET:HG3	2.19	0.41
29:D7:5:TRP:CZ3	31:DA:464:U:C4'	3.04	0.41
45:BT:113:LYS:C	45:BT:114:LEU:HD23	2.41	0.41
1:CA:523:A:H61	12:CL:53:ARG:HH12	1.67	0.41
31:DA:2021:C:H4'	31:DA:2022:U:OP2	2.19	0.41
1:CA:592:G:H2'	1:CA:593:G:H8	1.85	0.41
31:DA:1204:A:N6	31:DA:1240:U:H2'	2.35	0.41
31:DA:2550:G:C5	31:DA:2551:C:C5	3.08	0.41
9:AI:49:PRO:HB3	9:AI:101:PHE:CD1	2.54	0.41
1:AA:523:A:H61	12:AL:53:ARG:HH12	1.68	0.41
10:CJ:78:ASN:C	10:CJ:80:LYS:H	2.23	0.41
1:AA:669:U:N3	1:AA:670:G:N7	2.69	0.41
31:DA:296:C:C2	31:DA:297:C:C5	3.07	0.41
13:AM:106:ASN:O	13:AM:107:ALA:CB	2.68	0.41
31:BA:604:G:H2'	31:BA:605:C:O4'	2.21	0.41
1:AA:598:U:H2'	1:AA:599:C:C6	2.56	0.41
2:CB:64:ARG:O	2:CB:65:GLY:C	2.58	0.41
15:AO:64:ARG:HH22	15:AO:88:ARG:CZ	2.31	0.41
35:BF:155:LEU:O	35:BF:157:VAL:HG23	2.21	0.41
46:DU:12:ARG:O	46:DU:13:LYS:C	2.57	0.41
31:DA:708:C:O2	31:DA:708:C:H2'	2.21	0.41
23:D1:54:ALA:O	23:D1:56:GLN:CA	2.68	0.41
27:B5:9:LYS:O	27:B5:10:LYS:C	2.59	0.41
4:AD:104:VAL:O	4:AD:105:VAL:C	2.59	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:CK:48:ILE:HD13	11:CK:48:ILE:N	2.35	0.41
1:AA:282:A:N3	1:AA:282:A:H2'	2.34	0.41
25:D3:4:LEU:HD23	25:D3:4:LEU:HA	1.88	0.41
35:BF:53:THR:H	35:BF:53:THR:HG22	1.42	0.41
19:AS:15:LEU:CD1	19:AS:31:ILE:HD11	2.50	0.41
1:AA:1382:C:H2'	1:AA:1383:C:C6	2.55	0.41
5:AE:15:ARG:HG3	5:AE:26:PHE:HB3	2.02	0.41
31:DA:1767:C:O2'	31:DA:1768:U:H5'	2.19	0.41
48:DW:34:ASN:O	48:DW:37:ARG:HB3	2.21	0.41
1:CA:874:G:H2'	1:CA:875:C:H6	1.85	0.41
46:BU:43:GLY:CA	47:BV:76:LYS:HE3	2.51	0.41
13:CM:64:TRP:HB2	13:CM:65:LYS:H	1.63	0.41
31:BA:877:U:H2'	31:BA:878:A:H5''	2.02	0.41
1:CA:644:G:O2'	1:CA:645:C:H5'	2.20	0.41
22:B0:37:LEU:O	22:B0:38:VAL:CG2	2.68	0.41
31:BA:405:U:H2'	31:BA:405:U:O2	2.20	0.41
31:BA:272(J):C:H2'	31:BA:274:G:OP1	2.21	0.41
35:DF:88:VAL:HG11	35:DF:91:GLY:HA3	2.02	0.41
31:BA:1907:G:C2	31:BA:1924:C:C2	3.08	0.41
1:CA:1328:C:H5''	13:CM:28:ALA:CB	2.50	0.41
6:AF:41:GLU:O	6:AF:43:LEU:N	2.54	0.41
10:CJ:98:ILE:HD12	10:CJ:98:ILE:N	2.35	0.41
31:DA:876:C:O5'	31:DA:876:C:H6	2.03	0.41
43:BR:60:LEU:O	43:BR:60:LEU:HG	2.19	0.41
6:AF:37:VAL:HA	6:AF:65:VAL:HG12	2.01	0.41
7:AG:32:ARG:O	7:AG:33:ASP:CB	2.68	0.41
51:BZ:41:LEU:O	51:BZ:42:VAL:C	2.59	0.41
28:D6:24:GLU:OE1	28:D6:24:GLU:CA	2.59	0.41
30:D8:27:THR:HG1	31:DA:2361:A:P	2.43	0.41
31:DA:225:A:O2'	31:DA:257:A:H4'	2.20	0.41
31:DA:25:U:H5''	48:DW:80:PRO:HD3	2.03	0.41
31:DA:832:G:C4	31:DA:833:U:C5	3.08	0.41
28:B6:12:GLU:HA	28:B6:23:THR:H	1.85	0.41
30:B8:35:GLN:HA	31:BA:2420:C:OP1	2.20	0.41
30:B8:61:LEU:C	30:B8:63:PRO:HD2	2.40	0.41
31:BA:1241:A:N7	31:BA:1242:A:C4	2.88	0.41
31:BA:192:C:C2'	31:BA:193:U:O5'	2.68	0.41
31:BA:2245:U:O2'	31:BA:2436:G:OP2	2.26	0.41
33:BD:143:HIS:CD2	33:BD:144:ALA:N	2.89	0.41
33:BD:35:LYS:HA	33:BD:36:PRO:HA	1.58	0.41
33:BD:35:LYS:HE2	33:BD:65:ILE:HG22	2.03	0.41
33:BD:83:GLU:O	33:BD:92:ILE:CD1	2.69	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BB:37:C:C2	32:BB:38:C:O2	2.72	0.41
31:DA:1722:A:N1	31:DA:1740:G:H2'	2.36	0.41
31:DA:2859:G:O2'	31:DA:2860:A:O5'	2.37	0.41
31:BA:2544:G:H1'	31:BA:2646:C:C4'	2.49	0.41
31:BA:2567:G:C4	31:BA:2568:C:C5	3.09	0.41
41:BP:111:ARG:HA	41:BP:128:HIS:CG	2.55	0.41
31:DA:1159:U:H2'	31:DA:1160:G:C8	2.54	0.41
31:BA:1346:G:C6	31:BA:1601:G:C6	3.08	0.41
49:BX:27:THR:HB	49:BX:77:LYS:HG2	2.01	0.41
31:BA:1902:C:C5'	33:BD:246:PRO:HD3	2.51	0.41
31:BA:2857:G:N2	31:BA:2859:G:H3'	2.35	0.41
1:AA:436:C:HO2'	1:AA:437:U:P	2.41	0.41
1:CA:109:A:C4	1:CA:326:G:C2	3.09	0.41
1:CA:390:C:H3'	1:CA:390:C:H6	1.86	0.41
1:CA:501:C:H3'	1:CA:501:C:H6	1.85	0.41
1:CA:510:A:O2'	1:CA:542:G:H1'	2.20	0.41
1:CA:542:G:H5'	4:CD:41:GLY:CA	2.50	0.41
4:CD:61:LYS:HZ3	4:CD:62:GLN:NE2	2.18	0.41
5:CE:13:ILE:CG2	5:CE:14:ARG:N	2.82	0.41
1:CA:624:C:H4'	16:CP:11:SER:H	1.86	0.41
31:BA:1323:U:C2'	31:BA:1324:G:H5'	2.50	0.41
37:DH:85:LYS:HZ3	37:DH:145:ALA:CB	2.34	0.41
31:DA:1453:U:OP1	43:DR:77:ARG:NH1	2.52	0.41
37:DH:98:LEU:HD13	37:DH:125:VAL:HG23	2.02	0.41
1:AA:224:C:N3	1:AA:225:C:C4	2.89	0.41
31:BA:2007:C:H2'	31:BA:2007:C:O2	2.19	0.41
2:AB:185:ILE:HA	2:AB:199:TYR:O	2.21	0.41
31:BA:1792:G:H2'	31:BA:1793:C:H6	1.85	0.41
1:CA:191:G:N2	20:CT:104:LEU:HA	2.32	0.41
31:DA:2315:G:H5''	31:DA:2316:C:P	2.60	0.41
31:DA:330:A:O2'	31:DA:331:A:H8	2.04	0.41
31:DA:1510:G:C4	31:DA:1511:C:C5	3.09	0.41
6:CF:12:PRO:HG3	6:CF:55:ASP:HB3	2.03	0.41
6:CF:67:MET:HE2	6:CF:68:PRO:HG2	2.01	0.41
1:CA:735:C:H1'	18:CR:75:ILE:CD1	2.50	0.41
18:AR:73:ALA:CB	18:AR:79:LEU:HD12	2.51	0.41
32:BB:15:A:H2'	32:BB:16:G:OP1	2.20	0.41
1:AA:410:G:C2	1:AA:429:U:C2	3.08	0.41
31:DA:2196:C:C2'	31:DA:2197:U:H5'	2.49	0.41
31:DA:2780:G:O2'	31:DA:2781:A:OP1	2.33	0.41
39:BN:78:TYR:CD1	39:BN:79:PRO:HD3	2.54	0.41
39:BN:82:LEU:O	39:BN:83:LYS:C	2.59	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:D5:51:TYR:CB	27:D5:52:TYR:O	2.68	0.41
31:DA:1275:A:N1	31:DA:1295:C:O2'	2.47	0.41
1:AA:658:G:O4'	15:AO:22:THR:O	2.38	0.41
1:CA:1060:C:H5''	10:CJ:51:ARG:HB3	2.03	0.41
1:AA:1091:U:O2	1:AA:1093:A:H8	2.04	0.41
1:AA:1096:C:H2'	1:AA:1097:C:C6	2.52	0.41
1:AA:1106:G:H2'	1:AA:1107:C:C6	2.56	0.41
31:BA:2682:U:C5	34:BE:11:MET:CE	3.03	0.41
34:BE:111:ARG:HD2	34:BE:160:TYR:CD1	2.55	0.41
34:BE:2:LYS:HA	34:BE:84:PHE:CE2	2.56	0.41
1:CA:557:G:H2'	1:CA:558:G:O4'	2.21	0.41
1:AA:815:A:C2	1:AA:1529:G:C4	3.07	0.41
1:AA:814:A:N7	1:AA:816:A:C5	2.89	0.41
12:AL:28:LYS:O	12:AL:30:ALA:N	2.53	0.41
12:CL:47:LYS:HB3	12:CL:48:PRO:CD	2.36	0.41
38:BI:77:LEU:O	38:BI:78:THR:O	2.39	0.41
38:DI:93:THR:CG2	38:DI:119:PRO:HB3	2.51	0.41
38:DI:77:LEU:HD22	38:DI:104:GLN:OE1	2.19	0.41
1:CA:699:C:H2'	1:CA:700:G:H5'	2.02	0.41
1:CA:552:U:H2'	1:CA:553:A:C5'	2.50	0.41
12:CL:28:LYS:HE2	12:CL:33:ARG:HH22	1.84	0.41
43:BR:26:LYS:HE2	43:BR:71:GLN:H	1.85	0.41
1:AA:1225:A:O2'	19:AS:78:ARG:HD3	2.19	0.41
48:DW:28:SER:O	48:DW:29:LEU:C	2.59	0.41
1:CA:251:G:C6	1:CA:266:G:C6	3.08	0.41
31:DA:78:A:C6	31:DA:109:G:N1	2.89	0.41
39:DN:128:HIS:O	39:DN:130:HIS:HB3	2.19	0.41
31:BA:2528:U:H2'	31:BA:2530:A:O5'	2.20	0.41
31:BA:2651:C:O2'	31:BA:2652:C:H5'	2.21	0.41
31:BA:171:G:H2'	31:BA:172:C:C1'	2.50	0.41
33:BD:267:SER:O	33:BD:268:ARG:CB	2.66	0.41
8:AH:10:LEU:HD13	8:AH:83:ILE:CG1	2.51	0.41
42:DQ:134:ARG:C	42:DQ:136:ALA:N	2.74	0.41
4:CD:194:LEU:N	4:CD:194:LEU:HD22	2.35	0.41
34:DE:169:ASN:HD22	34:DE:169:ASN:HA	1.64	0.41
17:CQ:34:LYS:O	17:CQ:35:VAL:C	2.58	0.41
1:AA:1370:G:C2	1:AA:1371:G:N7	2.89	0.41
3:AC:104:GLN:NE2	3:AC:105:GLU:H	2.19	0.41
31:BA:776:G:C5	31:BA:793:A:C4	3.08	0.41
42:DQ:32:TYR:HE2	42:DQ:133:ARG:HG2	1.83	0.41
37:DH:156:ALA:O	37:DH:157:TYR:C	2.59	0.41
31:DA:2291:U:H5''	31:DA:2380:C:C1'	2.51	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:2341:G:H2'	31:BA:2342:C:O4'	2.21	0.41
1:CA:982:U:C2	1:CA:983:A:N6	2.88	0.41
15:AO:17:ARG:CG	15:AO:17:ARG:NH1	2.83	0.41
10:AJ:78:ASN:C	10:AJ:80:LYS:H	2.22	0.41
44:DS:84:GLN:HE21	44:DS:105:ALA:CB	2.30	0.41
31:BA:2602:A:H4'	31:BA:2603:G:O5'	2.19	0.41
1:AA:797:C:OP1	11:AK:124:LYS:HE2	2.20	0.41
8:AH:12:ARG:NH1	8:AH:58:TYR:HE2	2.16	0.41
31:DA:836:G:C6	31:DA:837:C:C4	3.09	0.41
1:CA:693:G:O2'	1:CA:694:A:H5'	2.20	0.41
31:BA:557:U:C2'	31:BA:558:G:O5'	2.69	0.41
1:CA:1479:C:H2'	1:CA:1480:G:C8	2.56	0.41
1:CA:150:C:N4	1:CA:170:U:C4	2.89	0.41
48:DW:64:MET:HE2	48:DW:69:LEU:HD23	2.02	0.41
31:BA:2711:A:N7	31:BA:2714:G:C8	2.88	0.41
31:DA:1563:G:C4	31:DA:1564:C:C5	3.08	0.41
25:B3:26:LEU:HD21	25:B3:46:ASN:HB2	2.03	0.41
36:BG:94:LEU:HD11	36:BG:102:PHE:CB	2.51	0.41
35:BF:53:THR:CG2	35:BF:56:GLU:OE1	2.68	0.41
1:AA:1160:G:N1	1:AA:1161:C:C5	2.89	0.41
31:BA:817:C:H2'	31:BA:818:G:H8	1.83	0.41
1:AA:958:A:N1	19:AS:54:GLY:HA3	2.35	0.41
1:CA:937:A:H1'	1:CA:1379:G:N2	2.35	0.41
38:DI:41:GLU:O	38:DI:44:LEU:HB3	2.20	0.41
17:CQ:27:PHE:HA	17:CQ:28:PRO:HD3	1.94	0.41
1:CA:1159:U:C6	1:CA:1182:G:N3	2.89	0.41
31:DA:2046:G:C6	31:DA:2047:U:C4	3.08	0.41
46:DU:69:CYS:HA	46:DU:106:PHE:HE2	1.86	0.41
1:AA:604:G:C2	1:AA:635:G:C5	3.09	0.41
31:DA:703:U:C2'	31:DA:704:G:H5'	2.51	0.41
1:CA:398:C:OP1	1:CA:398:C:C6	2.74	0.41
31:DA:2584:U:H6	31:DA:2585:U:C5	2.39	0.41
5:AE:80:ILE:HD11	5:AE:138:ALA:HB1	2.03	0.41
20:AT:21:LYS:O	20:AT:24:LEU:HB3	2.21	0.41
31:BA:2547:U:C2'	31:BA:2548:G:H5'	2.51	0.41
35:BF:108:LYS:HD3	35:BF:108:LYS:HA	1.77	0.41
31:BA:1272:A:H3'	31:BA:1273:U:C5'	2.51	0.41
31:DA:1891:G:C6	31:DA:1892:C:C4	3.08	0.41
3:CC:17:ASP:O	3:CC:18:TRP:C	2.59	0.41
11:AK:15:ALA:HA	11:AK:76:GLY:O	2.21	0.41
18:CR:88:LYS:HE2	18:CR:88:LYS:O	2.20	0.41
7:AG:51:GLN:HA	7:AG:51:GLN:OE1	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DI:128:LEU:HB3	38:DI:129:THR:H	1.57	0.41
4:AD:159:ARG:O	4:AD:163:GLU:N	2.54	0.41
30:D8:31:HIS:O	30:D8:32:LEU:C	2.59	0.41
31:DA:2287:A:H2	31:DA:2346:A:C2	2.36	0.41
31:DA:230:U:O2'	31:DA:231:C:H5'	2.21	0.41
31:DA:240:G:H2'	31:DA:241:A:C8	2.56	0.41
30:D8:2:PRO:N	31:DA:591:C:O2	2.53	0.41
31:DA:663:G:C5	31:DA:664:C:C4	3.09	0.41
31:DA:821:A:C2'	31:DA:946:G:H5''	2.51	0.41
48:DW:89:ALA:O	48:DW:92:ARG:HB2	2.20	0.41
30:B8:39:LYS:CG	30:B8:42:ARG:NH1	2.83	0.41
31:BA:199:A:C6	31:BA:2434:A:C6	3.08	0.41
31:BA:448:U:C4	31:BA:583:G:H1'	2.55	0.41
31:BA:581:C:H2'	31:BA:582:G:H8	1.84	0.41
31:BA:583:G:N2	31:BA:1258:C:C2	2.89	0.41
34:BE:132:HIS:CG	34:BE:135:HIS:CE1	3.05	0.41
41:BP:30:THR:O	41:BP:33:ARG:N	2.27	0.41
24:D2:45:SER:HA	24:D2:47:ASN:HD21	1.85	0.41
31:DA:1394:U:C3'	31:DA:1394:U:C6	3.04	0.41
31:DA:1407:C:N3	31:DA:1596:A:C2	2.88	0.41
49:DX:21:PHE:N	49:DX:21:PHE:HD1	2.13	0.41
46:DU:57:PHE:CD2	46:DU:60:LEU:HD12	2.55	0.41
47:DV:60:GLU:OE2	47:DV:100:ARG:O	2.38	0.41
46:DU:92:ARG:CB	47:DV:11:GLN:NE2	2.57	0.41
47:DV:2:PHE:CB	47:DV:42:GLY:HA2	2.43	0.41
31:BA:2753:A:O2'	31:BA:2754:U:C5'	2.60	0.41
37:BH:85:LYS:CE	37:BH:141:VAL:O	2.68	0.41
37:BH:85:LYS:HE2	37:BH:145:ALA:H	1.86	0.41
37:BH:71:LEU:O	37:BH:72:ILE:C	2.59	0.41
31:BA:1465:G:N1	31:BA:1466:G:C5	2.88	0.41
34:BE:54:GLN:O	34:BE:55:ASN:OD1	2.39	0.41
36:DG:115:ARG:HB2	36:DG:116:ASP:H	1.71	0.41
36:DG:15:VAL:CG1	36:DG:19:LEU:HD11	2.45	0.41
44:DS:90:GLY:O	44:DS:92:TYR:N	2.47	0.41
1:AA:392:G:O2'	1:AA:393:A:H5'	2.20	0.41
1:AA:373:A:C5	1:AA:482:A:C5	3.08	0.41
1:CA:113:G:O2'	1:CA:114:U:H5'	2.21	0.41
1:CA:54:C:N4	1:CA:353:A:OP2	2.53	0.41
1:CA:394:G:C5	1:CA:395:C:C5	3.08	0.41
1:CA:410:G:C2	1:CA:429:U:C2	3.08	0.41
1:CA:623:C:H2'	1:CA:624:C:H5'	2.03	0.41
4:CD:112:VAL:HG12	4:CD:116:GLN:OE1	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:2305:A:H5'	36:BG:156:ASP:HB3	2.02	0.41
31:BA:2298:A:N6	31:BA:2318:G:H1'	2.35	0.41
45:BT:102:ILE:HG13	45:BT:103:ARG:N	2.36	0.41
31:DA:1568:G:H5'	33:DD:60:ARG:HA	2.02	0.41
31:DA:768:G:C5	31:DA:769:G:N7	2.88	0.41
25:B3:8:LEU:HB2	25:B3:28:LEU:CD1	2.41	0.41
46:BU:92:ARG:CD	47:BV:11:GLN:HG3	2.49	0.41
43:DR:75:LEU:O	43:DR:76:VAL:C	2.58	0.41
31:DA:2029:G:H2'	31:DA:2030:A:H5'	2.01	0.41
31:DA:2526:G:C6	31:DA:2527:C:N3	2.88	0.41
23:B1:64:ALA:O	23:B1:65:SER:CB	2.57	0.41
31:BA:372:G:O2'	31:BA:373:U:OP2	2.34	0.41
31:DA:1212:G:N2	31:DA:1236:G:O2'	2.42	0.41
23:B1:87:PRO:HD2	23:B1:89:GLU:OE2	2.21	0.41
31:DA:2264:C:C2	31:DA:2277:G:C2	3.09	0.41
31:DA:2386:C:H3'	31:DA:2386:C:C6	2.56	0.41
31:DA:2385:C:H2'	31:DA:2386:C:H5'	2.02	0.41
1:AA:1255:G:H2'	1:AA:1255:G:N3	2.35	0.41
31:DA:1493:C:H5	31:DA:2206:G:O2'	2.00	0.41
32:DB:110:G:C5	32:DB:111:G:N7	2.89	0.41
31:BA:501:A:N6	31:BA:502:A:C6	2.89	0.41
48:BW:75:TYR:N	48:BW:75:TYR:CD1	2.89	0.41
1:AA:675:A:N6	1:AA:676:A:C6	2.89	0.41
31:BA:2801(A):A:C3'	31:BA:2802:G:H5'	2.50	0.41
1:CA:1087:G:N2	1:CA:1099:G:H1'	2.36	0.41
1:CA:667:G:N1	1:CA:740:U:C2	2.88	0.41
1:AA:17:U:C1'	1:AA:1080:A:H1'	2.51	0.41
1:AA:383:A:OP1	1:AA:454:C:O2'	2.31	0.41
1:AA:20:U:H2'	1:AA:21:G:O4'	2.20	0.41
1:AA:293:G:C5	1:AA:294:U:C5	3.08	0.41
1:AA:766:A:C8	1:AA:814:A:C6	3.08	0.41
31:BA:1415:U:H2'	31:BA:1416:G:H4'	2.01	0.41
22:D0:31:VAL:O	22:D0:64:ASP:HA	2.20	0.41
1:CA:778:G:C6	1:CA:779:C:N3	2.89	0.41
1:CA:768:A:OP1	1:CA:804:U:H4'	2.20	0.41
1:AA:1355:G:H2'	1:AA:1356:G:H8	1.84	0.41
16:CP:75:ARG:HA	16:CP:80:PHE:CD1	2.55	0.41
16:CP:81:ARG:C	16:CP:82:GLN:HE21	2.22	0.41
31:BA:1983:C:H4'	31:BA:2606:C:O3'	2.21	0.41
16:CP:4:ILE:HG23	16:CP:36:ILE:HD11	2.03	0.41
50:DY:47:LYS:HZ3	50:DY:47:LYS:CB	2.32	0.41
10:CJ:54:PHE:CZ	10:CJ:55:LYS:CE	3.04	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:552:U:H4'	12:CL:86:ARG:CG	2.50	0.41
1:AA:1308:U:H5'	13:AM:110:ARG:HD2	2.03	0.41
1:CA:952:U:C5	13:CM:104:ARG:NH2	2.89	0.41
31:DA:271(C):C:N3	31:DA:271(V):G:C2	2.88	0.41
11:AK:92:GLU:C	11:AK:94:ALA:N	2.73	0.41
31:DA:1412:A:H3'	31:DA:1413:G:H8	1.83	0.41
31:DA:1833:U:C2	31:DA:1834:U:C6	3.08	0.41
31:DA:1661:G:H2'	31:DA:1662:C:C6	2.56	0.41
42:DQ:24:GLY:HA3	51:DZ:78:LYS:HD2	2.01	0.41
35:BF:129:PHE:HE1	35:BF:142:TRP:CZ2	2.39	0.41
31:BA:1687:G:H2'	31:BA:1688:U:C6	2.56	0.41
1:AA:70:G:H2'	1:AA:71:C:H6	1.84	0.41
33:BD:133:LEU:HD21	33:BD:191:ALA:CB	2.49	0.41
31:BA:2469:A:C2	31:BA:2470:G:C5	3.08	0.41
31:BA:2473:U:C5	31:BA:2474:C:C5	3.09	0.41
37:BH:149:ARG:O	37:BH:152:ARG:O	2.39	0.41
31:DA:468:G:C6	31:DA:469:G:C4	3.09	0.41
5:CE:48:ALA:C	5:CE:50:GLU:H	2.24	0.41
8:AH:5:PRO:HB2	8:AH:32:LYS:HE2	2.02	0.41
1:CA:1128:C:C4	1:CA:1139:G:C5	3.09	0.41
1:CA:1250:A:N3	1:CA:1370:G:O2'	2.42	0.41
1:CA:1370:G:C2	1:CA:1371:G:N7	2.89	0.41
31:DA:1131:G:C2	31:DA:1132:A:C4	3.09	0.41
31:BA:2464:C:N4	31:BA:2487:G:C6	2.89	0.41
1:AA:1250:A:N3	1:AA:1370:G:O2'	2.41	0.41
45:BT:23:ARG:C	45:BT:25:GLY:N	2.74	0.41
33:BD:69:ARG:HH12	33:BD:117:VAL:HG23	1.84	0.41
3:CC:104:GLN:NE2	3:CC:105:GLU:H	2.18	0.41
31:BA:2052:G:N3	31:BA:2053:G:C8	2.89	0.41
45:BT:105:LEU:O	45:BT:113:LYS:NZ	2.53	0.41
40:BO:2:ILE:HG23	40:BO:6:THR:HG21	2.02	0.41
41:DP:5:ASP:CG	41:DP:6:LEU:HD23	2.41	0.41
31:BA:1385:G:H1'	31:BA:1386:C:C6	2.56	0.41
31:DA:2009:G:H4'	48:DW:40:ASN:O	2.21	0.41
3:AC:186:PHE:CE2	3:AC:188:LEU:CD2	3.03	0.41
31:BA:2558:C:C5	31:BA:2559:C:C5	3.08	0.41
31:DA:2341:G:H2'	31:DA:2342:C:O4'	2.21	0.41
31:BA:1935:G:H1	31:BA:1962:C:H2'	1.86	0.41
1:CA:949:A:C2	1:CA:1233:G:N3	2.88	0.41
36:BG:131:TYR:O	36:BG:159:VAL:HG13	2.21	0.41
31:BA:2191:G:C2'	31:BA:2192:G:O5'	2.68	0.41
1:CA:563:A:C8	1:CA:567:G:O4'	2.73	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1152:C:H5''	46:DU:80:ILE:HG21	2.02	0.41
7:CG:15:ASP:O	7:CG:19:GLY:HA2	2.20	0.41
2:CB:61:LEU:HA	2:CB:64:ARG:HG3	2.03	0.41
31:BA:2364:C:C2'	31:BA:2365:G:C5'	2.98	0.41
42:BQ:103:MET:O	42:BQ:104:PHE:CG	2.74	0.41
1:CA:1478:C:C2	1:CA:1479:C:C5	3.09	0.41
31:DA:264:C:O2'	31:DA:265:A:H2'	2.21	0.41
45:DT:128:GLU:OE1	45:DT:129:ARG:N	2.54	0.41
31:DA:32:C:C2'	31:DA:33:U:H5'	2.50	0.41
1:CA:147:G:H2'	1:CA:148:G:H5'	2.01	0.41
31:BA:1893:C:C6	31:BA:1894:C:C5	3.09	0.41
36:DG:94:LEU:HD23	36:DG:94:LEU:H	1.85	0.41
36:DG:94:LEU:CG	36:DG:99:MET:HA	2.51	0.41
31:BA:1232:G:C6	31:BA:1233:C:C4	3.09	0.41
31:DA:1850:G:C4	31:DA:1851:U:C6	3.09	0.41
31:DA:2596:U:H6	31:DA:2596:U:O5'	2.04	0.41
18:CR:41:LYS:C	18:CR:43:PHE:H	2.23	0.41
1:CA:1382:C:H2'	1:CA:1383:C:C6	2.56	0.41
1:AA:146:G:O6	1:AA:176:C:N3	2.54	0.41
31:BA:711:G:C2'	31:BA:712:G:H5'	2.50	0.41
31:DA:1911:U:H2'	31:DA:1918:A:N1	2.35	0.41
43:DR:62:ALA:O	43:DR:66:VAL:HG23	2.21	0.41
40:DO:7:TYR:C	40:DO:8:LEU:HD22	2.41	0.41
1:CA:1151:A:O2'	1:CA:1152:A:H8	2.03	0.41
31:DA:181:A:H1'	31:DA:435:C:H5'	2.01	0.41
31:DA:877:U:H2'	31:DA:878:A:H5''	2.02	0.41
38:BI:118:LYS:HB3	38:BI:118:LYS:HE3	1.90	0.41
25:D3:17:LYS:HD3	25:D3:17:LYS:HA	1.78	0.41
31:BA:1817:G:C5	31:BA:1818:U:C5	3.09	0.41
31:DA:2715:C:H2'	31:DA:2716:U:C6	2.56	0.41
31:DA:1259:G:O2'	31:DA:1260:G:H5'	2.21	0.41
50:BY:54:LYS:HG2	50:BY:55:TYR:H	1.86	0.41
13:AM:11:ARG:NH2	36:BG:147:ASP:HB3	2.36	0.41
33:DD:248:SER:HB3	33:DD:252:TRP:CZ3	2.56	0.41
31:BA:2670:A:C2'	31:BA:2671:A:H5'	2.50	0.41
23:B1:18:ILE:HD13	31:BA:188:G:OP1	2.20	0.41
31:DA:401:A:N6	31:DA:402:A:C6	2.89	0.41
36:DG:51:ARG:HB3	36:DG:53:LEU:HD23	2.02	0.41
21:CU:5:ASP:O	21:CU:11:GLY:HA3	2.19	0.41
12:AL:56:ALA:O	12:AL:68:ALA:N	2.52	0.41
1:AA:1328:C:H5''	13:AM:28:ALA:CB	2.51	0.41
23:B1:21:ARG:HA	23:B1:21:ARG:NE	2.34	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BU:55:ARG:HG2	46:BU:55:ARG:H	1.57	0.41
1:CA:16:A:C2	1:CA:17:U:C6	3.08	0.41
1:CA:1080:A:C5'	5:CE:16:THR:HG21	2.47	0.41
28:D6:25:LYS:HE3	28:D6:25:LYS:HB2	1.81	0.41
31:DA:644:A:C2	31:DA:2369:A:H1'	2.55	0.41
31:DA:513:A:C2	31:DA:514:A:C5	3.08	0.41
31:DA:832:G:C6	31:DA:833:U:O4	2.73	0.41
35:DF:81:PRO:CB	35:DF:89:VAL:HG23	2.50	0.41
41:DP:30:THR:O	41:DP:33:ARG:N	2.23	0.41
31:DA:833:U:H1'	41:DP:55:ARG:HH11	1.86	0.41
31:BA:1655:A:H3'	31:BA:1656:C:C6	2.56	0.41
31:BA:2286:A:H5'	31:BA:2287:A:O4'	2.20	0.41
31:BA:2286:A:H4'	31:BA:2287:A:C8	2.56	0.41
31:BA:812:C:H5'	41:BP:25:SER:HB2	2.02	0.41
33:BD:83:GLU:OE1	33:BD:104:TYR:HE2	2.03	0.41
33:BD:32:SER:OG	33:BD:33:LEU:N	2.53	0.41
33:BD:25:THR:CB	33:BD:82:ILE:H	2.26	0.41
32:BB:55:U:C2	32:BB:56:G:C8	3.08	0.41
31:DA:1000:A:C6	31:DA:1155:A:C8	3.09	0.41
39:DN:37:LYS:O	46:DU:67:ALA:HB2	2.21	0.41
47:DV:21:ARG:HG2	47:DV:93:GLU:CG	2.51	0.41
47:DV:73:SER:HB2	47:DV:75:PHE:CZ	2.56	0.41
31:BA:58:G:H2'	31:BA:59:U:O5'	2.21	0.41
31:DA:1332:G:N1	31:DA:1609:A:O2'	2.53	0.41
33:BD:240:ALA:HA	33:BD:241:PRO:HD3	1.88	0.41
32:DB:58:A:C5'	32:DB:59:A:OP2	2.68	0.41
44:DS:14:VAL:O	44:DS:15:ARG:C	2.59	0.41
1:AA:622:A:H2'	1:AA:623:C:O4'	2.21	0.41
4:CD:89:THR:O	4:CD:90:GLY:C	2.59	0.41
31:DA:1682:G:C2	31:DA:1683:C:C2	3.08	0.41
50:BY:8:LYS:HE3	50:BY:74:PRO:HD3	2.03	0.41
31:BA:2307:G:N2	31:BA:2308:G:C5'	2.80	0.41
31:BA:2318:G:O2'	31:BA:2319:G:OP1	2.39	0.41
31:BA:1282:U:H2'	31:BA:1283:G:O4'	2.21	0.41
31:DA:1782:C:H2'	31:DA:2608:G:O2'	2.20	0.41
31:DA:1791:A:H3'	31:DA:1792:G:C8	2.52	0.41
31:DA:1824:G:H2'	31:DA:1825:A:H5'	2.02	0.41
31:DA:694:U:H2'	31:DA:695:G:O5'	2.21	0.41
31:DA:1796:U:H4'	33:DD:256:GLY:CA	2.51	0.41
31:BA:1140:C:O3'	39:BN:25:ARG:NH1	2.52	0.41
46:BU:69:CYS:C	46:BU:71:GLN:H	2.22	0.41
31:BA:2031:A:H4'	31:BA:2032:G:C5'	2.51	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:572:A:C2	31:BA:573:G:H1'	2.55	0.41
31:BA:1660:C:N3	31:BA:2001:A:C6	2.88	0.41
31:BA:729:G:H2'	31:BA:1775:U:H1'	2.02	0.41
33:BD:16:MET:CG	33:BD:211:ARG:HH21	2.34	0.41
20:CT:54:LYS:HA	20:CT:57:ARG:CZ	2.51	0.41
47:BV:1:MET:HB3	47:BV:2:PHE:H	1.77	0.41
1:CA:734:G:O2'	18:CR:71:LYS:HD3	2.21	0.41
1:CA:1126:U:OP1	1:CA:1126:U:O4'	2.38	0.41
31:DA:2261:C:H5'	31:DA:2388:A:H4'	2.02	0.41
31:DA:2260:C:H2'	31:DA:2261:C:H6	1.86	0.41
31:DA:2494:G:H2'	31:DA:2495:G:H8	1.84	0.41
31:DA:870:A:OP1	42:DQ:7:MET:CE	2.68	0.41
42:DQ:9:TYR:O	42:DQ:10:ARG:HG3	2.21	0.41
35:BF:102:PRO:O	35:BF:105:VAL:N	2.50	0.41
51:BZ:151:HIS:HB3	51:BZ:169:GLU:C	2.41	0.41
32:BB:17:C:N4	32:BB:109:C:O2	2.49	0.41
1:AA:356:A:N3	1:AA:368:U:O2'	2.47	0.41
1:AA:60:A:OP1	1:AA:111:G:N2	2.54	0.41
31:DA:2830:G:C2'	31:DA:2831:G:H5'	2.50	0.41
3:CC:148:GLY:HA3	3:CC:203:PHE:HB3	2.03	0.41
42:BQ:17:LEU:HD12	42:BQ:39:PRO:HB2	2.02	0.41
42:BQ:17:LEU:HD21	42:BQ:41:TRP:HE1	1.85	0.41
3:AC:116:VAL:CG2	3:AC:202:ILE:HD11	2.39	0.41
1:CA:1075:C:H6	1:CA:1075:C:O5'	2.03	0.41
1:CA:1108:G:H2'	1:CA:1109:C:H5'	2.03	0.41
1:CA:821:G:O2'	1:CA:822:C:H5'	2.21	0.41
31:DA:915:C:C4	31:DA:916:G:C5	3.09	0.41
34:DE:116:VAL:HG21	34:DE:122:PHE:CD2	2.56	0.41
1:CA:559:A:N7	1:CA:561:U:C4	2.89	0.41
31:BA:867:C:C4	31:BA:868:U:C4	3.09	0.41
15:AO:39:LEU:HD23	15:AO:39:LEU:HA	1.68	0.41
1:CA:689:C:H2'	1:CA:690:G:O4'	2.20	0.41
31:DA:1337:G:C5	31:DA:1338:G:N7	2.89	0.41
31:DA:88:G:N2	31:DA:89:G:C4	2.89	0.41
12:CL:27:LEU:O	12:CL:28:LYS:C	2.59	0.41
1:AA:956:U:C2'	1:AA:957:U:H5'	2.50	0.41
31:BA:2844:G:H2'	31:BA:2845:G:O4'	2.20	0.41
31:DA:2762:G:C8	31:DA:2762:G:C5'	3.03	0.41
31:DA:795:C:C2	31:DA:796:C:C5	3.09	0.41
8:AH:112:LEU:HB3	8:AH:133:LEU:CD2	2.51	0.41
1:CA:1003:G:C2'	1:CA:1004:A:H4'	2.39	0.41
31:BA:794:G:H2'	31:BA:795:C:H6	1.86	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1930:G:N2	31:DA:1968:G:H2'	2.36	0.41
1:AA:1067:A:O2'	1:AA:1068:G:OP2	2.38	0.41
45:BT:83:ILE:HG13	45:BT:84:GLN:H	1.86	0.41
13:AM:61:GLU:HA	13:AM:66:LEU:HD11	2.03	0.41
47:DV:43:GLU:CA	47:DV:48:GLY:CA	2.99	0.41
1:AA:1052:U:O4	1:AA:1200:C:C2	2.74	0.41
2:AB:173:ALA:O	2:AB:176:GLU:N	2.54	0.41
31:BA:2472:G:C6	31:BA:2475:C:C2	3.09	0.41
31:BA:2657:A:H5'	31:BA:2658:C:OP2	2.20	0.41
31:BA:149:A:C6	31:BA:150:C:N3	2.89	0.41
31:BA:857:C:N3	31:BA:858:U:C4	2.89	0.41
36:DG:71:THR:HB	36:DG:89:GLY:C	2.41	0.41
31:DA:2464:C:N3	31:DA:2487:G:C2	2.89	0.41
31:BA:2660:A:H5'	31:BA:2661:G:H21	1.81	0.41
10:AJ:7:LYS:HA	10:AJ:71:LEU:HD12	2.02	0.41
1:AA:1288:A:O2'	1:AA:1289:A:H5'	2.20	0.41
18:CR:85:LEU:HD12	18:CR:86:VAL:N	2.34	0.41
15:CO:17:ARG:NH1	15:CO:17:ARG:CG	2.81	0.41
1:AA:1321:C:H6	1:AA:1321:C:OP2	2.04	0.41
36:BG:144:ILE:O	36:BG:144:ILE:HG23	2.20	0.41
3:AC:159:GLY:HA2	3:AC:193:TYR:CD1	2.56	0.41
4:AD:173:TRP:HB2	4:AD:187:ARG:HG2	2.03	0.41
1:AA:568:G:C6	12:AL:5:PRO:HD3	2.55	0.41
31:BA:2065:C:H1'	31:BA:2449:U:O2	2.21	0.41
42:BQ:134:ARG:NH1	51:BZ:119:GLU:CD	2.72	0.41
2:CB:41:ILE:HG22	2:CB:41:ILE:O	2.21	0.41
1:AA:1030(C):G:H2'	1:AA:1030(D):A:O4'	2.20	0.41
1:CA:167:G:H2'	1:CA:168:G:C8	2.55	0.41
6:AF:61:LEU:N	6:AF:61:LEU:HD12	2.34	0.41
1:CA:120:A:C6	1:CA:122:G:C2	3.08	0.41
6:AF:79:LEU:HD12	6:AF:88:VAL:HG11	2.02	0.41
1:AA:397:A:N6	1:AA:548:G:N7	2.69	0.41
6:CF:15:ASP:C	6:CF:17:SER:N	2.74	0.41
31:BA:232:G:N2	31:BA:420:C:H5''	2.35	0.41
35:DF:126:VAL:HG11	35:DF:142:TRP:HH2	1.85	0.41
31:DA:707:G:H2'	31:DA:708:C:O4'	2.20	0.41
2:AB:68:ILE:HD12	2:AB:68:ILE:N	2.36	0.41
31:BA:1842:G:N2	31:BA:1901:A:C4	2.89	0.41
31:DA:2619:C:H2'	31:DA:2620:C:C6	2.55	0.41
45:DT:8:LYS:O	45:DT:11:GLU:HB2	2.20	0.41
17:AQ:100:LYS:HA	17:AQ:100:LYS:HD3	1.86	0.41
35:BF:53:THR:O	35:BF:55:GLY:N	2.53	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CH:13:ILE:O	8:CH:14:ARG:C	2.59	0.41
48:BW:24:ILE:HD12	48:BW:71:VAL:HG11	2.02	0.41
17:CQ:56:VAL:HG12	17:CQ:77:VAL:HB	2.02	0.41
1:AA:693:G:O2'	1:AA:694:A:H5'	2.20	0.41
31:DA:2046:G:C4	31:DA:2047:U:C5	3.09	0.41
25:D3:17:LYS:O	25:D3:18:ASP:C	2.59	0.41
33:DD:31:LYS:NZ	33:DD:31:LYS:HA	2.35	0.41
47:DV:57:VAL:O	47:DV:57:VAL:HG12	2.21	0.41
31:BA:1272:A:H3'	31:BA:1273:U:H5''	2.03	0.41
29:D7:18:PHE:CE2	29:D7:22:MET:HG3	2.55	0.41
1:AA:653:A:N3	1:AA:653:A:H2'	2.36	0.41
20:CT:75:ASN:O	20:CT:78:ALA:HB3	2.21	0.41
7:AG:126:ASP:HB3	7:AG:132:GLY:HA2	2.03	0.41
1:CA:922:G:O4'	5:CE:19:MET:C	2.59	0.41
27:D5:7:PRO:HA	31:DA:2615:U:C6	2.55	0.41
31:DA:2068:U:C2	31:DA:2430:A:C2	3.01	0.41
31:DA:257:A:H2'	31:DA:258:G:O4'	2.21	0.41
31:DA:621:A:H2'	31:DA:622:G:C5'	2.51	0.41
31:DA:667:U:C3'	31:DA:668:G:H5'	2.50	0.41
30:D8:8:LYS:O	30:D8:12:LYS:HB2	2.21	0.41
30:D8:8:LYS:HA	30:D8:8:LYS:HD2	1.97	0.41
31:DA:749:C:H4'	31:DA:1271:G:N3	2.35	0.41
31:DA:2346:A:O4'	31:DA:2383:G:C8	2.74	0.41
41:DP:98:GLU:CA	41:DP:101:VAL:CG1	2.99	0.41
30:D8:25:MET:CB	41:DP:62:LEU:CD2	2.98	0.41
28:B6:30:THR:O	28:B6:31:PRO:O	2.39	0.41
30:B8:6:THR:HB	30:B8:63:PRO:HG3	2.03	0.41
31:BA:1657:C:O2'	31:BA:1658:C:H5'	2.21	0.41
31:BA:199:A:C8	31:BA:2433:A:N6	2.88	0.41
31:BA:510:C:H2'	31:BA:511:U:O4'	2.21	0.41
30:B8:27:THR:CA	41:BP:62:LEU:HD11	2.50	0.41
41:BP:6:LEU:HD21	41:BP:9:ASN:O	2.20	0.41
23:B1:32:LYS:HG2	31:BA:2396:G:HO2'	1.85	0.41
31:BA:2406:U:O5'	31:BA:2406:U:H2'	2.21	0.41
31:BA:2592:G:C5	31:BA:2593:U:C5	3.09	0.41
31:BA:660:G:C6	31:BA:661:C:C4	3.09	0.41
35:BF:64:ILE:HG13	35:BF:65:TRP:CD2	2.56	0.41
33:BD:64:ILE:CG1	33:BD:64:ILE:O	2.68	0.41
32:BB:116:G:C2	32:BB:117:G:N7	2.89	0.41
44:BS:66:ALA:C	44:BS:69:VAL:CG1	2.88	0.41
31:DA:1711:C:H2'	31:DA:1712:C:C6	2.56	0.41
31:BA:2645:G:H3'	31:BA:2646:C:H5'	2.02	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:72:U:C4	31:DA:112:U:H4'	2.56	0.41
31:DA:1397:U:HO2'	31:DA:1398:C:P	2.44	0.41
31:DA:1405:U:N3	31:DA:1406:U:C4	2.89	0.41
24:D2:54:LYS:CA	24:D2:56:GLN:H	2.34	0.41
31:DA:1408:C:C2	31:DA:1595:G:C2	3.09	0.41
31:DA:1526:G:O6	31:DA:1527:G:C2	2.74	0.41
49:DX:60:ARG:HD3	49:DX:60:ARG:N	2.28	0.41
31:DA:1021:A:O2'	31:DA:1123:C:H5''	2.20	0.41
39:DN:62:VAL:CG2	39:DN:66:LYS:HG3	2.51	0.41
47:DV:1:MET:HB3	47:DV:2:PHE:H	1.74	0.41
31:BA:2758:A:C2'	31:BA:2759:G:H5'	2.50	0.41
31:DA:1142(A):A:C8	31:DA:1144:G:C5	3.09	0.41
41:DP:27:HIS:CD2	41:DP:27:HIS:C	2.94	0.41
46:DU:82:GLY:O	46:DU:86:ALA:HB2	2.21	0.41
47:DV:15:GLU:CB	47:DV:16:PRO:HD2	2.49	0.41
31:BA:2747:G:C6	31:BA:2754:U:C5	3.09	0.41
49:BX:35:THR:HB	49:BX:75:ASP:CG	2.38	0.41
49:BX:7:VAL:HG11	49:BX:39:ILE:HB	2.03	0.41
31:BA:1403:C:C2'	31:BA:1404:C:O5'	2.69	0.41
31:BA:71:A:H4'	31:BA:72:U:C5'	2.51	0.41
31:BA:72:U:C4	31:BA:112:U:H4'	2.56	0.41
31:BA:1902:C:O2'	33:BD:244:ARG:CB	2.55	0.41
31:BA:1741:A:H2'	31:BA:1742:G:C4	2.54	0.41
31:BA:1742:G:N7	31:BA:1743:C:N3	2.69	0.41
31:DA:2333:A:H2'	31:DA:2334:G:OP2	2.21	0.41
32:DB:6:C:O2'	44:DS:29:PHE:CE1	2.54	0.41
16:AP:6:LEU:HB3	16:AP:17:TYR:HD2	1.86	0.41
32:DB:49:C:H2'	32:DB:50:G:H8	1.86	0.41
44:DS:106:ARG:O	44:DS:107:GLU:HB2	2.21	0.41
44:DS:53:SER:O	44:DS:56:LEU:N	2.54	0.41
44:DS:58:LEU:HD21	44:DS:68:GLN:OE1	2.21	0.41
1:AA:618:C:H3'	1:AA:619:U:C5'	2.50	0.41
1:CA:51:A:C2	1:CA:116:A:N3	2.89	0.41
1:CA:515:G:C4	1:CA:537:G:N2	2.88	0.41
1:CA:625:G:C5	1:CA:626:U:C5	3.09	0.41
4:CD:106:TYR:CE1	4:CD:113:SER:CA	3.03	0.41
16:CP:6:LEU:HB3	16:CP:17:TYR:HD2	1.84	0.41
1:CA:1433:A:C4	1:CA:1468:A:C2	3.08	0.41
1:CA:513:C:H2'	1:CA:513:C:O2	2.20	0.41
4:CD:119:GLN:CG	4:CD:123:HIS:HD2	2.21	0.41
4:CD:79:PHE:CE2	4:CD:83:SER:OG	2.74	0.41
1:AA:445:G:C6	1:AA:490:G:C6	3.09	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1568:G:OP2	33:DD:63:ARG:NH2	2.54	0.41
31:DA:729:G:P	33:DD:208:LYS:NZ	2.94	0.41
31:DA:778:G:H2'	31:DA:779:U:O4'	2.21	0.41
25:B3:8:LEU:HD22	25:B3:9:VAL:N	2.36	0.41
31:BA:1005:C:OP2	31:BA:1011:G:H2'	2.21	0.41
31:BA:1019:U:OP1	31:BA:1035:U:O2'	2.19	0.41
23:D1:66:HIS:O	23:D1:67:ILE:C	2.59	0.41
23:D1:88:LYS:O	23:D1:92:LYS:N	2.54	0.41
31:DA:2652:C:C2'	31:DA:2653:U:C5'	2.91	0.41
31:BA:573:G:H1	31:BA:2030:A:H3'	1.82	0.41
31:BA:2050:C:H1'	34:BE:156:MET:HE1	2.03	0.41
31:BA:691:C:H4'	33:BD:43:ARG:HG2	2.02	0.41
1:CA:189(L):G:C6	1:CA:190:U:O4	2.74	0.41
20:CT:48:LYS:O	20:CT:49:ALA:HB2	2.21	0.41
47:BV:15:GLU:OE1	47:BV:16:PRO:HD2	2.20	0.41
47:BV:25:LEU:C	47:BV:27:ALA:N	2.73	0.41
47:BV:94:LEU:C	47:BV:94:LEU:HD23	2.41	0.41
46:BU:101:ARG:O	46:BU:102:GLU:O	2.39	0.41
31:BA:329:G:OP2	50:BY:71:LYS:CE	2.68	0.41
7:CG:108:ALA:O	7:CG:111:ARG:HB2	2.21	0.41
31:DA:2304:G:H22	31:DA:2312:U:H3	1.69	0.41
35:DF:24:LEU:CB	35:DF:25:PRO:HD2	2.25	0.41
50:DY:26:LYS:O	50:DY:27:VAL:C	2.58	0.41
50:DY:9:LYS:O	50:DY:28:LYS:HE3	2.20	0.41
50:DY:11:ASP:OD1	50:DY:11:ASP:C	2.59	0.41
31:DA:1485:G:C2'	31:DA:1486:A:H5'	2.51	0.41
31:BA:1510:G:H2'	31:BA:1510:G:N3	2.36	0.41
31:BA:1510:G:C4	31:BA:1511:C:C5	3.08	0.41
31:BA:1212:G:N2	31:BA:1236:G:O2'	2.46	0.41
31:BA:316:C:H2'	31:BA:317:G:O5'	2.21	0.41
1:CA:1277:C:C3'	1:CA:1278:U:H5'	2.50	0.41
51:DZ:56:VAL:O	51:DZ:57:ILE:HD13	2.20	0.41
10:AJ:5:ARG:HG3	10:AJ:73:ASP:OD1	2.20	0.41
31:BA:1278:A:H2'	31:BA:1279:G:H8	1.86	0.41
43:BR:22:ARG:O	43:BR:24:GLN:N	2.54	0.41
32:DB:73:A:N1	51:DZ:34:ASN:ND2	2.68	0.41
32:BB:73:A:C8	32:BB:104:U:O4	2.74	0.41
32:BB:74:U:C3'	32:BB:75:G:C5'	2.98	0.41
31:BA:1779:U:H5	31:BA:1784:A:C8	2.29	0.41
27:B5:16:ARG:NH1	27:B5:17:ASP:CG	2.73	0.41
34:DE:7:VAL:HG12	34:DE:51:PHE:CE1	2.56	0.41
34:DE:52:LEU:HD22	34:DE:76:ARG:HD2	2.01	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DR:97:VAL:HA	43:DR:113:LEU:O	2.21	0.41
50:BY:46:LYS:HB2	50:BY:47:LYS:H	1.56	0.41
48:BW:74:ALA:HA	48:BW:104:THR:O	2.21	0.41
33:BD:71:ASP:CG	33:BD:103:ARG:HH22	2.23	0.41
1:AA:716:A:C2'	1:AA:717:C:O5'	2.69	0.41
27:B5:47:PRO:C	27:B5:48:GLU:HG3	2.41	0.41
32:BB:13:A:N6	32:BB:70:C:H5'	2.35	0.41
12:AL:113:ARG:HG3	12:AL:114:LYS:H	1.84	0.41
1:AA:430:A:H2'	1:AA:431:A:C5'	2.32	0.41
34:DE:95:ILE:HG22	34:DE:96:PHE:CD1	2.56	0.41
1:CA:445:G:C6	1:CA:490:G:N1	2.89	0.41
1:AA:1430:C:C2	1:AA:1471:G:C2	3.08	0.41
1:AA:51:A:H4'	1:AA:52:G:C5'	2.51	0.41
33:DD:70:TRP:CZ3	33:DD:146:GLU:OE2	2.71	0.41
1:AA:1420:C:H6	1:AA:1420:C:O5'	2.03	0.41
27:D5:55:ARG:HD3	27:D5:55:ARG:HA	1.84	0.41
31:DA:2818:G:H1'	31:DA:2836:U:O2'	2.21	0.41
50:BY:88:LYS:HB3	50:BY:90:LEU:HG	2.01	0.41
42:BQ:42:ILE:HD11	42:BQ:127:ILE:HD11	2.03	0.41
3:AC:182:ILE:HG12	3:AC:203:PHE:CD1	2.56	0.41
31:BA:1678:G:H21	31:BA:1989:G:N2	2.14	0.41
1:CA:1065:U:H4'	1:CA:1066:C:O5'	2.21	0.41
31:BA:2282:G:H2'	31:BA:2282:G:H8	1.75	0.41
34:BE:36:ARG:NH1	34:BE:85:ASN:ND2	2.69	0.41
28:B6:44:ARG:HB3	28:B6:45:LYS:H	1.57	0.41
28:B6:18:ARG:N	28:B6:18:ARG:HD3	2.34	0.41
32:DB:81:G:O6	32:DB:96:U:O2	2.38	0.41
31:BA:2679:A:H2'	31:BA:2680:C:O4'	2.21	0.41
34:DE:122:PHE:CD1	34:DE:122:PHE:N	2.88	0.41
31:DA:1587:A:H2'	31:DA:1588:C:O4'	2.21	0.41
1:CA:565:U:C5	1:CA:566:G:C8	3.09	0.41
34:BE:96:PHE:O	34:BE:175:VAL:HG11	2.21	0.41
1:AA:565:U:C5	1:AA:566:G:C8	3.09	0.41
12:AL:27:LEU:O	12:AL:28:LYS:C	2.59	0.41
31:BA:1417:C:H2'	31:BA:1418:G:H5'	2.02	0.41
50:DY:75:ILE:HD13	50:DY:76:CYS:H	1.83	0.41
31:BA:904:C:C6	31:BA:904:C:C5'	3.03	0.41
11:CK:120:ARG:HA	11:CK:121:PRO:HD3	1.86	0.41
31:DA:479:A:C2	31:DA:480:A:C5	3.09	0.41
1:CA:1052:U:O4	1:CA:1200:C:C2	2.74	0.41
10:CJ:49:VAL:HG11	14:CN:41:ARG:O	2.20	0.41
31:DA:1337:G:H2'	31:DA:1338:G:C8	2.51	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CL:60:LEU:HD23	12:CL:64:TYR:HB3	2.03	0.41
24:B2:14:ARG:HG2	24:B2:15:LYS:N	2.33	0.41
24:B2:57:ILE:HG13	24:B2:57:ILE:O	2.19	0.41
31:DA:2541:A:H4'	31:DA:2764:A:N1	2.36	0.41
31:DA:2467:C:O2'	31:DA:2468:G:H5'	2.21	0.41
1:CA:1475:G:H4'	31:DA:1689:A:C4'	2.47	0.41
11:AK:32:ILE:HD11	11:AK:68:ALA:CB	2.45	0.41
48:DW:17:VAL:O	48:DW:18:ARG:C	2.58	0.41
48:BW:12:ILE:HG23	48:BW:17:VAL:CG2	2.50	0.41
31:DA:1973:G:O2'	31:DA:1974:C:H5'	2.21	0.41
40:DO:104:ARG:C	40:DO:106:LEU:N	2.73	0.41
40:DO:106:LEU:HD23	40:DO:106:LEU:HA	1.37	0.41
45:DT:28:VAL:HG21	45:DT:46:GLU:HG3	2.03	0.41
1:CA:257:G:C4	1:CA:258:G:C8	3.09	0.41
1:CA:265:G:O2'	17:CQ:67:LYS:N	2.54	0.41
1:CA:266:G:H8	1:CA:266:G:H2'	1.74	0.41
1:AA:1067:A:H1'	1:AA:1068:G:O4'	2.20	0.41
31:DA:1558:A:H4'	31:DA:1559:G:O5'	2.20	0.41
35:BF:126:VAL:HG13	35:BF:193:VAL:CG1	2.50	0.41
35:BF:178:PRO:HB3	35:BF:198:ALA:CB	2.50	0.41
1:AA:68:G:C2	1:AA:69:G:C4	3.09	0.41
9:AI:116:LYS:C	9:AI:118:LYS:N	2.73	0.41
1:AA:1387:G:C6	1:AA:1388:C:N4	2.89	0.41
1:CA:1405:G:O2'	1:CA:1406:U:H5'	2.21	0.41
37:BH:105:LEU:HD13	37:BH:105:LEU:N	2.36	0.41
31:BA:856:C:O2'	31:BA:857:C:OP1	2.35	0.41
40:DO:2:ILE:HG23	40:DO:6:THR:HB	2.03	0.41
1:CA:1352:C:N3	1:CA:1371:G:C6	2.89	0.41
41:DP:147:LEU:HB2	41:DP:148:LEU:H	1.49	0.41
12:AL:83:VAL:HG13	12:AL:100:ILE:HG23	2.03	0.41
31:DA:2026:C:O2	31:DA:2026:C:H2'	2.20	0.41
38:DI:31:LEU:HD21	38:DI:38:LEU:HG	2.03	0.41
38:DI:3:VAL:HG12	38:DI:38:LEU:CA	2.43	0.41
17:CQ:31:LEU:O	17:CQ:31:LEU:HD12	2.21	0.41
1:AA:142:G:N3	1:AA:143:A:C8	2.89	0.41
31:BA:2343:C:H4'	31:BA:2373:G:O3'	2.21	0.41
31:BA:1531:C:C3'	31:BA:1532:C:H5'	2.49	0.41
24:D2:34:GLU:O	24:D2:34:GLU:CG	2.68	0.41
35:DF:135:LYS:O	35:DF:138:GLU:HB2	2.21	0.41
31:BA:543:C:N4	31:BA:551:G:N1	2.69	0.41
31:DA:7:G:H1	31:DA:2896:C:H42	1.67	0.41
31:BA:1694:C:O2	31:BA:1694:C:C2'	2.69	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1695:G:C8	33:BD:8:PRO:HG2	2.56	0.41
36:BG:135:LEU:HD12	36:BG:135:LEU:N	2.36	0.41
36:BG:62:LEU:O	36:BG:143:GLU:HB2	2.21	0.41
22:B0:20:ARG:HE	31:BA:2271:G:H5''	1.81	0.41
1:CA:142:G:N2	1:CA:143:A:C8	2.89	0.41
1:AA:978:A:C5'	1:AA:979:C:OP2	2.68	0.41
31:BA:1876:A:C2	31:BA:1877:A:C5	3.09	0.41
2:CB:17:PHE:O	2:CB:18:GLY:O	2.39	0.41
2:CB:32:ILE:HD11	2:CB:34:ALA:O	2.21	0.41
31:DA:2550:G:C6	31:DA:2551:C:C4	3.08	0.41
1:CA:774:G:C2	1:CA:775:G:N9	2.89	0.41
31:DA:2019:A:C4'	46:DU:34:LYS:HD2	2.51	0.41
31:BA:1962:C:OP2	31:BA:1962:C:H6	2.04	0.41
1:AA:1058:G:C2	1:AA:1059:C:C2	3.09	0.41
31:DA:1420:U:H6	31:DA:1420:U:H2'	1.49	0.41
31:BA:2023:G:C2	31:BA:2024:G:C8	3.09	0.41
1:AA:950:U:H5''	13:AM:102:ARG:HH22	1.85	0.41
31:BA:2776:A:H4'	31:BA:2777:G:O5'	2.21	0.41
31:BA:2778:A:H8	31:BA:2778:A:H5''	1.85	0.41
9:AI:83:ARG:O	9:AI:86:VAL:HG12	2.21	0.41
12:AL:93:LEU:O	12:AL:94:PRO:C	2.59	0.41
42:DQ:17:LEU:CD2	42:DQ:17:LEU:N	2.80	0.41
2:AB:239:VAL:CG1	2:AB:239:VAL:O	2.67	0.41
16:CP:45:THR:HG23	16:CP:46:PRO:CD	2.51	0.41
46:DU:80:ILE:HG22	46:DU:81:HIS:N	2.35	0.41
31:BA:601:C:H2'	31:BA:602:G:O4'	2.20	0.41
31:BA:921:G:C6	31:BA:922:U:C4	3.08	0.41
31:DA:2422:A:H4'	31:DA:2423:U:OP1	2.21	0.41
31:DA:921:G:C5	31:DA:922:U:C4	3.09	0.41
31:DA:836:G:C5	31:DA:837:C:N4	2.89	0.41
6:CF:3:ARG:NH1	6:CF:38:GLU:OE1	2.53	0.41
1:CA:832:C:N3	1:CA:855:G:C2	2.89	0.41
31:BA:2689:U:H4'	31:BA:2690:C:OP2	2.20	0.41
1:AA:37:U:C2'	1:AA:38:G:H5'	2.51	0.41
1:AA:397:A:N3	1:AA:397:A:H3'	2.35	0.41
38:BI:5:LEU:HD21	38:BI:19:VAL:CG1	2.50	0.41
31:BA:1704:G:O2'	31:BA:1705:G:H5'	2.21	0.41
1:CA:150:C:C5	1:CA:170:U:C4	3.09	0.41
1:CA:1311:G:H2'	1:CA:1312:G:O4'	2.21	0.41
31:BA:1635:G:O2'	31:BA:1636:C:H5'	2.21	0.41
19:AS:42:PRO:O	19:AS:43:GLU:CB	2.66	0.41
25:B3:22:ALA:O	25:B3:26:LEU:HG	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:189:G:N1	1:AA:189(L):G:C2	2.88	0.41
6:CF:70:ASP:OD1	6:CF:70:ASP:N	2.53	0.41
31:DA:628:G:H2'	31:DA:629:G:C8	2.55	0.41
31:BA:336:C:H2'	31:BA:337:C:H6	1.86	0.41
51:BZ:60:GLU:HA	51:BZ:65:GLN:O	2.21	0.41
31:BA:2826:A:C6	31:BA:2827:C:C4	3.09	0.41
3:CC:11:ARG:O	3:CC:14:ILE:N	2.54	0.41
31:DA:384:U:C6	31:DA:385:C:C5	3.09	0.41
31:DA:1366:A:C6	31:DA:1367:A:C4	3.07	0.41
31:DA:2452:C:N4	31:DA:2453:A:C6	2.89	0.41
14:AN:51:GLY:C	14:AN:53:LEU:N	2.73	0.41
34:BE:159:HIS:CE1	34:BE:162:ALA:HB3	2.55	0.41
13:CM:37:THR:HG22	13:CM:59:TYR:CB	2.50	0.41
8:CH:113:SER:H	8:CH:134:ILE:HG12	1.86	0.41
31:BA:181:A:H1'	31:BA:435:C:H5'	2.02	0.41
2:CB:87:ARG:HH21	2:CB:233:SER:HB3	1.84	0.41
33:BD:127:VAL:HA	33:BD:193:VAL:HG12	2.03	0.41
40:DO:20:MET:HE3	40:DO:44:LYS:CE	2.50	0.41
5:CE:146:ALA:C	5:CE:148:VAL:H	2.24	0.41
5:CE:146:ALA:O	5:CE:148:VAL:N	2.54	0.41
31:BA:2321:G:N3	31:BA:2321:G:H2'	2.36	0.41
31:DA:554:U:O2'	31:DA:555:U:H5'	2.20	0.41
31:BA:1227:G:H5''	46:BU:16:LYS:NZ	2.35	0.41
13:AM:68:GLY:H	13:AM:71:ARG:CB	2.34	0.41
12:AL:21:LYS:HD2	12:AL:21:LYS:N	2.36	0.41
25:D3:14:GLY:O	31:DA:969:U:H4'	2.21	0.41
17:CQ:3:LYS:O	17:CQ:4:LYS:C	2.59	0.41
31:BA:2783:G:H2'	31:BA:2784:C:C6	2.55	0.41
1:AA:644:G:O2'	1:AA:645:C:H5'	2.21	0.41
5:AE:80:ILE:CD1	5:AE:138:ALA:HB1	2.51	0.41
32:DB:9:G:C2	32:DB:113:G:C5	3.09	0.41
31:BA:1907:G:O2'	31:BA:1908:C:H5'	2.21	0.41
11:AK:74:ALA:C	11:AK:76:GLY:H	2.23	0.41
29:D7:18:PHE:CD2	29:D7:18:PHE:C	2.93	0.41
43:BR:35:THR:HA	43:BR:112:ALA:O	2.21	0.41
31:DA:730:C:OP2	31:DA:731:C:OP2	2.39	0.41
31:BA:2083:G:C6	31:BA:2084:C:C4	3.08	0.41
24:B2:60:LEU:O	24:B2:61:LEU:HB2	2.21	0.41
2:CB:9:GLU:O	2:CB:13:ALA:HB3	2.21	0.41
7:AG:26:PHE:O	7:AG:30:ILE:HG12	2.20	0.41
33:BD:6:PHE:CD1	33:BD:6:PHE:N	2.86	0.41
48:DW:23:LEU:HA	48:DW:23:LEU:HD12	1.61	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BU:22:LYS:HD3	46:BU:22:LYS:HA	1.66	0.41
31:DA:1942:C:C4	31:DA:1943:U:C4	3.09	0.41
42:BQ:25:ASP:HB3	42:BQ:102:VAL:HG23	2.02	0.41
3:AC:17:ASP:O	3:AC:18:TRP:C	2.59	0.41
31:DA:1817:G:C6	31:DA:1818:U:C4	3.08	0.41
7:CG:136:LYS:O	7:CG:140:ASP:HB2	2.21	0.41
15:AO:5:LYS:H	15:AO:5:LYS:HG3	1.56	0.41
39:DN:117:PHE:C	39:DN:117:PHE:CD2	2.94	0.41
1:CA:15:G:N2	1:CA:922:G:C6	2.89	0.41
30:D8:58:ILE:O	30:D8:61:LEU:CG	2.64	0.41
31:DA:449:A:H2'	31:DA:450:G:O5'	2.20	0.41
31:DA:449:A:C5	31:DA:450:G:C8	3.08	0.41
31:DA:28:A:H61	31:DA:512:G:H1'	1.84	0.41
31:DA:660:G:C6	31:DA:661:C:C4	3.09	0.41
31:DA:806:C:OP2	41:DP:39:LYS:HG3	2.21	0.41
41:DP:110:TYR:CE2	41:DP:111:ARG:CD	3.04	0.41
30:B8:32:LEU:HD23	30:B8:35:GLN:C	2.41	0.41
31:BA:448:U:C3'	31:BA:449:A:C5'	2.96	0.41
31:BA:563:G:H1	31:BA:578:A:N6	2.18	0.41
32:BB:53:A:C5	32:BB:54:G:C8	3.09	0.41
24:D2:32:LEU:HD12	24:D2:33:MET:O	2.20	0.41
31:DA:143:G:H2'	31:DA:143(A):C:H6	1.85	0.41
31:BA:627:A:N1	31:BA:636:G:O2'	2.45	0.41
41:BP:131:SER:HB2	41:BP:133:SER:H	1.86	0.41
31:DA:533:G:H5'	46:DU:24:TYR:CE2	2.56	0.41
31:DA:536:A:H2'	31:DA:537:C:H6	1.83	0.41
24:B2:32:LEU:HA	24:B2:37:PHE:CB	2.51	0.41
24:B2:49:LYS:O	24:B2:53:LEU:O	2.38	0.41
31:BA:1526:G:O6	31:BA:1527:G:C2	2.73	0.41
31:BA:58:G:H1	31:BA:69:C:N4	2.15	0.41
49:BX:25:LYS:HB2	49:BX:81:VAL:HB	2.03	0.41
34:BE:37:ARG:HD2	34:BE:80:GLU:OE2	2.20	0.41
31:BA:1827:C:C2'	31:BA:1828:G:H5'	2.51	0.41
1:CA:498:U:C2'	1:CA:499:A:O5'	2.69	0.41
4:CD:38:TYR:HD2	4:CD:45:GLN:HB3	1.85	0.41
38:DI:88:ILE:HG21	38:DI:88:ILE:HD12	1.76	0.41
31:DA:1794:U:H2'	31:DA:1795:C:C6	2.56	0.41
37:DH:85:LYS:CE	37:DH:141:VAL:O	2.69	0.41
39:BN:37:LYS:CD	46:BU:63:VAL:HG13	2.51	0.41
31:DA:2663:G:N7	31:DA:2664:G:C5	2.88	0.41
34:DE:34:VAL:HG23	34:DE:34:VAL:O	2.20	0.41
31:BA:2006:C:C2	31:BA:2007:C:C5	3.09	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:764:A:C5	31:BA:781:A:N1	2.89	0.41
20:CT:50:GLU:HA	20:CT:100:ILE:HB	2.02	0.41
47:BV:19:LYS:HG3	47:BV:20:LEU:O	2.21	0.41
47:BV:89:GLN:HE21	47:BV:89:GLN:HB2	1.56	0.41
7:CG:108:ALA:HB1	7:CG:120:ILE:HD13	2.03	0.41
23:B1:94:LEU:O	23:B1:95:LEU:CG	2.63	0.41
1:CA:674:G:H21	11:CK:116:HIS:HB2	1.86	0.41
31:BA:330:A:O2'	31:BA:331:A:C8	2.73	0.41
31:BA:477:A:H2'	31:BA:478:A:C8	2.56	0.41
1:CA:73:G:N1	1:CA:97:G:N1	2.69	0.41
1:AA:716:A:O5'	1:AA:716:A:H8	2.04	0.41
31:DA:2801(A):A:C3'	31:DA:2802:G:H5'	2.50	0.41
23:D1:47:GLN:HG2	31:DA:2230:G:H1'	2.02	0.41
1:AA:134:A:N6	16:AP:25:ARG:NH1	2.52	0.41
1:AA:1418:A:C2	31:BA:1948:G:C2	3.09	0.41
3:CC:182:ILE:CG1	3:CC:203:PHE:HA	2.36	0.41
42:BQ:88:GLY:C	42:BQ:89:ASN:CG	2.79	0.41
34:BE:52:LEU:O	34:BE:53:PRO:O	2.39	0.41
31:DA:2726:U:HO2'	31:DA:2727:G:C5'	2.34	0.41
31:BA:946:G:O2'	31:BA:947:G:H5'	2.21	0.41
1:AA:1074:G:C4	1:AA:1102:A:C2	3.09	0.41
1:AA:865:A:H2	1:AA:918:A:C4'	2.31	0.41
32:DB:95:C:C2	32:DB:96:U:C5	3.09	0.41
31:DA:2680:C:H4'	34:DE:188:VAL:O	2.21	0.41
31:DA:1693:U:OP2	31:DA:1694:C:H5	2.04	0.41
1:AA:1527:C:O5'	1:AA:1527:C:H6	2.04	0.41
1:AA:577:G:C8	1:AA:816:A:N1	2.89	0.41
1:AA:577:G:H1'	1:AA:816:A:N3	2.36	0.41
1:AA:921:U:C2	1:AA:922:G:N7	2.87	0.41
1:AA:927:G:H1	1:AA:1390:U:H3	1.68	0.41
31:BA:1170:G:OP2	31:BA:1170:G:C8	2.74	0.41
31:DA:1677:A:H2'	31:DA:1678:G:O5'	2.20	0.41
31:DA:2538:C:H2'	31:DA:2539:C:H6	1.84	0.41
31:DA:2762:G:H8	31:DA:2762:G:C5'	2.34	0.41
31:DA:2575:C:O5'	31:DA:2575:C:H6	2.04	0.41
5:CE:41:VAL:HG13	5:CE:113:ALA:HA	2.03	0.41
31:DA:2870:C:C5	31:DA:2871:C:C5	3.09	0.41
40:DO:115:VAL:HG12	40:DO:116:SER:N	2.36	0.41
40:BO:48:PRO:HB2	40:BO:49:ARG:CD	2.44	0.41
1:AA:271:C:H2'	1:AA:272:C:C6	2.53	0.41
1:CA:1405:G:H1'	1:CA:1518:A:O2'	2.21	0.41
31:BA:2222:G:O2'	33:BD:148:GLU:HG2	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BH:152:ARG:HB2	37:BH:162:ILE:HG12	2.02	0.41
8:CH:36:LEU:O	8:CH:38:ILE:N	2.49	0.41
8:CH:9:MET:HG2	8:CH:10:LEU:CD2	2.50	0.41
1:AA:552:U:H4'	12:AL:86:ARG:CG	2.51	0.41
1:AA:1320:C:H5'	19:AS:70:LYS:HG2	2.02	0.41
31:DA:540:C:H2'	31:DA:541:C:C6	2.56	0.41
1:AA:993:G:N3	1:AA:993:G:H2'	2.36	0.41
1:CA:219:C:H6	1:CA:219:C:H3'	1.86	0.41
31:BA:1694:C:O2'	31:BA:1695:G:C5	2.74	0.41
1:CA:592:G:N2	1:CA:648:A:C4	2.89	0.41
1:AA:949:A:C2	1:AA:1233:G:N3	2.89	0.41
42:BQ:32:TYR:HE2	42:BQ:133:ARG:HG2	1.83	0.41
31:BA:892:G:N7	31:BA:893:C:C4	2.89	0.41
40:DO:49:ARG:CD	40:DO:49:ARG:N	2.84	0.41
6:AF:39:LYS:O	6:AF:40:VAL:CB	2.66	0.41
1:CA:1030(C):G:H2'	1:CA:1030(D):A:O4'	2.21	0.41
31:DA:884:C:C6	31:DA:884:C:H3'	2.56	0.41
1:AA:244:U:O4	1:AA:906:G:H1'	2.21	0.41
31:BA:1996:C:P	40:BO:31:LYS:HZ1	2.44	0.41
46:BU:17:ILE:HD13	46:BU:17:ILE:HA	1.86	0.41
1:AA:599:C:O2	1:AA:640:A:C2	2.74	0.41
5:AE:71:LEU:O	5:AE:72:GLN:CG	2.69	0.41
31:BA:2399:G:C6	31:BA:2400:G:C5	3.09	0.41
31:DA:1563:G:C4	31:DA:1564:C:C6	3.09	0.41
31:BA:836:G:H2'	31:BA:837:C:H6	1.80	0.41
31:BA:1851:U:H2'	31:BA:1852:C:O4'	2.20	0.41
31:DA:1553:A:C6	31:DA:1555:G:C4	3.08	0.41
31:DA:1369:G:H2'	31:DA:1370:C:O4'	2.21	0.41
1:CA:1160:G:N1	1:CA:1161:C:C5	2.89	0.41
31:BA:1441:G:N3	31:BA:1442:G:C8	2.89	0.41
48:BW:107:LEU:HA	48:BW:107:LEU:HD12	1.61	0.41
31:BA:2607:G:C6	31:BA:2608:G:C6	3.09	0.41
2:AB:221:LEU:HA	2:AB:221:LEU:HD22	1.80	0.41
31:DA:489:G:C5	31:DA:1284:A:C2	3.09	0.41
31:DA:1632:A:C6	31:DA:1633:G:N1	2.89	0.41
17:AQ:87:LYS:HA	17:AQ:87:LYS:HE2	2.03	0.41
48:BW:2:GLU:OE1	48:BW:72:LYS:NZ	2.51	0.41
31:DA:1400:G:H2'	31:DA:1401:G:C8	2.55	0.41
40:BO:26:LYS:HB3	40:BO:27:GLY:H	1.75	0.41
31:DA:1260:G:C6	31:DA:1261:C:C4	3.09	0.41
31:DA:1260:G:H2'	31:DA:1261:C:O4'	2.20	0.41
31:DA:1926:U:C2	31:DA:1929:G:C2	3.09	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:47:C:H6	31:BA:47:C:O5'	2.04	0.41
1:AA:909:A:C8	1:AA:910:C:C5	3.09	0.41
7:CG:40:ALA:O	7:CG:44:TYR:HD1	2.04	0.41
31:BA:1363:C:H2'	31:BA:1364:G:H8	1.86	0.41
31:BA:939:G:C5	31:BA:940:G:N7	2.89	0.41
31:DA:939:G:C6	31:DA:940:G:C5	3.09	0.41
38:DI:79:ILE:HA	38:DI:79:ILE:HD13	1.81	0.41
31:BA:689:A:H2'	31:BA:690:G:C8	2.55	0.41
6:CF:98:LEU:HD13	6:CF:101:ALA:HA	2.01	0.41
37:DH:99:VAL:HG12	37:DH:99:VAL:O	2.20	0.41
10:CJ:14:LYS:HB2	10:CJ:14:LYS:HE3	1.88	0.41
10:AJ:98:ILE:N	10:AJ:98:ILE:HD12	2.36	0.41
15:CO:29:VAL:HG11	15:CO:81:LEU:HD21	2.03	0.41
6:AF:73:ASN:O	6:AF:76:ALA:HB3	2.21	0.41
31:BA:262:A:H2'	31:BA:263:C:O4'	2.21	0.41
1:CA:926:G:N1	1:CA:1505:G:C5	2.88	0.40
28:D6:27:LYS:O	28:D6:29:ASN:N	2.54	0.40
28:D6:9:LEU:HD13	28:D6:11:LEU:HD22	2.03	0.40
30:D8:12:LYS:HG2	41:DP:68:GLN:CD	2.42	0.40
31:DA:1245:G:OP1	41:DP:16:ARG:CD	2.65	0.40
31:DA:191:A:H2'	31:DA:192:C:C6	2.56	0.40
28:D6:27:LYS:HG3	31:DA:2285:C:OP2	2.21	0.40
31:DA:580:C:C2	31:DA:581:C:C5	3.09	0.40
31:DA:648:G:H2'	31:DA:649:G:H5'	2.03	0.40
35:DF:42:ALA:O	35:DF:43:LYS:C	2.60	0.40
41:DP:61:ARG:N	41:DP:61:ARG:CD	2.75	0.40
31:DA:751:A:C5'	48:DW:90:ARG:HA	2.42	0.40
30:B8:29:LYS:HZ1	30:B8:44:LYS:HB3	1.86	0.40
31:BA:389:G:C2	41:BP:71:VAL:HG12	2.55	0.40
31:BA:694:U:H2'	31:BA:695:G:O5'	2.21	0.40
32:BB:31:C:H4'	36:BG:29:TRP:HH2	1.86	0.40
49:DX:77:LYS:CD	49:DX:78:LYS:HG3	2.51	0.40
41:BP:93:GLY:O	41:BP:123:LEU:HB2	2.21	0.40
31:DA:987:G:O2'	31:DA:1000:A:N3	2.43	0.40
31:BA:2750:A:H4'	31:BA:2751:G:OP2	2.20	0.40
24:B2:45:SER:HB3	24:B2:48:HIS:CB	2.50	0.40
24:B2:55:ARG:HH22	49:BX:3:THR:HG22	1.81	0.40
49:BX:36:LYS:NZ	49:BX:39:ILE:CA	2.81	0.40
31:DA:1826:G:H2'	31:DA:1827:C:O4'	2.20	0.40
31:BA:1826:G:H2'	31:BA:1827:C:O4'	2.21	0.40
1:CA:113:G:C4	1:CA:114:U:C5	3.09	0.40
1:CA:514:C:O2'	1:CA:515:G:H5'	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:617:G:C2	1:CA:618:C:C5	3.09	0.40
31:DA:1793:C:H2'	31:DA:1794:U:H6	1.85	0.40
31:DA:781:A:C2'	31:DA:782:A:OP2	2.69	0.40
1:AA:190:U:O2'	1:AA:191:G:H5'	2.21	0.40
31:BA:14:A:N1	31:BA:526:A:C2	2.89	0.40
31:DA:2790:A:O2'	31:DA:2893:G:C2	2.73	0.40
31:DA:2632:A:N3	34:DE:61:ARG:CD	2.85	0.40
31:BA:846:C:H4'	31:BA:847:U:O5'	2.21	0.40
47:BV:19:LYS:HZ1	47:BV:20:LEU:HB2	1.87	0.40
47:BV:73:SER:HB2	47:BV:75:PHE:CZ	2.56	0.40
47:BV:69:LYS:CB	47:BV:93:GLU:OE2	2.58	0.40
31:DA:2304:G:N2	31:DA:2312:U:H3	2.18	0.40
35:DF:5:ALA:HB2	35:DF:24:LEU:HD11	2.03	0.40
31:BA:402:A:C2'	31:BA:403:U:H5'	2.51	0.40
31:BA:1479:G:C2'	31:BA:1480:G:O5'	2.69	0.40
10:AJ:3:LYS:N	10:AJ:74:ILE:O	2.54	0.40
51:DZ:29:TYR:HA	51:DZ:33:LEU:O	2.21	0.40
31:DA:869:G:C2	31:DA:870:A:H1'	2.56	0.40
51:BZ:26:GLY:HA2	51:BZ:85:HIS:CD2	2.56	0.40
31:BA:2208:A:C2'	31:BA:2218:U:OP2	2.70	0.40
51:DZ:166:SER:HB2	51:DZ:167:PRO:C	2.40	0.40
43:DR:34:ILE:HD12	43:DR:34:ILE:HA	1.86	0.40
51:BZ:150:LEU:C	51:BZ:151:HIS:ND1	2.75	0.40
27:B5:32:PRO:O	27:B5:33:CYS:CB	2.65	0.40
27:D5:48:GLU:HB2	27:D5:49:CYS:H	1.54	0.40
42:BQ:42:ILE:CD1	42:BQ:97:VAL:HB	2.51	0.40
34:BE:52:LEU:HD13	34:BE:76:ARG:CB	2.51	0.40
31:BA:1337:G:H2'	31:BA:1338:G:C8	2.54	0.40
1:AA:749:C:H2'	1:AA:750:G:H8	1.84	0.40
1:CA:579:G:H5'	1:CA:728:A:C1'	2.42	0.40
28:B6:47:THR:CG2	28:B6:48:VAL:HG12	2.49	0.40
31:DA:856:C:O2'	31:DA:857:C:OP1	2.37	0.40
1:CA:562:C:C4	1:CA:884:U:C6	3.09	0.40
1:AA:292:G:N3	1:AA:309:G:C2	2.89	0.40
1:AA:559:A:C4'	1:AA:560:U:H3'	2.48	0.40
31:BA:912:C:N3	31:BA:913:U:C5	2.89	0.40
16:AP:21:VAL:O	16:AP:33:ILE:HB	2.21	0.40
1:AA:1392:G:C2'	1:AA:1393:U:C5'	2.93	0.40
1:AA:1413:A:C2	1:AA:1488:G:C2	3.09	0.40
31:DA:1169:G:N2	31:DA:1181:C:C2	2.90	0.40
34:BE:38:THR:OG1	34:BE:41:LYS:HE3	2.22	0.40
1:CA:1058:G:C6	1:CA:1059:C:C4	3.09	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:114:TYR:CD2	9:CI:114:TYR:O	2.74	0.40
1:CA:966:G:O2'	9:CI:127:LYS:O	2.39	0.40
31:BA:1412:A:C3'	31:BA:1413:G:H8	2.34	0.40
31:BA:1592:C:H2'	31:BA:1593:G:O5'	2.21	0.40
31:BA:688:U:C5'	31:BA:1780:A:C2	3.03	0.40
31:BA:787:U:H3'	31:BA:791:C:H41	1.86	0.40
48:BW:50:VAL:HG11	48:BW:103:ILE:HG21	2.02	0.40
1:AA:1068:G:C2'	1:AA:1069:C:H5'	2.51	0.40
31:DA:1475:G:C2	31:DA:1517:G:C2	3.09	0.40
35:BF:158:THR:O	35:BF:178:PRO:HD3	2.20	0.40
1:AA:259:G:C2'	1:AA:260:G:H5'	2.51	0.40
1:AA:265:G:O2'	17:AQ:67:LYS:N	2.54	0.40
4:CD:138:TYR:CD2	4:CD:139:ARG:N	2.67	0.40
1:AA:1431:C:H2'	1:AA:1432:G:H5'	2.03	0.40
1:CA:781:A:H5'	1:CA:782:A:OP2	2.21	0.40
31:BA:473:G:O2'	31:BA:474:G:C5'	2.68	0.40
1:CA:749:C:H2'	1:CA:750:G:H8	1.86	0.40
9:CI:116:LYS:C	9:CI:118:LYS:N	2.73	0.40
10:CJ:7:LYS:HA	10:CJ:71:LEU:CD1	2.50	0.40
20:AT:49:ALA:O	20:AT:50:GLU:C	2.59	0.40
1:CA:1285:A:C4'	1:CA:1286:A:O5'	2.68	0.40
8:AH:100:ILE:HA	8:AH:101:PRO:HD3	1.83	0.40
31:BA:2485:G:H5''	42:BQ:46:GLN:NE2	2.35	0.40
38:DI:31:LEU:HD22	38:DI:38:LEU:HG	2.03	0.40
31:DA:2472:G:C2	31:DA:2477:C:OP1	2.75	0.40
1:AA:1498:U:O5'	1:AA:1498:U:H6	2.04	0.40
3:AC:106:VAL:HG11	3:AC:109:PRO:HA	2.03	0.40
51:BZ:128:VAL:CG1	51:BZ:133:ILE:HG12	2.51	0.40
31:BA:2819:G:C2	31:BA:2828:C:C2	3.09	0.40
31:DA:2380:C:H2'	31:DA:2381:C:H5'	2.03	0.40
8:CH:25:ASP:HA	8:CH:59:LEU:O	2.21	0.40
31:BA:2063:C:C5	31:BA:2064:C:C4	3.09	0.40
19:CS:7:LYS:N	19:CS:7:LYS:HD3	2.36	0.40
3:CC:124:ILE:CG1	3:CC:130:VAL:HG22	2.49	0.40
12:AL:91:LYS:HB2	12:AL:91:LYS:HE2	1.94	0.40
36:DG:62:LEU:HD22	36:DG:143:GLU:O	2.21	0.40
1:CA:78:G:H22	1:CA:91:C:N4	2.19	0.40
31:BA:363(E):U:H2'	31:BA:363(F):A:O4'	2.21	0.40
31:BA:1201:C:O2'	31:BA:1202:C:H5'	2.21	0.40
1:CA:853:G:C5	1:CA:854:G:N7	2.89	0.40
18:AR:40:LEU:HA	18:AR:43:PHE:HD1	1.86	0.40
31:BA:2085:C:H2'	31:BA:2086:U:O4'	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:CP:79:VAL:O	16:CP:79:VAL:CG1	2.69	0.40
15:CO:9:GLN:O	15:CO:10:LYS:C	2.59	0.40
48:DW:64:MET:O	48:DW:65:LEU:HB3	2.18	0.40
31:BA:1850:G:C4	31:BA:1851:U:C6	3.10	0.40
36:BG:96:ARG:HD2	36:BG:97:ASP:OD1	2.21	0.40
18:CR:40:LEU:HA	18:CR:43:PHE:CD1	2.56	0.40
35:DF:53:THR:O	35:DF:55:GLY:N	2.54	0.40
31:BA:1368:G:C2	31:BA:1369:G:N7	2.89	0.40
45:BT:16:ARG:HB3	45:BT:18:ASP:OD1	2.21	0.40
37:BH:146:ALA:O	37:BH:147:ASN:C	2.59	0.40
31:BA:2585:U:O2'	31:BA:2586:C:OP2	2.31	0.40
7:AG:28:ASN:O	7:AG:31:MET:HB3	2.20	0.40
32:BB:1:U:C5	32:BB:2:C:N3	2.90	0.40
34:DE:56:PRO:C	34:DE:58:ARG:N	2.75	0.40
22:B0:24:LYS:HG3	22:B0:36:ILE:HD11	2.02	0.40
50:DY:52:SER:O	50:DY:54:LYS:N	2.53	0.40
41:BP:77:ARG:H	41:BP:77:ARG:HG2	1.66	0.40
31:DA:272(J):C:H2'	31:DA:274:G:OP1	2.21	0.40
31:DA:1817:G:H2'	31:DA:1817:G:N3	2.37	0.40
6:CF:98:LEU:CD1	6:CF:101:ALA:HA	2.52	0.40
51:BZ:95:PRO:HA	51:BZ:129:SER:HA	2.03	0.40
31:BA:1310:G:H1'	31:BA:1611:C:H5'	2.02	0.40
42:BQ:60:ARG:HG2	42:BQ:60:ARG:O	2.21	0.40
21:AU:5:ASP:O	21:AU:11:GLY:HA3	2.20	0.40
9:AI:21:PRO:HA	9:AI:58:ARG:O	2.20	0.40
34:BE:87:GLU:O	34:BE:89:ASP:N	2.55	0.40
1:CA:1507:A:C8	1:CA:1530:G:N2	2.89	0.40
1:CA:570:G:H2'	1:CA:571:U:H6	1.81	0.40
27:D5:2:ALA:N	31:DA:747:U:C2	2.90	0.40
28:D6:13:CYS:HB2	28:D6:22:ALA:CB	2.51	0.40
30:D8:38:GLY:O	30:D8:39:LYS:HB3	2.21	0.40
31:DA:419:C:O5'	31:DA:419:C:H6	2.04	0.40
35:DF:38:ARG:HD2	41:DP:16:ARG:HH22	1.85	0.40
41:DP:98:GLU:CA	41:DP:101:VAL:HG13	2.51	0.40
30:B8:36:LYS:H	30:B8:36:LYS:HG3	1.67	0.40
31:BA:2287:A:C4	31:BA:2289:G:C8	3.08	0.40
31:BA:2431:U:O2	31:BA:2433:A:C8	2.75	0.40
41:BP:38:GLN:CG	41:BP:39:LYS:N	2.78	0.40
29:B7:11:LYS:O	29:B7:15:THR:HB	2.21	0.40
33:BD:63:ARG:CG	33:BD:63:ARG:HH11	2.33	0.40
36:BG:7:LEU:HD12	36:BG:100:TRP:O	2.21	0.40
31:DA:1709:U:O4'	31:DA:2860:A:H1'	2.20	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:D2:47:ASN:ND2	24:D2:48:HIS:H	2.17	0.40
41:BP:98:GLU:HA	41:BP:101:VAL:CG1	2.51	0.40
39:DN:30:ILE:CG2	39:DN:120:LEU:CD2	3.00	0.40
47:DV:27:ALA:O	47:DV:29:PRO:O	2.39	0.40
24:B2:46:GLN:O	24:B2:48:HIS:N	2.54	0.40
24:B2:49:LYS:O	24:B2:51:ARG:N	2.54	0.40
31:BA:1389:G:C2'	31:BA:1390:U:O5'	2.69	0.40
31:BA:140:G:N3	31:BA:142:A:N1	2.69	0.40
31:BA:2780:G:O2'	31:BA:2781:A:OP1	2.38	0.40
33:DD:231:HIS:ND1	33:DD:232:PRO:HD2	2.35	0.40
31:BA:1899:G:O2'	31:BA:1900:A:C5'	2.68	0.40
32:DB:51:G:C5'	32:DB:52:A:OP2	2.63	0.40
32:DB:55:U:N3	32:DB:56:G:N7	2.69	0.40
32:DB:6:C:H4'	32:DB:28:C:H5'	2.03	0.40
1:AA:374:A:C2	1:AA:375:U:C2	3.08	0.40
1:AA:375:U:O2'	16:AP:28:ARG:HD2	2.22	0.40
1:AA:499:A:C4'	1:AA:500:G:OP1	2.62	0.40
4:AD:100:ARG:NH1	4:AD:137:SER:HA	2.36	0.40
1:CA:427:U:P	4:CD:13:ARG:NH2	2.93	0.40
5:CE:103:GLY:H	5:CE:106:PRO:HG2	1.86	0.40
31:BA:2316:C:C5	31:BA:2317:C:H5	2.40	0.40
31:BA:533:G:H5'	46:BU:24:TYR:CD2	2.56	0.40
39:BN:120:LEU:C	39:BN:120:LEU:CD1	2.89	0.40
50:DY:44:ILE:CG2	50:DY:45:VAL:N	2.84	0.40
43:DR:67:LEU:HD13	43:DR:76:VAL:CG2	2.43	0.40
31:DA:2521:C:N3	31:DA:2544:G:N2	2.61	0.40
31:DA:2733:A:O2'	31:DA:2734:A:H5'	2.21	0.40
37:DH:87:LEU:N	37:DH:131:VAL:O	2.40	0.40
37:DH:152:ARG:HB2	37:DH:162:ILE:HG12	2.02	0.40
31:DA:2807:G:C3'	31:DA:2808:U:H5''	2.43	0.40
31:BA:1791:A:C5'	31:BA:1792:G:OP2	2.69	0.40
31:BA:705:A:C8	31:BA:727:A:C4	3.10	0.40
33:BD:17:THR:CG2	33:BD:205:VAL:HB	2.46	0.40
1:CA:189:G:N1	1:CA:189(L):G:C2	2.89	0.40
31:DA:49:A:N3	31:DA:49:A:H2'	2.36	0.40
31:BA:814:C:H5''	47:BV:86:GLY:CA	2.52	0.40
31:DA:2306:C:P	31:DA:2307:G:C8	3.15	0.40
31:DA:2316:C:C6	31:DA:2317:C:H5	2.38	0.40
1:CA:735:C:H5'	18:CR:71:LYS:HD3	2.03	0.40
6:CF:1:MET:HA	6:CF:67:MET:O	2.21	0.40
11:CK:38:ASN:HA	11:CK:39:PRO:HD3	1.77	0.40
1:CA:1125:U:H4'	1:CA:1126:U:H5	1.86	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1125:U:O4	10:CJ:73:ASP:OD2	2.39	0.40
31:DA:2385:C:O2'	31:DA:2386:C:H5'	2.21	0.40
31:DA:869:G:C6	31:DA:870:A:C5	3.09	0.40
31:DA:953:A:C2	31:DA:954:G:C4	3.10	0.40
51:BZ:39:VAL:HG23	51:BZ:44:PHE:HB2	2.02	0.40
51:BZ:44:PHE:HE2	51:BZ:88:PHE:CZ	2.39	0.40
40:BO:10:VAL:HG22	40:BO:17:ARG:C	2.41	0.40
6:AF:50:TYR:CE1	18:AR:77:GLY:HA2	2.56	0.40
32:BB:21:G:N3	32:BB:21:G:H2'	2.35	0.40
32:BB:65:C:N4	32:BB:109:C:C2'	2.65	0.40
34:DE:96:PHE:HE2	34:DE:102:VAL:HG11	1.87	0.40
1:AA:116:A:H8	1:AA:116:A:OP2	1.97	0.40
40:DO:111:PHE:C	40:DO:113:LYS:N	2.74	0.40
27:D5:43:HIS:CE1	31:DA:2816:C:H1'	2.55	0.40
31:BA:1339:G:O4'	31:BA:1393:A:C2	2.73	0.40
1:AA:745:C:H2'	1:AA:746:A:O4'	2.21	0.40
1:CA:1084:G:N7	1:CA:1085:U:N3	2.68	0.40
1:CA:1106:G:H2'	1:CA:1107:C:H6	1.87	0.40
1:AA:1097:C:N3	1:AA:1098:C:C5	2.89	0.40
31:BA:2370:G:H2'	31:BA:2371:G:O4'	2.22	0.40
32:DB:94:C:C2	32:DB:95:C:C5	3.09	0.40
1:AA:29:G:C2'	1:AA:30:U:O5'	2.69	0.40
1:AA:559:A:H5''	1:AA:560:U:C3'	2.43	0.40
1:AA:578:C:H2'	1:AA:579:G:O5'	2.21	0.40
15:AO:39:LEU:HD13	15:AO:43:LEU:HD11	2.01	0.40
50:DY:96:ILE:H	50:DY:96:ILE:HG12	1.37	0.40
40:BO:106:LEU:HD23	40:BO:106:LEU:HA	1.47	0.40
11:AK:52:GLY:N	11:AK:55:LYS:HG3	2.33	0.40
22:B0:32:ARG:H	22:B0:35:ASN:ND2	2.10	0.40
38:BI:91:SER:HB2	38:BI:119:PRO:CB	2.36	0.40
38:BI:92:VAL:O	38:BI:92:VAL:HG13	2.21	0.40
31:BA:109:G:C5	31:BA:110:G:C8	3.08	0.40
12:CL:25:PRO:HD2	12:CL:98:TYR:OH	2.21	0.40
31:DA:2536:G:C8	31:DA:2537:U:C5	3.09	0.40
35:BF:22:ALA:HB1	35:BF:26:ALA:HB1	2.02	0.40
13:CM:96:LEU:O	13:CM:98:VAL:HG22	2.20	0.40
31:DA:271(C):C:H3'	31:DA:271(C):C:C6	2.57	0.40
31:BA:2712:U:H2'	31:BA:2712:U:O2	2.21	0.40
48:DW:47:VAL:HA	48:DW:50:VAL:CG1	2.51	0.40
31:BA:1266:G:O2'	31:BA:2012:G:O6	2.31	0.40
2:CB:85:ALA:HB1	2:CB:90:MET:O	2.22	0.40
31:DA:1904:G:H2'	31:DA:1905:C:O4'	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:CQ:67:LYS:C	17:CQ:69:LYS:H	2.25	0.40
31:BA:271(H):G:N2	31:BA:271(I):G:H1'	2.37	0.40
31:BA:1690:A:C8	31:BA:1691:C:C6	3.09	0.40
31:BA:1696:G:C2'	31:BA:1697:G:H5'	2.51	0.40
31:BA:2476:A:H2	31:BA:2477:C:H5''	1.86	0.40
37:BH:152:ARG:HB3	37:BH:153:LYS:H	1.76	0.40
31:DA:2580:U:H5'	34:DE:131:ALA:CB	2.52	0.40
1:CA:1285:A:C8	1:CA:1285:A:OP1	2.73	0.40
9:CI:69:GLY:O	9:CI:73:GLN:HG3	2.22	0.40
4:CD:188:LEU:HA	4:CD:189:PRO:HD2	1.76	0.40
18:AR:59:SER:HB3	18:AR:62:GLU:CG	2.51	0.40
1:AA:1405:G:O4'	1:AA:1519:A:H4'	2.21	0.40
1:AA:1493:A:H5''	1:AA:1494:G:OP2	2.20	0.40
1:AA:1157:A:C8	1:AA:1181:G:N2	2.90	0.40
1:CA:989:C:H42	1:CA:1216:G:H1	1.69	0.40
2:CB:126:GLU:O	2:CB:127:ILE:HD13	2.21	0.40
29:D7:5:TRP:HA	29:D7:5:TRP:HE3	1.85	0.40
31:DA:464:U:C5	31:DA:788:A:C4	3.09	0.40
40:BO:2:ILE:HD11	40:BO:82:ASN:HB2	2.02	0.40
31:DA:1232:G:H2'	31:DA:1233:C:C6	2.55	0.40
1:AA:219:C:H6	1:AA:219:C:H3'	1.86	0.40
31:BA:2251:G:C8	31:BA:2450:A:H4'	2.56	0.40
38:BI:25:TYR:O	38:BI:26:ALA:C	2.58	0.40
1:CA:458:C:C2	1:CA:460:G:C8	3.09	0.40
31:DA:2694:G:O2'	31:DA:2695:C:H5'	2.21	0.40
31:BA:2552:U:C2'	31:BA:2554:U:OP2	2.64	0.40
31:BA:2023:G:H4'	31:BA:2617:C:O3'	2.20	0.40
9:AI:49:PRO:O	9:AI:53:VAL:HG22	2.22	0.40
1:AA:1266:G:O5'	1:AA:1266:G:H8	2.04	0.40
6:CF:5:GLU:HB2	18:CR:34:TYR:OH	2.21	0.40
31:DA:2821:A:H2'	31:DA:2822:G:C8	2.56	0.40
1:AA:84:U:H6	1:AA:84:U:H3'	1.84	0.40
1:AA:78:G:N2	1:AA:91:C:H42	2.19	0.40
15:AO:2:PRO:HB2	15:AO:3:ILE:H	1.71	0.40
1:CA:598:U:H2'	1:CA:599:C:C6	2.57	0.40
1:CA:599:C:O2	1:CA:640:A:C2	2.74	0.40
40:BO:87:ILE:HD13	40:BO:87:ILE:HA	1.81	0.40
16:CP:51:VAL:HG13	16:CP:52:ASP:H	1.86	0.40
31:DA:2455:G:C6	31:DA:2456:C:N4	2.89	0.40
2:AB:61:LEU:CG	2:AB:68:ILE:HD11	2.51	0.40
31:DA:705:A:C4	31:DA:727:A:H1'	2.56	0.40
37:DH:167:GLU:HA	37:DH:168:PRO:HD3	1.97	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DG:94:LEU:HD11	36:DG:102:PHE:CB	2.52	0.40
1:CA:300:A:O5'	1:CA:300:A:H8	2.04	0.40
37:DH:27:LYS:HE2	37:DH:27:LYS:HB3	1.89	0.40
2:AB:145:LEU:CD1	2:AB:149:LEU:HD12	2.51	0.40
1:AA:189(E):U:O2'	1:AA:189(F):U:H5'	2.21	0.40
35:BF:110:LEU:HD22	35:BF:202:PHE:HE1	1.86	0.40
20:AT:30:LYS:HA	20:AT:30:LYS:HD2	1.81	0.40
31:BA:272:G:O6	31:BA:421:U:H2'	2.21	0.40
6:CF:89:MET:CE	18:CR:76:LEU:HD21	2.51	0.40
2:CB:87:ARG:O	2:CB:223:ILE:HD11	2.21	0.40
31:BA:1932:A:C2'	31:BA:1933:G:H5'	2.51	0.40
39:BN:121:LYS:HG3	39:BN:123:TYR:CE1	2.55	0.40
35:BF:46:ARG:NH1	35:BF:46:ARG:HB2	2.35	0.40
31:DA:2413:G:N2	31:DA:2414:G:H1'	2.36	0.40
1:AA:1333:A:H3'	1:AA:1334:G:H8	1.85	0.40
20:AT:63:ILE:CG2	20:AT:77:ALA:HA	2.51	0.40
1:CA:1418:A:N3	31:DA:1959:G:H1'	2.35	0.40
9:AI:29:ASN:OD1	9:AI:64:THR:HA	2.21	0.40
46:DU:29:SER:O	46:DU:30:LYS:HD3	2.21	0.40
31:BA:2813:A:H2'	31:BA:2814:C:O4'	2.21	0.40
39:DN:96:GLU:O	39:DN:100:GLU:HG3	2.22	0.40
17:AQ:16:GLN:O	17:AQ:17:LYS:HB2	2.21	0.40
11:CK:114:VAL:O	11:CK:114:VAL:HG13	2.21	0.40
29:B7:31:LEU:HD23	29:B7:31:LEU:HA	1.89	0.40
2:CB:56:ARG:HA	2:CB:56:ARG:HD3	1.89	0.40
31:DA:679:C:H2'	31:DA:680:G:C8	2.55	0.40
31:BA:2368:C:H2'	31:BA:2369:A:H8	1.87	0.40
8:AH:40:ALA:O	8:AH:43:GLY:N	2.51	0.40
31:DA:2083:G:C6	31:DA:2084:C:C4	3.08	0.40
31:DA:25:U:C4	31:DA:26:G:C6	3.10	0.40
31:DA:595:C:H2'	31:DA:596:G:O4'	2.21	0.40
31:DA:624:C:H2'	31:DA:625:G:H5'	2.03	0.40
31:DA:646:A:C2'	31:DA:647:G:H5'	2.50	0.40
41:DP:99:LEU:HD12	41:DP:102:ARG:NH1	2.36	0.40
31:BA:589:C:H2'	31:BA:590:A:C8	2.56	0.40
41:BP:67:MET:HE2	41:BP:67:MET:HA	2.03	0.40
32:BB:6:C:H4'	32:BB:28:C:H5'	2.03	0.40
44:BS:39:ILE:HG12	44:BS:73:LEU:CD1	2.41	0.40
31:DA:1461:G:C4	31:DA:1462:C:C5	3.09	0.40
49:DX:53:LYS:CE	49:DX:55:ASN:HD21	2.33	0.40
31:DA:536:A:H2'	31:DA:537:C:O4'	2.21	0.40
31:DA:986:C:H6	31:DA:986:C:O5'	2.04	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DN:17:ASP:OD2	39:DN:17:ASP:C	2.59	0.40
46:DU:50:ARG:CZ	47:DV:75:PHE:CD2	3.04	0.40
47:DV:19:LYS:O	47:DV:20:LEU:HG	2.21	0.40
24:B2:29:LYS:O	24:B2:32:LEU:N	2.55	0.40
49:BX:21:PHE:O	49:BX:22:ALA:C	2.60	0.40
49:BX:87:GLN:O	49:BX:88:LYS:O	2.38	0.40
49:BX:89:ILE:HD12	49:BX:89:ILE:N	2.36	0.40
31:DA:1288:U:C2	31:DA:1327:C:C2	3.09	0.40
31:BA:1844:C:C2'	31:BA:1845:G:H5'	2.52	0.40
1:CA:329:A:C2	1:CA:332:G:C4	3.09	0.40
1:CA:545:C:O2'	1:CA:549:C:H5''	2.21	0.40
1:CA:628:G:C2	1:CA:629:G:C4	3.10	0.40
12:CL:115:LYS:HB3	12:CL:116:SER:H	1.62	0.40
20:CT:23:ARG:HA	20:CT:26:ASN:ND2	2.35	0.40
50:BY:15:VAL:CG1	50:BY:16:ALA:H	2.34	0.40
31:BA:1605:C:O4'	31:BA:1610:A:C6	2.74	0.40
31:DA:763:G:N3	31:DA:765:G:H1'	2.36	0.40
31:DA:2750:A:H8	31:DA:2750:A:OP1	2.04	0.40
31:DA:2651:C:O2'	31:DA:2652:C:H5'	2.21	0.40
37:DH:103:LEU:HD21	37:DH:105:LEU:HD11	2.02	0.40
37:DH:150:ALA:O	37:DH:151:ILE:C	2.59	0.40
37:DH:164:TYR:N	37:DH:164:TYR:HD1	2.18	0.40
1:AA:222:U:H2'	1:AA:223:U:H6	1.85	0.40
31:BA:2050:C:H1'	34:BE:156:MET:HE2	2.03	0.40
5:AE:13:ILE:HA	5:AE:29:GLY:O	2.21	0.40
5:AE:142:LEU:HD23	5:AE:142:LEU:HA	1.76	0.40
20:CT:57:ARG:C	20:CT:59:ALA:N	2.74	0.40
41:BP:27:HIS:C	41:BP:27:HIS:CD2	2.94	0.40
47:BV:60:GLU:CD	47:BV:100:ARG:O	2.59	0.40
2:CB:70:PHE:HA	2:CB:163:PHE:O	2.21	0.40
31:DA:329:G:OP2	50:DY:71:LYS:CE	2.66	0.40
31:DA:85:G:OP1	50:DY:9:LYS:CB	2.69	0.40
35:BF:2:LYS:HE2	35:BF:2:LYS:HB3	1.91	0.40
1:CA:738:C:H5''	6:CF:2:ARG:HH12	1.84	0.40
42:DQ:6:ARG:O	42:DQ:6:ARG:CG	2.69	0.40
51:BZ:5:LEU:HD11	51:BZ:43:GLU:HB3	2.01	0.40
51:BZ:5:LEU:HD12	51:BZ:47:VAL:HG21	2.03	0.40
31:BA:287:C:C2	31:BA:288:C:C6	3.09	0.40
32:DB:111:G:O2'	32:DB:112:U:H5'	2.20	0.40
23:B1:48:LYS:CG	23:B1:49:VAL:N	2.84	0.40
31:DA:1650:G:H2'	31:DA:1651:G:O4'	2.21	0.40
29:B7:27:GLY:O	29:B7:28:ARG:C	2.60	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:15:GLU:HB3	4:AD:63:LYS:HE2	2.03	0.40
31:DA:2223:G:H2'	31:DA:2224:G:O4'	2.21	0.40
31:DA:14:A:C2	31:DA:526:A:C2	3.09	0.40
31:DA:2830:G:C4'	31:DA:2830:G:C8	3.04	0.40
32:DB:86:G:H2'	32:DB:87:G:O4'	2.22	0.40
42:BQ:16:ARG:CG	42:BQ:17:LEU:N	2.81	0.40
6:AF:29:ALA:O	6:AF:30:LEU:C	2.59	0.40
1:AA:660:G:C2'	1:AA:661:G:O5'	2.69	0.40
31:BA:2257:U:C4	31:BA:2258:C:N4	2.89	0.40
31:BA:2259:G:C8	31:BA:2427:C:C4	3.09	0.40
31:BA:824:A:O2'	31:BA:825:C:H5'	2.22	0.40
1:AA:1101:A:H4'	1:AA:1102:A:O5'	2.22	0.40
31:DA:901:A:H2'	31:DA:901:A:N3	2.35	0.40
31:DA:861:A:C2	31:DA:917:A:N3	2.90	0.40
34:BE:1:MET:O	34:BE:84:PHE:HB2	2.21	0.40
1:AA:29:G:H2'	1:AA:30:U:O5'	2.21	0.40
15:AO:54:ARG:O	15:AO:57:LEU:HB2	2.21	0.40
36:DG:131:TYR:O	36:DG:159:VAL:HG13	2.21	0.40
1:CA:1442(A):G:C6	45:DT:118:ARG:NE	2.90	0.40
31:BA:1047:G:H3'	31:BA:1110:G:H1	1.86	0.40
1:AA:954:G:N2	1:AA:1227:A:H62	1.98	0.40
38:BI:130:TYR:O	38:BI:131:LYS:HB2	2.21	0.40
38:BI:133:HIS:CB	38:BI:134:PRO:HD2	2.50	0.40
23:D1:78:LYS:CG	31:DA:271(R):G:H4'	2.40	0.40
31:BA:2012:G:H8	31:BA:2012:G:O5'	2.04	0.40
40:DO:63:VAL:HG12	40:DO:106:LEU:HD11	2.04	0.40
40:DO:35:VAL:HG11	40:DO:105:GLU:HB2	2.03	0.40
45:DT:28:VAL:O	45:DT:86:ILE:O	2.39	0.40
1:CA:124:G:C5	1:CA:125:U:C4	3.09	0.40
1:CA:250:A:H5'	1:CA:252:U:O4'	2.20	0.40
1:AA:1054:C:O2	1:AA:1054:C:H3'	2.21	0.40
43:BR:9:LYS:HG3	43:BR:43:GLU:OE2	2.21	0.40
13:AM:66:LEU:HB2	13:AM:67:GLU:H	1.55	0.40
40:BO:47:ILE:HD12	40:BO:47:ILE:HA	1.89	0.40
31:BA:1688:U:H1'	31:BA:1701:A:N6	2.36	0.40
1:AA:258:G:C4	1:AA:259:G:N7	2.90	0.40
31:BA:1858:G:OP2	31:BA:1858:G:H8	2.04	0.40
31:DA:2839:G:C5	31:DA:2840:C:C4	3.09	0.40
31:BA:2469:A:O2'	42:BQ:56:ARG:NE	2.55	0.40
31:BA:154:G:C2	31:BA:154(A):C:N4	2.88	0.40
31:DA:456:C:C6	49:DX:66:LEU:HD21	2.56	0.40
1:CA:1287:A:C6	1:CA:1288:A:C6	3.09	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1371:G:O3'	9:CI:69:GLY:HA3	2.21	0.40
38:DI:15:VAL:CG2	38:DI:16:GLY:N	2.83	0.40
4:AD:192:GLU:O	4:AD:194:LEU:N	2.55	0.40
42:BQ:29:PHE:HB3	42:BQ:65:PHE:CE1	2.56	0.40
31:BA:322:A:H3'	35:BF:169:ASN:HD21	1.86	0.40
34:DE:4:ILE:CD1	34:DE:28:ALA:HB1	2.46	0.40
1:AA:198:G:N2	1:AA:199:G:C1'	2.79	0.40
1:AA:198:G:N7	1:AA:220:G:N2	2.69	0.40
31:DA:2849:U:H6	31:DA:2849:U:H2'	1.59	0.40
1:AA:425:G:N2	1:AA:426:G:H1'	2.36	0.40
42:BQ:32:TYR:O	42:BQ:105:GLU:HA	2.22	0.40
31:DA:1843:C:H2'	31:DA:1844:C:C6	2.57	0.40
1:AA:514:C:O2'	1:AA:515:G:H5'	2.22	0.40
31:DA:128:C:H6	31:DA:128:C:C5'	2.30	0.40
31:DA:1318:C:C3'	31:DA:1319:G:H5''	2.51	0.40
1:AA:1365:G:C2	1:AA:1366:C:C2	3.09	0.40
48:BW:73:ALA:C	48:BW:106:ILE:HD13	2.42	0.40
31:BA:128:C:C5'	31:BA:128:C:H6	2.29	0.40
31:DA:1356:G:C5	31:DA:1357:U:C4	3.09	0.40
31:BA:921:G:C5	31:BA:922:U:C4	3.09	0.40
1:AA:760:G:H2'	1:AA:761:G:C5'	2.49	0.40
43:DR:28:LEU:CD1	43:DR:48:VAL:HG21	2.48	0.40
18:AR:22:VAL:CG1	18:AR:42:ARG:HG2	2.52	0.40
1:AA:1302:U:C5	13:AM:17:VAL:HG21	2.56	0.40
18:AR:56:THR:HG21	18:AR:63:GLN:HE22	1.87	0.40
31:BA:1842:G:C2	31:BA:1901:A:C4	3.09	0.40
1:CA:380:G:N2	1:CA:384:G:C5	2.89	0.40
35:BF:7:TYR:CG	35:BF:8:GLN:N	2.88	0.40
1:AA:380:G:N2	1:AA:384:G:C5	2.89	0.40
31:DA:2796:U:O4'	31:DA:2796:U:O2	2.39	0.40
31:DA:1893:C:H2'	31:DA:1894:C:O4'	2.21	0.40
11:CK:48:ILE:HD12	11:CK:63:LEU:O	2.21	0.40
1:AA:1179:A:H2'	1:AA:1180:A:O4'	2.22	0.40
35:DF:181:LEU:HD11	35:DF:186:ILE:HD11	2.02	0.40
37:DH:43:VAL:HG11	37:DH:53:GLU:H	1.87	0.40
21:AU:12:LYS:HD2	21:AU:12:LYS:HA	1.96	0.40
5:AE:146:ALA:O	5:AE:148:VAL:N	2.54	0.40
31:BA:2102:U:O4'	31:BA:2102:U:O2	2.37	0.40
31:BA:2046:G:H2'	31:BA:2046:G:N3	2.36	0.40
1:CA:604:G:C2	1:CA:635:G:C5	3.09	0.40
31:BA:1754:C:N3	31:BA:2716:U:O2'	2.48	0.40
43:BR:84:ALA:N	43:BR:85:PRO:HD2	2.36	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:BV:57:VAL:HG12	47:BV:57:VAL:O	2.20	0.40
46:BU:66:ASN:O	46:BU:67:ALA:C	2.59	0.40
31:BA:2694:G:C6	31:BA:2695:C:C4	3.09	0.40
39:DN:108:PRO:O	39:DN:113:GLY:HA3	2.21	0.40
50:DY:92:ASN:ND2	50:DY:93:GLY:H	2.19	0.40
9:AI:87:GLN:C	9:AI:89:ASN:H	2.24	0.40
13:AM:94:ARG:HG2	19:AS:82:GLY:N	2.36	0.40
45:BT:13:ARG:NE	45:BT:13:ARG:HA	2.35	0.40
41:BP:135:LEU:HA	41:BP:135:LEU:HD22	1.87	0.40
4:CD:52:SER:O	4:CD:54:TYR:N	2.54	0.40
12:AL:78:GLN:O	12:AL:80:HIS:N	2.54	0.40
1:AA:823:G:O2'	1:AA:824:C:H5'	2.21	0.40
31:DA:2415:G:C5	31:DA:2416:C:C4	3.09	0.40
31:DA:2396:G:C2	31:DA:2421:G:C2	3.10	0.40
31:DA:26:G:H1'	31:DA:515:A:N6	2.36	0.40
55:DA:3320:TEL:H242	55:DA:3320:TEL:H30	1.80	0.40
31:DA:196:A:O2'	31:DA:805:G:O6	2.29	0.40
28:B6:32:ASN:CG	28:B6:33:LYS:N	2.75	0.40
30:B8:8:LYS:HG2	31:BA:246:C:N4	2.35	0.40
31:BA:1242:A:C6	41:BP:8:PRO:HG3	2.56	0.40
31:BA:1655:A:H3'	31:BA:1656:C:H6	1.87	0.40
33:BD:25:THR:O	33:BD:27:THR:CB	2.68	0.40
44:BS:27:SER:HB2	44:BS:38:GLN:HB3	2.02	0.40
31:DA:71:A:H4'	31:DA:72:U:O5'	2.22	0.40
49:DX:21:PHE:O	49:DX:22:ALA:C	2.59	0.40
31:BA:627:A:C6	31:BA:637:A:C8	3.09	0.40
41:BP:99:LEU:HD12	41:BP:102:ARG:NH1	2.37	0.40
31:DA:1006:C:C2	31:DA:1138:G:C2	3.09	0.40
31:DA:814:C:H42	31:DA:1193:G:H1	1.70	0.40
25:D3:49:LYS:HE2	31:DA:850:C:O3'	2.22	0.40
46:DU:92:ARG:O	46:DU:93:LYS:C	2.59	0.40
24:B2:44:LEU:HD13	24:B2:44:LEU:HA	1.68	0.40
49:BX:55:ASN:ND2	49:BX:78:LYS:HZ3	2.19	0.40
49:BX:9:LEU:HB2	49:BX:29:TRP:O	2.22	0.40
32:DB:55:U:C4	32:DB:56:G:N7	2.89	0.40
36:DG:25:TYR:HB3	36:DG:30:GLU:CD	2.42	0.40
1:CA:1468:A:O5'	1:CA:1468:A:H8	2.03	0.40
1:CA:498:U:H2'	1:CA:499:A:O5'	2.21	0.40
1:CA:509:A:H5'	4:CD:55:ALA:HB2	2.03	0.40
4:CD:60:GLU:HG3	4:CD:198:VAL:HG13	2.04	0.40
4:CD:63:LYS:HB3	4:CD:64:LEU:H	1.76	0.40
45:DT:51:ARG:HG3	45:DT:98:LYS:HG3	2.03	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DD:62:TYR:HE1	33:DD:64:ILE:HA	1.82	0.40
31:DA:2758:A:C2'	31:DA:2759:G:H5'	2.51	0.40
25:B3:10:LYS:HG3	25:B3:11:SER:N	2.36	0.40
31:DA:2731:G:N1	31:DA:2732:G:C6	2.90	0.40
37:DH:164:TYR:C	37:DH:166:GLY:N	2.75	0.40
4:CD:128:VAL:CG1	4:CD:129:ASN:ND2	2.66	0.40
34:DE:37:ARG:HD3	34:DE:44:TYR:CZ	2.56	0.40
31:BA:1659:U:C2'	31:BA:1660:C:C5'	2.99	0.40
33:BD:16:MET:HA	33:BD:205:VAL:O	2.21	0.40
35:DF:24:LEU:O	35:DF:25:PRO:C	2.56	0.40
31:DA:1234:U:H2'	31:DA:1235:G:O4'	2.21	0.40
1:CA:682:G:C6	1:CA:683:G:C5	3.10	0.40
31:BA:1511:C:H2'	31:BA:1512:U:C6	2.56	0.40
31:BA:1558:A:H4'	31:BA:1559:G:O5'	2.21	0.40
22:D0:8:GLY:O	22:D0:10:THR:N	2.54	0.40
34:DE:52:LEU:O	34:DE:53:PRO:C	2.59	0.40
51:DZ:151:HIS:O	51:DZ:152:ALA:HB3	2.20	0.40
1:AA:683:G:C2	1:AA:708:C:C2	3.09	0.40
1:AA:501:C:C6	1:AA:501:C:H3'	2.55	0.40
31:DA:2091:U:OP2	31:DA:2092:U:O2'	2.34	0.40
1:AA:60:A:N6	1:AA:110:C:N3	2.69	0.40
27:D5:36:CYS:HG	27:D5:49:CYS:HG	0.49	0.40
1:AA:1419:G:C2	1:AA:1420:C:C2	3.09	0.40
20:AT:84:LEU:C	20:AT:86:ARG:N	2.73	0.40
31:DA:1047:G:H3'	31:DA:1110:G:H1	1.86	0.40
50:BY:80:GLY:O	50:BY:81:LYS:HB3	2.22	0.40
23:D1:20:ARG:CG	23:D1:20:ARG:NH2	2.85	0.40
31:BA:271(M):G:H5'	38:BI:57:ARG:NH1	2.36	0.40
1:CA:1064:G:H5'	1:CA:1066:C:C1'	2.45	0.40
31:DA:2727:G:C4	31:DA:2728:U:C5	3.09	0.40
31:DA:2729:G:N3	34:DE:187:ALA:HB2	2.37	0.40
22:B0:41:ARG:CB	31:BA:2330:G:H1'	2.52	0.40
1:AA:1108:G:H2'	1:AA:1109:C:H5'	2.03	0.40
2:CB:22:LYS:HZ3	2:CB:40:HIS:CE1	2.34	0.40
34:BE:36:ARG:HH11	34:BE:85:ASN:ND2	2.19	0.40
34:DE:188:VAL:CG2	34:DE:189:PRO:HD2	2.52	0.40
1:CA:27:G:C4	1:CA:28:G:C8	3.09	0.40
31:BA:909:A:C4	31:BA:912:C:C5	3.09	0.40
1:AA:815:A:H4'	1:AA:817:C:C4	2.55	0.40
16:AP:18:ARG:HH11	16:AP:35:LYS:HD2	1.86	0.40
31:BA:1107:G:C6	31:BA:1108:U:C4	3.10	0.40
38:DI:94:ALA:HB1	38:DI:111:PRO:HA	2.03	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:974:A:P	14:CN:41:ARG:HH12	2.45	0.40
31:BA:1968:G:O3'	31:BA:1969:A:C4'	2.69	0.40
43:BR:53:HIS:HB2	43:BR:94:TYR:HE1	1.87	0.40
31:BA:926:A:H8	31:BA:926:A:H5''	1.86	0.40
31:DA:2740:A:H2'	31:DA:2741:A:C8	2.56	0.40
38:BI:71:ILE:CG1	38:BI:72:LEU:HD22	2.50	0.40
31:BA:1593:G:C6	31:BA:1594:G:C6	3.09	0.40
31:BA:775:G:C4	31:BA:794:G:N7	2.89	0.40
48:DW:36:LEU:HD13	48:DW:48:ALA:N	2.36	0.40
48:DW:47:VAL:O	48:DW:48:ALA:C	2.59	0.40
33:BD:73:VAL:O	33:BD:75:ILE:N	2.55	0.40
33:BD:75:ILE:HG21	33:BD:99:ASP:HB2	2.03	0.40
1:AA:257:G:H2'	1:AA:258:G:H8	1.85	0.40
49:BX:40:LYS:O	49:BX:43:VAL:N	2.54	0.40
1:AA:1203:C:H2'	1:AA:1204:A:H8	1.76	0.40
31:BA:2649:U:H2'	31:BA:2650:U:C6	2.56	0.40
42:BQ:52:VAL:O	42:BQ:53:ALA:C	2.57	0.40
31:BA:154:G:C2	31:BA:154(A):C:N3	2.89	0.40
29:D7:42:LEU:HA	29:D7:42:LEU:HD23	1.72	0.40
8:AH:29:SER:O	8:AH:32:LYS:N	2.55	0.40
31:DA:2580:U:O2	31:DA:2580:U:C2'	2.67	0.40
8:CH:86:ILE:HG13	8:CH:133:LEU:HD13	2.03	0.40
10:AJ:40:LEU:CB	10:AJ:41:PRO:HD2	2.43	0.40
18:AR:29:PHE:O	18:AR:29:PHE:CG	2.75	0.40
31:DA:551:G:N1	31:DA:552:G:C5	2.90	0.40
22:B0:73:GLY:C	22:B0:75:LEU:N	2.74	0.40
31:BA:2817:G:H2'	31:BA:2818:G:O4'	2.21	0.40
31:DA:1310:G:H1'	31:DA:1611:C:H5'	2.02	0.40
1:AA:250:A:OP1	1:AA:250:A:H3'	2.22	0.40
42:DQ:42:ILE:HD11	42:DQ:127:ILE:HD11	2.03	0.40
31:DA:1204:A:C8	31:DA:1206:G:C6	3.09	0.40
1:AA:424:G:C4	1:AA:425:G:C8	3.09	0.40
46:DU:27:LEU:HD13	46:DU:27:LEU:HA	1.85	0.40
1:AA:458:C:C2	1:AA:460:G:C8	3.10	0.40
1:AA:989:C:H42	1:AA:1216:G:H1	1.69	0.40
1:CA:1302:U:C5	13:CM:17:VAL:HG21	2.56	0.40
17:AQ:95:TYR:O	17:AQ:96:GLU:C	2.60	0.40
2:CB:61:LEU:CA	2:CB:64:ARG:HG2	2.52	0.40
38:BI:15:VAL:C	38:BI:17:GLN:N	2.75	0.40
13:AM:108:ARG:N	13:AM:108:ARG:HD2	2.35	0.40
7:CG:95:ARG:O	7:CG:96:GLN:C	2.60	0.40
31:DA:30:G:O2'	31:DA:31:C:H5'	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:633:G:H5'	1:AA:634:C:OP2	2.21	0.40
1:AA:945:G:O6	1:AA:1337:G:C6	2.74	0.40
50:BY:83:THR:CG2	50:BY:84:ARG:N	2.85	0.40
31:DA:1548:C:H2'	31:DA:1549:C:H6	1.86	0.40
46:BU:8:VAL:HG11	46:BU:12:ARG:CZ	2.51	0.40
1:CA:299:G:C5	1:CA:300:A:N6	2.90	0.40
1:AA:1426:C:C2'	1:AA:1427:U:H5'	2.52	0.40
34:DE:16:ARG:HG3	34:DE:21:VAL:HG21	2.02	0.40
19:AS:19:VAL:HG11	19:AS:44:MET:HG3	2.03	0.40
31:DA:412:A:C8	31:DA:413:C:C5	3.09	0.40
33:DD:220:HIS:CD2	33:DD:221:VAL:N	2.90	0.40
8:AH:13:ILE:O	8:AH:14:ARG:C	2.59	0.40
1:CA:644:G:C5	1:CA:645:C:C5	3.09	0.40
31:DA:1272:A:C3'	31:DA:1273:U:H5''	2.51	0.40
5:CE:80:ILE:HD11	5:CE:138:ALA:HB1	2.03	0.40
31:DA:1334:G:C6	31:DA:1335:U:C4	3.10	0.40
39:BN:107:LEU:HD23	39:BN:107:LEU:HA	1.83	0.40
1:CA:1420:C:O5'	1:CA:1420:C:H6	2.05	0.40
33:DD:78:LYS:HE3	33:DD:78:LYS:HB2	1.83	0.40
18:AR:88:LYS:O	18:AR:88:LYS:HE2	2.21	0.40
10:CJ:94:VAL:HG12	10:CJ:95:GLU:N	2.37	0.40
31:DA:2392:A:C4	31:DA:2429:G:C6	3.10	0.40
31:DA:516:C:H6	31:DA:516:C:O5'	2.05	0.40
35:DF:38:ARG:HH11	41:DP:16:ARG:HH22	1.68	0.40
35:DF:42:ALA:O	35:DF:45:ARG:HB3	2.22	0.40
35:DF:81:PRO:HB3	35:DF:87:GLY:O	2.22	0.40
30:B8:38:GLY:O	30:B8:39:LYS:HB3	2.21	0.40
31:BA:2418:A:C4	31:BA:2419:U:C5	3.09	0.40
31:BA:2418:A:C6	31:BA:2419:U:C4	3.10	0.40
31:BA:588:U:C2	35:BF:90:PHE:CD1	3.10	0.40
31:BA:745:G:OP1	34:BE:133:LYS:HE3	2.21	0.40
29:B7:10:ARG:HH12	31:BA:1378:A:H5'	1.86	0.40
31:BA:686:G:H5'	31:BA:686:G:N3	2.36	0.40
44:BS:67:ARG:O	44:BS:69:VAL:N	2.54	0.40
31:BA:2734:A:C2'	31:BA:2735:G:H5'	2.51	0.40
24:D2:55:ARG:HH22	49:DX:3:THR:HG22	1.83	0.40
31:DA:1459:G:C8	31:DA:1461:G:N9	2.90	0.40
24:D2:32:LEU:HD21	31:DA:61:G:O2'	2.22	0.40
41:BP:80:TYR:CE1	41:BP:111:ARG:HG2	2.55	0.40
25:D3:38:GLU:O	25:D3:43:ILE:HG13	2.22	0.40
25:D3:47:VAL:CG1	25:D3:56:VAL:HG21	2.51	0.40
31:DA:1018:C:O2	31:DA:1018:C:H2'	2.20	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1142:U:H5''	31:DA:1142(A):A:H5''	2.03	0.40
31:DA:534:U:O2'	46:DU:49:HIS:HD2	2.04	0.40
31:DA:842:G:N2	31:DA:937:U:C2	2.89	0.40
32:DB:82:G:H2'	32:DB:83:G:C5'	2.51	0.40
39:DN:3:THR:CA	39:DN:4:TYR:CD1	3.04	0.40
39:DN:42:TRP:CD1	39:DN:43:THR:N	2.89	0.40
31:BA:72:U:O2'	31:BA:73:A:H5'	2.22	0.40
31:DA:1899:G:O2'	31:DA:1900:A:OP2	2.39	0.40
36:DG:105:LYS:O	36:DG:110:ALA:HB2	2.21	0.40
44:DS:58:LEU:HD12	44:DS:59:LYS:HG3	2.03	0.40
1:AA:625:G:C5	1:AA:626:U:C5	3.09	0.40
1:CA:373:A:C4	1:CA:374:A:C8	3.09	0.40
1:CA:378:G:C2	1:CA:386:C:C2	3.09	0.40
1:CA:436:C:HO2'	1:CA:437:U:P	2.44	0.40
4:CD:68:TYR:O	4:CD:69:GLY:C	2.60	0.40
5:CE:101:ILE:HG12	5:CE:101:ILE:O	2.21	0.40
31:BA:2305:A:H2'	31:BA:2306:C:O4'	2.21	0.40
31:BA:2308:G:N2	31:BA:2309:A:N1	2.70	0.40
31:DA:2607:G:C6	31:DA:2608:G:C6	3.09	0.40
31:DA:695:G:C4	31:DA:696:G:C8	3.09	0.40
33:DD:213:ARG:HA	33:DD:213:ARG:HD2	1.70	0.40
31:BA:1023:U:H4'	31:BA:1123:C:OP1	2.21	0.40
39:BN:40:PRO:HB3	46:BU:68:ALA:HB2	2.03	0.40
39:BN:87:LEU:HD22	39:BN:91:LEU:HD11	2.03	0.40
39:BN:90:MET:O	39:BN:95:PRO:HA	2.21	0.40
39:BN:97:ARG:O	39:BN:101:HIS:N	2.50	0.40
43:DR:67:LEU:HD12	43:DR:67:LEU:HA	1.82	0.40
31:DA:2658:C:H5'	31:DA:2659:G:OP2	2.20	0.40
31:BA:567:A:N1	31:BA:571:A:C8	2.89	0.40
20:CT:61:SER:O	20:CT:65:LYS:HG3	2.22	0.40
1:CA:261:U:H5	20:CT:79:ARG:HE	1.68	0.40
31:DA:2312:U:O2'	31:DA:2313:C:H5'	2.20	0.40
31:DA:310:A:C4	31:DA:312:G:C8	3.09	0.40
50:DY:42:VAL:HB	50:DY:65:ALA:O	2.21	0.40
50:DY:7:VAL:HG11	50:DY:8:LYS:HZ2	1.86	0.40
1:CA:713:G:C6	1:CA:714:G:O6	2.75	0.40
51:DZ:44:PHE:CE2	51:DZ:86:VAL:HG11	2.55	0.40
26:D4:24:THR:O	26:D4:25:TYR:O	2.39	0.40
34:DE:6:GLY:HA2	34:DE:51:PHE:CE1	2.57	0.40
31:BA:478:A:C2	31:BA:480:A:C4	3.10	0.40
38:BI:86:THR:HG23	38:BI:122:GLU:HG2	2.02	0.40
32:BB:15:A:H1'	32:BB:110:G:C5	2.57	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:109:A:C4	1:AA:326:G:C2	3.09	0.40
1:AA:364:A:C2	1:AA:365:U:O4	2.75	0.40
27:D5:36:CYS:CB	27:D5:38:ALA:HB2	2.51	0.40
31:DA:851:U:O2	31:DA:927:G:C2	2.75	0.40
31:DA:1294:U:O2'	43:DR:23:ASN:ND2	2.54	0.40
1:CA:1088:G:C4	1:CA:1089:G:N7	2.89	0.40
1:CA:1055:A:N6	1:CA:1206:G:C5	2.90	0.40
28:B6:34:LEU:O	28:B6:36:LEU:HD23	2.21	0.40
1:CA:885:G:N3	1:CA:914:A:C2	2.89	0.40
31:BA:960:A:C2	31:BA:2495:G:O2'	2.74	0.40
31:BA:1416:G:C4	31:BA:1417:C:C5	3.10	0.40
1:CA:779:C:H2'	1:CA:780:A:H5'	2.00	0.40
31:BA:1904:G:H2'	31:BA:1905:C:O4'	2.22	0.40
1:AA:954:G:N2	1:AA:1226:C:O2	2.51	0.40
31:DA:2525:G:C2	31:DA:2539:C:C2	3.09	0.40
40:DO:23:ARG:HA	40:DO:23:ARG:HD3	1.59	0.40
31:DA:271(E):U:C6	31:DA:271(E):U:O5'	2.69	0.40
31:DA:271(H):G:N2	31:DA:271(I):G:H1'	2.36	0.40
40:DO:108:GLU:HG2	40:DO:108:GLU:H	1.48	0.40
1:CA:236:G:C4	1:CA:237:C:C5	3.09	0.40
1:AA:1055:A:N6	1:AA:1206:G:C5	2.90	0.40
31:BA:271(C):C:N3	31:BA:271(V):G:C2	2.89	0.40
17:AQ:67:LYS:C	17:AQ:69:LYS:H	2.24	0.40
31:BA:459:U:H2'	31:BA:460:A:H8	1.87	0.40
31:BA:2472:G:O6	31:BA:2475:C:C6	2.75	0.40
31:BA:2526:G:C6	31:BA:2527:C:C4	3.10	0.40
31:BA:2649:U:O2'	31:BA:2650:U:H5'	2.21	0.40
43:DR:43:GLU:HA	43:DR:43:GLU:OE2	2.20	0.40
1:AA:701:C:H1'	1:AA:703:G:C6	2.56	0.40
1:CA:233:C:C4	1:CA:234:C:C5	3.09	0.40
31:DA:1885:A:C5'	31:DA:1886:C:OP2	2.70	0.40
31:BA:185:U:H2'	31:BA:186:G:O4'	2.20	0.40
8:AH:4:ASP:OD2	8:AH:7:ALA:HB2	2.21	0.40
38:DI:5:LEU:HD21	38:DI:19:VAL:CG1	2.51	0.40
38:DI:5:LEU:HD21	38:DI:19:VAL:HG11	2.02	0.40
1:CA:1321:C:H6	1:CA:1321:C:OP2	2.04	0.40
34:DE:169:ASN:CG	34:DE:201:THR:HG21	2.41	0.40
1:AA:649:G:H2'	1:AA:650:G:H8	1.86	0.40
1:CA:990:C:C2	1:CA:1216:G:N2	2.89	0.40
31:BA:2819:G:C2'	31:BA:2820:A:O5'	2.70	0.40
36:BG:141:PHE:HE2	36:BG:155:MET:HE3	1.86	0.40
8:CH:28:ALA:N	8:CH:58:TYR:HA	2.36	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CH:56:LYS:HA	8:CH:57:PRO:HD2	1.87	0.40
2:AB:18:GLY:N	2:AB:42:ILE:HG22	2.34	0.40
4:CD:158:ILE:HG23	4:CD:162:LEU:HD12	2.04	0.40
31:DA:1254:A:C8	31:DA:1256:G:C8	3.09	0.40
31:DA:1254:A:H5'	31:DA:1255:U:O5'	2.21	0.40
2:CB:42:ILE:HG21	2:CB:203:GLY:HA2	2.03	0.40
3:CC:157:ILE:CD1	3:CC:166:GLU:HB2	2.52	0.40
1:CA:951:G:H1'	1:CA:970:C:O2'	2.21	0.40
36:BG:178:PHE:H	36:BG:178:PHE:HD1	1.69	0.40
48:BW:4:LYS:HG2	48:BW:106:ILE:HG22	2.03	0.40
11:AK:69:ALA:CB	11:AK:103:LEU:HD23	2.48	0.40
19:AS:7:LYS:N	19:AS:7:LYS:HD3	2.37	0.40
31:DA:272(D):G:C2	31:DA:365:C:N3	2.89	0.40
31:BA:384:U:C2'	31:BA:385:C:H5'	2.51	0.40
1:CA:84:U:C5	1:CA:88:A:C4	3.05	0.40
3:CC:53:ALA:O	3:CC:54:ARG:CB	2.67	0.40
31:DA:614:U:H2'	31:DA:614(A):U:O4'	2.22	0.40
18:AR:56:THR:OG1	18:AR:57:GLY:N	2.54	0.40
16:CP:57:ARG:NH2	16:CP:79:VAL:O	2.54	0.40
31:DA:1921:G:H2'	31:DA:1922:G:C8	2.54	0.40
7:CG:54:THR:C	7:CG:56:GLN:H	2.25	0.40
12:CL:18:VAL:HG23	12:CL:19:ARG:N	2.33	0.40
31:DA:1446:C:N3	31:DA:1466:G:C2	2.90	0.40
31:DA:1465:G:C2	31:DA:1466:G:N9	2.90	0.40
1:AA:944:G:C2	1:AA:1340:A:C6	3.09	0.40
1:CA:19:C:H4'	1:CA:864:A:O4'	2.21	0.40
5:CE:15:ARG:HD2	5:CE:26:PHE:CG	2.56	0.40
31:BA:2422:A:HO2'	31:BA:2423:U:P	2.44	0.40
1:AA:151:A:C6	1:AA:152:A:C4	3.09	0.40
1:AA:1272:G:C5	1:AA:1273:G:C8	3.10	0.40
33:BD:15:PHE:HA	33:BD:15:PHE:HD2	1.78	0.40
7:AG:148:ASN:C	7:AG:150:ALA:N	2.75	0.40
31:DA:43:A:H2'	31:DA:44:G:C8	2.57	0.40
31:BA:346:A:C2'	31:BA:347:A:O5'	2.70	0.40
31:DA:1907:G:C2	31:DA:1924:C:C2	3.09	0.40
39:DN:74:ARG:NH2	39:DN:101:HIS:HB3	2.36	0.40
1:CA:201:C:N4	1:CA:203:U:C2	2.90	0.40
31:BA:238:C:H2'	31:BA:239:U:O4'	2.22	0.40
22:B0:19:LYS:HA	22:B0:19:LYS:HD2	1.72	0.40
31:DA:882:G:H8	31:DA:882:G:O5'	2.05	0.40
29:B7:42:LEU:HA	29:B7:42:LEU:HD23	1.69	0.40
39:BN:99:LEU:HA	39:BN:99:LEU:HD23	1.69	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BD:165:ILE:H	33:BD:165:ILE:HG12	1.65	0.40
39:BN:38:HIS:N	39:BN:38:HIS:ND1	2.68	0.40
51:BZ:31:ARG:HG3	51:BZ:32:HIS:CE1	2.57	0.40

All (14) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:358:U:OP2	38:DI:90:GLY:N[2.655]	1.80	0.40
1:AA:55:A:O4'	38:DI:82:ARG:NE[2.655]	1.98	0.22
1:AA:55:A:C8	38:DI:82:ARG:NE[2.655]	1.98	0.22
1:AA:358:U:O4'	38:DI:89:TYR:CD1[2.655]	1.99	0.21
1:AA:359:U:O5'	38:DI:87:LYS:O[2.655]	1.99	0.21
1:AA:358:U:OP2	38:DI:91:SER:N[2.655]	2.01	0.19
1:AA:359:U:OP2	38:DI:87:LYS:C[2.655]	2.02	0.18
1:AA:358:U:O4'	38:DI:89:TYR:CG[2.655]	2.03	0.17
1:AA:55:A:O5'	38:DI:82:ARG:NH2[2.655]	2.04	0.16
1:AA:358:U:O5'	38:DI:89:TYR:N[2.655]	2.10	0.10
38:BI:82:ARG:NH1	1:CA:55:A:N3[3.654]	2.13	0.07
1:AA:359:U:OP2	38:DI:88:ILE:N[2.655]	2.14	0.06
1:AA:55:A:C8	38:DI:82:ARG:CZ[2.655]	2.17	0.03
38:BI:88:ILE:O	1:CA:358:U:OP1[3.654]	2.17	0.03

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%)	168 (72%)	49 (21%)	16 (7%)	2	13
2	CB	233/256 (91%)	169 (72%)	48 (21%)	16 (7%)	2	13
3	AC	205/239 (86%)	152 (74%)	40 (20%)	13 (6%)	2	16
3	CC	205/239 (86%)	153 (75%)	40 (20%)	12 (6%)	2	17
4	AD	206/209 (99%)	131 (64%)	49 (24%)	26 (13%)	0	3

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
4	CD	206/209 (99%)	130 (63%)	48 (23%)	28 (14%)	0	2
5	AE	149/162 (92%)	101 (68%)	33 (22%)	15 (10%)	1	6
5	CE	149/162 (92%)	101 (68%)	33 (22%)	15 (10%)	1	6
6	AF	99/101 (98%)	69 (70%)	18 (18%)	12 (12%)	1	4
6	CF	99/101 (98%)	66 (67%)	20 (20%)	13 (13%)	0	3
7	AG	153/156 (98%)	126 (82%)	22 (14%)	5 (3%)	6	33
7	CG	153/156 (98%)	127 (83%)	21 (14%)	5 (3%)	6	33
8	AH	136/138 (99%)	100 (74%)	26 (19%)	10 (7%)	2	11
8	CH	136/138 (99%)	99 (73%)	28 (21%)	9 (7%)	2	15
9	AI	123/128 (96%)	85 (69%)	27 (22%)	11 (9%)	1	8
9	CI	123/128 (96%)	86 (70%)	26 (21%)	11 (9%)	1	8
10	AJ	97/105 (92%)	75 (77%)	19 (20%)	3 (3%)	7	36
10	CJ	97/105 (92%)	76 (78%)	18 (19%)	3 (3%)	7	36
11	AK	117/129 (91%)	87 (74%)	22 (19%)	8 (7%)	2	14
11	CK	117/129 (91%)	86 (74%)	23 (20%)	8 (7%)	2	14
12	AL	123/135 (91%)	76 (62%)	26 (21%)	21 (17%)	0	0
12	CL	123/135 (91%)	77 (63%)	24 (20%)	22 (18%)	0	0
13	AM	107/126 (85%)	75 (70%)	26 (24%)	6 (6%)	3	19
13	CM	107/126 (85%)	74 (69%)	27 (25%)	6 (6%)	3	19
14	AN	58/61 (95%)	48 (83%)	5 (9%)	5 (9%)	1	9
14	CN	58/61 (95%)	48 (83%)	5 (9%)	5 (9%)	1	9
15	AO	86/89 (97%)	56 (65%)	21 (24%)	9 (10%)	1	5
15	CO	86/89 (97%)	56 (65%)	21 (24%)	9 (10%)	1	5
16	AP	82/88 (93%)	48 (58%)	21 (26%)	13 (16%)	0	1
16	CP	82/88 (93%)	48 (58%)	21 (26%)	13 (16%)	0	1
17	AQ	98/105 (93%)	76 (78%)	17 (17%)	5 (5%)	3	22
17	CQ	98/105 (93%)	76 (78%)	17 (17%)	5 (5%)	3	22
18	AR	68/88 (77%)	43 (63%)	20 (29%)	5 (7%)	2	11
18	CR	68/88 (77%)	42 (62%)	19 (28%)	7 (10%)	1	6
19	AS	77/93 (83%)	56 (73%)	15 (20%)	6 (8%)	1	11
19	CS	77/93 (83%)	56 (73%)	15 (20%)	6 (8%)	1	11

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
20	AT	97/106 (92%)	58 (60%)	24 (25%)	15 (16%)	0	1
20	CT	97/106 (92%)	53 (55%)	29 (30%)	15 (16%)	0	1
21	AU	23/27 (85%)	19 (83%)	3 (13%)	1 (4%)	4	26
21	CU	23/27 (85%)	19 (83%)	3 (13%)	1 (4%)	4	26
22	B0	83/85 (98%)	67 (81%)	9 (11%)	7 (8%)	1	9
22	D0	83/85 (98%)	62 (75%)	14 (17%)	7 (8%)	1	9
23	B1	87/98 (89%)	43 (49%)	27 (31%)	17 (20%)	0	0
23	D1	87/98 (89%)	44 (51%)	26 (30%)	17 (20%)	0	0
24	B2	49/72 (68%)	25 (51%)	14 (29%)	10 (20%)	0	0
24	D2	49/72 (68%)	26 (53%)	13 (26%)	10 (20%)	0	0
25	B3	58/60 (97%)	48 (83%)	9 (16%)	1 (2%)	14	54
25	D3	58/60 (97%)	44 (76%)	13 (22%)	1 (2%)	14	54
26	B4	30/71 (42%)	7 (23%)	11 (37%)	12 (40%)	0	0
26	D4	30/71 (42%)	6 (20%)	11 (37%)	13 (43%)	0	0
27	B5	57/60 (95%)	37 (65%)	8 (14%)	12 (21%)	0	0
27	D5	57/60 (95%)	36 (63%)	8 (14%)	13 (23%)	0	0
28	B6	41/54 (76%)	19 (46%)	10 (24%)	12 (29%)	0	0
28	D6	41/54 (76%)	18 (44%)	11 (27%)	12 (29%)	0	0
29	B7	47/49 (96%)	44 (94%)	2 (4%)	1 (2%)	11	48
29	D7	47/49 (96%)	45 (96%)	1 (2%)	1 (2%)	11	48
30	B8	62/65 (95%)	37 (60%)	15 (24%)	10 (16%)	0	1
30	D8	62/65 (95%)	38 (61%)	13 (21%)	11 (18%)	0	0
33	BD	270/276 (98%)	203 (75%)	50 (18%)	17 (6%)	2	16
33	DD	270/276 (98%)	202 (75%)	52 (19%)	16 (6%)	2	17
34	BE	203/206 (98%)	133 (66%)	43 (21%)	27 (13%)	0	2
34	DE	203/206 (98%)	136 (67%)	39 (19%)	28 (14%)	0	2
35	BF	206/210 (98%)	138 (67%)	44 (21%)	24 (12%)	1	4
35	DF	206/210 (98%)	137 (66%)	45 (22%)	24 (12%)	1	4
36	BG	177/182 (97%)	110 (62%)	46 (26%)	21 (12%)	1	4
36	DG	177/182 (97%)	109 (62%)	47 (27%)	21 (12%)	1	4
37	BH	158/180 (88%)	98 (62%)	38 (24%)	22 (14%)	0	2

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
37	DH	158/180 (88%)	97 (61%)	37 (23%)	24 (15%)	0	1
38	BI	144/148 (97%)	86 (60%)	36 (25%)	22 (15%)	0	1
38	DI	144/148 (97%)	83 (58%)	38 (26%)	23 (16%)	0	1
39	BN	137/140 (98%)	93 (68%)	29 (21%)	15 (11%)	1	5
39	DN	137/140 (98%)	97 (71%)	25 (18%)	15 (11%)	1	5
40	BO	120/122 (98%)	96 (80%)	19 (16%)	5 (4%)	4	27
40	DO	120/122 (98%)	98 (82%)	17 (14%)	5 (4%)	4	27
41	BP	144/150 (96%)	72 (50%)	31 (22%)	41 (28%)	0	0
41	DP	144/150 (96%)	72 (50%)	29 (20%)	43 (30%)	0	0
42	BQ	134/141 (95%)	92 (69%)	29 (22%)	13 (10%)	1	6
42	DQ	134/141 (95%)	91 (68%)	29 (22%)	14 (10%)	1	5
43	BR	115/118 (98%)	70 (61%)	34 (30%)	11 (10%)	1	7
43	DR	115/118 (98%)	71 (62%)	34 (30%)	10 (9%)	1	9
44	BS	97/112 (87%)	43 (44%)	26 (27%)	28 (29%)	0	0
44	DS	97/112 (87%)	41 (42%)	29 (30%)	27 (28%)	0	0
45	BT	130/146 (89%)	80 (62%)	25 (19%)	25 (19%)	0	0
45	DT	130/146 (89%)	80 (62%)	26 (20%)	24 (18%)	0	0
46	BU	115/118 (98%)	78 (68%)	29 (25%)	8 (7%)	2	13
46	DU	115/118 (98%)	82 (71%)	24 (21%)	9 (8%)	1	11
47	BV	97/101 (96%)	49 (50%)	24 (25%)	24 (25%)	0	0
47	DV	97/101 (96%)	47 (48%)	25 (26%)	25 (26%)	0	0
48	BW	111/113 (98%)	81 (73%)	11 (10%)	19 (17%)	0	0
48	DW	111/113 (98%)	78 (70%)	15 (14%)	18 (16%)	0	0
49	BX	91/96 (95%)	45 (50%)	22 (24%)	24 (26%)	0	0
49	DX	91/96 (95%)	45 (50%)	21 (23%)	25 (28%)	0	0
50	BY	99/110 (90%)	41 (41%)	25 (25%)	33 (33%)	0	0
50	DY	99/110 (90%)	41 (41%)	27 (27%)	31 (31%)	0	0
51	BZ	175/206 (85%)	117 (67%)	41 (23%)	17 (10%)	1	6
51	DZ	175/206 (85%)	116 (66%)	41 (23%)	18 (10%)	1	6
All	All	11148/12060 (92%)	7385 (66%)	2386 (21%)	1377 (12%)	1	3

All (1377) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	15	VAL
2	AB	34	ALA
2	AB	165	VAL
2	AB	194	PRO
3	AC	54	ARG
3	AC	189	ALA
4	AD	3	ARG
4	AD	4	TYR
4	AD	10	ARG
4	AD	14	ARG
4	AD	47	ARG
5	AE	20	GLN
5	AE	71	LEU
5	AE	72	GLN
6	AF	34	GLY
6	AF	40	VAL
6	AF	96	PRO
7	AG	7	ALA
7	AG	33	ASP
8	AH	83	ILE
10	AJ	59	SER
11	AK	106	LYS
12	AL	23	LYS
12	AL	28	LYS
12	AL	51	ALA
12	AL	91	LYS
12	AL	106	ASP
12	AL	115	LYS
13	AM	83	ASP
13	AM	106	ASN
14	AN	16	PHE
15	AO	29	VAL
16	AP	10	GLY
16	AP	11	SER
16	AP	28	ARG
16	AP	39	TYR
17	AQ	3	LYS
17	AQ	34	LYS
18	AR	32	ARG
19	AS	28	LYS
20	AT	11	SER
20	AT	49	ALA
20	AT	71	THR

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Mol	Chain	Res	Type
20	AT	74	LYS
20	AT	95	ALA
22	B0	44	ARG
23	B1	11	ARG
23	B1	14	VAL
23	B1	48	LYS
23	B1	55	GLY
23	B1	65	SER
23	B1	81	LYS
23	B1	94	LEU
23	B1	95	LEU
24	B2	16	LEU
24	B2	35	LEU
24	B2	49	LYS
26	B4	6	HIS
26	B4	7	PRO
26	B4	10	VAL
26	B4	11	PRO
26	B4	25	TYR
26	B4	27	THR
26	B4	29	PRO
27	B5	4	HIS
27	B5	47	PRO
27	B5	49	CYS
27	B5	56	LYS
28	B6	16	CYS
28	B6	20	ASN
28	B6	28	ARG
28	B6	29	ASN
28	B6	31	PRO
28	B6	33	LYS
28	B6	51	GLU
30	B8	32	LEU
30	B8	35	GLN
30	B8	37	SER
30	B8	52	LYS
30	B8	64	TYR
33	BD	3	VAL
33	BD	26	LYS
33	BD	28	GLU
33	BD	33	LEU
33	BD	156	ALA

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Mol	Chain	Res	Type
33	BD	159	ALA
33	BD	225	ALA
33	BD	239	ARG
34	BE	53	PRO
34	BE	71	GLY
34	BE	77	ILE
34	BE	82	ARG
34	BE	89	ASP
34	BE	93	VAL
34	BE	118	LYS
34	BE	131	ALA
35	BF	14	PRO
35	BF	133	ASN
36	BG	6	ALA
36	BG	47	LYS
36	BG	79	ASN
36	BG	82	LEU
36	BG	86	MET
36	BG	87	PRO
36	BG	90	LEU
36	BG	96	ARG
37	BH	13	LYS
37	BH	41	MET
37	BH	70	THR
37	BH	138	LYS
37	BH	153	LYS
37	BH	154	PRO
37	BH	156	ALA
37	BH	170	ARG
38	BI	42	SER
38	BI	89	TYR
38	BI	91	SER
38	BI	133	HIS
38	BI	145	VAL
39	BN	58	ASP
39	BN	67	LEU
39	BN	74	ARG
39	BN	78	TYR
39	BN	79	PRO
39	BN	83	LYS
39	BN	129	PRO
40	BO	47	ILE

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Mol	Chain	Res	Type
40	BO	48	PRO
41	BP	11	GLY
41	BP	14	LYS
41	BP	15	ARG
41	BP	18	ARG
41	BP	31	ALA
41	BP	40	SER
41	BP	47	ASP
41	BP	49	ARG
41	BP	52	GLU
41	BP	56	SER
41	BP	57	THR
41	BP	58	THR
41	BP	101	VAL
41	BP	106	LEU
41	BP	107	LYS
41	BP	108	LYS
41	BP	111	ARG
41	BP	119	GLU
41	BP	146	VAL
41	BP	147	LEU
42	BQ	8	LYS
42	BQ	21	THR
42	BQ	25	ASP
42	BQ	83	MET
42	BQ	135	ASP
43	BR	4	LEU
43	BR	5	LYS
43	BR	10	LEU
43	BR	117	VAL
44	BS	14	VAL
44	BS	33	LYS
44	BS	57	LYS
44	BS	59	LYS
44	BS	74	ALA
44	BS	100	ALA
44	BS	102	ALA
44	BS	103	GLU
45	BT	13	ARG
45	BT	18	ASP
45	BT	24	PRO
45	BT	26	ASP

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Mol	Chain	Res	Type
45	BT	35	LYS
45	BT	36	GLU
45	BT	41	ARG
45	BT	42	ILE
45	BT	55	ASN
45	BT	58	ASN
45	BT	80	SER
45	BT	88	ILE
45	BT	94	ALA
45	BT	107	ASP
46	BU	32	PHE
46	BU	61	TRP
46	BU	62	ILE
46	BU	91	ASP
47	BV	3	ALA
47	BV	19	LYS
47	BV	23	GLU
47	BV	28	GLU
47	BV	40	LEU
47	BV	41	GLY
47	BV	47	VAL
47	BV	51	VAL
47	BV	57	VAL
47	BV	73	SER
47	BV	86	GLY
47	BV	90	PRO
48	BW	59	VAL
49	BX	24	GLY
49	BX	25	LYS
49	BX	34	ALA
49	BX	60	ARG
49	BX	73	ARG
49	BX	75	ASP
49	BX	77	LYS
49	BX	84	ALA
49	BX	88	LYS
49	BX	89	ILE
50	BY	3	VAL
50	BY	7	VAL
50	BY	19	LYS
50	BY	27	VAL
50	BY	31	LEU

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Mol	Chain	Res	Type
50	BY	35	TYR
50	BY	56	PRO
50	BY	57	GLN
50	BY	64	GLU
50	BY	66	PRO
50	BY	69	ALA
50	BY	76	CYS
50	BY	78	ALA
50	BY	81	LYS
50	BY	100	ALA
51	BZ	168	GLU
51	BZ	172	ALA
2	CB	15	VAL
2	CB	34	ALA
2	CB	165	VAL
2	CB	194	PRO
3	CC	4	LYS
3	CC	54	ARG
3	CC	189	ALA
4	CD	3	ARG
4	CD	4	TYR
4	CD	10	ARG
4	CD	14	ARG
4	CD	47	ARG
5	CE	20	GLN
5	CE	72	GLN
6	CF	34	GLY
6	CF	40	VAL
6	CF	45	LEU
6	CF	81	ILE
6	CF	96	PRO
7	CG	7	ALA
7	CG	33	ASP
8	CH	83	ILE
10	CJ	59	SER
11	CK	100	ALA
11	CK	106	LYS
12	CL	23	LYS
12	CL	28	LYS
12	CL	51	ALA
12	CL	91	LYS
12	CL	106	ASP

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Mol	Chain	Res	Type
12	CL	115	LYS
13	CM	12	ASN
13	CM	83	ASP
13	CM	106	ASN
14	CN	16	PHE
15	CO	29	VAL
16	CP	10	GLY
16	CP	11	SER
16	CP	28	ARG
17	CQ	34	LYS
18	CR	32	ARG
19	CS	28	LYS
20	CT	11	SER
20	CT	49	ALA
20	CT	71	THR
20	CT	74	LYS
22	D0	44	ARG
23	D1	11	ARG
23	D1	14	VAL
23	D1	48	LYS
23	D1	65	SER
23	D1	81	LYS
23	D1	94	LEU
23	D1	95	LEU
24	D2	16	LEU
24	D2	35	LEU
24	D2	49	LYS
26	D4	6	HIS
26	D4	7	PRO
26	D4	10	VAL
26	D4	11	PRO
26	D4	25	TYR
26	D4	27	THR
26	D4	29	PRO
27	D5	4	HIS
27	D5	47	PRO
27	D5	49	CYS
27	D5	56	LYS
28	D6	16	CYS
28	D6	20	ASN
28	D6	28	ARG
28	D6	29	ASN

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Mol	Chain	Res	Type
28	D6	31	PRO
28	D6	33	LYS
28	D6	51	GLU
30	D8	32	LEU
30	D8	35	GLN
30	D8	37	SER
30	D8	52	LYS
33	DD	3	VAL
33	DD	26	LYS
33	DD	28	GLU
33	DD	156	ALA
33	DD	159	ALA
33	DD	225	ALA
33	DD	239	ARG
33	DD	267	SER
34	DE	53	PRO
34	DE	66	HIS
34	DE	71	GLY
34	DE	77	ILE
34	DE	82	ARG
34	DE	89	ASP
34	DE	93	VAL
34	DE	118	LYS
34	DE	131	ALA
35	DF	14	PRO
35	DF	133	ASN
36	DG	6	ALA
36	DG	47	LYS
36	DG	79	ASN
36	DG	82	LEU
36	DG	86	MET
36	DG	87	PRO
36	DG	90	LEU
36	DG	96	ARG
37	DH	13	LYS
37	DH	41	MET
37	DH	44	VAL
37	DH	70	THR
37	DH	71	LEU
37	DH	138	LYS
37	DH	153	LYS
37	DH	154	PRO

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Mol	Chain	Res	Type
37	DH	156	ALA
37	DH	170	ARG
38	DI	89	TYR
38	DI	91	SER
38	DI	133	HIS
38	DI	145	VAL
39	DN	58	ASP
39	DN	67	LEU
39	DN	74	ARG
39	DN	78	TYR
39	DN	79	PRO
39	DN	83	LYS
39	DN	129	PRO
40	DO	47	ILE
40	DO	48	PRO
41	DP	11	GLY
41	DP	14	LYS
41	DP	15	ARG
41	DP	18	ARG
41	DP	31	ALA
41	DP	40	SER
41	DP	42	SER
41	DP	47	ASP
41	DP	49	ARG
41	DP	52	GLU
41	DP	56	SER
41	DP	57	THR
41	DP	58	THR
41	DP	101	VAL
41	DP	106	LEU
41	DP	107	LYS
41	DP	108	LYS
41	DP	111	ARG
41	DP	119	GLU
41	DP	146	VAL
41	DP	147	LEU
42	DQ	8	LYS
42	DQ	21	THR
42	DQ	25	ASP
42	DQ	83	MET
42	DQ	135	ASP
43	DR	5	LYS

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Mol	Chain	Res	Type
43	DR	10	LEU
43	DR	117	VAL
44	DS	14	VAL
44	DS	33	LYS
44	DS	57	LYS
44	DS	59	LYS
44	DS	74	ALA
44	DS	87	PHE
44	DS	100	ALA
44	DS	102	ALA
44	DS	103	GLU
45	DT	13	ARG
45	DT	18	ASP
45	DT	24	PRO
45	DT	26	ASP
45	DT	35	LYS
45	DT	36	GLU
45	DT	41	ARG
45	DT	42	ILE
45	DT	58	ASN
45	DT	80	SER
45	DT	88	ILE
45	DT	94	ALA
45	DT	107	ASP
46	DU	32	PHE
46	DU	61	TRP
46	DU	62	ILE
46	DU	91	ASP
47	DV	3	ALA
47	DV	19	LYS
47	DV	23	GLU
47	DV	28	GLU
47	DV	40	LEU
47	DV	41	GLY
47	DV	47	VAL
47	DV	51	VAL
47	DV	57	VAL
47	DV	73	SER
47	DV	86	GLY
47	DV	90	PRO
48	DW	59	VAL
49	DX	24	GLY

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Mol	Chain	Res	Type
49	DX	25	LYS
49	DX	34	ALA
49	DX	60	ARG
49	DX	73	ARG
49	DX	77	LYS
49	DX	84	ALA
49	DX	88	LYS
49	DX	89	ILE
50	DY	3	VAL
50	DY	7	VAL
50	DY	19	LYS
50	DY	27	VAL
50	DY	31	LEU
50	DY	35	TYR
50	DY	56	PRO
50	DY	57	GLN
50	DY	64	GLU
50	DY	66	PRO
50	DY	69	ALA
50	DY	76	CYS
50	DY	78	ALA
50	DY	81	LYS
50	DY	100	ALA
51	DZ	168	GLU
51	DZ	172	ALA
2	AB	18	GLY
2	AB	19	HIS
2	AB	65	GLY
2	AB	95	GLN
2	AB	154	LEU
2	AB	189	ASP
2	AB	195	ASP
2	AB	207	ALA
2	AB	237	ALA
3	AC	4	LYS
3	AC	12	LEU
3	AC	101	LEU
3	AC	156	ARG
3	AC	207	VAL
4	AD	44	GLY
4	AD	63	LYS
5	AE	11	ILE

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Mol	Chain	Res	Type
5	AE	140	ARG
5	AE	146	ALA
5	AE	153	LYS
6	AF	42	GLU
6	AF	45	LEU
6	AF	81	ILE
7	AG	85	TYR
8	AH	52	ASP
9	AI	100	GLY
9	AI	117	HIS
9	AI	124	GLN
10	AJ	23	ILE
11	AK	48	ILE
11	AK	63	LEU
11	AK	76	GLY
11	AK	93	GLN
11	AK	100	ALA
12	AL	6	THR
12	AL	13	LYS
12	AL	29	GLY
12	AL	63	GLY
12	AL	76	ASN
12	AL	92	ASP
13	AM	4	ILE
13	AM	12	ASN
13	AM	100	GLY
14	AN	21	TYR
14	AN	52	GLN
16	AP	19	ILE
16	AP	50	LYS
16	AP	78	GLY
18	AR	36	ASN
19	AS	27	GLU
20	AT	20	LEU
20	AT	84	LEU
20	AT	96	GLY
20	AT	97	ALA
20	AT	101	GLY
22	B0	5	LYS
22	B0	9	SER
22	B0	83	PRO
23	B1	10	LYS

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Mol	Chain	Res	Type
23	B1	33	LYS
23	B1	49	VAL
23	B1	87	PRO
24	B2	42	GLY
24	B2	47	ASN
24	B2	52	ASP
26	B4	13	ARG
26	B4	24	THR
27	B5	52	TYR
27	B5	53	ALA
28	B6	49	HIS
30	B8	31	HIS
30	B8	41	ILE
33	BD	74	GLY
33	BD	267	SER
34	BE	17	ASP
34	BE	57	LYS
34	BE	66	HIS
34	BE	88	GLY
34	BE	187	ALA
35	BF	5	ALA
35	BF	24	LEU
35	BF	66	PRO
35	BF	84	VAL
35	BF	89	VAL
35	BF	119	ARG
36	BG	49	ASP
36	BG	111	LEU
36	BG	153	ARG
37	BH	44	VAL
37	BH	71	LEU
37	BH	92	ILE
37	BH	98	LEU
37	BH	126	PRO
37	BH	136	ILE
37	BH	141	VAL
37	BH	157	TYR
38	BI	15	VAL
38	BI	78	THR
38	BI	85	GLU
38	BI	94	ALA
38	BI	120	ILE

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Mol	Chain	Res	Type
38	BI	122	GLU
39	BN	57	ALA
39	BN	64	GLY
39	BN	127	ASP
41	BP	34	GLY
41	BP	35	HIS
41	BP	42	SER
41	BP	67	MET
41	BP	89	ALA
41	BP	141	ALA
42	BQ	19	GLY
42	BQ	30	GLY
42	BQ	90	VAL
43	BR	7	GLY
43	BR	77	ARG
44	BS	77	ALA
44	BS	87	PHE
44	BS	89	ARG
44	BS	107	GLU
45	BT	68	TYR
45	BT	115	ARG
46	BU	89	GLU
46	BU	92	ARG
47	BV	18	LEU
47	BV	44	LYS
47	BV	53	GLU
47	BV	71	LEU
47	BV	72	VAL
48	BW	30	GLU
48	BW	56	ALA
48	BW	60	ASN
49	BX	19	ALA
49	BX	36	LYS
49	BX	37	THR
49	BX	68	ARG
49	BX	71	GLY
49	BX	72	LYS
49	BX	74	PRO
49	BX	81	VAL
49	BX	86	GLY
50	BY	10	GLY
50	BY	65	ALA

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Mol	Chain	Res	Type
50	BY	77	PRO
50	BY	80	GLY
50	BY	98	VAL
51	BZ	64	GLY
51	BZ	80	ARG
51	BZ	81	ARG
51	BZ	111	VAL
51	BZ	121	HIS
51	BZ	142	SER
51	BZ	147	GLY
2	CB	18	GLY
2	CB	19	HIS
2	CB	65	GLY
2	CB	95	GLN
2	CB	189	ASP
2	CB	195	ASP
2	CB	237	ALA
3	CC	12	LEU
3	CC	101	LEU
3	CC	156	ARG
3	CC	207	VAL
4	CD	44	GLY
4	CD	63	LYS
5	CE	11	ILE
5	CE	71	LEU
5	CE	140	ARG
5	CE	146	ALA
5	CE	153	LYS
6	CF	42	GLU
7	CG	85	TYR
8	CH	52	ASP
9	CI	100	GLY
9	CI	117	HIS
9	CI	124	GLN
10	CJ	23	ILE
11	CK	48	ILE
11	CK	63	LEU
11	CK	76	GLY
11	CK	93	GLN
12	CL	22	SER
12	CL	29	GLY
12	CL	76	ASN

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Mol	Chain	Res	Type
12	CL	92	ASP
13	CM	4	ILE
13	CM	100	GLY
14	CN	21	TYR
16	CP	19	ILE
16	CP	39	TYR
16	CP	50	LYS
16	CP	78	GLY
17	CQ	3	LYS
18	CR	36	ASN
19	CS	27	GLU
20	CT	20	LEU
20	CT	84	LEU
20	CT	95	ALA
20	CT	96	GLY
20	CT	97	ALA
20	CT	101	GLY
22	D0	5	LYS
22	D0	83	PRO
23	D1	10	LYS
23	D1	33	LYS
23	D1	49	VAL
23	D1	55	GLY
23	D1	87	PRO
24	D2	42	GLY
24	D2	47	ASN
24	D2	52	ASP
26	D4	13	ARG
26	D4	24	THR
27	D5	24	ALA
27	D5	48	GLU
27	D5	52	TYR
27	D5	53	ALA
28	D6	15	GLU
28	D6	41	PRO
28	D6	49	HIS
30	D8	31	HIS
30	D8	41	ILE
30	D8	64	TYR
33	DD	33	LEU
33	DD	74	GLY
34	DE	17	ASP

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Mol	Chain	Res	Type
34	DE	57	LYS
34	DE	88	GLY
34	DE	186	GLY
35	DF	5	ALA
35	DF	66	PRO
35	DF	84	VAL
35	DF	85	GLY
35	DF	89	VAL
35	DF	119	ARG
36	DG	49	ASP
36	DG	111	LEU
36	DG	153	ARG
37	DH	90	LYS
37	DH	92	ILE
37	DH	98	LEU
37	DH	126	PRO
37	DH	136	ILE
37	DH	141	VAL
37	DH	151	ILE
37	DH	157	TYR
38	DI	15	VAL
38	DI	16	GLY
38	DI	42	SER
38	DI	78	THR
38	DI	85	GLU
38	DI	94	ALA
38	DI	97	ILE
38	DI	120	ILE
38	DI	122	GLU
39	DN	57	ALA
39	DN	64	GLY
39	DN	127	ASP
40	DO	56	ASP
40	DO	112	MET
41	DP	25	SER
41	DP	34	GLY
41	DP	35	HIS
41	DP	39	LYS
41	DP	65	ARG
41	DP	67	MET
41	DP	90	ARG
41	DP	141	ALA

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Mol	Chain	Res	Type
42	DQ	30	GLY
42	DQ	90	VAL
43	DR	7	GLY
44	DS	85	VAL
44	DS	107	GLU
45	DT	55	ASN
45	DT	56	GLY
45	DT	68	TYR
45	DT	115	ARG
46	DU	89	GLU
46	DU	92	ARG
47	DV	18	LEU
47	DV	44	LYS
47	DV	53	GLU
47	DV	71	LEU
47	DV	72	VAL
48	DW	30	GLU
48	DW	44	ALA
48	DW	56	ALA
48	DW	60	ASN
49	DX	19	ALA
49	DX	36	LYS
49	DX	59	VAL
49	DX	68	ARG
49	DX	71	GLY
49	DX	72	LYS
49	DX	74	PRO
49	DX	75	ASP
49	DX	81	VAL
49	DX	86	GLY
50	DY	10	GLY
50	DY	38	ILE
50	DY	77	PRO
50	DY	80	GLY
50	DY	98	VAL
51	DZ	64	GLY
51	DZ	81	ARG
51	DZ	111	VAL
51	DZ	121	HIS
51	DZ	142	SER
51	DZ	147	GLY
4	AD	31	CYS

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Mol	Chain	Res	Type
4	AD	53	ASP
4	AD	73	ARG
4	AD	109	GLY
4	AD	142	PRO
5	AE	128	PRO
6	AF	13	ASN
6	AF	16	GLN
8	AH	51	VAL
8	AH	133	LEU
9	AI	23	ASN
10	AJ	36	GLY
12	AL	12	ARG
12	AL	22	SER
13	AM	107	ALA
14	AN	28	GLY
15	AO	88	ARG
16	AP	24	ALA
17	AQ	78	GLU
17	AQ	96	GLU
19	AS	5	LEU
20	AT	40	ALA
21	AU	25	LYS
22	B0	13	GLY
24	B2	32	LEU
26	B4	14	ILE
27	B5	24	ALA
27	B5	48	GLU
28	B6	15	GLU
28	B6	41	PRO
30	B8	30	ARG
30	B8	36	LYS
33	BD	12	SER
33	BD	134	ARG
33	BD	241	PRO
33	BD	272	ALA
34	BE	119	ARG
34	BE	174	ASP
35	BF	2	LYS
35	BF	11	VAL
35	BF	20	LEU
35	BF	31	HIS
35	BF	42	ALA

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Mol	Chain	Res	Type
36	BG	42	GLY
36	BG	97	ASP
36	BG	130	ASN
36	BG	148	MET
37	BH	90	LYS
37	BH	117	PRO
37	BH	151	ILE
38	BI	5	LEU
38	BI	14	ASP
38	BI	16	GLY
38	BI	34	GLY
39	BN	135	PRO
40	BO	5	GLN
40	BO	56	ASP
40	BO	112	MET
41	BP	8	PRO
41	BP	25	SER
41	BP	39	LYS
41	BP	65	ARG
41	BP	90	ARG
41	BP	91	PHE
41	BP	102	ARG
42	BQ	15	GLY
43	BR	12	ARG
43	BR	106	GLY
44	BS	23	ARG
44	BS	24	LEU
44	BS	56	LEU
44	BS	85	VAL
44	BS	94	TYR
45	BT	81	PRO
45	BT	90	GLN
45	BT	116	ALA
47	BV	24	LYS
47	BV	52	VAL
47	BV	68	LYS
48	BW	63	ASP
48	BW	65	LEU
49	BX	59	VAL
49	BX	90	GLU
49	BX	91	ALA
50	BY	38	ILE

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Mol	Chain	Res	Type
50	BY	39	VAL
50	BY	50	ARG
50	BY	70	SER
50	BY	89	PHE
51	BZ	79	ARG
51	BZ	166	SER
2	CB	154	LEU
2	CB	207	ALA
3	CC	18	TRP
4	CD	25	ARG
4	CD	31	CYS
4	CD	73	ARG
4	CD	110	PHE
4	CD	142	PRO
5	CE	107	ARG
5	CE	128	PRO
6	CF	13	ASN
6	CF	16	GLN
6	CF	47	ARG
7	CG	89	MET
8	CH	37	ARG
8	CH	51	VAL
8	CH	133	LEU
9	CI	23	ASN
10	CJ	36	GLY
11	CK	54	ARG
12	CL	6	THR
12	CL	12	ARG
12	CL	63	GLY
12	CL	89	ARG
13	CM	107	ALA
14	CN	28	GLY
14	CN	52	GLN
15	CO	88	ARG
16	CP	24	ALA
17	CQ	78	GLU
17	CQ	96	GLU
19	CS	5	LEU
21	CU	25	LYS
22	D0	9	SER
22	D0	13	GLY
23	D1	38	SER

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Mol	Chain	Res	Type
23	D1	83	GLU
24	D2	32	LEU
26	D4	14	ILE
26	D4	20	ASN
27	D5	43	HIS
30	D8	30	ARG
30	D8	36	LYS
33	DD	241	PRO
34	DE	187	ALA
34	DE	201	THR
35	DF	2	LYS
35	DF	11	VAL
35	DF	20	LEU
35	DF	24	LEU
35	DF	42	ALA
35	DF	47	GLY
36	DG	42	GLY
36	DG	97	ASP
36	DG	130	ASN
36	DG	148	MET
37	DH	72	ILE
37	DH	117	PRO
38	DI	5	LEU
39	DN	135	PRO
40	DO	5	GLN
41	DP	89	ALA
41	DP	91	PHE
41	DP	102	ARG
42	DQ	19	GLY
43	DR	4	LEU
43	DR	12	ARG
43	DR	77	ARG
43	DR	88	ARG
43	DR	106	GLY
44	DS	24	LEU
44	DS	77	ALA
44	DS	89	ARG
44	DS	94	TYR
45	DT	81	PRO
45	DT	90	GLN
47	DV	65	GLY
47	DV	68	LYS

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Mol	Chain	Res	Type
48	DW	42	ARG
48	DW	45	TYR
48	DW	57	ASN
48	DW	58	ALA
48	DW	63	ASP
48	DW	65	LEU
48	DW	67	ASP
49	DX	37	THR
50	DY	16	ALA
50	DY	39	VAL
50	DY	42	VAL
50	DY	65	ALA
50	DY	89	PHE
51	DZ	50	GLN
51	DZ	79	ARG
51	DZ	80	ARG
51	DZ	166	SER
2	AB	226	ARG
3	AC	15	THR
3	AC	18	TRP
3	AC	62	ASP
4	AD	5	ILE
4	AD	25	ARG
4	AD	28	SER
4	AD	42	GLN
4	AD	110	PHE
4	AD	193	ASP
5	AE	105	VAL
6	AF	47	ARG
6	AF	82	ARG
7	AG	14	PRO
7	AG	89	MET
8	AH	2	LEU
8	AH	37	ARG
8	AH	68	ARG
9	AI	105	ASP
11	AK	54	ARG
15	AO	4	THR
15	AO	21	ASP
15	AO	44	LYS
15	AO	76	GLU
16	AP	83	GLU

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Mol	Chain	Res	Type
19	AS	6	LYS
19	AS	29	ARG
20	AT	98	PRO
22	B0	15	ASP
22	B0	55	ARG
23	B1	38	SER
23	B1	83	GLU
24	B2	51	ARG
26	B4	20	ASN
27	B5	43	HIS
28	B6	23	THR
29	B7	2	LYS
33	BD	58	HIS
34	BE	58	ARG
34	BE	60	ASN
34	BE	173	VAL
34	BE	186	GLY
35	BF	54	ARG
35	BF	68	LYS
35	BF	127	GLU
35	BF	146	ALA
35	BF	164	ARG
35	BF	206	ILE
36	BG	99	MET
36	BG	142	PRO
37	BH	72	ILE
37	BH	89	ILE
38	BI	49	ALA
38	BI	97	ILE
39	BN	63	THR
39	BN	73	THR
41	BP	38	GLN
41	BP	53	GLY
41	BP	100	LEU
42	BQ	7	MET
42	BQ	11	LYS
42	BQ	82	ARG
42	BQ	89	ASN
43	BR	23	ASN
43	BR	88	ARG
43	BR	104	ARG
44	BS	15	ARG

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Mol	Chain	Res	Type
44	BS	29	PHE
44	BS	58	LEU
44	BS	64	GLU
44	BS	79	ALA
45	BT	56	GLY
45	BT	97	ALA
45	BT	103	ARG
47	BV	36	PRO
47	BV	70	ILE
48	BW	42	ARG
48	BW	44	ALA
48	BW	58	ALA
48	BW	67	ASP
48	BW	75	TYR
50	BY	16	ALA
50	BY	101	LYS
51	BZ	120	ILE
51	BZ	140	ASP
51	BZ	146	ILE
2	CB	226	ARG
3	CC	15	THR
3	CC	62	ASP
4	CD	5	ILE
4	CD	28	SER
4	CD	42	GLN
4	CD	109	GLY
4	CD	136	PRO
4	CD	193	ASP
5	CE	58	ALA
5	CE	105	VAL
6	CF	62	TRP
6	CF	82	ARG
7	CG	14	PRO
8	CH	2	LEU
8	CH	41	ARG
9	CI	105	ASP
12	CL	13	LYS
14	CN	56	VAL
15	CO	16	ALA
15	CO	21	ASP
15	CO	44	LYS
15	CO	76	GLU

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Mol	Chain	Res	Type
16	CP	81	ARG
16	CP	83	GLU
19	CS	29	ARG
19	CS	30	LEU
20	CT	40	ALA
20	CT	98	PRO
22	D0	15	ASP
24	D2	51	ARG
26	D4	16	CYS
28	D6	23	THR
33	DD	134	ARG
33	DD	272	ALA
34	DE	58	ARG
34	DE	119	ARG
34	DE	129	HIS
34	DE	173	VAL
35	DF	31	HIS
35	DF	54	ARG
35	DF	127	GLU
35	DF	146	ALA
35	DF	206	ILE
36	DG	99	MET
36	DG	115	ARG
36	DG	142	PRO
37	DH	89	ILE
38	DI	14	ASP
38	DI	25	TYR
38	DI	30	LEU
39	DN	63	THR
41	DP	8	PRO
41	DP	37	GLY
41	DP	100	LEU
41	DP	104	GLY
42	DQ	11	LYS
42	DQ	13	GLN
42	DQ	82	ARG
42	DQ	89	ASN
43	DR	104	ARG
44	DS	23	ARG
44	DS	29	PHE
44	DS	56	LEU
44	DS	64	GLU

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Mol	Chain	Res	Type
45	DT	110	ILE
45	DT	116	ALA
46	DU	73	GLY
47	DV	24	LYS
47	DV	52	VAL
47	DV	70	ILE
48	DW	6	ILE
48	DW	66	GLU
48	DW	75	TYR
49	DX	85	PRO
49	DX	90	GLU
49	DX	91	ALA
50	DY	50	ARG
50	DY	67	LEU
50	DY	70	SER
50	DY	101	LYS
51	DZ	120	ILE
51	DZ	140	ASP
3	AC	60	ALA
4	AD	13	ARG
4	AD	105	VAL
4	AD	136	PRO
4	AD	181	MET
4	AD	189	PRO
5	AE	58	ALA
5	AE	73	ASN
6	AF	54	LYS
6	AF	62	TRP
9	AI	10	ARG
9	AI	24	GLY
9	AI	29	ASN
12	AL	19	ARG
12	AL	94	PRO
12	AL	121	GLY
14	AN	56	VAL
15	AO	16	ALA
15	AO	24	SER
16	AP	46	PRO
16	AP	64	ALA
16	AP	81	ARG
18	AR	20	ALA
19	AS	30	LEU

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Mol	Chain	Res	Type
20	AT	47	GLY
20	AT	63	ILE
20	AT	73	HIS
23	B1	86	SER
26	B4	16	CYS
27	B5	33	CYS
27	B5	59	GLU
28	B6	52	VAL
34	BE	56	PRO
34	BE	90	THR
34	BE	129	HIS
34	BE	130	GLY
34	BE	159	HIS
35	BF	10	PRO
35	BF	30	PRO
35	BF	85	GLY
36	BG	35	GLU
36	BG	115	ARG
36	BG	128	ARG
38	BI	30	LEU
38	BI	71	ILE
41	BP	9	ASN
41	BP	104	GLY
44	BS	88	ASP
45	BT	128	GLU
46	BU	73	GLY
47	BV	50	PRO
47	BV	65	GLY
48	BW	6	ILE
48	BW	48	ALA
48	BW	66	GLU
49	BX	22	ALA
50	BY	11	ASP
50	BY	42	VAL
50	BY	67	LEU
50	BY	90	LEU
51	BZ	50	GLN
3	CC	60	ALA
4	CD	13	ARG
4	CD	53	ASP
4	CD	59	ARG
4	CD	181	MET

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Mol	Chain	Res	Type
4	CD	206	PHE
5	CE	18	ARG
5	CE	21	ALA
5	CE	129	ILE
6	CF	54	LYS
8	CH	22	GLU
9	CI	10	ARG
9	CI	24	GLY
9	CI	29	ASN
12	CL	19	ARG
12	CL	47	LYS
12	CL	71	PRO
12	CL	94	PRO
15	CO	4	THR
15	CO	24	SER
15	CO	65	ARG
16	CP	29	ASP
18	CR	20	ALA
18	CR	45	SER
18	CR	63	GLN
19	CS	6	LYS
20	CT	47	GLY
20	CT	63	ILE
20	CT	73	HIS
23	D1	28	GLY
24	D2	40	SER
27	D5	59	GLU
28	D6	52	VAL
29	D7	2	LYS
33	DD	242	ARG
34	DE	56	PRO
34	DE	60	ASN
34	DE	90	THR
34	DE	94	GLU
34	DE	153	GLY
35	DF	10	PRO
35	DF	30	PRO
35	DF	144	LYS
36	DG	35	GLU
37	DH	140	LYS
38	DI	26	ALA
38	DI	49	ALA

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Mol	Chain	Res	Type
38	DI	53	ALA
38	DI	71	ILE
39	DN	73	THR
41	DP	9	ASN
41	DP	38	GLN
41	DP	115	LEU
41	DP	123	LEU
42	DQ	7	MET
44	DS	15	ARG
44	DS	58	LEU
44	DS	79	ALA
44	DS	88	ASP
45	DT	103	ARG
45	DT	128	GLU
46	DU	58	ARG
47	DV	36	PRO
47	DV	50	PRO
49	DX	4	ALA
49	DX	22	ALA
50	DY	22	GLY
50	DY	90	LEU
4	AD	7	PRO
5	AE	21	ALA
5	AE	107	ARG
5	AE	147	ASP
8	AH	22	GLU
8	AH	41	ARG
9	AI	107	ARG
12	AL	18	VAL
12	AL	26	ALA
12	AL	47	LYS
15	AO	65	ARG
16	AP	65	GLN
18	AR	63	GLN
23	B1	28	GLY
23	B1	36	GLY
24	B2	40	SER
24	B2	50	ILE
33	BD	34	VAL
34	BE	72	VAL
37	BH	168	PRO
38	BI	25	TYR

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Mol	Chain	Res	Type
41	BP	10	PRO
41	BP	74	GLU
45	BT	7	ILE
46	BU	90	VAL
48	BW	14	PRO
48	BW	57	ASN
48	BW	93	ALA
49	BX	4	ALA
4	CD	7	PRO
4	CD	24	GLU
5	CE	147	ASP
12	CL	121	GLY
16	CP	46	PRO
16	CP	65	GLN
22	D0	55	ARG
23	D1	86	SER
24	D2	50	ILE
26	D4	3	GLU
27	D5	32	PRO
27	D5	33	CYS
30	D8	25	MET
34	DE	130	GLY
34	DE	174	ASP
36	DG	128	ARG
37	DH	42	ARG
37	DH	168	PRO
41	DP	144	GLU
44	DS	28	VAL
46	DU	90	VAL
47	DV	39	LEU
48	DW	14	PRO
51	DZ	109	ALA
2	AB	208	ILE
8	AH	86	ILE
9	AI	123	PRO
27	B5	32	PRO
33	BD	170	GLY
35	BF	47	GLY
36	BG	129	GLY
38	BI	119	PRO
41	BP	144	GLU
44	BS	28	VAL

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Mol	Chain	Res	Type
45	BT	110	ILE
48	BW	112	GLY
4	CD	105	VAL
8	CH	86	ILE
9	CI	97	LYS
9	CI	123	PRO
11	CK	105	VAL
12	CL	18	VAL
27	D5	34	PRO
34	DE	72	VAL
35	DF	25	PRO
38	DI	84	GLY
38	DI	119	PRO
39	DN	80	GLY
41	DP	53	GLY
42	DQ	15	GLY
48	DW	80	PRO
48	DW	112	GLY
51	DZ	177	PRO
4	AD	40	PRO
9	AI	97	LYS
11	AK	105	VAL
12	AL	71	PRO
30	B8	38	GLY
35	BF	25	PRO
38	BI	84	GLY
39	BN	128	HIS
44	BS	108	GLY
51	BZ	177	PRO
23	D1	36	GLY
25	D3	13	ILE
30	D8	38	GLY
33	DD	34	VAL
36	DG	129	GLY
39	DN	128	HIS
41	DP	10	PRO
44	DS	60	GLY
44	DS	108	GLY
51	DZ	47	VAL
51	DZ	146	ILE
18	AR	22	VAL
25	B3	13	ILE

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Mol	Chain	Res	Type
39	BN	80	GLY
44	BS	60	GLY
51	BZ	47	VAL
2	CB	208	ILE
6	CF	95	GLU
12	CL	72	GLY
17	CQ	35	VAL
18	CR	22	VAL
2	AB	230	VAL
3	AC	145	GLY
4	AD	56	VAL
17	AQ	35	VAL
34	BE	153	GLY
44	BS	22	GLY
44	BS	35	ILE
50	BY	22	GLY
2	CB	230	VAL
3	CC	145	GLY
4	CD	40	PRO
18	CR	70	ILE
33	DD	127	VAL
35	DF	86	GLY
44	DS	22	GLY
3	AC	66	VAL
5	AE	129	ILE
48	BW	80	PRO
4	CD	189	PRO
9	CI	109	VAL
45	DT	7	ILE
50	BY	32	PRO
34	DE	147	PRO
34	BE	147	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%)	182 (90%)	20 (10%)	11	39

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	CB	202/220 (92%)	183 (91%)	19 (9%)	13	43
3	AC	160/188 (85%)	154 (96%)	6 (4%)	44	84
3	CC	160/188 (85%)	154 (96%)	6 (4%)	44	84
4	AD	180/181 (99%)	157 (87%)	23 (13%)	6	24
4	CD	180/181 (99%)	156 (87%)	24 (13%)	6	22
5	AE	115/123 (94%)	101 (88%)	14 (12%)	7	26
5	CE	115/123 (94%)	101 (88%)	14 (12%)	7	26
6	AF	90/90 (100%)	80 (89%)	10 (11%)	9	33
6	CF	90/90 (100%)	80 (89%)	10 (11%)	9	33
7	AG	126/127 (99%)	120 (95%)	6 (5%)	35	77
7	CG	126/127 (99%)	120 (95%)	6 (5%)	35	77
8	AH	119/119 (100%)	104 (87%)	15 (13%)	7	24
8	CH	119/119 (100%)	105 (88%)	14 (12%)	8	29
9	AI	98/99 (99%)	87 (89%)	11 (11%)	9	33
9	CI	98/99 (99%)	88 (90%)	10 (10%)	11	37
10	AJ	88/92 (96%)	75 (85%)	13 (15%)	4	17
10	CJ	88/92 (96%)	76 (86%)	12 (14%)	5	21
11	AK	90/99 (91%)	83 (92%)	7 (8%)	18	57
11	CK	90/99 (91%)	83 (92%)	7 (8%)	18	57
12	AL	104/111 (94%)	94 (90%)	10 (10%)	12	42
12	CL	104/111 (94%)	94 (90%)	10 (10%)	12	42
13	AM	93/101 (92%)	85 (91%)	8 (9%)	15	51
13	CM	93/101 (92%)	85 (91%)	8 (9%)	15	51
14	AN	49/50 (98%)	46 (94%)	3 (6%)	26	67
14	CN	49/50 (98%)	46 (94%)	3 (6%)	26	67
15	AO	79/80 (99%)	71 (90%)	8 (10%)	11	38
15	CO	79/80 (99%)	71 (90%)	8 (10%)	11	38
16	AP	72/74 (97%)	61 (85%)	11 (15%)	4	15
16	CP	72/74 (97%)	61 (85%)	11 (15%)	4	15
17	AQ	94/97 (97%)	86 (92%)	8 (8%)	15	51
17	CQ	94/97 (97%)	86 (92%)	8 (8%)	15	51

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
18	AR	61/77 (79%)	55 (90%)	6 (10%)	12	40
18	CR	61/77 (79%)	55 (90%)	6 (10%)	12	40
19	AS	69/80 (86%)	60 (87%)	9 (13%)	6	23
19	CS	69/80 (86%)	60 (87%)	9 (13%)	6	23
20	AT	76/82 (93%)	65 (86%)	11 (14%)	5	18
20	CT	76/82 (93%)	64 (84%)	12 (16%)	4	14
21	AU	19/22 (86%)	19 (100%)	0	100	100
21	CU	19/22 (86%)	19 (100%)	0	100	100
22	B0	61/67 (91%)	48 (79%)	13 (21%)	1	7
22	D0	61/67 (91%)	48 (79%)	13 (21%)	1	7
23	B1	73/83 (88%)	51 (70%)	22 (30%)	0	1
23	D1	73/83 (88%)	53 (73%)	20 (27%)	0	1
24	B2	46/67 (69%)	28 (61%)	18 (39%)	0	0
24	D2	46/67 (69%)	28 (61%)	18 (39%)	0	0
25	B3	51/52 (98%)	41 (80%)	10 (20%)	2	8
25	D3	51/52 (98%)	42 (82%)	9 (18%)	3	10
27	B5	51/52 (98%)	39 (76%)	12 (24%)	1	5
27	D5	51/52 (98%)	41 (80%)	10 (20%)	2	8
28	B6	43/52 (83%)	27 (63%)	16 (37%)	0	0
28	D6	43/52 (83%)	28 (65%)	15 (35%)	0	0
29	B7	41/42 (98%)	32 (78%)	9 (22%)	1	6
29	D7	41/42 (98%)	31 (76%)	10 (24%)	1	4
30	B8	53/55 (96%)	36 (68%)	17 (32%)	0	0
30	D8	53/55 (96%)	35 (66%)	18 (34%)	0	0
33	BD	213/218 (98%)	160 (75%)	53 (25%)	1	3
33	DD	213/218 (98%)	157 (74%)	56 (26%)	1	2
34	BE	165/166 (99%)	127 (77%)	38 (23%)	1	5
34	DE	165/166 (99%)	126 (76%)	39 (24%)	1	5
35	BF	165/166 (99%)	130 (79%)	35 (21%)	1	7
35	DF	165/166 (99%)	132 (80%)	33 (20%)	2	8
36	BG	155/156 (99%)	126 (81%)	29 (19%)	2	9

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
36	DG	155/156 (99%)	126 (81%)	29 (19%)	2	9
37	BH	132/148 (89%)	105 (80%)	27 (20%)	2	8
37	DH	132/148 (89%)	107 (81%)	25 (19%)	2	9
38	BI	122/124 (98%)	99 (81%)	23 (19%)	2	9
38	DI	122/124 (98%)	100 (82%)	22 (18%)	2	10
39	BN	117/119 (98%)	80 (68%)	37 (32%)	0	1
39	DN	117/119 (98%)	81 (69%)	36 (31%)	0	1
40	BO	100/100 (100%)	82 (82%)	18 (18%)	2	10
40	DO	100/100 (100%)	80 (80%)	20 (20%)	2	8
41	BP	112/116 (97%)	67 (60%)	45 (40%)	0	0
41	DP	112/116 (97%)	67 (60%)	45 (40%)	0	0
42	BQ	106/111 (96%)	81 (76%)	25 (24%)	1	5
42	DQ	106/111 (96%)	82 (77%)	24 (23%)	1	5
43	BR	100/101 (99%)	76 (76%)	24 (24%)	1	4
43	DR	100/101 (99%)	76 (76%)	24 (24%)	1	4
44	BS	77/88 (88%)	59 (77%)	18 (23%)	1	5
44	DS	77/88 (88%)	59 (77%)	18 (23%)	1	5
45	BT	116/127 (91%)	76 (66%)	40 (34%)	0	0
45	DT	116/127 (91%)	77 (66%)	39 (34%)	0	0
46	BU	92/94 (98%)	74 (80%)	18 (20%)	2	8
46	DU	92/94 (98%)	71 (77%)	21 (23%)	1	5
47	BV	82/82 (100%)	56 (68%)	26 (32%)	0	1
47	DV	82/82 (100%)	57 (70%)	25 (30%)	0	1
48	BW	91/92 (99%)	67 (74%)	24 (26%)	1	2
48	DW	91/92 (99%)	69 (76%)	22 (24%)	1	4
49	BX	74/78 (95%)	55 (74%)	19 (26%)	1	2
49	DX	74/78 (95%)	54 (73%)	20 (27%)	1	2
50	BY	84/91 (92%)	67 (80%)	17 (20%)	2	8
50	DY	84/91 (92%)	66 (79%)	18 (21%)	1	7
51	BZ	155/179 (87%)	132 (85%)	23 (15%)	4	17
51	DZ	155/179 (87%)	131 (84%)	24 (16%)	4	14

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
All	All	9322/9876 (94%)	7617 (82%)	1705 (18%)	2 10

All (1705) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	9	GLU
2	AB	10	LEU
2	AB	12	GLU
2	AB	15	VAL
2	AB	22	LYS
2	AB	36	ARG
2	AB	42	ILE
2	AB	79	ASP
2	AB	121	LEU
2	AB	130	ARG
2	AB	137	ARG
2	AB	145	LEU
2	AB	163	PHE
2	AB	178	ARG
2	AB	196	LEU
2	AB	198	ASP
2	AB	205	ASP
2	AB	206	ASP
2	AB	215	LEU
2	AB	221	LEU
3	AC	5	ILE
3	AC	12	LEU
3	AC	27	LYS
3	AC	77	ILE
3	AC	104	GLN
3	AC	156	ARG
4	AD	3	ARG
4	AD	8	VAL
4	AD	11	LEU
4	AD	17	VAL
4	AD	19	LEU
4	AD	27	TYR
4	AD	33	MET
4	AD	38	TYR
4	AD	49	ARG
4	AD	62	GLN
4	AD	79	PHE

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Mol	Chain	Res	Type
4	AD	98	GLU
4	AD	122	ARG
4	AD	127	THR
4	AD	131	ARG
4	AD	132	ARG
4	AD	135	LEU
4	AD	138	TYR
4	AD	154	ASN
4	AD	158	ILE
4	AD	170	VAL
4	AD	200	GLU
4	AD	209	ARG
5	AE	10	MET
5	AE	12	LEU
5	AE	16	THR
5	AE	20	GLN
5	AE	26	PHE
5	AE	31	LEU
5	AE	41	VAL
5	AE	45	PHE
5	AE	73	ASN
5	AE	76	ILE
5	AE	79	GLU
5	AE	91	LEU
5	AE	101	ILE
5	AE	107	ARG
6	AF	19	LEU
6	AF	21	LEU
6	AF	46	ARG
6	AF	55	ASP
6	AF	59	TYR
6	AF	63	TYR
6	AF	80	ARG
6	AF	94	GLN
6	AF	97	PHE
6	AF	98	LEU
7	AG	36	LYS
7	AG	54	THR
7	AG	79	ARG
7	AG	92	SER
7	AG	118	VAL
7	AG	151	TYR

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Mol	Chain	Res	Type
8	AH	1	MET
8	AH	10	LEU
8	AH	24	THR
8	AH	26	VAL
8	AH	51	VAL
8	AH	52	ASP
8	AH	77	GLU
8	AH	91	ARG
8	AH	92	ARG
8	AH	95	VAL
8	AH	99	GLU
8	AH	102	ARG
8	AH	109	ILE
8	AH	114	THR
8	AH	133	LEU
9	AI	3	GLN
9	AI	10	ARG
9	AI	95	LYS
9	AI	99	LEU
9	AI	101	PHE
9	AI	105	ASP
9	AI	113	LYS
9	AI	114	TYR
9	AI	121	ARG
9	AI	125	TYR
9	AI	128	ARG
10	AJ	12	ASP
10	AJ	22	LYS
10	AJ	29	ARG
10	AJ	45	ARG
10	AJ	47	PHE
10	AJ	50	ILE
10	AJ	62	HIS
10	AJ	74	ILE
10	AJ	80	LYS
10	AJ	84	GLN
10	AJ	92	THR
10	AJ	96	ILE
10	AJ	100	THR
11	AK	38	ASN
11	AK	48	ILE
11	AK	63	LEU

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Mol	Chain	Res	Type
11	AK	84	VAL
11	AK	92	GLU
11	AK	107	SER
11	AK	127	LYS
12	AL	20	LYS
12	AL	41	ARG
12	AL	42	THR
12	AL	55	VAL
12	AL	70	ILE
12	AL	75	HIS
12	AL	85	ILE
12	AL	89	ARG
12	AL	92	ASP
12	AL	102	ARG
13	AM	14	ARG
13	AM	64	TRP
13	AM	66	LEU
13	AM	70	LEU
13	AM	82	MET
13	AM	93	ARG
13	AM	106	ASN
13	AM	108	ARG
14	AN	16	PHE
14	AN	18	VAL
14	AN	44	LEU
15	AO	3	ILE
15	AO	26	GLU
15	AO	38	ARG
15	AO	39	LEU
15	AO	64	ARG
15	AO	65	ARG
15	AO	66	LEU
15	AO	82	ILE
16	AP	2	VAL
16	AP	8	ARG
16	AP	27	LYS
16	AP	28	ARG
16	AP	39	TYR
16	AP	43	LYS
16	AP	45	THR
16	AP	55	ARG
16	AP	67	THR

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Mol	Chain	Res	Type
16	AP	69	THR
16	AP	82	GLN
17	AQ	11	VAL
17	AQ	14	LYS
17	AQ	26	GLN
17	AQ	38	ARG
17	AQ	52	LYS
17	AQ	57	VAL
17	AQ	63	ARG
17	AQ	89	LEU
18	AR	31	LEU
18	AR	47	THR
18	AR	53	ARG
18	AR	59	SER
18	AR	79	LEU
18	AR	88	LYS
19	AS	5	LEU
19	AS	6	LYS
19	AS	7	LYS
19	AS	22	LEU
19	AS	30	LEU
19	AS	37	ARG
19	AS	44	MET
19	AS	49	ILE
19	AS	79	THR
20	AT	13	LEU
20	AT	20	LEU
20	AT	24	LEU
20	AT	26	ASN
20	AT	36	LEU
20	AT	41	ILE
20	AT	51	GLU
20	AT	56	MET
20	AT	84	LEU
20	AT	93	GLU
20	AT	104	LEU
22	B0	10	THR
22	B0	12	ASN
22	B0	14	ARG
22	B0	31	VAL
22	B0	35	ASN
22	B0	36	ILE

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Mol	Chain	Res	Type
22	B0	41	ARG
22	B0	46	LYS
22	B0	53	MET
22	B0	64	ASP
22	B0	70	GLN
22	B0	72	ARG
22	B0	84	LEU
23	B1	8	SER
23	B1	13	ILE
23	B1	14	VAL
23	B1	20	ARG
23	B1	23	LYS
23	B1	26	ARG
23	B1	33	LYS
23	B1	34	THR
23	B1	37	ILE
23	B1	46	LEU
23	B1	47	GLN
23	B1	48	LYS
23	B1	53	VAL
23	B1	56	GLN
23	B1	57	GLU
23	B1	59	THR
23	B1	69	LYS
23	B1	72	GLU
23	B1	74	VAL
23	B1	75	GLU
23	B1	90	ILE
23	B1	94	LEU
24	B2	12	GLU
24	B2	14	ARG
24	B2	22	GLU
24	B2	24	LEU
24	B2	26	ARG
24	B2	30	ARG
24	B2	32	LEU
24	B2	33	MET
24	B2	36	ARG
24	B2	44	LEU
24	B2	46	GLN
24	B2	47	ASN
24	B2	49	LYS

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Mol	Chain	Res	Type
24	B2	50	ILE
24	B2	51	ARG
24	B2	56	GLN
24	B2	57	ILE
24	B2	59	ARG
25	B3	6	VAL
25	B3	8	LEU
25	B3	10	LYS
25	B3	23	LEU
25	B3	24	LYS
25	B3	31	LEU
25	B3	40	THR
25	B3	52	HIS
25	B3	54	VAL
25	B3	55	ARG
27	B5	4	HIS
27	B5	6	VAL
27	B5	11	THR
27	B5	25	LEU
27	B5	26	THR
27	B5	29	THR
27	B5	31	VAL
27	B5	49	CYS
27	B5	51	TYR
27	B5	55	ARG
27	B5	56	LYS
27	B5	58	LEU
28	B6	9	LEU
28	B6	10	LEU
28	B6	11	LEU
28	B6	12	GLU
28	B6	18	ARG
28	B6	19	ARG
28	B6	28	ARG
28	B6	31	PRO
28	B6	33	LYS
28	B6	37	ARG
28	B6	42	TRP
28	B6	43	CYS
28	B6	44	ARG
28	B6	46	HIS
28	B6	48	VAL

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Mol	Chain	Res	Type
28	B6	51	GLU
29	B7	1	MET
29	B7	8	ASN
29	B7	15	THR
29	B7	24	THR
29	B7	28	ARG
29	B7	29	LYS
29	B7	32	LYS
29	B7	43	THR
29	B7	48	LYS
30	B8	4	MET
30	B8	8	LYS
30	B8	12	LYS
30	B8	15	LYS
30	B8	16	ILE
30	B8	21	LYS
30	B8	23	VAL
30	B8	32	LEU
30	B8	39	LYS
30	B8	40	GLU
30	B8	41	ILE
30	B8	44	LYS
30	B8	46	ARG
30	B8	47	LYS
30	B8	48	PHE
30	B8	49	VAL
30	B8	62	LEU
33	BD	3	VAL
33	BD	5	LYS
33	BD	6	PHE
33	BD	10	THR
33	BD	14	ARG
33	BD	15	PHE
33	BD	17	THR
33	BD	18	VAL
33	BD	24	ILE
33	BD	26	LYS
33	BD	28	GLU
33	BD	31	LYS
33	BD	43	ARG
33	BD	44	ASN
33	BD	46	GLN

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Mol	Chain	Res	Type
33	BD	48	ARG
33	BD	61	LEU
33	BD	64	ILE
33	BD	65	ILE
33	BD	68	LYS
33	BD	69	ARG
33	BD	73	VAL
33	BD	87	ASN
33	BD	89	SER
33	BD	94	LEU
33	BD	95	LEU
33	BD	103	ARG
33	BD	106	ILE
33	BD	113	VAL
33	BD	116	GLN
33	BD	117	VAL
33	BD	141	VAL
33	BD	142	VAL
33	BD	150	LYS
33	BD	161	THR
33	BD	162	SER
33	BD	165	ILE
33	BD	166	GLN
33	BD	173	VAL
33	BD	182	LEU
33	BD	192	THR
33	BD	193	VAL
33	BD	198	ASN
33	BD	202	LYS
33	BD	206	LEU
33	BD	211	ARG
33	BD	212	SER
33	BD	221	VAL
33	BD	229	VAL
33	BD	242	ARG
33	BD	255	LYS
33	BD	257	LEU
33	BD	271	ILE
34	BE	7	VAL
34	BE	19	ARG
34	BE	21	VAL
34	BE	24	THR

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Mol	Chain	Res	Type
34	BE	31	CYS
34	BE	33	VAL
34	BE	34	VAL
34	BE	37	ARG
34	BE	45	THR
34	BE	47	VAL
34	BE	60	ASN
34	BE	67	PHE
34	BE	69	LYS
34	BE	76	ARG
34	BE	79	ARG
34	BE	82	ARG
34	BE	89	ASP
34	BE	93	VAL
34	BE	107	THR
34	BE	111	ARG
34	BE	117	MET
34	BE	119	ARG
34	BE	128	SER
34	BE	133	LYS
34	BE	134	ILE
34	BE	144	ARG
34	BE	154	LYS
34	BE	160	TYR
34	BE	163	GLU
34	BE	168	MET
34	BE	169	ASN
34	BE	171	GLU
34	BE	175	VAL
34	BE	180	ASN
34	BE	185	LYS
34	BE	197	ILE
34	BE	202	LYS
34	BE	203	LYS
35	BF	15	SER
35	BF	20	LEU
35	BF	23	ASP
35	BF	28	ILE
35	BF	33	LEU
35	BF	37	VAL
35	BF	38	ARG
35	BF	40	GLN

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Mol	Chain	Res	Type
35	BF	41	LEU
35	BF	46	ARG
35	BF	53	THR
35	BF	56	GLU
35	BF	67	GLN
35	BF	68	LYS
35	BF	74	ARG
35	BF	78	ILE
35	BF	82	ILE
35	BF	83	PHE
35	BF	84	VAL
35	BF	88	VAL
35	BF	106	ARG
35	BF	110	LEU
35	BF	112	MET
35	BF	117	ARG
35	BF	160	ASN
35	BF	162	LEU
35	BF	164	ARG
35	BF	165	ARG
35	BF	183	VAL
35	BF	186	ILE
35	BF	192	LEU
35	BF	196	LEU
35	BF	204	ASN
35	BF	205	ARG
35	BF	206	ILE
36	BG	16	ARG
36	BG	22	ARG
36	BG	29	TRP
36	BG	33	ARG
36	BG	34	LEU
36	BG	35	GLU
36	BG	39	ILE
36	BG	45	GLU
36	BG	49	ASP
36	BG	60	LEU
36	BG	62	LEU
36	BG	66	GLN
36	BG	67	LYS
36	BG	78	SER
36	BG	83	ARG

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Mol	Chain	Res	Type
36	BG	101	ILE
36	BG	102	PHE
36	BG	115	ARG
36	BG	123	ASN
36	BG	126	ASP
36	BG	140	ILE
36	BG	143	GLU
36	BG	147	ASP
36	BG	155	MET
36	BG	157	ILE
36	BG	159	VAL
36	BG	161	THR
36	BG	166	ASP
36	BG	176	LEU
37	BH	30	LYS
37	BH	34	GLU
37	BH	46	GLU
37	BH	59	ARG
37	BH	71	LEU
37	BH	86	GLU
37	BH	89	ILE
37	BH	95	ARG
37	BH	98	LEU
37	BH	103	LEU
37	BH	104	GLU
37	BH	105	LEU
37	BH	134	SER
37	BH	137	ASP
37	BH	140	LYS
37	BH	141	VAL
37	BH	143	GLN
37	BH	149	ARG
37	BH	153	LYS
37	BH	157	TYR
37	BH	158	HIS
37	BH	159	GLU
37	BH	162	ILE
37	BH	163	TYR
37	BH	164	TYR
37	BH	169	VAL
37	BH	170	ARG
38	BI	1	MET

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Mol	Chain	Res	Type
38	BI	4	ILE
38	BI	12	LEU
38	BI	15	VAL
38	BI	20	ASP
38	BI	38	LEU
38	BI	40	THR
38	BI	43	ASN
38	BI	48	GLU
38	BI	70	GLU
38	BI	71	ILE
38	BI	72	LEU
38	BI	88	ILE
38	BI	93	THR
38	BI	97	ILE
38	BI	107	VAL
38	BI	109	ILE
38	BI	114	LEU
38	BI	133	HIS
38	BI	136	VAL
38	BI	138	ILE
38	BI	142	VAL
38	BI	144	VAL
39	BN	2	LYS
39	BN	4	TYR
39	BN	8	GLN
39	BN	9	VAL
39	BN	10	GLU
39	BN	14	VAL
39	BN	16	ILE
39	BN	17	ASP
39	BN	19	GLU
39	BN	25	ARG
39	BN	33	LEU
39	BN	34	LEU
39	BN	35	ARG
39	BN	42	TRP
39	BN	43	THR
39	BN	48	MET
39	BN	55	VAL
39	BN	56	ASN
39	BN	60	ILE
39	BN	62	VAL

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Mol	Chain	Res	Type
39	BN	63	THR
39	BN	65	LYS
39	BN	67	LEU
39	BN	75	TYR
39	BN	78	TYR
39	BN	82	LEU
39	BN	83	LYS
39	BN	87	LEU
39	BN	94	HIS
39	BN	96	GLU
39	BN	99	LEU
39	BN	104	LYS
39	BN	106	MET
39	BN	112	LEU
39	BN	120	LEU
39	BN	121	LYS
39	BN	130	HIS
40	BO	22	ILE
40	BO	23	ARG
40	BO	24	VAL
40	BO	26	LYS
40	BO	35	VAL
40	BO	39	ILE
40	BO	47	ILE
40	BO	49	ARG
40	BO	65	THR
40	BO	77	ILE
40	BO	78	ARG
40	BO	80	ASP
40	BO	82	ASN
40	BO	98	VAL
40	BO	108	GLU
40	BO	112	MET
40	BO	114	ILE
40	BO	117	LEU
41	BP	9	ASN
41	BP	13	ASN
41	BP	16	ARG
41	BP	18	ARG
41	BP	19	VAL
41	BP	21	ARG
41	BP	29	LYS

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Mol	Chain	Res	Type
41	BP	32	THR
41	BP	33	ARG
41	BP	39	LYS
41	BP	40	SER
41	BP	45	LEU
41	BP	47	ASP
41	BP	50	ARG
41	BP	51	PHE
41	BP	52	GLU
41	BP	57	THR
41	BP	59	LEU
41	BP	61	ARG
41	BP	62	LEU
41	BP	64	LYS
41	BP	65	ARG
41	BP	75	ILE
41	BP	77	ARG
41	BP	81	GLN
41	BP	85	LEU
41	BP	90	ARG
41	BP	95	VAL
41	BP	98	GLU
41	BP	100	LEU
41	BP	101	VAL
41	BP	105	LEU
41	BP	111	ARG
41	BP	112	LEU
41	BP	114	ILE
41	BP	115	LEU
41	BP	121	LYS
41	BP	123	LEU
41	BP	125	VAL
41	BP	131	SER
41	BP	135	LEU
41	BP	138	LEU
41	BP	144	GLU
41	BP	147	LEU
41	BP	148	LEU
42	BQ	9	TYR
42	BQ	13	GLN
42	BQ	17	LEU
42	BQ	22	LYS

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Mol	Chain	Res	Type
42	BQ	27	VAL
42	BQ	38	GLU
42	BQ	43	THR
42	BQ	45	GLN
42	BQ	54	MET
42	BQ	55	VAL
42	BQ	58	PHE
42	BQ	63	LYS
42	BQ	79	LEU
42	BQ	80	GLU
42	BQ	83	MET
42	BQ	89	ASN
42	BQ	103	MET
42	BQ	106	VAL
42	BQ	109	VAL
42	BQ	110	THR
42	BQ	111	GLU
42	BQ	112	GLU
42	BQ	115	MET
42	BQ	127	ILE
42	BQ	132	VAL
43	BR	2	ARG
43	BR	5	LYS
43	BR	8	ARG
43	BR	16	HIS
43	BR	18	LEU
43	BR	28	LEU
43	BR	29	LEU
43	BR	42	LYS
43	BR	44	LEU
43	BR	56	LYS
43	BR	60	LEU
43	BR	63	ARG
43	BR	65	LEU
43	BR	71	GLN
43	BR	75	LEU
43	BR	79	LEU
43	BR	99	LYS
43	BR	100	LEU
43	BR	103	ARG
43	BR	104	ARG
43	BR	113	LEU

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Mol	Chain	Res	Type
43	BR	114	VAL
43	BR	116	LEU
43	BR	117	VAL
44	BS	11	LYS
44	BS	12	PHE
44	BS	13	ARG
44	BS	18	ILE
44	BS	25	ARG
44	BS	35	ILE
44	BS	36	TYR
44	BS	50	SER
44	BS	54	LEU
44	BS	64	GLU
44	BS	73	LEU
44	BS	80	LEU
44	BS	89	ARG
44	BS	92	TYR
44	BS	93	LYS
44	BS	97	ARG
44	BS	101	LEU
44	BS	106	ARG
45	BT	3	ARG
45	BT	6	LEU
45	BT	10	VAL
45	BT	13	ARG
45	BT	15	VAL
45	BT	16	ARG
45	BT	17	THR
45	BT	23	ARG
45	BT	29	ARG
45	BT	32	TYR
45	BT	33	LYS
45	BT	34	VAL
45	BT	38	ASN
45	BT	41	ARG
45	BT	46	GLU
45	BT	50	ILE
45	BT	51	ARG
45	BT	53	ARG
45	BT	55	ASN
45	BT	58	ASN
45	BT	59	THR

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Mol	Chain	Res	Type
45	BT	63	VAL
45	BT	64	ARG
45	BT	65	LYS
45	BT	73	GLU
45	BT	74	ARG
45	BT	77	PRO
45	BT	78	LEU
45	BT	82	LEU
45	BT	84	GLN
45	BT	90	GLN
45	BT	96	ARG
45	BT	98	LYS
45	BT	99	LEU
45	BT	108	ARG
45	BT	112	ARG
45	BT	114	LEU
45	BT	115	ARG
45	BT	123	GLN
45	BT	128	GLU
46	BU	8	VAL
46	BU	20	LEU
46	BU	30	LYS
46	BU	36	ARG
46	BU	44	ASN
46	BU	55	ARG
46	BU	56	ASP
46	BU	64	ARG
46	BU	78	THR
46	BU	80	ILE
46	BU	88	ILE
46	BU	89	GLU
46	BU	92	ARG
46	BU	93	LYS
46	BU	95	LEU
46	BU	97	ASP
46	BU	102	GLU
46	BU	112	ARG
47	BV	2	PHE
47	BV	5	VAL
47	BV	11	GLN
47	BV	13	ARG
47	BV	15	GLU

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Mol	Chain	Res	Type
47	BV	18	LEU
47	BV	19	LYS
47	BV	21	ARG
47	BV	23	GLU
47	BV	32	THR
47	BV	34	GLU
47	BV	37	VAL
47	BV	38	LEU
47	BV	40	LEU
47	BV	60	GLU
47	BV	62	LEU
47	BV	64	HIS
47	BV	66	ARG
47	BV	71	LEU
47	BV	78	LYS
47	BV	80	GLN
47	BV	82	ARG
47	BV	83	ARG
47	BV	88	ARG
47	BV	89	GLN
47	BV	98	GLU
48	BW	1	MET
48	BW	11	ARG
48	BW	14	PRO
48	BW	15	ARG
48	BW	16	LYS
48	BW	17	VAL
48	BW	27	LYS
48	BW	33	ARG
48	BW	41	LYS
48	BW	52	GLU
48	BW	60	ASN
48	BW	69	LEU
48	BW	70	TYR
48	BW	75	TYR
48	BW	76	VAL
48	BW	82	LEU
48	BW	85	VAL
48	BW	86	LEU
48	BW	88	ARG
48	BW	96	ILE
48	BW	97	LYS

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Mol	Chain	Res	Type
48	BW	101	SER
48	BW	106	ILE
48	BW	107	LEU
49	BX	15	GLU
49	BX	21	PHE
49	BX	27	THR
49	BX	30	VAL
49	BX	33	LYS
49	BX	35	THR
49	BX	36	LYS
49	BX	37	THR
49	BX	38	GLU
49	BX	39	ILE
49	BX	49	VAL
49	BX	57	LEU
49	BX	60	ARG
49	BX	65	ARG
49	BX	66	LEU
49	BX	70	LEU
49	BX	76	ARG
49	BX	78	LYS
49	BX	82	GLN
50	BY	2	ARG
50	BY	7	VAL
50	BY	8	LYS
50	BY	14	LEU
50	BY	23	ARG
50	BY	28	LYS
50	BY	31	LEU
50	BY	47	LYS
50	BY	49	VAL
50	BY	62	GLU
50	BY	75	ILE
50	BY	76	CYS
50	BY	90	LEU
50	BY	94	LYS
50	BY	96	ILE
50	BY	97	ARG
50	BY	99	CYS
51	BZ	5	LEU
51	BZ	6	LYS
51	BZ	9	TYR

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Mol	Chain	Res	Type
51	BZ	19	ARG
51	BZ	27	VAL
51	BZ	37	VAL
51	BZ	42	VAL
51	BZ	73	GLN
51	BZ	79	ARG
51	BZ	81	ARG
51	BZ	86	VAL
51	BZ	87	ASP
51	BZ	96	VAL
51	BZ	97	GLU
51	BZ	121	HIS
51	BZ	140	ASP
51	BZ	148	ASP
51	BZ	150	LEU
51	BZ	151	HIS
51	BZ	157	LEU
51	BZ	162	GLU
51	BZ	166	SER
51	BZ	169	GLU
2	CB	9	GLU
2	CB	10	LEU
2	CB	12	GLU
2	CB	15	VAL
2	CB	22	LYS
2	CB	36	ARG
2	CB	42	ILE
2	CB	79	ASP
2	CB	130	ARG
2	CB	137	ARG
2	CB	145	LEU
2	CB	163	PHE
2	CB	178	ARG
2	CB	196	LEU
2	CB	198	ASP
2	CB	205	ASP
2	CB	206	ASP
2	CB	215	LEU
2	CB	221	LEU
3	CC	5	ILE
3	CC	12	LEU
3	CC	27	LYS

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Mol	Chain	Res	Type
3	CC	77	ILE
3	CC	104	GLN
3	CC	156	ARG
4	CD	3	ARG
4	CD	8	VAL
4	CD	11	LEU
4	CD	17	VAL
4	CD	19	LEU
4	CD	27	TYR
4	CD	33	MET
4	CD	38	TYR
4	CD	49	ARG
4	CD	62	GLN
4	CD	79	PHE
4	CD	96	LEU
4	CD	98	GLU
4	CD	122	ARG
4	CD	127	THR
4	CD	131	ARG
4	CD	132	ARG
4	CD	135	LEU
4	CD	138	TYR
4	CD	154	ASN
4	CD	158	ILE
4	CD	170	VAL
4	CD	200	GLU
4	CD	209	ARG
5	CE	10	MET
5	CE	12	LEU
5	CE	16	THR
5	CE	20	GLN
5	CE	26	PHE
5	CE	31	LEU
5	CE	41	VAL
5	CE	45	PHE
5	CE	73	ASN
5	CE	76	ILE
5	CE	79	GLU
5	CE	91	LEU
5	CE	101	ILE
5	CE	107	ARG
6	CF	19	LEU

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Mol	Chain	Res	Type
6	CF	21	LEU
6	CF	46	ARG
6	CF	55	ASP
6	CF	59	TYR
6	CF	63	TYR
6	CF	80	ARG
6	CF	94	GLN
6	CF	97	PHE
6	CF	98	LEU
7	CG	36	LYS
7	CG	54	THR
7	CG	79	ARG
7	CG	92	SER
7	CG	118	VAL
7	CG	151	TYR
8	CH	1	MET
8	CH	10	LEU
8	CH	24	THR
8	CH	26	VAL
8	CH	51	VAL
8	CH	52	ASP
8	CH	91	ARG
8	CH	92	ARG
8	CH	95	VAL
8	CH	99	GLU
8	CH	102	ARG
8	CH	109	ILE
8	CH	114	THR
8	CH	133	LEU
9	CI	3	GLN
9	CI	10	ARG
9	CI	95	LYS
9	CI	99	LEU
9	CI	105	ASP
9	CI	113	LYS
9	CI	114	TYR
9	CI	121	ARG
9	CI	125	TYR
9	CI	128	ARG
10	CJ	12	ASP
10	CJ	22	LYS
10	CJ	29	ARG

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Mol	Chain	Res	Type
10	CJ	45	ARG
10	CJ	47	PHE
10	CJ	50	ILE
10	CJ	62	HIS
10	CJ	74	ILE
10	CJ	80	LYS
10	CJ	84	GLN
10	CJ	92	THR
10	CJ	96	ILE
11	CK	38	ASN
11	CK	48	ILE
11	CK	63	LEU
11	CK	84	VAL
11	CK	92	GLU
11	CK	107	SER
11	CK	127	LYS
12	CL	20	LYS
12	CL	41	ARG
12	CL	42	THR
12	CL	55	VAL
12	CL	70	ILE
12	CL	75	HIS
12	CL	85	ILE
12	CL	89	ARG
12	CL	92	ASP
12	CL	102	ARG
13	CM	14	ARG
13	CM	64	TRP
13	CM	66	LEU
13	CM	70	LEU
13	CM	82	MET
13	CM	93	ARG
13	CM	106	ASN
13	CM	108	ARG
14	CN	16	PHE
14	CN	18	VAL
14	CN	44	LEU
15	CO	3	ILE
15	CO	26	GLU
15	CO	39	LEU
15	CO	42	HIS
15	CO	64	ARG

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Mol	Chain	Res	Type
15	CO	65	ARG
15	CO	66	LEU
15	CO	82	ILE
16	CP	2	VAL
16	CP	8	ARG
16	CP	27	LYS
16	CP	28	ARG
16	CP	39	TYR
16	CP	43	LYS
16	CP	45	THR
16	CP	55	ARG
16	CP	67	THR
16	CP	69	THR
16	CP	82	GLN
17	CQ	11	VAL
17	CQ	14	LYS
17	CQ	26	GLN
17	CQ	38	ARG
17	CQ	52	LYS
17	CQ	57	VAL
17	CQ	63	ARG
17	CQ	89	LEU
18	CR	31	LEU
18	CR	47	THR
18	CR	53	ARG
18	CR	59	SER
18	CR	79	LEU
18	CR	88	LYS
19	CS	5	LEU
19	CS	6	LYS
19	CS	7	LYS
19	CS	22	LEU
19	CS	30	LEU
19	CS	37	ARG
19	CS	44	MET
19	CS	49	ILE
19	CS	79	THR
20	CT	9	ASN
20	CT	13	LEU
20	CT	20	LEU
20	CT	24	LEU
20	CT	26	ASN

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Mol	Chain	Res	Type
20	CT	36	LEU
20	CT	41	ILE
20	CT	51	GLU
20	CT	56	MET
20	CT	84	LEU
20	CT	93	GLU
20	CT	104	LEU
22	D0	10	THR
22	D0	12	ASN
22	D0	14	ARG
22	D0	31	VAL
22	D0	35	ASN
22	D0	36	ILE
22	D0	41	ARG
22	D0	46	LYS
22	D0	55	ARG
22	D0	64	ASP
22	D0	70	GLN
22	D0	72	ARG
22	D0	84	LEU
23	D1	13	ILE
23	D1	14	VAL
23	D1	23	LYS
23	D1	26	ARG
23	D1	33	LYS
23	D1	34	THR
23	D1	37	ILE
23	D1	46	LEU
23	D1	47	GLN
23	D1	48	LYS
23	D1	53	VAL
23	D1	56	GLN
23	D1	57	GLU
23	D1	59	THR
23	D1	69	LYS
23	D1	72	GLU
23	D1	74	VAL
23	D1	75	GLU
23	D1	90	ILE
23	D1	94	LEU
24	D2	12	GLU
24	D2	14	ARG

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Mol	Chain	Res	Type
24	D2	22	GLU
24	D2	24	LEU
24	D2	26	ARG
24	D2	30	ARG
24	D2	32	LEU
24	D2	33	MET
24	D2	36	ARG
24	D2	44	LEU
24	D2	46	GLN
24	D2	47	ASN
24	D2	49	LYS
24	D2	50	ILE
24	D2	51	ARG
24	D2	56	GLN
24	D2	57	ILE
24	D2	59	ARG
25	D3	8	LEU
25	D3	10	LYS
25	D3	24	LYS
25	D3	31	LEU
25	D3	40	THR
25	D3	50	VAL
25	D3	52	HIS
25	D3	54	VAL
25	D3	55	ARG
27	D5	4	HIS
27	D5	6	VAL
27	D5	11	THR
27	D5	25	LEU
27	D5	29	THR
27	D5	31	VAL
27	D5	49	CYS
27	D5	51	TYR
27	D5	56	LYS
27	D5	58	LEU
28	D6	9	LEU
28	D6	10	LEU
28	D6	11	LEU
28	D6	12	GLU
28	D6	18	ARG
28	D6	19	ARG
28	D6	28	ARG

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Mol	Chain	Res	Type
28	D6	33	LYS
28	D6	37	ARG
28	D6	42	TRP
28	D6	43	CYS
28	D6	44	ARG
28	D6	46	HIS
28	D6	48	VAL
28	D6	51	GLU
29	D7	1	MET
29	D7	8	ASN
29	D7	15	THR
29	D7	24	THR
29	D7	28	ARG
29	D7	29	LYS
29	D7	32	LYS
29	D7	34	ARG
29	D7	43	THR
29	D7	48	LYS
30	D8	4	MET
30	D8	8	LYS
30	D8	12	LYS
30	D8	16	ILE
30	D8	21	LYS
30	D8	23	VAL
30	D8	32	LEU
30	D8	37	SER
30	D8	39	LYS
30	D8	40	GLU
30	D8	41	ILE
30	D8	44	LYS
30	D8	46	ARG
30	D8	47	LYS
30	D8	48	PHE
30	D8	49	VAL
30	D8	56	GLU
30	D8	62	LEU
33	DD	3	VAL
33	DD	5	LYS
33	DD	6	PHE
33	DD	10	THR
33	DD	14	ARG
33	DD	15	PHE

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Mol	Chain	Res	Type
33	DD	17	THR
33	DD	18	VAL
33	DD	24	ILE
33	DD	26	LYS
33	DD	27	THR
33	DD	28	GLU
33	DD	31	LYS
33	DD	43	ARG
33	DD	44	ASN
33	DD	46	GLN
33	DD	48	ARG
33	DD	61	LEU
33	DD	64	ILE
33	DD	65	ILE
33	DD	68	LYS
33	DD	69	ARG
33	DD	73	VAL
33	DD	87	ASN
33	DD	89	SER
33	DD	94	LEU
33	DD	95	LEU
33	DD	103	ARG
33	DD	105	ILE
33	DD	106	ILE
33	DD	113	VAL
33	DD	116	GLN
33	DD	117	VAL
33	DD	141	VAL
33	DD	142	VAL
33	DD	150	LYS
33	DD	161	THR
33	DD	162	SER
33	DD	165	ILE
33	DD	166	GLN
33	DD	173	VAL
33	DD	182	LEU
33	DD	192	THR
33	DD	193	VAL
33	DD	198	ASN
33	DD	202	LYS
33	DD	206	LEU
33	DD	211	ARG

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Mol	Chain	Res	Type
33	DD	212	SER
33	DD	218	ARG
33	DD	221	VAL
33	DD	229	VAL
33	DD	242	ARG
33	DD	255	LYS
33	DD	257	LEU
33	DD	271	ILE
34	DE	7	VAL
34	DE	19	ARG
34	DE	21	VAL
34	DE	24	THR
34	DE	31	CYS
34	DE	33	VAL
34	DE	34	VAL
34	DE	37	ARG
34	DE	44	TYR
34	DE	45	THR
34	DE	60	ASN
34	DE	67	PHE
34	DE	69	LYS
34	DE	76	ARG
34	DE	79	ARG
34	DE	82	ARG
34	DE	89	ASP
34	DE	93	VAL
34	DE	107	THR
34	DE	111	ARG
34	DE	117	MET
34	DE	119	ARG
34	DE	128	SER
34	DE	133	LYS
34	DE	134	ILE
34	DE	144	ARG
34	DE	154	LYS
34	DE	160	TYR
34	DE	163	GLU
34	DE	168	MET
34	DE	169	ASN
34	DE	170	LEU
34	DE	171	GLU
34	DE	175	VAL

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Mol	Chain	Res	Type
34	DE	180	ASN
34	DE	185	LYS
34	DE	197	ILE
34	DE	202	LYS
34	DE	203	LYS
35	DF	15	SER
35	DF	20	LEU
35	DF	23	ASP
35	DF	28	ILE
35	DF	33	LEU
35	DF	37	VAL
35	DF	38	ARG
35	DF	40	GLN
35	DF	46	ARG
35	DF	53	THR
35	DF	56	GLU
35	DF	66	PRO
35	DF	67	GLN
35	DF	68	LYS
35	DF	74	ARG
35	DF	78	ILE
35	DF	82	ILE
35	DF	83	PHE
35	DF	84	VAL
35	DF	88	VAL
35	DF	106	ARG
35	DF	112	MET
35	DF	117	ARG
35	DF	160	ASN
35	DF	162	LEU
35	DF	164	ARG
35	DF	165	ARG
35	DF	186	ILE
35	DF	192	LEU
35	DF	196	LEU
35	DF	204	ASN
35	DF	205	ARG
35	DF	206	ILE
36	DG	16	ARG
36	DG	22	ARG
36	DG	29	TRP
36	DG	33	ARG

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Mol	Chain	Res	Type
36	DG	34	LEU
36	DG	35	GLU
36	DG	39	ILE
36	DG	45	GLU
36	DG	49	ASP
36	DG	60	LEU
36	DG	62	LEU
36	DG	66	GLN
36	DG	67	LYS
36	DG	78	SER
36	DG	83	ARG
36	DG	101	ILE
36	DG	102	PHE
36	DG	115	ARG
36	DG	123	ASN
36	DG	126	ASP
36	DG	140	ILE
36	DG	143	GLU
36	DG	147	ASP
36	DG	155	MET
36	DG	157	ILE
36	DG	159	VAL
36	DG	161	THR
36	DG	166	ASP
36	DG	176	LEU
37	DH	30	LYS
37	DH	34	GLU
37	DH	46	GLU
37	DH	59	ARG
37	DH	71	LEU
37	DH	86	GLU
37	DH	89	ILE
37	DH	95	ARG
37	DH	98	LEU
37	DH	103	LEU
37	DH	104	GLU
37	DH	105	LEU
37	DH	134	SER
37	DH	137	ASP
37	DH	141	VAL
37	DH	143	GLN
37	DH	149	ARG

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Mol	Chain	Res	Type
37	DH	153	LYS
37	DH	157	TYR
37	DH	158	HIS
37	DH	159	GLU
37	DH	162	ILE
37	DH	163	TYR
37	DH	169	VAL
37	DH	170	ARG
38	DI	4	ILE
38	DI	12	LEU
38	DI	15	VAL
38	DI	20	ASP
38	DI	38	LEU
38	DI	40	THR
38	DI	43	ASN
38	DI	48	GLU
38	DI	70	GLU
38	DI	71	ILE
38	DI	72	LEU
38	DI	88	ILE
38	DI	93	THR
38	DI	97	ILE
38	DI	107	VAL
38	DI	109	ILE
38	DI	114	LEU
38	DI	133	HIS
38	DI	136	VAL
38	DI	138	ILE
38	DI	142	VAL
38	DI	144	VAL
39	DN	2	LYS
39	DN	4	TYR
39	DN	8	GLN
39	DN	9	VAL
39	DN	10	GLU
39	DN	14	VAL
39	DN	16	ILE
39	DN	17	ASP
39	DN	19	GLU
39	DN	25	ARG
39	DN	33	LEU
39	DN	34	LEU

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Mol	Chain	Res	Type
39	DN	35	ARG
39	DN	42	TRP
39	DN	43	THR
39	DN	48	MET
39	DN	55	VAL
39	DN	56	ASN
39	DN	60	ILE
39	DN	62	VAL
39	DN	63	THR
39	DN	65	LYS
39	DN	67	LEU
39	DN	75	TYR
39	DN	78	TYR
39	DN	82	LEU
39	DN	83	LYS
39	DN	87	LEU
39	DN	94	HIS
39	DN	96	GLU
39	DN	99	LEU
39	DN	106	MET
39	DN	112	LEU
39	DN	120	LEU
39	DN	121	LYS
39	DN	130	HIS
40	DO	22	ILE
40	DO	23	ARG
40	DO	24	VAL
40	DO	26	LYS
40	DO	28	SER
40	DO	32	TYR
40	DO	35	VAL
40	DO	39	ILE
40	DO	47	ILE
40	DO	49	ARG
40	DO	65	THR
40	DO	77	ILE
40	DO	78	ARG
40	DO	80	ASP
40	DO	82	ASN
40	DO	98	VAL
40	DO	108	GLU
40	DO	112	MET

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Mol	Chain	Res	Type
40	DO	114	ILE
40	DO	117	LEU
41	DP	9	ASN
41	DP	13	ASN
41	DP	16	ARG
41	DP	18	ARG
41	DP	19	VAL
41	DP	21	ARG
41	DP	29	LYS
41	DP	32	THR
41	DP	33	ARG
41	DP	39	LYS
41	DP	40	SER
41	DP	45	LEU
41	DP	47	ASP
41	DP	50	ARG
41	DP	51	PHE
41	DP	52	GLU
41	DP	57	THR
41	DP	59	LEU
41	DP	61	ARG
41	DP	62	LEU
41	DP	64	LYS
41	DP	65	ARG
41	DP	67	MET
41	DP	75	ILE
41	DP	77	ARG
41	DP	81	GLN
41	DP	85	LEU
41	DP	90	ARG
41	DP	95	VAL
41	DP	98	GLU
41	DP	100	LEU
41	DP	101	VAL
41	DP	105	LEU
41	DP	111	ARG
41	DP	112	LEU
41	DP	114	ILE
41	DP	115	LEU
41	DP	121	LYS
41	DP	125	VAL
41	DP	131	SER

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Mol	Chain	Res	Type
41	DP	135	LEU
41	DP	138	LEU
41	DP	144	GLU
41	DP	147	LEU
41	DP	148	LEU
42	DQ	9	TYR
42	DQ	13	GLN
42	DQ	17	LEU
42	DQ	22	LYS
42	DQ	27	VAL
42	DQ	38	GLU
42	DQ	43	THR
42	DQ	45	GLN
42	DQ	54	MET
42	DQ	55	VAL
42	DQ	58	PHE
42	DQ	63	LYS
42	DQ	79	LEU
42	DQ	80	GLU
42	DQ	83	MET
42	DQ	89	ASN
42	DQ	103	MET
42	DQ	106	VAL
42	DQ	109	VAL
42	DQ	110	THR
42	DQ	111	GLU
42	DQ	115	MET
42	DQ	127	ILE
42	DQ	132	VAL
43	DR	2	ARG
43	DR	5	LYS
43	DR	8	ARG
43	DR	16	HIS
43	DR	18	LEU
43	DR	28	LEU
43	DR	29	LEU
43	DR	42	LYS
43	DR	44	LEU
43	DR	56	LYS
43	DR	60	LEU
43	DR	63	ARG
43	DR	65	LEU

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Mol	Chain	Res	Type
43	DR	71	GLN
43	DR	75	LEU
43	DR	79	LEU
43	DR	99	LYS
43	DR	100	LEU
43	DR	103	ARG
43	DR	104	ARG
43	DR	113	LEU
43	DR	114	VAL
43	DR	116	LEU
43	DR	117	VAL
44	DS	11	LYS
44	DS	12	PHE
44	DS	13	ARG
44	DS	18	ILE
44	DS	25	ARG
44	DS	35	ILE
44	DS	36	TYR
44	DS	50	SER
44	DS	54	LEU
44	DS	64	GLU
44	DS	73	LEU
44	DS	80	LEU
44	DS	89	ARG
44	DS	92	TYR
44	DS	93	LYS
44	DS	97	ARG
44	DS	101	LEU
44	DS	106	ARG
45	DT	3	ARG
45	DT	6	LEU
45	DT	10	VAL
45	DT	13	ARG
45	DT	15	VAL
45	DT	16	ARG
45	DT	17	THR
45	DT	23	ARG
45	DT	29	ARG
45	DT	32	TYR
45	DT	33	LYS
45	DT	34	VAL
45	DT	38	ASN

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Mol	Chain	Res	Type
45	DT	41	ARG
45	DT	50	ILE
45	DT	51	ARG
45	DT	53	ARG
45	DT	55	ASN
45	DT	58	ASN
45	DT	59	THR
45	DT	63	VAL
45	DT	64	ARG
45	DT	65	LYS
45	DT	73	GLU
45	DT	74	ARG
45	DT	78	LEU
45	DT	82	LEU
45	DT	84	GLN
45	DT	87	ASP
45	DT	90	GLN
45	DT	96	ARG
45	DT	98	LYS
45	DT	99	LEU
45	DT	108	ARG
45	DT	112	ARG
45	DT	114	LEU
45	DT	115	ARG
45	DT	123	GLN
45	DT	128	GLU
46	DU	8	VAL
46	DU	20	LEU
46	DU	30	LYS
46	DU	31	SER
46	DU	36	ARG
46	DU	44	ASN
46	DU	55	ARG
46	DU	56	ASP
46	DU	64	ARG
46	DU	76	TYR
46	DU	78	THR
46	DU	80	ILE
46	DU	88	ILE
46	DU	89	GLU
46	DU	92	ARG
46	DU	93	LYS

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Mol	Chain	Res	Type
46	DU	95	LEU
46	DU	97	ASP
46	DU	102	GLU
46	DU	112	ARG
46	DU	114	LYS
47	DV	2	PHE
47	DV	5	VAL
47	DV	11	GLN
47	DV	13	ARG
47	DV	15	GLU
47	DV	18	LEU
47	DV	19	LYS
47	DV	21	ARG
47	DV	23	GLU
47	DV	32	THR
47	DV	34	GLU
47	DV	37	VAL
47	DV	40	LEU
47	DV	60	GLU
47	DV	62	LEU
47	DV	64	HIS
47	DV	66	ARG
47	DV	71	LEU
47	DV	78	LYS
47	DV	80	GLN
47	DV	82	ARG
47	DV	83	ARG
47	DV	88	ARG
47	DV	89	GLN
47	DV	98	GLU
48	DW	1	MET
48	DW	11	ARG
48	DW	15	ARG
48	DW	16	LYS
48	DW	27	LYS
48	DW	30	GLU
48	DW	33	ARG
48	DW	41	LYS
48	DW	51	LEU
48	DW	52	GLU
48	DW	60	ASN
48	DW	69	LEU

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Mol	Chain	Res	Type
48	DW	70	TYR
48	DW	75	TYR
48	DW	76	VAL
48	DW	85	VAL
48	DW	86	LEU
48	DW	88	ARG
48	DW	96	ILE
48	DW	97	LYS
48	DW	106	ILE
48	DW	107	LEU
49	DX	3	THR
49	DX	15	GLU
49	DX	21	PHE
49	DX	27	THR
49	DX	30	VAL
49	DX	33	LYS
49	DX	35	THR
49	DX	36	LYS
49	DX	37	THR
49	DX	38	GLU
49	DX	39	ILE
49	DX	49	VAL
49	DX	57	LEU
49	DX	60	ARG
49	DX	65	ARG
49	DX	66	LEU
49	DX	76	ARG
49	DX	78	LYS
49	DX	81	VAL
49	DX	82	GLN
50	DY	2	ARG
50	DY	7	VAL
50	DY	8	LYS
50	DY	14	LEU
50	DY	23	ARG
50	DY	28	LYS
50	DY	31	LEU
50	DY	47	LYS
50	DY	49	VAL
50	DY	57	GLN
50	DY	62	GLU
50	DY	75	ILE

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Mol	Chain	Res	Type
50	DY	76	CYS
50	DY	90	LEU
50	DY	94	LYS
50	DY	96	ILE
50	DY	97	ARG
50	DY	99	CYS
51	DZ	5	LEU
51	DZ	6	LYS
51	DZ	9	TYR
51	DZ	19	ARG
51	DZ	27	VAL
51	DZ	37	VAL
51	DZ	42	VAL
51	DZ	73	GLN
51	DZ	79	ARG
51	DZ	81	ARG
51	DZ	86	VAL
51	DZ	87	ASP
51	DZ	96	VAL
51	DZ	97	GLU
51	DZ	98	MET
51	DZ	121	HIS
51	DZ	140	ASP
51	DZ	148	ASP
51	DZ	150	LEU
51	DZ	151	HIS
51	DZ	157	LEU
51	DZ	162	GLU
51	DZ	166	SER
51	DZ	169	GLU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (256) such sidechains are listed below:

Mol	Chain	Res	Type
2	AB	37	ASN
2	AB	40	HIS
2	AB	146	GLN
2	AB	204	ASN
3	AC	28	GLN
3	AC	69	HIS
3	AC	104	GLN
3	AC	170	GLN

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Mol	Chain	Res	Type
4	AD	45	GLN
4	AD	62	GLN
4	AD	74	GLN
4	AD	129	ASN
4	AD	161	ASN
5	AE	20	GLN
5	AE	72	GLN
5	AE	78	HIS
6	AF	13	ASN
6	AF	18	GLN
6	AF	27	GLN
6	AF	94	GLN
6	AF	100	ASN
7	AG	13	GLN
7	AG	37	ASN
7	AG	84	ASN
7	AG	97	GLN
7	AG	106	GLN
9	AI	73	GLN
9	AI	124	GLN
10	AJ	78	ASN
11	AK	38	ASN
12	AL	9	GLN
12	AL	49	ASN
13	AM	77	ASN
15	AO	46	HIS
16	AP	76	GLN
16	AP	82	GLN
17	AQ	16	GLN
19	AS	57	HIS
20	AT	16	HIS
20	AT	26	ASN
20	AT	75	ASN
22	B0	35	ASN
22	B0	40	GLN
23	B1	19	GLN
23	B1	45	ASN
23	B1	66	HIS
24	B2	47	ASN
24	B2	56	GLN
25	B3	19	GLN
25	B3	46	ASN

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Mol	Chain	Res	Type
25	B3	52	HIS
27	B5	4	HIS
27	B5	22	HIS
27	B5	43	HIS
28	B6	20	ASN
28	B6	26	ASN
28	B6	46	HIS
29	B7	8	ASN
30	B8	33	ASN
30	B8	35	GLN
33	BD	58	HIS
33	BD	96	HIS
33	BD	126	GLN
33	BD	143	HIS
33	BD	166	GLN
33	BD	186	HIS
33	BD	198	ASN
33	BD	220	HIS
34	BE	35	GLN
34	BE	48	GLN
34	BE	54	GLN
34	BE	85	ASN
34	BE	129	HIS
34	BE	132	HIS
34	BE	159	HIS
34	BE	169	ASN
34	BE	192	ASN
35	BF	69	HIS
35	BF	75	HIS
35	BF	160	ASN
35	BF	169	ASN
36	BG	40	ASN
37	BH	147	ASN
38	BI	28	ASN
38	BI	43	ASN
38	BI	133	HIS
38	BI	139	GLN
39	BN	56	ASN
39	BN	94	HIS
39	BN	131	GLN
40	BO	3	GLN
40	BO	5	GLN

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Mol	Chain	Res	Type
40	BO	13	ASN
41	BP	13	ASN
41	BP	81	GLN
41	BP	128	HIS
42	BQ	12	GLN
42	BQ	13	GLN
42	BQ	45	GLN
42	BQ	123	HIS
42	BQ	141	GLN
43	BR	13	HIS
43	BR	16	HIS
43	BR	23	ASN
43	BR	24	GLN
43	BR	31	HIS
43	BR	53	HIS
43	BR	61	HIS
43	BR	71	GLN
44	BS	16	ASN
44	BS	34	HIS
44	BS	84	GLN
44	BS	95	HIS
45	BT	38	ASN
45	BT	58	ASN
45	BT	90	GLN
46	BU	14	HIS
46	BU	49	HIS
47	BV	11	GLN
48	BW	34	ASN
48	BW	57	ASN
48	BW	61	ASN
48	BW	62	HIS
48	BW	102	HIS
48	BW	111	HIS
49	BX	31	HIS
49	BX	55	ASN
51	BZ	54	HIS
51	BZ	55	HIS
2	CB	40	HIS
2	CB	146	GLN
2	CB	204	ASN
3	CC	28	GLN
3	CC	69	HIS

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Mol	Chain	Res	Type
3	CC	104	GLN
3	CC	170	GLN
4	CD	45	GLN
4	CD	62	GLN
4	CD	74	GLN
4	CD	129	ASN
4	CD	161	ASN
5	CE	20	GLN
5	CE	72	GLN
5	CE	78	HIS
6	CF	13	ASN
6	CF	18	GLN
6	CF	27	GLN
6	CF	84	ASN
6	CF	94	GLN
6	CF	100	ASN
7	CG	13	GLN
7	CG	37	ASN
7	CG	84	ASN
7	CG	97	GLN
7	CG	106	GLN
9	CI	73	GLN
9	CI	124	GLN
10	CJ	78	ASN
11	CK	38	ASN
11	CK	116	HIS
12	CL	8	ASN
12	CL	9	GLN
12	CL	49	ASN
13	CM	77	ASN
15	CO	42	HIS
15	CO	46	HIS
16	CP	76	GLN
16	CP	82	GLN
17	CQ	16	GLN
19	CS	57	HIS
20	CT	16	HIS
20	CT	26	ASN
20	CT	75	ASN
22	D0	35	ASN
22	D0	40	GLN
23	D1	19	GLN

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Mol	Chain	Res	Type
23	D1	66	HIS
24	D2	47	ASN
24	D2	56	GLN
25	D3	19	GLN
25	D3	46	ASN
25	D3	52	HIS
27	D5	4	HIS
27	D5	22	HIS
27	D5	23	HIS
27	D5	43	HIS
28	D6	20	ASN
28	D6	26	ASN
28	D6	46	HIS
29	D7	8	ASN
30	D8	33	ASN
30	D8	35	GLN
33	DD	58	HIS
33	DD	96	HIS
33	DD	126	GLN
33	DD	143	HIS
33	DD	166	GLN
33	DD	186	HIS
33	DD	198	ASN
34	DE	35	GLN
34	DE	48	GLN
34	DE	54	GLN
34	DE	85	ASN
34	DE	129	HIS
34	DE	132	HIS
34	DE	159	HIS
34	DE	169	ASN
34	DE	192	ASN
35	DF	69	HIS
35	DF	75	HIS
35	DF	160	ASN
35	DF	169	ASN
36	DG	40	ASN
37	DH	147	ASN
38	DI	28	ASN
38	DI	43	ASN
38	DI	133	HIS
38	DI	139	GLN

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Mol	Chain	Res	Type
39	DN	56	ASN
39	DN	94	HIS
39	DN	131	GLN
40	DO	3	GLN
40	DO	5	GLN
40	DO	13	ASN
41	DP	13	ASN
41	DP	81	GLN
41	DP	128	HIS
42	DQ	12	GLN
42	DQ	13	GLN
42	DQ	45	GLN
42	DQ	123	HIS
42	DQ	141	GLN
43	DR	13	HIS
43	DR	16	HIS
43	DR	23	ASN
43	DR	24	GLN
43	DR	31	HIS
43	DR	53	HIS
43	DR	61	HIS
43	DR	71	GLN
44	DS	34	HIS
44	DS	84	GLN
45	DT	38	ASN
45	DT	58	ASN
45	DT	90	GLN
46	DU	49	HIS
47	DV	11	GLN
48	DW	34	ASN
48	DW	57	ASN
48	DW	61	ASN
48	DW	102	HIS
48	DW	111	HIS
49	DX	31	HIS
49	DX	55	ASN
51	DZ	54	HIS
51	DZ	55	HIS

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1503/1522 (98%)	307 (20%)	30 (1%)
1	CA	1503/1522 (98%)	307 (20%)	30 (1%)
31	BA	2723/2787 (97%)	822 (30%)	77 (2%)
31	DA	2723/2787 (97%)	827 (30%)	75 (2%)
32	BB	118/122 (96%)	42 (35%)	0
32	DB	118/122 (96%)	42 (35%)	0
All	All	8688/8862 (98%)	2347 (27%)	212 (2%)

All (2347) 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	50	A
1	AA	51	A
1	AA	54	C
1	AA	59	A
1	AA	61	G
1	AA	70	G
1	AA	80	G
1	AA	81	U
1	AA	82	U
1	AA	84	U
1	AA	90	U
1	AA	91	C
1	AA	97	G
1	AA	101	A
1	AA	116	A
1	AA	119	A
1	AA	120	A
1	AA	121	C
1	AA	131	C
1	AA	144	G
1	AA	148	G
1	AA	150	C
1	AA	158	G
1	AA	163	C
1	AA	164	U
1	AA	169	C

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Mol	Chain	Res	Type
1	AA	170	U
1	AA	171	A
1	AA	172	A
1	AA	173	U
1	AA	181	G
1	AA	182	U
1	AA	189(G)	G
1	AA	189(H)	G
1	AA	195	A
1	AA	197	A
1	AA	199	G
1	AA	216	G
1	AA	220	G
1	AA	244	U
1	AA	247	G
1	AA	251	G
1	AA	260	G
1	AA	266	G
1	AA	267	C
1	AA	281	G
1	AA	283	C
1	AA	289	G
1	AA	301	G
1	AA	328	C
1	AA	330	C
1	AA	332	G
1	AA	338	A
1	AA	343	U
1	AA	344	A
1	AA	345	C
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	357	G
1	AA	358	U
1	AA	365	U
1	AA	366	C
1	AA	367	U
1	AA	372	C
1	AA	373	A
1	AA	388	G
1	AA	389	A

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Mol	Chain	Res	Type
1	AA	390	C
1	AA	397	A
1	AA	398	C
1	AA	406	G
1	AA	412	A
1	AA	413	G
1	AA	414	A
1	AA	422	C
1	AA	424	G
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	442	C
1	AA	452	A
1	AA	461	A
1	AA	470	C
1	AA	472	A
1	AA	473	G
1	AA	483	C
1	AA	484	G
1	AA	485	G
1	AA	495	A
1	AA	496	A
1	AA	498	U
1	AA	499	A
1	AA	500	G
1	AA	505	G
1	AA	509	A
1	AA	510	A
1	AA	511	C
1	AA	513	C
1	AA	517	G
1	AA	518	C
1	AA	520	A
1	AA	527	G
1	AA	531	U
1	AA	532	A
1	AA	533	A

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Mol	Chain	Res	Type
1	AA	534	U
1	AA	544	G
1	AA	547	A
1	AA	559	A
1	AA	560	U
1	AA	561	U
1	AA	562	C
1	AA	563	A
1	AA	567	G
1	AA	572	A
1	AA	573	A
1	AA	576	G
1	AA	579	G
1	AA	587	G
1	AA	588	G
1	AA	596	C
1	AA	607	A
1	AA	614	A
1	AA	616	G
1	AA	617	G
1	AA	618	C
1	AA	621	A
1	AA	624	C
1	AA	629	G
1	AA	630	G
1	AA	632	A
1	AA	633	G
1	AA	653	A
1	AA	665	A
1	AA	666	G
1	AA	687	A
1	AA	688	G
1	AA	693	G
1	AA	701	C
1	AA	702	A
1	AA	703	G
1	AA	720	C
1	AA	721	G
1	AA	723	U
1	AA	731	G
1	AA	733	A
1	AA	749	C

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Mol	Chain	Res	Type
1	AA	753	A
1	AA	754	C
1	AA	755	G
1	AA	766	A
1	AA	772	U
1	AA	773	G
1	AA	777	A
1	AA	786	G
1	AA	792	A
1	AA	793	U
1	AA	794	A
1	AA	800	G
1	AA	815	A
1	AA	816	A
1	AA	817	C
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	872	A
1	AA	876	G
1	AA	884	U
1	AA	902	G
1	AA	908	A
1	AA	914	A
1	AA	916	G
1	AA	920	U
1	AA	921	U
1	AA	923	A
1	AA	926	G
1	AA	927	G
1	AA	934	C
1	AA	935	A
1	AA	950	U
1	AA	961	U
1	AA	968	A
1	AA	969	A
1	AA	971	G

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Mol	Chain	Res	Type
1	AA	972	C
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	1026	G
1	AA	1050	G
1	AA	1054	C
1	AA	1064	G
1	AA	1065	U
1	AA	1066	C
1	AA	1067	A
1	AA	1068	G
1	AA	1081	G
1	AA	1095	U
1	AA	1101	A
1	AA	1103	C
1	AA	1107	C
1	AA	1117	G
1	AA	1118	C
1	AA	1124	G
1	AA	1125	U
1	AA	1126	U
1	AA	1129	C
1	AA	1134	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	1160	G
1	AA	1190	G
1	AA	1196	U
1	AA	1197	G
1	AA	1200	C

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Mol	Chain	Res	Type
1	AA	1202	G
1	AA	1212	U
1	AA	1213	A
1	AA	1225	A
1	AA	1227	A
1	AA	1238	A
1	AA	1241	G
1	AA	1249	C
1	AA	1255	G
1	AA	1256	A
1	AA	1257	U
1	AA	1258	G
1	AA	1270	C
1	AA	1273	G
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	1300	G
1	AA	1301	U
1	AA	1302	U
1	AA	1312	G
1	AA	1317	C
1	AA	1320	C
1	AA	1322	C
1	AA	1323	G
1	AA	1331	G
1	AA	1334	G
1	AA	1335	C
1	AA	1336	C
1	AA	1338	G
1	AA	1346	A
1	AA	1347	G
1	AA	1363(A)	A
1	AA	1364	U
1	AA	1370	G
1	AA	1381	U
1	AA	1387	G
1	AA	1388	C
1	AA	1397	C

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Mol	Chain	Res	Type
1	AA	1402	C
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	1456	G
1	AA	1457	G
1	AA	1487	G
1	AA	1492	A
1	AA	1494	G
1	AA	1499	A
1	AA	1500	A
1	AA	1504	G
1	AA	1505	G
1	AA	1506	U
1	AA	1507	A
1	AA	1517	G
1	AA	1520	G
1	AA	1529	G
1	AA	1530	G
31	BA	9	U
31	BA	10	G
31	BA	12	U
31	BA	15	G
31	BA	17	G
31	BA	23	G
31	BA	33	U
31	BA	34	C
31	BA	35	G
31	BA	45	C
31	BA	50	U
31	BA	51	G
31	BA	55	G
31	BA	59	U
31	BA	63	U
31	BA	69	C
31	BA	71	A
31	BA	72	U
31	BA	74	A

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Mol	Chain	Res	Type
31	BA	75	G
31	BA	83	G
31	BA	84	A
31	BA	90	U
31	BA	92	A
31	BA	94	C
31	BA	95	G
31	BA	100	G
31	BA	102	G
31	BA	103	A
31	BA	104	U
31	BA	114	U
31	BA	118	A
31	BA	120	U
31	BA	126	A
31	BA	129	C
31	BA	131	G
31	BA	137	C
31	BA	139	G
31	BA	139(A)	G
31	BA	140	G
31	BA	141	A
31	BA	142	A
31	BA	142(A)	C
31	BA	143(A)	C
31	BA	145	G
31	BA	146	G
31	BA	153	C
31	BA	154	G
31	BA	154(A)	C
31	BA	157	U
31	BA	158	U
31	BA	171	G
31	BA	173	G
31	BA	175	G
31	BA	182	A
31	BA	183	C
31	BA	188	G
31	BA	193	U
31	BA	194	G
31	BA	196	A
31	BA	197	A

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Mol	Chain	Res	Type
31	BA	199	A
31	BA	200	U
31	BA	204	A
31	BA	205	G
31	BA	214	G
31	BA	215	G
31	BA	216	A
31	BA	221	A
31	BA	222	A
31	BA	225	A
31	BA	228	A
31	BA	229	A
31	BA	230	U
31	BA	233	A
31	BA	240	G
31	BA	248	G
31	BA	252	G
31	BA	266	G
31	BA	271(A)	A
31	BA	271(I)	G
31	BA	271(K)	U
31	BA	271(L)	U
31	BA	271(M)	G
31	BA	271(N)	U
31	BA	271(O)	C
31	BA	271(P)	C
31	BA	271(R)	G
31	BA	271(T)	C
31	BA	271(W)	G
31	BA	271(Y)	U
31	BA	272	G
31	BA	272(B)	G
31	BA	272(G)	C
31	BA	272(H)	C
31	BA	272(J)	C
31	BA	274	G
31	BA	275	G
31	BA	279	C
31	BA	281	G
31	BA	286	C
31	BA	287	C
31	BA	288	C

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Mol	Chain	Res	Type
31	BA	289	A
31	BA	306	U
31	BA	311	A
31	BA	324	A
31	BA	326	G
31	BA	327	G
31	BA	329	G
31	BA	330	A
31	BA	332	A
31	BA	343	C
31	BA	347	A
31	BA	348	G
31	BA	351	G
31	BA	352	G
31	BA	356	G
31	BA	358	U
31	BA	362	U
31	BA	363	G
31	BA	363(B)	G
31	BA	363(C)	G
31	BA	363(D)	G
31	BA	363(E)	U
31	BA	363(F)	A
31	BA	370	G
31	BA	371	A
31	BA	372	G
31	BA	386	G
31	BA	388	G
31	BA	389	G
31	BA	405	U
31	BA	406	G
31	BA	411	G
31	BA	416	C
31	BA	418	G
31	BA	428	A
31	BA	442	G
31	BA	444	C
31	BA	446	G
31	BA	448	U
31	BA	449	A
31	BA	454	A
31	BA	455	C

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Mol	Chain	Res	Type
31	BA	456	C
31	BA	457	A
31	BA	467	G
31	BA	470	A
31	BA	472	A
31	BA	473	G
31	BA	474	G
31	BA	475	U
31	BA	479	A
31	BA	480	A
31	BA	481	G
31	BA	501	A
31	BA	505	A
31	BA	508	G
31	BA	509	C
31	BA	512	G
31	BA	513	A
31	BA	518	G
31	BA	528	A
31	BA	530	G
31	BA	531	C
31	BA	532	A
31	BA	533	G
31	BA	537	C
31	BA	542	C
31	BA	543	C
31	BA	547	A
31	BA	548	A
31	BA	549	G
31	BA	563	G
31	BA	571	A
31	BA	573	G
31	BA	575	A
31	BA	588	U
31	BA	602	G
31	BA	603	A
31	BA	604	G
31	BA	605	C
31	BA	607	U
31	BA	614(A)	U
31	BA	614(B)	G
31	BA	615	G

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Mol	Chain	Res	Type
31	BA	620	G
31	BA	622	G
31	BA	623	G
31	BA	627	A
31	BA	637	A
31	BA	645	C
31	BA	646	A
31	BA	647	G
31	BA	650	C
31	BA	651	G
31	BA	652	C
31	BA	656	G
31	BA	657	U
31	BA	663	G
31	BA	668	G
31	BA	669	G
31	BA	670	A
31	BA	671	C
31	BA	676	A
31	BA	686	G
31	BA	708	C
31	BA	717	G
31	BA	722	A
31	BA	726	G
31	BA	730	C
31	BA	738	G
31	BA	745	G
31	BA	746	A
31	BA	747	U
31	BA	753	C
31	BA	759	G
31	BA	764	A
31	BA	765	G
31	BA	774	A
31	BA	775	G
31	BA	776	G
31	BA	782	A
31	BA	784	A
31	BA	785	G
31	BA	787	U
31	BA	789	A
31	BA	790	C

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Mol	Chain	Res	Type
31	BA	791	C
31	BA	792	G
31	BA	805	G
31	BA	807	U
31	BA	808	G
31	BA	812	C
31	BA	819	A
31	BA	822	U
31	BA	823	G
31	BA	826	U
31	BA	827	U
31	BA	828	U
31	BA	830	G
31	BA	831	G
31	BA	846	C
31	BA	847	U
31	BA	848	G
31	BA	856	C
31	BA	857	C
31	BA	858	U
31	BA	859	G
31	BA	866	A
31	BA	867	C
31	BA	871	U
31	BA	872	A
31	BA	878	A
31	BA	883	G
31	BA	892	G
31	BA	896	A
31	BA	897	C
31	BA	898	C
31	BA	899	A
31	BA	901	A
31	BA	904	C
31	BA	905	U
31	BA	906	G
31	BA	907	U
31	BA	910	A
31	BA	914	C
31	BA	917	A
31	BA	919	G
31	BA	926	A

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Mol	Chain	Res	Type
31	BA	932	G
31	BA	941	A
31	BA	945	A
31	BA	946	G
31	BA	952	G
31	BA	958	U
31	BA	959	A
31	BA	961	C
31	BA	974	G
31	BA	975	C
31	BA	975(A)	G
31	BA	983	A
31	BA	990	A
31	BA	991	C
31	BA	996	A
31	BA	998	C
31	BA	1004	C
31	BA	1005	C
31	BA	1006	C
31	BA	1010	A
31	BA	1011	G
31	BA	1012	U
31	BA	1013	C
31	BA	1015	G
31	BA	1016	G
31	BA	1020	A
31	BA	1022	G
31	BA	1023	U
31	BA	1025	G
31	BA	1026	U
31	BA	1032	A
31	BA	1033	U
31	BA	1034	G
31	BA	1041	C
31	BA	1042	G
31	BA	1044	G
31	BA	1045	A
31	BA	1047	G
31	BA	1048	A
31	BA	1050	A
31	BA	1106	A
31	BA	1107	G

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Mol	Chain	Res	Type
31	BA	1110	G
31	BA	1111	A
31	BA	1112	G
31	BA	1113	U
31	BA	1114	G
31	BA	1115	G
31	BA	1116	C
31	BA	1126	A
31	BA	1130	U
31	BA	1135	C
31	BA	1136	G
31	BA	1142	U
31	BA	1143	A
31	BA	1147	C
31	BA	1156	A
31	BA	1159	U
31	BA	1169	G
31	BA	1170	G
31	BA	1171	G
31	BA	1174	A
31	BA	1175	U
31	BA	1176	G
31	BA	1177	A
31	BA	1178	C
31	BA	1179	C
31	BA	1180	C
31	BA	1189	A
31	BA	1194	A
31	BA	1195	G
31	BA	1204	A
31	BA	1205	U
31	BA	1206	G
31	BA	1210	A
31	BA	1211	U
31	BA	1213	A
31	BA	1217	C
31	BA	1218	C
31	BA	1220	A
31	BA	1221	C
31	BA	1229	G
31	BA	1236	G
31	BA	1242	A

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Mol	Chain	Res	Type
31	BA	1244	G
31	BA	1249	U
31	BA	1251	C
31	BA	1253	A
31	BA	1254	A
31	BA	1255	U
31	BA	1256	G
31	BA	1269	A
31	BA	1271	G
31	BA	1272	A
31	BA	1273	U
31	BA	1276	A
31	BA	1281	G
31	BA	1287	A
31	BA	1300	U
31	BA	1301	A
31	BA	1302	A
31	BA	1307	A
31	BA	1308	A
31	BA	1314	C
31	BA	1318	C
31	BA	1319	G
31	BA	1345	C
31	BA	1347	G
31	BA	1349	A
31	BA	1352	U
31	BA	1359	A
31	BA	1360	A
31	BA	1365	A
31	BA	1366	A
31	BA	1368	G
31	BA	1379	A
31	BA	1380	G
31	BA	1384	A
31	BA	1385	G
31	BA	1386	C
31	BA	1389	G
31	BA	1390	U
31	BA	1391	U
31	BA	1392	A
31	BA	1395	A
31	BA	1397	U

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Mol	Chain	Res	Type
31	BA	1398	C
31	BA	1404	C
31	BA	1407	C
31	BA	1411	C
31	BA	1416	G
31	BA	1417	C
31	BA	1420	U
31	BA	1421	G
31	BA	1427	A
31	BA	1428	C
31	BA	1437	C
31	BA	1444	G
31	BA	1445	A
31	BA	1445(A)	C
31	BA	1448	G
31	BA	1449	A
31	BA	1450	G
31	BA	1452	A
31	BA	1455	G
31	BA	1459	G
31	BA	1460	A
31	BA	1461	G
31	BA	1466	G
31	BA	1467	C
31	BA	1471	A
31	BA	1472	A
31	BA	1473	G
31	BA	1474	C
31	BA	1475	G
31	BA	1476	C
31	BA	1477	A
31	BA	1479	G
31	BA	1480	G
31	BA	1481	U
31	BA	1482	G
31	BA	1484	G
31	BA	1485	G
31	BA	1486	A
31	BA	1488	G
31	BA	1490	A
31	BA	1491	G
31	BA	1492	G

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Mol	Chain	Res	Type
31	BA	1493	C
31	BA	1494	A
31	BA	1495	A
31	BA	1496	A
31	BA	1497	U
31	BA	1498	C
31	BA	1501	C
31	BA	1502	C
31	BA	1505	C
31	BA	1507	A
31	BA	1508	A
31	BA	1509	C
31	BA	1509(A)	A
31	BA	1512	U
31	BA	1513	C
31	BA	1515	G
31	BA	1517	G
31	BA	1519	G
31	BA	1520	G
31	BA	1528	A
31	BA	1528(A)	A
31	BA	1529	G
31	BA	1530	C
31	BA	1531	C
31	BA	1532	C
31	BA	1533	G
31	BA	1543	C
31	BA	1544	A
31	BA	1545	A
31	BA	1546	C
31	BA	1554	A
31	BA	1558	A
31	BA	1559	G
31	BA	1566	A
31	BA	1569	A
31	BA	1578	U
31	BA	1579	A
31	BA	1580	A
31	BA	1584	C
31	BA	1586	A
31	BA	1587	A
31	BA	1588	C

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Mol	Chain	Res	Type
31	BA	1589	C
31	BA	1591	G
31	BA	1592	C
31	BA	1598	C
31	BA	1600	C
31	BA	1603	A
31	BA	1608	A
31	BA	1609	A
31	BA	1610	A
31	BA	1613	G
31	BA	1617	C
31	BA	1618	A
31	BA	1632	A
31	BA	1634	A
31	BA	1635	G
31	BA	1640	C
31	BA	1647	G
31	BA	1648	C
31	BA	1649	G
31	BA	1652	A
31	BA	1653	G
31	BA	1654	A
31	BA	1668	A
31	BA	1670	C
31	BA	1674	G
31	BA	1675	C
31	BA	1678	G
31	BA	1679	U
31	BA	1694	C
31	BA	1695	G
31	BA	1696	G
31	BA	1700	A
31	BA	1701	A
31	BA	1702	G
31	BA	1717	G
31	BA	1718	G
31	BA	1722	A
31	BA	1739	U
31	BA	1740	G
31	BA	1741	A
31	BA	1742	G
31	BA	1744	C

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Mol	Chain	Res	Type
31	BA	1745(A)	C
31	BA	1746	G
31	BA	1748	G
31	BA	1749	A
31	BA	1756	G
31	BA	1758	G
31	BA	1763	G
31	BA	1764	G
31	BA	1773	A
31	BA	1778	U
31	BA	1781	C
31	BA	1782	C
31	BA	1791	A
31	BA	1798	U
31	BA	1799	G
31	BA	1800	C
31	BA	1801	G
31	BA	1802	A
31	BA	1816	G
31	BA	1820	U
31	BA	1821	A
31	BA	1828	G
31	BA	1829	A
31	BA	1835	G
31	BA	1837	C
31	BA	1838	C
31	BA	1847	A
31	BA	1858	G
31	BA	1865	G
31	BA	1866	C
31	BA	1877	A
31	BA	1878	G
31	BA	1879	C
31	BA	1881	C
31	BA	1882	C
31	BA	1884	A
31	BA	1888	G
31	BA	1889	A
31	BA	1900	A
31	BA	1905	C
31	BA	1906	G
31	BA	1913	A

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Mol	Chain	Res	Type
31	BA	1914	C
31	BA	1916	A
31	BA	1929	G
31	BA	1930	G
31	BA	1934	C
31	BA	1935	G
31	BA	1936	A
31	BA	1937	A
31	BA	1938	A
31	BA	1946	U
31	BA	1947	C
31	BA	1955	U
31	BA	1962	C
31	BA	1963	U
31	BA	1964	G
31	BA	1967	C
31	BA	1969	A
31	BA	1970	A
31	BA	1971	A
31	BA	1972	A
31	BA	1982	C
31	BA	1991	U
31	BA	1993	U
31	BA	1997	G
31	BA	2020	A
31	BA	2023	G
31	BA	2027	G
31	BA	2028	U
31	BA	2030	A
31	BA	2031	A
31	BA	2032	G
31	BA	2033	A
31	BA	2034	U
31	BA	2035	G
31	BA	2036	C
31	BA	2043	C
31	BA	2049	G
31	BA	2055	C
31	BA	2056	G
31	BA	2060	A
31	BA	2061	G
31	BA	2062	A

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Mol	Chain	Res	Type
31	BA	2069	G
31	BA	2071	A
31	BA	2093	G
31	BA	2094	G
31	BA	2095	C
31	BA	2099	U
31	BA	2103	C
31	BA	2104	G
31	BA	2105	C
31	BA	2187	G
31	BA	2189	U
31	BA	2190	G
31	BA	2191	G
31	BA	2192	G
31	BA	2194	G
31	BA	2198	A
31	BA	2199	A
31	BA	2200	C
31	BA	2201	C
31	BA	2205	C
31	BA	2207	G
31	BA	2208	A
31	BA	2218	U
31	BA	2219	G
31	BA	2225	A
31	BA	2226	C
31	BA	2227	A
31	BA	2238	G
31	BA	2239	G
31	BA	2259	G
31	BA	2263	C
31	BA	2268	A
31	BA	2273	A
31	BA	2275	C
31	BA	2280	G
31	BA	2281	C
31	BA	2283	C
31	BA	2286	A
31	BA	2287	A
31	BA	2289	G
31	BA	2291	U
31	BA	2302	G

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Mol	Chain	Res	Type
31	BA	2305	A
31	BA	2307	G
31	BA	2308	G
31	BA	2309	A
31	BA	2310	A
31	BA	2311	A
31	BA	2313	C
31	BA	2315	G
31	BA	2316	C
31	BA	2318	G
31	BA	2319	G
31	BA	2320	A
31	BA	2325	G
31	BA	2334	G
31	BA	2335	A
31	BA	2336	A
31	BA	2342	C
31	BA	2346	A
31	BA	2347	C
31	BA	2350	C
31	BA	2354	G
31	BA	2360	A
31	BA	2361	A
31	BA	2362	G
31	BA	2376	A
31	BA	2383	G
31	BA	2385	C
31	BA	2387	U
31	BA	2388	A
31	BA	2394	C
31	BA	2400	G
31	BA	2402	C
31	BA	2405	G
31	BA	2406	U
31	BA	2410	G
31	BA	2411	A
31	BA	2422	A
31	BA	2423	U
31	BA	2425	A
31	BA	2429	G
31	BA	2430	A
31	BA	2435	A

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Mol	Chain	Res	Type
31	BA	2439	A
31	BA	2440	C
31	BA	2441	C
31	BA	2447	G
31	BA	2448	A
31	BA	2464	C
31	BA	2465	C
31	BA	2468	G
31	BA	2469	A
31	BA	2470	G
31	BA	2471	C
31	BA	2472	G
31	BA	2473	U
31	BA	2475	C
31	BA	2476	A
31	BA	2477	C
31	BA	2482	G
31	BA	2483	C
31	BA	2484	G
31	BA	2487	G
31	BA	2494	G
31	BA	2495	G
31	BA	2502	G
31	BA	2504	U
31	BA	2505	G
31	BA	2506	U
31	BA	2507	C
31	BA	2518	A
31	BA	2520	C
31	BA	2524	G
31	BA	2525	G
31	BA	2531	A
31	BA	2533	A
31	BA	2535	G
31	BA	2543	G
31	BA	2548	G
31	BA	2550	G
31	BA	2553	G
31	BA	2554	U
31	BA	2559	C
31	BA	2566	A
31	BA	2567	G

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Mol	Chain	Res	Type
31	BA	2569	G
31	BA	2574	G
31	BA	2586	C
31	BA	2592	G
31	BA	2602	A
31	BA	2603	G
31	BA	2609	U
31	BA	2610	C
31	BA	2611	U
31	BA	2612	C
31	BA	2615	U
31	BA	2621	A
31	BA	2630	G
31	BA	2632	A
31	BA	2636	U
31	BA	2641	G
31	BA	2643	G
31	BA	2646	C
31	BA	2654	A
31	BA	2655	G
31	BA	2657	A
31	BA	2658	C
31	BA	2659	G
31	BA	2660	A
31	BA	2661	G
31	BA	2662	A
31	BA	2665	A
31	BA	2666	C
31	BA	2670	A
31	BA	2673	G
31	BA	2682	U
31	BA	2689	U
31	BA	2690	C
31	BA	2691	C
31	BA	2702	U
31	BA	2707	G
31	BA	2712	U
31	BA	2712(A)	A
31	BA	2713	A
31	BA	2714	G
31	BA	2718	G
31	BA	2720	U

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Mol	Chain	Res	Type
31	BA	2721	A
31	BA	2725	A
31	BA	2726	U
31	BA	2733	A
31	BA	2752	C
31	BA	2753	A
31	BA	2754	U
31	BA	2757	A
31	BA	2758	A
31	BA	2759	G
31	BA	2762	G
31	BA	2765	A
31	BA	2766	G
31	BA	2767	C
31	BA	2770	G
31	BA	2771	C
31	BA	2778	A
31	BA	2779	U
31	BA	2780	G
31	BA	2781	A
31	BA	2782	G
31	BA	2787	C
31	BA	2789	C
31	BA	2790	A
31	BA	2791	C
31	BA	2793	G
31	BA	2795	G
31	BA	2801(A)	A
31	BA	2802	G
31	BA	2803	C
31	BA	2804	C
31	BA	2807	G
31	BA	2808	U
31	BA	2818	G
31	BA	2820	A
31	BA	2821	A
31	BA	2830	G
31	BA	2835	A
31	BA	2849	U
31	BA	2860	A
31	BA	2863	C
31	BA	2872	G

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Mol	Chain	Res	Type
31	BA	2876	G
31	BA	2877	G
31	BA	2880	C
31	BA	2892	A
31	BA	2894	G
32	BB	3	C
32	BB	6	C
32	BB	8	U
32	BB	12	C
32	BB	13	A
32	BB	15	A
32	BB	22	U
32	BB	24	G
32	BB	25	A
32	BB	26	A
32	BB	27	C
32	BB	31	C
32	BB	32	C
32	BB	33	G
32	BB	39	A
32	BB	42	C
32	BB	45	A
32	BB	46	A
32	BB	47	C
32	BB	52	A
32	BB	55	U
32	BB	57	A
32	BB	58	A
32	BB	66	A
32	BB	67	G
32	BB	73	A
32	BB	74	U
32	BB	75	G
32	BB	81	G
32	BB	82	G
32	BB	87	G
32	BB	88	C
32	BB	89	G
32	BB	90	A
32	BB	91	C
32	BB	102	A
32	BB	103	G

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Mol	Chain	Res	Type
32	BB	106	G
32	BB	110	G
32	BB	113	G
32	BB	116	G
32	BB	118	G
1	CA	9	G
1	CA	31	G
1	CA	32	A
1	CA	39	G
1	CA	48	C
1	CA	50	A
1	CA	51	A
1	CA	54	C
1	CA	59	A
1	CA	61	G
1	CA	70	G
1	CA	80	G
1	CA	81	U
1	CA	82	U
1	CA	84	U
1	CA	90	U
1	CA	91	C
1	CA	97	G
1	CA	101	A
1	CA	115	G
1	CA	116	A
1	CA	119	A
1	CA	120	A
1	CA	121	C
1	CA	131	C
1	CA	144	G
1	CA	148	G
1	CA	150	C
1	CA	158	G
1	CA	163	C
1	CA	164	U
1	CA	169	C
1	CA	170	U
1	CA	171	A
1	CA	172	A
1	CA	173	U
1	CA	181	G

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Mol	Chain	Res	Type
1	CA	182	U
1	CA	189(G)	G
1	CA	189(H)	G
1	CA	195	A
1	CA	197	A
1	CA	199	G
1	CA	216	G
1	CA	220	G
1	CA	244	U
1	CA	247	G
1	CA	251	G
1	CA	260	G
1	CA	266	G
1	CA	267	C
1	CA	281	G
1	CA	283	C
1	CA	289	G
1	CA	301	G
1	CA	328	C
1	CA	330	C
1	CA	332	G
1	CA	338	A
1	CA	343	U
1	CA	344	A
1	CA	345	C
1	CA	352	C
1	CA	353	A
1	CA	354	G
1	CA	357	G
1	CA	358	U
1	CA	365	U
1	CA	366	C
1	CA	367	U
1	CA	372	C
1	CA	373	A
1	CA	388	G
1	CA	389	A
1	CA	390	C
1	CA	397	A
1	CA	398	C
1	CA	406	G
1	CA	412	A

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Mol	Chain	Res	Type
1	CA	413	G
1	CA	414	A
1	CA	422	C
1	CA	424	G
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	442	C
1	CA	452	A
1	CA	461	A
1	CA	470	C
1	CA	472	A
1	CA	473	G
1	CA	483	C
1	CA	484	G
1	CA	485	G
1	CA	495	A
1	CA	496	A
1	CA	498	U
1	CA	499	A
1	CA	500	G
1	CA	505	G
1	CA	509	A
1	CA	510	A
1	CA	511	C
1	CA	513	C
1	CA	517	G
1	CA	518	C
1	CA	520	A
1	CA	527	G
1	CA	531	U
1	CA	532	A
1	CA	533	A
1	CA	534	U
1	CA	544	G
1	CA	547	A
1	CA	559	A
1	CA	560	U

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Mol	Chain	Res	Type
1	CA	561	U
1	CA	562	C
1	CA	563	A
1	CA	567	G
1	CA	572	A
1	CA	573	A
1	CA	576	G
1	CA	579	G
1	CA	587	G
1	CA	588	G
1	CA	596	C
1	CA	607	A
1	CA	614	A
1	CA	616	G
1	CA	617	G
1	CA	618	C
1	CA	621	A
1	CA	624	C
1	CA	629	G
1	CA	630	G
1	CA	632	A
1	CA	633	G
1	CA	640	A
1	CA	653	A
1	CA	665	A
1	CA	666	G
1	CA	687	A
1	CA	688	G
1	CA	693	G
1	CA	701	C
1	CA	702	A
1	CA	703	G
1	CA	720	C
1	CA	721	G
1	CA	723	U
1	CA	731	G
1	CA	733	A
1	CA	749	C
1	CA	753	A
1	CA	754	C
1	CA	755	G
1	CA	766	A

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Mol	Chain	Res	Type
1	CA	772	U
1	CA	773	G
1	CA	777	A
1	CA	786	G
1	CA	792	A
1	CA	793	U
1	CA	794	A
1	CA	800	G
1	CA	815	A
1	CA	816	A
1	CA	817	C
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	872	A
1	CA	876	G
1	CA	884	U
1	CA	902	G
1	CA	908	A
1	CA	914	A
1	CA	916	G
1	CA	920	U
1	CA	921	U
1	CA	922	G
1	CA	923	A
1	CA	926	G
1	CA	927	G
1	CA	934	C
1	CA	935	A
1	CA	950	U
1	CA	961	U
1	CA	968	A
1	CA	969	A
1	CA	971	G
1	CA	972	C
1	CA	974	A
1	CA	975	A

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Mol	Chain	Res	Type
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	1026	G
1	CA	1050	G
1	CA	1054	C
1	CA	1064	G
1	CA	1065	U
1	CA	1066	C
1	CA	1067	A
1	CA	1068	G
1	CA	1081	G
1	CA	1095	U
1	CA	1101	A
1	CA	1103	C
1	CA	1107	C
1	CA	1117	G
1	CA	1118	C
1	CA	1124	G
1	CA	1125	U
1	CA	1126	U
1	CA	1129	C
1	CA	1134	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	1160	G
1	CA	1190	G
1	CA	1196	U
1	CA	1197	G
1	CA	1202	G
1	CA	1212	U
1	CA	1213	A
1	CA	1225	A

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Mol	Chain	Res	Type
1	CA	1227	A
1	CA	1238	A
1	CA	1241	G
1	CA	1249	C
1	CA	1255	G
1	CA	1256	A
1	CA	1257	U
1	CA	1258	G
1	CA	1270	C
1	CA	1273	G
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	1300	G
1	CA	1301	U
1	CA	1302	U
1	CA	1312	G
1	CA	1317	C
1	CA	1320	C
1	CA	1322	C
1	CA	1323	G
1	CA	1331	G
1	CA	1334	G
1	CA	1335	C
1	CA	1338	G
1	CA	1346	A
1	CA	1347	G
1	CA	1363(A)	A
1	CA	1364	U
1	CA	1370	G
1	CA	1381	U
1	CA	1387	G
1	CA	1388	C
1	CA	1397	C
1	CA	1402	C
1	CA	1419	G
1	CA	1442	G
1	CA	1442(A)	G
1	CA	1442(B)	A

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Mol	Chain	Res	Type
1	CA	1443	G
1	CA	1447	A
1	CA	1452	C
1	CA	1456	G
1	CA	1457	G
1	CA	1487	G
1	CA	1492	A
1	CA	1494	G
1	CA	1499	A
1	CA	1500	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
31	DA	9	U
31	DA	10	G
31	DA	12	U
31	DA	15	G
31	DA	23	G
31	DA	33	U
31	DA	34	C
31	DA	35	G
31	DA	45	C
31	DA	50	U
31	DA	51	G
31	DA	55	G
31	DA	59	U
31	DA	60	G
31	DA	63	U
31	DA	69	C
31	DA	71	A
31	DA	72	U
31	DA	74	A
31	DA	75	G
31	DA	83	G
31	DA	84	A
31	DA	90	U
31	DA	92	A

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Mol	Chain	Res	Type
31	DA	94	C
31	DA	95	G
31	DA	100	G
31	DA	102	G
31	DA	103	A
31	DA	104	U
31	DA	114	U
31	DA	118	A
31	DA	120	U
31	DA	125	G
31	DA	129	C
31	DA	131	G
31	DA	137	C
31	DA	139	G
31	DA	139(A)	G
31	DA	140	G
31	DA	141	A
31	DA	142	A
31	DA	142(A)	C
31	DA	143(A)	C
31	DA	145	G
31	DA	146	G
31	DA	153	C
31	DA	154	G
31	DA	154(A)	C
31	DA	157	U
31	DA	158	U
31	DA	171	G
31	DA	173	G
31	DA	175	G
31	DA	182	A
31	DA	183	C
31	DA	188	G
31	DA	193	U
31	DA	194	G
31	DA	196	A
31	DA	197	A
31	DA	199	A
31	DA	200	U
31	DA	204	A
31	DA	205	G
31	DA	214	G

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Mol	Chain	Res	Type
31	DA	215	G
31	DA	216	A
31	DA	221	A
31	DA	222	A
31	DA	228	A
31	DA	229	A
31	DA	230	U
31	DA	233	A
31	DA	240	G
31	DA	248	G
31	DA	252	G
31	DA	266	G
31	DA	271(A)	A
31	DA	271(I)	G
31	DA	271(K)	U
31	DA	271(L)	U
31	DA	271(M)	G
31	DA	271(N)	U
31	DA	271(O)	C
31	DA	271(P)	C
31	DA	271(R)	G
31	DA	271(T)	C
31	DA	271(W)	G
31	DA	271(Y)	U
31	DA	272	G
31	DA	272(B)	G
31	DA	272(G)	C
31	DA	272(H)	C
31	DA	272(J)	C
31	DA	274	G
31	DA	275	G
31	DA	279	C
31	DA	281	G
31	DA	286	C
31	DA	287	C
31	DA	288	C
31	DA	289	A
31	DA	299	A
31	DA	306	U
31	DA	311	A
31	DA	324	A
31	DA	327	G

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Mol	Chain	Res	Type
31	DA	329	G
31	DA	330	A
31	DA	332	A
31	DA	338	G
31	DA	343	C
31	DA	346	A
31	DA	347	A
31	DA	348	G
31	DA	351	G
31	DA	352	G
31	DA	356	G
31	DA	358	U
31	DA	362	U
31	DA	363	G
31	DA	363(B)	G
31	DA	363(C)	G
31	DA	363(D)	G
31	DA	363(E)	U
31	DA	363(F)	A
31	DA	370	G
31	DA	371	A
31	DA	372	G
31	DA	384	U
31	DA	386	G
31	DA	388	G
31	DA	389	G
31	DA	405	U
31	DA	406	G
31	DA	411	G
31	DA	416	C
31	DA	428	A
31	DA	442	G
31	DA	444	C
31	DA	446	G
31	DA	448	U
31	DA	449	A
31	DA	454	A
31	DA	455	C
31	DA	456	C
31	DA	457	A
31	DA	467	G
31	DA	470	A

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Mol	Chain	Res	Type
31	DA	472	A
31	DA	473	G
31	DA	474	G
31	DA	475	U
31	DA	479	A
31	DA	481	G
31	DA	501	A
31	DA	505	A
31	DA	508	G
31	DA	509	C
31	DA	512	G
31	DA	513	A
31	DA	518	G
31	DA	528	A
31	DA	530	G
31	DA	531	C
31	DA	532	A
31	DA	533	G
31	DA	537	C
31	DA	542	C
31	DA	543	C
31	DA	547	A
31	DA	548	A
31	DA	549	G
31	DA	563	G
31	DA	571	A
31	DA	573	G
31	DA	575	A
31	DA	586	A
31	DA	588	U
31	DA	602	G
31	DA	603	A
31	DA	604	G
31	DA	605	C
31	DA	607	U
31	DA	614(A)	U
31	DA	614(B)	G
31	DA	615	G
31	DA	620	G
31	DA	622	G
31	DA	623	G
31	DA	627	A

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Mol	Chain	Res	Type
31	DA	637	A
31	DA	645	C
31	DA	646	A
31	DA	647	G
31	DA	651	G
31	DA	652	C
31	DA	656	G
31	DA	657	U
31	DA	663	G
31	DA	668	G
31	DA	669	G
31	DA	670	A
31	DA	671	C
31	DA	676	A
31	DA	686	G
31	DA	708	C
31	DA	709	U
31	DA	717	G
31	DA	722	A
31	DA	726	G
31	DA	730	C
31	DA	738	G
31	DA	745	G
31	DA	746	A
31	DA	747	U
31	DA	753	C
31	DA	759	G
31	DA	762	U
31	DA	764	A
31	DA	765	G
31	DA	774	A
31	DA	775	G
31	DA	776	G
31	DA	782	A
31	DA	784	A
31	DA	785	G
31	DA	787	U
31	DA	790	C
31	DA	791	C
31	DA	792	G
31	DA	805	G
31	DA	807	U

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Mol	Chain	Res	Type
31	DA	808	G
31	DA	812	C
31	DA	819	A
31	DA	822	U
31	DA	823	G
31	DA	826	U
31	DA	827	U
31	DA	828	U
31	DA	830	G
31	DA	831	G
31	DA	846	C
31	DA	847	U
31	DA	848	G
31	DA	856	C
31	DA	857	C
31	DA	858	U
31	DA	859	G
31	DA	866	A
31	DA	867	C
31	DA	871	U
31	DA	872	A
31	DA	878	A
31	DA	883	G
31	DA	892	G
31	DA	896	A
31	DA	897	C
31	DA	898	C
31	DA	899	A
31	DA	901	A
31	DA	904	C
31	DA	905	U
31	DA	906	G
31	DA	907	U
31	DA	910	A
31	DA	917	A
31	DA	919	G
31	DA	926	A
31	DA	932	G
31	DA	941	A
31	DA	946	G
31	DA	952	G
31	DA	958	U

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Mol	Chain	Res	Type
31	DA	959	A
31	DA	961	C
31	DA	974	G
31	DA	975	C
31	DA	975(A)	G
31	DA	983	A
31	DA	990	A
31	DA	991	C
31	DA	996	A
31	DA	998	C
31	DA	1004	C
31	DA	1005	C
31	DA	1006	C
31	DA	1010	A
31	DA	1011	G
31	DA	1012	U
31	DA	1013	C
31	DA	1015	G
31	DA	1016	G
31	DA	1020	A
31	DA	1022	G
31	DA	1023	U
31	DA	1025	G
31	DA	1026	U
31	DA	1032	A
31	DA	1033	U
31	DA	1041	C
31	DA	1042	G
31	DA	1043	C
31	DA	1044	G
31	DA	1045	A
31	DA	1047	G
31	DA	1048	A
31	DA	1050	A
31	DA	1106	A
31	DA	1107	G
31	DA	1110	G
31	DA	1111	A
31	DA	1112	G
31	DA	1113	U
31	DA	1114	G
31	DA	1115	G

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Mol	Chain	Res	Type
31	DA	1116	C
31	DA	1126	A
31	DA	1130	U
31	DA	1135	C
31	DA	1136	G
31	DA	1139	G
31	DA	1142	U
31	DA	1143	A
31	DA	1144	G
31	DA	1147	C
31	DA	1156	A
31	DA	1159	U
31	DA	1169	G
31	DA	1170	G
31	DA	1171	G
31	DA	1174	A
31	DA	1175	U
31	DA	1176	G
31	DA	1177	A
31	DA	1178	C
31	DA	1179	C
31	DA	1180	C
31	DA	1189	A
31	DA	1194	A
31	DA	1195	G
31	DA	1204	A
31	DA	1205	U
31	DA	1206	G
31	DA	1210	A
31	DA	1211	U
31	DA	1213	A
31	DA	1217	C
31	DA	1218	C
31	DA	1220	A
31	DA	1221	C
31	DA	1229	G
31	DA	1236	G
31	DA	1242	A
31	DA	1244	G
31	DA	1249	U
31	DA	1251	C
31	DA	1253	A

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Mol	Chain	Res	Type
31	DA	1254	A
31	DA	1255	U
31	DA	1256	G
31	DA	1269	A
31	DA	1271	G
31	DA	1272	A
31	DA	1273	U
31	DA	1276	A
31	DA	1281	G
31	DA	1287	A
31	DA	1288	U
31	DA	1300	U
31	DA	1301	A
31	DA	1302	A
31	DA	1307	A
31	DA	1308	A
31	DA	1314	C
31	DA	1318	C
31	DA	1319	G
31	DA	1332	G
31	DA	1345	C
31	DA	1347	G
31	DA	1349	A
31	DA	1352	U
31	DA	1359	A
31	DA	1360	A
31	DA	1365	A
31	DA	1366	A
31	DA	1368	G
31	DA	1379	A
31	DA	1380	G
31	DA	1384	A
31	DA	1385	G
31	DA	1386	C
31	DA	1389	G
31	DA	1390	U
31	DA	1391	U
31	DA	1392	A
31	DA	1395	A
31	DA	1397	U
31	DA	1398	C
31	DA	1404	C

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Mol	Chain	Res	Type
31	DA	1407	C
31	DA	1411	C
31	DA	1416	G
31	DA	1417	C
31	DA	1420	U
31	DA	1421	G
31	DA	1427	A
31	DA	1428	C
31	DA	1437	C
31	DA	1444	G
31	DA	1445	A
31	DA	1445(A)	C
31	DA	1448	G
31	DA	1449	A
31	DA	1450	G
31	DA	1452	A
31	DA	1455	G
31	DA	1459	G
31	DA	1460	A
31	DA	1461	G
31	DA	1467	C
31	DA	1471	A
31	DA	1472	A
31	DA	1473	G
31	DA	1474	C
31	DA	1475	G
31	DA	1476	C
31	DA	1477	A
31	DA	1479	G
31	DA	1480	G
31	DA	1481	U
31	DA	1482	G
31	DA	1484	G
31	DA	1485	G
31	DA	1486	A
31	DA	1488	G
31	DA	1490	A
31	DA	1491	G
31	DA	1492	G
31	DA	1493	C
31	DA	1494	A
31	DA	1495	A

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Mol	Chain	Res	Type
31	DA	1496	A
31	DA	1497	U
31	DA	1498	C
31	DA	1501	C
31	DA	1502	C
31	DA	1505	C
31	DA	1507	A
31	DA	1508	A
31	DA	1509	C
31	DA	1509(A)	A
31	DA	1512	U
31	DA	1513	C
31	DA	1515	G
31	DA	1517	G
31	DA	1519	G
31	DA	1520	G
31	DA	1528	A
31	DA	1528(A)	A
31	DA	1529	G
31	DA	1530	C
31	DA	1531	C
31	DA	1532	C
31	DA	1533	G
31	DA	1543	C
31	DA	1544	A
31	DA	1545	A
31	DA	1546	C
31	DA	1554	A
31	DA	1558	A
31	DA	1559	G
31	DA	1566	A
31	DA	1569	A
31	DA	1578	U
31	DA	1579	A
31	DA	1580	A
31	DA	1584	C
31	DA	1586	A
31	DA	1587	A
31	DA	1588	C
31	DA	1589	C
31	DA	1591	G
31	DA	1592	C

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Mol	Chain	Res	Type
31	DA	1593	G
31	DA	1598	C
31	DA	1600	C
31	DA	1603	A
31	DA	1608	A
31	DA	1609	A
31	DA	1610	A
31	DA	1613	G
31	DA	1617	C
31	DA	1618	A
31	DA	1632	A
31	DA	1634	A
31	DA	1635	G
31	DA	1640	C
31	DA	1647	G
31	DA	1648	C
31	DA	1652	A
31	DA	1653	G
31	DA	1654	A
31	DA	1668	A
31	DA	1670	C
31	DA	1674	G
31	DA	1675	C
31	DA	1678	G
31	DA	1679	U
31	DA	1694	C
31	DA	1695	G
31	DA	1696	G
31	DA	1700	A
31	DA	1701	A
31	DA	1702	G
31	DA	1717	G
31	DA	1718	G
31	DA	1722	A
31	DA	1739	U
31	DA	1740	G
31	DA	1741	A
31	DA	1742	G
31	DA	1744	C
31	DA	1745(A)	C
31	DA	1746	G
31	DA	1748	G

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Mol	Chain	Res	Type
31	DA	1749	A
31	DA	1756	G
31	DA	1758	G
31	DA	1763	G
31	DA	1764	G
31	DA	1773	A
31	DA	1778	U
31	DA	1781	C
31	DA	1791	A
31	DA	1798	U
31	DA	1799	G
31	DA	1800	C
31	DA	1801	G
31	DA	1816	G
31	DA	1820	U
31	DA	1821	A
31	DA	1828	G
31	DA	1829	A
31	DA	1835	G
31	DA	1836	C
31	DA	1837	C
31	DA	1838	C
31	DA	1847	A
31	DA	1858	G
31	DA	1865	G
31	DA	1866	C
31	DA	1877	A
31	DA	1878	G
31	DA	1879	C
31	DA	1881	C
31	DA	1882	C
31	DA	1884	A
31	DA	1888	G
31	DA	1900	A
31	DA	1905	C
31	DA	1906	G
31	DA	1913	A
31	DA	1914	C
31	DA	1916	A
31	DA	1929	G
31	DA	1930	G
31	DA	1934	C

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Mol	Chain	Res	Type
31	DA	1935	G
31	DA	1936	A
31	DA	1937	A
31	DA	1938	A
31	DA	1946	U
31	DA	1947	C
31	DA	1955	U
31	DA	1962	C
31	DA	1963	U
31	DA	1964	G
31	DA	1967	C
31	DA	1969	A
31	DA	1970	A
31	DA	1971	A
31	DA	1972	A
31	DA	1982	C
31	DA	1991	U
31	DA	1993	U
31	DA	1997	G
31	DA	2020	A
31	DA	2023	G
31	DA	2027	G
31	DA	2028	U
31	DA	2030	A
31	DA	2031	A
31	DA	2032	G
31	DA	2033	A
31	DA	2034	U
31	DA	2035	G
31	DA	2036	C
31	DA	2043	C
31	DA	2049	G
31	DA	2055	C
31	DA	2056	G
31	DA	2060	A
31	DA	2061	G
31	DA	2062	A
31	DA	2069	G
31	DA	2071	A
31	DA	2093	G
31	DA	2094	G
31	DA	2095	C

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Mol	Chain	Res	Type
31	DA	2099	U
31	DA	2103	C
31	DA	2104	G
31	DA	2105	C
31	DA	2187	G
31	DA	2189	U
31	DA	2190	G
31	DA	2191	G
31	DA	2192	G
31	DA	2194	G
31	DA	2198	A
31	DA	2199	A
31	DA	2200	C
31	DA	2201	C
31	DA	2205	C
31	DA	2207	G
31	DA	2208	A
31	DA	2218	U
31	DA	2219	G
31	DA	2225	A
31	DA	2226	C
31	DA	2227	A
31	DA	2238	G
31	DA	2239	G
31	DA	2259	G
31	DA	2263	C
31	DA	2268	A
31	DA	2273	A
31	DA	2275	C
31	DA	2280	G
31	DA	2281	C
31	DA	2283	C
31	DA	2286	A
31	DA	2287	A
31	DA	2289	G
31	DA	2291	U
31	DA	2302	G
31	DA	2305	A
31	DA	2307	G
31	DA	2308	G
31	DA	2309	A
31	DA	2310	A

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Mol	Chain	Res	Type
31	DA	2311	A
31	DA	2313	C
31	DA	2315	G
31	DA	2316	C
31	DA	2318	G
31	DA	2319	G
31	DA	2320	A
31	DA	2325	G
31	DA	2334	G
31	DA	2335	A
31	DA	2336	A
31	DA	2342	C
31	DA	2346	A
31	DA	2347	C
31	DA	2350	C
31	DA	2354	G
31	DA	2360	A
31	DA	2361	A
31	DA	2362	G
31	DA	2376	A
31	DA	2377	A
31	DA	2383	G
31	DA	2385	C
31	DA	2387	U
31	DA	2388	A
31	DA	2394	C
31	DA	2402	C
31	DA	2405	G
31	DA	2406	U
31	DA	2410	G
31	DA	2411	A
31	DA	2415	G
31	DA	2422	A
31	DA	2423	U
31	DA	2425	A
31	DA	2429	G
31	DA	2430	A
31	DA	2435	A
31	DA	2439	A
31	DA	2440	C
31	DA	2441	C
31	DA	2447	G

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Mol	Chain	Res	Type
31	DA	2448	A
31	DA	2465	C
31	DA	2468	G
31	DA	2469	A
31	DA	2470	G
31	DA	2471	C
31	DA	2472	G
31	DA	2473	U
31	DA	2475	C
31	DA	2476	A
31	DA	2477	C
31	DA	2482	G
31	DA	2483	C
31	DA	2484	G
31	DA	2487	G
31	DA	2494	G
31	DA	2495	G
31	DA	2502	G
31	DA	2504	U
31	DA	2505	G
31	DA	2506	U
31	DA	2507	C
31	DA	2518	A
31	DA	2520	C
31	DA	2524	G
31	DA	2525	G
31	DA	2531	A
31	DA	2533	A
31	DA	2535	G
31	DA	2542	A
31	DA	2543	G
31	DA	2548	G
31	DA	2550	G
31	DA	2553	G
31	DA	2554	U
31	DA	2559	C
31	DA	2566	A
31	DA	2567	G
31	DA	2569	G
31	DA	2574	G
31	DA	2578	G
31	DA	2586	C

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Mol	Chain	Res	Type
31	DA	2592	G
31	DA	2602	A
31	DA	2603	G
31	DA	2609	U
31	DA	2610	C
31	DA	2611	U
31	DA	2612	C
31	DA	2615	U
31	DA	2621	A
31	DA	2630	G
31	DA	2632	A
31	DA	2636	U
31	DA	2641	G
31	DA	2643	G
31	DA	2646	C
31	DA	2654	A
31	DA	2655	G
31	DA	2657	A
31	DA	2658	C
31	DA	2659	G
31	DA	2660	A
31	DA	2661	G
31	DA	2662	A
31	DA	2665	A
31	DA	2666	C
31	DA	2670	A
31	DA	2673	G
31	DA	2682	U
31	DA	2689	U
31	DA	2690	C
31	DA	2691	C
31	DA	2702	U
31	DA	2707	G
31	DA	2712	U
31	DA	2712(A)	A
31	DA	2713	A
31	DA	2714	G
31	DA	2718	G
31	DA	2720	U
31	DA	2721	A
31	DA	2725	A
31	DA	2726	U

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Mol	Chain	Res	Type
31	DA	2733	A
31	DA	2751	G
31	DA	2752	C
31	DA	2753	A
31	DA	2754	U
31	DA	2757	A
31	DA	2758	A
31	DA	2759	G
31	DA	2762	G
31	DA	2764	A
31	DA	2765	A
31	DA	2766	G
31	DA	2767	C
31	DA	2770	G
31	DA	2771	C
31	DA	2778	A
31	DA	2779	U
31	DA	2780	G
31	DA	2781	A
31	DA	2782	G
31	DA	2787	C
31	DA	2789	C
31	DA	2790	A
31	DA	2791	C
31	DA	2793	G
31	DA	2795	G
31	DA	2801(A)	A
31	DA	2802	G
31	DA	2803	C
31	DA	2804	C
31	DA	2807	G
31	DA	2808	U
31	DA	2818	G
31	DA	2820	A
31	DA	2821	A
31	DA	2830	G
31	DA	2835	A
31	DA	2849	U
31	DA	2859	G
31	DA	2860	A
31	DA	2863	C
31	DA	2872	G

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Mol	Chain	Res	Type
31	DA	2876	G
31	DA	2877	G
31	DA	2880	C
31	DA	2892	A
31	DA	2894	G
32	DB	3	C
32	DB	6	C
32	DB	8	U
32	DB	12	C
32	DB	13	A
32	DB	15	A
32	DB	22	U
32	DB	24	G
32	DB	25	A
32	DB	26	A
32	DB	27	C
32	DB	31	C
32	DB	32	C
32	DB	33	G
32	DB	39	A
32	DB	42	C
32	DB	45	A
32	DB	46	A
32	DB	47	C
32	DB	52	A
32	DB	55	U
32	DB	57	A
32	DB	58	A
32	DB	66	A
32	DB	67	G
32	DB	73	A
32	DB	74	U
32	DB	75	G
32	DB	81	G
32	DB	82	G
32	DB	87	G
32	DB	88	C
32	DB	89	G
32	DB	90	A
32	DB	91	C
32	DB	102	A
32	DB	103	G

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Mol	Chain	Res	Type
32	DB	106	G
32	DB	110	G
32	DB	113	G
32	DB	116	G
32	DB	118	G

All (212) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	30	U
1	AA	60	A
1	AA	79	G
1	AA	115	G
1	AA	119	A
1	AA	250	A
1	AA	266	G
1	AA	353	A
1	AA	366	C
1	AA	428	G
1	AA	429	U
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	819	A
1	AA	913	A
1	AA	991	U
1	AA	992	U
1	AA	1049	U
1	AA	1064	G
1	AA	1065	U
1	AA	1067	A
1	AA	1201	A
1	AA	1285	A
1	AA	1498	U
1	AA	1504	G
31	BA	34	C
31	BA	49	A
31	BA	50	U

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Mol	Chain	Res	Type
31	BA	71	A
31	BA	100	G
31	BA	102	G
31	BA	128	C
31	BA	221	A
31	BA	272	G
31	BA	370	G
31	BA	387	U
31	BA	472	A
31	BA	474	G
31	BA	587	C
31	BA	603	A
31	BA	669	G
31	BA	685	A
31	BA	746	A
31	BA	752	A
31	BA	774	A
31	BA	790	C
31	BA	856	C
31	BA	858	U
31	BA	974	G
31	BA	1106	A
31	BA	1112	G
31	BA	1142(A)	A
31	BA	1176	G
31	BA	1210	A
31	BA	1275	A
31	BA	1286	A
31	BA	1300	U
31	BA	1378	A
31	BA	1379	A
31	BA	1397	U
31	BA	1427	A
31	BA	1459	G
31	BA	1474	C
31	BA	1484	G
31	BA	1494	A
31	BA	1533	G
31	BA	1544	A
31	BA	1558	A
31	BA	1608	A
31	BA	1609	A

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Mol	Chain	Res	Type
31	BA	1652	A
31	BA	1653	G
31	BA	1694	C
31	BA	1799	G
31	BA	1819	A
31	BA	1838	C
31	BA	1876	A
31	BA	1934	C
31	BA	1963	U
31	BA	1992	G
31	BA	2030	A
31	BA	2034	U
31	BA	2191	G
31	BA	2208	A
31	BA	2225	A
31	BA	2282	G
31	BA	2288	A
31	BA	2318	G
31	BA	2405	G
31	BA	2406	U
31	BA	2422	A
31	BA	2439	A
31	BA	2447	G
31	BA	2542	A
31	BA	2610	C
31	BA	2611	U
31	BA	2657	A
31	BA	2662	A
31	BA	2689	U
31	BA	2756	U
31	BA	2796	U
31	BA	2859	G
1	CA	30	U
1	CA	60	A
1	CA	79	G
1	CA	115	G
1	CA	119	A
1	CA	250	A
1	CA	266	G
1	CA	353	A
1	CA	366	C
1	CA	428	G

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Mol	Chain	Res	Type
1	CA	429	U
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	819	A
1	CA	913	A
1	CA	991	U
1	CA	992	U
1	CA	1049	U
1	CA	1064	G
1	CA	1065	U
1	CA	1067	A
1	CA	1201	A
1	CA	1285	A
1	CA	1498	U
1	CA	1504	G
31	DA	34	C
31	DA	49	A
31	DA	71	A
31	DA	102	G
31	DA	128	C
31	DA	221	A
31	DA	272	G
31	DA	370	G
31	DA	387	U
31	DA	472	A
31	DA	474	G
31	DA	587	C
31	DA	603	A
31	DA	669	G
31	DA	685	A
31	DA	746	A
31	DA	752	A
31	DA	774	A
31	DA	790	C
31	DA	856	C
31	DA	858	U
31	DA	974	G

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Mol	Chain	Res	Type
31	DA	1106	A
31	DA	1112	G
31	DA	1176	G
31	DA	1210	A
31	DA	1275	A
31	DA	1286	A
31	DA	1300	U
31	DA	1378	A
31	DA	1379	A
31	DA	1384	A
31	DA	1397	U
31	DA	1420	U
31	DA	1427	A
31	DA	1459	G
31	DA	1474	C
31	DA	1484	G
31	DA	1494	A
31	DA	1533	G
31	DA	1544	A
31	DA	1558	A
31	DA	1608	A
31	DA	1652	A
31	DA	1653	G
31	DA	1694	C
31	DA	1799	G
31	DA	1819	A
31	DA	1876	A
31	DA	1934	C
31	DA	1963	U
31	DA	1992	G
31	DA	2030	A
31	DA	2034	U
31	DA	2191	G
31	DA	2208	A
31	DA	2225	A
31	DA	2282	G
31	DA	2288	A
31	DA	2318	G
31	DA	2405	G
31	DA	2406	U
31	DA	2422	A
31	DA	2439	A

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Mol	Chain	Res	Type
31	DA	2447	G
31	DA	2542	A
31	DA	2610	C
31	DA	2611	U
31	DA	2657	A
31	DA	2662	A
31	DA	2689	U
31	DA	2751	G
31	DA	2756	U
31	DA	2796	U
31	DA	2859	G

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

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

5.5 Carbohydrates ⓘ

There are no carbohydrates in this entry.

5.6 Ligand geometry ⓘ

Of 827 ligands modelled in this entry, 825 are monoatomic - leaving 2 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
55	TEL	BA	3362	-	62,62,62	1.80	7 (11%)	92,92,92	3.08	29 (31%)
55	TEL	DA	3320	-	62,62,62	1.80	7 (11%)	92,92,92	3.08	29 (31%)

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
55	TEL	BA	3362	-	1/1/19/19	0/73/108/108	0/5/5/5
55	TEL	DA	3320	-	1/1/19/19	0/73/108/108	0/5/5/5

All (14) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	DA	3320	TEL	C43-C40	-7.12	1.37	1.48
55	BA	3362	TEL	C43-C40	-7.07	1.37	1.48
55	BA	3362	TEL	O5-C2	-4.64	1.40	1.47
55	DA	3320	TEL	O5-C2	-4.63	1.40	1.47
55	DA	3320	TEL	C37-N31	-4.53	1.29	1.36
55	BA	3362	TEL	C37-N31	-4.50	1.29	1.36
55	BA	3362	TEL	C36-N31	-4.21	1.31	1.38
55	DA	3320	TEL	C36-N31	-4.16	1.32	1.38
55	BA	3362	TEL	C36-C40	-4.03	1.32	1.37
55	DA	3320	TEL	C36-C40	-3.99	1.32	1.37
55	BA	3362	TEL	O32-C28	-3.79	1.36	1.44
55	DA	3320	TEL	O32-C28	-3.78	1.36	1.44
55	DA	3320	TEL	C28-C34	-2.97	1.47	1.55
55	BA	3362	TEL	C28-C34	-2.96	1.47	1.55

All (58) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	BA	3362	TEL	C8-C4-C2	-16.81	92.52	115.55
55	DA	3320	TEL	C8-C4-C2	-16.81	92.52	115.55
55	DA	3320	TEL	O9-C15-C21	9.87	121.11	110.84
55	BA	3362	TEL	O9-C15-C21	9.87	121.11	110.84
55	BA	3362	TEL	C2-O5-C10	-9.78	102.94	108.92
55	DA	3320	TEL	C2-O5-C10	-9.77	102.95	108.92
55	DA	3320	TEL	C28-C34-C30	-6.74	99.95	113.73
55	BA	3362	TEL	C28-C34-C30	-6.74	99.94	113.73
55	DA	3320	TEL	O20-C15-C21	-5.11	117.88	124.86
55	BA	3362	TEL	O20-C15-C21	-5.10	117.90	124.86
55	BA	3362	TEL	O5-C2-C4	5.08	114.76	105.02
55	DA	3320	TEL	O5-C2-C4	5.08	114.76	105.02
55	BA	3362	TEL	C38-O32-C28	-4.45	107.55	117.67
55	DA	3320	TEL	C38-O32-C28	-4.44	107.58	117.67
55	BA	3362	TEL	C28-C24-C19	-4.04	108.98	115.99
55	DA	3320	TEL	C28-C24-C19	-4.03	109.00	115.99
55	BA	3362	TEL	O39-C34-C30	-3.96	102.95	110.15
55	DA	3320	TEL	O39-C34-C30	-3.94	102.97	110.15
55	BA	3362	TEL	C2-C3-C7	-3.94	107.03	117.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	DA	3320	TEL	C2-C3-C7	-3.92	107.06	117.39
55	DA	3320	TEL	C22-C27-N31	-3.87	100.82	111.65
55	BA	3362	TEL	C22-C27-N31	-3.87	100.83	111.65
55	BA	3362	TEL	C24-C19-C13	-3.63	106.94	113.22
55	DA	3320	TEL	C24-C19-C13	-3.62	106.95	113.22
55	DA	3320	TEL	C3-N6-C10	-3.51	107.68	111.97
55	BA	3362	TEL	C3-N6-C10	-3.50	107.69	111.97
55	DA	3320	TEL	O45-C42-C44	-3.31	103.53	110.30
55	BA	3362	TEL	O45-C42-C44	-3.30	103.54	110.30
55	DA	3320	TEL	O9-C4-C2	3.11	112.53	105.35
55	BA	3362	TEL	O9-C4-C2	3.10	112.52	105.35
55	BA	3362	TEL	O5-C2-C3	-2.84	100.34	103.28
55	DA	3320	TEL	O5-C2-C3	-2.82	100.36	103.28
55	DA	3320	TEL	C56-N52-C47	2.81	121.93	116.86
55	BA	3362	TEL	C56-N52-C47	2.81	121.91	116.86
55	DA	3320	TEL	C35-C30-C34	-2.78	109.28	112.89
55	BA	3362	TEL	C35-C30-C34	-2.75	109.31	112.89
55	DA	3320	TEL	C55-C50-C54	-2.72	108.82	113.37
55	BA	3362	TEL	C55-C50-C54	-2.69	108.87	113.37
55	DA	3320	TEL	C11-N6-C3	2.63	127.88	122.74
55	BA	3362	TEL	C11-N6-C3	2.63	127.88	122.74
55	BA	3362	TEL	C25-C21-C26	-2.47	106.57	111.11
55	DA	3320	TEL	C25-C21-C26	-2.46	106.59	111.11
55	BA	3362	TEL	O45-C50-C54	2.44	113.00	109.07
55	DA	3320	TEL	O45-C50-C54	2.44	112.99	109.07
55	BA	3362	TEL	O16-C10-N6	-2.40	124.40	128.02
55	DA	3320	TEL	O16-C10-N6	-2.40	124.40	128.02
55	DA	3320	TEL	C43-C40-N41	2.39	124.81	120.11
55	BA	3362	TEL	C43-C40-N41	2.38	124.78	120.11
55	DA	3320	TEL	C36-C40-C43	-2.33	126.31	129.41
55	BA	3362	TEL	C36-C40-C43	-2.32	126.33	129.41
55	DA	3320	TEL	C58-N53-C49	-2.31	106.56	113.11
55	BA	3362	TEL	C58-N53-C49	-2.31	106.58	113.11
55	BA	3362	TEL	C54-C49-N53	-2.21	109.24	115.69
55	DA	3320	TEL	C54-C49-N53	-2.20	109.25	115.69
55	BA	3362	TEL	N41-C37-N31	-2.19	107.85	112.48
55	DA	3320	TEL	N41-C37-N31	-2.18	107.86	112.48
55	BA	3362	TEL	C25-C21-C15	-2.08	106.09	110.24
55	DA	3320	TEL	C25-C21-C15	-2.06	106.12	110.24

All (2) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
55	DA	3320	TEL	C21
55	BA	3362	TEL	C21

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	3
13	AM	3
47	DV	1
36	DG	1
36	BG	1
9	AI	1
9	CI	1
47	BV	1
28	D6	1
28	B6	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	DG	112:PRO	C	113:ARG	N	5.74
1	BG	112:PRO	C	113:ARG	N	5.73
1	CM	69:GLU	C	70:LEU	N	4.94
1	AM	69:GLU	C	70:LEU	N	4.93
1	D6	46:HIS	C	47:THR	N	4.90
1	AM	97:PRO	C	98:VAL	N	4.85
1	CM	97:PRO	C	98:VAL	N	4.85
1	B6	46:HIS	C	47:THR	N	4.84
1	AM	112:GLY	C	113:PRO	N	4.53
1	CM	112:GLY	C	113:PRO	N	4.50
1	AI	53:VAL	C	54:ASP	N	3.09
1	BV	80:GLN	C	81:TYR	N	3.09

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	CI	53:VAL	C	54:ASP	N	3.09
1	DV	80:GLN	C	81:TYR	N	3.03

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%)	0.68	200 (13%) 4 1	64, 134, 200, 203	0
1	CA	1504/1522 (98%)	0.73	202 (13%) 4 1	67, 134, 200, 203	0
2	AB	235/256 (91%)	0.51	20 (8%) 11 2	122, 175, 196, 201	0
2	CB	235/256 (91%)	0.76	37 (15%) 3 1	123, 175, 196, 202	0
3	AC	207/239 (86%)	0.56	18 (8%) 10 2	122, 174, 194, 197	0
3	CC	207/239 (86%)	0.68	23 (11%) 6 1	122, 175, 195, 199	0
4	AD	208/209 (99%)	0.51	17 (8%) 12 2	89, 149, 187, 193	0
4	CD	208/209 (99%)	0.22	6 (2%) 49 7	86, 148, 186, 193	0
5	AE	151/162 (93%)	0.37	9 (5%) 21 3	88, 127, 174, 197	0
5	CE	151/162 (93%)	0.73	20 (13%) 4 1	90, 128, 174, 197	0
6	AF	101/101 (100%)	0.16	0 100 100	95, 151, 183, 196	0
6	CF	101/101 (100%)	0.31	2 (1%) 62 12	96, 154, 184, 198	0
7	AG	155/156 (99%)	0.73	28 (18%) 2 0	146, 184, 197, 200	0
7	CG	155/156 (99%)	1.31	35 (22%) 1 0	146, 185, 197, 199	0
8	AH	138/138 (100%)	0.04	1 (0%) 84 32	92, 129, 167, 189	0
8	CH	138/138 (100%)	0.08	0 100 100	92, 129, 166, 189	0
9	AI	127/128 (99%)	1.26	31 (24%) 1 0	143, 190, 200, 202	0
9	CI	127/128 (99%)	1.80	48 (37%) 1 0	144, 190, 199, 202	0
10	AJ	99/105 (94%)	1.35	22 (22%) 1 0	130, 184, 199, 200	0
10	CJ	99/105 (94%)	2.11	50 (50%) 0 0	134, 185, 199, 202	0
11	AK	119/129 (92%)	0.81	17 (14%) 3 1	87, 142, 187, 200	0
11	CK	119/129 (92%)	0.88	14 (11%) 5 1	86, 144, 189, 200	0
12	AL	125/135 (92%)	0.43	9 (7%) 15 2	76, 114, 168, 200	0
12	CL	125/135 (92%)	0.70	15 (12%) 5 1	80, 114, 169, 199	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2		OWAB(Å ²)	Q<0.9
13	AM	115/126 (91%)	1.43	37 (32%)	1 0	147, 192, 199, 201	0
13	CM	115/126 (91%)	1.55	36 (31%)	1 0	148, 192, 199, 202	0
14	AN	60/61 (98%)	1.14	11 (18%)	2 0	141, 183, 196, 199	0
14	CN	60/61 (98%)	0.78	7 (11%)	5 1	142, 182, 196, 198	0
15	AO	88/89 (98%)	0.25	1 (1%)	77 22	85, 123, 173, 189	0
15	CO	88/89 (98%)	0.39	2 (2%)	57 9	87, 124, 176, 186	0
16	AP	84/88 (95%)	0.82	15 (17%)	2 0	97, 128, 177, 192	0
16	CP	84/88 (95%)	0.92	20 (23%)	1 0	97, 126, 175, 191	0
17	AQ	100/105 (95%)	0.33	6 (6%)	21 3	82, 113, 158, 175	0
17	CQ	100/105 (95%)	0.20	5 (5%)	28 4	82, 114, 158, 176	0
18	AR	70/88 (79%)	0.60	4 (5%)	23 3	102, 140, 183, 193	0
18	CR	70/88 (79%)	1.12	13 (18%)	2 0	103, 140, 182, 196	0
19	AS	79/93 (84%)	2.23	36 (45%)	1 0	160, 194, 199, 199	0
19	CS	79/93 (84%)	1.75	31 (39%)	1 0	158, 193, 199, 200	0
20	AT	99/106 (93%)	0.46	8 (8%)	12 2	97, 133, 181, 196	0
20	CT	99/106 (93%)	0.62	15 (15%)	3 1	97, 132, 180, 197	0
21	AU	25/27 (92%)	2.94	17 (68%)	0 0	153, 185, 194, 195	0
21	CU	25/27 (92%)	4.29	23 (92%)	0 0	156, 186, 195, 196	0
22	B0	85/85 (100%)	0.31	6 (7%)	16 3	56, 78, 183, 200	0
22	D0	85/85 (100%)	0.18	7 (8%)	12 2	62, 82, 179, 199	0
23	B1	89/98 (90%)	0.18	0	100 100	54, 86, 160, 184	0
23	D1	89/98 (90%)	0.36	2 (2%)	59 11	57, 88, 162, 191	0
24	B2	51/72 (70%)	0.43	1 (1%)	62 12	63, 105, 166, 192	0
24	D2	51/72 (70%)	0.32	4 (7%)	13 2	68, 110, 167, 192	0
25	B3	60/60 (100%)	-0.07	1 (1%)	67 15	49, 77, 143, 193	0
25	D3	60/60 (100%)	0.29	1 (1%)	67 15	54, 79, 145, 186	0
26	B4	32/71 (45%)	-0.03	0	100 100	140, 177, 199, 200	0
26	D4	32/71 (45%)	0.51	4 (12%)	5 1	139, 180, 199, 201	0
27	B5	58/60 (96%)	0.19	3 (5%)	26 4	40, 65, 182, 197	0
27	D5	58/60 (96%)	0.23	3 (5%)	26 4	42, 69, 186, 197	0
28	B6	45/54 (83%)	0.45	1 (2%)	59 11	52, 100, 167, 192	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	D6	45/54 (83%)	0.75	9 (20%) 2 0	57, 102, 169, 189	0
29	B7	49/49 (100%)	0.36	0 100 100	42, 51, 132, 180	0
29	D7	49/49 (100%)	0.78	1 (2%) 62 12	45, 54, 132, 180	0
30	B8	64/65 (98%)	0.36	2 (3%) 47 7	53, 76, 137, 169	0
30	D8	64/65 (98%)	0.30	3 (4%) 30 4	55, 79, 140, 168	0
31	BA	2725/2787 (97%)	0.14	69 (2%) 54 9	38, 66, 177, 204	0
31	DA	2725/2787 (97%)	0.05	97 (3%) 41 6	44, 71, 181, 203	0
32	BB	119/122 (97%)	0.44	8 (6%) 17 3	56, 123, 191, 200	0
32	DB	119/122 (97%)	0.41	9 (7%) 14 2	64, 127, 194, 203	0
33	BD	272/276 (98%)	0.01	3 (1%) 77 22	42, 70, 130, 172	0
33	DD	272/276 (98%)	0.11	4 (1%) 70 16	47, 73, 128, 175	0
34	BE	205/206 (99%)	0.22	5 (2%) 56 9	40, 75, 166, 194	0
34	DE	205/206 (99%)	0.25	6 (2%) 49 7	46, 78, 169, 195	0
35	BF	208/210 (99%)	0.38	9 (4%) 34 5	39, 86, 178, 198	0
35	DF	208/210 (99%)	0.29	12 (5%) 22 3	44, 89, 182, 199	0
36	BG	181/182 (99%)	1.63	51 (28%) 1 0	116, 186, 200, 203	0
36	DG	181/182 (99%)	1.95	67 (37%) 1 0	119, 188, 200, 203	0
37	BH	160/180 (88%)	0.28	0 100 100	81, 136, 181, 190	0
37	DH	160/180 (88%)	1.03	29 (18%) 2 0	87, 142, 186, 195	0
38	BI	146/148 (98%)	0.61	20 (13%) 4 1	74, 178, 197, 200	0
38	DI	146/148 (98%)	1.96	50 (34%) 1 0	76, 180, 198, 201	0
39	BN	139/140 (99%)	0.09	3 (2%) 59 11	51, 87, 154, 186	0
39	DN	139/140 (99%)	0.07	2 (1%) 72 17	56, 90, 155, 190	0
40	BO	122/122 (100%)	0.02	0 100 100	51, 79, 133, 168	0
40	DO	122/122 (100%)	-0.05	0 100 100	54, 84, 136, 173	0
41	BP	146/150 (97%)	0.44	6 (4%) 35 5	43, 106, 165, 199	0
41	DP	146/150 (97%)	0.54	12 (8%) 12 2	42, 109, 168, 198	0
42	BQ	136/141 (96%)	0.25	5 (3%) 39 6	55, 88, 159, 190	0
42	DQ	136/141 (96%)	0.39	14 (10%) 7 2	59, 90, 160, 191	0
43	BR	117/118 (99%)	-0.00	0 100 100	43, 65, 134, 180	0
43	DR	117/118 (99%)	0.09	2 (1%) 67 15	47, 68, 136, 182	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	BS	99/112 (88%)	0.63	8 (8%) 12 2	79, 134, 189, 198	0
44	DS	99/112 (88%)	1.10	15 (15%) 3 1	83, 136, 192, 198	0
45	BT	132/146 (90%)	0.25	7 (5%) 25 4	60, 105, 179, 192	0
45	DT	132/146 (90%)	0.32	8 (6%) 21 3	65, 107, 179, 195	0
46	BU	117/118 (99%)	0.15	3 (2%) 53 8	43, 71, 142, 190	0
46	DU	117/118 (99%)	0.42	8 (6%) 17 3	48, 76, 145, 194	0
47	BV	101/101 (100%)	0.37	4 (3%) 36 5	44, 117, 183, 198	0
47	DV	101/101 (100%)	0.60	8 (7%) 13 2	49, 120, 186, 197	0
48	BW	113/113 (100%)	-0.21	0 100 100	41, 58, 127, 188	0
48	DW	113/113 (100%)	-0.22	1 (0%) 81 25	43, 62, 130, 191	0
49	BX	93/96 (96%)	0.21	1 (1%) 77 22	50, 82, 151, 186	0
49	DX	93/96 (96%)	0.01	0 100 100	57, 84, 153, 186	0
50	BY	101/110 (91%)	0.72	12 (11%) 5 1	61, 120, 197, 199	0
50	DY	101/110 (91%)	0.93	19 (18%) 2 0	68, 121, 195, 199	0
51	BZ	177/206 (85%)	0.18	6 (3%) 43 6	76, 129, 182, 196	0
51	DZ	177/206 (85%)	0.26	8 (4%) 32 5	80, 133, 185, 196	0
All	All	20062/20922 (95%)	0.46	1750 (8%) 10 2	38, 110, 197, 204	0

All (1750) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
35	BF	208	GLY	21.4
31	DA	2802	G	18.9
31	BA	2796	U	16.8
1	CA	84	U	15.8
35	BF	207	GLY	15.7
1	AA	89	C	15.6
31	BA	2802	G	14.6
1	AA	88	A	14.1
2	CB	241	GLU	13.7
2	CB	7	VAL	13.6
38	DI	119	PRO	13.0
38	DI	120	ILE	13.0
1	CA	1214	C	12.8
1	CA	1149	C	12.7
31	DA	652	C	12.3

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Mol	Chain	Res	Type	RSRZ
1	AA	90	U	11.8
44	DS	109	GLY	11.7
31	BA	2801	A	11.4
36	DG	142	PRO	11.0
1	AA	1025	U	10.7
38	DI	121	LYS	10.6
12	AL	129	ALA	10.6
1	CA	83	U	10.4
1	AA	1002	G	10.4
34	DE	205	ALA	10.1
36	DG	2	PRO	9.9
1	AA	1001(A)	G	9.7
41	BP	150	ALA	9.5
7	AG	78	ARG	9.4
31	DA	2796	U	9.4
12	CL	129	ALA	9.4
1	CA	1001(A)	G	9.3
31	DA	2106	G	9.2
31	DA	2103	C	9.2
1	CA	1235	U	9.2
38	DI	122	GLU	9.2
1	CA	88	A	9.2
35	DF	12	LEU	9.1
7	CG	3	ARG	9.0
36	BG	137	GLU	8.9
21	CU	8	THR	8.9
1	CA	1002	G	8.9
36	DG	43	LEU	8.8
21	AU	18	TYR	8.7
1	AA	1260	C	8.7
42	BQ	141	GLN	8.7
31	BA	652	C	8.6
38	DI	68	LEU	8.6
7	CG	5	ARG	8.4
38	DI	64	GLU	8.4
7	CG	4	ARG	8.4
36	DG	35	GLU	8.4
42	BQ	140	ALA	8.3
1	AA	1286	A	8.3
36	DG	118	ARG	8.3
36	DG	131	TYR	8.2
1	CA	1026	G	8.2

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Mol	Chain	Res	Type	RSRZ
31	BA	2105	C	8.1
36	BG	155	MET	8.1
1	CA	1202	G	8.1
1	CA	1286	A	8.0
1	CA	1036	G	8.0
36	DG	65	GLY	8.0
31	BA	2801(A)	A	8.0
31	BA	2799	C	7.9
1	AA	985	C	7.9
31	BA	2101	G	7.9
35	DF	208	GLY	7.8
36	BG	142	PRO	7.8
44	BS	109	GLY	7.8
36	DG	155	MET	7.7
1	CA	1001	A	7.7
31	DA	11	G	7.7
31	DA	2801(A)	A	7.7
31	DA	1052	C	7.7
31	BA	2104	G	7.7
21	CU	9	ARG	7.7
42	DQ	141	GLN	7.7
31	DA	2104	G	7.6
31	BA	2106	G	7.6
21	CU	11	GLY	7.6
31	BA	2795	G	7.5
31	DA	271(L)	U	7.5
1	AA	984	C	7.5
1	AA	1026	G	7.5
31	DA	2799	C	7.4
36	BG	43	LEU	7.4
46	BU	118	GLY	7.4
36	BG	116	ASP	7.4
36	DG	41	GLN	7.3
31	BA	1053	C	7.3
1	AA	1003	G	7.3
31	DA	897	C	7.3
19	AS	40	ILE	7.2
1	AA	1119	C	7.2
19	AS	49	ILE	7.2
1	CA	1050	G	7.2
1	AA	958	A	7.2
1	CA	1150	U	7.2

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Mol	Chain	Res	Type	RSRZ
31	BA	1174	A	7.1
1	CA	1003	G	7.1
31	BA	2103	C	7.1
1	AA	1036	G	7.1
1	CA	1034	G	7.1
1	AA	1001	A	7.1
12	CL	128	ALA	7.1
1	CA	950	U	7.0
1	CA	1442(A)	G	7.0
36	BG	136	ARG	6.8
50	DY	61	ILE	6.8
1	CA	1236	A	6.8
1	CA	82	U	6.8
50	DY	86	ARG	6.7
42	DQ	140	ALA	6.7
31	BA	271(L)	U	6.7
36	BG	63	ILE	6.7
50	DY	59	GLY	6.7
1	CA	1447	A	6.7
1	CA	1240	U	6.7
38	DI	117	GLU	6.6
11	AK	11	LYS	6.6
50	DY	50	ARG	6.6
1	AA	1447	A	6.6
1	CA	963	G	6.6
31	DA	2803	C	6.6
36	BG	118	ARG	6.6
1	CA	1223	C	6.5
38	DI	118	LYS	6.5
31	BA	1531	C	6.5
21	CU	5	ASP	6.5
50	DY	51	VAL	6.4
31	DA	2105	C	6.4
13	AM	69	GLU	6.4
31	DA	1108	U	6.4
1	CA	1035	A	6.4
31	DA	2795	G	6.3
22	B0	85	ALA	6.3
31	DA	2801	A	6.3
1	CA	931	C	6.3
38	DI	146	ALA	6.3
38	DI	85	GLU	6.3

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Mol	Chain	Res	Type	RSRZ
31	DA	2894	G	6.3
19	AS	81	ARG	6.2
1	AA	1024	G	6.2
31	BA	2102	U	6.2
1	AA	218	C	6.2
21	CU	22	ARG	6.2
1	CA	1004	A	6.2
10	CJ	39	PRO	6.2
36	DG	134	GLY	6.2
47	DV	68	LYS	6.2
39	DN	1	MET	6.1
31	DA	2629	A	6.1
1	AA	841	U	6.1
1	CA	1033	G	6.1
22	B0	3	HIS	6.1
36	DG	63	ILE	6.1
11	CK	90	GLY	6.0
1	CA	973	G	6.0
36	DG	97	ASP	6.0
1	CA	961	U	6.0
36	DG	135	LEU	6.0
1	CA	1027	C	6.0
1	CA	1030(B)	C	6.0
1	AA	1223	C	6.0
1	CA	1028	C	6.0
36	DG	133	LEU	6.0
1	CA	949	A	5.9
36	DG	66	GLN	5.9
1	CA	962	C	5.9
10	CJ	70	ARG	5.9
31	BA	897	C	5.9
36	BG	14	GLU	5.9
31	DA	1174	A	5.9
19	AS	53	ASN	5.9
38	DI	145	VAL	5.9
7	CG	79	ARG	5.9
36	BG	139	LEU	5.9
21	AU	24	ARG	5.8
1	AA	91	C	5.8
11	CK	12	ARG	5.8
34	DE	204	ALA	5.8
1	CA	1210	C	5.8

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Mol	Chain	Res	Type	RSRZ
50	BY	88	LYS	5.8
1	AA	1257	U	5.8
9	AI	2	GLU	5.8
31	DA	1531	C	5.8
44	BS	54	LEU	5.8
19	CS	25	LYS	5.7
13	CM	43	THR	5.7
1	CA	1025	U	5.7
9	CI	17	VAL	5.7
13	CM	8	GLU	5.7
13	AM	3	ARG	5.7
1	AA	1040	U	5.7
38	DI	79	ILE	5.7
13	CM	42	ALA	5.7
37	DH	158	HIS	5.7
36	DG	21	ARG	5.6
31	BA	1052	C	5.6
1	CA	1209	C	5.6
13	CM	2	ALA	5.6
36	DG	64	THR	5.6
24	D2	43	GLN	5.6
19	CS	27	GLU	5.5
2	CB	212	GLN	5.5
1	AA	1381	U	5.5
36	BG	152	LEU	5.5
21	CU	12	LYS	5.5
31	DA	10	G	5.5
50	DY	88	LYS	5.5
7	AG	79	ARG	5.5
37	DH	83	TYR	5.5
1	CA	1024	G	5.5
1	CA	1224	G	5.5
1	CA	983	A	5.5
38	BI	70	GLU	5.5
38	DI	134	PRO	5.4
46	BU	117	GLN	5.4
37	DH	29	PRO	5.4
1	AA	1030(B)	C	5.4
10	CJ	71	LEU	5.4
1	CA	89	C	5.4
1	CA	344	A	5.4
1	AA	1030(C)	G	5.4

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Mol	Chain	Res	Type	RSRZ
1	CA	1049	U	5.4
10	AJ	5	ARG	5.4
1	AA	1283	G	5.4
1	CA	930	C	5.4
2	CB	132	LYS	5.3
3	CC	206	GLU	5.3
11	CK	128	ALA	5.3
35	DF	10	PRO	5.3
1	AA	93	G	5.3
1	CA	1302	U	5.3
4	CD	6	GLY	5.3
34	DE	69	LYS	5.3
1	CA	974	A	5.3
1	CA	1148	U	5.3
21	AU	22	ARG	5.3
21	CU	25	LYS	5.3
1	CA	1381	U	5.3
21	AU	23	PRO	5.3
31	DA	1046	A	5.3
3	AC	184	TYR	5.3
38	DI	144	VAL	5.3
38	DI	133	HIS	5.3
1	CA	1243	C	5.3
31	DA	2660	A	5.3
1	CA	1040	U	5.2
31	DA	2102	U	5.2
21	CU	24	ARG	5.2
41	BP	149	GLU	5.2
36	BG	117	PHE	5.2
36	DG	107	LEU	5.2
36	DG	17	PRO	5.2
11	AK	12	ARG	5.2
35	DF	11	VAL	5.2
42	DQ	139	GLU	5.2
36	BG	35	GLU	5.2
36	DG	26	GLN	5.2
1	AA	1382	C	5.2
1	CA	1326	C	5.2
14	CN	2	ALA	5.1
10	CJ	68	HIS	5.1
36	BG	145	THR	5.1
2	CB	231	GLU	5.1

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Mol	Chain	Res	Type	RSRZ
37	DH	108	GLY	5.1
19	AS	69	HIS	5.1
46	DU	89	GLU	5.1
1	AA	1224	G	5.1
9	CI	62	TYR	5.1
45	BT	2	ASN	5.1
13	CM	102	ARG	5.1
1	AA	1005	A	5.1
44	DS	57	LYS	5.1
42	DQ	91	GLU	5.1
2	CB	10	LEU	5.1
11	CK	11	LYS	5.0
1	AA	971	G	5.0
1	CA	984	C	5.0
31	BA	2794	C	5.0
38	BI	67	ARG	5.0
1	CA	1030(C)	G	5.0
1	CA	1126	U	5.0
36	BG	39	ILE	5.0
10	CJ	40	LEU	5.0
1	CA	1201	A	5.0
1	CA	1019	C	5.0
1	CA	1129	C	5.0
7	AG	5	ARG	5.0
9	AI	3	GLN	5.0
9	AI	102	LEU	5.0
19	AS	39	THR	5.0
2	CB	11	LEU	5.0
1	CA	1124	G	5.0
1	CA	1139	G	5.0
10	CJ	17	ASP	4.9
1	CA	932	C	4.9
32	DB	52	A	4.9
2	AB	36	ARG	4.9
36	DG	136	ARG	4.9
7	CG	2	ALA	4.9
19	AS	56	GLN	4.9
31	BA	1107	G	4.9
37	DH	30	LYS	4.9
38	DI	58	LEU	4.9
1	AA	1037	C	4.9
31	DA	1053	C	4.9

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Mol	Chain	Res	Type	RSRZ
36	BG	140	ILE	4.9
38	DI	83	ALA	4.9
1	CA	1183	A	4.9
1	AA	80	G	4.9
21	CU	2	GLY	4.9
1	AA	1006	C	4.8
45	DT	39	ARG	4.8
17	CQ	101	ARG	4.8
38	DI	128	LEU	4.8
31	DA	1051	G	4.8
1	AA	950	U	4.8
36	BG	13	GLU	4.8
1	CA	220	G	4.8
2	CB	240	GLN	4.8
1	CA	1125	U	4.8
14	AN	14	PRO	4.8
36	BG	59	GLU	4.8
25	B3	1	MET	4.8
9	CI	15	ALA	4.8
1	AA	983	A	4.8
39	BN	1	MET	4.8
51	BZ	113	ALA	4.8
38	DI	84	GLY	4.8
11	AK	71	LYS	4.7
13	CM	107	ALA	4.7
1	AA	1233	G	4.7
21	CU	18	TYR	4.7
19	AS	57	HIS	4.7
19	CS	82	GLY	4.7
13	CM	104	ARG	4.7
1	CA	1234	C	4.7
1	AA	1029	C	4.7
1	CA	841	U	4.7
22	D0	5	LYS	4.7
10	CJ	15	THR	4.7
31	BA	11	G	4.7
44	BS	33	LYS	4.7
2	CB	232	PRO	4.7
1	CA	1336	C	4.7
7	AG	156	TRP	4.6
19	AS	38	SER	4.6
7	AG	82	GLY	4.6

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Mol	Chain	Res	Type	RSRZ
10	CJ	16	LEU	4.6
44	DS	56	LEU	4.6
14	AN	60	SER	4.6
7	CG	26	PHE	4.6
1	AA	1240	U	4.6
9	CI	7	THR	4.6
10	CJ	8	LEU	4.6
19	AS	71	LEU	4.6
37	DH	52	VAL	4.6
1	CA	1233	G	4.6
14	AN	18	VAL	4.5
1	CA	345	C	4.5
41	DP	85	LEU	4.5
1	AA	1027	C	4.5
13	AM	29	ARG	4.5
1	CA	1151	A	4.5
31	DA	6	A	4.5
31	DA	281	G	4.5
36	DG	157	ILE	4.5
3	CC	79	ARG	4.5
2	CB	209	ARG	4.5
36	BG	87	PRO	4.5
9	CI	81	ILE	4.5
13	AM	7	VAL	4.5
14	AN	2	ALA	4.5
1	AA	1275	A	4.5
1	AA	84	U	4.5
34	DE	54	GLN	4.4
1	CA	1127	G	4.4
21	CU	21	TYR	4.4
38	DI	60	GLU	4.4
9	AI	81	ILE	4.4
10	CJ	9	ARG	4.4
19	AS	59	PRO	4.4
50	BY	59	GLY	4.4
36	BG	37	VAL	4.4
50	BY	92	ASN	4.4
36	DG	39	ILE	4.4
36	BG	135	LEU	4.4
36	BG	115	ARG	4.4
1	CA	1128	C	4.4
1	CA	929	G	4.4

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Mol	Chain	Res	Type	RSRZ
31	DA	879	G	4.4
1	AA	1000	U	4.4
10	AJ	4	ILE	4.4
13	AM	100	GLY	4.4
34	BE	54	GLN	4.4
2	AB	213	LEU	4.4
1	AA	1261	A	4.4
3	CC	189	ALA	4.4
42	BQ	139	GLU	4.3
36	DG	36	LYS	4.3
35	DF	207	GLY	4.3
10	CJ	38	ILE	4.3
31	BA	10	G	4.3
7	CG	33	ASP	4.3
1	AA	64	G	4.3
1	AA	630	G	4.3
7	AG	3	ARG	4.3
19	CS	81	ARG	4.3
9	AI	41	VAL	4.3
13	AM	96	LEU	4.3
51	DZ	169	GLU	4.3
44	DS	48	LEU	4.3
7	CG	27	ILE	4.3
1	AA	1276	G	4.3
44	DS	54	LEU	4.3
36	DG	101	ILE	4.3
31	BA	1108	U	4.3
21	CU	7	ARG	4.3
36	DG	94	LEU	4.3
1	AA	1287	A	4.2
31	DA	2792	G	4.2
7	CG	32	ARG	4.2
13	CM	103	THR	4.2
3	CC	74	GLY	4.2
9	CI	63	ILE	4.2
36	DG	154	GLY	4.2
33	BD	26	LYS	4.2
36	BG	45	GLU	4.2
1	CA	1213	A	4.2
1	AA	1129	C	4.2
2	CB	237	ALA	4.2
3	AC	185	GLY	4.2

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Mol	Chain	Res	Type	RSRZ
38	DI	65	ALA	4.2
22	B0	2	ALA	4.2
10	CJ	89	ASP	4.2
1	AA	1222	G	4.2
2	AB	231	GLU	4.2
2	CB	15	VAL	4.2
1	AA	946	A	4.2
1	AA	219	C	4.2
1	AA	1023	G	4.2
1	AA	932	C	4.2
2	CB	14	GLY	4.2
9	CI	102	LEU	4.1
3	AC	193	TYR	4.1
31	DA	2895	U	4.1
51	DZ	72	ARG	4.1
7	CG	110	GLN	4.1
1	CA	1380	U	4.1
38	DI	63	ALA	4.1
1	AA	959	A	4.1
50	BY	91	GLU	4.1
37	DH	96	ALA	4.1
21	CU	26	LYS	4.1
2	AB	11	LEU	4.1
20	CT	85	MET	4.1
21	CU	17	THR	4.1
36	DG	22	ARG	4.1
31	BA	271(J)	C	4.1
9	CI	5	TYR	4.1
4	AD	156	GLU	4.1
5	AE	155	GLU	4.1
31	BA	1046	A	4.1
1	AA	1028	C	4.1
1	CA	1032	G	4.1
1	CA	1051	C	4.1
2	CB	230	VAL	4.1
3	CC	71	ALA	4.1
1	CA	1130	A	4.1
22	B0	4	LYS	4.1
15	AO	88	ARG	4.1
1	AA	1116	C	4.1
1	CA	1068	G	4.1
1	AA	949	A	4.1

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Mol	Chain	Res	Type	RSRZ
31	BA	1045	A	4.1
13	AM	32	GLU	4.0
9	CI	127	LYS	4.0
36	BG	143	GLU	4.0
9	CI	115	GLY	4.0
36	BG	105	LYS	4.0
1	AA	381	C	4.0
13	AM	94	ARG	4.0
2	CB	236	TYR	4.0
9	AI	128	ARG	4.0
45	BT	39	ARG	4.0
36	BG	113	ARG	4.0
22	D0	4	LYS	4.0
38	DI	91	SER	4.0
38	DI	92	VAL	4.0
31	DA	1914	C	4.0
13	CM	3	ARG	4.0
13	CM	101	GLN	4.0
2	AB	21	ARG	4.0
7	AG	17	VAL	4.0
1	AA	78	G	4.0
5	AE	154	GLY	4.0
31	BA	1508	A	4.0
7	AG	4	ARG	4.0
41	DP	149	GLU	4.0
51	BZ	112	ARG	4.0
2	CB	213	LEU	4.0
1	CA	947	G	4.0
1	CA	1370	G	4.0
12	AL	128	ALA	4.0
7	AG	81	GLY	4.0
10	CJ	34	VAL	4.0
9	CI	18	PHE	4.0
36	DG	98	ARG	3.9
22	B0	1	MET	3.9
44	DS	33	LYS	3.9
1	AA	171	A	3.9
10	CJ	23	ILE	3.9
31	BA	275	G	3.9
36	BG	88	ILE	3.9
21	AU	3	LYS	3.9
7	CG	104	LEU	3.9

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Mol	Chain	Res	Type	RSRZ
31	BA	1532	C	3.9
50	DY	89	PHE	3.9
1	CA	250	A	3.9
11	AK	63	LEU	3.9
1	CA	1119	C	3.9
1	AA	1050	G	3.9
31	DA	1107	G	3.9
2	AB	39	ILE	3.9
1	AA	1384	C	3.9
21	AU	17	THR	3.9
31	DA	2896	C	3.9
38	DI	111	PRO	3.9
19	AS	48	THR	3.9
1	AA	79	G	3.9
1	CA	1039	C	3.9
19	AS	31	ILE	3.9
38	DI	125	GLU	3.9
44	DS	55	ALA	3.9
31	BA	1913	A	3.8
31	BA	2100	G	3.8
2	CB	37	ASN	3.8
16	CP	8	ARG	3.8
1	CA	1086	U	3.8
31	BA	2896	C	3.8
1	CA	1140	C	3.8
1	AA	1386	G	3.8
1	CA	1160	G	3.8
9	CI	96	LEU	3.8
1	CA	1492	A	3.8
36	BG	138	GLN	3.8
37	DH	53	GLU	3.8
31	DA	1913	A	3.8
10	CJ	3	LYS	3.8
13	CM	50	GLU	3.8
1	AA	1004	A	3.8
2	CB	36	ARG	3.8
21	CU	10	ARG	3.8
42	BQ	24	GLY	3.8
45	DT	2	ASN	3.8
3	CC	158	GLY	3.8
1	CA	1280	A	3.8
31	DA	272(I)	U	3.8

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Mol	Chain	Res	Type	RSRZ
27	B5	59	GLU	3.8
31	DA	2793	G	3.8
1	AA	1018	C	3.8
17	AQ	100	LYS	3.8
21	AU	26	LYS	3.8
36	DG	111	LEU	3.8
50	DY	102	CYS	3.8
18	CR	46	GLU	3.7
1	AA	65	U	3.7
1	AA	81	U	3.7
1	CA	540	G	3.7
2	AB	217	ARG	3.7
19	AS	30	LEU	3.7
38	DI	93	THR	3.7
24	D2	35	LEU	3.7
31	BA	2189	U	3.7
1	CA	1389	C	3.7
10	AJ	70	ARG	3.7
7	CG	31	MET	3.7
7	CG	80	VAL	3.7
1	CA	1005	A	3.7
11	CK	13	GLN	3.7
38	BI	121	LYS	3.7
1	CA	1030(D)	A	3.7
13	CM	69	GLU	3.7
1	AA	1234	C	3.7
31	DA	271(N)	U	3.7
1	CA	1285	A	3.7
16	CP	7	ALA	3.7
31	BA	363(F)	A	3.7
50	BY	86	ARG	3.7
18	CR	38	GLU	3.7
1	AA	1235	U	3.7
9	CI	92	TYR	3.7
1	CA	1244	C	3.7
12	CL	127	GLU	3.7
19	AS	55	LYS	3.7
13	CM	15	VAL	3.7
19	CS	10	PHE	3.7
31	DA	880	G	3.7
1	AA	1285	A	3.6
3	AC	183	ASP	3.6

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Mol	Chain	Res	Type	RSRZ
34	BE	57	LYS	3.6
36	DG	182	LYS	3.6
1	AA	1033	G	3.6
4	AD	163	GLU	3.6
30	B8	65	GLU	3.6
1	CA	1211	U	3.6
37	DH	97	ARG	3.6
2	AB	101	MET	3.6
31	BA	1530	C	3.6
19	CS	59	PRO	3.6
36	DG	62	LEU	3.6
1	AA	1160	G	3.6
38	DI	103	ARG	3.6
13	AM	6	GLY	3.6
38	DI	126	TYR	3.6
45	DT	1	MET	3.6
31	DA	280	C	3.6
13	AM	2	ALA	3.6
1	AA	1035	A	3.6
9	CI	80	GLY	3.6
9	AI	84	ALA	3.6
19	AS	70	LYS	3.6
32	BB	55	U	3.6
13	AM	115	LYS	3.6
19	AS	36	ARG	3.6
28	D6	42	TRP	3.6
19	CS	71	LEU	3.5
35	BF	11	VAL	3.5
13	AM	4	ILE	3.5
9	CI	21	PRO	3.5
31	DA	645	C	3.5
36	BG	133	LEU	3.5
1	AA	1038	C	3.5
21	AU	2	GLY	3.5
9	CI	85	LEU	3.5
9	CI	125	TYR	3.5
1	CA	189(G)	G	3.5
10	CJ	91	PRO	3.5
36	DG	25	TYR	3.5
35	BF	1	MET	3.5
1	CA	1369	C	3.5
19	CS	11	VAL	3.5

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Mol	Chain	Res	Type	RSRZ
31	BA	1509	C	3.5
4	CD	7	PRO	3.5
13	CM	106	ASN	3.5
1	AA	1294	G	3.5
18	AR	88	LYS	3.5
1	CA	1141	C	3.5
19	AS	75	ALA	3.5
9	CI	22	GLY	3.5
36	BG	146	TYR	3.5
38	BI	90	GLY	3.5
31	BA	1051	G	3.5
4	AD	112	VAL	3.5
11	AK	98	LEU	3.5
11	AK	90	GLY	3.5
42	DQ	23	GLY	3.5
45	DT	36	GLU	3.5
7	CG	82	GLY	3.5
36	BG	141	PHE	3.5
16	CP	13	HIS	3.4
36	DG	117	PHE	3.4
36	DG	96	ARG	3.4
45	DT	93	ARG	3.4
1	AA	1131	G	3.4
1	CA	1207	G	3.4
9	CI	16	ARG	3.4
31	DA	1505	C	3.4
11	CK	49	GLY	3.4
2	AB	230	VAL	3.4
1	AA	961	U	3.4
2	AB	133	LYS	3.4
31	BA	1914	C	3.4
50	BY	89	PHE	3.4
1	CA	196	A	3.4
13	AM	111	LYS	3.4
46	DU	94	ASN	3.4
1	AA	82	U	3.4
3	AC	42	LEU	3.4
1	AA	488	C	3.4
36	DG	80	PHE	3.4
37	DH	106	THR	3.4
1	CA	951	G	3.4
4	CD	35	ARG	3.4

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Mol	Chain	Res	Type	RSRZ
13	AM	102	ARG	3.4
9	CI	109	VAL	3.4
1	AA	1120	G	3.4
17	AQ	68	ARG	3.4
7	AG	80	VAL	3.4
37	DH	44	VAL	3.4
13	CM	5	ALA	3.4
36	DG	3	LEU	3.4
10	CJ	69	ASN	3.4
35	DF	13	SER	3.4
47	DV	45	THR	3.4
1	AA	1159	U	3.4
2	CB	80	ILE	3.4
20	CT	106	ALA	3.3
21	AU	8	THR	3.3
22	D0	7	LEU	3.3
1	AA	1186	G	3.3
21	AU	7	ARG	3.3
36	DG	158	ALA	3.3
45	DT	40	THR	3.3
1	CA	972	C	3.3
10	CJ	88	LEU	3.3
18	CR	34	TYR	3.3
38	DI	129	THR	3.3
14	AN	16	PHE	3.3
10	AJ	79	ARG	3.3
13	CM	40	ASN	3.3
10	CJ	22	LYS	3.3
10	CJ	87	THR	3.3
1	CA	1452	C	3.3
7	CG	78	ARG	3.3
31	DA	1048	A	3.3
36	BG	134	GLY	3.3
36	BG	75	LYS	3.3
1	AA	1039	C	3.3
1	CA	948	C	3.3
47	BV	45	THR	3.3
50	BY	2	ARG	3.3
35	BF	24	LEU	3.3
3	CC	184	TYR	3.3
7	AG	36	LYS	3.3
20	AT	85	MET	3.3

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Mol	Chain	Res	Type	RSRZ
36	BG	22	ARG	3.3
18	CR	31	LEU	3.3
9	AI	20	ARG	3.3
7	AG	18	TYR	3.3
10	AJ	71	LEU	3.3
1	CA	1260	C	3.3
4	AD	23	GLY	3.3
9	CI	84	ALA	3.3
13	CM	105	THR	3.3
37	DH	18	GLU	3.3
14	AN	17	LYS	3.3
38	BI	91	SER	3.3
1	AA	1148	U	3.3
1	CA	1041	A	3.3
47	DV	28	GLU	3.3
13	AM	101	GLN	3.3
36	DG	152	LEU	3.3
1	AA	345	C	3.3
30	B8	64	TYR	3.3
7	CG	35	LYS	3.2
13	CM	14	ARG	3.2
47	BV	68	LYS	3.2
50	BY	63	LYS	3.2
11	CK	129	SER	3.2
3	AC	207	VAL	3.2
7	AG	84	ASN	3.2
14	CN	30	ALA	3.2
9	AI	21	PRO	3.2
10	CJ	10	GLY	3.2
31	DA	271(K)	U	3.2
31	DA	1049	C	3.2
31	DA	2402	C	3.2
17	AQ	101	ARG	3.2
38	BI	69	LYS	3.2
35	BF	14	PRO	3.2
42	DQ	24	GLY	3.2
10	CJ	13	HIS	3.2
7	CG	108	ALA	3.2
31	DA	2189	U	3.2
1	AA	220	G	3.2
1	AA	344	A	3.2
21	CU	6	ARG	3.2

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Mol	Chain	Res	Type	RSRZ
2	AB	7	VAL	3.2
13	AM	64	TRP	3.2
16	CP	17	TYR	3.2
36	BG	64	THR	3.2
1	AA	1115	C	3.2
11	CK	32	ILE	3.2
13	CM	7	VAL	3.2
16	AP	12	LYS	3.2
31	DA	2666	C	3.2
1	CA	485	G	3.2
1	CA	1164	G	3.2
31	DA	2893	G	3.2
35	BF	20	LEU	3.2
37	DH	42	ARG	3.2
38	DI	86	THR	3.2
36	DG	42	GLY	3.2
11	AK	42	TRP	3.2
19	AS	78	ARG	3.2
30	D8	32	LEU	3.2
16	AP	11	SER	3.2
50	DY	58	GLY	3.2
1	AA	470	C	3.2
2	CB	214	ILE	3.2
5	AE	89	ILE	3.2
36	BG	90	LEU	3.2
9	AI	22	GLY	3.2
7	CG	30	ILE	3.2
28	B6	42	TRP	3.2
16	CP	39	TYR	3.2
19	CS	31	ILE	3.2
1	AA	1244	C	3.2
16	CP	29	ASP	3.2
1	AA	999	C	3.2
9	CI	12	GLU	3.1
37	DH	101	ARG	3.1
11	AK	93	GLN	3.1
9	CI	8	GLY	3.1
10	CJ	72	VAL	3.1
1	AA	382	A	3.1
5	CE	40	ARG	3.1
32	BB	52	A	3.1
1	AA	1032	G	3.1

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Mol	Chain	Res	Type	RSRZ
1	AA	1442(A)	G	3.1
1	CA	1020	U	3.1
10	CJ	18	ALA	3.1
19	CS	28	LYS	3.1
38	DI	101	LEU	3.1
19	AS	29	ARG	3.1
19	CS	26	GLY	3.1
4	AD	160	GLN	3.1
19	AS	25	LYS	3.1
1	AA	1030	C	3.1
31	DA	1532	C	3.1
18	CR	76	LEU	3.1
44	BS	55	ALA	3.1
13	AM	63	THR	3.1
13	CM	13	LYS	3.1
41	DP	121	LYS	3.1
1	AA	1041	A	3.1
1	AA	1264	C	3.1
38	DI	74	ASN	3.1
49	BX	91	ALA	3.1
50	DY	48	ALA	3.1
1	CA	218	C	3.1
38	DI	95	LYS	3.1
5	CE	21	ALA	3.1
1	AA	979	C	3.1
9	CI	53	VAL	3.1
31	DA	878	A	3.1
42	BQ	23	GLY	3.1
37	DH	159	GLU	3.1
4	AD	3	ARG	3.1
21	CU	23	PRO	3.1
36	DG	138	GLN	3.1
19	AS	32	LYS	3.1
21	CU	3	LYS	3.1
7	AG	32	ARG	3.1
37	DH	148	ILE	3.1
16	AP	29	ASP	3.1
31	BA	2602	A	3.1
51	BZ	167	PRO	3.1
1	CA	1186	G	3.1
46	DU	88	ILE	3.1
1	AA	1147	C	3.1

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Mol	Chain	Res	Type	RSRZ
12	AL	71	PRO	3.1
1	AA	1236	A	3.1
19	CS	29	ARG	3.1
38	DI	59	ALA	3.1
3	CC	72	LYS	3.0
1	CA	1007	C	3.0
10	CJ	29	ARG	3.0
38	BI	73	GLU	3.0
10	AJ	98	ILE	3.0
31	DA	1106	A	3.0
19	CS	35	SER	3.0
33	DD	5	LYS	3.0
1	CA	1305	G	3.0
50	BY	27	VAL	3.0
13	CM	84	ILE	3.0
16	CP	48	TRP	3.0
31	DA	2630	G	3.0
51	DZ	97	GLU	3.0
7	CG	112	PRO	3.0
10	CJ	37	PRO	3.0
10	CJ	12	ASP	3.0
38	DI	100	ALA	3.0
1	CA	1295	G	3.0
10	CJ	86	MET	3.0
36	BG	109	VAL	3.0
36	DG	77	ILE	3.0
1	CA	1030(A)	G	3.0
1	CA	1347	G	3.0
10	CJ	97	GLU	3.0
31	BA	508	G	3.0
36	DG	24	GLY	3.0
1	AA	1280	A	3.0
17	AQ	43	LEU	3.0
21	AU	21	TYR	3.0
44	DS	108	GLY	3.0
14	CN	60	SER	3.0
1	AA	204	U	3.0
2	CB	133	LYS	3.0
14	CN	61	TRP	3.0
21	CU	14	TRP	3.0
44	DS	49	VAL	3.0
3	AC	200	ALA	3.0

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Mol	Chain	Res	Type	RSRZ
36	DG	132	ASN	3.0
1	AA	1034	G	3.0
1	AA	1364	U	3.0
15	CO	6	GLU	3.0
9	CI	61	ALA	3.0
10	AJ	33	GLN	3.0
1	AA	1158	C	3.0
2	CB	21	ARG	3.0
31	DA	2310	A	3.0
7	CG	18	TYR	3.0
26	D4	10	VAL	3.0
41	DP	150	ALA	3.0
25	D3	26	LEU	3.0
50	DY	87	LYS	3.0
1	AA	324	G	3.0
1	AA	1090	U	3.0
10	AJ	83	GLU	3.0
11	AK	97	ALA	3.0
19	CS	48	THR	3.0
31	DA	275	G	3.0
3	AC	11	ARG	3.0
16	CP	72	ARG	3.0
18	AR	31	LEU	3.0
19	CS	30	LEU	3.0
50	DY	101	LYS	3.0
2	CB	13	ALA	3.0
13	AM	8	GLU	3.0
18	CR	67	ALA	3.0
36	BG	34	LEU	3.0
4	AD	116	GLN	2.9
44	BS	60	GLY	2.9
41	DP	15	ARG	2.9
2	AB	10	LEU	2.9
16	AP	13	HIS	2.9
47	DV	46	VAL	2.9
1	AA	1385	G	2.9
13	CM	16	ASP	2.9
31	DA	2833	G	2.9
8	AH	46	LYS	2.9
7	AG	83	ALA	2.9
31	BA	1048	A	2.9
34	BE	76	ARG	2.9

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Mol	Chain	Res	Type	RSRZ
11	CK	22	HIS	2.9
1	CA	1023	G	2.9
1	CA	1131	G	2.9
11	CK	42	TRP	2.9
1	AA	994	A	2.9
31	BA	2188	C	2.9
31	DA	2188	C	2.9
37	DH	123	PHE	2.9
9	AI	57	GLY	2.9
38	DI	124	GLY	2.9
11	AK	60	ALA	2.9
37	DH	165	ALA	2.9
42	DQ	74	TYR	2.9
42	DQ	90	VAL	2.9
16	CP	6	LEU	2.9
1	AA	1031	G	2.9
1	CA	353	A	2.9
1	CA	1352	C	2.9
19	AS	61	TYR	2.9
31	DA	2791	C	2.9
38	DI	132	PRO	2.9
44	DS	34	HIS	2.9
1	AA	1157	A	2.9
1	AA	1360	A	2.9
7	CG	156	TRP	2.9
10	AJ	99	LYS	2.9
31	DA	1154	G	2.9
33	DD	26	LYS	2.9
44	DS	58	LEU	2.9
1	AA	202	U	2.9
1	CA	1205	U	2.9
9	AI	7	THR	2.9
19	CS	24	ALA	2.9
4	CD	42	GLN	2.9
1	CA	1241	G	2.9
31	BA	352	G	2.9
51	BZ	97	GLU	2.9
42	DQ	87	LYS	2.9
1	CA	1382	C	2.9
36	DG	168	GLU	2.9
10	CJ	33	GLN	2.9
38	BI	127	VAL	2.9

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Mol	Chain	Res	Type	RSRZ
10	CJ	5	ARG	2.9
45	BT	1	MET	2.9
1	CA	1212	U	2.9
17	AQ	70	ARG	2.9
7	CG	83	ALA	2.9
19	AS	74	PHE	2.9
10	CJ	14	LYS	2.9
19	AS	51	VAL	2.8
31	DA	1050	A	2.8
31	DA	2794	C	2.8
4	AD	157	LEU	2.8
10	CJ	95	GLU	2.8
13	CM	18	ALA	2.8
19	CS	75	ALA	2.8
20	CT	86	ARG	2.8
45	BT	115	ARG	2.8
1	AA	1130	A	2.8
15	CO	19	PRO	2.8
31	BA	1110	G	2.8
32	DB	31	C	2.8
7	CG	39	ALA	2.8
10	CJ	101	VAL	2.8
18	CR	88	LYS	2.8
20	AT	9	ASN	2.8
19	CS	21	GLU	2.8
4	AD	45	GLN	2.8
21	CU	4	GLY	2.8
1	AA	1030(D)	A	2.8
1	AA	1180	A	2.8
9	AI	12	GLU	2.8
38	BI	125	GLU	2.8
38	BI	141	LYS	2.8
42	DQ	76	LYS	2.8
10	CJ	20	ALA	2.8
10	CJ	55	LYS	2.8
1	CA	1390	U	2.8
1	AA	848	C	2.8
1	CA	1037	C	2.8
1	CA	1187	G	2.8
13	CM	94	ARG	2.8
1	CA	1000	U	2.8
9	CI	19	LEU	2.8

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Mol	Chain	Res	Type	RSRZ
1	AA	1248	A	2.8
1	CA	1092	A	2.8
1	CA	1208	C	2.8
19	CS	49	ILE	2.8
35	BF	2	LYS	2.8
10	CJ	67	THR	2.8
46	DU	118	GLY	2.8
41	DP	120	ALA	2.8
21	AU	25	LYS	2.8
12	CL	19	ARG	2.8
11	CK	51	LYS	2.8
22	D0	1	MET	2.8
31	DA	893	C	2.8
1	AA	1370	G	2.8
1	CA	144	G	2.8
31	DA	2751	G	2.8
38	DI	112	LYS	2.8
9	AI	85	LEU	2.8
20	CT	99	LEU	2.8
5	CE	25	ARG	2.8
9	AI	107	ARG	2.8
9	AI	5	TYR	2.8
31	DA	271(J)	C	2.8
36	DG	109	VAL	2.8
36	DG	112	PRO	2.8
10	CJ	99	LYS	2.8
36	DG	93	THR	2.8
5	CE	86	ALA	2.8
9	CI	20	ARG	2.8
20	AT	79	ARG	2.8
1	AA	754	C	2.8
7	CG	109	ASN	2.8
12	AL	120	TYR	2.8
31	DA	2101	G	2.8
38	BI	74	ASN	2.8
10	AJ	77	PRO	2.8
35	BF	25	PRO	2.8
4	AD	20	TYR	2.7
1	CA	1006	C	2.7
1	CA	1021	G	2.7
2	CB	19	HIS	2.7
39	DN	129	PRO	2.7

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Mol	Chain	Res	Type	RSRZ
1	CA	429	U	2.7
5	CE	154	GLY	2.7
9	AI	19	LEU	2.7
38	DI	127	VAL	2.7
41	BP	110	TYR	2.7
46	DU	90	VAL	2.7
1	CA	185	A	2.7
1	CA	221	C	2.7
44	DS	59	LYS	2.7
9	AI	40	LEU	2.7
12	CL	52	LEU	2.7
2	CB	217	ARG	2.7
33	DD	236	GLY	2.7
38	BI	109	ILE	2.7
1	AA	924	C	2.7
2	AB	187	LEU	2.7
31	DA	2347	C	2.7
37	DH	25	LYS	2.7
1	CA	922	G	2.7
5	CE	42	GLY	2.7
13	CM	108	ARG	2.7
31	DA	352	G	2.7
10	AJ	35	SER	2.7
16	CP	36	ILE	2.7
13	AM	43	THR	2.7
10	CJ	28	ARG	2.7
3	CC	159	GLY	2.7
19	AS	27	GLU	2.7
3	AC	127	ARG	2.7
19	CS	78	ARG	2.7
11	AK	43	SER	2.7
9	AI	18	PHE	2.7
44	BS	91	PRO	2.7
1	AA	916	G	2.7
1	AA	933	G	2.7
3	CC	115	LEU	2.7
19	AS	50	ALA	2.7
3	CC	80	GLY	2.7
20	AT	65	LYS	2.7
1	AA	1274	G	2.7
1	CA	324	G	2.7
3	CC	177	THR	2.7

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Mol	Chain	Res	Type	RSRZ
16	AP	18	ARG	2.7
16	CP	19	ILE	2.7
36	DG	88	ILE	2.7
10	AJ	32	ALA	2.7
36	DG	40	ASN	2.7
41	BP	107	LYS	2.7
23	D1	50	ARG	2.7
5	CE	19	MET	2.7
38	BI	8	PRO	2.7
5	CE	18	ARG	2.7
50	DY	2	ARG	2.7
5	CE	113	ALA	2.7
13	AM	73	GLU	2.7
13	AM	57	ARG	2.7
13	CM	12	ASN	2.7
45	DT	115	ARG	2.7
1	AA	1333	A	2.7
18	CR	66	LEU	2.7
20	CT	104	LEU	2.7
1	AA	1341	U	2.6
1	AA	1446	U	2.6
5	CE	33	VAL	2.6
41	DP	122	PRO	2.6
12	CL	100	ILE	2.6
1	AA	945	G	2.6
35	DF	14	PRO	2.6
36	DG	159	VAL	2.6
36	DG	160	VAL	2.6
3	CC	190	ARG	2.6
36	BG	157	ILE	2.6
1	AA	1252	A	2.6
36	DG	100	TRP	2.6
46	DU	93	LYS	2.6
1	AA	957	U	2.6
2	AB	165	VAL	2.6
1	AA	1354	C	2.6
32	BB	5	C	2.6
7	AG	44	TYR	2.6
1	CA	1185	G	2.6
28	D6	23	THR	2.6
31	BA	271(Z)	C	2.6
11	AK	50	TYR	2.6

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Mol	Chain	Res	Type	RSRZ
13	AM	59	TYR	2.6
38	BI	120	ILE	2.6
21	AU	5	ASP	2.6
1	AA	947	G	2.6
1	AA	1174	G	2.6
1	CA	199	G	2.6
3	CC	75	VAL	2.6
13	AM	40	ASN	2.6
19	CS	9	VAL	2.6
20	CT	98	PRO	2.6
26	D4	11	PRO	2.6
31	DA	1114	G	2.6
16	AP	17	TYR	2.6
31	DA	279	C	2.6
20	AT	80	ARG	2.6
41	BP	111	ARG	2.6
47	BV	47	VAL	2.6
1	AA	1182	G	2.6
36	BG	94	LEU	2.6
1	AA	143	A	2.6
38	BI	143	SER	2.6
13	CM	41	PRO	2.6
2	AB	229	VAL	2.6
2	CB	137	ARG	2.6
9	CI	95	LYS	2.6
26	D4	9	LEU	2.6
2	AB	212	GLN	2.6
9	CI	124	GLN	2.6
1	AA	1030(A)	G	2.6
1	CA	928	G	2.6
5	CE	110	LEU	2.6
1	AA	197	A	2.6
1	CA	143	A	2.6
16	AP	37	GLY	2.6
7	AG	37	ASN	2.6
20	CT	89	ARG	2.6
36	DG	37	VAL	2.6
1	CA	1386	G	2.6
14	CN	29	ARG	2.6
31	DA	271(M)	G	2.6
1	AA	1278	U	2.6
16	AP	35	LYS	2.6

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Mol	Chain	Res	Type	RSRZ
10	CJ	74	ILE	2.6
16	CP	42	ARG	2.6
27	B5	60	VAL	2.6
36	DG	95	ARG	2.6
36	DG	141	PHE	2.6
10	AJ	25	GLU	2.6
19	CS	57	HIS	2.6
38	DI	36	ALA	2.6
20	CT	80	ARG	2.6
31	BA	2793	G	2.6
31	DA	1033	U	2.6
37	DH	51	ARG	2.6
32	BB	26	A	2.6
24	B2	48	HIS	2.6
37	DH	94	TYR	2.6
3	AC	53	ALA	2.6
1	CA	1379	G	2.6
50	BY	101	LYS	2.6
1	CA	977	A	2.6
11	CK	30	VAL	2.6
1	AA	1259	C	2.6
51	DZ	55	HIS	2.6
47	DV	69	LYS	2.6
51	DZ	51	ALA	2.6
1	CA	1022	G	2.5
1	CA	1048	G	2.5
2	AB	80	ILE	2.5
31	DA	932	G	2.5
13	AM	30	ALA	2.5
13	CM	51	ALA	2.5
1	CA	1018	C	2.5
1	CA	1296	C	2.5
21	AU	13	ILE	2.5
33	BD	273	ARG	2.5
1	CA	1364	U	2.5
1	AA	1190	G	2.5
13	CM	11	ARG	2.5
16	CP	28	ARG	2.5
16	CP	41	PRO	2.5
22	D0	2	ALA	2.5
1	CA	1303	C	2.5
31	BA	2803	C	2.5

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Mol	Chain	Res	Type	RSRZ
19	AS	37	ARG	2.5
16	AP	9	PHE	2.5
36	BG	153	ARG	2.5
1	AA	1149	C	2.5
21	CU	15	ARG	2.5
44	DS	37	ALA	2.5
42	DQ	92	GLY	2.5
5	CE	131	ILE	2.5
10	AJ	38	ILE	2.5
10	CJ	96	ILE	2.5
9	CI	107	ARG	2.5
17	CQ	100	LYS	2.5
1	AA	631	G	2.5
1	AA	1355	G	2.5
19	AS	76	PRO	2.5
5	AE	118	ILE	2.5
3	AC	201	TYR	2.5
7	AG	77	SER	2.5
14	AN	19	ARG	2.5
38	DI	135	GLU	2.5
22	D0	85	ALA	2.5
1	CA	1192	C	2.5
12	AL	113	ARG	2.5
9	CI	3	GLN	2.5
1	CA	952	U	2.5
38	BI	145	VAL	2.5
3	AC	192	THR	2.5
5	CE	43	LEU	2.5
9	CI	111	ARG	2.5
36	BG	41	GLN	2.5
1	AA	1019	C	2.5
37	DH	46	GLU	2.5
5	CE	31	LEU	2.5
19	AS	28	LYS	2.5
32	DB	54	G	2.5
1	AA	624	C	2.5
13	CM	79	LYS	2.5
14	AN	15	LYS	2.5
31	DA	2183	C	2.5
44	BS	30	ARG	2.5
10	CJ	73	ASP	2.5
50	DY	55	TYR	2.5

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Mol	Chain	Res	Type	RSRZ
9	CI	93	ARG	2.5
27	D5	58	LEU	2.5
32	BB	90	A	2.5
1	AA	144	G	2.5
50	DY	79	CYS	2.5
4	AD	113	SER	2.5
1	AA	1209	C	2.5
11	AK	49	GLY	2.5
31	DA	1923	U	2.5
36	DG	103	LEU	2.5
19	AS	52	TYR	2.5
34	BE	53	PRO	2.5
31	DA	330	A	2.5
31	DA	1237	A	2.5
24	D2	42	GLY	2.5
32	BB	87	G	2.5
1	CA	805	C	2.5
1	CA	924	C	2.5
27	B5	2	ALA	2.4
3	CC	82	GLU	2.4
4	AD	135	LEU	2.4
1	AA	351	G	2.4
10	CJ	27	ALA	2.4
1	AA	1352	C	2.4
12	CL	99	HIS	2.4
5	CE	87	SER	2.4
1	AA	572	A	2.4
1	AA	974	A	2.4
1	CA	197	A	2.4
1	AA	201	C	2.4
1	AA	1094	G	2.4
1	CA	352	C	2.4
1	CA	428	G	2.4
13	AM	24	GLY	2.4
17	CQ	25	ARG	2.4
39	BN	68	GLU	2.4
19	CS	56	GLN	2.4
36	DG	147	ASP	2.4
13	AM	112	GLY	2.4
13	AM	114	ARG	2.4
1	CA	1227	A	2.4
32	BB	25	A	2.4

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Mol	Chain	Res	Type	RSRZ
1	AA	982	U	2.4
1	CA	186	C	2.4
13	AM	91	ARG	2.4
31	BA	2666	C	2.4
31	DA	1238	G	2.4
32	BB	119	G	2.4
16	AP	7	ALA	2.4
50	DY	85	VAL	2.4
35	DF	133	ASN	2.4
19	AS	46	GLY	2.4
13	AM	97	PRO	2.4
31	DA	910	A	2.4
47	DV	96	ILE	2.4
1	AA	1353	G	2.4
28	D6	44	ARG	2.4
35	DF	1	MET	2.4
51	DZ	113	ALA	2.4
44	DS	50	SER	2.4
36	DG	143	GLU	2.4
1	AA	174	C	2.4
31	BA	2894	G	2.4
50	DY	92	ASN	2.4
10	AJ	55	LYS	2.4
13	AM	95	GLY	2.4
16	AP	6	LEU	2.4
44	BS	108	GLY	2.4
7	CG	73	MET	2.4
2	AB	234	PRO	2.4
10	AJ	37	PRO	2.4
13	CM	57	ARG	2.4
31	BA	1505	C	2.4
7	AG	31	MET	2.4
16	CP	35	LYS	2.4
2	CB	234	PRO	2.4
10	AJ	85	LEU	2.4
39	BN	129	PRO	2.4
47	BV	46	VAL	2.4
18	CR	29	PHE	2.4
31	BA	2660	A	2.4
45	BT	132	LYS	2.4
50	BY	87	LYS	2.4
45	BT	3	ARG	2.4

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Mol	Chain	Res	Type	RSRZ
31	DA	2308	G	2.4
46	BU	115	ALA	2.4
7	AG	26	PHE	2.4
13	AM	71	ARG	2.4
21	CU	16	GLY	2.4
1	AA	1114	C	2.4
31	DA	1124	C	2.4
32	DB	114	C	2.4
9	AI	6	GLY	2.4
12	CL	53	ARG	2.4
18	AR	32	ARG	2.4
36	DG	72	ARG	2.4
38	DI	37	VAL	2.4
16	AP	76	GLN	2.4
1	AA	1350	A	2.4
1	CA	1069	C	2.3
1	CA	1115	C	2.3
2	CB	41	ILE	2.3
3	AC	54	ARG	2.3
7	AG	41	ARG	2.3
18	CR	62	GLU	2.3
1	CA	971	G	2.3
31	DA	2348	U	2.3
43	DR	105	ARG	2.3
47	DV	60	GLU	2.3
11	CK	31	THR	2.3
9	CI	6	GLY	2.3
13	CM	9	ILE	2.3
20	CT	77	ALA	2.3
20	CT	100	ILE	2.3
33	BD	262	ARG	2.3
36	BG	50	ALA	2.3
50	DY	60	PHE	2.3
1	CA	1384	C	2.3
1	AA	1387	G	2.3
29	D7	48	LYS	2.3
36	BG	131	TYR	2.3
1	CA	1363(A)	A	2.3
7	AG	16	LEU	2.3
31	BA	2402	C	2.3
17	CQ	22	LEU	2.3
32	DB	55	U	2.3

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Mol	Chain	Res	Type	RSRZ
36	BG	17	PRO	2.3
7	AG	35	LYS	2.3
31	BA	6	A	2.3
1	AA	77	G	2.3
19	CS	60	VAL	2.3
5	AE	21	ALA	2.3
19	CS	76	PRO	2.3
5	AE	88	LYS	2.3
9	CI	65	VAL	2.3
10	AJ	97	GLU	2.3
35	DF	7	TYR	2.3
41	DP	123	LEU	2.3
1	CA	1383	C	2.3
7	CG	36	LYS	2.3
9	CI	88	TYR	2.3
24	D2	37	PHE	2.3
31	BA	271(I)	G	2.3
50	BY	61	ILE	2.3
1	CA	1091	U	2.3
16	AP	48	TRP	2.3
28	D6	13	CYS	2.3
14	CN	28	GLY	2.3
47	DV	12	TYR	2.3
1	AA	612	C	2.3
16	AP	28	ARG	2.3
36	BG	86	MET	2.3
41	BP	139	LYS	2.3
50	DY	95	LYS	2.3
5	AE	91	LEU	2.3
19	CS	16	LEU	2.3
1	AA	1221	G	2.3
9	CI	126	SER	2.3
31	DA	7	G	2.3
4	CD	5	ILE	2.3
23	D1	58	ILE	2.3
36	BG	182	LYS	2.3
13	CM	17	VAL	2.3
32	DB	53	A	2.3
36	DG	108	ASN	2.3
5	CE	89	ILE	2.3
31	BA	884	C	2.3
1	AA	1020	U	2.3

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Mol	Chain	Res	Type	RSRZ
13	AM	67	GLU	2.3
28	D6	24	GLU	2.3
1	AA	1181	G	2.3
1	CA	73	G	2.3
9	AI	127	LYS	2.3
16	CP	12	LYS	2.3
11	CK	97	ALA	2.3
27	D5	2	ALA	2.3
12	CL	69	TYR	2.3
2	CB	135	GLN	2.3
1	AA	1336	C	2.3
1	AA	1363	C	2.3
14	AN	7	ILE	2.3
31	DA	1957	C	2.3
31	DA	1958	C	2.3
1	CA	326	G	2.3
4	AD	38	TYR	2.3
10	AJ	61	GLU	2.3
1	CA	397	A	2.3
2	CB	48	MET	2.3
2	CB	128	GLU	2.3
37	DH	43	VAL	2.3
9	AI	83	ARG	2.3
16	CP	18	ARG	2.3
19	AS	47	HIS	2.3
31	DA	12	U	2.3
31	DA	2804	C	2.3
1	AA	951	G	2.2
1	AA	1156	G	2.2
1	CA	1387	G	2.2
38	DI	82	ARG	2.2
41	DP	16	ARG	2.2
31	BA	1916	A	2.2
31	DA	1032	A	2.2
4	AD	35	ARG	2.2
1	AA	92	C	2.2
2	CB	215	LEU	2.2
9	AI	101	PHE	2.2
28	D6	45	LYS	2.2
37	DH	105	LEU	2.2
38	BI	139	GLN	2.2
28	D6	46	HIS	2.2

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Mol	Chain	Res	Type	RSRZ
1	CA	78	G	2.2
1	CA	1093	A	2.2
1	CA	1252	A	2.2
31	BA	878	A	2.2
10	CJ	98	ILE	2.2
17	AQ	69	LYS	2.2
22	B0	5	LYS	2.2
22	D0	6	GLY	2.2
34	DE	3	GLY	2.2
38	DI	73	GLU	2.2
1	AA	43	C	2.2
1	CA	1203	C	2.2
3	AC	15	THR	2.2
6	CF	7	ASN	2.2
10	CJ	4	ILE	2.2
30	D8	37	SER	2.2
31	DA	1533	G	2.2
32	DB	98	G	2.2
4	CD	166	LYS	2.2
13	AM	36	LYS	2.2
20	CT	66	ALA	2.2
1	AA	1388	C	2.2
28	D6	39	TYR	2.2
31	DA	1909	C	2.2
36	DG	87	PRO	2.2
11	AK	82	VAL	2.2
19	CS	50	ALA	2.2
41	DP	88	LEU	2.2
1	CA	1306	A	2.2
26	D4	31	ILE	2.2
1	AA	1380	U	2.2
3	AC	206	GLU	2.2
7	CG	8	GLU	2.2
9	CI	60	ASP	2.2
11	AK	13	GLN	2.2
3	CC	19	GLU	2.2
9	AI	9	ARG	2.2
9	CI	25	LYS	2.2
10	CJ	90	LEU	2.2
13	CM	110	ARG	2.2
36	DG	156	ASP	2.2
21	AU	4	GLY	2.2

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Mol	Chain	Res	Type	RSRZ
1	AA	1093	A	2.2
16	CP	38	TYR	2.2
7	CG	6	ARG	2.2
18	CR	71	LYS	2.2
31	DA	1497	U	2.2
1	AA	1317	C	2.2
13	CM	116	THR	2.2
36	BG	112	PRO	2.2
38	BI	97	ILE	2.2
10	CJ	43	ARG	2.2
11	AK	54	ARG	2.2
12	AL	72	GLY	2.2
42	DQ	77	LYS	2.2
1	CA	814	A	2.2
1	CA	1261	A	2.2
1	CA	1287	A	2.2
16	CP	76	GLN	2.2
7	CG	28	ASN	2.2
1	AA	1389	C	2.2
5	CE	109	ILE	2.2
5	CE	135	THR	2.2
13	CM	99	ARG	2.2
31	BA	1049	C	2.2
6	CF	4	TYR	2.2
7	CG	29	LYS	2.2
12	CL	43	VAL	2.2
38	BI	144	VAL	2.2
1	AA	107	G	2.2
1	CA	427	U	2.2
5	CE	121	LYS	2.2
14	AN	8	GLU	2.2
51	BZ	169	GLU	2.2
2	AB	37	ASN	2.2
1	AA	70	G	2.2
1	AA	223	U	2.2
12	CL	28	LYS	2.2
45	DT	16	ARG	2.2
37	DH	81	GLU	2.2
41	DP	92	GLU	2.2
37	DH	95	ARG	2.2
1	AA	68	G	2.2
1	CA	1268	A	2.2

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Mol	Chain	Res	Type	RSRZ
1	CA	1368	G	2.2
31	BA	12	U	2.2
42	DQ	21	THR	2.2
46	DU	87	GLY	2.2
11	AK	108	ILE	2.1
19	AS	11	VAL	2.1
1	AA	1368	G	2.1
1	CA	93	G	2.1
1	CA	933	G	2.1
36	DG	145	THR	2.1
1	CA	990	C	2.1
7	AG	23	VAL	2.1
14	AN	41	ARG	2.1
51	BZ	168	GLU	2.1
33	DD	4	LYS	2.1
9	AI	104	ARG	2.1
5	CE	134	ALA	2.1
20	AT	66	ALA	2.1
1	AA	1175	G	2.1
1	CA	411	A	2.1
1	CA	1047	G	2.1
9	AI	99	LEU	2.1
12	AL	52	LEU	2.1
2	AB	87	ARG	2.1
36	DG	146	TYR	2.1
38	DI	57	ARG	2.1
31	BA	1109	C	2.1
37	DH	112	PRO	2.1
7	CG	129	GLU	2.1
20	CT	81	LYS	2.1
21	CU	13	ILE	2.1
7	CG	34	GLY	2.1
18	CR	63	GLN	2.1
27	D5	53	ALA	2.1
10	AJ	72	VAL	2.1
30	D8	29	LYS	2.1
31	DA	312	G	2.1
38	DI	61	ARG	2.1
45	BT	93	ARG	2.1
1	CA	1038	C	2.1
2	CB	163	PHE	2.1
20	CT	64	ASP	2.1

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Mol	Chain	Res	Type	RSRZ
38	DI	110	ASP	2.1
42	DQ	75	THR	2.1
48	DW	112	GLY	2.1
4	AD	42	GLN	2.1
21	AU	14	TRP	2.1
9	AI	4	TYR	2.1
19	CS	12	ASP	2.1
1	AA	1046	A	2.1
43	DR	100	LEU	2.1
44	DS	80	LEU	2.1
1	AA	917	G	2.1
13	AM	110	ARG	2.1
1	AA	1051	C	2.1
1	CA	417	C	2.1
19	CS	44	MET	2.1
17	CQ	24	GLU	2.1
3	AC	190	ARG	2.1
31	BA	1917	U	2.1
46	DU	91	ASP	2.1
1	AA	1179	A	2.1
7	AG	22	LEU	2.1
10	CJ	42	THR	2.1
13	AM	103	THR	2.1
31	DA	331	A	2.1
4	AD	159	ARG	2.1
31	DA	100	G	2.1
19	CS	68	GLY	2.1
38	DI	104	GLN	2.1
7	CG	23	VAL	2.1
9	AI	88	TYR	2.1
12	CL	120	TYR	2.1
18	AR	29	PHE	2.1
36	BG	62	LEU	2.1
9	CI	58	ARG	2.1
1	AA	1245	A	2.1
19	AS	79	THR	2.1
12	AL	114	LYS	2.1
1	AA	199	G	2.1
5	AE	18	ARG	2.1
9	AI	10	ARG	2.1
21	AU	16	GLY	2.1
10	CJ	100	THR	2.1

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Mol	Chain	Res	Type	RSRZ
19	CS	79	THR	2.1
3	CC	160	ALA	2.1
7	AG	40	ALA	2.1
9	CI	26	VAL	2.1
10	AJ	45	ARG	2.1
28	D6	40	CYS	2.1
12	CL	71	PRO	2.1
13	AM	25	ILE	2.1
1	AA	532	A	2.1
9	AI	100	GLY	2.1
1	AA	1258	G	2.1
16	AP	41	PRO	2.1
31	BA	272(B)	G	2.1
31	BA	1112	G	2.1
1	CA	1242	C	2.1
10	CJ	54	PHE	2.1
31	DA	1499	C	2.1
1	AA	921	U	2.1
1	AA	1125	U	2.1
1	CA	204	U	2.1
1	CA	1278	U	2.1
3	CC	192	THR	2.1
14	CN	14	PRO	2.1
1	AA	108	G	2.1
3	CC	188	LEU	2.1
9	CI	64	THR	2.1
20	CT	83	ARG	2.1
38	DI	27	ARG	2.1
10	AJ	52	GLY	2.1
1	AA	989	C	2.1
13	AM	87	TYR	2.1
31	BA	271(A)	A	2.0
3	CC	23	TYR	2.0
9	AI	111	ARG	2.0
16	CP	15	PRO	2.0
1	CA	1029	C	2.0
9	CI	89	ASN	2.0
9	CI	128	ARG	2.0
1	AA	573	A	2.0
1	CA	1275	A	2.0
32	DB	25	A	2.0
34	DE	2	LYS	2.0

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Mol	Chain	Res	Type	RSRZ
7	AG	42	ILE	2.0
12	CL	70	ILE	2.0
20	AT	69	GLY	2.0
36	BG	144	ILE	2.0
7	AG	33	ASP	2.0
31	BA	892	G	2.0
31	DA	1125	G	2.0
1	AA	1277	C	2.0
1	CA	833	U	2.0
19	AS	82	GLY	2.0
31	BA	1026	U	2.0
36	DG	45	GLU	2.0
37	DH	111	HIS	2.0
35	DF	32	LEU	2.0
1	AA	1044	A	2.0
36	BG	73	ALA	2.0
18	CR	22	VAL	2.0
34	BE	78	LEU	2.0
37	DH	88	LEU	2.0
41	DP	50	ARG	2.0
1	CA	77	G	2.0
1	CA	1327	C	2.0
2	CB	211	ILE	2.0
3	CC	202	ILE	2.0
9	CI	82	ALA	2.0
31	BA	614(B)	G	2.0
32	DB	5	C	2.0
35	DF	19	GLU	2.0
12	AL	99	HIS	2.0
36	DG	92	VAL	2.0
1	CA	1204	A	2.0
2	CB	22	LYS	2.0
9	CI	110	GLU	2.0
7	CG	105	VAL	2.0
9	CI	105	ASP	2.0
20	AT	55	ILE	2.0
31	DA	829	A	2.0
51	DZ	50	GLN	2.0
2	CB	101	MET	2.0
3	AC	196	LEU	2.0
1	CA	1304	G	2.0
3	CC	183	ASP	2.0

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Mol	Chain	Res	Type	RSRZ
12	CL	114	LYS	2.0
31	BA	2474	C	2.0
5	AE	20	GLN	2.0
20	CT	101	GLY	2.0
51	DZ	170	THR	2.0
3	CC	186	PHE	2.0
4	AD	161	ASN	2.0
7	CG	48	LYS	2.0
38	BI	87	LYS	2.0
1	CA	687	A	2.0
2	CB	40	HIS	2.0
3	AC	16	ARG	2.0
9	CI	50	LEU	2.0

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

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

6.3 Carbohydrates ⓘ

There are no carbohydrates in this entry.

6.4 Ligands ⓘ

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
52	MG	BA	3098	1/1	0.21	-	76,76,76,76	0
52	MG	CA	1614	1/1	0.12	-	80,80,80,80	0
52	MG	DA	3065	1/1	0.50	-	70,70,70,70	0
52	MG	BA	3352	1/1	0.46	-	53,53,53,53	0
52	MG	BA	3093	1/1	0.76	-	57,57,57,57	0
52	MG	BA	3015	1/1	0.17	-	46,46,46,46	0
52	MG	DA	3318	1/1	0.07	-	83,83,83,83	0
52	MG	BA	3309	1/1	0.33	-	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
52	MG	DA	3104	1/1	0.41	-	85,85,85,85	0
52	MG	BA	3313	1/1	0.50	-	61,61,61,61	0
52	MG	DA	3049	1/1	0.22	-	54,54,54,54	0
52	MG	CA	1635	1/1	1.21	-	80,80,80,80	0
52	MG	DA	3084	1/1	0.35	-	27,27,27,27	0
52	MG	BA	3332	1/1	0.23	-	65,65,65,65	0
52	MG	BA	3010	1/1	0.50	-	53,53,53,53	0
52	MG	BA	3174	1/1	0.31	-	51,51,51,51	0
52	MG	AA	1648	1/1	0.68	-	57,57,57,57	0
52	MG	BA	3186	1/1	0.40	-	44,44,44,44	0
52	MG	DA	3177	1/1	0.48	-	48,48,48,48	0
52	MG	DA	3018	1/1	0.64	-	34,34,34,34	0
52	MG	BA	3193	1/1	0.41	-	51,51,51,51	0
52	MG	DA	3207	1/1	0.18	-	53,53,53,53	0
52	MG	BA	3005	1/1	0.35	-	56,56,56,56	0
52	MG	BA	3055	1/1	0.32	-	31,31,31,31	0
52	MG	DA	3302	1/1	0.26	-	64,64,64,64	0
52	MG	DR	202	1/1	0.53	-	50,50,50,50	0
52	MG	BA	3217	1/1	0.54	-	34,34,34,34	0
52	MG	DA	3130	1/1	0.18	-	83,83,83,83	0
52	MG	BA	3232	1/1	0.45	-	43,43,43,43	0
52	MG	BA	3226	1/1	0.42	-	42,42,42,42	0
52	MG	BA	3268	1/1	0.13	-	60,60,60,60	0
52	MG	CA	1628	1/1	0.61	-	92,92,92,92	0
52	MG	BA	3154	1/1	0.22	-	73,73,73,73	0
52	MG	AA	1623	1/1	0.40	-	50,50,50,50	0
52	MG	DA	3037	1/1	0.46	-	39,39,39,39	0
52	MG	BA	3116	1/1	0.36	-	67,67,67,67	0
52	MG	DA	3268	1/1	0.58	-	72,72,72,72	0
52	MG	DA	3303	1/1	0.27	-	57,57,57,57	0
52	MG	DU	201	1/1	0.34	-	75,75,75,75	0
52	MG	DA	3226	1/1	0.63	-	73,73,73,73	0
52	MG	CA	1646	1/1	0.46	-	68,68,68,68	0
52	MG	DA	3172	1/1	0.64	-	59,59,59,59	0
52	MG	DA	3070	1/1	0.35	-	52,52,52,52	0
52	MG	CA	1621	1/1	0.47	-	78,78,78,78	0
52	MG	BA	3052	1/1	0.32	-	17,17,17,17	0
52	MG	DA	3147	1/1	0.53	-	35,35,35,35	0
52	MG	DA	3249	1/1	0.44	-	69,69,69,69	0
52	MG	DA	3017	1/1	0.23	-	55,55,55,55	0
52	MG	DA	3089	1/1	0.20	-	54,54,54,54	0
52	MG	BA	3244	1/1	0.39	-	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
52	MG	CA	1612	1/1	0.19	-	70,70,70,70	0
52	MG	BA	3182	1/1	0.45	-	54,54,54,54	0
52	MG	BA	3167	1/1	0.26	-	27,27,27,27	0
52	MG	BA	3327	1/1	0.72	-	70,70,70,70	0
52	MG	BA	3160	1/1	0.98	-	78,78,78,78	0
52	MG	BA	3339	1/1	0.29	-	74,74,74,74	0
52	MG	BA	3184	1/1	0.18	-	62,62,62,62	0
52	MG	AA	1615	1/1	0.64	-	72,72,72,72	0
52	MG	DA	3244	1/1	0.47	-	69,69,69,69	0
52	MG	DA	3178	1/1	0.39	-	52,52,52,52	0
52	MG	DA	3317	1/1	0.12	-	60,60,60,60	0
52	MG	CA	1604	1/1	0.31	-	98,98,98,98	0
52	MG	DA	3028	1/1	0.31	-	68,68,68,68	0
52	MG	DA	3221	1/1	0.35	-	62,62,62,62	0
52	MG	DA	3094	1/1	0.36	-	75,75,75,75	0
54	K	DA	3319	1/1	0.14	-	82,82,82,82	0
52	MG	DA	3195	1/1	0.22	-	62,62,62,62	0
52	MG	BA	3275	1/1	0.13	-	47,47,47,47	0
52	MG	BA	3140	1/1	0.24	-	78,78,78,78	0
52	MG	BA	3172	1/1	0.18	-	50,50,50,50	0
52	MG	D7	101	1/1	0.51	-	58,58,58,58	0
52	MG	BA	3287	1/1	0.34	-	59,59,59,59	0
52	MG	BA	3103	1/1	0.22	-	31,31,31,31	0
52	MG	DA	3285	1/1	0.58	-	70,70,70,70	0
52	MG	CA	1602	1/1	0.79	-	73,73,73,73	0
52	MG	DA	3127	1/1	0.28	-	40,40,40,40	0
52	MG	DA	3225	1/1	0.60	-	81,81,81,81	0
52	MG	AA	1638	1/1	0.36	-	91,91,91,91	0
52	MG	BA	3281	1/1	0.15	-	45,45,45,45	0
52	MG	BA	3265	1/1	0.50	-	51,51,51,51	0
54	K	BA	3361	1/1	0.09	-	69,69,69,69	0
52	MG	DA	3006	1/1	0.47	-	40,40,40,40	0
52	MG	DA	3041	1/1	0.31	-	55,55,55,55	0
52	MG	BA	3004	1/1	0.24	-	31,31,31,31	0
52	MG	DA	3259	1/1	0.42	-	60,60,60,60	0
52	MG	BA	3025	1/1	0.41	-	64,64,64,64	0
52	MG	BA	3044	1/1	0.42	-	19,19,19,19	0
52	MG	AA	1643	1/1	0.45	-	85,85,85,85	0
52	MG	BA	3155	1/1	0.37	-	42,42,42,42	0
52	MG	DA	3047	1/1	0.16	-	28,28,28,28	0
52	MG	DA	3269	1/1	0.80	-	64,64,64,64	0
52	MG	DA	3202	1/1	0.47	-	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
52	MG	BA	3206	1/1	0.30	-	36,36,36,36	0
52	MG	DA	3288	1/1	0.24	-	32,32,32,32	0
52	MG	BA	3261	1/1	0.24	-	34,34,34,34	0
52	MG	DA	3251	1/1	0.44	-	91,91,91,91	0
52	MG	BA	3234	1/1	0.52	-	40,40,40,40	0
52	MG	AA	1620	1/1	0.69	-	95,95,95,95	0
52	MG	DA	3253	1/1	0.15	-	51,51,51,51	0
52	MG	AA	1637	1/1	0.28	-	54,54,54,54	0
52	MG	BA	3341	1/1	0.25	-	67,67,67,67	0
52	MG	DA	3211	1/1	0.76	-	62,62,62,62	0
52	MG	DA	3267	1/1	0.33	-	57,57,57,57	0
52	MG	DA	3263	1/1	0.64	-	55,55,55,55	0
52	MG	BA	3300	1/1	0.16	-	56,56,56,56	0
52	MG	DA	3295	1/1	0.34	-	65,65,65,65	0
52	MG	BA	3026	1/1	0.29	-	58,58,58,58	0
52	MG	BA	3188	1/1	0.16	-	80,80,80,80	0
52	MG	CA	1630	1/1	0.58	-	74,74,74,74	0
52	MG	BA	3021	1/1	0.33	-	30,30,30,30	0
52	MG	B5	101	1/1	0.33	-	54,54,54,54	0
52	MG	DA	3242	1/1	0.15	-	84,84,84,84	0
52	MG	DA	3255	1/1	0.45	-	91,91,91,91	0
52	MG	DA	3158	1/1	0.67	-	71,71,71,71	0
52	MG	DA	3109	1/1	0.31	-	60,60,60,60	0
52	MG	BX	101	1/1	0.33	-	58,58,58,58	0
52	MG	BA	3049	1/1	0.44	-	26,26,26,26	0
52	MG	DA	3091	1/1	0.59	-	44,44,44,44	0
52	MG	BA	3269	1/1	0.42	-	45,45,45,45	0
52	MG	BA	3129	1/1	0.10	-	55,55,55,55	0
52	MG	DA	3313	1/1	0.52	-	64,64,64,64	0
52	MG	BA	3057	1/1	0.23	-	40,40,40,40	0
52	MG	BA	3113	1/1	0.43	-	28,28,28,28	0
52	MG	DA	3101	1/1	0.54	-	57,57,57,57	0
52	MG	BA	3007	1/1	0.63	-	57,57,57,57	0
52	MG	DA	3274	1/1	0.21	-	68,68,68,68	0
52	MG	DR	201	1/1	0.60	-	45,45,45,45	0
52	MG	BA	3131	1/1	0.16	-	17,17,17,17	0
52	MG	BA	3296	1/1	0.23	-	54,54,54,54	0
52	MG	DA	3183	1/1	1.15	-	80,80,80,80	0
52	MG	BB	206	1/1	0.77	-	66,66,66,66	0
52	MG	BA	3156	1/1	0.50	-	31,31,31,31	0
52	MG	BA	3038	1/1	0.52	-	25,25,25,25	0
52	MG	AA	1632	1/1	0.66	-	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
52	MG	BA	3252	1/1	0.22	-	72,72,72,72	0
52	MG	DA	3118	1/1	0.49	-	72,72,72,72	0
52	MG	AA	1625	1/1	0.26	-	73,73,73,73	0
52	MG	BA	3073	1/1	0.34	-	24,24,24,24	0
52	MG	CA	1625	1/1	0.34	-	70,70,70,70	0
52	MG	BA	3161	1/1	0.40	-	65,65,65,65	0
52	MG	DA	3266	1/1	0.96	-	55,55,55,55	0
52	MG	DA	3161	1/1	0.27	-	72,72,72,72	0
52	MG	DA	3167	1/1	0.28	-	45,45,45,45	0
52	MG	DA	3029	1/1	0.22	-	36,36,36,36	0
52	MG	DA	3265	1/1	0.36	-	61,61,61,61	0
52	MG	DA	3250	1/1	0.22	-	62,62,62,62	0
52	MG	DA	3069	1/1	0.28	-	54,54,54,54	0
52	MG	DA	3233	1/1	0.24	-	57,57,57,57	0
52	MG	BA	3040	1/1	0.62	-	49,49,49,49	0
52	MG	CA	1615	1/1	0.42	-	69,69,69,69	0
52	MG	AA	1650	1/1	1.42	-	86,86,86,86	0
52	MG	BA	3331	1/1	0.37	-	52,52,52,52	0
52	MG	DA	3082	1/1	0.36	-	50,50,50,50	0
52	MG	DA	3137	1/1	0.53	-	49,49,49,49	0
52	MG	BA	3047	1/1	0.62	-	41,41,41,41	0
52	MG	DA	3194	1/1	0.56	-	56,56,56,56	0
52	MG	DA	3136	1/1	0.16	-	81,81,81,81	0
52	MG	AA	1652	1/1	0.17	-	83,83,83,83	0
52	MG	BA	3124	1/1	0.30	-	12,12,12,12	0
52	MG	BA	3152	1/1	0.13	-	58,58,58,58	0
52	MG	CA	1648	1/1	0.82	-	69,69,69,69	0
52	MG	BA	3308	1/1	0.22	-	55,55,55,55	0
52	MG	DA	3090	1/1	0.48	-	53,53,53,53	0
52	MG	DA	3224	1/1	0.55	-	47,47,47,47	0
52	MG	BA	3280	1/1	0.29	-	80,80,80,80	0
52	MG	DA	3227	1/1	0.96	-	79,79,79,79	0
52	MG	BA	3338	1/1	0.35	-	61,61,61,61	0
52	MG	CA	1644	1/1	0.31	-	86,86,86,86	0
52	MG	BA	3162	1/1	0.42	-	69,69,69,69	0
52	MG	AA	1614	1/1	0.27	-	81,81,81,81	0
52	MG	DA	3128	1/1	0.52	-	62,62,62,62	0
52	MG	DA	3193	1/1	0.47	-	54,54,54,54	0
52	MG	BA	3020	1/1	0.29	-	24,24,24,24	0
52	MG	BA	3258	1/1	0.18	-	57,57,57,57	0
52	MG	BA	3037	1/1	0.40	-	14,14,14,14	0
52	MG	BA	3170	1/1	0.83	-	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
52	MG	DA	3003	1/1	0.68	-	61,61,61,61	0
52	MG	DA	3046	1/1	0.35	-	49,49,49,49	0
52	MG	DA	3198	1/1	0.39	-	53,53,53,53	0
52	MG	BA	3034	1/1	0.34	-	69,69,69,69	0
52	MG	BA	3351	1/1	0.60	-	53,53,53,53	0
52	MG	BA	3197	1/1	0.41	-	46,46,46,46	0
52	MG	DA	3105	1/1	0.41	-	74,74,74,74	0
52	MG	BA	3242	1/1	0.57	-	71,71,71,71	0
52	MG	CA	1650	1/1	0.17	-	66,66,66,66	0
52	MG	DA	3125	1/1	0.11	-	54,54,54,54	0
52	MG	BA	3209	1/1	0.16	-	51,51,51,51	0
52	MG	DA	3054	1/1	0.61	-	47,47,47,47	0
52	MG	DA	3062	1/1	0.55	-	76,76,76,76	0
52	MG	BA	3058	1/1	0.22	-	47,47,47,47	0
52	MG	AA	1622	1/1	0.28	-	64,64,64,64	0
52	MG	BA	3183	1/1	0.39	-	55,55,55,55	0
52	MG	CA	1647	1/1	0.44	-	78,78,78,78	0
52	MG	BA	3150	1/1	0.45	-	50,50,50,50	0
52	MG	BA	3279	1/1	0.83	-	62,62,62,62	0
52	MG	BA	3255	1/1	0.29	-	46,46,46,46	0
52	MG	DA	3106	1/1	0.59	-	50,50,50,50	0
52	MG	BA	3029	1/1	0.26	-	30,30,30,30	0
52	MG	DA	3146	1/1	0.42	-	59,59,59,59	0
52	MG	DA	3180	1/1	0.53	-	56,56,56,56	0
52	MG	DA	3292	1/1	0.72	-	60,60,60,60	0
52	MG	DA	3145	1/1	0.17	-	57,57,57,57	0
52	MG	DA	3197	1/1	0.53	-	59,59,59,59	0
52	MG	BA	3207	1/1	0.41	-	34,34,34,34	0
52	MG	DA	3152	1/1	0.44	-	66,66,66,66	0
52	MG	DA	3058	1/1	0.54	-	42,42,42,42	0
52	MG	BA	3147	1/1	0.67	-	55,55,55,55	0
52	MG	BA	3298	1/1	0.80	-	65,65,65,65	0
52	MG	BA	3159	1/1	0.69	-	58,58,58,58	0
52	MG	DA	3005	1/1	0.12	-	69,69,69,69	0
52	MG	BA	3343	1/1	0.51	-	51,51,51,51	0
52	MG	DA	3311	1/1	0.79	-	86,86,86,86	0
52	MG	BA	3273	1/1	0.33	-	44,44,44,44	0
52	MG	BA	3344	1/1	0.15	-	43,43,43,43	0
52	MG	BA	3134	1/1	0.17	-	52,52,52,52	0
52	MG	BA	3210	1/1	0.59	-	46,46,46,46	0
52	MG	DA	3140	1/1	0.59	-	46,46,46,46	0
52	MG	B7	101	1/1	0.26	-	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
52	MG	DA	3247	1/1	0.38	-	61,61,61,61	0
52	MG	BB	203	1/1	0.11	-	82,82,82,82	0
52	MG	CA	1632	1/1	0.32	-	76,76,76,76	0
52	MG	BA	3233	1/1	0.49	-	54,54,54,54	0
52	MG	BA	3316	1/1	0.11	-	43,43,43,43	0
52	MG	BA	3087	1/1	0.08	-	18,18,18,18	0
52	MG	DA	3149	1/1	0.49	-	51,51,51,51	0
52	MG	CA	1622	1/1	0.45	-	75,75,75,75	0
52	MG	BA	3302	1/1	0.26	-	67,67,67,67	0
52	MG	DA	3050	1/1	0.43	-	39,39,39,39	0
52	MG	AA	1611	1/1	0.50	-	50,50,50,50	0
52	MG	BA	3056	1/1	0.10	-	31,31,31,31	0
52	MG	AA	1639	1/1	1.17	-	77,77,77,77	0
52	MG	BA	3125	1/1	0.14	-	53,53,53,53	0
52	MG	DA	3280	1/1	0.20	-	67,67,67,67	0
52	MG	BA	3310	1/1	0.60	-	74,74,74,74	0
52	MG	DA	3022	1/1	0.39	-	38,38,38,38	0
52	MG	BA	3322	1/1	0.22	-	44,44,44,44	0
52	MG	BA	3117	1/1	0.27	-	58,58,58,58	0
52	MG	DA	3066	1/1	0.19	-	52,52,52,52	0
52	MG	DA	3108	1/1	0.35	-	56,56,56,56	0
52	MG	BA	3074	1/1	0.66	-	67,67,67,67	0
52	MG	DA	3060	1/1	0.45	-	50,50,50,50	0
52	MG	DA	3116	1/1	0.39	-	65,65,65,65	0
52	MG	CA	1623	1/1	0.17	-	79,79,79,79	0
52	MG	BA	3018	1/1	0.23	-	25,25,25,25	0
52	MG	BA	3350	1/1	0.66	-	64,64,64,64	0
52	MG	DA	3272	1/1	0.67	-	78,78,78,78	0
52	MG	BA	3303	1/1	0.46	-	36,36,36,36	0
52	MG	DA	3185	1/1	0.25	-	65,65,65,65	0
52	MG	BA	3076	1/1	0.14	-	29,29,29,29	0
52	MG	BA	3195	1/1	0.17	-	40,40,40,40	0
52	MG	BA	3330	1/1	0.55	-	64,64,64,64	0
52	MG	DA	3068	1/1	0.26	-	80,80,80,80	0
52	MG	BA	3089	1/1	0.20	-	20,20,20,20	0
52	MG	DA	3059	1/1	0.15	-	55,55,55,55	0
52	MG	BQ	201	1/1	0.18	-	32,32,32,32	0
52	MG	BA	3165	1/1	0.16	-	57,57,57,57	0
52	MG	AA	1629	1/1	0.69	-	83,83,83,83	0
52	MG	BA	3204	1/1	0.52	-	49,49,49,49	0
52	MG	AA	1646	1/1	0.48	-	53,53,53,53	0
52	MG	DA	3115	1/1	0.36	-	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
52	MG	DA	3114	1/1	0.21	-	75,75,75,75	0
52	MG	DA	3304	1/1	0.10	-	67,67,67,67	0
52	MG	BA	3253	1/1	0.06	-	42,42,42,42	0
52	MG	DA	3206	1/1	0.95	-	74,74,74,74	0
52	MG	DA	3160	1/1	0.56	-	51,51,51,51	0
52	MG	BA	3218	1/1	0.80	-	38,38,38,38	0
52	MG	AA	1601	1/1	0.08	-	68,68,68,68	0
52	MG	BA	3272	1/1	0.45	-	38,38,38,38	0
52	MG	DA	3179	1/1	0.23	-	67,67,67,67	0
52	MG	BA	3099	1/1	0.23	-	45,45,45,45	0
52	MG	BA	3009	1/1	0.32	-	44,44,44,44	0
52	MG	BA	3213	1/1	0.24	-	34,34,34,34	0
52	MG	DA	3107	1/1	0.24	-	42,42,42,42	0
52	MG	BA	3241	1/1	0.57	-	69,69,69,69	0
52	MG	DA	3032	1/1	0.41	-	51,51,51,51	0
52	MG	DA	3013	1/1	0.39	-	77,77,77,77	0
52	MG	BA	3215	1/1	0.36	-	37,37,37,37	0
52	MG	DA	3232	1/1	0.73	-	56,56,56,56	0
52	MG	DA	3045	1/1	0.43	-	51,51,51,51	0
52	MG	BA	3045	1/1	0.32	-	22,22,22,22	0
52	MG	CA	1634	1/1	0.29	-	88,88,88,88	0
52	MG	BA	3094	1/1	0.69	-	47,47,47,47	0
52	MG	DA	3129	1/1	0.17	-	48,48,48,48	0
52	MG	BA	3247	1/1	0.43	-	77,77,77,77	0
52	MG	DA	3262	1/1	0.48	-	55,55,55,55	0
52	MG	BA	3069	1/1	0.43	-	46,46,46,46	0
52	MG	BA	3092	1/1	0.33	-	22,22,22,22	0
52	MG	DA	3081	1/1	0.43	-	58,58,58,58	0
52	MG	BA	3085	1/1	0.11	-	0,0,0,0	0
52	MG	BA	3245	1/1	0.27	-	48,48,48,48	0
52	MG	CA	1620	1/1	0.19	-	70,70,70,70	0
52	MG	DA	3261	1/1	0.32	-	38,38,38,38	0
52	MG	DA	3048	1/1	0.50	-	51,51,51,51	0
52	MG	DA	3023	1/1	0.20	-	39,39,39,39	0
52	MG	DA	3110	1/1	0.60	-	46,46,46,46	0
52	MG	BA	3039	1/1	0.97	-	57,57,57,57	0
52	MG	BA	3356	1/1	0.50	-	75,75,75,75	0
52	MG	DA	3234	1/1	0.14	-	73,73,73,73	0
52	MG	BA	3079	1/1	0.17	-	48,48,48,48	0
52	MG	DA	3239	1/1	0.15	-	65,65,65,65	0
52	MG	BA	3319	1/1	0.38	-	60,60,60,60	0
52	MG	DA	3168	1/1	0.47	-	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
52	MG	BA	3175	1/1	0.29	-	50,50,50,50	0
52	MG	BA	3181	1/1	0.51	-	54,54,54,54	0
52	MG	BA	3110	1/1	0.37	-	23,23,23,23	0
52	MG	DA	3092	1/1	0.23	-	61,61,61,61	0
52	MG	DA	3043	1/1	0.38	-	43,43,43,43	0
52	MG	BA	3107	1/1	0.13	-	20,20,20,20	0
52	MG	BA	3064	1/1	0.25	-	45,45,45,45	0
52	MG	BA	3151	1/1	0.57	-	68,68,68,68	0
52	MG	DA	3038	1/1	0.81	-	68,68,68,68	0
52	MG	DB	203	1/1	0.44	-	47,47,47,47	0
52	MG	DA	3245	1/1	0.44	-	44,44,44,44	0
52	MG	BA	3054	1/1	0.18	-	50,50,50,50	0
52	MG	DA	3063	1/1	0.75	-	72,72,72,72	0
53	ZN	CN	101	1/1	0.13	-	164,164,164,164	0
52	MG	BA	3359	1/1	0.22	-	81,81,81,81	0
52	MG	DA	3314	1/1	0.64	-	54,54,54,54	0
52	MG	DA	3222	1/1	0.22	-	72,72,72,72	0
52	MG	CA	1639	1/1	0.98	-	87,87,87,87	0
52	MG	BA	3115	1/1	0.14	-	71,71,71,71	0
52	MG	BA	3138	1/1	0.75	-	42,42,42,42	0
52	MG	AA	1604	1/1	0.53	-	100,100,100,100	0
52	MG	AA	1636	1/1	0.34	-	88,88,88,88	0
52	MG	AA	1651	1/1	0.23	-	81,81,81,81	0
52	MG	BA	3179	1/1	0.63	-	55,55,55,55	0
52	MG	BA	3237	1/1	0.50	-	60,60,60,60	0
52	MG	BB	204	1/1	0.42	-	47,47,47,47	0
52	MG	BA	3328	1/1	0.26	-	41,41,41,41	0
52	MG	BA	3031	1/1	0.34	-	66,66,66,66	0
52	MG	DA	3200	1/1	0.55	-	47,47,47,47	0
52	MG	BA	3003	1/1	0.49	-	34,34,34,34	0
52	MG	BA	3311	1/1	1.00	-	69,69,69,69	0
52	MG	DA	3184	1/1	0.23	-	96,96,96,96	0
52	MG	DA	3159	1/1	0.48	-	39,39,39,39	0
52	MG	DA	3277	1/1	0.23	-	66,66,66,66	0
52	MG	DA	3051	1/1	0.41	-	53,53,53,53	0
52	MG	BA	3012	1/1	0.53	-	61,61,61,61	0
52	MG	BA	3317	1/1	0.39	-	49,49,49,49	0
52	MG	AA	1612	1/1	0.26	-	84,84,84,84	0
52	MG	DA	3124	1/1	0.10	-	63,63,63,63	0
52	MG	AA	1628	1/1	0.52	-	65,65,65,65	0
52	MG	DA	3275	1/1	0.65	-	72,72,72,72	0
52	MG	DA	3020	1/1	0.48	-	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
52	MG	DA	3290	1/1	0.17	-	74,74,74,74	0
52	MG	BA	3223	1/1	0.59	-	45,45,45,45	0
52	MG	BA	3277	1/1	0.26	-	49,49,49,49	0
52	MG	DA	3097	1/1	0.40	-	51,51,51,51	0
52	MG	DA	3135	1/1	0.42	-	74,74,74,74	0
52	MG	BA	3335	1/1	0.57	-	55,55,55,55	0
52	MG	AA	1644	1/1	1.19	-	94,94,94,94	0
52	MG	DA	3257	1/1	0.22	-	72,72,72,72	0
52	MG	BA	3090	1/1	0.39	-	22,22,22,22	0
52	MG	DA	3204	1/1	0.15	-	48,48,48,48	0
52	MG	BA	3333	1/1	0.19	-	48,48,48,48	0
52	MG	BA	3212	1/1	0.09	-	29,29,29,29	0
52	MG	DA	3187	1/1	0.64	-	53,53,53,53	0
52	MG	DA	3298	1/1	0.23	-	46,46,46,46	0
52	MG	BA	3294	1/1	0.25	-	40,40,40,40	0
52	MG	BA	3248	1/1	0.09	-	57,57,57,57	0
52	MG	BA	3321	1/1	0.32	-	69,69,69,69	0
52	MG	DA	3316	1/1	0.34	-	75,75,75,75	0
52	MG	DA	3205	1/1	0.42	-	64,64,64,64	0
52	MG	BA	3254	1/1	0.08	-	58,58,58,58	0
52	MG	BA	3169	1/1	0.70	-	49,49,49,49	0
52	MG	BA	3137	1/1	0.22	-	16,16,16,16	0
52	MG	BA	3122	1/1	0.38	-	61,61,61,61	0
52	MG	DA	3223	1/1	0.26	-	62,62,62,62	0
52	MG	DE	301	1/1	0.15	-	34,34,34,34	0
52	MG	BA	3173	1/1	0.55	-	46,46,46,46	0
52	MG	BA	3123	1/1	0.39	-	48,48,48,48	0
52	MG	BA	3216	1/1	0.17	-	46,46,46,46	0
52	MG	DA	3203	1/1	0.64	-	55,55,55,55	0
52	MG	BB	202	1/1	0.39	-	44,44,44,44	0
52	MG	CA	1617	1/1	0.62	-	74,74,74,74	0
52	MG	DA	3024	1/1	0.38	-	54,54,54,54	0
52	MG	BA	3236	1/1	0.48	-	38,38,38,38	0
52	MG	BA	3146	1/1	0.42	-	56,56,56,56	0
52	MG	DA	3294	1/1	0.21	-	50,50,50,50	0
52	MG	DA	3191	1/1	0.39	-	48,48,48,48	0
52	MG	BA	3353	1/1	0.25	-	73,73,73,73	0
52	MG	DA	3236	1/1	0.69	-	76,76,76,76	0
52	MG	BA	3112	1/1	0.20	-	43,43,43,43	0
52	MG	BA	3231	1/1	0.20	-	31,31,31,31	0
52	MG	CA	1638	1/1	0.23	-	62,62,62,62	0
52	MG	AA	1642	1/1	0.17	-	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
52	MG	CA	1605	1/1	0.29	-	102,102,102,102	0
52	MG	BA	3288	1/1	0.08	-	55,55,55,55	0
52	MG	BA	3274	1/1	0.22	-	36,36,36,36	0
52	MG	CA	1606	1/1	1.03	-	73,73,73,73	0
52	MG	BA	3304	1/1	0.31	-	41,41,41,41	0
52	MG	AA	1645	1/1	0.46	-	104,104,104,104	0
52	MG	AA	1602	1/1	0.59	-	50,50,50,50	0
52	MG	CA	1645	1/1	0.81	-	64,64,64,64	0
52	MG	CA	1640	1/1	0.30	-	74,74,74,74	0
52	MG	BA	3238	1/1	0.28	-	70,70,70,70	0
52	MG	BA	3163	1/1	0.34	-	45,45,45,45	0
52	MG	BR	201	1/1	0.50	-	27,27,27,27	0
52	MG	BA	3358	1/1	0.06	-	34,34,34,34	0
52	MG	DA	3033	1/1	0.42	-	63,63,63,63	0
52	MG	DA	3034	1/1	0.58	-	51,51,51,51	0
52	MG	DA	3026	1/1	0.53	-	32,32,32,32	0
52	MG	BA	3301	1/1	0.41	-	52,52,52,52	0
52	MG	DA	3132	1/1	0.13	-	72,72,72,72	0
52	MG	CA	1631	1/1	0.24	-	95,95,95,95	0
52	MG	DA	3213	1/1	0.41	-	44,44,44,44	0
52	MG	BA	3306	1/1	0.61	-	70,70,70,70	0
52	MG	DA	3036	1/1	0.94	-	54,54,54,54	0
52	MG	DA	3238	1/1	0.17	-	80,80,80,80	0
52	MG	DA	3083	1/1	0.33	-	43,43,43,43	0
52	MG	BA	3024	1/1	0.18	-	37,37,37,37	0
52	MG	BA	3346	1/1	0.17	-	61,61,61,61	0
52	MG	BA	3357	1/1	0.16	-	66,66,66,66	0
52	MG	BA	3342	1/1	0.14	-	39,39,39,39	0
52	MG	BA	3187	1/1	0.76	-	60,60,60,60	0
52	MG	DA	3229	1/1	0.48	-	78,78,78,78	0
52	MG	DA	3019	1/1	0.46	-	42,42,42,42	0
52	MG	BA	3105	1/1	0.32	-	32,32,32,32	0
52	MG	DA	3015	1/1	0.46	-	40,40,40,40	0
52	MG	DA	3080	1/1	0.60	-	59,59,59,59	0
52	MG	BA	3102	1/1	0.37	-	41,41,41,41	0
52	MG	DA	3121	1/1	0.87	-	64,64,64,64	0
53	ZN	AN	101	1/1	0.16	-	181,181,181,181	0
52	MG	BA	3282	1/1	0.30	-	49,49,49,49	0
52	MG	DA	3196	1/1	0.18	-	41,41,41,41	0
52	MG	DA	3256	1/1	0.28	-	77,77,77,77	0
52	MG	DA	3113	1/1	0.32	-	75,75,75,75	0
52	MG	BA	3006	1/1	0.49	-	27,27,27,27	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
52	MG	DA	3201	1/1	0.67	-	46,46,46,46	0
52	MG	DA	3230	1/1	0.25	-	69,69,69,69	0
52	MG	BA	3178	1/1	0.24	-	25,25,25,25	0
52	MG	DA	3053	1/1	0.69	-	90,90,90,90	0
52	MG	DA	3286	1/1	0.34	-	63,63,63,63	0
52	MG	CA	1616	1/1	0.23	-	74,74,74,74	0
52	MG	BA	3080	1/1	0.67	-	23,23,23,23	0
52	MG	DA	3212	1/1	0.36	-	71,71,71,71	0
52	MG	BA	3114	1/1	0.51	-	49,49,49,49	0
52	MG	DA	3270	1/1	0.48	-	92,92,92,92	0
52	MG	BA	3266	1/1	0.59	-	63,63,63,63	0
52	MG	BA	3091	1/1	0.22	-	44,44,44,44	0
53	ZN	AD	301	1/1	0.27	-	110,110,110,110	0
53	ZN	CD	301	1/1	0.20	-	105,105,105,105	0
52	MG	DA	3188	1/1	0.72	-	81,81,81,81	0
52	MG	BA	3224	1/1	0.17	-	43,43,43,43	0
52	MG	CA	1626	1/1	0.60	-	70,70,70,70	0
52	MG	BA	3014	1/1	0.45	-	46,46,46,46	0
52	MG	BA	3062	1/1	0.16	-	38,38,38,38	0
52	MG	BA	3203	1/1	0.37	-	53,53,53,53	0
52	MG	DA	3163	1/1	0.10	-	77,77,77,77	0
52	MG	DA	3279	1/1	0.25	-	55,55,55,55	0
52	MG	BA	3136	1/1	0.33	-	51,51,51,51	0
52	MG	BA	3347	1/1	0.32	-	58,58,58,58	0
52	MG	DA	3309	1/1	0.06	-	76,76,76,76	0
52	MG	AA	1606	1/1	0.32	-	63,63,63,63	0
52	MG	DA	3067	1/1	0.59	-	57,57,57,57	0
52	MG	BA	3041	1/1	0.27	-	22,22,22,22	0
52	MG	DA	3258	1/1	0.39	-	70,70,70,70	0
52	MG	DA	3009	1/1	0.28	-	52,52,52,52	0
55	TEL	DA	3320	58/58	0.29	-	110,110,110,110	0
52	MG	BA	3033	1/1	0.20	-	27,27,27,27	0
52	MG	DQ	201	1/1	0.18	-	63,63,63,63	0
52	MG	CA	1624	1/1	0.20	-	69,69,69,69	0
52	MG	DA	3134	1/1	0.87	-	61,61,61,61	0
52	MG	BA	3295	1/1	0.87	-	79,79,79,79	0
52	MG	BA	3360	1/1	0.05	-	68,68,68,68	0
52	MG	DA	3246	1/1	0.14	-	70,70,70,70	0
52	MG	BA	3072	1/1	0.68	-	59,59,59,59	0
52	MG	BA	3292	1/1	0.29	-	67,67,67,67	0
52	MG	DA	3086	1/1	0.22	-	61,61,61,61	0
52	MG	DA	3014	1/1	0.49	-	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
52	MG	BB	205	1/1	0.08	-	90,90,90,90	0
52	MG	BA	3128	1/1	0.18	-	63,63,63,63	0
52	MG	BA	3325	1/1	0.44	-	49,49,49,49	0
52	MG	DA	3074	1/1	0.46	-	56,56,56,56	0
52	MG	DA	3181	1/1	0.26	-	62,62,62,62	0
52	MG	BA	3314	1/1	0.47	-	63,63,63,63	0
52	MG	BA	3065	1/1	0.23	-	37,37,37,37	0
52	MG	DA	3209	1/1	0.57	-	58,58,58,58	0
52	MG	DA	3254	1/1	0.17	-	61,61,61,61	0
52	MG	BA	3143	1/1	0.39	-	34,34,34,34	0
52	MG	BA	3078	1/1	0.41	-	39,39,39,39	0
52	MG	BA	3017	1/1	0.51	-	46,46,46,46	0
52	MG	BA	3276	1/1	0.49	-	76,76,76,76	0
52	MG	BA	3284	1/1	0.33	-	34,34,34,34	0
52	MG	CA	1608	1/1	0.46	-	90,90,90,90	0
52	MG	DA	3190	1/1	0.23	-	49,49,49,49	0
52	MG	BA	3171	1/1	0.55	-	45,45,45,45	0
52	MG	DA	3310	1/1	0.47	-	54,54,54,54	0
52	MG	AA	1633	1/1	0.17	-	90,90,90,90	0
52	MG	BA	3185	1/1	0.51	-	61,61,61,61	0
52	MG	BA	3214	1/1	0.47	-	55,55,55,55	0
52	MG	CA	1649	1/1	0.17	-	80,80,80,80	0
52	MG	BP	201	1/1	0.26	-	17,17,17,17	0
52	MG	BA	3334	1/1	0.10	-	61,61,61,61	0
52	MG	BA	3061	1/1	0.39	-	36,36,36,36	0
52	MG	DA	3007	1/1	0.47	-	40,40,40,40	0
52	MG	BA	3177	1/1	0.34	-	57,57,57,57	0
52	MG	DA	3099	1/1	0.39	-	56,56,56,56	0
52	MG	BA	3157	1/1	0.17	-	24,24,24,24	0
52	MG	DA	3044	1/1	0.38	-	39,39,39,39	0
52	MG	BA	3249	1/1	0.19	-	56,56,56,56	0
52	MG	BA	3075	1/1	0.47	-	56,56,56,56	0
52	MG	BD	302	1/1	0.29	-	47,47,47,47	0
52	MG	DA	3173	1/1	0.49	-	48,48,48,48	0
52	MG	DA	3216	1/1	0.91	-	78,78,78,78	0
52	MG	AA	1613	1/1	0.31	-	76,76,76,76	0
52	MG	DA	3004	1/1	0.26	-	39,39,39,39	0
52	MG	BA	3267	1/1	0.31	-	40,40,40,40	0
52	MG	CA	1643	1/1	1.11	-	93,93,93,93	0
52	MG	BA	3219	1/1	0.43	-	75,75,75,75	0
52	MG	BA	3153	1/1	0.27	-	62,62,62,62	0
52	MG	BA	3019	1/1	0.46	-	26,26,26,26	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
52	MG	DA	3162	1/1	0.68	-	80,80,80,80	0
52	MG	DA	3252	1/1	0.23	-	55,55,55,55	0
52	MG	DA	3117	1/1	0.29	-	59,59,59,59	0
52	MG	BA	3307	1/1	0.99	-	70,70,70,70	0
52	MG	DA	3155	1/1	0.21	-	59,59,59,59	0
52	MG	DA	3027	1/1	0.28	-	43,43,43,43	0
52	MG	DA	3175	1/1	0.35	-	68,68,68,68	0
52	MG	DA	3151	1/1	0.18	-	66,66,66,66	0
52	MG	DA	3240	1/1	0.12	-	47,47,47,47	0
52	MG	AA	1630	1/1	0.70	-	75,75,75,75	0
52	MG	BA	3230	1/1	0.36	-	44,44,44,44	0
52	MG	DA	3210	1/1	0.20	-	49,49,49,49	0
52	MG	AA	1607	1/1	0.22	-	81,81,81,81	0
52	MG	DA	3088	1/1	0.52	-	53,53,53,53	0
52	MG	DA	3093	1/1	0.68	-	49,49,49,49	0
52	MG	BA	3168	1/1	0.31	-	59,59,59,59	0
52	MG	BA	3190	1/1	0.42	-	34,34,34,34	0
52	MG	DA	3030	1/1	0.24	-	66,66,66,66	0
52	MG	BA	3323	1/1	0.22	-	51,51,51,51	0
52	MG	CA	1636	1/1	0.48	-	74,74,74,74	0
52	MG	BA	3096	1/1	0.53	-	33,33,33,33	0
52	MG	BA	3051	1/1	0.28	-	22,22,22,22	0
52	MG	CA	1603	1/1	0.31	-	57,57,57,57	0
52	MG	DA	3241	1/1	0.32	-	48,48,48,48	0
52	MG	BA	3312	1/1	0.22	-	55,55,55,55	0
52	MG	DA	3235	1/1	0.17	-	48,48,48,48	0
52	MG	DA	3119	1/1	0.21	-	56,56,56,56	0
52	MG	BA	3192	1/1	0.67	-	42,42,42,42	0
52	MG	DA	3217	1/1	0.95	-	55,55,55,55	0
52	MG	DA	3075	1/1	0.23	-	50,50,50,50	0
52	MG	BA	3011	1/1	0.47	-	22,22,22,22	0
52	MG	BA	3221	1/1	0.47	-	47,47,47,47	0
52	MG	BA	3059	1/1	0.38	-	46,46,46,46	0
52	MG	AA	1616	1/1	0.18	-	68,68,68,68	0
52	MG	DA	3142	1/1	0.47	-	69,69,69,69	0
52	MG	DA	3299	1/1	0.33	-	64,64,64,64	0
52	MG	BA	3164	1/1	0.22	-	40,40,40,40	0
52	MG	BA	3013	1/1	0.55	-	33,33,33,33	0
52	MG	BA	3264	1/1	0.23	-	58,58,58,58	0
52	MG	DA	3011	1/1	0.33	-	43,43,43,43	0
52	MG	DA	3055	1/1	0.45	-	38,38,38,38	0
52	MG	BA	3120	1/1	0.28	-	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
52	MG	BA	3133	1/1	0.25	-	38,38,38,38	0
52	MG	B5	102	1/1	0.40	-	80,80,80,80	0
52	MG	DA	3296	1/1	0.29	-	104,104,104,104	0
52	MG	BA	3228	1/1	0.83	-	56,56,56,56	0
52	MG	BQ	202	1/1	0.22	-	49,49,49,49	0
52	MG	BA	3293	1/1	0.04	-	51,51,51,51	0
52	MG	DA	3154	1/1	0.53	-	66,66,66,66	0
52	MG	BA	3135	1/1	0.49	-	30,30,30,30	0
52	MG	BA	3315	1/1	0.75	-	62,62,62,62	0
52	MG	DA	3169	1/1	0.60	-	49,49,49,49	0
52	MG	BA	3002	1/1	0.59	-	31,31,31,31	0
55	TEL	BA	3362	58/58	0.30	-	110,110,110,110	0
52	MG	DA	3170	1/1	0.71	-	76,76,76,76	0
52	MG	DA	3071	1/1	0.67	-	85,85,85,85	0
52	MG	DA	3248	1/1	0.65	-	72,72,72,72	0
52	MG	DA	3133	1/1	0.34	-	31,31,31,31	0
52	MG	DA	3122	1/1	0.16	-	61,61,61,61	0
52	MG	DA	3148	1/1	0.64	-	61,61,61,61	0
52	MG	CA	1611	1/1	0.31	-	72,72,72,72	0
52	MG	AA	1605	1/1	0.26	-	106,106,106,106	0
52	MG	DA	3293	1/1	0.38	-	60,60,60,60	0
52	MG	CA	1610	1/1	0.19	-	106,106,106,106	0
52	MG	DA	3138	1/1	0.49	-	35,35,35,35	0
52	MG	BA	3256	1/1	0.37	-	43,43,43,43	0
52	MG	BA	3260	1/1	0.17	-	46,46,46,46	0
52	MG	AA	1618	1/1	0.64	-	81,81,81,81	0
52	MG	DA	3111	1/1	0.43	-	56,56,56,56	0
52	MG	BA	3060	1/1	0.34	-	59,59,59,59	0
52	MG	CA	1618	1/1	0.69	-	84,84,84,84	0
52	MG	BA	3176	1/1	0.84	-	68,68,68,68	0
52	MG	DA	3214	1/1	0.30	-	33,33,33,33	0
52	MG	BA	3063	1/1	0.40	-	57,57,57,57	0
52	MG	BA	3201	1/1	0.16	-	52,52,52,52	0
52	MG	BA	3290	1/1	0.52	-	87,87,87,87	0
52	MG	BA	3349	1/1	0.35	-	51,51,51,51	0
52	MG	DD	301	1/1	0.38	-	56,56,56,56	0
52	MG	BA	3189	1/1	0.45	-	40,40,40,40	0
52	MG	BA	3240	1/1	0.39	-	39,39,39,39	0
52	MG	BA	3191	1/1	0.48	-	59,59,59,59	0
52	MG	BA	3286	1/1	0.19	-	72,72,72,72	0
52	MG	DA	3012	1/1	0.51	-	29,29,29,29	0
52	MG	BA	3243	1/1	0.46	-	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
52	MG	DA	3102	1/1	0.77	-	54,54,54,54	0
52	MG	BA	3082	1/1	0.43	-	37,37,37,37	0
52	MG	BA	3035	1/1	0.34	-	23,23,23,23	0
52	MG	BA	3336	1/1	0.52	-	61,61,61,61	0
52	MG	AA	1610	1/1	0.28	-	115,115,115,115	0
52	MG	DA	3001	1/1	0.48	-	66,66,66,66	0
52	MG	BA	3048	1/1	0.34	-	20,20,20,20	0
52	MG	DA	3165	1/1	0.43	-	53,53,53,53	0
52	MG	BA	3340	1/1	0.08	-	83,83,83,83	0
52	MG	DA	3078	1/1	0.11	-	62,62,62,62	0
52	MG	DA	3100	1/1	0.19	-	59,59,59,59	0
52	MG	DA	3208	1/1	0.43	-	43,43,43,43	0
52	MG	BA	3202	1/1	0.24	-	49,49,49,49	0
52	MG	DA	3271	1/1	0.34	-	67,67,67,67	0
52	MG	BA	3262	1/1	0.40	-	68,68,68,68	0
52	MG	DA	3042	1/1	0.21	-	48,48,48,48	0
52	MG	BA	3180	1/1	0.15	-	68,68,68,68	0
52	MG	BA	3127	1/1	0.77	-	48,48,48,48	0
52	MG	BA	3355	1/1	0.20	-	78,78,78,78	0
52	MG	BA	3068	1/1	0.52	-	47,47,47,47	0
52	MG	DA	3315	1/1	0.16	-	69,69,69,69	0
52	MG	AA	1641	1/1	0.22	-	57,57,57,57	0
52	MG	BA	3139	1/1	0.40	-	60,60,60,60	0
52	MG	DA	3077	1/1	0.38	-	46,46,46,46	0
52	MG	BA	3148	1/1	0.49	-	28,28,28,28	0
52	MG	DX	101	1/1	0.45	-	76,76,76,76	0
52	MG	DA	3273	1/1	1.68	-	80,80,80,80	0
52	MG	DA	3112	1/1	0.17	-	76,76,76,76	0
52	MG	BB	207	1/1	0.27	-	80,80,80,80	0
52	MG	CA	1642	1/1	0.26	-	80,80,80,80	0
52	MG	DA	3260	1/1	0.72	-	73,73,73,73	0
52	MG	BD	301	1/1	0.43	-	51,51,51,51	0
52	MG	BA	3100	1/1	0.45	-	40,40,40,40	0
52	MG	BA	3271	1/1	0.56	-	57,57,57,57	0
52	MG	DA	3052	1/1	0.47	-	44,44,44,44	0
52	MG	BA	3104	1/1	0.15	-	45,45,45,45	0
52	MG	DA	3061	1/1	0.15	-	40,40,40,40	0
52	MG	BA	3001	1/1	0.27	-	55,55,55,55	0
52	MG	DD	302	1/1	0.16	-	38,38,38,38	0
52	MG	BA	3235	1/1	0.49	-	43,43,43,43	0
52	MG	BA	3145	1/1	0.51	-	54,54,54,54	0
52	MG	DA	3308	1/1	0.46	-	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
52	MG	DA	3281	1/1	0.89	-	87,87,87,87	0
52	MG	DA	3276	1/1	1.17	-	87,87,87,87	0
52	MG	DA	3087	1/1	0.42	-	53,53,53,53	0
52	MG	DA	3297	1/1	0.23	-	93,93,93,93	0
52	MG	BA	3326	1/1	0.45	-	60,60,60,60	0
52	MG	BA	3095	1/1	0.31	-	43,43,43,43	0
52	MG	BA	3199	1/1	0.56	-	39,39,39,39	0
52	MG	DA	3002	1/1	0.52	-	41,41,41,41	0
52	MG	DA	3307	1/1	0.46	-	65,65,65,65	0
52	MG	BA	3097	1/1	0.41	-	53,53,53,53	0
52	MG	BA	3257	1/1	0.26	-	19,19,19,19	0
52	MG	AA	1624	1/1	0.39	-	55,55,55,55	0
52	MG	BA	3016	1/1	0.35	-	30,30,30,30	0
52	MG	DA	3176	1/1	0.80	-	41,41,41,41	0
52	MG	DA	3243	1/1	0.12	-	94,94,94,94	0
52	MG	BA	3225	1/1	0.44	-	23,23,23,23	0
52	MG	BA	3050	1/1	0.25	-	34,34,34,34	0
52	MG	BA	3043	1/1	0.20	-	39,39,39,39	0
52	MG	DA	3103	1/1	0.38	-	58,58,58,58	0
52	MG	DA	3144	1/1	0.50	-	65,65,65,65	0
52	MG	DA	3192	1/1	0.50	-	71,71,71,71	0
52	MG	DA	3306	1/1	0.26	-	63,63,63,63	0
52	MG	DA	3098	1/1	0.44	-	38,38,38,38	0
52	MG	BA	3289	1/1	0.15	-	66,66,66,66	0
52	MG	BA	3084	1/1	0.37	-	25,25,25,25	0
52	MG	AA	1608	1/1	0.44	-	71,71,71,71	0
52	MG	DA	3301	1/1	0.82	-	67,67,67,67	0
52	MG	AA	1640	1/1	0.29	-	77,77,77,77	0
52	MG	DA	3123	1/1	0.24	-	67,67,67,67	0
52	MG	BA	3083	1/1	0.52	-	45,45,45,45	0
52	MG	BU	201	1/1	0.26	-	29,29,29,29	0
52	MG	BA	3046	1/1	0.34	-	38,38,38,38	0
52	MG	BA	3101	1/1	0.34	-	17,17,17,17	0
52	MG	BA	3070	1/1	0.25	-	25,25,25,25	0
52	MG	BA	3297	1/1	0.52	-	68,68,68,68	0
52	MG	DA	3139	1/1	0.65	-	48,48,48,48	0
52	MG	AA	1627	1/1	0.27	-	71,71,71,71	0
52	MG	DA	3064	1/1	0.23	-	46,46,46,46	0
52	MG	CA	1641	1/1	0.11	-	54,54,54,54	0
52	MG	CA	1601	1/1	0.21	-	85,85,85,85	0
52	MG	BA	3121	1/1	0.46	-	51,51,51,51	0
52	MG	DA	3289	1/1	0.32	-	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
52	MG	DA	3291	1/1	1.19	-	88,88,88,88	0
52	MG	DA	3072	1/1	0.26	-	42,42,42,42	0
52	MG	AA	1649	1/1	0.39	-	68,68,68,68	0
52	MG	BA	3144	1/1	0.74	-	43,43,43,43	0
52	MG	BP	202	1/1	0.79	-	66,66,66,66	0
52	MG	D5	101	1/1	0.54	-	51,51,51,51	0
52	MG	BB	201	1/1	0.35	-	47,47,47,47	0
52	MG	DA	3073	1/1	0.51	-	55,55,55,55	0
52	MG	DA	3282	1/1	0.22	-	59,59,59,59	0
52	MG	BA	3354	1/1	0.19	-	71,71,71,71	0
52	MG	CA	1633	1/1	1.03	-	77,77,77,77	0
52	MG	BA	3036	1/1	0.21	-	0,0,0,0	0
52	MG	AA	1631	1/1	0.08	-	63,63,63,63	0
52	MG	DA	3218	1/1	0.55	-	53,53,53,53	0
52	MG	DA	3284	1/1	0.22	-	70,70,70,70	0
52	MG	CA	1629	1/1	0.11	-	69,69,69,69	0
52	MG	DA	3010	1/1	0.56	-	45,45,45,45	0
52	MG	DA	3057	1/1	0.21	-	60,60,60,60	0
52	MG	DA	3096	1/1	0.35	-	42,42,42,42	0
52	MG	AA	1617	1/1	0.34	-	55,55,55,55	0
52	MG	BA	3345	1/1	0.23	-	70,70,70,70	0
52	MG	DA	3079	1/1	0.89	-	39,39,39,39	0
52	MG	B1	101	1/1	0.17	-	41,41,41,41	0
52	MG	BA	3030	1/1	0.15	-	26,26,26,26	0
52	MG	BA	3132	1/1	0.37	-	59,59,59,59	0
52	MG	DA	3264	1/1	0.38	-	87,87,87,87	0
52	MG	DA	3021	1/1	0.19	-	42,42,42,42	0
52	MG	AA	1609	1/1	0.31	-	65,65,65,65	0
52	MG	BA	3086	1/1	0.20	-	28,28,28,28	0
52	MG	CA	1609	1/1	0.16	-	48,48,48,48	0
52	MG	B0	101	1/1	0.09	-	48,48,48,48	0
52	MG	DA	3016	1/1	0.53	-	54,54,54,54	0
52	MG	BA	3032	1/1	0.33	-	39,39,39,39	0
52	MG	DA	3278	1/1	0.80	-	83,83,83,83	0
52	MG	DA	3153	1/1	0.21	-	80,80,80,80	0
52	MG	DA	3056	1/1	0.35	-	51,51,51,51	0
52	MG	DA	3182	1/1	0.69	-	54,54,54,54	0
52	MG	AA	1626	1/1	0.42	-	84,84,84,84	0
52	MG	DA	3039	1/1	1.03	-	69,69,69,69	0
52	MG	DA	3228	1/1	0.18	-	57,57,57,57	0
52	MG	DA	3025	1/1	0.80	-	61,61,61,61	0
52	MG	BA	3305	1/1	0.52	-	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
52	MG	BA	3283	1/1	0.60	-	70,70,70,70	0
52	MG	AA	1603	1/1	0.29	-	45,45,45,45	0
52	MG	BA	3329	1/1	0.56	-	65,65,65,65	0
52	MG	DA	3215	1/1	0.14	-	61,61,61,61	0
52	MG	CA	1627	1/1	0.70	-	76,76,76,76	0
52	MG	BA	3196	1/1	1.04	-	66,66,66,66	0
52	MG	BA	3222	1/1	0.28	-	58,58,58,58	0
52	MG	BA	3239	1/1	0.24	-	61,61,61,61	0
52	MG	BA	3149	1/1	0.13	-	24,24,24,24	0
52	MG	BA	3023	1/1	0.28	-	31,31,31,31	0
52	MG	DA	3220	1/1	0.23	-	68,68,68,68	0
52	MG	BA	3263	1/1	0.39	-	54,54,54,54	0
52	MG	BA	3027	1/1	0.46	-	19,19,19,19	0
52	MG	BA	3278	1/1	0.23	-	62,62,62,62	0
52	MG	BA	3324	1/1	0.28	-	64,64,64,64	0
52	MG	DA	3095	1/1	0.18	-	56,56,56,56	0
52	MG	DA	3150	1/1	0.94	-	80,80,80,80	0
52	MG	BA	3028	1/1	0.30	-	30,30,30,30	0
52	MG	BA	3348	1/1	0.43	-	73,73,73,73	0
52	MG	BA	3066	1/1	0.36	-	36,36,36,36	0
52	MG	DA	3157	1/1	0.24	-	72,72,72,72	0
52	MG	BA	3071	1/1	0.41	-	32,32,32,32	0
52	MG	AA	1647	1/1	0.32	-	72,72,72,72	0
52	MG	BA	3227	1/1	0.25	-	21,21,21,21	0
52	MG	DA	3300	1/1	0.73	-	58,58,58,58	0
52	MG	DA	3219	1/1	0.51	-	49,49,49,49	0
52	MG	DB	202	1/1	0.33	-	80,80,80,80	0
52	MG	BA	3109	1/1	0.19	-	36,36,36,36	0
52	MG	DA	3312	1/1	0.36	-	53,53,53,53	0
52	MG	BA	3246	1/1	0.41	-	68,68,68,68	0
52	MG	BA	3158	1/1	0.33	-	32,32,32,32	0
52	MG	BA	3119	1/1	0.27	-	47,47,47,47	0
52	MG	AA	1634	1/1	0.37	-	54,54,54,54	0
52	MG	DA	3199	1/1	0.21	-	74,74,74,74	0
52	MG	CA	1637	1/1	0.15	-	85,85,85,85	0
52	MG	DA	3141	1/1	0.21	-	65,65,65,65	0
52	MG	BA	3194	1/1	0.24	-	27,27,27,27	0
52	MG	BA	3337	1/1	0.89	-	61,61,61,61	0
52	MG	DA	3035	1/1	0.57	-	41,41,41,41	0
52	MG	DA	3143	1/1	0.43	-	43,43,43,43	0
52	MG	BA	3118	1/1	0.32	-	44,44,44,44	0
52	MG	DA	3008	1/1	0.38	-	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
52	MG	BA	3111	1/1	0.21	-	19,19,19,19	0
52	MG	BA	3141	1/1	0.28	-	19,19,19,19	0
52	MG	CA	1613	1/1	0.82	-	87,87,87,87	0
52	MG	DA	3166	1/1	0.13	-	55,55,55,55	0
52	MG	DA	3126	1/1	0.35	-	57,57,57,57	0
52	MG	DA	3171	1/1	0.14	-	73,73,73,73	0
52	MG	DA	3237	1/1	0.28	-	56,56,56,56	0
52	MG	DA	3305	1/1	0.06	-	80,80,80,80	0
52	MG	BA	3022	1/1	0.33	-	45,45,45,45	0
52	MG	DA	3120	1/1	0.34	-	84,84,84,84	0
52	MG	BA	3042	1/1	0.25	-	31,31,31,31	0
52	MG	DA	3283	1/1	0.49	-	57,57,57,57	0
52	MG	DA	3076	1/1	0.24	-	56,56,56,56	0
52	MG	DA	3189	1/1	0.21	-	45,45,45,45	0
52	MG	DA	3085	1/1	0.34	-	62,62,62,62	0
52	MG	BA	3088	1/1	0.67	-	60,60,60,60	0
52	MG	BA	3166	1/1	0.58	-	75,75,75,75	0
52	MG	DA	3040	1/1	0.35	-	36,36,36,36	0
52	MG	BA	3320	1/1	0.17	-	48,48,48,48	0
52	MG	BA	3208	1/1	0.48	-	36,36,36,36	0
52	MG	AA	1619	1/1	0.54	-	55,55,55,55	0
52	MG	DA	3164	1/1	0.25	-	50,50,50,50	0
52	MG	BA	3126	1/1	0.24	-	56,56,56,56	0
52	MG	BA	3250	1/1	0.21	-	40,40,40,40	0
52	MG	DP	201	1/1	0.13	-	42,42,42,42	0
52	MG	BA	3067	1/1	0.45	-	38,38,38,38	0
52	MG	BA	3198	1/1	0.34	-	24,24,24,24	0
52	MG	BA	3285	1/1	0.84	-	56,56,56,56	0
52	MG	BA	3251	1/1	0.67	-	44,44,44,44	0
52	MG	BA	3081	1/1	0.43	-	39,39,39,39	0
52	MG	BA	3008	1/1	0.48	-	36,36,36,36	0
52	MG	DA	3287	1/1	0.27	-	64,64,64,64	0
52	MG	BA	3299	1/1	0.77	-	43,43,43,43	0
52	MG	DA	3131	1/1	0.67	-	66,66,66,66	0
52	MG	BA	3318	1/1	0.29	-	55,55,55,55	0
52	MG	BA	3108	1/1	0.32	-	43,43,43,43	0
52	MG	AA	1621	1/1	0.50	-	51,51,51,51	0
52	MG	BA	3053	1/1	0.54	-	33,33,33,33	0
52	MG	BA	3270	1/1	0.18	-	24,24,24,24	0
52	MG	BA	3211	1/1	0.54	-	38,38,38,38	0
52	MG	AA	1635	1/1	0.63	-	50,50,50,50	0
52	MG	DA	3031	1/1	0.66	-	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
52	MG	BA	3259	1/1	0.12	-	47,47,47,47	0
52	MG	BA	3220	1/1	0.44	-	36,36,36,36	0
52	MG	BP	203	1/1	0.23	-	29,29,29,29	0
52	MG	DB	201	1/1	0.41	-	59,59,59,59	0
52	MG	DA	3156	1/1	0.45	-	44,44,44,44	0
52	MG	CA	1619	1/1	0.40	-	61,61,61,61	0
52	MG	BA	3077	1/1	0.22	-	40,40,40,40	0
52	MG	BA	3142	1/1	0.65	-	47,47,47,47	0
52	MG	D8	101	1/1	0.61	-	66,66,66,66	0
52	MG	CA	1607	1/1	0.42	-	74,74,74,74	0
52	MG	BA	3200	1/1	0.80	-	55,55,55,55	0
52	MG	BA	3205	1/1	1.08	-	68,68,68,68	0
52	MG	BA	3130	1/1	0.74	-	65,65,65,65	0
52	MG	DF	301	1/1	0.22	-	83,83,83,83	0
52	MG	DA	3174	1/1	0.42	-	35,35,35,35	0
52	MG	BA	3229	1/1	0.06	-	30,30,30,30	0
52	MG	BA	3106	1/1	0.82	-	43,43,43,43	0
52	MG	BA	3291	1/1	0.37	-	45,45,45,45	0
52	MG	BF	301	1/1	0.25	-	59,59,59,59	0
52	MG	DA	3186	1/1	0.37	-	58,58,58,58	0
52	MG	DA	3231	1/1	0.18	-	42,42,42,42	0

6.5 Other polymers ⓘ

There are no such residues in this entry.