



# Full wwPDB X-ray Structure Validation Report

Jun 16, 2014 – 07:29 PM BST

PDB ID : 4V84  
Title : Crystal structure of a complex containing domain 3 of CrPV IGR IRES RNA bound to the 70S ribosome.  
Authors : Zhu, J.; Korostelev, A.; Costantino, D.; Noller, H.F.; Kieft, J.S.  
Deposited on : 2010-12-13  
Resolution : 3.40 Å(reported)

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

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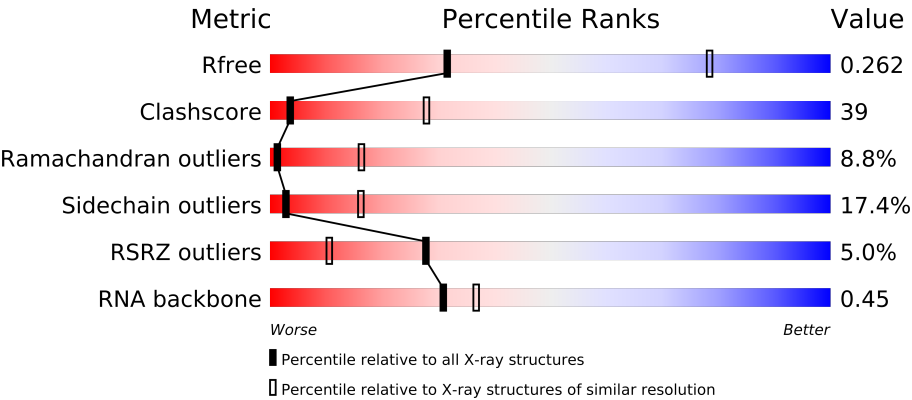
The following versions of software and data (see [references](#)) were used in the production of this report:

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 3.40 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	1017 (3.52-3.28)
Clashscore	79885	1214 (3.50-3.30)
Ramachandran outliers	78287	1177 (3.50-3.30)
Sidechain outliers	78261	1177 (3.50-3.30)
RSRZ outliers	66119	1017 (3.52-3.28)
RNA backbone	1838	1002 (4.02-2.76)

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  $\geq 3$ , 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	1506	
1	CA	1506	
2	AB	234	
2	CB	234	
3	AC	206	
3	CC	206	
4	AD	208	
4	CD	208	
5	AE	151	
5	CE	151	
6	AF	101	
6	CF	101	

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Mol	Chain	Length	Quality of chain
7	AG	155	
7	CG	155	
8	AH	138	
8	CH	138	
9	AI	127	
9	CI	127	
10	AJ	98	
10	CJ	98	
11	AK	119	
11	CK	119	
12	AL	124	
12	CL	124	
13	AM	116	
13	CM	116	
14	AN	60	
14	CN	60	
15	AO	88	
15	CO	88	
16	AP	83	
16	CP	83	
17	AQ	99	
17	CQ	99	
18	AR	70	
18	CR	70	
19	AS	78	
19	CS	78	
20	AT	99	
20	CT	99	
21	AU	24	
21	CU	24	
22	AV	43	
22	CV	43	
23	BA	2879	
23	DA	2879	
24	BB	119	
24	DB	119	
25	BC	271	
25	DC	271	
26	BD	204	
26	DD	204	
27	BE	202	
27	DE	202	

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Mol	Chain	Length	Quality of chain
28	BF	181	
28	DF	181	
29	BG	159	
29	DG	159	
30	BH	145	
30	DH	145	
31	BI	65	
31	DI	65	
32	BJ	137	
32	DJ	137	
33	BK	122	
33	DK	122	
34	BL	146	
34	DL	146	
35	BM	136	
35	DM	136	
36	BN	117	
36	DN	117	
37	BO	98	
37	DO	98	
38	BP	137	
38	DP	137	
39	BQ	116	
39	DQ	116	
40	BR	101	
40	DR	101	
41	BS	112	
41	DS	112	
42	BT	92	
42	DT	92	
43	BU	100	
43	DU	100	
44	BV	188	
44	DV	188	
45	BW	76	
45	DW	76	
46	BX	88	
46	DX	88	
47	BY	62	
47	DY	62	
48	BZ	59	
48	DZ	59	

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Mol	Chain	Length	Quality of chain
49	B1	30	
49	D1	30	
50	B2	52	
50	D2	52	
51	B3	44	
51	D3	44	
52	B4	48	
52	D4	48	
53	B5	63	
53	D5	63	

## 2 Entry composition

There are 55 unique types of molecules in this entry. The entry contains 282142 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 ribosomal RNA 16S.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	1506	Total	C	N	O	P	0	0	0
			32372	14409	5999	10459	1505			
1	CA	1506	Total	C	N	O	P	0	0	0
			32372	14409	5999	10459	1505			

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AD	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			
4	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	0
			1156	729	218	205	4			
5	CE	151	Total	C	N	O	S	0	0	0
			1156	729	218	205	4			

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

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

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

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	AK	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			
11	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	124	Total	C	N	O	S	0	0	0
			971	611	195	164	1			
12	CL	124	Total	C	N	O	S	0	0	0
			971	611	195	164	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	AM	116	Total	C	N	O	S	0	0	0
			929	574	191	162	2			
13	CM	116	Total	C	N	O	S	0	0	0
			929	574	191	162	2			

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

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

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

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



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

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

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

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

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	AR	70	Total	C	N	O	0	0	0
			574	367	112	95			
18	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	78	Total	C	N	O	S	0	0	0
			630	403	114	111	2			
19	CS	78	Total	C	N	O	S	0	0	0
			630	403	114	111	2			

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

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

- Molecule 21 is a protein called domain 3 of CrPV IGR IRES RNA.

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

- Molecule 22 is a RNA chain called RNA (34-MER).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AV	34	Total	C	N	O	P	0	0	0
			719	323	125	238	33			
22	CV	34	Total	C	N	O	P	0	0	0
			719	323	125	238	33			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	BA	2760	Total	C	N	O	P	0	0	0
			59440	26455	11114	19112	2759			
23	DA	2760	Total	C	N	O	P	0	0	0
			59442	26456	11114	19113	2759			

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BA	1142	U	C	SEE REMARK 999	GB AE017221.1
BA	2825	U	G	SEE REMARK 999	GB AE017221.1
DA	1142	U	C	SEE REMARK 999	GB AE017221.1
DA	2825	U	G	SEE REMARK 999	GB AE017221.1

- Molecule 24 is a RNA chain called 5S ribosomal RNA.

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

- Molecule 25 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	BC	271	Total	C	N	O	S	0	0	0
			2105	1329	416	357	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	DC	271	Total	C	N	O	S	0	0	0
			2105	1329	416	357	3			

- Molecule 26 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	BD	204	Total	C	N	O	S	0	0	0
			1564	988	299	271	6			
26	DD	204	Total	C	N	O	S	0	0	0
			1564	988	299	271	6			

- Molecule 27 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	BE	202	Total	C	N	O	S	0	0	0
			1587	1011	297	276	3			
27	DE	202	Total	C	N	O	S	0	0	0
			1587	1011	297	276	3			

- Molecule 28 is a protein called 50S ribosomal protein L5.

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

- Molecule 29 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	BG	159	Total	C	N	O	S	0	0	0
			1223	773	228	221	1			
29	DG	159	Total	C	N	O	S	0	0	0
			1223	773	228	221	1			

- Molecule 30 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	BH	145	Total	C	N	O	S	0	0	0
			1133	724	200	208	1			
30	DH	145	Total	C	N	O	S	0	0	0
			1133	724	200	208	1			

- Molecule 31 is a protein called 50S ribosomal protein L10.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
31	BI	32	Total	C	N	O	0	0	0
			254	157	49	48			
31	DI	32	Total	C	N	O	0	0	0
			254	157	49	48			

- Molecule 32 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	BJ	137	Total	C	N	O	S	0	0	0
			1097	707	205	182	3			
32	DJ	137	Total	C	N	O	S	0	0	0
			1097	707	205	182	3			

- Molecule 33 is a protein called 50S ribosomal protein L14.

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

- Molecule 34 is a protein called 50S ribosomal protein L15.

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

- Molecule 35 is a protein called 50S ribosomal protein L16.

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

- Molecule 36 is a protein called 50S ribosomal protein L17.

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

- Molecule 37 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
37	BO	98	Total	C	N	O	0	0	0
			771	486	154	131			
37	DO	98	Total	C	N	O	0	0	0
			771	486	154	131			

- Molecule 38 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	BP	137	Total	C	N	O	S	0	0	0
			1144	713	234	196	1			
38	DP	137	Total	C	N	O	S	0	0	0
			1144	713	234	196	1			

- Molecule 39 is a protein called 50S ribosomal protein L20.

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

There are 2 discrepancies between the modelled and reference sequences:

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

- Molecule 40 is a protein called 50S ribosomal protein L21.

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

- Molecule 41 is a protein called 50S ribosomal protein L22.

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

- Molecule 42 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	BT	92	Total	C	N	O		0	0	0
			726	471	131	124				
42	DT	92	Total	C	N	O		0	0	0
			726	471	131	124				

- Molecule 43 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BU	100	Total	C	N	O	S	0	0	0
			776	500	148	124	4			
43	DU	100	Total	C	N	O	S	0	0	0
			776	500	148	124	4			

- Molecule 44 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	BV	188	Total	C	N	O	S	0	0	0
			1492	950	265	275	2			
44	DV	188	Total	C	N	O	S	0	0	0
			1492	950	265	275	2			

- Molecule 45 is a protein called 50S ribosomal protein L27.

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

- Molecule 46 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
46	BX	88	Total	C	N	O	0	0	0
			695	435	141	119			
46	DX	88	Total	C	N	O	0	0	0
			695	435	141	119			

- Molecule 47 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	BY	62	Total	C	N	O	S	0	0	0
			521	325	102	92	2			
47	DY	62	Total	C	N	O	S	0	0	0
			521	325	102	92	2			

- Molecule 48 is a protein called 50S ribosomal protein L30.

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	B1	30	Total	C	N	O	S	0	0	0
			226	142	36	44	4			
49	D1	30	Total	C	N	O	S	0	0	0
			226	142	36	44	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	B2	52	Total	C	N	O	S	0	0	0
			405	255	79	66	5			
50	D2	52	Total	C	N	O	S	0	0	0
			405	255	79	66	5			

- Molecule 51 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	B3	44	Total	C	N	O	S	0	0	0
			381	235	77	65	4			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	D3	44	Total	C	N	O	S	0	0	0
			381	235	77	65	4			

- Molecule 52 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	B4	48	Total	C	N	O	S	0	0	0
			419	257	104	56	2			
52	D4	48	Total	C	N	O	S	0	0	0
			419	257	104	56	2			

- Molecule 53 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	B5	63	Total	C	N	O	S	0	0	0
			508	326	101	79	2			
53	D5	63	Total	C	N	O	S	0	0	0
			508	326	101	79	2			

- Molecule 54 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
54	BB	17	Total	Mg	0	0
			17	17		
54	DE	1	Total	Mg	0	0
			1	1		
54	BA	408	Total	Mg	0	0
			408	408		
54	CA	140	Total	Mg	0	0
			140	140		
54	DG	1	Total	Mg	0	0
			1	1		
54	CV	1	Total	Mg	0	0
			1	1		
54	AV	4	Total	Mg	0	0
			4	4		
54	D2	1	Total	Mg	0	0
			1	1		
54	DA	436	Total	Mg	0	0
			436	436		
54	B2	1	Total	Mg	0	0
			1	1		

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
54	CP	1	Total 1	Mg 1	0	0
54	AA	163	Total 163	Mg 163	0	0
54	D4	1	Total 1	Mg 1	0	0
54	BK	1	Total 1	Mg 1	0	0
54	AD	1	Total 1	Mg 1	0	0
54	DB	17	Total 17	Mg 17	0	0

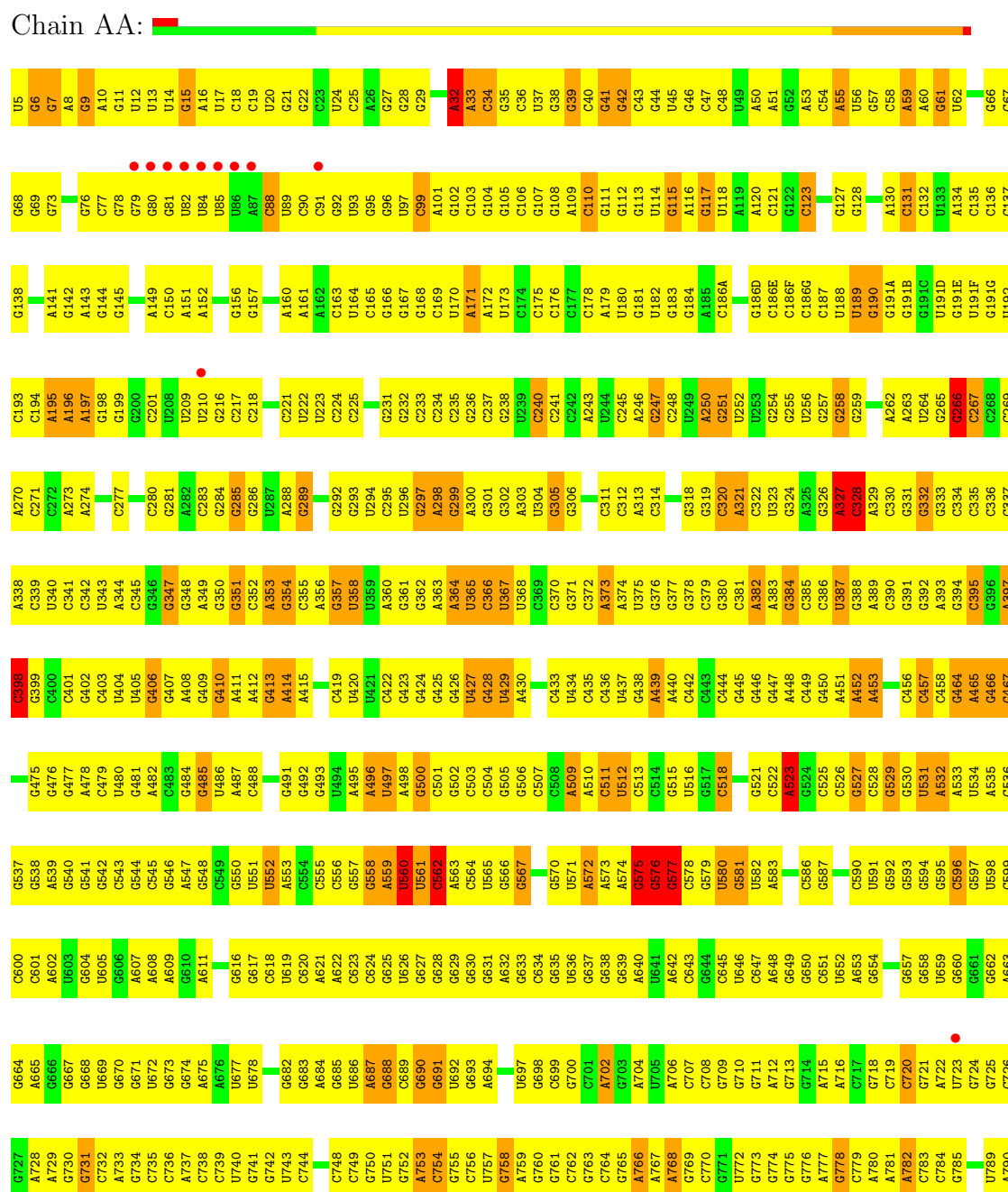
- Molecule 55 is ZINC ION (three-letter code: ZN) (formula: Zn).

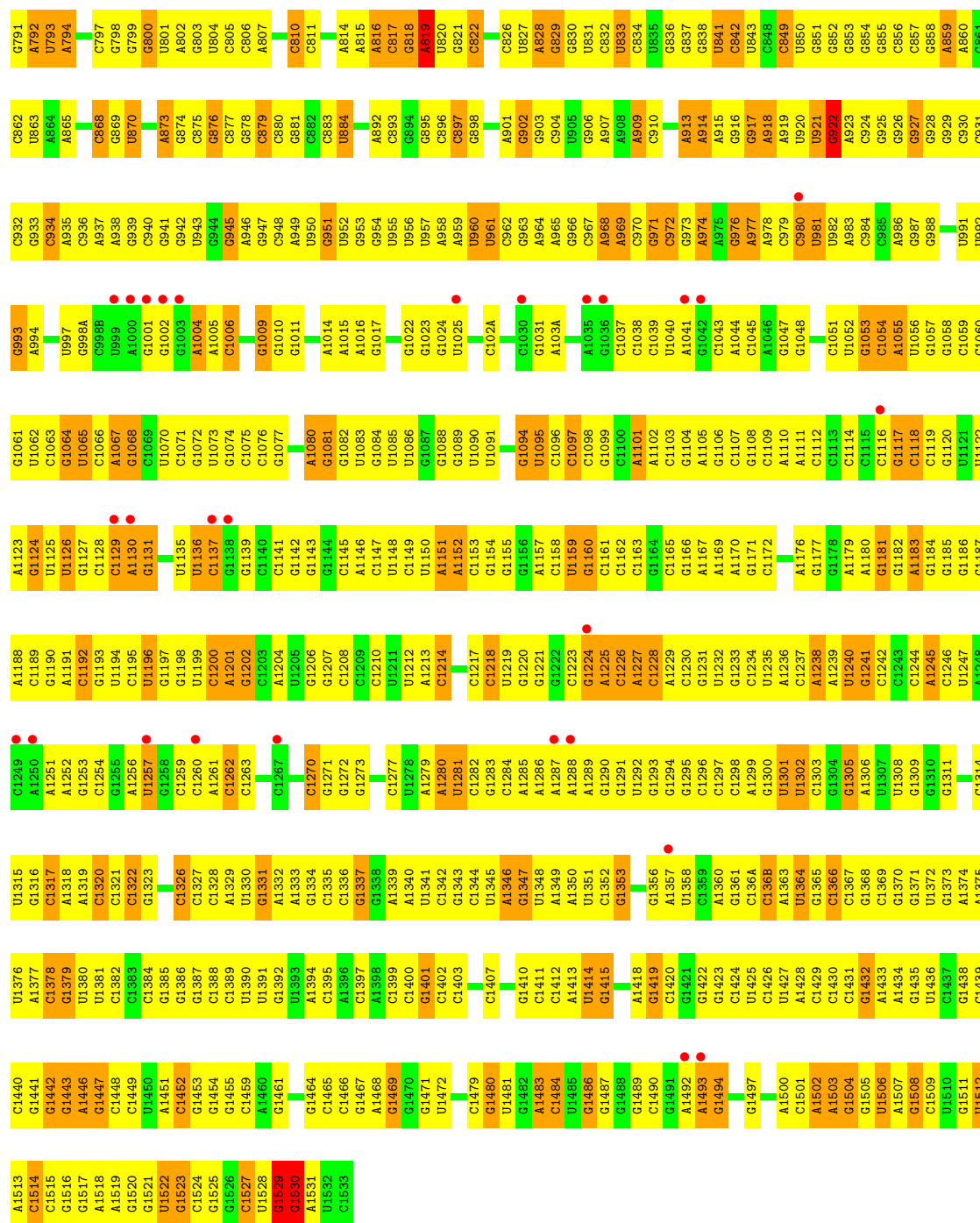
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
55	CN	1	Total 1	Zn 1	0	0
55	AD	1	Total 1	Zn 1	0	0
55	CD	1	Total 1	Zn 1	0	0
55	AN	1	Total 1	Zn 1	0	0

### 3 Residue-property plots

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

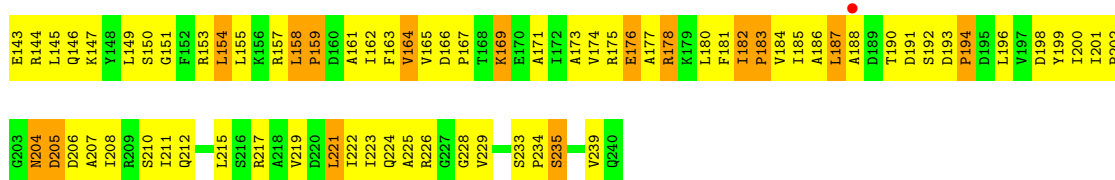
#### • Molecule 1: ribosomal RNA 16S





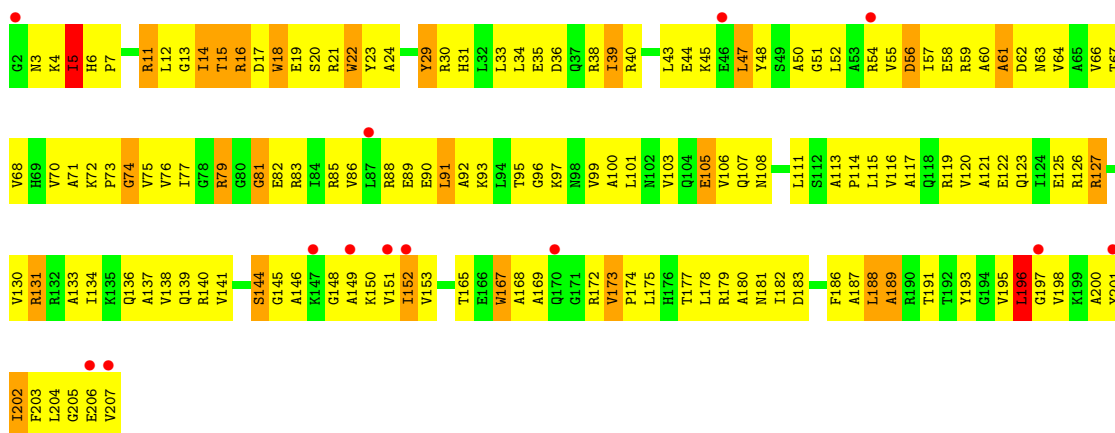
C136 C137 G138	C193 C194 A196 A197 G198 G199 G200 G201 U202 U208 U209 U210 C216 C217 C218	C269 A270 C271 C272 A273 A274	C334 C335 C336 C337 A338 C339 U340 C341 C342 U343 U344 C345 C346 C347 G348 A349 G350 G351 C352 A353 G354 C355 A356 G357 U358 U359 G360 A361 G362 A363 G364 U365 G366 C367 C370 G371 C372 A373 A374 U375 G376 G377 G378 C379 G380 C381 C382 U383 G384 C385 C386 U387 G388 A389 C390 G391 G392 G393	G394 C395 G396 A397 C398 G399 C400 C401 G402 C403 U404 U405 G406 G407 A408 G409 G410 A411 A412 G413 A414 A415	C458 G459 G460 A461 G462 A463 G464 A465 G466 A467 A468 C474 C475 G476 G477 A478 C479 U480 C481 A482 A483 G484 C485 G486 A487 C488 G489 A490 C491 G492 C493 G494 A495 A496 U497 A498 G500 C501 G502 A503 C504 G505 G506 C507 C508 A509 A510 C511 U512 C513 C514 G515 U516 G517 C518 C519 A520 G521 U522 A523 G524 C525 G526 G527 C528	G529 G530 U531 A532 G533 U534 A535 C536 G537 U538 G539 A540 G541 G542 C543 G544 C545 G546 A547 G548 C549 G550 U551 U552 A553 C554 C555 C556 G557 G558 A559 U560 U561 C562 A563 C564 G565 U566 G567 C568 G569 G570 U571 A572 A573 G574 A575 G576 G577 C578 G579 U580 G581 U582 A583 G584 C585 G586 G587 G588	C589 C590 U591 A592 G593 G594 G595 C596 G597 U598 G599 C600 G601 A602 G603 G604 U605 G606 A607 A608 G609 G610 A611 C612 C613 A614 C615 G616 U617 G618 C619 G620 A621 G622 C623 G624 G625 U626 G627 G628 G629 G630 G631 A632 G633 C634 G635 U636 G637 G638 G639 A640 G641 A642 C643 G644 C645 U646 G647 A648	G649 G650 C651 U652 G653 G654 G657 G658 U659 G660 G661 G662 A663 G664 A665 G666 G667 G668 U669 G670 G671 U672 G673 G674 A675 G676 G677 G678 G679 G680 G681 G682 G683 A684 G685 U686 A687 G688 G689 G690 G691 U692 G693 A694 A695 G696 U697 G698 C699 A702 A706 C707 C708 G709 G710 G711 A712	G713 G714 A715 A716 C719 G720 G721 A722 U723 G724 G725 G726 G727 A728 A729 G730 G731 C732 A733 G734 C735 G736 A737 C738 C739 U740 G741 G742 U743 C744 C748 C749 G750 U751 G752 A753 C754 G755 C756 U757 G758 A759 G760 G761 C762 G763 G764 G765 A766 A767 A768 U772 G773 G774 G775 G776 A777	G778 C779 A780 G781 A782 C783 C784 G785 G788 G789 U790 G791 A792 U793 A794 G798 G799 G800 U801 A802 G803 U804 C805 C806 A807 A815 A816 C817 G818 A819 U820 G821 C822 G825 C826 U827 G828 G829 G830 U831 C832 U833 C834 U835 G836 G837 G838 U841 G842 U843 C848 U850	G851 G852 G853 G854 G855 G856 C857 G858 A859 G860 G861 C862 U863 A864 A865 G868 G869 U870 G871 A872 G873 G874 C875 G876 C877 G878 C879 G880 G881 C882 G883 U884 G891 A892 C893 C896 C897 G898 C899 A900 A901 G902 A907 G908 A909 C910 A913 A914 A915 G916 G917 A918 A919 U920 U921	G922 A923 G926 G927 G928 G929 C930 C931 G932 G933 C934 G935 C936 A937 A938 G939 G941 G942 U943 G944 G945 A946 G947 C948 A949 U950 G951 U952 G953 G954 U955 U956 A957 A958 A959 U960 U961 C962 G963 A964 A965 G966 C967 A968 A969 C970 G971 C972 G973 A974 A975 G976 A977 A978 C979 G980 U981 U982	A983 C984 G985 G986 G987 G988 U991 U992 G993 A994 C998 U999 A1000 G1001 G1002 G1003 A1004 A1005 C1006 G1007 G1008 G1009 G1010 G1011 A1014 A1015 U1016 G1017 G1018 G1019 A1020 G1021 G1022 G1023 U1024 G1025 G1026 G1027 C1028 C1029 G1030 G1031 G1032 G1033 G1037 C1038 C1039 U1040 A1041 G1042 A1043 A1044 C1045 A1046 G1047 G1048	C1051 U1052 G1053 G1054 A1055 U1056 G1057 G1058 C1059 C1060 G1061 U1062 C1063 G1064 U1065 C1066 A1067 G1068 G1069 U1070 C1071 G1072 U1073 G1074 G1075 C1076 G1077 U1078 G1079 A1080 G1081 U1082 G1083 G1084 U1085 U1086 G1087 G1088 G1089 U1090 U1091 A1092 A1093 G1094 U1095 C1096 C1097 G1098 G1099 C1100 A1101 A1102 C1103 G1104 A1105 G1106 C1107 G1108 C1109	C136 C137 G138 A141 G142 A143 G144 G145 A149 C150 A151 A152 G156 G157 G158 G159 A160 A161 A162 C163 U164 C165 G166 G167 G168 C169 U170 U171 A172 U173 C174 C175 A176 C177 C178 A179 U180 G181 U182 G183 G186D C186E C186F C186G C187 U188 U189 G190 U191A G191B A191C U191D G191E U191F G191G U192
----------------------	--	--	--	--	--	--	--	--	--	--	--	--	--	---	---





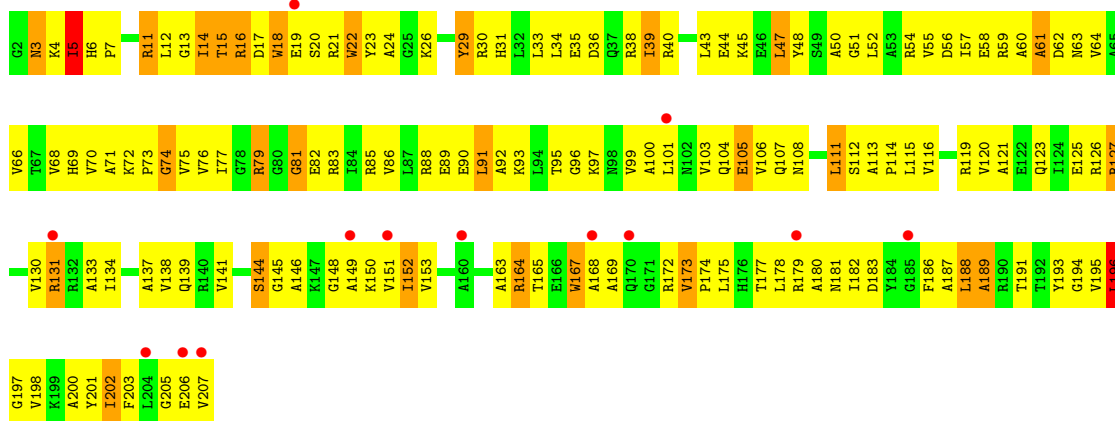
• Molecule 3: 30S ribosomal protein S3

Chain AC:



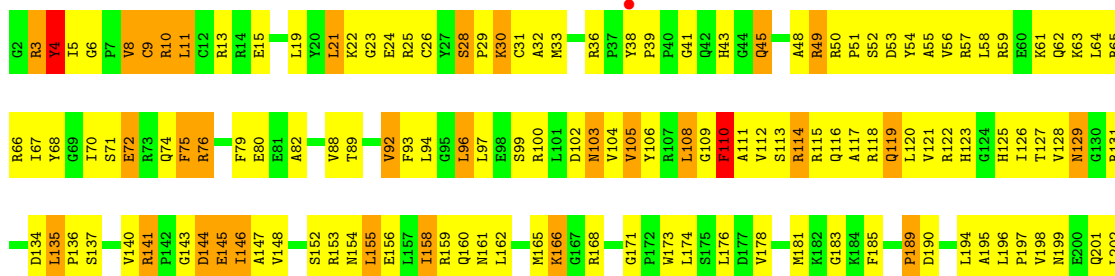
• Molecule 3: 30S ribosomal protein S3

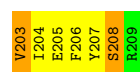
Chain CC:



• Molecule 4: 30S ribosomal protein S4

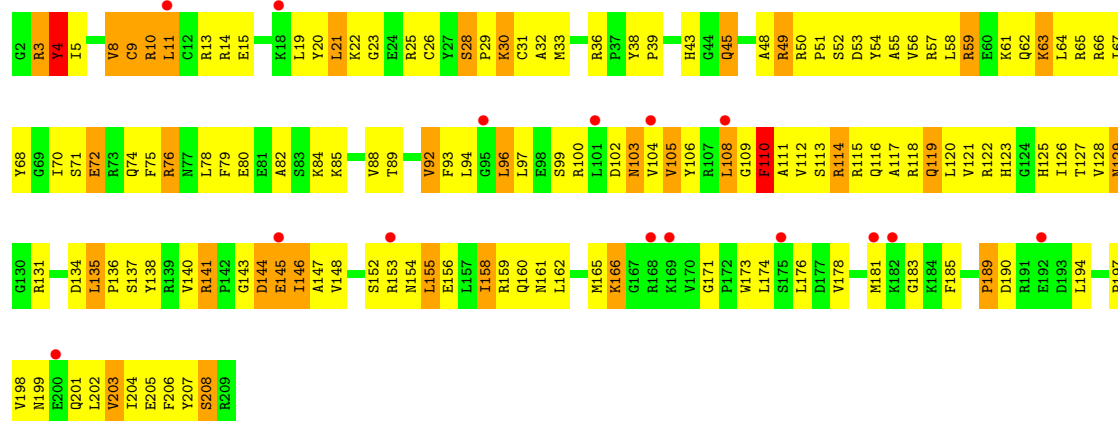
Chain AD:





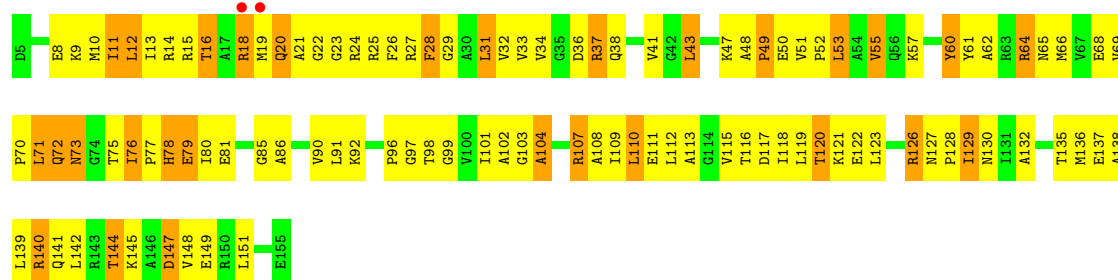
• Molecule 4: 30S ribosomal protein S4

Chain CD:



• Molecule 5: 30S ribosomal protein S5

Chain AE:



• Molecule 5: 30S ribosomal protein S5

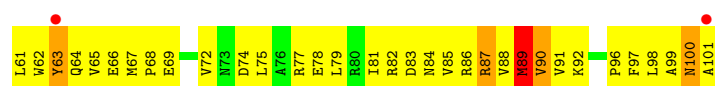
Chain CE:



• Molecule 6: 30S ribosomal protein S6

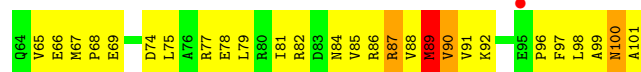
Chain AF:





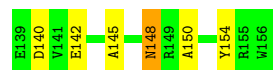
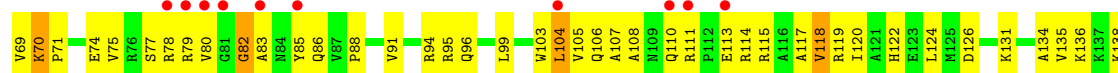
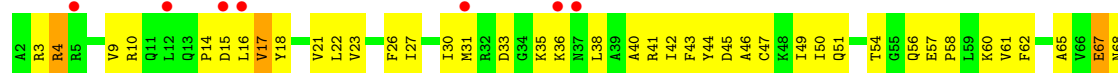
• Molecule 6: 30S ribosomal protein S6

Chain CF:



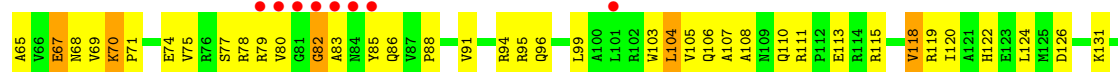
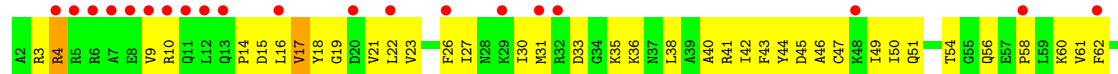
• Molecule 7: 30S ribosomal protein S7

Chain AG:



• Molecule 7: 30S ribosomal protein S7

Chain CG:



• Molecule 8: 30S ribosomal protein S8

Chain AH:

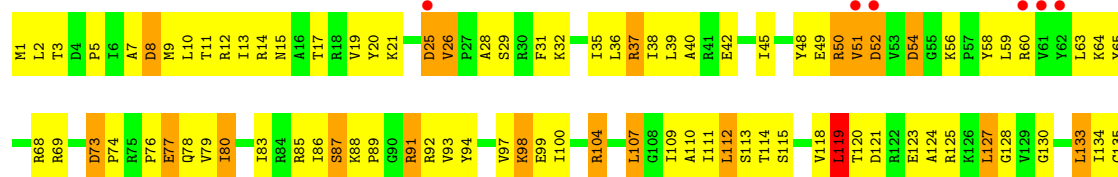




V137  
W138

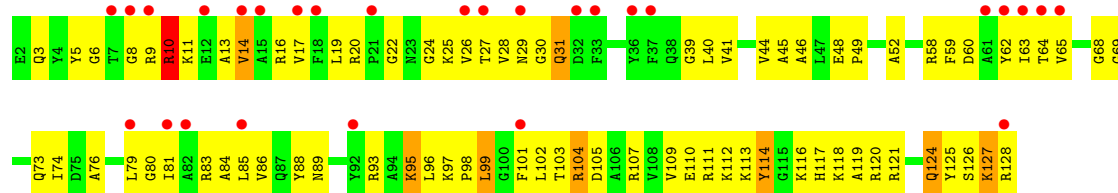
- Molecule 8: 30S ribosomal protein S8

Chain CH:

E136  
V137  
W138

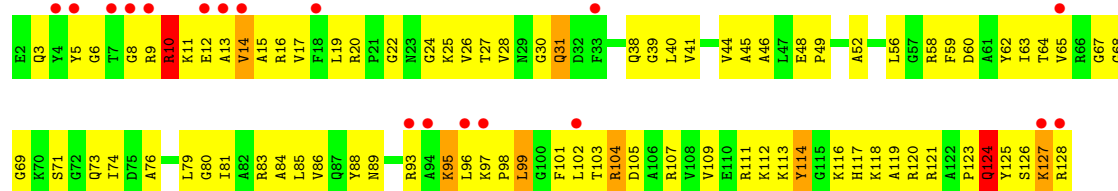
- Molecule 9: 30S ribosomal protein S9

Chain AI:



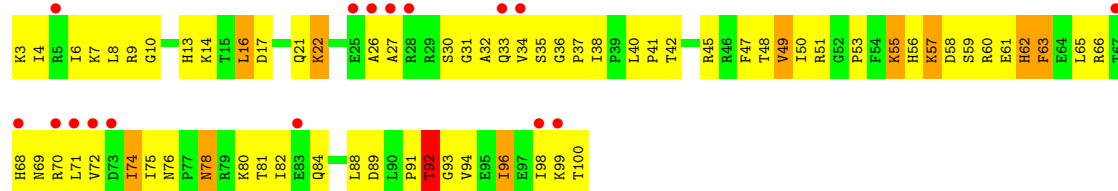
- Molecule 9: 30S ribosomal protein S9

Chain CI:



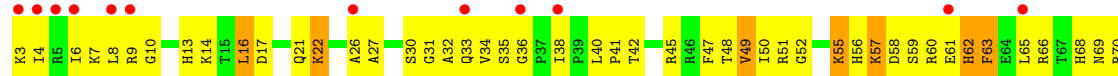
- Molecule 10: 30S ribosomal protein S10

Chain AJ:



- Molecule 10: 30S ribosomal protein S10

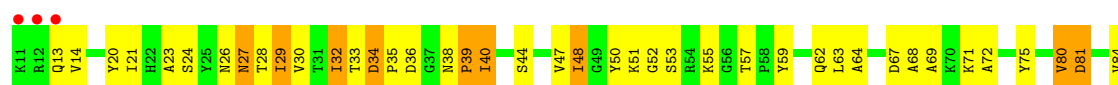
Chain CJ:





• Molecule 11: 30S ribosomal protein S11

Chain AK:



• Molecule 11: 30S ribosomal protein S11

Chain CK:



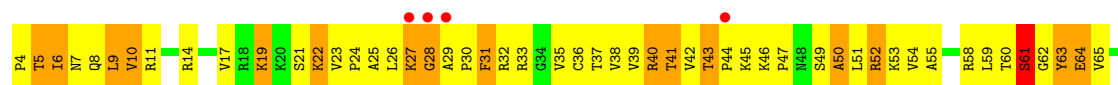
• Molecule 12: 30S ribosomal protein S12

Chain AL:



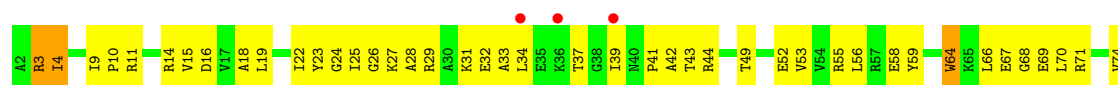
• Molecule 12: 30S ribosomal protein S12

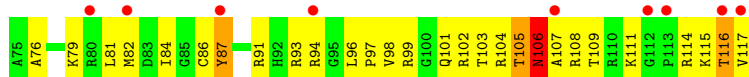
Chain CL:



• Molecule 13: 30S ribosomal protein S13

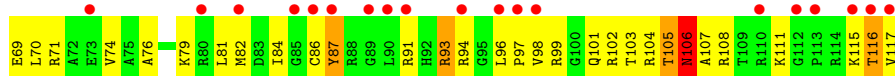
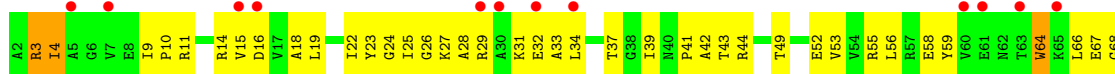
Chain AM:





- Molecule 13: 30S ribosomal protein S13

Chain CM:



- Molecule 14: 30S ribosomal protein S14 type Z

Chain AN:



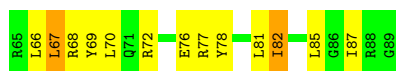
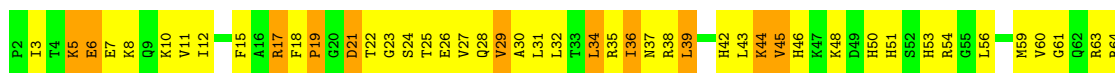
- Molecule 14: 30S ribosomal protein S14 type Z

Chain CN:



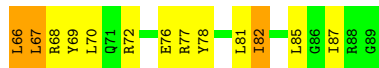
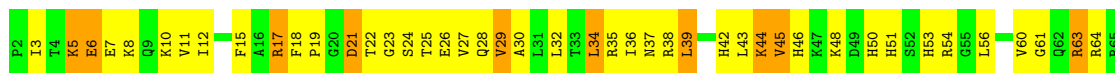
- Molecule 15: 30S ribosomal protein S15

Chain AO:



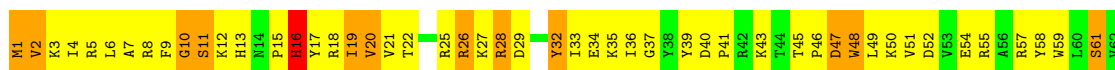
- Molecule 15: 30S ribosomal protein S15

Chain CO:



- Molecule 16: 30S ribosomal protein S16

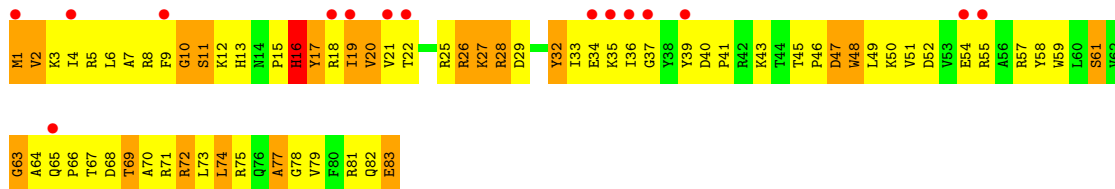
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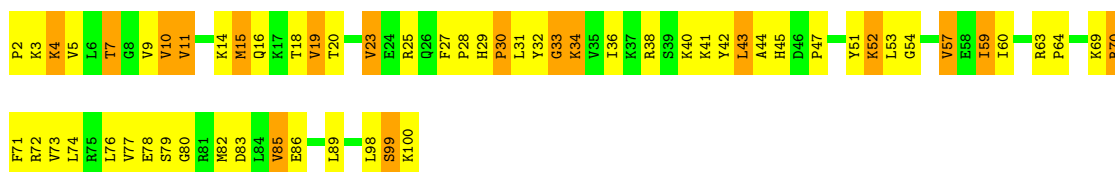
- Molecule 16: 30S ribosomal protein S16

Chain CP:



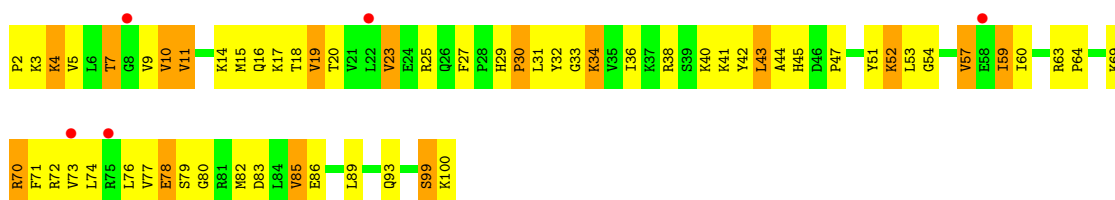
- Molecule 17: 30S ribosomal protein S17

Chain AQ:



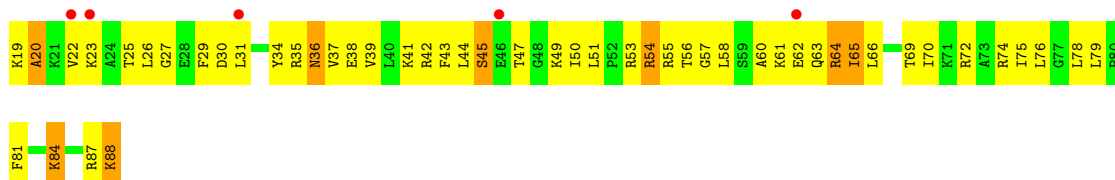
- Molecule 17: 30S ribosomal protein S17

Chain CQ:



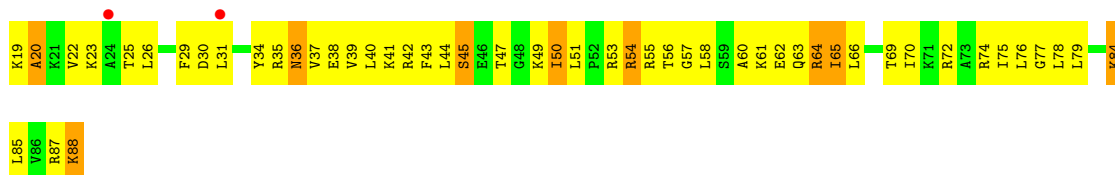
- Molecule 18: 30S ribosomal protein S18

Chain AR:

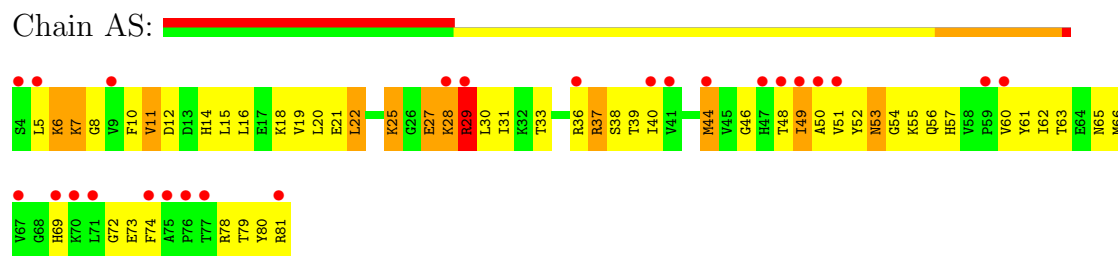


- Molecule 18: 30S ribosomal protein S18

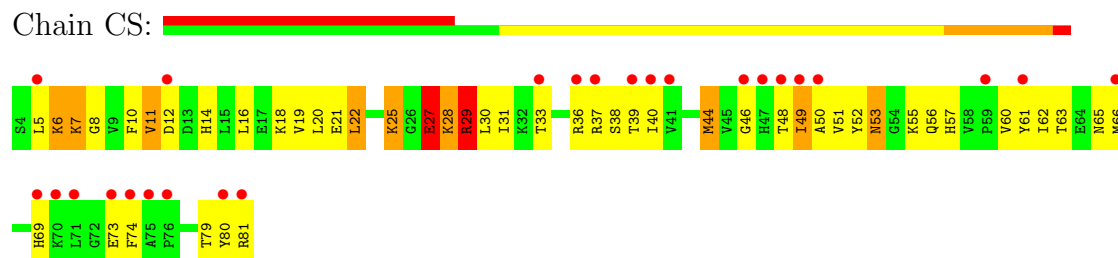
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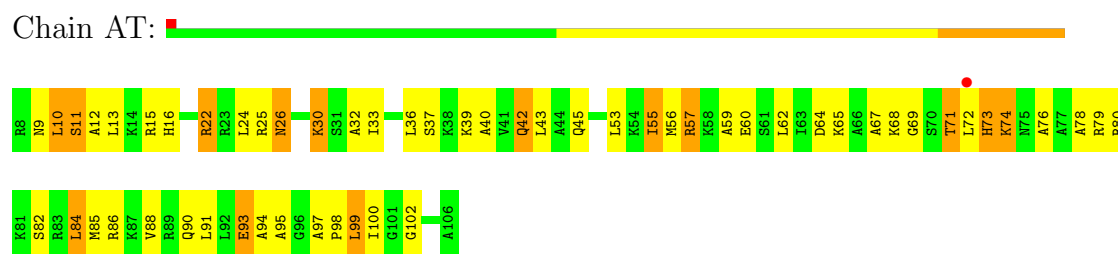
- Molecule 19: 30S ribosomal protein S19



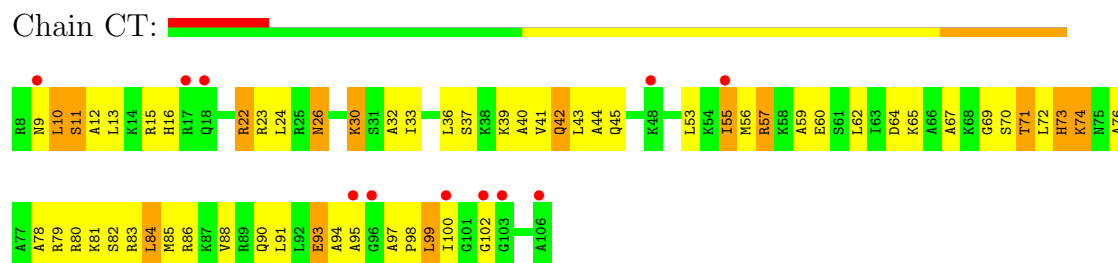
- Molecule 19: 30S ribosomal protein S19



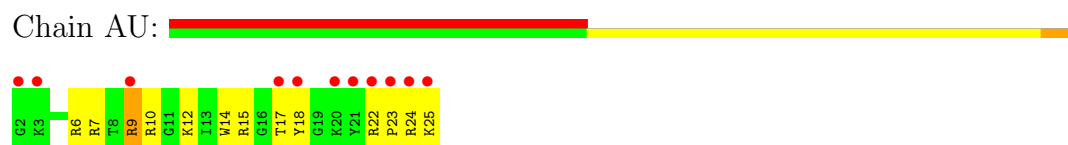
- Molecule 20: 30S ribosomal protein Thx



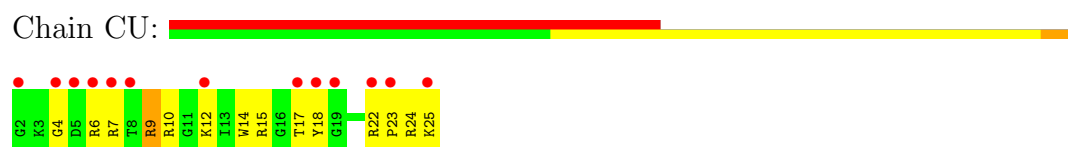
- Molecule 20: 30S ribosomal protein Thx



- Molecule 21: domain 3 of CrPV IGR IRES RNA



- Molecule 21: domain 3 of CrPV IGR IRES RNA



• Molecule 22: RNA (34-MER)

Chain AV:



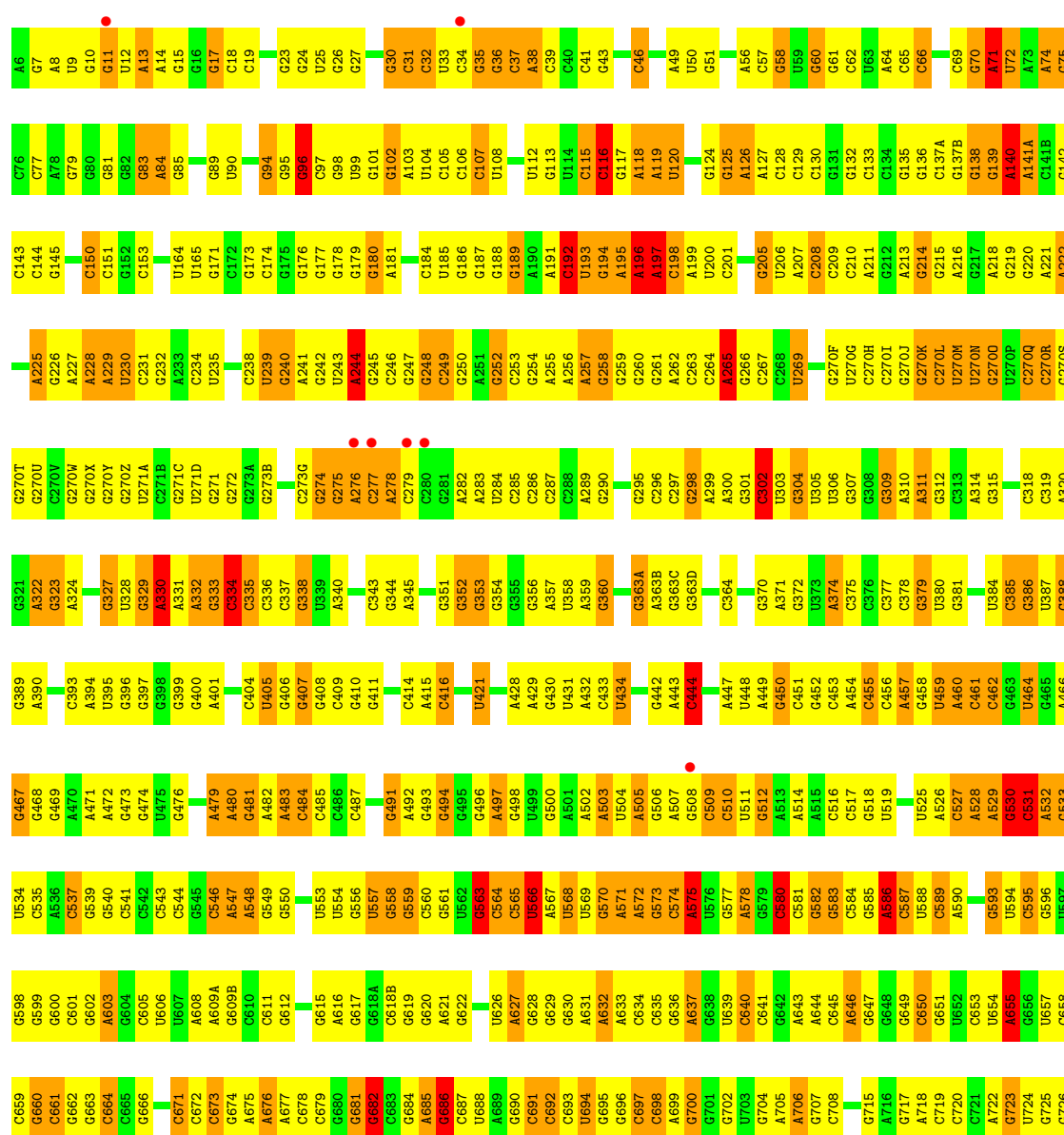
• Molecule 22: RNA (34-MER)

Chain CV:



• Molecule 23: 23S ribosomal RNA

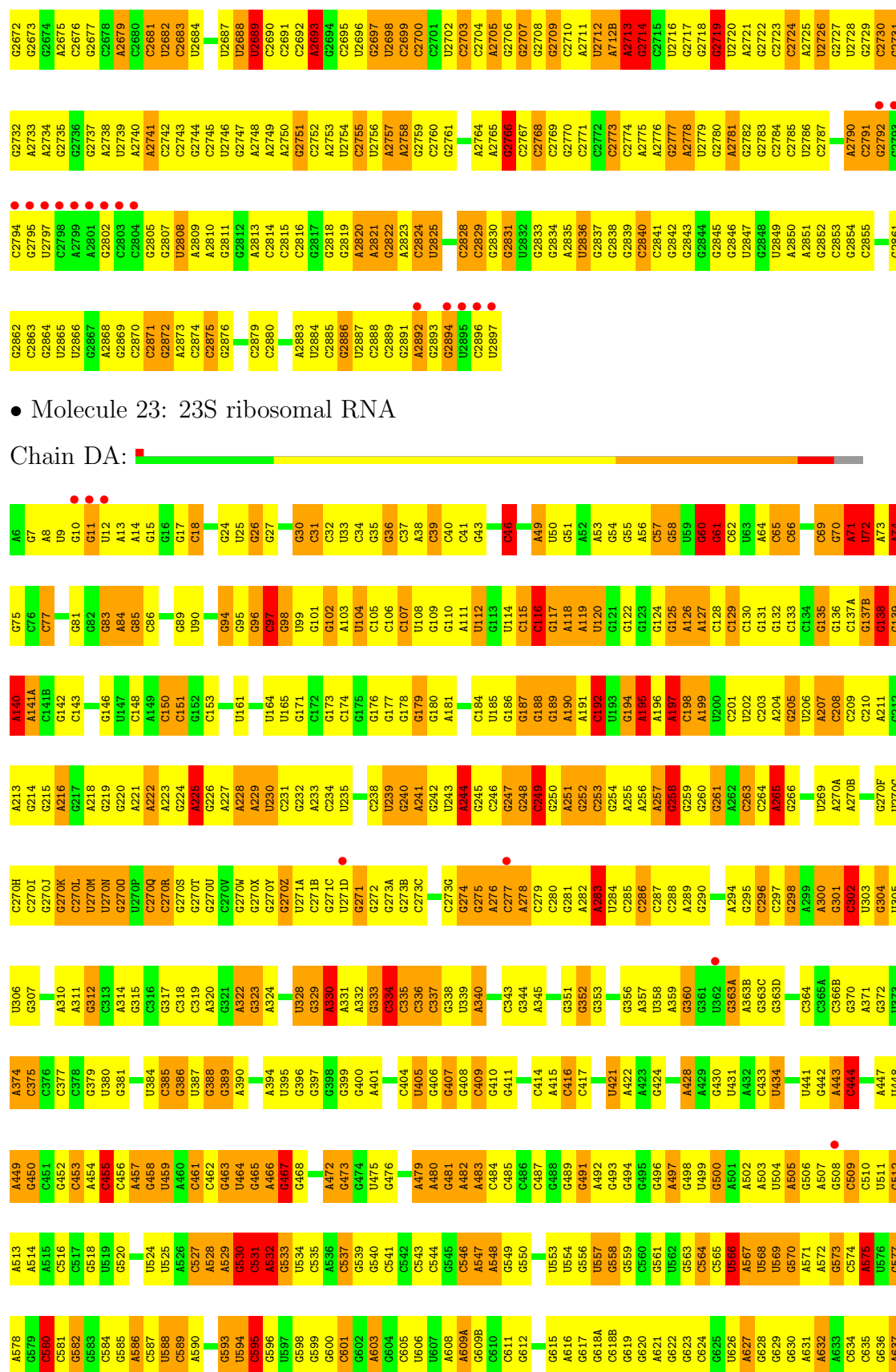
Chain BA:



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A1588	A1589	A1590	A1591	A1592	A1593	A1594	A1595	A1596	A1597	A1598	A1599	A1600	A1601	A1602	A1603	A1604	A1605	A1606	A1607	A1608	A1609	A1610	A1611	A1612	A1613	A1614	A1615	A1616	A1617	A1618		
A1494	A1495	A1496	A1497	A1498	A1499	C1500	C1501	C1502	C1503	C1504	C1505	C1506	C1507	C1508	C1509	C1510	C1511	C1512	C1513	C1514	C1515	C1516	C1517	C1518	C1519	C1520	C1521	C1522	C1523	C1524		
A1565	A1566	A1567	A1568	A1569	A1570	A1571	A1572	A1573	C1574	C1575	C1576	C1577	C1578	C1579	C1580	C1581	C1582	C1583	C1584	C1585	C1586	C1587	C1588	C1589	C1590	C1591	C1592	C1593	C1594	C1595		
C1596	C1597	C1598	C1599	C1600	C1601	C1602	C1603	C1604	C1605	C1606	C1607	C1608	C1609	C1610	C1611	C1612	C1613	C1614	C1615	C1616	C1617	C1618	C1619	C1620	C1621	C1622	C1623	C1624	C1625	C1626		
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C1462	C1463	C1464	C1465	C1466	C1467	C1468	C1469	C1470	C1471	C1472	C1473	C1474	C1475	C1476	C1477	C1478	C1479	C1480	C1481	C1482	C1483	C1484	C1485	C1486	C1487	C1488	C1489	C1490	C1491	C1492		
C1370	C1371	C1372	C1373	C1374	C1375	C1376	C1377	C1378	C1379	C1380	C1381	C1382	C1383	C1384	C1385	C1386	C1387	C1388	C1389	C1390	C1391	C1392	C1393	C1394	C1395	C1396	C1397	C1398	C1399	C1400	C1401	
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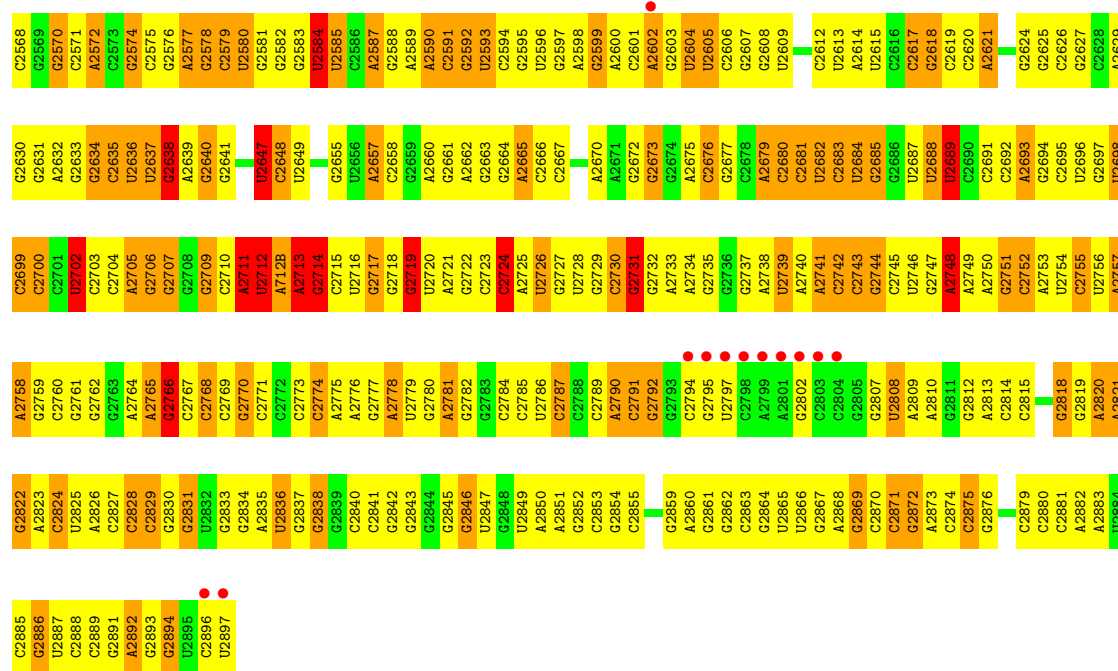
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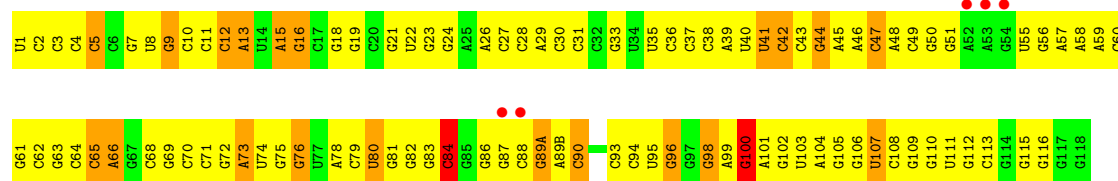
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G1542	G1478	G1418	U1357	G1297	A1227	G1162	U	G1036	C976	C912	C844	A782	A719	C650
A1543	G1479	A1419	G1358	C1298	G1227	G1163	C					A783	G719	G651
C1544	G1480	U1420	A1359	G1299		G1164	A	G1040	G977	U913	G845	A784		U652
A1545	U1481	G1421	A1360	U1300	C1230	U1165	C	C1041	G978	C914	C846	G785	G723	G653
A1546	G1483	G1422	C1361	A1301	G1231	U1166	C		G979	G915	U847	G786	U724	U654
C1548	G1484	G1423	G1362	A1302	G1232	U1167	U105	A1045	A980	G916	C848	U787	G725	G655
C1547	G1485	G1424	C1363	G1303	C1233	G1168	G1106	A1046	A883	A917	C849	A788	G726	G656
C1548	G1486	G1425	G1364	C1304	U1234	G1169	G1107	G1047	A984	A918	C850	A789	A727	U657
G1549	G1487	G1426	A1365	C1305	U1235	G1170	U1108	A1048	A883	A919	U851	G790	G728	C658
C1550	U1488	A1427	A1366	C1306	G1236	G1171	C1109	C1049	C985		C852	G791	G729	C659
C1551	U1489	C1428	A1367	A1307		G1173	G1110	A1050	C986		C853	G792	G730	G660
G1552	A1490	G1429	G1368	A1308	G1239	A1174	A1111	G1051	C987	C923	C854	A793	C731	C661
A1553	G1491	G1430	G1369	G1309	U1240	U1175	G1112	G1052	A988	C925	C855	G794	G732	G662
A1554	G1492	U1431	C1370	G1310	A1241	G1176	U1113	C1053	G989	A926	C856	G795	G733	G663
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G1559	U1497	G1436	C1375	C1315	G1248	C1181		A	C994	A833	A861	A800	G738	
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	G1499	U1438	G1377	A1317	A1253	G1183	C1121	U	A996		C863	A802	U740	C672
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C1570	C1504	G1443	G1382	A1322	C1258	U1188	A1126	U	A1001	G940	U868	U807	G745	A677
A1571	C1505	G1444	C1383	U1323		A1189	A1127	U	G1002	A941	C869	G808	A746	C678
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A1573	C1446	C1445	G1385	G1325	U1262	G1191	A1129	G	C1004	U943	U871	U810	G748	G680
	A1509		C1386	U1326	G1263	G1192	U1130	A	G1005	G944	U881	U811	C749	G681
			C1387	G1327	G1264	G1193	G1131	A	C1006	A945	C875	C812	A750	G682
	G1447	G1448	G1388	G1328	A1265	A1194	A1132	G	U1007	G946	G876	U813	A751	C683
		A1498	G1389	U1329	G1266		U1133	C	C1008	G947	C876	C814	A752	G684
		G1449	U1390	C1330	U1267	C1200	C1135	A	A1009	G948	U877	C815	C753	A685
		C1450	U1391	A1331	C1268	C1201	G1136	G	A1010	C949	A878	C816	C754	G686
		C1451	G1392	G1332	A1269	G1193	G1137	C	G1011		G879	C817	C755	G687
		A1453	A1393	C1333	C1270	G1203	G1138	C	G952	G852	C880	G818	C756	U688
		U1454	U1394	G1334	G1271	A1204	G1139	A		A953	C881	A819		
		G1455	U1395	U1335	U1205	U1205	C1140	U	U1014	C954	C886	U822	G760	C692
		G1456	U1396	A1336	U1273	G1206	U1141	C	G1015	C955	C887	U823	A761	C693
		A1457	U1397	G1337	A1274	C1207	U1142	C	G1016	G956	A887	G824	U762	U694
		C1458	C1398	G1338	A1275	C1208	A1148	U	G1017	A957	C888	G825	G763	G695
		G1459	C1399	G1339	A1276	G1209	A1143	U	C1018	U958	C889	C826	A764	G696
		A1460	G1400	U1340		A1210	G1144	U	U1019	A959	U826	U827	G765	C697
		G1461	G1401	U1341	G1281	U1211	C1145	A	A1020	A960		U828	C766	C698
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		G1464	C1404	A1284	A1284	A1214	G1149	G	U1023	U963	C898	G830	G769	G701

U2504	C2443	G2383	G2319	C2258	G2185	G	A2062	G2002	A1938	G1863	U1798	U1727	A1654	G1595
G2505	G2444	G2384	A2320	G2259	G2186	A	C2063	G2003	U1939	C1870	G1799	G1728	A1655	A1596
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	G2446	C2386	G2322	G2261	C2188	G	C2065	C2006	U1946	G1801	A1802	G1733	C1657	C1598
G2510	G2447	U2387	G2323	U2262	U2189	C	G2066	C2007	C1947	A1803	A1803	G1734	U1659	C1599
A2448	A2448	U2388	G2324	C2263	G2190	U	G2068	C2008	G1948	U1804	C1804	U1735	C1660	G1601
U2511	U2449	G2389	G2325	C2264	G2191	U	U2068	G2009	G1949	U1805	U1805	G1741	G1661	U1602
G2512	A2450	U2390	G2326	A2267	G2192	C	G2070	G2010	G1950	G1883	G1811	G1742	G1662	A1603
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U2514	C2452	A2269	A2328	A2269	C2194	A	G2072	G2012	U1952	A1885	G1813	G1746	G1664	C1605
A2453	A2453	A2270	G2330	G2270	C2195	C	A2073	G2013	A1886	G1887	A1814	G1747	A1665	G1606
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A2518	C2456	G2393	U2332	A2198	A2198	C			A1889	A1889	A1815	G1750	A1668	A1609
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C2520	U2460	A2274	G2334	C2205	C2206	C	G2080	U2017	C1957	G1817	G1816	G1752	A1670	C1611
C2521	U2461	C2275	A2335	C2206	C2206	C	C2081	G2018	U1958	U1818	G1817	A1755	C1612	G1612
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A2530	A2469	U2408	G2346	C2285	G2217	C	G2090	U2028	U1968	C1902	G1827	G1764	G1681	U1621
U2531	G2470	G2410	A2347	A2286	G2218	G	U2091	G2029	A1969	C1903	G1828	G1765	G1682	G1622
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G2535	U2472	G2412	C2350	A2288	G2224	G	G2093	A2031	A1971	C1905	C1830	C1767	C1684	G1624
U2537	C2473	A2413	G2351	G2289	A2225	C	G2094	G2032	A1972	G1906	G1831	U1768	C1685	C1625
G2538	G2474	G2414	A2352	G2290	C2226	G		U2033	G1973		G1832	G1769	C1686	G1626
C2539	A2475	G2415	G2353	A2291	A2227	G		U2034	G1974	C1909	U1833	G1770	G1687	G1627
U2540	C2477	C2416	C2354	G2292	G2228	G	U2098	A2035	U1975	A1912	G1834	C1771	G1688	G1628
A2541	G2478	G2417	C2356	C2293	C2231	A	U2099	C2036	A1976	A1913	C1835	A1772	A1689	U1629
G2542	C2479	U2418	U2357	C2294	U2232	C	G2100	G2037	A1977	C1914	C1836	A1773	A1690	G1630
C2543	C2480	U2419	G2358	C2295	U2233	G	U2101	G2038	A1978	U1915	G1837	C1774	C1691	C1638
U2544	G2481	C2420	C2359	U2296	U2234	C	U2102	C2039	C1979	A1916	G1838	U1775	U1692	A1631
	C2482	G2421	A2360	C2297	G2235	C	G2103	C2040	G1980	U1917	G1839	G1776	G1696	A1632
G2547	C2483	A2422	A2361	A2298	G2236	C	G2104	U2041	A1981	U1918	U1841	U1777	G1697	G1633
U2548	G2484	U2423	G2362	C2299	G2238	G	C2105	A2042	C1982	A1918	G1842	U1778	A1698	G1634
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U2550	G2486	A2425	G2364	C2301	C2240	U	C2107	C2044	G1984	G1920	G1843	A1780	G1699	C1636
G2551	C2487	G2426	G2365	G2302	G2241	G	C2108	C2045	G1985	G1921	C1844	C1781	A1700	A1637
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G2553	G2489	G2428	G2367	G2304	G2242	A	G	U2047	G1987	U1923	G1846	A1783	G1703	U1639
U2554	C2490	G2429	A2368	A2305	U2243	A	C	G2048	C1988	C1924	A1847	A1784	G1704	C1640
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G2556	G2492	U2431	G2370	G2307	G2245	U	U	C2050	C1990	U1926	G1850	A1786	U1706	G1642
C2557	U2493	G2432	G2371	C2308	A2247	C	A	A2051	U1991	A1927	U1851	A1787	G1707	G1643
U2558	G2494	A2433	G2372	A2309	C2248	C	G	G2052	U1992	A1928	C1852	C1788	C1708	C1644
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	A2496	A2435	C2374	C2311	G2250	C	A	A2054	C1994	G1930	A1854	C1790	C1710	G1646
U2562	A2497	G2436	G2375	G2251	G2251	C	U	C2055	U1995	U1931	G1855	A1791	G1711	G1647
U2563	U2437	G2376	G2376	G2252	G2252	C	A	C2056	C1996	A1932	G1856	G1792	C1712	C1648
U2564	U2438	C2377	C2377	G2253	G2253	C	G	A2057	C1997	G1933	G1857	G1793	U1716	G1649
C2565	C2499	G2378	A2378	C2254	C2254	U		A2058	G1998	C1934	G1858	U1794	G1717	G1650
U2566	U2500	A2439	A2378	G2255	G2255	G		A2059	C1999	G1935	A1859	C1795	G1718	G1651
G2567	C2501	C2440	C2316	G2256	G2256	U	G	A2060	G2000	A1936	G1862	U1796	G1725	A1652
	A2502	C2441	C2183	G2184	G2184	G		G2061	A2001	A1937		C1797	G1726	G1653



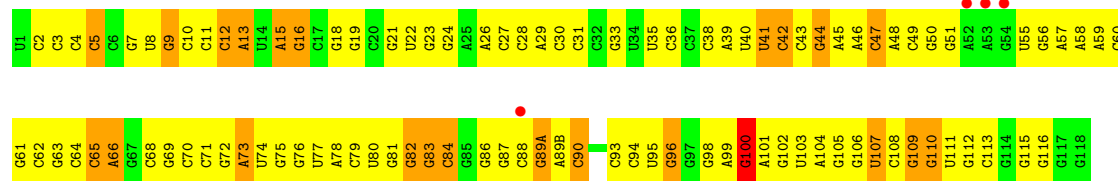
• Molecule 24: 5S ribosomal RNA

Chain BB:



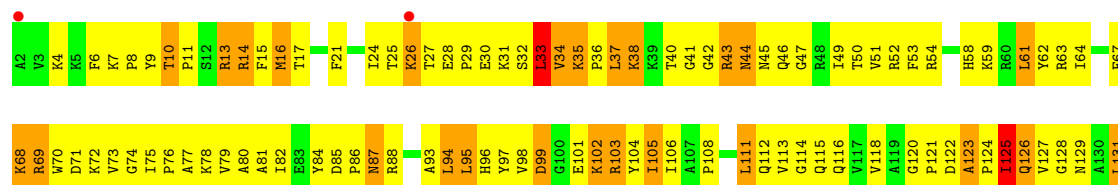
• Molecule 24: 5S ribosomal RNA

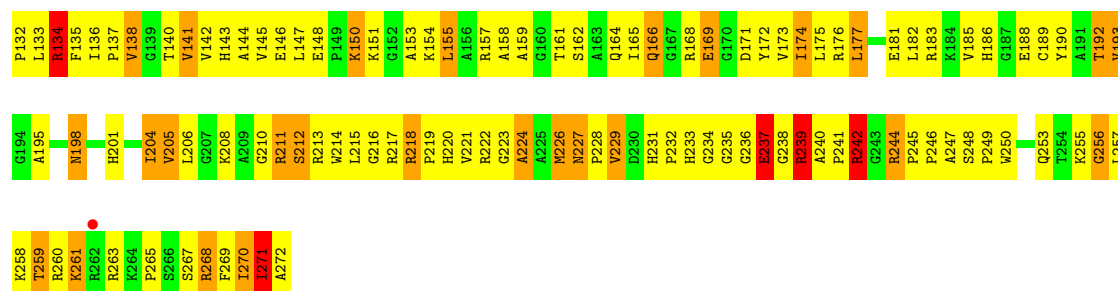
Chain DB:



• Molecule 25: 50S ribosomal protein L2

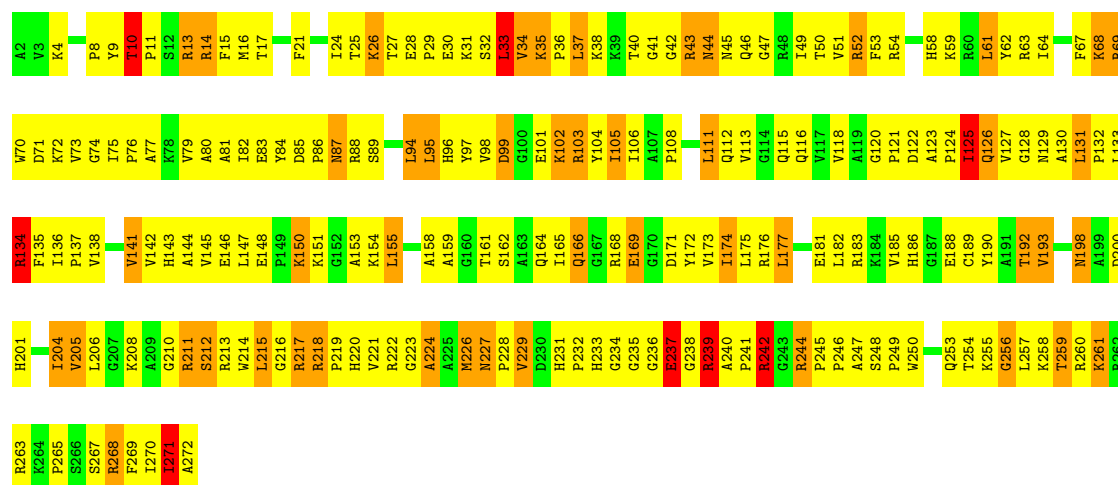
Chain BC:





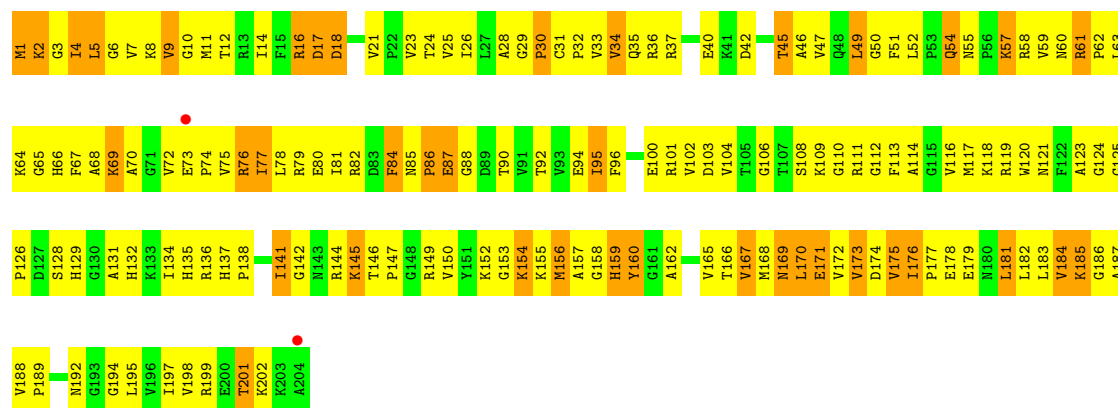
• Molecule 25: 50S ribosomal protein L2

Chain DC:



• Molecule 26: 50S ribosomal protein L3

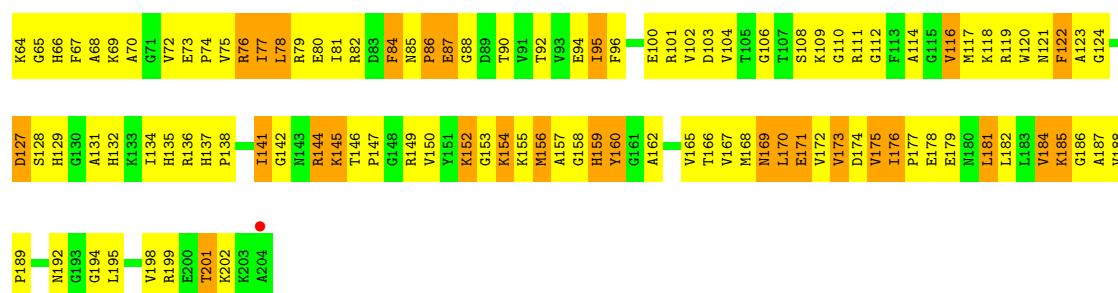
Chain BD:



• Molecule 26: 50S ribosomal protein L3

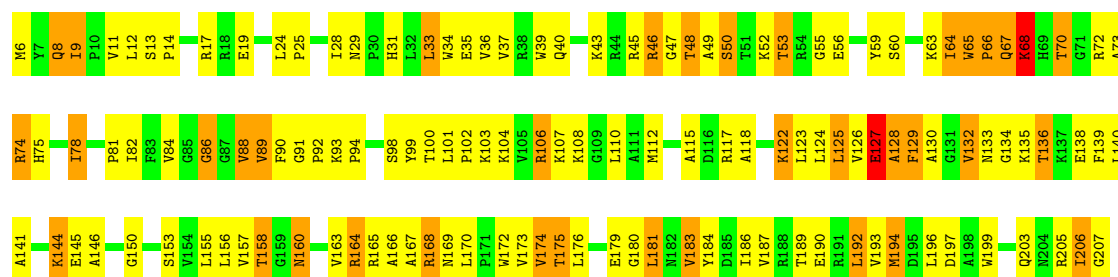
Chain DD:





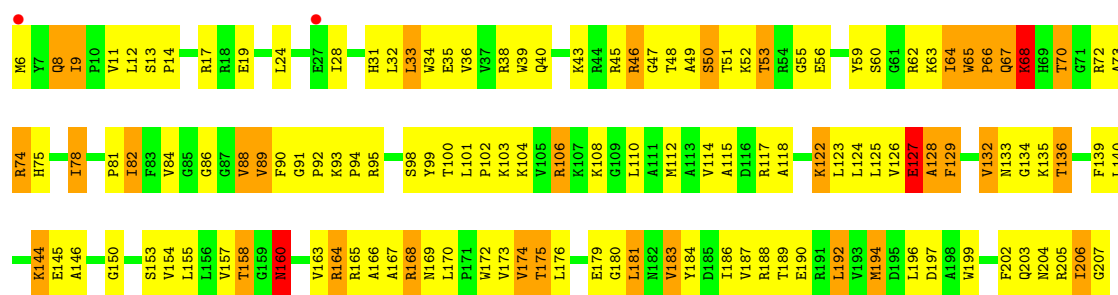
• Molecule 27: 50S ribosomal protein L4

Chain BE:



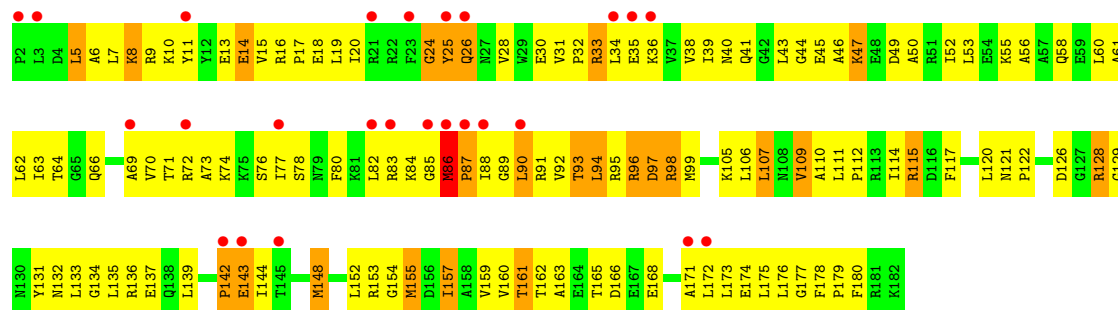
• Molecule 27: 50S ribosomal protein L4

Chain DE:



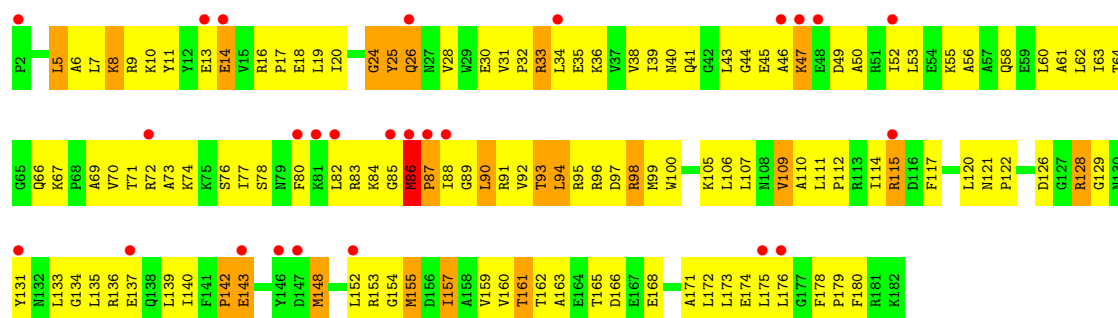
• Molecule 28: 50S ribosomal protein L5

Chain BF:



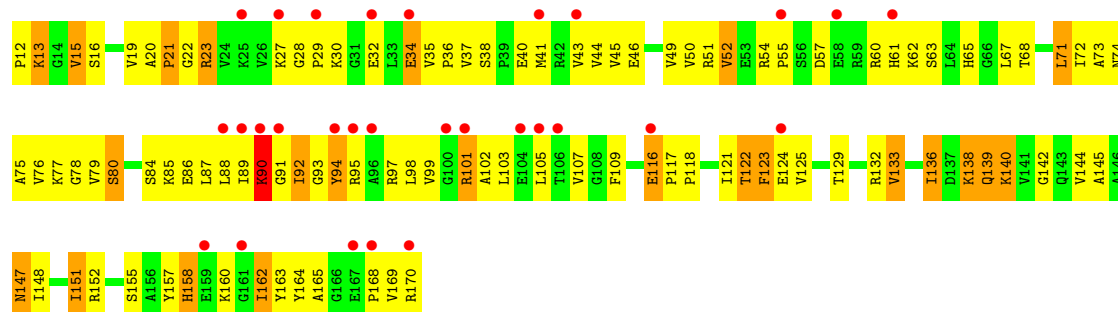
• Molecule 28: 50S ribosomal protein L5

Chain DF:



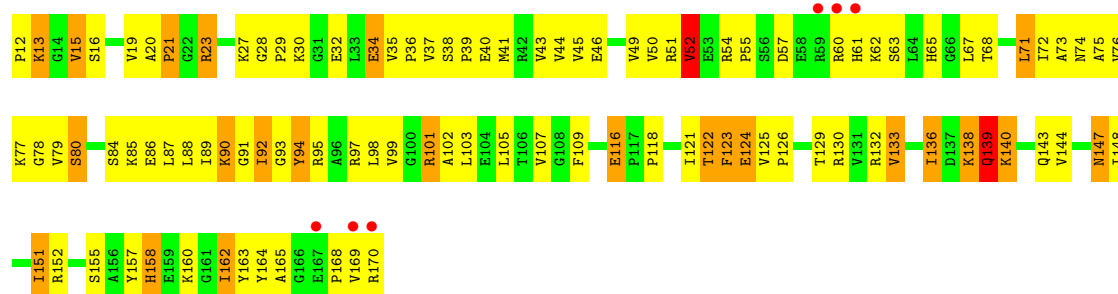
- Molecule 29: 50S ribosomal protein L6

Chain BG:



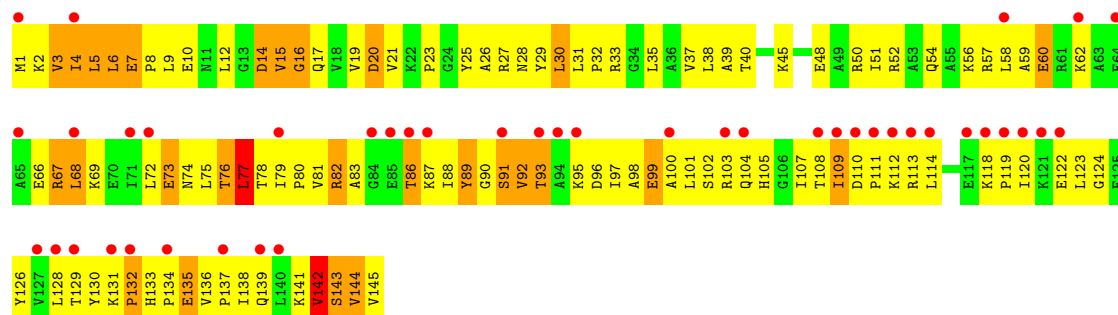
- Molecule 29: 50S ribosomal protein L6

Chain DG:



- Molecule 30: 50S ribosomal protein L9

Chain BH:



- Molecule 30: 50S ribosomal protein L9

T129	L68	M1
Y130	K69	K2
K131	E70	V3
P132	I71	I4
H133	L72	L5
P134	E73	L6
E135	M74	E7
V136	L75	P8
P137	T76	L9
I138	L77	E10
Q139	T78	N11
L140	I79	L12
K141	P80	G13
V142	V81	D14
S143	R82	V15
V144	A83	G16
V145		Q17
	T86	V18
	K87	V19
	I88	D20
	Y89	V21
	G90	K22
	S91	P23
	V92	G24
	A93	G25
	K95	A26
	D96	R27
	I97	N28
	A98	Y29
	E99	L30
	A100	L31
	L101	P32
	S102	R33
	R103	G34
	Q104	L35
	H105	A36
	G106	V37
	I107	L38
	T108	A39
	I109	T40
	D110	K45
	P111	E48
	K112	A49
	L113	R50
	L114	L51
	A115	T51
	L116	R52
	E117	
	K118	K56
	P119	R57
	I120	L58
	K121	A59
	E122	E60
	L123	R61
	G124	K62
	E125	A63
	Y126	
	V127	E66
	L128	R67

- [illegible]

- 
- Figure 1: A dot plot showing the distribution of amino acid frequencies in the N3 and N6 regions. The x-axis lists amino acids from N3 to L67. The y-axis represents frequency, with a scale from 0 to 100. Red dots indicate the frequency of each amino acid in the N3 region, and green dots indicate the frequency in the N6 region. The plot shows that N3 is enriched in basic and aromatic amino acids, while N6 is enriched in aliphatic and sulfur-containing amino acids.

- |      |      |     |
|------|------|-----|
| P149 | T86  | K25 |
| D150 | G37  | T26 |
| H151 | K38  | Y27 |
| P152 | K89  |     |
| H153 | L90  | K30 |
| Q154 | E91  | Q31 |
| A155 | Q92  | V32 |
| Q156 | K93  | E33 |
| P157 | I94  | P34 |
| P158 | Y95  | R35 |
| E159 | T96  | W36 |
| K160 | R97  | V37 |
| L161 | Y101 | L38 |
|      | P102 | I39 |
|      |      | D40 |
|      |      | A41 |
|      | L105 | E42 |
|      | K106 | G43 |
|      | K107 | K44 |
|      | I108 | T45 |
|      | P109 | L46 |
|      | L110 | G47 |
|      | E111 | R48 |
|      | K112 | L49 |
|      | M113 | A50 |
|      | L114 | T51 |
|      | A115 | K52 |
|      | T116 | I53 |
|      | H117 | A54 |
|      | P118 | T55 |
|      | E119 | T56 |
|      | R120 | L56 |
|      | V121 | L57 |
|      | L122 | R58 |
|      | E123 | G59 |
|      | H124 | K60 |
|      | A125 | H61 |
|      | V126 | R62 |
|      | K127 | P63 |
|      | G128 | D64 |
|      | M129 | W65 |
|      | L130 | T66 |
|      | P131 | P67 |
|      | K132 | N68 |
|      | G133 | V69 |
|      | P134 | A70 |
|      | L135 | M71 |
|      | G136 | G72 |
|      | R137 | D73 |
|      | L138 | F74 |
|      | L139 | V75 |
|      | F140 | V76 |
|      | K141 | V77 |
|      | R142 | N79 |
|      | L143 | A80 |
|      | K144 | D81 |
|      | V145 | K82 |
|      | Y146 | I83 |
|      | A147 | R84 |
|      | C148 | N85 |

- |     |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|
| G87 | K88 | K89 | L90 | E91 | Q82 | K93 | K94 | K95 | Y96 | K97 | Y101 | P102 | L105 | K106 | K107 | L108 | P109 | L110 | L111 | L112 | K113 | L114 | A115 | L116 | H117 | P118 | E119 | R120 | R121 | L122 | E123 | H124 | M129 | L130 | P131 | K132 | G133 | P134 | L135 | G136 | R137 | R138 | L139 | F140 | V141 | Y146 | R142 | L143 | K144 | V145 | A147 | G148 | F149 |     |     |     |     |
| K25 | T26 | Y27 | K30 | Q31 | V32 | E33 | W36 | V37 | L38 | L39 | D40  | A41  | E42  | G43  | K44  | L45  | L46  | G47  | L48  | L49  | A50  | T51  | K52  | I53  | A54  | T55  | L56  | L57  | R58  | G59  | K60  | H61  | R62  | P63  | D64  | W65  | T66  | P67  | N68  | V69  | A70  | M71  | G72  | D73  | F74  | V75  | V76  | V77  | V78  | N79  | A80  | D81  | K82  | I83 | R84 | V85 | T86 |





- Molecule 33: 50S ribosomal protein L14

Chain BK:



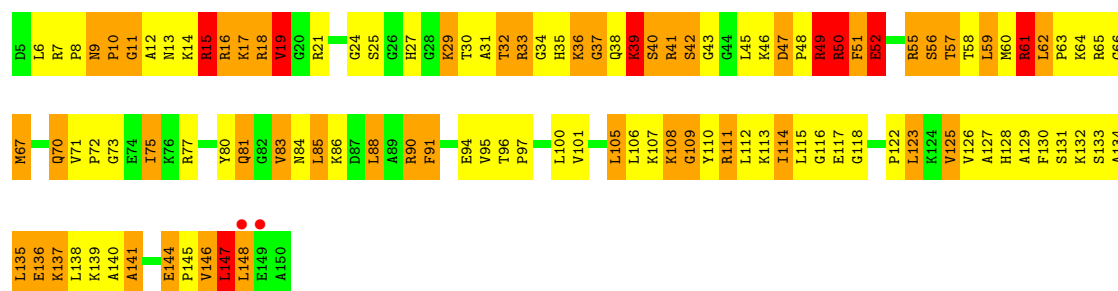
- Molecule 33: 50S ribosomal protein L14

Chain DK:



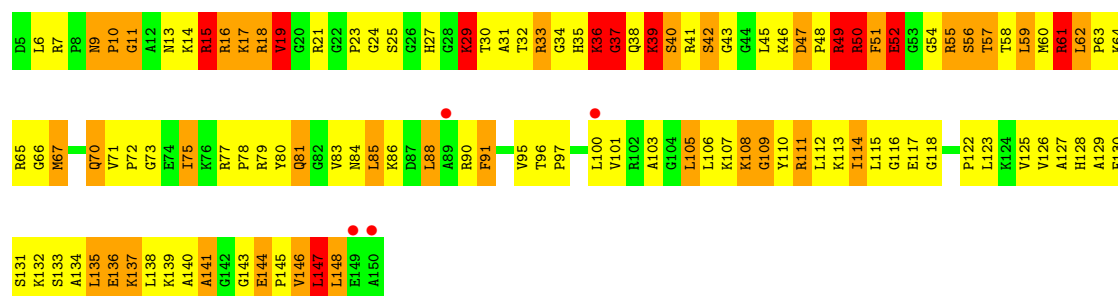
- Molecule 34: 50S ribosomal protein L15

Chain BL:



- Molecule 34: 50S ribosomal protein L15

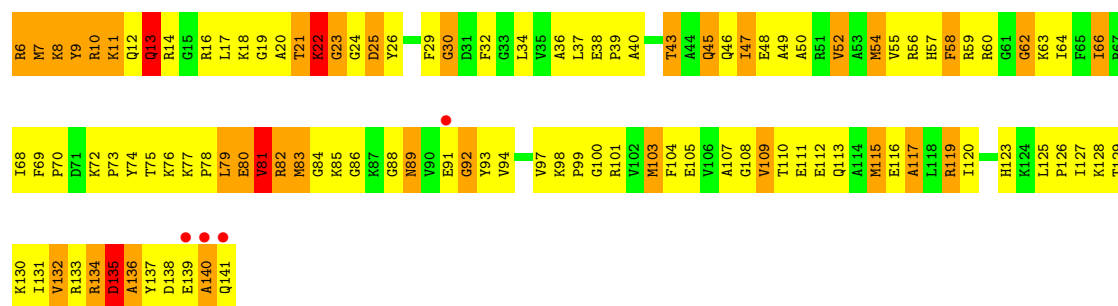
Chain DL:



- Molecule 35: 50S ribosomal protein L16

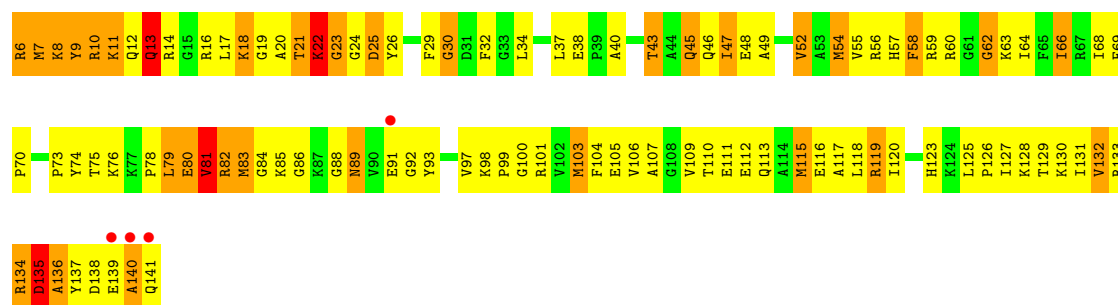
Chain BM:





- Molecule 35: 50S ribosomal protein L16

Chain DM:



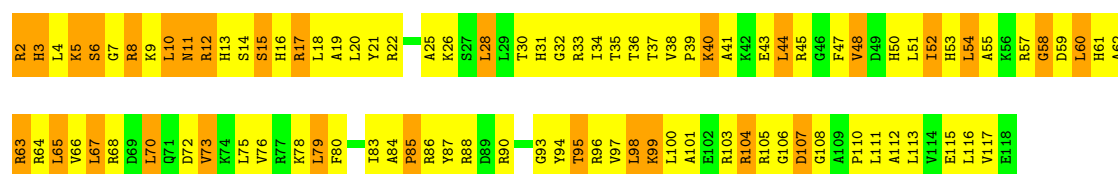
- Molecule 36: 50S ribosomal protein L17

Chain BN:



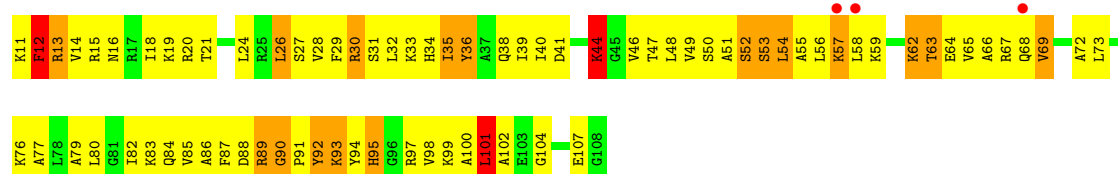
- Molecule 36: 50S ribosomal protein L17

Chain DN:



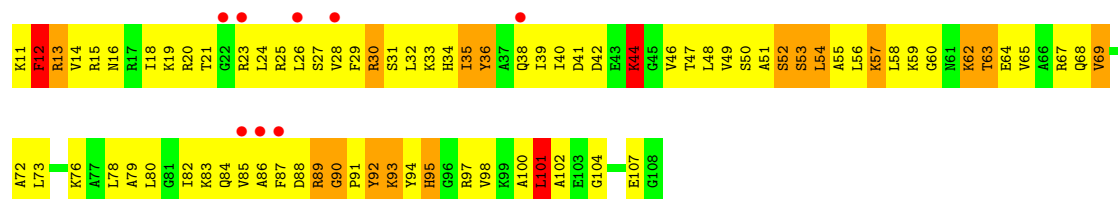
- Molecule 37: 50S ribosomal protein L18

Chain BO:



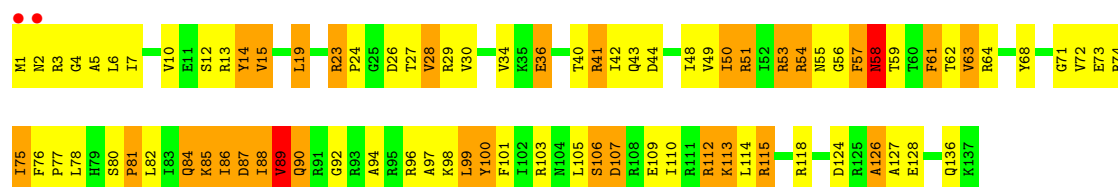
- Molecule 37: 50S ribosomal protein L18

Chain DO:



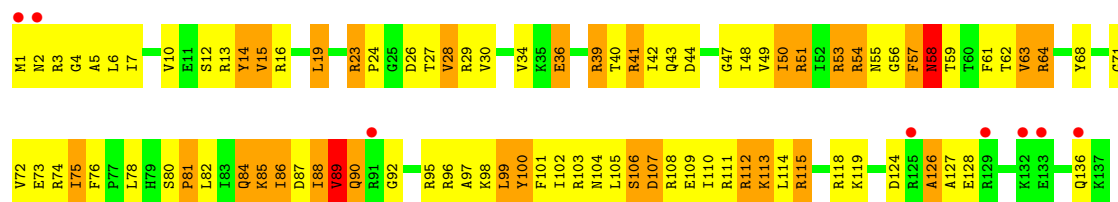
- Molecule 38: 50S ribosomal protein L19

Chain BP:



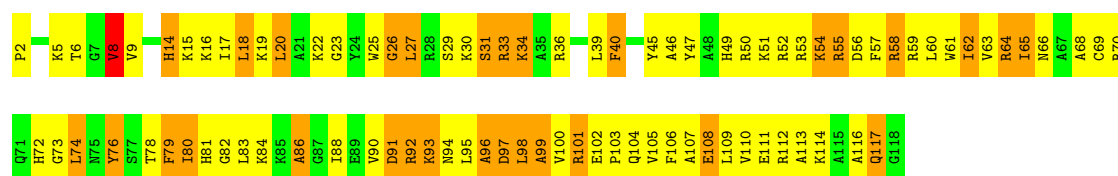
- Molecule 38: 50S ribosomal protein L19

Chain DP:



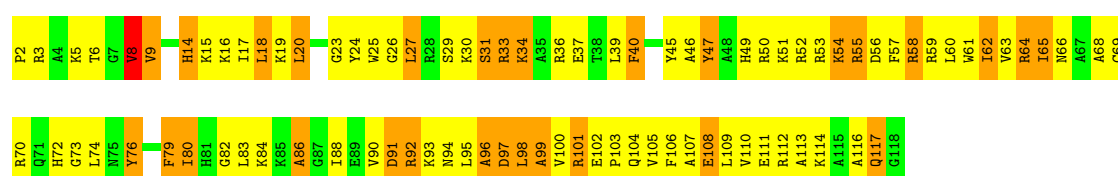
- Molecule 39: 50S ribosomal protein L20

Chain BQ:



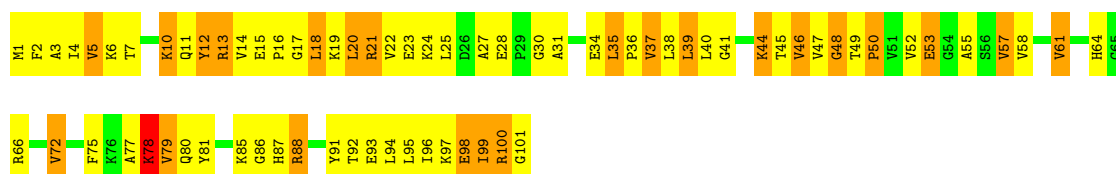
- Molecule 39: 50S ribosomal protein L20

Chain DQ:



- Molecule 40: 50S ribosomal protein L21

Chain BR:



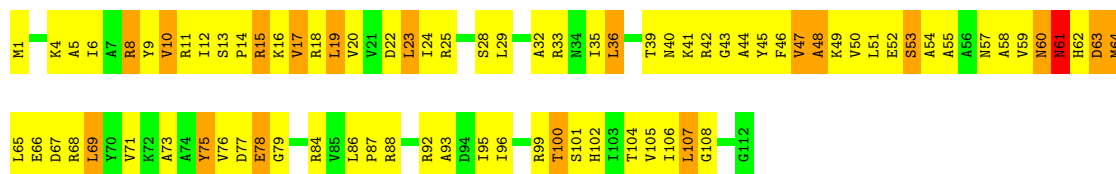
- Molecule 40: 50S ribosomal protein L21

Chain DR:



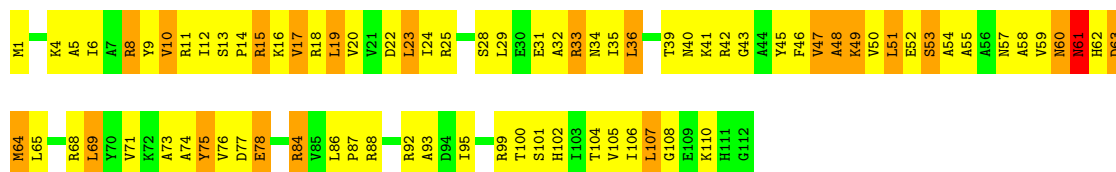
- Molecule 41: 50S ribosomal protein L22

Chain BS:



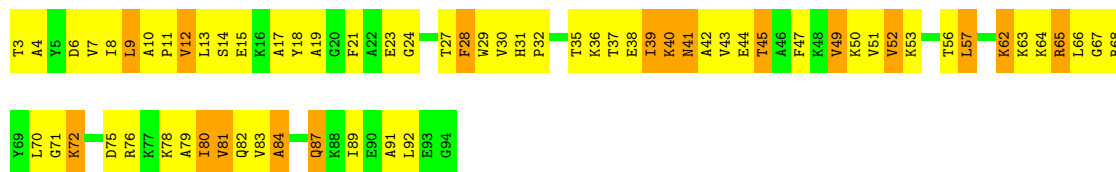
- Molecule 41: 50S ribosomal protein L22

Chain DS:



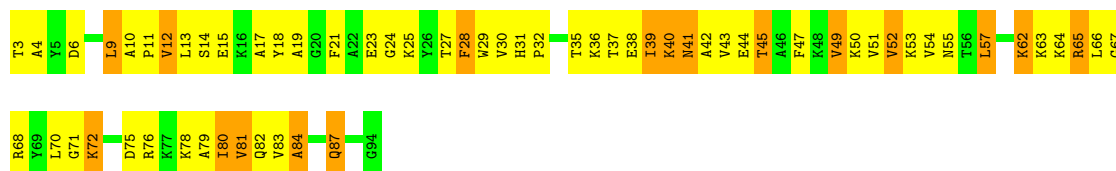
- Molecule 42: 50S ribosomal protein L23

Chain BT:

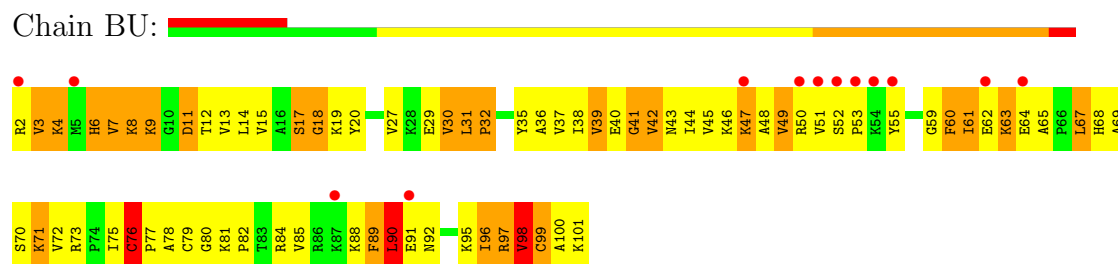


- Molecule 42: 50S ribosomal protein L23

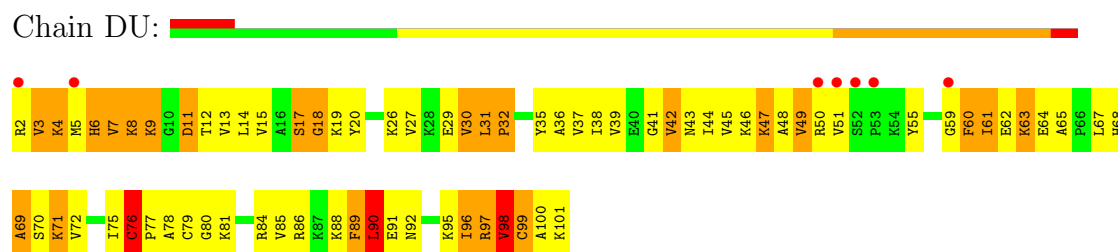
Chain DT:



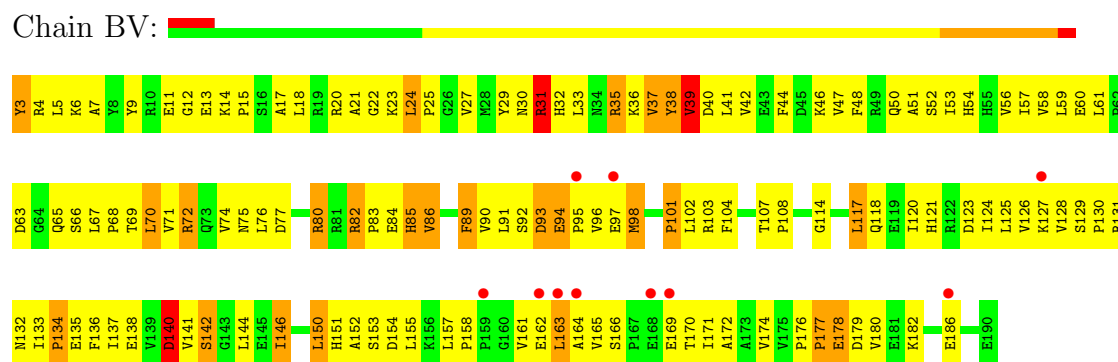
- Molecule 43: 50S ribosomal protein L24



- Molecule 43: 50S ribosomal protein L24



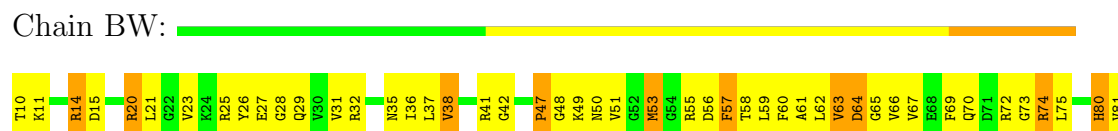
- Molecule 44: 50S ribosomal protein L25



- Molecule 44: 50S ribosomal protein L25



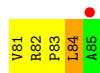
- Molecule 45: 50S ribosomal protein L27





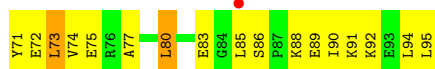
- Molecule 45: 50S ribosomal protein L27

Chain DW:



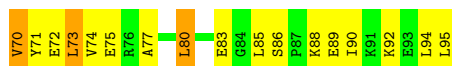
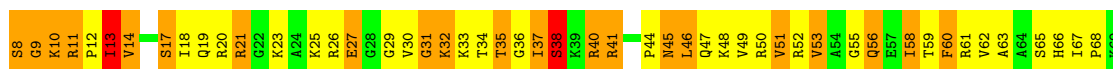
- Molecule 46: 50S ribosomal protein L28

Chain BX:



- Molecule 46: 50S ribosomal protein L28

Chain DX:



- Molecule 47: 50S ribosomal protein L29

Chain BY:



- Molecule 47: 50S ribosomal protein L29

Chain DY:



- Molecule 48: 50S ribosomal protein L30

Chain BZ:



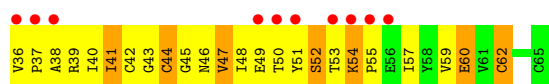
- Molecule 48: 50S ribosomal protein L30

Chain DZ:



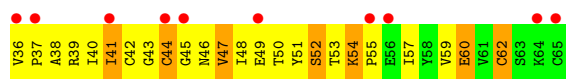
- Molecule 49: 50S ribosomal protein L31

Chain B1:



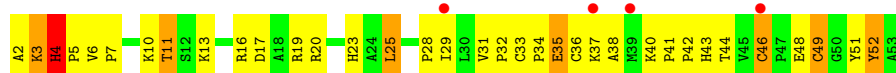
- Molecule 49: 50S ribosomal protein L31

Chain D1:



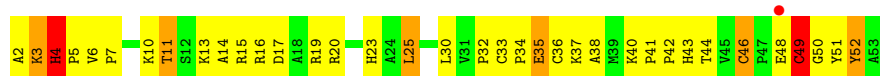
- Molecule 50: 50S ribosomal protein L32

Chain B2:



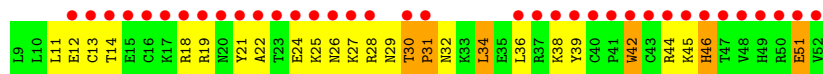
- Molecule 50: 50S ribosomal protein L32

Chain D2:



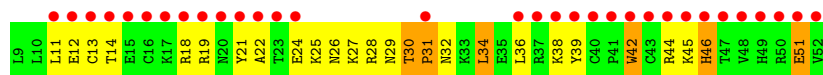
- Molecule 51: 50S ribosomal protein L33

Chain B3:



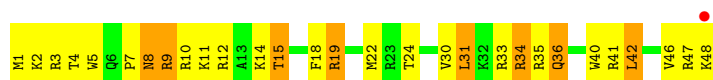
- Molecule 51: 50S ribosomal protein L33

Chain D3:



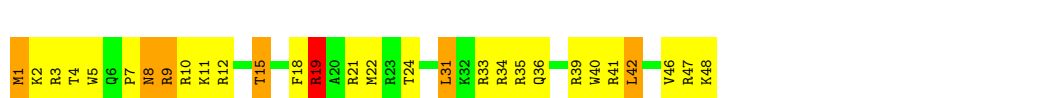
- Molecule 52: 50S ribosomal protein L34

Chain B4:



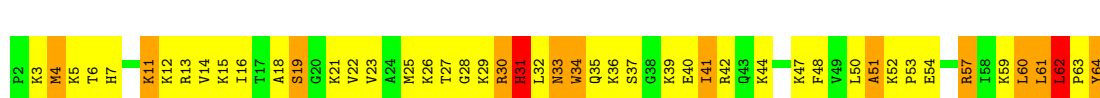
- Molecule 52: 50S ribosomal protein L34

Chain D4:



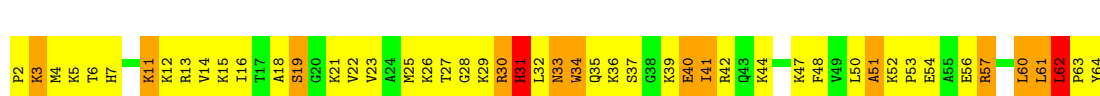
- Molecule 53: 50S ribosomal protein L35

Chain B5:



- Molecule 53: 50S ribosomal protein L35

Chain D5:





## 4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	210.69Å 451.66Å 614.25Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.52 – 3.40 49.52 – 3.40	Depositor EDS
% Data completeness (in resolution range)	97.5 (49.52-3.40) 97.6 (49.52-3.40)	Depositor EDS
$R_{merge}$	(Not available)	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	2.28 (at 3.40Å)	Xtriage
Refinement program	PHENIX (phenix.refine: 1.6.1_357)	Depositor
R, $R_{free}$	0.228 , 0.266 0.227 , 0.262	Depositor DCC
$R_{free}$ test set	7701 reflections (1.00%)	DCC
Wilson B-factor (Å <sup>2</sup> )	86.0	Xtriage
Anisotropy	0.391	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.28 , 68.6	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning	$\langle  L  \rangle = 0.45$ , $\langle L^2 \rangle = 0.27$	Xtriage
Outliers	0 of 775950 reflections	Xtriage
$F_o, F_c$ correlation	0.91	EDS
Total number of atoms	282142	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	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.*

<sup>1</sup>Intensities estimated from amplitudes.

## 5 Model quality ⓘ

### 5.1 Standard geometry ⓘ

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z  > 5$	RMSZ	$\# Z  > 5$
1	AA	0.63	4/36238 (0.0%)	1.02	99/56561 (0.2%)
1	CA	0.57	0/36238	0.96	75/56561 (0.1%)
2	AB	0.31	0/1936	0.51	0/2609
2	CB	0.28	0/1936	0.50	0/2609
3	AC	0.31	0/1637	0.47	0/2205
3	CC	0.29	0/1637	0.47	0/2205
4	AD	0.41	0/1733	0.59	0/2318
4	CD	0.34	0/1733	0.56	0/2318
5	AE	0.41	0/1172	0.61	0/1576
5	CE	0.36	0/1172	0.57	0/1576
6	AF	0.33	0/856	0.57	0/1154
6	CF	0.37	0/856	0.59	0/1154
7	AG	0.27	0/1276	0.46	0/1709
7	CG	0.27	0/1276	0.46	0/1709
8	AH	0.39	0/1136	0.61	0/1527
8	CH	0.33	0/1136	0.58	0/1527
9	AI	0.29	0/1029	0.45	0/1378
9	CI	0.27	0/1029	0.45	0/1378
10	AJ	0.28	0/808	0.48	0/1085
10	CJ	0.27	0/808	0.46	0/1085
11	AK	0.39	0/900	0.59	0/1213
11	CK	0.41	0/900	0.61	0/1213
12	AL	0.47	0/987	0.70	1/1320 (0.1%)
12	CL	0.44	0/987	0.68	0/1320
13	AM	0.25	0/939	0.44	0/1258
13	CM	0.24	0/939	0.44	0/1258
14	AN	0.31	0/501	0.50	0/664
14	CN	0.31	0/501	0.52	0/664
15	AO	0.39	0/745	0.57	0/992
15	CO	0.37	0/745	0.56	0/992
16	AP	0.42	0/717	0.62	0/963
16	CP	0.34	0/717	0.59	0/963

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
17	AQ	0.43	0/837	0.60	0/1117
17	CQ	0.37	0/837	0.56	0/1117
18	AR	0.38	0/579	0.61	0/768
18	CR	0.37	0/579	0.60	0/768
19	AS	0.25	0/643	0.43	0/865
19	CS	0.25	0/643	0.42	0/865
20	AT	0.38	0/764	0.57	0/1006
20	CT	0.33	0/764	0.54	0/1006
21	AU	0.23	0/213	0.43	0/277
21	CU	0.24	0/213	0.42	0/277
22	AV	0.43	0/802	0.68	0/1245
22	CV	0.43	0/802	0.69	0/1245
23	BA	1.07	153/66570 (0.2%)	1.48	1344/103918 (1.3%)
23	DA	1.19	253/66575 (0.4%)	1.59	1756/103930 (1.7%)
24	BB	0.58	0/2853	1.00	9/4451 (0.2%)
24	DB	0.59	0/2853	1.04	3/4451 (0.1%)
25	BC	0.71	1/2155 (0.0%)	0.90	3/2905 (0.1%)
25	DC	0.74	1/2155 (0.0%)	0.91	5/2905 (0.2%)
26	BD	0.58	0/1597	0.77	0/2153
26	DD	0.62	1/1597 (0.1%)	0.81	0/2153
27	BE	0.63	0/1622	0.77	0/2194
27	DE	0.67	0/1622	0.78	0/2194
28	BF	0.28	0/1500	0.49	0/2017
28	DF	0.28	0/1500	0.49	0/2017
29	BG	0.32	0/1246	0.58	0/1682
29	DG	0.44	0/1246	0.64	0/1682
30	BH	0.33	0/1148	0.56	0/1552
30	DH	0.38	0/1148	0.56	0/1552
31	BI	0.25	0/252	0.44	0/333
31	DI	0.27	0/252	0.46	0/333
32	BJ	0.56	0/1124	0.75	0/1515
32	DJ	0.59	0/1124	0.76	0/1515
33	BK	0.57	0/942	0.76	0/1268
33	DK	0.61	0/942	0.77	0/1268
34	BL	0.74	1/1131 (0.1%)	1.01	1/1504 (0.1%)
34	DL	0.75	2/1131 (0.2%)	1.03	5/1504 (0.3%)
35	BM	0.61	0/1099	0.83	2/1468 (0.1%)
35	DM	0.60	0/1099	0.83	1/1468 (0.1%)
36	BN	0.59	0/974	0.85	0/1302
36	DN	0.59	0/974	0.83	1/1302 (0.1%)
37	BO	0.36	0/779	0.58	0/1036
37	DO	0.39	0/779	0.61	0/1036
38	BP	0.50	0/1158	0.68	0/1544

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
38	DP	0.51	0/1158	0.69	0/1544
39	BQ	0.63	0/970	0.81	0/1290
39	DQ	0.67	0/970	0.81	0/1290
40	BR	0.58	0/790	0.73	1/1057 (0.1%)
40	DR	0.61	0/790	0.74	1/1057 (0.1%)
41	BS	0.63	0/902	0.78	0/1209
41	DS	0.66	0/902	0.76	0/1209
42	BT	0.64	0/740	0.79	0/993
42	DT	0.74	0/740	0.84	0/993
43	BU	0.53	0/789	0.76	0/1051
43	DU	0.56	0/789	0.76	0/1051
44	BV	0.36	0/1524	0.57	0/2068
44	DV	0.38	0/1524	0.57	0/2068
45	BW	0.50	0/613	0.71	0/816
45	DW	0.52	0/613	0.72	0/816
46	BX	0.73	0/702	0.98	2/932 (0.2%)
46	DX	0.82	0/702	1.04	2/932 (0.2%)
47	BY	0.55	0/523	0.87	1/690 (0.1%)
47	DY	0.72	0/523	0.98	3/690 (0.4%)
48	BZ	0.52	0/473	0.68	0/634
48	DZ	0.50	0/473	0.65	0/634
49	B1	0.23	0/229	0.40	0/309
49	D1	0.22	0/229	0.41	0/309
50	B2	0.61	0/419	0.80	0/567
50	D2	0.58	0/419	0.79	0/567
51	B3	0.28	0/388	0.46	0/518
51	D3	0.27	0/388	0.46	0/518
52	B4	0.72	0/427	0.89	0/561
52	D4	0.84	0/427	1.05	1/561 (0.2%)
53	B5	0.68	0/516	0.88	0/679
53	D5	0.69	0/516	0.88	1/679 (0.1%)
All	All	0.85	416/305211 (0.1%)	1.21	3317/456064 (0.7%)

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
25	DC	0	1
27	BE	0	1
27	DE	0	1

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	#Chirality outliers	#Planarity outliers
34	BL	0	5
34	DL	0	5
35	BM	0	1
35	DM	0	1
36	BN	0	1
36	DN	0	1
39	BQ	0	2
39	DQ	0	2
All	All	0	21

All (416) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	DA	774	A	N9-C4	-13.87	1.29	1.37
23	DA	1332	G	N9-C4	-11.99	1.28	1.38
23	DA	1602	U	C4-O4	11.31	1.32	1.23
23	BA	1332	G	N9-C4	-11.02	1.29	1.38
23	DA	2249	U	C4-O4	10.67	1.32	1.23
23	DA	1614	A	N9-C4	-10.65	1.31	1.37
23	DA	761	A	C5-C4	10.24	1.46	1.38
23	DA	71	A	N9-C4	-10.23	1.31	1.37
23	DA	676	A	N9-C4	-9.99	1.31	1.37
23	DA	2593	U	C4-O4	9.50	1.31	1.23
23	BA	570	G	C6-O6	9.46	1.32	1.24
23	DA	761	A	C6-N1	9.44	1.42	1.35
23	BA	676	A	N9-C4	-9.32	1.32	1.37
23	BA	1678	G	N9-C4	-9.10	1.30	1.38
23	DA	677	A	N9-C4	-9.09	1.32	1.37
23	BA	1783	A	N3-C4	-8.94	1.29	1.34
23	DA	1671	U	C4-O4	8.93	1.30	1.23
23	BA	1786	A	N3-C4	-8.91	1.29	1.34
23	DA	774	A	N3-C4	-8.90	1.29	1.34
23	BA	774	A	N9-C4	-8.86	1.32	1.37
23	DA	677	A	N3-C4	-8.81	1.29	1.34
23	BA	1332	G	C2-N3	-8.54	1.25	1.32
23	DA	797	C	N1-C6	-8.37	1.32	1.37
23	DA	783	A	N9-C4	-8.32	1.32	1.37
23	BA	503	A	N3-C4	-8.11	1.29	1.34
23	BA	1971	A	N3-C4	-8.09	1.29	1.34
23	DA	575	A	N9-C4	-8.06	1.33	1.37
23	BA	761	A	C6-N1	7.89	1.41	1.35
23	BA	2028	U	C4-O4	7.87	1.29	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	192	C	N1-C6	-7.77	1.32	1.37
34	DL	39	LYS	CB-CG	7.73	1.73	1.52
23	DA	1322	A	N3-C4	-7.73	1.30	1.34
23	DA	1678	G	N9-C4	-7.70	1.31	1.38
34	BL	39	LYS	CB-CG	7.70	1.73	1.52
23	BA	675	A	N9-C4	-7.63	1.33	1.37
23	BA	1783	A	N9-C4	-7.62	1.33	1.37
23	BA	800	A	N9-C4	-7.53	1.33	1.37
23	BA	2448	A	N9-C4	-7.52	1.33	1.37
23	DA	2028	U	C4-O4	7.49	1.29	1.23
23	BA	1786	A	N9-C4	-7.48	1.33	1.37
23	DA	1829	A	N9-C4	-7.45	1.33	1.37
23	DA	945	A	N7-C5	-7.41	1.34	1.39
23	DA	265	A	N9-C4	-7.38	1.33	1.37
23	DA	2032	G	N7-C5	7.32	1.43	1.39
23	DA	761	A	C6-N6	7.30	1.39	1.33
23	BA	1308	A	N9-C4	-7.30	1.33	1.37
23	DA	1614	A	N7-C5	-7.27	1.34	1.39
23	BA	330	A	N9-C4	-7.22	1.33	1.37
23	DA	748	G	C5-C4	-7.22	1.33	1.38
23	BA	2057	A	N3-C4	-7.15	1.30	1.34
23	BA	2057	A	N9-C4	-7.15	1.33	1.37
23	DA	1367	A	C6-N1	-7.12	1.30	1.35
23	BA	2433	A	N3-C4	-7.11	1.30	1.34
23	DA	450	G	C6-O6	7.10	1.30	1.24
23	BA	1021	A	N9-C4	-7.07	1.33	1.37
23	DA	678	C	N3-C4	-7.07	1.28	1.33
23	BA	1786	A	N7-C5	-7.01	1.35	1.39
23	BA	655	A	N9-C4	6.99	1.42	1.37
23	DA	211	A	N3-C4	-6.96	1.30	1.34
23	BA	2518	A	N9-C4	-6.94	1.33	1.37
23	BA	1902	C	N3-C4	-6.94	1.29	1.33
23	BA	761	A	C5-C4	6.92	1.43	1.38
23	BA	2028	U	C2-N3	6.90	1.42	1.37
23	DA	1802	A	N3-C4	-6.88	1.30	1.34
23	DA	676	A	N3-C4	-6.87	1.30	1.34
23	DA	2497	A	N9-C4	-6.85	1.33	1.37
23	BA	1332	G	N3-C4	-6.83	1.30	1.35
23	DA	945	A	C5-C6	-6.81	1.34	1.41
23	DA	2518	A	N9-C4	-6.81	1.33	1.37
23	DA	761	A	N1-C2	6.79	1.40	1.34
23	DA	2506	U	N1-C2	6.78	1.44	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	DA	2028	U	C2-N3	6.76	1.42	1.37
23	BA	584	C	N1-C6	-6.74	1.33	1.37
23	DA	1783	A	N3-C4	-6.73	1.30	1.34
23	DA	450	G	N9-C8	-6.72	1.33	1.37
23	DA	742	G	C5-C4	-6.72	1.33	1.38
23	DA	752	A	N3-C4	-6.72	1.30	1.34
23	BA	783	A	N9-C4	-6.72	1.33	1.37
23	BA	2010	G	N7-C5	-6.71	1.35	1.39
23	DA	2713	A	N9-C4	-6.70	1.33	1.37
23	DA	1378	A	N3-C4	-6.68	1.30	1.34
23	DA	114(B)	A	N9-C4	-6.68	1.33	1.37
23	DA	1308	A	N9-C4	-6.67	1.33	1.37
23	BA	2506	U	N1-C2	6.67	1.44	1.38
23	DA	774	A	C5-C6	-6.67	1.35	1.41
23	BA	528	A	N9-C4	-6.67	1.33	1.37
23	BA	764	A	N9-C4	-6.64	1.33	1.37
23	DA	2427	C	N1-C6	-6.64	1.33	1.37
23	DA	340	A	N3-C4	-6.64	1.30	1.34
23	BA	2713	A	N9-C4	-6.62	1.33	1.37
23	BA	1671	U	C4-O4	6.62	1.28	1.23
23	BA	453	C	N1-C6	-6.61	1.33	1.37
23	DA	126	A	C5-C4	-6.61	1.34	1.38
23	BA	761	A	C6-N6	6.61	1.39	1.33
23	BA	2058	A	N3-C4	-6.56	1.30	1.34
23	DA	2054	A	N7-C5	-6.56	1.35	1.39
23	DA	472	A	N9-C4	-6.55	1.33	1.37
23	DA	2061	G	C6-O6	6.55	1.30	1.24
23	DA	778	G	N1-C2	-6.55	1.32	1.37
23	DA	575	A	N7-C5	-6.54	1.35	1.39
23	BA	945	A	N7-C5	-6.53	1.35	1.39
23	DA	2242	G	N9-C8	-6.51	1.33	1.37
23	BA	1827	C	N1-C6	-6.49	1.33	1.37
23	BA	457	A	N9-C4	-6.48	1.33	1.37
23	DA	570	G	C6-O6	6.46	1.29	1.24
23	DA	752	A	C6-N1	-6.45	1.31	1.35
23	BA	677	A	N9-C4	-6.44	1.33	1.37
23	DA	71	A	N3-C4	-6.43	1.30	1.34
23	BA	1977	A	N9-C4	-6.43	1.33	1.37
23	DA	1609	A	N9-C4	-6.42	1.33	1.37
23	DA	1619	G	N3-C4	-6.42	1.30	1.35
23	BA	734	A	N9-C4	-6.41	1.34	1.37
23	DA	676	A	C5-C4	6.41	1.43	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	DA	676	A	N9-C8	6.40	1.42	1.37
23	DA	2430	A	N7-C5	-6.37	1.35	1.39
23	DA	1777	U	C2-N3	-6.36	1.33	1.37
23	DA	774	A	N7-C5	-6.33	1.35	1.39
23	DA	1780	A	N7-C5	-6.32	1.35	1.39
23	BA	568	U	C4-O4	6.32	1.28	1.23
23	DA	1978	A	N9-C4	-6.32	1.34	1.37
23	DA	2588	G	P-OP2	6.32	1.59	1.49
23	BA	570	G	C5-C6	6.31	1.48	1.42
23	DA	116	C	N1-C6	-6.31	1.33	1.37
25	DC	239	ARG	CG-CD	6.30	1.67	1.51
23	DA	585	G	C6-N1	-6.30	1.35	1.39
23	BA	460	A	N9-C4	-6.29	1.34	1.37
23	BA	2009	G	C5-C4	-6.29	1.33	1.38
23	DA	457	A	N9-C4	-6.29	1.34	1.37
23	BA	764	A	C5-C6	-6.29	1.35	1.41
23	DA	2448	A	N9-C4	-6.28	1.34	1.37
23	BA	31	C	N1-C6	-6.26	1.33	1.37
23	BA	800	A	N3-C4	-6.25	1.31	1.34
25	BC	239	ARG	CG-CD	6.25	1.67	1.51
23	DA	1899	G	N9-C4	-6.25	1.32	1.38
23	DA	678	C	N1-C6	-6.22	1.33	1.37
23	DA	2057	A	N3-C4	-6.22	1.31	1.34
23	BA	1829	A	N9-C4	-6.22	1.34	1.37
23	BA	2069	G	N9-C4	-6.22	1.32	1.38
23	DA	2059	A	N9-C4	-6.21	1.34	1.37
23	DA	2432	A	N9-C4	-6.21	1.34	1.37
23	DA	1776	G	C6-N1	-6.20	1.35	1.39
23	DA	1614	A	N3-C4	-6.19	1.31	1.34
23	BA	2510	C	N1-C6	-6.19	1.33	1.37
23	DA	1783	A	N9-C4	-6.19	1.34	1.37
23	BA	575	A	N9-C4	-6.18	1.34	1.37
23	DA	1332	G	C2-N3	-6.18	1.27	1.32
23	DA	1271	G	N9-C8	-6.17	1.33	1.37
23	BA	808	G	N9-C8	-6.15	1.33	1.37
23	BA	2032	G	N9-C8	6.15	1.42	1.37
23	DA	1770	G	N3-C4	-6.14	1.31	1.35
23	BA	1786	A	C5-C6	-6.13	1.35	1.41
23	DA	2689	U	C2-N3	-6.13	1.33	1.37
23	DA	1902	C	N3-C4	-6.12	1.29	1.33
1	AA	901	A	N9-C4	-6.12	1.34	1.37
23	BA	460	A	N3-C4	-6.11	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	DA	2058	A	N3-C4	-6.11	1.31	1.34
23	BA	2587	A	N9-C4	-6.11	1.34	1.37
23	DA	1569	A	N3-C4	-6.11	1.31	1.34
23	DA	1603	A	N3-C4	-6.10	1.31	1.34
23	BA	1313	U	N1-C2	-6.10	1.33	1.38
23	BA	265	A	N9-C4	-6.09	1.34	1.37
23	BA	1971	A	N9-C4	-6.06	1.34	1.37
23	DA	2717	G	N9-C8	-6.06	1.33	1.37
23	DA	2452	C	N1-C6	-6.05	1.33	1.37
23	DA	1332	G	N9-C8	6.03	1.42	1.37
23	DA	1619	G	C6-N1	-6.03	1.35	1.39
23	BA	1978	A	N9-C4	-6.02	1.34	1.37
23	DA	655	A	N9-C4	6.02	1.41	1.37
23	DA	2512	C	N1-C6	-6.02	1.33	1.37
23	BA	2453	A	C6-N1	-6.01	1.31	1.35
23	DA	783	A	N3-C4	-6.01	1.31	1.34
23	BA	2062	A	P-O5'	-6.01	1.53	1.59
23	BA	2430	A	N7-C5	-6.01	1.35	1.39
23	DA	2591	C	N1-C6	-6.01	1.33	1.37
23	DA	1606	G	C6-N1	-6.00	1.35	1.39
23	BA	2497	A	N9-C4	-5.99	1.34	1.37
23	BA	676	A	C5-C6	-5.98	1.35	1.41
23	BA	1000	A	C6-N1	-5.98	1.31	1.35
23	DA	1378	A	N9-C4	-5.98	1.34	1.37
23	DA	567	A	P-OP1	5.97	1.59	1.49
23	DA	2063	C	N3-C4	-5.96	1.29	1.33
23	BA	1352	U	C2-N3	-5.95	1.33	1.37
23	DA	2242	G	C5-C4	-5.95	1.34	1.38
23	BA	737	C	N1-C6	-5.94	1.33	1.37
23	DA	2256	G	N3-C4	-5.93	1.31	1.35
23	BA	2496	C	N1-C6	-5.92	1.33	1.37
23	DA	814	C	N1-C6	-5.92	1.33	1.37
23	BA	2060	A	N9-C4	-5.89	1.34	1.37
23	DA	706	A	N9-C4	-5.89	1.34	1.37
23	DA	2055	C	N1-C6	-5.89	1.33	1.37
23	DA	983	A	N9-C4	-5.88	1.34	1.37
23	DA	449	A	C6-N1	-5.87	1.31	1.35
23	BA	1774	C	P-OP1	5.86	1.58	1.49
23	DA	2032	G	N9-C8	5.85	1.42	1.37
23	DA	114(B)	A	N7-C5	-5.85	1.35	1.39
23	BA	2601	C	N1-C6	-5.84	1.33	1.37
23	DA	216	A	N7-C5	-5.84	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	BA	1991	U	C2-N3	-5.84	1.33	1.37
23	BA	2430	A	N3-C4	-5.82	1.31	1.34
23	DA	2080	G	C6-N1	-5.81	1.35	1.39
23	DA	453	C	N1-C6	-5.79	1.33	1.37
23	BA	71	A	N9-C4	-5.78	1.34	1.37
23	DA	211	A	N9-C4	-5.76	1.34	1.37
23	BA	787	U	P-OP1	5.75	1.58	1.49
23	DA	204	A	N9-C4	-5.75	1.34	1.37
23	BA	1780	A	N9-C4	-5.74	1.34	1.37
23	BA	2595	G	C5-C4	-5.74	1.34	1.38
23	DA	2577	A	C6-N1	-5.73	1.31	1.35
23	BA	114(B)	A	N7-C5	-5.72	1.35	1.39
23	DA	2057	A	N9-C4	-5.72	1.34	1.37
23	BA	432	A	N9-C4	-5.72	1.34	1.37
23	BA	945	A	C5-C6	-5.72	1.35	1.41
23	DA	787	U	P-OP1	5.72	1.58	1.49
23	BA	929	G	N7-C5	-5.71	1.35	1.39
23	DA	698	C	C2-O2	5.71	1.29	1.24
23	DA	195	A	N3-C4	-5.71	1.31	1.34
23	BA	2005	A	N9-C4	-5.69	1.34	1.37
23	DA	1619	G	C5-C4	-5.67	1.34	1.38
23	DA	782	A	N9-C4	-5.66	1.34	1.37
23	DA	782	A	C5-C4	-5.65	1.34	1.38
23	BA	676	A	N7-C5	-5.62	1.35	1.39
23	DA	2033	A	C6-N1	-5.62	1.31	1.35
23	BA	1899	G	N9-C8	5.62	1.41	1.37
23	DA	2054	A	C5-C6	-5.62	1.35	1.41
23	DA	1802	A	N9-C4	-5.62	1.34	1.37
23	DA	241	A	N9-C4	-5.61	1.34	1.37
23	DA	766	C	N1-C6	-5.61	1.33	1.37
23	DA	1616	A	C5-C6	-5.61	1.36	1.41
23	DA	2227	A	N9-C4	-5.58	1.34	1.37
23	BA	1664	A	N9-C4	-5.58	1.34	1.37
23	BA	1617	C	N1-C6	-5.58	1.33	1.37
23	BA	1678	G	C2-N3	-5.57	1.28	1.32
23	DA	1777	U	N3-C4	-5.57	1.33	1.38
23	BA	1676	A	N3-C4	-5.55	1.31	1.34
23	DA	2446	G	C5-C4	-5.55	1.34	1.38
23	BA	1841	U	C4-O4	5.55	1.28	1.23
23	DA	199	A	C5-C4	-5.55	1.34	1.38
23	DA	2741	A	N9-C4	-5.54	1.34	1.37
23	DA	693	C	N1-C6	-5.53	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	DA	211	A	C6-N1	-5.53	1.31	1.35
23	DA	569	U	N1-C6	-5.53	1.32	1.38
23	DA	1201	C	N1-C6	-5.53	1.33	1.37
1	AA	1523	G	N3-C4	-5.52	1.31	1.35
23	DA	2346	A	N3-C4	-5.52	1.31	1.34
23	DA	387	U	C4-O4	5.51	1.28	1.23
23	BA	1602	U	C4-O4	5.51	1.28	1.23
23	DA	2242	G	N7-C5	-5.51	1.35	1.39
23	BA	2346	A	N3-C4	-5.51	1.31	1.34
23	BA	1571	A	N9-C4	-5.50	1.34	1.37
23	DA	1824	G	N9-C8	-5.50	1.34	1.37
23	DA	2070	G	N9-C8	-5.50	1.34	1.37
23	DA	2060	A	N3-C4	-5.49	1.31	1.34
23	BA	1827	C	N3-C4	-5.49	1.30	1.33
23	BA	764	A	N7-C5	-5.48	1.35	1.39
23	DA	2062	A	C5'-C4'	-5.48	1.44	1.51
23	BA	244	A	N3-C4	-5.47	1.31	1.34
23	DA	1782	C	N1-C6	-5.47	1.33	1.37
23	DA	204	A	C6-N1	-5.46	1.31	1.35
23	DA	2054	A	N9-C4	-5.46	1.34	1.37
23	BA	575	A	N3-C4	-5.46	1.31	1.34
23	DA	1606	G	C5-C4	-5.46	1.34	1.38
23	DA	1662	C	N3-C4	-5.46	1.30	1.33
23	BA	1309	G	N3-C4	-5.46	1.31	1.35
23	DA	2085	C	N1-C6	-5.45	1.33	1.37
23	DA	1776	G	C6-O6	-5.44	1.19	1.24
23	DA	1633	G	N7-C5	-5.44	1.35	1.39
23	DA	1376	C	C4-C5	-5.43	1.38	1.43
23	BA	837	C	C4-C5	-5.42	1.38	1.43
23	DA	1775	U	C2-N3	-5.42	1.33	1.37
23	DA	1341	U	C2-N3	5.42	1.41	1.37
23	DA	2447	G	N3-C4	-5.42	1.31	1.35
23	DA	57	C	N1-C6	-5.42	1.33	1.37
23	BA	2430	A	N9-C4	-5.41	1.34	1.37
23	DA	2231	C	N1-C6	-5.41	1.33	1.37
23	BA	114(B)	A	C5-C6	-5.41	1.36	1.41
23	DA	2587	A	N3-C4	-5.40	1.31	1.34
23	BA	677	A	N3-C4	-5.40	1.31	1.34
23	DA	2447	G	N9-C4	-5.40	1.33	1.38
23	DA	1802	A	N7-C5	-5.40	1.36	1.39
23	BA	824	A	N9-C4	-5.40	1.34	1.37
23	BA	2681	C	N3-C4	-5.39	1.30	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	DA	2432	A	N7-C5	-5.39	1.36	1.39
23	DA	195	A	N9-C4	-5.39	1.34	1.37
23	DA	1609	A	N3-C4	-5.39	1.31	1.34
23	DA	794	G	C6-N1	-5.38	1.35	1.39
1	AA	909	A	N9-C4	-5.38	1.34	1.37
23	DA	2502	G	N9-C8	-5.38	1.34	1.37
23	DA	122	G	N3-C4	-5.37	1.31	1.35
23	DA	1616	A	P-O5'	-5.37	1.54	1.59
23	DA	454	A	N9-C4	-5.36	1.34	1.37
23	DA	330	A	N9-C4	-5.36	1.34	1.37
23	BA	2054	A	N7-C5	-5.35	1.36	1.39
23	DA	2601	C	N1-C6	-5.35	1.33	1.37
23	DA	114(B)	A	N3-C4	-5.35	1.31	1.34
23	BA	2595	G	N9-C4	-5.34	1.33	1.38
23	BA	2741	A	N9-C4	-5.34	1.34	1.37
23	BA	114(B)	A	N9-C4	-5.34	1.34	1.37
23	DA	2445	G	C6-N1	-5.34	1.35	1.39
23	DA	330	A	C5-C6	-5.33	1.36	1.41
23	DA	1786	A	N7-C5	-5.33	1.36	1.39
23	DA	786	C	N1-C6	-5.32	1.33	1.37
23	BA	2440	C	N1-C2	-5.32	1.34	1.40
23	BA	2018	G	C6-N1	-5.32	1.35	1.39
23	BA	2060	A	N3-C4	-5.32	1.31	1.34
23	BA	585	G	C6-N1	-5.32	1.35	1.39
23	DA	2584	U	C4-O4	5.31	1.27	1.23
23	DA	2448	A	C5-C6	-5.31	1.36	1.41
23	DA	2577	A	N7-C5	-5.31	1.36	1.39
23	DA	1331	A	N9-C4	-5.31	1.34	1.37
23	BA	1678	G	N3-C4	-5.30	1.31	1.35
23	BA	2440	C	N1-C6	-5.30	1.33	1.37
23	DA	1614	A	N1-C2	5.30	1.39	1.34
23	DA	798	G	N7-C5	-5.29	1.36	1.39
23	DA	2256	G	C5-C4	-5.29	1.34	1.38
23	DA	1248	G	C5-C4	-5.29	1.34	1.38
23	BA	1776	G	C8-N7	-5.29	1.27	1.30
23	DA	2577	A	C5-C4	-5.28	1.35	1.38
23	DA	777	A	N3-C4	-5.28	1.31	1.34
23	DA	1029	A	N9-C4	-5.28	1.34	1.37
26	DD	127	ASP	CB-CG	5.27	1.62	1.51
23	BA	2059	A	C5-C4	-5.26	1.35	1.38
23	DA	1674	G	N9-C8	-5.26	1.34	1.37
23	DA	2058	A	C5-C4	-5.26	1.35	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	DA	2709	G	N9-C8	-5.26	1.34	1.37
23	DA	1332	G	N3-C4	-5.26	1.31	1.35
23	DA	2232	U	C4-O4	5.26	1.27	1.23
23	DA	457	A	C5-C4	-5.25	1.35	1.38
23	DA	473	G	C6-N1	-5.25	1.35	1.39
23	DA	1257	C	N1-C6	-5.25	1.33	1.37
23	DA	36	G	N3-C4	-5.25	1.31	1.35
23	DA	1624	G	C5-C4	-5.25	1.34	1.38
23	BA	2433	A	C6-N1	-5.25	1.31	1.35
23	DA	46	C	N3-C4	-5.24	1.30	1.33
23	BA	2392	A	N7-C5	-5.24	1.36	1.39
23	DA	761	A	C5-C6	-5.24	1.36	1.41
23	BA	2010	G	C5-C6	-5.24	1.37	1.42
23	DA	2257	U	N1-C2	-5.24	1.33	1.38
23	DA	1698	A	N9-C4	-5.23	1.34	1.37
23	BA	764	A	N3-C4	-5.23	1.31	1.34
23	BA	1675	C	N1-C6	-5.22	1.34	1.37
23	BA	2448	A	N3-C4	-5.22	1.31	1.34
23	DA	36	G	C6-N1	-5.22	1.35	1.39
23	DA	531	C	N1-C6	-5.22	1.34	1.37
1	AA	32	A	N3-C4	-5.21	1.31	1.34
23	BA	676	A	N3-C4	-5.21	1.31	1.34
23	DA	116	C	N3-C4	-5.20	1.30	1.33
23	DA	223	A	N9-C8	-5.20	1.33	1.37
23	DA	2060	A	C5-C4	-5.20	1.35	1.38
23	DA	2084	C	N1-C6	-5.20	1.34	1.37
23	DA	2014	A	N9-C4	-5.19	1.34	1.37
23	BA	114(B)	A	N3-C4	-5.19	1.31	1.34
23	DA	943	U	N1-C2	-5.19	1.33	1.38
23	DA	751	A	C6-N1	-5.18	1.31	1.35
23	BA	2517	C	N1-C6	-5.18	1.34	1.37
23	DA	1792	G	N7-C5	-5.18	1.36	1.39
23	DA	1815	A	C6-N1	-5.17	1.31	1.35
23	DA	2248	C	N1-C6	-5.17	1.34	1.37
23	DA	2227	A	N3-C4	-5.17	1.31	1.34
23	DA	678	C	N1-C2	-5.16	1.34	1.40
23	DA	251	A	N7-C5	-5.16	1.36	1.39
23	DA	1616	A	N9-C4	-5.15	1.34	1.37
23	DA	2588	G	P-OP1	5.15	1.57	1.49
23	DA	2488	A	C5-C4	-5.14	1.35	1.38
23	BA	1671	U	C2-N3	5.14	1.41	1.37
23	DA	812	C	N1-C6	-5.14	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	DA	2434	A	N3-C4	-5.13	1.31	1.34
34	DL	36	LYS	CD-CE	5.13	1.64	1.51
23	DA	2587	A	N9-C4	-5.12	1.34	1.37
23	DA	2588	G	C6-N1	-5.12	1.35	1.39
23	BA	575	A	C5-C4	-5.11	1.35	1.38
23	DA	2505	G	N3-C4	-5.11	1.31	1.35
23	DA	2765	A	N7-C5	-5.11	1.36	1.39
23	BA	1571	A	N3-C4	-5.11	1.31	1.34
23	DA	995	C	N1-C6	-5.10	1.34	1.37
23	BA	196	A	C6-N1	-5.10	1.31	1.35
23	DA	1606	G	N1-C2	-5.10	1.33	1.37
23	BA	836	G	N9-C4	-5.09	1.33	1.38
23	BA	1278	A	N3-C4	-5.09	1.31	1.34
23	BA	2249	U	C4-O4	5.09	1.27	1.23
23	BA	1997	G	C6-N1	-5.09	1.35	1.39
23	DA	2588	G	N3-C4	-5.09	1.31	1.35
23	BA	2009	G	N3-C4	-5.08	1.31	1.35
23	DA	1776	G	P-OP2	5.08	1.57	1.49
23	DA	799	G	N1-C2	-5.08	1.33	1.37
23	DA	805	G	N7-C5	-5.07	1.36	1.39
23	DA	2448	A	N3-C4	-5.07	1.31	1.34
23	DA	732	C	N1-C6	-5.07	1.34	1.37
23	BA	2198	A	N9-C4	-5.07	1.34	1.37
23	DA	769	G	N1-C2	-5.07	1.33	1.37
23	DA	784	A	N9-C4	-5.07	1.34	1.37
23	BA	2069	G	N3-C4	-5.06	1.31	1.35
23	DA	2510	C	N1-C6	-5.06	1.34	1.37
23	DA	473	G	N3-C4	-5.06	1.31	1.35
23	DA	751	A	P-OP1	5.06	1.57	1.49
23	BA	684	G	N3-C4	-5.06	1.31	1.35
23	BA	1264	G	N3-C4	-5.05	1.31	1.35
23	BA	2199	A	N3-C4	-5.05	1.31	1.34
23	BA	2463	C	N1-C6	-5.05	1.34	1.37
23	DA	1780	A	C5-C6	-5.05	1.36	1.41
23	DA	1760	A	C6-N1	-5.05	1.32	1.35
23	BA	1941	C	N1-C6	-5.05	1.34	1.37
23	DA	1780	A	N9-C4	-5.04	1.34	1.37
23	BA	802	A	N3-C4	-5.03	1.31	1.34
23	DA	2451	A	N3-C4	-5.03	1.31	1.34
23	DA	564	C	N3-C4	-5.03	1.30	1.33
23	DA	582	G	N9-C8	-5.03	1.34	1.37
23	DA	467	G	N9-C4	-5.02	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	DA	566	U	C2-N3	-5.02	1.34	1.37
23	BA	1902	C	C2-N3	-5.02	1.31	1.35
23	DA	736	C	N1-C6	-5.02	1.34	1.37
23	BA	244	A	N9-C4	-5.02	1.34	1.37
23	BA	462	C	N3-C4	-5.02	1.30	1.33
23	DA	192	C	N1-C6	-5.02	1.34	1.37
23	DA	2062	A	P-O5'	-5.01	1.54	1.59
23	DA	452	G	N3-C4	-5.00	1.31	1.35
23	DA	795	C	N1-C6	-5.00	1.34	1.37

All (3317) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	761	A	N1-C6-N6	30.82	137.09	118.60
23	BA	761	A	N1-C6-N6	25.08	133.65	118.60
23	DA	1332	G	N3-C4-N9	-24.42	111.35	126.00
23	DA	1332	G	N3-C4-C5	23.85	140.52	128.60
23	BA	1332	G	N3-C4-N9	-22.46	112.52	126.00
23	DA	761	A	C6-C5-N7	-21.62	117.17	132.30
23	BA	1332	G	N3-C4-C5	21.41	139.31	128.60
23	DA	1602	U	N3-C4-C5	-19.94	102.64	114.60
23	BA	676	A	C2-N3-C4	-19.31	100.94	110.60
23	DA	761	A	C5-C6-N1	-19.15	108.12	117.70
23	DA	676	A	C2-N3-C4	-19.01	101.09	110.60
23	DA	761	A	C5-N7-C8	-18.20	94.80	103.90
23	BA	761	A	C6-C5-N7	-17.81	119.83	132.30
23	DA	761	A	C4-C5-N7	17.34	119.37	110.70
23	DA	761	A	N9-C4-C5	-17.20	98.92	105.80
23	DA	2028	U	N3-C4-C5	-17.14	104.32	114.60
23	DA	1332	G	C2-N3-C4	-16.96	103.42	111.90
23	DA	774	A	C2-N3-C4	-16.91	102.14	110.60
23	BA	2028	U	N3-C4-C5	-16.41	104.75	114.60
23	DA	676	A	C5-N7-C8	-15.45	96.17	103.90
23	BA	761	A	C5-N7-C8	-14.95	96.42	103.90
23	DA	2028	U	C6-N1-C2	-14.94	112.03	121.00
23	BA	1678	G	N3-C4-C5	14.81	136.01	128.60
23	DA	1999	C	C6-N1-C2	14.72	126.19	120.30
23	BA	761	A	C4-C5-N7	14.67	118.03	110.70
23	BA	1678	G	N3-C4-N9	-14.62	117.23	126.00
23	DA	2028	U	N3-C4-O4	14.44	129.51	119.40
23	DA	1678	G	N3-C4-C5	14.37	135.78	128.60
23	DA	1962	C	N1-C2-O2	14.20	127.42	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	761	A	C2-N3-C4	-14.19	103.50	110.60
23	BA	761	A	N9-C4-C5	-14.12	100.15	105.80
23	DA	1678	G	N3-C4-N9	-14.08	117.55	126.00
23	BA	2501	C	C6-N1-C2	14.00	125.90	120.30
23	DA	783	A	C5-N7-C8	-13.85	96.98	103.90
23	DA	2505	G	C5-C6-O6	13.63	136.78	128.60
23	BA	1962	C	N1-C2-O2	13.58	127.05	118.90
23	DA	1671	U	N3-C4-C5	-13.42	106.55	114.60
23	DA	2249	U	N3-C4-C5	-13.40	106.56	114.60
23	BA	774	A	C2-N3-C4	-13.36	103.92	110.60
23	BA	1899	G	N3-C4-N9	-13.30	118.02	126.00
23	BA	2571	C	C6-N1-C2	13.17	125.57	120.30
23	BA	1999	C	C6-N1-C2	13.05	125.52	120.30
23	DA	2593	U	N3-C4-C5	-12.93	106.84	114.60
23	DA	761	A	C4-C5-C6	12.90	123.45	117.00
23	BA	2028	U	N3-C4-O4	12.80	128.36	119.40
23	BA	676	A	C5-C6-N1	-12.74	111.33	117.70
23	DA	450	G	C5-C6-N1	-12.71	105.15	111.50
23	DA	1602	U	N3-C4-O4	12.71	128.29	119.40
23	BA	1332	G	C2-N3-C4	-12.68	105.56	111.90
23	BA	2028	U	C6-N1-C2	-12.61	113.43	121.00
23	BA	1786	A	C5-N7-C8	-12.59	97.60	103.90
23	BA	676	A	C5-N7-C8	-12.56	97.62	103.90
23	BA	761	A	C5-C6-N1	-12.54	111.43	117.70
23	DA	761	A	N7-C8-N9	12.41	120.01	113.80
23	DA	1602	U	C6-N1-C2	-12.37	113.58	121.00
23	BA	1602	U	C6-N1-C2	-12.33	113.61	121.00
23	BA	570	G	C5-C6-N1	-12.25	105.37	111.50
23	BA	1602	U	N3-C4-C5	-12.24	107.26	114.60
23	BA	1671	U	N3-C4-O4	12.21	127.94	119.40
23	BA	1671	U	N3-C4-C5	-12.16	107.30	114.60
23	DA	124	G	C8-N9-C4	12.13	111.25	106.40
23	DA	945	A	C6-C5-N7	-12.12	123.81	132.30
23	DA	676	A	N7-C8-N9	12.10	119.85	113.80
23	DA	1332	G	N3-C2-N2	-12.06	111.46	119.90
23	DA	2626	C	C6-N1-C2	12.01	125.10	120.30
23	BA	945	A	C6-C5-N7	-11.99	123.91	132.30
23	DA	1602	U	C4-C5-C6	11.96	126.88	119.70
23	DA	2579	C	C6-N1-C2	11.96	125.08	120.30
23	BA	1332	G	N3-C2-N2	-11.92	111.56	119.90
23	DA	774	A	C5-N7-C8	-11.91	97.95	103.90
23	BA	1786	A	N7-C8-N9	11.87	119.74	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	1616	A	C5-N7-C8	-11.87	97.97	103.90
23	DA	783	A	N7-C8-N9	11.85	119.73	113.80
23	DA	2619	C	C6-N1-C2	11.84	125.03	120.30
23	DA	2830	G	N1-C6-O6	11.77	126.96	119.90
23	DA	57	C	C6-N1-C2	11.74	125.00	120.30
23	BA	1790	C	N3-C4-C5	11.74	126.59	121.90
23	BA	1786	A	C8-N9-C4	-11.73	101.11	105.80
23	DA	1332	G	C8-N9-C1'	11.69	142.20	127.00
23	DA	1021	A	C2-N3-C4	-11.66	104.77	110.60
23	DA	1698	A	C2-N3-C4	-11.64	104.78	110.60
23	BA	2571	C	C5-C6-N1	-11.64	115.18	121.00
23	BA	1899	G	C2-N3-C4	-11.59	106.10	111.90
23	DA	1614	A	C2-N3-C4	-11.57	104.82	110.60
23	BA	2502	G	N1-C6-O6	11.55	126.83	119.90
23	DA	676	A	C4-C5-N7	11.44	116.42	110.70
23	DA	265	A	C2-N3-C4	-11.39	104.91	110.60
23	BA	761	A	N7-C8-N9	11.35	119.48	113.80
23	DA	71	A	C5-N7-C8	-11.30	98.25	103.90
23	BA	570	G	C4-C5-N7	-11.29	106.28	110.80
23	DA	1899	G	N3-C4-N9	-11.29	119.23	126.00
23	DA	570	G	C5-C6-O6	11.21	135.33	128.60
23	BA	570	G	C5-C6-O6	11.20	135.32	128.60
23	DA	761	A	C5-C6-N6	-11.15	114.78	123.70
23	DA	1671	U	N3-C4-O4	11.13	127.19	119.40
23	DA	2648	C	C6-N1-C2	11.12	124.75	120.30
23	BA	1899	G	N3-C4-C5	11.10	134.15	128.60
23	BA	2829	C	C6-N1-C2	11.08	124.73	120.30
23	DA	2571	C	C6-N1-C2	11.04	124.72	120.30
23	DA	201	C	C6-N1-C2	11.03	124.71	120.30
23	DA	1332	G	C4-N9-C1'	-10.98	112.22	126.50
23	BA	761	A	C5-C6-N6	-10.97	114.92	123.70
23	DA	2581	G	C5-C6-O6	10.91	135.15	128.60
23	BA	1332	G	C8-N9-C1'	10.91	141.18	127.00
23	BA	2498	C	C6-N1-C2	10.91	124.66	120.30
23	DA	570	G	C4-C5-N7	-10.89	106.44	110.80
23	DA	450	G	C4-C5-C6	10.88	125.33	118.80
23	DA	1614	A	C5-C6-N1	-10.84	112.28	117.70
23	DA	676	A	N3-C4-C5	10.82	134.38	126.80
23	DA	2501	C	C6-N1-C2	10.80	124.62	120.30
23	DA	210	C	C6-N1-C2	10.79	124.62	120.30
23	BA	210	C	C6-N1-C2	10.74	124.60	120.30
23	DA	2689	U	C5-C4-O4	10.71	132.33	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BA	330	A	C2-N3-C4	-10.69	105.25	110.60
23	DA	1616	A	N1-C6-N6	10.69	125.02	118.60
23	DA	1899	G	N3-C4-C5	10.65	133.92	128.60
23	BA	2579	C	C6-N1-C2	10.60	124.54	120.30
1	CA	123	C	C6-N1-C2	10.59	124.53	120.30
23	BA	2502	G	C5-C6-O6	-10.58	122.25	128.60
23	BA	676	A	N7-C8-N9	10.57	119.09	113.80
23	BA	2456	C	N3-C4-C5	10.57	126.13	121.90
23	DA	2544	G	N1-C6-O6	10.57	126.24	119.90
23	BA	1786	A	C6-C5-N7	-10.56	124.91	132.30
23	DA	208	C	C6-N1-C2	10.56	124.53	120.30
23	DA	1786	A	C5-N7-C8	-10.55	98.63	103.90
23	DA	2050	C	N1-C2-O2	-10.54	112.58	118.90
23	DA	1007	C	C6-N1-C2	10.53	124.51	120.30
23	BA	847	U	C5-C6-N1	-10.52	117.44	122.70
23	DA	2593	U	N3-C4-O4	10.52	126.76	119.40
23	BA	678	C	N3-C4-C5	10.50	126.10	121.90
23	DA	1786	A	N7-C8-N9	10.43	119.01	113.80
23	BA	945	A	N1-C6-N6	10.39	124.83	118.60
23	DA	676	A	N1-C2-N3	10.39	134.50	129.30
23	DA	2689	U	C2-N1-C1'	-10.37	105.26	117.70
23	BA	2648	C	C6-N1-C2	10.32	124.43	120.30
23	BA	676	A	N3-C4-C5	10.32	134.02	126.80
23	BA	1261	C	C6-N1-C2	10.31	124.43	120.30
23	DA	1999	C	C5-C6-N1	-10.25	115.88	121.00
23	BA	761	A	C4-C5-C6	10.24	122.12	117.00
23	BA	691	C	C6-N1-C2	10.23	124.39	120.30
23	BA	2430	A	C4-C5-C6	10.23	122.12	117.00
23	BA	1786	A	C2-N3-C4	-10.22	105.49	110.60
23	DA	1616	A	C4-C5-N7	10.22	115.81	110.70
23	BA	2010	G	C6-C5-N7	-10.20	124.28	130.40
23	DA	1614	A	C4-C5-C6	10.14	122.07	117.00
23	BA	676	A	N1-C6-N6	10.05	124.63	118.60
23	DA	2028	U	C4-C5-C6	10.05	125.73	119.70
23	BA	1790	C	C2-N3-C4	-10.03	114.89	119.90
23	BA	1332	G	C4-N9-C1'	-10.01	113.49	126.50
23	DA	945	A	N7-C8-N9	9.98	118.79	113.80
23	DA	408	G	C8-N9-C4	9.97	110.39	106.40
23	DA	1698	A	N1-C6-N6	9.97	124.58	118.60
23	BA	2330	G	C8-N9-C4	9.97	110.39	106.40
23	BA	1021	A	C2-N3-C4	-9.95	105.63	110.60
23	BA	444	C	C6-N1-C2	9.94	124.28	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	114(B)	A	C2-N3-C4	-9.93	105.64	110.60
23	DA	2464	C	C6-N1-C2	9.91	124.27	120.30
23	DA	209	C	C6-N1-C2	9.90	124.26	120.30
23	DA	210	C	C5-C6-N1	-9.89	116.05	121.00
23	DA	2330	G	C8-N9-C4	9.88	110.35	106.40
23	BA	2689	U	C2-N1-C1'	-9.87	105.86	117.70
23	DA	461	C	N1-C2-O2	-9.86	112.99	118.90
23	DA	330	A	N1-C6-N6	9.86	124.51	118.60
23	DA	1790	C	C6-N1-C2	9.85	124.24	120.30
23	DA	1614	A	C6-C5-N7	-9.84	125.41	132.30
23	DA	265	A	C5-N7-C8	-9.83	98.99	103.90
23	DA	2518	A	C5-N7-C8	-9.82	98.99	103.90
23	DA	2430	A	C6-C5-N7	-9.79	125.45	132.30
23	DA	1791	A	C8-N9-C4	9.78	109.71	105.80
23	DA	945	A	C4-N9-C1'	9.75	143.84	126.30
23	BA	2463	C	C6-N1-C2	9.74	124.20	120.30
23	BA	1962	C	C2-N1-C1'	9.71	129.47	118.80
23	DA	2502	G	C5-C6-O6	-9.70	122.78	128.60
23	DA	2498	C	C6-N1-C2	9.69	124.18	120.30
23	DA	71	A	N1-C6-N6	9.69	124.41	118.60
23	DA	1572	A	C8-N9-C4	9.68	109.67	105.80
23	DA	570	G	C5-C6-N1	-9.65	106.68	111.50
23	DA	2430	A	N1-C6-N6	9.64	124.39	118.60
23	BA	1898	U	C5-C4-O4	9.64	131.68	125.90
23	BA	2871	C	C6-N1-C2	9.63	124.15	120.30
23	DA	774	A	N1-C6-N6	9.63	124.38	118.60
23	BA	945	A	C4-N9-C1'	9.62	143.61	126.30
23	DA	809	G	N1-C6-O6	9.61	125.66	119.90
23	DA	783	A	C2-N3-C4	-9.59	105.80	110.60
23	DA	1618	A	N1-C6-N6	9.59	124.35	118.60
23	DA	1648	C	N1-C2-O2	-9.58	113.15	118.90
23	DA	141(A)	A	C5-N7-C8	-9.58	99.11	103.90
23	DA	2689	U	N3-C4-O4	-9.58	112.69	119.40
23	BA	2044	C	C6-N1-C2	9.57	124.13	120.30
23	BA	783	A	N1-C6-N6	9.56	124.34	118.60
23	BA	1241	A	C2-N3-C4	-9.56	105.82	110.60
23	DA	2050	C	C2-N3-C4	-9.55	115.12	119.90
23	DA	397	G	C8-N9-C4	9.55	110.22	106.40
23	BA	2713	A	N1-C6-N6	9.54	124.32	118.60
23	DA	783	A	C4-C5-N7	9.54	115.47	110.70
23	DA	2032	G	C5-N7-C8	-9.54	99.53	104.30
23	BA	2689	U	C5-C4-O4	9.53	131.62	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BA	664	C	C6-N1-C2	9.51	124.11	120.30
23	DA	1331	A	C2-N3-C4	-9.51	105.84	110.60
23	BA	2032	G	C5-N7-C8	-9.50	99.55	104.30
23	DA	130	C	N3-C4-C5	9.48	125.69	121.90
23	BA	2043	C	C6-N1-C2	9.47	124.09	120.30
23	DA	2713	A	N1-C6-N6	9.46	124.28	118.60
23	DA	1257	C	C5-C6-N1	-9.46	116.27	121.00
23	DA	1899	G	C2-N3-C4	-9.45	107.17	111.90
23	DA	330	A	C2-N3-C4	-9.44	105.88	110.60
23	DA	2829	C	C6-N1-C2	9.40	124.06	120.30
23	BA	828	U	N3-C4-O4	-9.40	112.82	119.40
23	BA	2028	U	C4-C5-C6	9.39	125.33	119.70
23	BA	2240	C	C6-N1-C2	9.38	124.05	120.30
23	DA	1994	C	C6-N1-C2	9.37	124.05	120.30
23	BA	2713	A	C5-N7-C8	-9.36	99.22	103.90
23	BA	2430	A	N1-C6-N6	9.32	124.19	118.60
23	BA	2084	C	C6-N1-C2	9.31	124.03	120.30
23	DA	586	A	C8-N9-C4	9.29	109.52	105.80
23	BA	640	C	C6-N1-C2	9.28	124.01	120.30
23	DA	979	G	C4-C5-N7	9.28	114.51	110.80
23	DA	2580	U	C5-C4-O4	9.27	131.46	125.90
23	DA	1671	U	C4-C5-C6	9.27	125.26	119.70
23	BA	679	C	N1-C2-O2	-9.25	113.35	118.90
23	DA	2681	C	C5-C6-N1	-9.23	116.38	121.00
23	BA	2571	C	C2-N3-C4	-9.23	115.28	119.90
23	DA	1257	C	C2-N3-C4	-9.23	115.29	119.90
23	BA	2010	G	C4-C5-N7	9.22	114.49	110.80
23	DA	2028	U	C5-C6-N1	9.22	127.31	122.70
23	DA	784	A	N1-C6-N6	-9.22	113.07	118.60
23	BA	2502	G	C6-C5-N7	-9.21	124.88	130.40
23	BA	2619	C	C6-N1-C2	9.19	123.98	120.30
23	DA	678	C	N3-C4-C5	9.20	125.58	121.90
23	BA	1614	A	C2-N3-C4	-9.19	106.01	110.60
23	DA	2648	C	N1-C2-O2	-9.19	113.39	118.90
23	DA	397	G	N1-C6-O6	9.18	125.41	119.90
23	DA	945	A	C5-N7-C8	-9.18	99.31	103.90
23	BA	330	A	N1-C6-N6	9.18	124.11	118.60
23	DA	1264	G	C8-N9-C4	-9.17	102.73	106.40
23	BA	2084	C	C5-C6-N1	-9.17	116.42	121.00
23	DA	2066	C	C6-N1-C2	9.16	123.97	120.30
23	DA	133	C	C6-N1-C2	9.16	123.96	120.30
23	DA	527	C	N3-C4-N4	-9.15	111.59	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BA	2742	C	C6-N1-C2	9.15	123.96	120.30
23	DA	2448	A	N1-C6-N6	9.14	124.09	118.60
23	BA	580	C	C5-C6-N1	-9.14	116.43	121.00
23	DA	1616	A	C6-C5-N7	-9.13	125.91	132.30
23	DA	1614	A	N1-C6-N6	9.11	124.07	118.60
23	BA	676	A	C4-C5-N7	9.11	115.25	110.70
23	BA	2430	A	C6-C5-N7	-9.10	125.93	132.30
23	DA	1616	A	N7-C8-N9	9.10	118.35	113.80
23	DA	130	C	C6-N1-C2	9.09	123.94	120.30
23	DA	676	A	C5-C6-N1	-9.09	113.16	117.70
23	DA	2043	C	C6-N1-C2	9.08	123.93	120.30
23	BA	2066	C	N3-C4-C5	9.07	125.53	121.90
23	DA	189	G	C8-N9-C4	9.04	110.02	106.40
23	BA	560	C	C6-N1-C2	9.04	123.92	120.30
23	DA	2231	C	N1-C2-O2	-9.03	113.48	118.90
23	DA	774	A	N1-C2-N3	9.01	133.81	129.30
23	DA	1678	G	C4-N9-C1'	-9.01	114.79	126.50
23	DA	387	U	N3-C4-C5	-8.99	109.21	114.60
23	BA	708	C	C6-N1-C2	8.98	123.89	120.30
23	DA	1698	A	C5-N7-C8	-8.98	99.41	103.90
23	BA	1934	C	C6-N1-C2	8.98	123.89	120.30
23	BA	761	A	C2-N3-C4	-8.96	106.12	110.60
23	BA	1783	A	N9-C4-C5	8.96	109.39	105.80
23	BA	1902	C	N3-C4-N4	-8.95	111.73	118.00
23	BA	945	A	C4-C5-C6	8.95	121.48	117.00
23	BA	1779	U	C6-N1-C2	8.95	126.37	121.00
23	DA	1962	C	C2-N1-C1'	8.94	128.63	118.80
23	DA	679	C	C2-N3-C4	-8.93	115.44	119.90
23	DA	1349	A	N1-C6-N6	8.92	123.95	118.60
23	BA	1244	G	C8-N9-C4	8.92	109.97	106.40
23	BA	1830	C	N1-C2-O2	-8.91	113.55	118.90
23	DA	659	C	C6-N1-C2	8.91	123.86	120.30
23	DA	2571	C	N3-C4-C5	8.90	125.46	121.90
23	BA	2391	G	N1-C6-O6	-8.87	114.58	119.90
23	DA	774	A	N3-C4-C5	8.87	133.01	126.80
23	DA	2578	G	C5-C6-O6	-8.87	123.28	128.60
23	BA	528	A	C2-N3-C4	-8.85	106.17	110.60
23	DA	568	U	N3-C4-C5	-8.84	109.30	114.60
23	DA	783	A	C6-C5-N7	-8.82	126.12	132.30
23	DA	1786	A	C6-C5-N7	-8.82	126.12	132.30
23	DA	774	A	C4-C5-N7	8.82	115.11	110.70
23	DA	2010	G	N1-C6-O6	8.82	125.19	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	1678	G	C8-N9-C1'	8.82	138.47	127.00
1	AA	299	G	C5-C6-N1	-8.82	107.09	111.50
23	BA	676	A	C6-C5-N7	-8.81	126.13	132.30
23	DA	1786	A	C2-N3-C4	-8.81	106.19	110.60
23	DA	1979	C	N1-C2-O2	-8.81	113.61	118.90
23	DA	1790	C	N3-C4-C5	8.79	125.42	121.90
23	DA	678	C	C6-N1-C2	8.78	123.81	120.30
23	BA	2010	G	N1-C6-O6	8.77	125.16	119.90
23	BA	945	A	C8-N9-C1'	-8.76	111.94	127.70
23	DA	1605	C	C6-N1-C2	-8.75	116.80	120.30
23	DA	2830	G	C5-C6-O6	-8.73	123.36	128.60
23	BA	265	A	C5-N7-C8	-8.73	99.54	103.90
23	DA	1698	A	C6-C5-N7	-8.73	126.19	132.30
23	DA	2502	G	N1-C6-O6	8.73	125.14	119.90
23	BA	2050	C	N1-C2-O2	-8.72	113.67	118.90
23	BA	847	U	C2-N1-C1'	-8.72	107.24	117.70
23	BA	783	A	C5-N7-C8	-8.71	99.55	103.90
23	BA	1839	G	N3-C4-N9	-8.71	120.78	126.00
23	DA	945	A	N1-C6-N6	8.70	123.82	118.60
23	BA	461	C	N1-C2-O2	-8.69	113.69	118.90
23	DA	774	A	C6-C5-N7	-8.69	126.22	132.30
23	DA	2505	G	N1-C6-O6	-8.69	114.69	119.90
23	BA	1614	A	C5-C6-N1	-8.69	113.36	117.70
23	DA	2581	G	N1-C6-O6	-8.69	114.69	119.90
23	BA	1572	A	C8-N9-C4	8.68	109.27	105.80
23	DA	1616	A	C2-N3-C4	-8.68	106.26	110.60
23	BA	929	G	N1-C6-O6	8.68	125.11	119.90
23	DA	2648	C	C5-C6-N1	-8.67	116.67	121.00
23	BA	2713	A	C2-N3-C4	-8.67	106.27	110.60
23	DA	671	C	N1-C2-O2	-8.66	113.70	118.90
23	DA	114(B)	A	C6-C5-N7	-8.66	126.24	132.30
23	DA	57	C	N3-C4-C5	8.65	125.36	121.90
23	BA	2693	A	N1-C6-N6	-8.65	113.41	118.60
23	DA	2496	C	C6-N1-C2	8.65	123.76	120.30
23	DA	1698	A	C4-C5-N7	8.64	115.02	110.70
23	DA	2248	C	C2-N3-C4	-8.64	115.58	119.90
23	DA	1678	G	C2-N3-C4	-8.64	107.58	111.90
23	DA	265	A	C5-C6-N1	-8.64	113.38	117.70
23	BA	1325	G	N9-C4-C5	8.63	108.85	105.40
23	BA	1332	G	N1-C2-N2	8.63	123.96	116.20
23	DA	945	A	C4-C5-C6	8.63	121.31	117.00
23	BA	535	C	C6-N1-C2	8.62	123.75	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	1602	U	C2-N3-C4	8.62	132.17	127.00
23	DA	684	G	C8-N9-C4	-8.60	102.96	106.40
23	DA	211	A	C2-N3-C4	-8.59	106.31	110.60
23	DA	945	A	C8-N9-C4	-8.59	102.36	105.80
23	DA	2689	U	C6-N1-C1'	8.57	133.19	121.20
23	DA	2713	A	C5-N7-C8	-8.57	99.62	103.90
23	DA	211	A	N1-C2-N3	8.56	133.58	129.30
23	DA	377	C	C6-N1-C2	8.56	123.72	120.30
23	DA	676	A	C6-C5-N7	-8.55	126.31	132.30
23	DA	2647	U	C5-C6-N1	-8.55	118.42	122.70
23	DA	2451	A	N9-C4-C5	8.54	109.22	105.80
23	BA	1698	A	N1-C6-N6	8.54	123.72	118.60
23	BA	1614	A	C6-C5-N7	-8.54	126.33	132.30
23	BA	1788	C	C5-C6-N1	-8.51	116.75	121.00
23	DA	140	A	C5-N7-C8	-8.50	99.65	103.90
23	DA	570	G	N9-C4-C5	8.49	108.80	105.40
23	BA	330	A	N9-C4-C5	-8.49	102.40	105.80
23	BA	2581	G	C8-N9-C4	-8.49	103.00	106.40
23	DA	2688	U	C5-C4-O4	8.49	131.00	125.90
23	DA	677	A	C2-N3-C4	-8.48	106.36	110.60
23	DA	2010	G	C6-C5-N7	-8.48	125.31	130.40
23	DA	194	G	C8-N9-C4	8.48	109.79	106.40
23	BA	2828	C	C5-C6-N1	-8.47	116.77	121.00
23	BA	2433	A	N1-C2-N3	8.47	133.53	129.30
23	BA	1683	C	N1-C2-O2	-8.47	113.82	118.90
23	BA	2066	C	C2-N3-C4	-8.47	115.67	119.90
23	BA	2057	A	N1-C2-N3	8.46	133.53	129.30
23	BA	970	C	C6-N1-C2	8.44	123.67	120.30
23	BA	1772	G	C8-N9-C4	8.43	109.77	106.40
23	BA	2057	A	C2-N3-C4	-8.42	106.39	110.60
23	BA	1979	C	N1-C2-O2	-8.42	113.85	118.90
23	BA	1261	C	N3-C4-C5	8.42	125.27	121.90
23	BA	2430	A	C2-N3-C4	-8.41	106.39	110.60
23	DA	71	A	C4-C5-N7	8.41	114.91	110.70
23	BA	783	A	C2-N3-C4	-8.41	106.40	110.60
23	DA	450	G	C4-C5-N7	-8.40	107.44	110.80
23	DA	2053	G	N1-C6-O6	8.40	124.94	119.90
23	BA	397	G	N1-C6-O6	8.40	124.94	119.90
23	DA	458	G	C2-N3-C4	8.40	116.10	111.90
23	DA	2500	U	C5-C6-N1	-8.39	118.50	122.70
23	BA	2699	C	C5-C6-N1	-8.39	116.81	121.00
23	DA	1417	C	C6-N1-C2	8.38	123.65	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	787	U	C5-C6-N1	-8.37	118.52	122.70
23	BA	671	C	N1-C2-O2	-8.37	113.88	118.90
23	BA	2010	G	C8-N9-C4	-8.37	103.05	106.40
23	BA	1602	U	N3-C4-O4	8.37	125.26	119.40
23	BA	2689	U	N3-C4-O4	-8.37	113.54	119.40
23	BA	2505	G	C5-C6-O6	8.36	133.61	128.60
23	BA	677	A	C2-N3-C4	-8.35	106.42	110.60
23	BA	2544	G	N1-C6-O6	8.35	124.91	119.90
23	BA	1253	A	C5-N7-C8	-8.35	99.73	103.90
23	DA	945	A	C4-C5-N7	8.35	114.87	110.70
23	BA	655	A	C8-N9-C4	-8.34	102.46	105.80
23	BA	1971	A	N1-C6-N6	8.34	123.60	118.60
23	BA	2681	C	N3-C4-N4	-8.34	112.16	118.00
23	DA	2503	A	N1-C2-N3	-8.34	125.13	129.30
23	DA	568	U	C4-C5-C6	8.34	124.70	119.70
23	DA	937	U	C5-C6-N1	-8.33	118.53	122.70
23	BA	2441	C	C6-N1-C2	8.32	123.63	120.30
23	DA	1934	C	C6-N1-C2	8.32	123.63	120.30
23	BA	2392	A	C2-N3-C4	-8.31	106.44	110.60
23	DA	761	A	C8-N9-C1'	-8.31	112.74	127.70
23	DA	1962	C	C6-N1-C1'	-8.31	110.83	120.80
23	DA	2057	A	C2-N3-C4	-8.30	106.45	110.60
23	BA	731	C	C6-N1-C2	8.30	123.62	120.30
23	DA	1021	A	C5-N7-C8	-8.30	99.75	103.90
23	DA	1010	A	C8-N9-C4	8.29	109.11	105.80
1	AA	123	C	C6-N1-C2	8.28	123.61	120.30
23	DA	472	A	C8-N9-C4	8.28	109.11	105.80
23	DA	2699	C	C6-N1-C2	8.28	123.61	120.30
23	DA	2463	C	C6-N1-C2	8.28	123.61	120.30
23	BA	189	G	C8-N9-C4	8.28	109.71	106.40
23	DA	1935	G	C8-N9-C4	8.27	109.71	106.40
23	BA	1771	C	N1-C2-O2	-8.27	113.94	118.90
23	BA	265	A	C2-N3-C4	-8.27	106.47	110.60
23	DA	2056	G	C4-C5-N7	8.25	114.10	110.80
23	BA	1999	C	C5-C6-N1	-8.25	116.88	121.00
23	BA	2226	C	C6-N1-C2	8.24	123.60	120.30
23	BA	2463	C	C5-C6-N1	-8.24	116.88	121.00
23	DA	2061	G	C5-C6-N1	-8.23	107.39	111.50
23	DA	2417	C	C6-N1-C2	8.22	123.59	120.30
23	BA	828	U	C5-C4-O4	8.21	130.83	125.90
23	DA	1264	G	N9-C4-C5	8.20	108.68	105.40
23	BA	807	U	C2-N1-C1'	-8.19	107.87	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	2432	A	C2-N3-C4	-8.19	106.51	110.60
23	BA	444	C	C5-C6-N1	-8.18	116.91	121.00
23	BA	676	A	N3-C4-N9	-8.18	120.85	127.40
23	DA	2706	G	C5-C6-O6	-8.18	123.69	128.60
23	DA	676	A	N3-C4-N9	-8.18	120.86	127.40
23	DA	1161	C	C6-N1-C2	-8.18	117.03	120.30
23	DA	2739	U	C5-C6-N1	-8.17	118.61	122.70
23	DA	270(B)	A	C8-N9-C4	8.16	109.06	105.80
23	BA	1962	C	C6-N1-C1'	-8.16	111.01	120.80
23	BA	1653	G	C8-N9-C4	8.15	109.66	106.40
23	BA	2713	A	C4-C5-N7	8.15	114.78	110.70
23	BA	574	C	C6-N1-C2	8.15	123.56	120.30
23	DA	2593	U	C4-C5-C6	8.14	124.59	119.70
23	DA	2430	A	C4-C5-C6	8.14	121.07	117.00
23	BA	2506	U	N3-C2-O2	-8.14	116.50	122.20
23	BA	2424	C	C6-N1-C2	8.13	123.55	120.30
23	DA	2712	U	N1-C2-N3	8.13	119.78	114.90
23	BA	1253	A	C4-C5-C6	-8.12	112.94	117.00
23	BA	1786	A	N1-C2-N3	8.12	133.36	129.30
23	BA	1325	G	C8-N9-C1'	8.11	137.54	127.00
23	BA	1800	C	C6-N1-C2	8.11	123.54	120.30
23	DA	1309	G	C8-N9-C4	8.11	109.64	106.40
23	BA	1614	A	C5-N7-C8	-8.11	99.85	103.90
23	BA	764	A	C5-N7-C8	-8.09	99.85	103.90
23	DA	2515	C	C6-N1-C2	8.09	123.54	120.30
23	BA	814	C	C6-N1-C2	8.09	123.54	120.30
23	DA	786	C	C5-C6-N1	-8.08	116.96	121.00
23	DA	2681	C	N3-C4-N4	-8.08	112.34	118.00
23	BA	1204	A	C5-N7-C8	-8.08	99.86	103.90
23	DA	528	A	C2-N3-C4	-8.07	106.56	110.60
23	DA	71	A	C2-N3-C4	-8.07	106.57	110.60
23	DA	2510	C	C6-N1-C2	8.07	123.53	120.30
23	BA	141(A)	A	C5-N7-C8	-8.06	99.87	103.90
23	BA	840	C	C6-N1-C2	8.05	123.52	120.30
23	BA	2081	C	N1-C2-O2	-8.06	114.07	118.90
23	DA	1783	A	N9-C4-C5	8.06	109.02	105.80
23	DA	2626	C	C5-C6-N1	-8.06	116.97	121.00
23	DA	114(B)	A	N1-C6-N6	8.05	123.43	118.60
23	DA	408	G	N7-C8-N9	-8.05	109.08	113.10
23	DA	664	C	C6-N1-C2	8.05	123.52	120.30
23	BA	2777	G	C8-N9-C4	8.05	109.62	106.40
23	BA	1790	C	C5-C6-N1	-8.03	116.99	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	698	C	C6-N1-C2	8.03	123.51	120.30
1	AA	1512	U	C5-C6-N1	-8.02	118.69	122.70
23	DA	2518	A	C4-C5-N7	8.02	114.71	110.70
47	DY	21	LEU	CA-CB-CG	8.02	133.74	115.30
23	BA	945	A	C5-N7-C8	-8.01	99.89	103.90
23	DA	1022	G	N1-C6-O6	-8.00	115.10	119.90
23	BA	1678	G	C8-N9-C1'	8.00	137.40	127.00
23	BA	2596	U	C2-N1-C1'	-8.00	108.11	117.70
23	DA	1627	G	N1-C6-O6	8.00	124.70	119.90
23	BA	2028	U	C5-C6-N1	7.99	126.70	122.70
23	BA	2017	U	N1-C2-N3	7.99	119.69	114.90
23	BA	529	A	N1-C6-N6	7.98	123.39	118.60
23	DA	840	C	C6-N1-C2	7.98	123.49	120.30
23	BA	1898	U	N3-C4-C5	-7.98	109.81	114.60
23	DA	2505	G	C4-C5-N7	-7.98	107.61	110.80
23	BA	1820	U	C5-C6-N1	-7.98	118.71	122.70
23	DA	465	G	C8-N9-C4	-7.97	103.21	106.40
23	DA	1341	U	N3-C4-O4	7.97	124.98	119.40
23	BA	32	C	N1-C2-O2	-7.96	114.12	118.90
23	DA	1644	C	N1-C2-O2	7.96	123.68	118.90
23	BA	114(B)	A	C6-C5-N7	-7.95	126.74	132.30
23	DA	1332	G	C5-N7-C8	-7.94	100.33	104.30
1	CA	285	G	C8-N9-C4	7.94	109.58	106.40
23	DA	2014	A	C8-N9-C4	7.94	108.97	105.80
23	DA	2581	G	N9-C4-C5	7.94	108.58	105.40
23	BA	1614	A	N7-C8-N9	7.93	117.77	113.80
23	DA	2591	C	C5-C6-N1	-7.93	117.03	121.00
23	DA	809	G	C5-C6-O6	-7.93	123.84	128.60
23	BA	1678	G	C2-N3-C4	-7.92	107.94	111.90
23	BA	535	C	C5-C6-N1	-7.92	117.04	121.00
23	BA	2346	A	C2-N3-C4	-7.91	106.64	110.60
23	BA	2699	C	C6-N1-C2	7.91	123.46	120.30
23	DA	783	A	C8-N9-C4	-7.90	102.64	105.80
23	BA	189	G	N9-C4-C5	-7.90	102.24	105.40
23	BA	2028	U	C2-N3-C4	7.90	131.74	127.00
23	DA	273(A)	G	C8-N9-C4	7.90	109.56	106.40
46	BX	35	THR	N-CA-C	7.90	132.33	111.00
23	BA	2499	C	C2-N3-C4	-7.90	115.95	119.90
23	DA	2567	G	N1-C6-O6	7.90	124.64	119.90
23	DA	783	A	N1-C6-N6	7.90	123.34	118.60
23	BA	2524	G	C8-N9-C4	7.89	109.56	106.40
23	BA	1786	A	C4-C5-N7	7.89	114.64	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	107	C	C6-N1-C2	7.88	123.45	120.30
23	BA	2010	G	C5-N7-C8	-7.88	100.36	104.30
23	DA	971	C	N1-C2-O2	-7.88	114.17	118.90
23	DA	1989	G	N1-C6-O6	7.88	124.63	119.90
23	BA	298	G	C5-N7-C8	-7.88	100.36	104.30
23	DA	2451	A	C8-N9-C4	-7.88	102.65	105.80
23	BA	2593	U	N3-C4-C5	-7.88	109.87	114.60
23	DA	736	C	C6-N1-C2	7.87	123.45	120.30
23	DA	1007	C	C5-C6-N1	-7.87	117.06	121.00
23	BA	2518	A	C5-N7-C8	-7.87	99.97	103.90
47	BY	21	LEU	CA-CB-CG	7.87	133.39	115.30
23	DA	2424	C	C6-N1-C2	7.86	123.44	120.30
23	DA	2324	C	C5-C6-N1	-7.85	117.07	121.00
23	BA	1671	U	C5-C6-N1	7.85	126.62	122.70
23	DA	1820	U	C5-C6-N1	-7.85	118.78	122.70
1	CA	1053	G	C4-N9-C1'	-7.85	116.30	126.50
23	BA	530	G	C8-N9-C4	-7.84	103.26	106.40
23	DA	2713	A	C2-N3-C4	-7.84	106.68	110.60
23	DA	2430	A	C2-N3-C4	-7.84	106.68	110.60
23	DA	814	C	C6-N1-C2	7.84	123.43	120.30
23	BA	1704	G	C8-N9-C4	7.83	109.53	106.40
23	BA	945	A	C4-C5-N7	7.83	114.62	110.70
23	BA	1332	G	C5-N7-C8	-7.83	100.39	104.30
23	DA	1261	C	C6-N1-C2	7.83	123.43	120.30
23	BA	1323	U	N1-C2-O2	-7.83	117.32	122.80
23	DA	2685	G	C5-C6-N1	-7.83	107.59	111.50
23	DA	141(A)	A	C4-C5-N7	7.82	114.61	110.70
23	DA	761	A	C4-N9-C1'	7.82	140.37	126.30
23	DA	1201	C	C6-N1-C2	7.82	123.43	120.30
23	BA	1899	G	C8-N9-C4	-7.81	103.27	106.40
23	DA	945	A	C8-N9-C1'	-7.81	113.64	127.70
23	DA	2232	U	C5-C6-N1	-7.81	118.80	122.70
23	DA	1600	C	N1-C2-O2	-7.80	114.22	118.90
23	DA	2053	G	C5-C6-O6	-7.79	123.92	128.60
23	DA	2544	G	C5-C6-O6	-7.79	123.93	128.60
23	DA	2244	U	N3-C2-O2	-7.78	116.75	122.20
23	DA	2054	A	N1-C6-N6	7.77	123.27	118.60
23	DA	1592	C	C6-N1-C2	7.77	123.41	120.30
23	DA	2066	C	N3-C4-C5	7.76	125.01	121.90
23	BA	566	U	C5-C6-N1	-7.76	118.82	122.70
23	BA	783	A	C6-C5-N7	-7.76	126.87	132.30
23	BA	1827	C	C2-N3-C4	-7.75	116.02	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BA	676	A	N1-C2-N3	7.75	133.17	129.30
23	DA	530	G	C8-N9-C4	-7.74	103.30	106.40
23	DA	601	C	C6-N1-C2	7.74	123.39	120.30
23	DA	828	U	C5-C4-O4	7.74	130.54	125.90
23	BA	1204	A	N7-C8-N9	7.73	117.66	113.80
23	BA	2391	G	C5-C6-O6	7.72	133.23	128.60
23	DA	2713	A	C6-C5-N7	-7.72	126.90	132.30
1	AA	896	C	C6-N1-C2	7.72	123.39	120.30
23	DA	784	A	N9-C4-C5	7.71	108.89	105.80
23	BA	2010	G	N7-C8-N9	7.71	116.95	113.10
23	BA	929	G	C6-C5-N7	-7.70	125.78	130.40
23	BA	1648	C	N1-C2-O2	-7.70	114.28	118.90
23	DA	979	G	C5-N7-C8	-7.70	100.45	104.30
23	DA	1325	G	C8-N9-C1'	7.70	137.00	127.00
23	BA	2588	G	N1-C2-N3	7.69	128.52	123.90
23	BA	835	A	C8-N9-C4	7.69	108.88	105.80
23	DA	2061	G	N1-C6-O6	7.69	124.52	119.90
23	BA	570	G	N9-C4-C5	7.68	108.47	105.40
23	DA	450	G	N1-C6-O6	7.68	124.51	119.90
23	BA	1994	C	C6-N1-C2	7.68	123.37	120.30
23	DA	1618	A	C5-C6-N6	-7.68	117.56	123.70
23	DA	57	C	C5-C6-N1	-7.68	117.16	121.00
23	DA	2571	C	C5-C6-N1	-7.68	117.16	121.00
23	DA	2503	A	C5-C6-N1	7.67	121.54	117.70
23	DA	1665	A	N1-C6-N6	7.67	123.20	118.60
23	BA	945	A	N7-C8-N9	7.67	117.64	113.80
23	BA	1154	G	N1-C6-O6	-7.67	115.30	119.90
23	BA	774	A	N3-C4-C5	7.66	132.16	126.80
23	BA	1678	G	C4-N9-C1'	-7.65	116.55	126.50
23	DA	2596	U	C2-N1-C1'	-7.65	108.52	117.70
23	BA	83	G	N3-C4-C5	7.65	132.43	128.60
23	BA	568	U	N3-C4-C5	-7.65	110.01	114.60
23	DA	2010	G	C2-N3-C4	-7.65	108.07	111.90
23	BA	774	A	C5-C6-N1	-7.65	113.88	117.70
23	BA	2689	U	C6-N1-C1'	7.64	131.90	121.20
1	CA	1415	G	N1-C6-O6	7.64	124.48	119.90
23	DA	2827	C	C5-C6-N1	-7.64	117.18	121.00
23	DA	847	U	C2-N1-C1'	-7.64	108.53	117.70
23	BA	779	U	C6-N1-C2	7.64	125.58	121.00
23	BA	1627	G	N1-C6-O6	7.63	124.48	119.90
23	BA	2091	U	C5-C6-N1	-7.63	118.88	122.70
23	DA	929	G	N1-C6-O6	7.63	124.48	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BA	2454	G	N7-C8-N9	-7.62	109.29	113.10
23	DA	2502	G	N9-C4-C5	-7.62	102.35	105.40
23	DA	1786	A	C8-N9-C4	-7.62	102.75	105.80
23	BA	580	C	C2-N3-C4	-7.61	116.09	119.90
1	CA	117	G	N1-C6-O6	7.61	124.47	119.90
23	DA	2346	A	C2-N3-C4	-7.61	106.79	110.60
23	BA	2841	C	C6-N1-C2	7.61	123.34	120.30
23	BA	2505	G	C4-C5-N7	-7.60	107.76	110.80
23	DA	328	U	C5-C6-N1	-7.60	118.90	122.70
23	BA	210	C	C5-C6-N1	-7.60	117.20	121.00
23	BA	580	C	C6-N1-C2	7.59	123.33	120.30
23	BA	31	C	C6-N1-C2	7.58	123.33	120.30
23	DA	57	C	C2-N3-C4	-7.58	116.11	119.90
23	BA	2540	C	C5-C6-N1	-7.58	117.21	121.00
46	DX	35	THR	N-CA-C	7.58	131.45	111.00
23	DA	684	G	N7-C8-N9	7.57	116.89	113.10
1	AA	903	G	C8-N9-C4	7.57	109.43	106.40
23	DA	466	A	C2-N3-C4	-7.57	106.81	110.60
23	DA	956	G	C8-N9-C4	7.57	109.43	106.40
23	DA	979	G	N1-C6-O6	7.57	124.44	119.90
23	DA	580	C	C6-N1-C2	7.57	123.33	120.30
23	DA	2601	C	C2-N3-C4	-7.57	116.12	119.90
23	BA	1614	A	N1-C6-N6	7.56	123.14	118.60
24	BB	100	G	C8-N9-C4	7.56	109.42	106.40
23	DA	2591	C	C4-C5-C6	7.56	121.18	117.40
23	DA	265	A	N7-C8-N9	7.55	117.58	113.80
23	DA	915	C	C6-N1-C2	-7.55	117.28	120.30
1	AA	34	C	C6-N1-C2	7.54	123.32	120.30
23	BA	1349	A	N1-C6-N6	7.54	123.12	118.60
23	DA	1839	G	N3-C4-N9	-7.54	121.48	126.00
23	DA	2614	A	C5-C6-N1	7.54	121.47	117.70
1	CA	299	G	C4-C5-N7	-7.54	107.78	110.80
1	AA	901	A	C2-N3-C4	-7.54	106.83	110.60
23	BA	2699	C	C2-N1-C1'	-7.54	110.51	118.80
23	DA	2510	C	N3-C4-C5	7.54	124.91	121.90
23	DA	2248	C	C5-C6-N1	-7.53	117.23	121.00
23	DA	114(B)	A	N1-C2-N3	7.53	133.07	129.30
23	DA	1031	G	N1-C6-O6	7.53	124.42	119.90
23	DA	148	C	C5-C6-N1	-7.52	117.24	121.00
23	BA	2626	C	C6-N1-C2	7.52	123.31	120.30
23	DA	676	A	C8-N9-C4	-7.52	102.79	105.80
23	BA	2081	C	C2-N3-C4	-7.52	116.14	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	424	G	C5-C6-O6	-7.52	124.09	128.60
23	DA	530	G	N1-C6-O6	-7.51	115.39	119.90
23	DA	2065	C	N3-C4-C5	7.51	124.91	121.90
23	BA	771	G	N1-C6-O6	7.50	124.40	119.90
1	CA	1053	G	C8-N9-C1'	7.50	136.75	127.00
23	BA	2250	G	C8-N9-C4	-7.50	103.40	106.40
23	BA	1161	C	C6-N1-C2	-7.49	117.30	120.30
23	DA	1352	U	C5-C6-N1	-7.49	118.95	122.70
23	BA	1770	G	N1-C2-N3	7.49	128.39	123.90
23	DA	141(A)	A	N7-C8-N9	7.48	117.54	113.80
23	DA	815	C	N3-C4-C5	7.48	124.89	121.90
23	BA	784	A	N1-C6-N6	-7.47	114.12	118.60
23	BA	1671	U	C6-N1-C2	-7.47	116.52	121.00
23	BA	1686	C	N1-C2-O2	-7.47	114.42	118.90
23	DA	140	A	C4-C5-N7	7.46	114.43	110.70
52	D4	19	ARG	NE-CZ-NH2	-7.46	116.57	120.30
23	DA	786	C	C6-N1-C2	7.46	123.28	120.30
23	BA	764	A	C4-C5-N7	7.45	114.42	110.70
23	BA	2588	G	C2-N3-C4	-7.45	108.18	111.90
23	DA	2503	A	C2-N3-C4	7.45	114.32	110.60
23	DA	1261	C	N1-C2-O2	-7.45	114.43	118.90
23	DA	1304	C	C2-N3-C4	-7.45	116.18	119.90
23	BA	557	U	C5-C6-N1	-7.43	118.98	122.70
23	DA	1349	A	C2-N3-C4	-7.43	106.89	110.60
23	BA	1793	C	C6-N1-C2	7.43	123.27	120.30
23	DA	1348	G	N1-C6-O6	7.43	124.36	119.90
23	DA	2363	C	C6-N1-C2	7.42	123.27	120.30
23	BA	530	G	N1-C6-O6	-7.42	115.45	119.90
23	BA	2713	A	C6-C5-N7	-7.42	127.11	132.30
23	DA	595	C	C5-C6-N1	-7.42	117.29	121.00
23	DA	736	C	N1-C2-O2	-7.42	114.45	118.90
1	AA	868	C	C6-N1-C2	-7.42	117.33	120.30
23	DA	1215	G	C8-N9-C4	7.41	109.36	106.40
23	BA	130	C	C6-N1-C2	7.41	123.26	120.30
23	BA	512	G	N3-C4-N9	-7.41	121.55	126.00
23	DA	1786	A	C4-C5-N7	7.41	114.41	110.70
23	BA	2828	C	C2-N3-C4	-7.40	116.20	119.90
23	DA	676	A	N1-C6-N6	7.40	123.04	118.60
23	DA	1252	G	C8-N9-C4	7.40	109.36	106.40
1	AA	1053	G	C8-N9-C1'	7.40	136.62	127.00
23	DA	2028	U	C2-N3-C4	7.39	131.44	127.00
23	DA	2505	G	N9-C4-C5	7.39	108.36	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BA	1224	C	N1-C2-O2	-7.39	114.47	118.90
23	DA	1998	G	C8-N9-C4	7.39	109.36	106.40
23	DA	137(B)	G	N1-C6-O6	7.38	124.33	119.90
23	BA	2634	G	C8-N9-C4	7.38	109.35	106.40
23	BA	826	U	C5-C6-N1	-7.38	119.01	122.70
23	DA	2547	U	C5-C6-N1	-7.38	119.01	122.70
23	DA	527	C	N3-C4-C5	7.38	124.85	121.90
23	BA	2346	A	N1-C2-N3	7.37	132.99	129.30
23	BA	2430	A	C5-C6-N1	-7.37	114.01	117.70
23	BA	1309	G	C8-N9-C1'	-7.37	117.42	127.00
1	CA	552	U	C5-C6-N1	-7.37	119.02	122.70
23	DA	298	G	C5-N7-C8	-7.37	100.62	104.30
23	DA	513	A	C8-N9-C4	-7.36	102.86	105.80
23	BA	1254	A	N1-C2-N3	7.36	132.98	129.30
23	BA	1769	G	C8-N9-C4	-7.36	103.45	106.40
23	DA	1653	G	N1-C6-O6	7.36	124.32	119.90
23	BA	298	G	C4-C5-N7	7.36	113.74	110.80
23	BA	2032	G	N7-C8-N9	7.36	116.78	113.10
23	BA	2719	G	N3-C4-N9	7.35	130.41	126.00
23	BA	2595	G	C5-C6-O6	-7.34	124.19	128.60
23	DA	141(A)	A	N1-C6-N6	7.34	123.01	118.60
23	DA	1325	G	N9-C4-C5	7.34	108.34	105.40
23	DA	124	G	N7-C8-N9	-7.34	109.43	113.10
23	BA	1602	U	C4-C5-C6	7.34	124.10	119.70
23	BA	1210	A	C2-N3-C4	-7.33	106.93	110.60
23	BA	1252	G	C8-N9-C4	7.33	109.33	106.40
23	BA	2056	G	C4-C5-N7	7.33	113.73	110.80
23	DA	265	A	N1-C6-N6	7.33	123.00	118.60
23	DA	1652	A	N1-C6-N6	7.32	122.99	118.60
23	BA	968	G	C5-C6-O6	-7.32	124.21	128.60
23	DA	330	A	C6-C5-N7	-7.32	127.18	132.30
23	BA	2648	C	C5-C6-N1	-7.32	117.34	121.00
23	BA	640	C	C5-C6-N1	-7.32	117.34	121.00
23	BA	1254	A	C6-N1-C2	-7.32	114.21	118.60
23	DA	2588	G	N1-C2-N3	7.32	128.29	123.90
23	DA	2589	A	C8-N9-C4	7.32	108.73	105.80
23	BA	114(B)	A	N1-C6-N6	7.31	122.99	118.60
23	DA	2037	G	N1-C6-O6	-7.31	115.52	119.90
23	DA	428	A	C2-N3-C4	-7.30	106.95	110.60
23	BA	2017	U	C4-C5-C6	7.30	124.08	119.70
23	DA	679	C	N3-C4-C5	7.30	124.82	121.90
23	DA	857	C	N1-C2-O2	-7.30	114.52	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	1996	C	N1-C2-O2	-7.30	114.52	118.90
23	DA	800	A	N1-C6-N6	-7.30	114.22	118.60
23	DA	2055	C	N3-C4-C5	-7.30	118.98	121.90
23	BA	2502	G	C4-C5-N7	7.29	113.72	110.80
23	DA	2464	C	C5-C6-N1	-7.29	117.35	121.00
1	AA	1053	G	C4-N9-C1'	-7.29	117.03	126.50
23	DA	761	A	C6-N1-C2	7.28	122.97	118.60
23	DA	1024	G	C8-N9-C4	7.28	109.31	106.40
23	BA	1201	C	C6-N1-C2	7.28	123.21	120.30
23	BA	2595	G	C8-N9-C4	7.27	109.31	106.40
23	DA	1209	G	N1-C6-O6	-7.27	115.54	119.90
23	DA	2593	U	C6-N1-C2	-7.27	116.64	121.00
23	BA	1261	C	C5-C6-N1	-7.27	117.36	121.00
23	DA	1663	C	C5-C6-N1	-7.27	117.36	121.00
23	BA	1999	C	C2-N1-C1'	-7.27	110.81	118.80
23	BA	2081	C	C5-C6-N1	-7.26	117.37	121.00
23	DA	1898	U	N3-C4-C5	-7.26	110.24	114.60
23	DA	56	A	C2-N3-C4	-7.26	106.97	110.60
23	DA	2580	U	N3-C4-C5	-7.25	110.25	114.60
23	BA	772	C	C6-N1-C2	7.25	123.20	120.30
23	DA	945	A	C5-C6-N6	-7.25	117.90	123.70
23	DA	197	A	N1-C6-N6	7.25	122.95	118.60
23	DA	2532	G	C5-C6-O6	-7.24	124.25	128.60
23	DA	2712	U	N3-C2-O2	-7.24	117.13	122.20
23	BA	570	G	C5-N7-C8	7.24	107.92	104.30
23	DA	961	C	N3-C4-C5	-7.24	119.00	121.90
23	BA	676	A	C8-N9-C4	-7.24	102.91	105.80
23	BA	1698	A	C6-C5-N7	-7.23	127.24	132.30
23	DA	756	C	C6-N1-C2	7.23	123.19	120.30
23	DA	1332	G	N1-C2-N2	7.23	122.70	116.20
23	BA	1328	G	C6-C5-N7	-7.22	126.06	130.40
23	DA	2249	U	C4-C5-C6	7.22	124.03	119.70
23	BA	2581	G	N9-C4-C5	7.22	108.29	105.40
23	DA	570	G	C8-N9-C4	-7.22	103.51	106.40
23	DA	2648	C	N3-C2-O2	7.22	126.96	121.90
23	DA	1645	G	C5-C6-N1	7.22	115.11	111.50
23	DA	2689	U	N1-C2-N3	7.22	119.23	114.90
23	BA	471	A	C8-N9-C4	7.22	108.69	105.80
23	BA	2825	U	N3-C4-C5	7.22	118.93	114.60
23	DA	1367	A	C2-N3-C4	-7.21	106.99	110.60
23	DA	2448	A	C5-C6-N6	-7.21	117.93	123.70
23	BA	783	A	C5-C6-N1	-7.20	114.10	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BA	2447	G	C4-N9-C1'	-7.20	117.14	126.50
23	BA	2007	C	C6-N1-C2	7.20	123.18	120.30
23	DA	2532	G	N1-C6-O6	7.20	124.22	119.90
23	DA	737	C	C6-N1-C2	7.20	123.18	120.30
23	DA	774	A	N3-C4-N9	-7.20	121.64	127.40
23	BA	2700	C	C5-C6-N1	-7.20	117.40	121.00
23	DA	2081	C	C5-C6-N1	-7.20	117.40	121.00
23	DA	2700	C	C6-N1-C2	7.19	123.18	120.30
23	BA	2451	A	N9-C4-C5	7.19	108.68	105.80
23	BA	529	A	C5-C6-N6	-7.19	117.95	123.70
23	BA	808	G	C8-N9-C4	7.19	109.28	106.40
23	DA	979	G	C5-C6-O6	-7.19	124.29	128.60
23	DA	189	G	N9-C4-C5	-7.19	102.53	105.40
23	BA	561	G	C8-N9-C4	7.18	109.27	106.40
23	DA	747	U	C5-C6-N1	-7.18	119.11	122.70
23	DA	2448	A	C5-N7-C8	-7.18	100.31	103.90
23	DA	1614	A	C5-N7-C8	-7.18	100.31	103.90
23	DA	83	G	N3-C4-N9	-7.18	121.69	126.00
23	DA	1332	G	C4-C5-C6	-7.18	114.50	118.80
23	BA	2515	C	N3-C4-C5	7.17	124.77	121.90
23	DA	1363	C	C2-N3-C4	-7.17	116.31	119.90
23	DA	458	G	N3-C4-C5	-7.17	125.01	128.60
23	BA	2498	C	C5-C6-N1	-7.17	117.41	121.00
23	DA	918	A	N1-C6-N6	7.17	122.90	118.60
23	DA	2232	U	C5-C4-O4	7.17	130.20	125.90
23	DA	298	G	C4-C5-N7	7.16	113.67	110.80
23	DA	1021	A	C4-C5-N7	7.16	114.28	110.70
23	DA	2871	C	C6-N1-C2	7.16	123.16	120.30
23	DA	397	G	N9-C4-C5	-7.16	102.54	105.40
23	DA	2681	C	C5-C4-N4	7.16	125.21	120.20
23	BA	760	G	C4-C5-N7	7.15	113.66	110.80
23	BA	2392	A	C8-N9-C4	-7.15	102.94	105.80
23	DA	2257	U	N3-C2-O2	7.15	127.20	122.20
23	DA	265	A	C4-C5-N7	7.15	114.27	110.70
23	DA	2553	G	C5-C6-O6	-7.15	124.31	128.60
23	BA	836	G	N3-C4-C5	7.14	132.17	128.60
23	DA	444	C	C6-N1-C2	7.14	123.16	120.30
1	AA	297	G	C8-N9-C4	7.13	109.25	106.40
23	DA	1902	C	N3-C4-N4	-7.13	113.01	118.00
23	BA	535	C	N3-C4-C5	7.13	124.75	121.90
23	BA	698	C	C6-N1-C2	7.12	123.15	120.30
23	BA	1698	A	C5-N7-C8	-7.12	100.34	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BA	746	A	C6-N1-C2	-7.12	114.33	118.60
23	DA	1795	C	N1-C2-O2	-7.12	114.63	118.90
23	DA	2231	C	C2-N3-C4	-7.12	116.34	119.90
23	BA	2614	A	C6-N1-C2	-7.12	114.33	118.60
23	DA	2553	G	C5-C6-N1	7.11	115.06	111.50
1	CA	43	C	C6-N1-C2	7.11	123.14	120.30
23	BA	2441	C	N3-C2-O2	7.11	126.87	121.90
23	BA	17	G	C5-C6-O6	-7.10	124.34	128.60
23	DA	737	C	N3-C4-C5	7.10	124.74	121.90
23	BA	1655	A	C8-N9-C4	7.10	108.64	105.80
23	DA	557	U	C5-C6-N1	-7.10	119.15	122.70
23	DA	1570	A	C8-N9-C4	7.09	108.64	105.80
23	BA	1325	G	C8-N9-C4	-7.09	103.56	106.40
23	DA	2619	C	N3-C4-C5	7.09	124.74	121.90
1	AA	43	C	C6-N1-C2	7.09	123.14	120.30
1	CA	299	G	C5-C6-O6	7.09	132.85	128.60
23	DA	124	G	N9-C4-C5	-7.09	102.56	105.40
23	BA	563	G	N1-C6-O6	-7.09	115.65	119.90
23	BA	1982	C	N1-C2-O2	-7.09	114.65	118.90
23	DA	2050	C	C5-C6-N1	-7.09	117.46	121.00
35	BM	81	VAL	N-CA-C	7.08	130.12	111.00
23	BA	708	C	C5-C6-N1	-7.08	117.46	121.00
23	BA	1602	U	N1-C2-N3	7.07	119.14	114.90
1	AA	756	C	C6-N1-C2	7.07	123.13	120.30
23	DA	2032	G	N7-C8-N9	7.07	116.64	113.10
23	BA	974(A)	G	C8-N9-C4	-7.07	103.57	106.40
23	DA	577	G	C8-N9-C4	7.07	109.23	106.40
23	DA	1791	A	N7-C8-N9	-7.07	110.27	113.80
23	BA	2571	C	N3-C4-C5	7.06	124.73	121.90
23	BA	2249	U	N3-C4-C5	-7.06	110.36	114.60
23	DA	377	C	C5-C6-N1	-7.06	117.47	121.00
23	BA	2430	A	N1-C2-N3	7.05	132.83	129.30
23	DA	265	A	C6-C5-N7	-7.05	127.36	132.30
23	BA	1790	C	N3-C4-N4	-7.05	113.07	118.00
23	DA	210	C	C2-N3-C4	-7.05	116.38	119.90
23	DA	2515	C	C5-C6-N1	-7.05	117.48	121.00
1	AA	576	G	N1-C6-O6	7.04	124.13	119.90
23	DA	2518	A	N7-C8-N9	7.04	117.32	113.80
23	DA	1620	G	C8-N9-C4	7.04	109.22	106.40
23	BA	1902	C	C5-C4-N4	7.04	125.12	120.20
23	DA	1602	U	N1-C2-N3	7.03	119.12	114.90
23	BA	2587	A	C8-N9-C4	7.03	108.61	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BA	1786	A	N1-C6-N6	7.03	122.82	118.60
1	CA	892	A	N1-C6-N6	7.02	122.81	118.60
23	BA	30	G	C8-N9-C4	7.02	109.21	106.40
23	DA	1900	A	N1-C6-N6	-7.02	114.39	118.60
23	DA	1138	G	N3-C4-N9	7.02	130.21	126.00
23	DA	1698	A	N1-C2-N3	7.02	132.81	129.30
23	BA	979	G	C5-N7-C8	-7.01	100.79	104.30
35	DM	81	VAL	N-CA-C	7.01	129.94	111.00
23	DA	678	C	C5-C6-N1	-7.01	117.50	121.00
23	DA	847	U	C5-C6-N1	-7.01	119.19	122.70
23	DA	2699	C	C5-C6-N1	-7.01	117.50	121.00
23	DA	2713	A	C4-C5-N7	7.01	114.21	110.70
23	DA	330	A	C5-C6-N1	-7.01	114.20	117.70
23	DA	1304	C	N3-C4-C5	7.00	124.70	121.90
23	DA	2394	C	C5-C6-N1	-7.00	117.50	121.00
23	DA	2500	U	N1-C2-O2	-7.00	117.90	122.80
23	BA	2499	C	C5-C6-N1	-7.00	117.50	121.00
23	DA	270(Y)	G	C5-C6-N1	-7.00	108.00	111.50
23	DA	1380	G	C8-N9-C4	7.00	109.20	106.40
23	BA	835	A	N7-C8-N9	-6.99	110.30	113.80
23	DA	77	C	C6-N1-C2	6.99	123.10	120.30
23	BA	976	C	C5-C6-N1	-6.99	117.51	121.00
23	DA	734	A	C8-N9-C4	6.99	108.60	105.80
23	BA	761	A	C4-N9-C1'	6.99	138.87	126.30
23	DA	993	G	N1-C6-O6	-6.98	115.71	119.90
23	BA	2050	C	C2-N3-C4	-6.97	116.42	119.90
23	DA	2260	C	C6-N1-C2	6.97	123.09	120.30
23	BA	2386	C	C5-C6-N1	-6.97	117.52	121.00
23	DA	933	A	C5-N7-C8	-6.97	100.42	103.90
23	BA	1493	C	C2-N1-C1'	6.97	126.46	118.80
23	BA	2232	U	N3-C4-C5	-6.96	110.42	114.60
23	BA	736	C	C6-N1-C2	6.96	123.08	120.30
23	BA	1698	A	C4-C5-N7	6.96	114.18	110.70
23	BA	1830	C	N3-C2-O2	6.96	126.77	121.90
23	DA	1615	C	C6-N1-C2	6.96	123.08	120.30
23	DA	2579	C	C5-C6-N1	-6.96	117.52	121.00
23	BA	1332	G	C4-C5-C6	-6.95	114.63	118.80
23	DA	1204	A	C2-N3-C4	-6.95	107.12	110.60
23	DA	1776	G	C5-C6-N1	6.95	114.98	111.50
23	BA	783	A	N7-C8-N9	6.95	117.28	113.80
23	BA	671	C	C4-C5-C6	6.95	120.87	117.40
23	BA	1332	G	C5-C6-N1	-6.95	108.03	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	2593	U	N1-C2-O2	-6.95	117.94	122.80
23	BA	561	G	N7-C8-N9	-6.95	109.63	113.10
23	BA	1323	U	N3-C4-O4	6.94	124.26	119.40
23	BA	2236	C	C6-N1-C2	6.94	123.08	120.30
23	BA	2454	G	C5-N7-C8	6.93	107.77	104.30
23	DA	1341	U	N3-C4-C5	-6.93	110.44	114.60
23	DA	2399	G	C8-N9-C4	6.93	109.17	106.40
23	BA	2386	C	C6-N1-C2	6.93	123.07	120.30
23	BA	761	A	C8-N9-C1'	-6.93	115.22	127.70
23	BA	1332	G	N9-C4-C5	6.93	108.17	105.40
23	DA	1764	G	N1-C6-O6	-6.93	115.74	119.90
23	BA	640	C	N3-C4-C5	6.93	124.67	121.90
23	BA	1788	C	C2-N3-C4	-6.93	116.44	119.90
23	DA	1493	C	C2-N1-C1'	6.92	126.42	118.80
23	BA	140	A	N1-C6-N6	6.92	122.75	118.60
23	DA	2028	U	N1-C2-N3	6.91	119.05	114.90
23	BA	771	G	C5-C6-O6	-6.91	124.45	128.60
23	DA	1309	G	N1-C6-O6	6.91	124.05	119.90
23	DA	2787	C	C6-N1-C2	-6.91	117.54	120.30
23	DA	2430	A	N1-C2-N3	6.91	132.75	129.30
23	BA	309	G	C5-C6-N1	-6.91	108.05	111.50
23	BA	2035	G	N1-C6-O6	-6.90	115.76	119.90
23	BA	1786	A	C4-C5-C6	6.90	120.45	117.00
34	DL	37	GLY	N-CA-C	6.90	130.35	113.10
23	DA	2699	C	C2-N1-C1'	-6.90	111.21	118.80
23	BA	837	C	C6-N1-C2	-6.89	117.54	120.30
23	BA	976	C	C6-N1-C2	6.89	123.06	120.30
23	DA	746	A	C6-N1-C2	-6.89	114.46	118.60
23	DA	2515	C	C2-N3-C4	-6.89	116.45	119.90
23	BA	2441	C	N1-C2-O2	-6.89	114.77	118.90
23	DA	444	C	C5-C6-N1	-6.89	117.56	121.00
23	DA	450	G	C4-N9-C1'	6.88	135.45	126.50
23	BA	2044	C	N3-C4-C5	6.88	124.65	121.90
23	BA	650	C	C6-N1-C2	6.88	123.05	120.30
23	BA	2287	A	C2-N3-C4	-6.88	107.16	110.60
23	DA	140	A	N7-C8-N9	6.88	117.24	113.80
23	BA	568	U	C5-C4-O4	6.87	130.02	125.90
23	BA	1323	U	C4-C5-C6	6.87	123.83	119.70
23	DA	2614	A	C6-N1-C2	-6.87	114.48	118.60
23	BA	1653	G	N1-C6-O6	6.87	124.02	119.90
23	DA	2719	G	C4-C5-N7	6.87	113.55	110.80
23	BA	83	G	N3-C4-N9	-6.86	121.88	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	397	G	C2-N3-C4	-6.86	108.47	111.90
23	DA	582	G	C8-N9-C4	6.86	109.14	106.40
23	DA	1790	C	C2-N1-C1'	-6.86	111.25	118.80
23	DA	2049	G	C8-N9-C4	6.86	109.14	106.40
23	BA	1225	G	C5-C6-O6	6.86	132.72	128.60
23	DA	2447	G	C4-N9-C1'	-6.86	117.59	126.50
23	DA	678	C	C2-N3-C4	-6.85	116.47	119.90
23	BA	2828	C	C6-N1-C2	6.85	123.04	120.30
23	DA	2503	A	C5-C6-N6	-6.85	118.22	123.70
23	BA	966	G	C8-N9-C4	6.85	109.14	106.40
23	BA	2532	G	N1-C6-O6	6.85	124.01	119.90
23	BA	2708	G	C8-N9-C4	6.85	109.14	106.40
23	BA	1616	A	C6-C5-N7	-6.85	127.51	132.30
23	DA	1614	A	N1-C2-N3	6.85	132.72	129.30
23	DA	223	A	C4-C5-C6	6.84	120.42	117.00
23	BA	265	A	N7-C8-N9	6.84	117.22	113.80
23	BA	1021	A	C5-N7-C8	-6.84	100.48	103.90
23	DA	1030	G	C8-N9-C4	6.84	109.13	106.40
23	DA	1332	G	C5-C6-N1	-6.84	108.08	111.50
23	BA	1123	C	C6-N1-C2	6.83	123.03	120.30
23	BA	929	G	C5-C6-N1	-6.83	108.08	111.50
23	DA	1962	C	C5-C6-N1	6.83	124.41	121.00
23	DA	2451	A	N1-C6-N6	-6.83	114.50	118.60
23	BA	673	C	N3-C4-C5	6.83	124.63	121.90
23	DA	2647	U	C6-N1-C2	6.83	125.09	121.00
23	DA	1021	A	N3-C4-C5	6.82	131.57	126.80
23	BA	1962	C	N3-C2-O2	-6.82	117.13	121.90
23	DA	1332	G	N9-C4-C5	6.82	108.13	105.40
23	BA	494	G	N1-C6-O6	6.82	123.99	119.90
23	DA	2826	A	C2-N3-C4	-6.82	107.19	110.60
23	BA	1898	U	C6-N1-C1'	6.81	130.73	121.20
23	DA	2517	C	C6-N1-C2	6.81	123.02	120.30
23	BA	840	C	N3-C4-C5	6.80	124.62	121.90
23	DA	1022	G	C8-N9-C4	-6.80	103.68	106.40
23	DA	192	C	C6-N1-C2	6.80	123.02	120.30
23	BA	678	C	C6-N1-C2	6.80	123.02	120.30
23	BA	1962	C	C5-C6-N1	6.80	124.40	121.00
23	DA	375	C	C6-N1-C2	6.80	123.02	120.30
23	DA	1261	C	C5-C6-N1	-6.80	117.60	121.00
23	DA	2504	U	C5-C6-N1	-6.80	119.30	122.70
23	BA	535	C	C2-N3-C4	-6.80	116.50	119.90
23	BA	1675	C	N3-C4-C5	-6.80	119.18	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	2520	C	C6-N1-C2	6.80	123.02	120.30
23	BA	1323	U	N1-C2-N3	6.80	118.98	114.90
23	DA	65	C	N1-C2-O2	-6.80	114.82	118.90
23	DA	1349	A	C4-C5-N7	6.80	114.10	110.70
23	DA	1201	C	C5-C6-N1	-6.79	117.60	121.00
23	BA	141(A)	A	C4-C5-N7	6.79	114.10	110.70
23	BA	527	C	N3-C4-N4	-6.79	113.25	118.00
23	BA	1982	C	C5-C4-N4	-6.79	115.44	120.20
23	DA	697	C	C6-N1-C2	6.79	123.02	120.30
23	BA	330	A	C4-C5-N7	6.78	114.09	110.70
23	DA	543	C	C6-N1-C2	6.78	123.01	120.30
23	DA	807	U	C2-N1-C1'	-6.78	109.56	117.70
23	DA	450	G	C8-N9-C1'	-6.78	118.19	127.00
23	BA	2447	G	C8-N9-C1'	6.78	135.81	127.00
23	BA	1775	U	C5-C6-N1	-6.78	119.31	122.70
23	BA	2010	G	C5-C6-O6	-6.78	124.53	128.60
23	DA	704	G	C8-N9-C4	6.78	109.11	106.40
23	DA	2588	G	C2-N3-C4	-6.77	108.52	111.90
23	BA	729	G	C4-C5-N7	6.76	113.50	110.80
23	DA	530	G	N1-C2-N2	-6.76	110.11	116.20
23	BA	141(A)	A	C2-N3-C4	-6.76	107.22	110.60
23	BA	327	G	N1-C6-O6	6.76	123.96	119.90
23	DA	71	A	C6-C5-N7	-6.76	127.57	132.30
23	DA	1333	C	C6-N1-C2	6.76	123.00	120.30
23	BA	1814	G	C8-N9-C4	6.75	109.10	106.40
23	BA	2500	U	C5-C6-N1	-6.75	119.32	122.70
23	DA	58	G	C8-N9-C1'	-6.75	118.22	127.00
1	AA	357	G	N1-C6-O6	6.75	123.95	119.90
23	DA	655	A	C8-N9-C4	-6.75	103.10	105.80
23	BA	330	A	C6-C5-N7	-6.74	127.58	132.30
23	BA	2392	A	N7-C8-N9	6.74	117.17	113.80
23	BA	503	A	N1-C2-N3	6.74	132.67	129.30
23	DA	2711	A	C2-N3-C4	-6.74	107.23	110.60
23	BA	2825	U	C4-C5-C6	-6.73	115.66	119.70
23	BA	2505	G	N9-C4-C5	6.73	108.09	105.40
23	DA	774	A	C5-C6-N1	-6.73	114.34	117.70
23	BA	2709	G	N1-C6-O6	6.72	123.94	119.90
23	DA	240	G	C5-C6-O6	6.72	132.63	128.60
23	DA	2699	C	C2-N3-C4	-6.72	116.54	119.90
23	DA	828	U	N3-C4-O4	-6.72	114.70	119.40
23	DA	2434	A	N9-C4-C5	6.72	108.49	105.80
23	DA	1651	G	C5-C6-O6	-6.71	124.57	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	2597	G	C8-N9-C4	6.71	109.08	106.40
23	BA	2053	G	N1-C6-O6	6.71	123.93	119.90
23	BA	2544	G	C5-C6-O6	-6.71	124.57	128.60
23	BA	474	G	N1-C6-O6	-6.71	115.87	119.90
23	DA	2430	A	C5-N7-C8	-6.71	100.55	103.90
23	BA	267	C	C6-N1-C2	6.71	122.98	120.30
23	BA	2489	G	N1-C6-O6	6.71	123.92	119.90
23	BA	444	C	N1-C2-O2	-6.70	114.88	118.90
23	DA	1304	C	C5-C6-N1	-6.70	117.65	121.00
23	DA	2699	C	N1-C2-O2	-6.70	114.88	118.90
1	AA	822	C	C6-N1-C2	6.70	122.98	120.30
23	BA	1200	C	N1-C2-O2	-6.70	114.88	118.90
23	DA	2248	C	N3-C4-C5	6.70	124.58	121.90
23	DA	1815	A	N1-C2-N3	6.70	132.65	129.30
23	DA	2438	U	C5-C6-N1	-6.70	119.35	122.70
23	BA	2053	G	C5-C6-O6	-6.69	124.58	128.60
23	DA	1653	G	C8-N9-C4	6.69	109.08	106.40
23	BA	187	G	N3-C4-N9	6.69	130.01	126.00
23	BA	2555	U	C5-C4-O4	6.69	129.91	125.90
23	DA	1771	C	N1-C2-O2	-6.69	114.89	118.90
23	DA	2065	C	C5-C4-N4	-6.69	115.52	120.20
23	BA	265	A	C5-C6-N1	-6.69	114.36	117.70
1	AA	285	G	C8-N9-C4	6.68	109.07	106.40
23	DA	1624	G	C8-N9-C4	6.68	109.07	106.40
23	BA	808	G	N7-C8-N9	-6.68	109.76	113.10
23	BA	1652	A	N1-C6-N6	6.68	122.61	118.60
23	DA	18	C	C6-N1-C2	6.68	122.97	120.30
23	DA	1788	C	N3-C4-C5	6.68	124.57	121.90
23	DA	2227	A	C2-N3-C4	-6.68	107.26	110.60
23	BA	971	C	N1-C2-O2	-6.68	114.89	118.90
1	CA	299	G	N9-C4-C5	6.67	108.07	105.40
23	BA	248	G	C4-C5-N7	6.67	113.47	110.80
23	BA	265	A	N1-C6-N6	6.67	122.60	118.60
23	DA	1651	G	N1-C6-O6	6.67	123.90	119.90
23	DA	2488	A	C5-C6-N1	6.67	121.03	117.70
23	DA	2638	G	N1-C6-O6	-6.67	115.90	119.90
23	BA	659	C	C6-N1-C2	6.67	122.97	120.30
23	DA	2699	C	N3-C4-C5	6.66	124.57	121.90
23	BA	1648	C	C2-N3-C4	-6.66	116.57	119.90
23	DA	1253	A	C4-C5-C6	-6.66	113.67	117.00
23	DA	594	U	C5-C4-O4	6.66	129.90	125.90
23	DA	657	U	C5-C6-N1	-6.66	119.37	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BA	129	C	C5-C6-N1	-6.66	117.67	121.00
23	BA	697	C	C6-N1-C2	6.65	122.96	120.30
23	BA	949	C	N3-C4-C5	6.65	124.56	121.90
23	BA	2681	C	C5-C4-N4	6.65	124.86	120.20
23	DA	1210	A	C2-N3-C4	-6.65	107.28	110.60
23	DA	2383	G	C6-C5-N7	-6.65	126.41	130.40
23	DA	129	C	C5-C6-N1	-6.65	117.68	121.00
23	DA	1778	U	C5-C6-N1	-6.65	119.38	122.70
23	DA	2249	U	C2-N3-C4	6.65	130.99	127.00
23	DA	36	G	C4-C5-N7	-6.64	108.14	110.80
23	DA	667	U	C4-C5-C6	6.64	123.69	119.70
23	DA	1962	C	C2-N3-C4	6.64	123.22	119.90
23	BA	587	C	N3-C4-C5	-6.64	119.24	121.90
23	BA	2271	G	N3-C4-N9	6.64	129.98	126.00
23	DA	141(A)	A	C2-N3-C4	-6.64	107.28	110.60
23	BA	602	G	N7-C8-N9	-6.64	109.78	113.10
23	DA	1572	A	N7-C8-N9	-6.64	110.48	113.80
23	DA	2397	G	C8-N9-C4	-6.64	103.75	106.40
23	DA	2706	G	N1-C6-O6	6.63	123.88	119.90
1	CA	896	C	C6-N1-C2	6.63	122.95	120.30
1	AA	576	G	C6-C5-N7	-6.63	126.42	130.40
23	BA	2036	C	C6-N1-C2	-6.63	117.65	120.30
23	DA	807	U	C6-N1-C1'	6.63	130.48	121.20
23	BA	1615	C	C6-N1-C2	6.62	122.95	120.30
23	BA	1634	A	N1-C6-N6	-6.62	114.63	118.60
23	DA	1962	C	N1-C2-N3	-6.62	114.56	119.20
23	DA	530	G	N7-C8-N9	6.62	116.41	113.10
23	DA	1309	G	C8-N9-C1'	-6.62	118.40	127.00
23	DA	1999	C	C2-N1-C1'	-6.62	111.52	118.80
23	DA	2514	U	C5-C6-N1	-6.62	119.39	122.70
23	BA	807	U	C6-N1-C1'	6.61	130.46	121.20
23	BA	1190	G	C4-C5-N7	6.61	113.44	110.80
23	BA	2593	U	C6-N1-C2	-6.61	117.03	121.00
23	BA	782	A	C8-N9-C4	6.61	108.44	105.80
23	DA	1775	U	C5-C6-N1	-6.61	119.40	122.70
23	BA	194	G	C8-N9-C4	6.61	109.04	106.40
23	BA	650	C	C5-C6-N1	-6.61	117.70	121.00
23	DA	239	U	C5-C6-N1	-6.61	119.40	122.70
23	DA	114(B)	A	C4-C5-C6	6.61	120.30	117.00
23	DA	2689	U	C5-C6-N1	-6.60	119.40	122.70
23	DA	2709	G	C8-N9-C4	6.60	109.04	106.40
23	BA	2544	G	C4-C5-N7	6.60	113.44	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BA	497	A	C8-N9-C4	6.59	108.44	105.80
23	DA	1417	C	C5-C6-N1	-6.59	117.70	121.00
23	BA	2688	U	C5-C4-O4	6.59	129.86	125.90
1	AA	328	C	C6-N1-C2	6.59	122.94	120.30
1	AA	691	G	N3-C4-N9	6.59	129.96	126.00
23	DA	580	C	N3-C4-C5	6.59	124.54	121.90
23	DA	1443	G	N1-C6-O6	6.59	123.85	119.90
23	BA	2464	C	C6-N1-C2	6.59	122.94	120.30
23	DA	2830	G	C6-C5-N7	-6.59	126.45	130.40
23	BA	2032	G	C4-C5-N7	6.59	113.44	110.80
23	DA	2346	A	N1-C2-N3	6.58	132.59	129.30
23	BA	1680	U	C5-C4-O4	6.58	129.85	125.90
23	BA	774	A	N1-C6-N6	6.57	122.54	118.60
23	BA	814	C	C5-C6-N1	-6.57	117.71	121.00
23	BA	933	A	C2-N3-C4	-6.57	107.31	110.60
23	BA	2037	G	N1-C2-N3	6.57	127.84	123.90
23	DA	2271	G	N3-C4-N9	6.57	129.94	126.00
23	BA	2830	G	N1-C6-O6	6.57	123.84	119.90
23	DA	2591	C	C6-N1-C2	6.57	122.93	120.30
23	DA	2233	U	C2-N3-C4	-6.57	123.06	127.00
23	DA	2715	C	N3-C4-C5	6.57	124.53	121.90
1	AA	264	U	N3-C2-O2	-6.57	117.60	122.20
23	DA	66	C	C6-N1-C2	6.56	122.92	120.30
23	BA	2828	C	N3-C4-C5	6.56	124.53	121.90
23	DA	458	G	C5-C6-N1	6.56	114.78	111.50
23	DA	71	A	N7-C8-N9	6.56	117.08	113.80
23	DA	1644	C	N3-C2-O2	-6.56	117.31	121.90
23	DA	937	U	C6-N1-C2	6.55	124.93	121.00
23	BA	2438	U	C5-C6-N1	-6.55	119.42	122.70
23	BA	2084	C	C2-N3-C4	-6.55	116.63	119.90
23	BA	671	C	N3-C4-C5	-6.54	119.28	121.90
23	BA	1616	A	N1-C6-N6	6.54	122.53	118.60
23	DA	397	G	C5-C6-O6	-6.54	124.68	128.60
23	DA	2330	G	N9-C4-C5	-6.54	102.78	105.40
23	DA	2072	G	N3-C4-C5	6.54	131.87	128.60
23	DA	112	U	C5-C6-N1	-6.53	119.43	122.70
23	BA	1976	U	N1-C2-N3	6.53	118.82	114.90
23	DA	667	U	C5-C6-N1	-6.53	119.44	122.70
23	DA	2007	C	C5-C6-N1	-6.53	117.74	121.00
23	BA	1815	A	N1-C2-N3	6.52	132.56	129.30
1	CA	1519	A	N1-C2-N3	6.52	132.56	129.30
23	BA	1969	A	C8-N9-C4	-6.52	103.19	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	2394	C	C6-N1-C2	6.52	122.91	120.30
23	DA	1996	C	C6-N1-C2	6.51	122.91	120.30
23	DA	933	A	C6-C5-N7	-6.51	127.74	132.30
23	DA	1783	A	C8-N9-C4	-6.51	103.20	105.80
23	BA	1698	A	C2-N3-C4	-6.51	107.35	110.60
23	BA	2378	A	C8-N9-C4	6.51	108.40	105.80
23	DA	1027	A	C8-N9-C4	6.51	108.40	105.80
23	BA	933	A	N7-C8-N9	6.50	117.05	113.80
1	CA	1521	G	C8-N9-C4	-6.50	103.80	106.40
23	DA	114(B)	A	C5-N7-C8	-6.50	100.65	103.90
23	BA	789	A	C5-C6-N6	-6.50	118.50	123.70
23	BA	1204	A	C8-N9-C4	-6.50	103.20	105.80
23	DA	1798	U	N3-C4-C5	6.50	118.50	114.60
1	CA	768	A	C8-N9-C4	6.50	108.40	105.80
23	DA	768	G	N3-C4-N9	6.49	129.89	126.00
1	AA	529	G	N1-C6-O6	6.49	123.79	119.90
1	AA	815	A	N1-C6-N6	-6.49	114.71	118.60
23	DA	2249	U	N3-C4-O4	6.49	123.94	119.40
23	DA	2553	G	N9-C4-C5	-6.49	102.80	105.40
23	BA	561	G	C5-N7-C8	6.49	107.54	104.30
23	BA	736	C	N3-C4-C5	6.48	124.49	121.90
1	AA	1523	G	N1-C6-O6	6.48	123.79	119.90
23	DA	935	C	C6-N1-C2	6.48	122.89	120.30
23	BA	104	U	C5-C6-N1	-6.48	119.46	122.70
23	BA	1304	C	C6-N1-C2	6.48	122.89	120.30
23	BA	2063	C	N3-C4-C5	-6.48	119.31	121.90
23	BA	2626	C	N3-C4-C5	6.48	124.49	121.90
23	DA	795	C	N1-C2-O2	-6.48	115.01	118.90
23	DA	1322	A	N9-C4-C5	6.48	108.39	105.80
23	BA	1329	U	C5-C6-N1	-6.47	119.46	122.70
23	BA	2647	U	C5-C6-N1	-6.47	119.46	122.70
24	BB	98	G	C8-N9-C1'	-6.47	118.58	127.00
23	DA	1935	G	N3-C4-C5	6.47	131.84	128.60
23	BA	2045	C	C6-N1-C2	6.47	122.89	120.30
23	BA	2540	C	C2-N3-C4	-6.47	116.67	119.90
23	DA	2231	C	C5-C6-N1	-6.47	117.77	121.00
23	DA	204	A	C2-N3-C4	-6.46	107.37	110.60
23	DA	765	G	C8-N9-C4	6.46	108.99	106.40
23	BA	265	A	C4-C5-N7	6.46	113.93	110.70
23	BA	1190	G	C5-C6-O6	-6.46	124.72	128.60
23	DA	736	C	N3-C2-O2	6.46	126.42	121.90
23	DA	1323	U	N3-C4-C5	-6.46	110.72	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	2432	A	C5-N7-C8	-6.46	100.67	103.90
23	DA	330	A	C4-C5-N7	6.46	113.93	110.70
23	DA	1674	G	C8-N9-C4	6.46	108.98	106.40
23	DA	2688	U	N3-C2-O2	-6.45	117.68	122.20
23	BA	512	G	C8-N9-C1'	6.45	135.38	127.00
23	BA	729	G	C6-C5-N7	-6.45	126.53	130.40
23	BA	1241	A	C5-C6-N1	-6.45	114.47	117.70
23	BA	1499	C	C6-N1-C2	6.45	122.88	120.30
23	BA	2707	G	C8-N9-C4	6.45	108.98	106.40
23	DA	2581	G	N3-C4-N9	-6.45	122.13	126.00
23	DA	815	C	C6-N1-C2	6.45	122.88	120.30
23	DA	1786	A	N1-C6-N6	6.44	122.47	118.60
1	AA	398	C	C6-N1-C2	6.44	122.88	120.30
23	BA	1352	U	C5-C6-N1	-6.44	119.48	122.70
23	BA	2596	U	N3-C4-O4	-6.43	114.90	119.40
23	DA	802	A	C8-N9-C1'	-6.43	116.12	127.70
23	DA	1444	G	C8-N9-C4	6.43	108.97	106.40
23	DA	1310	G	N1-C6-O6	6.43	123.76	119.90
23	DA	811	U	C5-C6-N1	-6.42	119.49	122.70
23	BA	2359	C	C6-N1-C2	6.42	122.87	120.30
23	DA	2685	G	N1-C6-O6	6.42	123.75	119.90
23	DA	1348	G	C5-C6-O6	-6.42	124.75	128.60
23	DA	434	U	N3-C2-O2	6.42	126.69	122.20
23	DA	1355	G	C5-C6-N1	6.42	114.71	111.50
23	DA	2206	C	N3-C4-N4	-6.42	113.51	118.00
23	DA	1257	C	C4-C5-C6	6.42	120.61	117.40
23	DA	1493	C	C5-C6-N1	6.42	124.21	121.00
23	BA	66	C	C6-N1-C2	6.41	122.87	120.30
23	BA	1602	U	C5-C6-N1	6.41	125.91	122.70
1	CA	1524	C	N3-C4-C5	6.41	124.47	121.90
23	DA	2386	C	C5-C6-N1	-6.41	117.79	121.00
23	DA	1309	G	N9-C4-C5	-6.41	102.83	105.40
23	DA	2197	U	C6-N1-C2	6.41	124.85	121.00
23	DA	1190	G	C5-C6-O6	-6.41	124.75	128.60
23	DA	1315	C	C6-N1-C2	-6.41	117.74	120.30
23	DA	1258	C	C5-C6-N1	-6.41	117.80	121.00
1	AA	903	G	N7-C8-N9	-6.40	109.90	113.10
1	AA	896	C	C5-C6-N1	-6.40	117.80	121.00
23	DA	1342	A	N1-C6-N6	6.40	122.44	118.60
23	BA	2053	G	C4-C5-N7	6.40	113.36	110.80
23	DA	1021	A	N7-C8-N9	6.40	117.00	113.80
23	BA	809	G	N1-C6-O6	6.39	123.73	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	1824	G	C6-N1-C2	-6.39	121.27	125.10
23	BA	956	G	C5-C6-N1	-6.39	108.31	111.50
23	DA	1022	G	N9-C4-C5	6.39	107.95	105.40
23	BA	728	G	C8-N9-C4	6.39	108.95	106.40
23	BA	1443	G	N1-C6-O6	6.39	123.73	119.90
23	BA	1804	C	C5-C6-N1	-6.39	117.81	121.00
23	BA	951	C	C6-N1-C2	6.38	122.85	120.30
23	BA	1983	C	N3-C4-C5	6.38	124.45	121.90
23	DA	2618	G	N1-C2-N3	6.38	127.73	123.90
23	DA	1322	A	N1-C2-N3	6.38	132.49	129.30
23	DA	1655	A	C8-N9-C4	6.38	108.35	105.80
23	BA	789	A	N1-C6-N6	6.38	122.43	118.60
23	DA	265	A	N3-C4-C5	6.38	131.26	126.80
23	DA	1342	A	C5-C6-N6	-6.38	118.60	123.70
23	DA	2502	G	N3-C4-N9	6.38	129.83	126.00
23	BA	2532	G	C6-C5-N7	-6.38	126.57	130.40
23	BA	36	G	N7-C8-N9	-6.38	109.91	113.10
23	DA	1779	U	C6-N1-C2	6.38	124.83	121.00
23	BA	1355	G	N1-C6-O6	-6.37	116.08	119.90
23	DA	294	A	C8-N9-C4	6.37	108.35	105.80
23	DA	2397	G	N7-C8-N9	6.37	116.29	113.10
23	BA	840	C	C5-C6-N1	-6.37	117.81	121.00
23	DA	586	A	N7-C8-N9	-6.37	110.61	113.80
23	BA	2502	G	C5-N7-C8	-6.37	101.11	104.30
23	DA	330	A	C5-N7-C8	-6.37	100.72	103.90
23	BA	1605	C	N1-C2-O2	-6.37	115.08	118.90
23	DA	2010	G	N1-C2-N3	6.37	127.72	123.90
1	AA	299	G	C5-C6-O6	6.36	132.42	128.60
23	DA	1786	A	C5-C6-N1	-6.36	114.52	117.70
23	DA	1998	G	N7-C8-N9	-6.36	109.92	113.10
23	DA	1996	C	N3-C2-O2	6.36	126.35	121.90
23	DA	2706	G	C4-C5-N7	6.36	113.34	110.80
23	BA	602	G	C8-N9-C4	6.36	108.94	106.40
23	BA	692	C	N3-C4-C5	6.36	124.44	121.90
23	BA	949	C	C6-N1-C2	6.36	122.84	120.30
23	DA	2502	G	C6-C5-N7	-6.36	126.59	130.40
25	DC	177	LEU	CA-CB-CG	-6.36	100.68	115.30
23	DA	2454	G	C8-N9-C4	6.35	108.94	106.40
23	BA	2043	C	C5-C6-N1	-6.35	117.82	121.00
23	BA	1128	A	N7-C8-N9	-6.34	110.63	113.80
23	DA	584	C	N3-C4-C5	6.34	124.44	121.90
23	DA	1351	C	C5-C6-N1	-6.34	117.83	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	1633	G	C6-C5-N7	-6.34	126.60	130.40
1	AA	357	G	C5-C6-N1	-6.34	108.33	111.50
23	DA	746	A	N1-C2-N3	6.34	132.47	129.30
23	BA	2387	U	C5-C6-N1	-6.33	119.53	122.70
23	DA	1144	G	C4-C5-N7	6.33	113.33	110.80
23	DA	2518	A	C2-N3-C4	-6.33	107.43	110.60
23	DA	657	U	N3-C2-O2	-6.33	117.77	122.20
23	DA	2087	G	C8-N9-C4	6.33	108.93	106.40
23	DA	2465	C	N3-C4-C5	6.33	124.43	121.90
23	DA	2688	U	N3-C4-O4	-6.33	114.97	119.40
23	DA	2719	G	N3-C4-N9	6.33	129.80	126.00
23	DA	1200	C	N1-C2-O2	-6.33	115.10	118.90
23	DA	2507	C	C5-C6-N1	-6.33	117.84	121.00
23	BA	783	A	C4-C5-N7	6.33	113.86	110.70
23	DA	2448	A	C4-C5-N7	6.33	113.86	110.70
23	BA	1798	U	C5-C6-N1	-6.32	119.54	122.70
23	DA	2250	G	C8-N9-C4	-6.32	103.87	106.40
23	BA	240	G	C5-C6-N1	-6.32	108.34	111.50
23	BA	691	C	C5-C6-N1	-6.32	117.84	121.00
23	BA	1138	G	N3-C4-N9	6.32	129.79	126.00
23	BA	2555	U	N1-C2-N3	6.32	118.69	114.90
23	DA	2043	C	C5-C6-N1	-6.32	117.84	121.00
23	DA	2332	U	C5-C6-N1	-6.32	119.54	122.70
23	DA	784	A	C5-C6-N6	6.31	128.75	123.70
23	DA	1021	A	C5-C6-N1	-6.31	114.54	117.70
23	BA	2521	C	C6-N1-C2	6.31	122.82	120.30
23	DA	2374	C	C6-N1-C2	6.31	122.83	120.30
23	BA	124	G	C8-N9-C4	6.31	108.92	106.40
23	BA	2742	C	C5-C6-N1	-6.31	117.85	121.00
23	DA	768	G	C8-N9-C4	6.31	108.92	106.40
23	BA	2625	G	C8-N9-C4	6.30	108.92	106.40
23	DA	1302	A	N9-C4-C5	6.30	108.32	105.80
23	BA	2066	C	C6-N1-C2	6.30	122.82	120.30
23	DA	2638	G	N9-C4-C5	6.29	107.92	105.40
23	BA	298	G	N7-C8-N9	6.29	116.25	113.10
23	BA	686	G	C5-C6-O6	-6.29	124.83	128.60
23	DA	2538	C	C5-C6-N1	-6.29	117.86	121.00
23	BA	298	G	C5-C6-O6	-6.29	124.83	128.60
23	BA	704	G	C4-C5-N7	6.29	113.31	110.80
23	BA	1663	C	C6-N1-C2	6.28	122.81	120.30
23	DA	1834	U	C2-N1-C1'	6.28	125.24	117.70
23	DA	2010	G	C4-C5-N7	6.28	113.31	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	2056	G	N9-C4-C5	-6.28	102.89	105.40
23	DA	2206	C	N3-C4-C5	6.28	124.41	121.90
23	BA	2501	C	N3-C4-C5	6.28	124.41	121.90
23	DA	2227	A	C5-C6-N1	-6.28	114.56	117.70
23	BA	2206	C	N3-C4-C5	6.28	124.41	121.90
23	DA	2080	G	N1-C2-N3	6.28	127.67	123.90
23	BA	560	C	C5-C6-N1	-6.27	117.86	121.00
23	DA	798	G	N1-C2-N3	6.27	127.66	123.90
24	BB	84	C	C6-N1-C2	-6.27	117.79	120.30
23	DA	774	A	N7-C8-N9	6.27	116.94	113.80
23	DA	1832	C	C2-N3-C4	-6.27	116.77	119.90
1	AA	297	G	N7-C8-N9	-6.27	109.97	113.10
23	BA	1188	U	N3-C2-O2	-6.27	117.81	122.20
23	DA	748	G	C5-C6-N1	6.27	114.63	111.50
23	DA	2091	U	C5-C6-N1	-6.27	119.57	122.70
23	BA	1899	G	C5-C6-O6	6.27	132.36	128.60
23	DA	1802	A	N1-C2-N3	6.27	132.43	129.30
23	DA	2427	C	N3-C4-C5	-6.26	119.39	121.90
23	BA	1964	G	N3-C4-N9	6.26	129.76	126.00
23	BA	933	A	C5-N7-C8	-6.26	100.77	103.90
23	BA	2839	G	N1-C6-O6	6.26	123.66	119.90
23	DA	750	A	C5-N7-C8	-6.26	100.77	103.90
23	DA	2462	U	C6-N1-C2	6.26	124.76	121.00
23	BA	596	G	N1-C6-O6	6.26	123.66	119.90
23	DA	2066	C	C2-N3-C4	-6.26	116.77	119.90
23	DA	2447	G	C8-N9-C1'	6.26	135.14	127.00
1	AA	691	G	N9-C4-C5	-6.26	102.90	105.40
23	BA	1323	U	N3-C4-C5	-6.26	110.85	114.60
23	DA	2501	C	N3-C4-C5	6.26	124.40	121.90
23	DA	2638	G	C5-C6-O6	6.26	132.35	128.60
23	BA	1780	A	C2-N3-C4	-6.25	107.47	110.60
23	DA	2061	G	C4-C5-C6	6.25	122.55	118.80
23	BA	1935	G	N3-C4-C5	6.25	131.73	128.60
23	DA	283	A	N1-C6-N6	-6.25	114.85	118.60
23	DA	1983	C	C6-N1-C2	6.25	122.80	120.30
23	BA	2515	C	C6-N1-C2	6.25	122.80	120.30
23	BA	802	A	C8-N9-C1'	-6.25	116.45	127.70
23	BA	265	A	C6-C5-N7	-6.24	127.93	132.30
23	BA	444	C	C2-N1-C1'	-6.24	111.93	118.80
23	DA	798	G	C6-N1-C2	-6.24	121.35	125.10
23	DA	98	G	N1-C6-O6	6.24	123.64	119.90
23	DA	1824	G	C5-C6-N1	6.24	114.62	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BA	2713	A	N9-C4-C5	-6.24	103.31	105.80
23	DA	1773	A	N1-C6-N6	6.24	122.34	118.60
24	BB	76	G	C5-C6-O6	-6.24	124.86	128.60
53	D5	62	LEU	CA-CB-CG	-6.24	100.96	115.30
23	DA	250	G	C8-N9-C4	-6.23	103.91	106.40
23	BA	2506	U	N1-C2-O2	6.23	127.16	122.80
23	BA	13	A	N1-C6-N6	-6.23	114.86	118.60
23	DA	976	C	C6-N1-C2	6.23	122.79	120.30
1	AA	815	A	N9-C4-C5	6.23	108.29	105.80
23	DA	826	U	C5-C6-N1	-6.23	119.59	122.70
23	BA	1779	U	C5-C6-N1	-6.22	119.59	122.70
23	BA	2578	G	C5-C6-O6	-6.22	124.87	128.60
23	BA	2279	G	N1-C6-O6	-6.22	116.17	119.90
23	BA	2622	C	N3-C4-C5	6.22	124.39	121.90
23	DA	1201	C	N1-C2-O2	-6.22	115.17	118.90
23	DA	1367	A	N7-C8-N9	-6.22	110.69	113.80
23	BA	1653	G	N9-C4-C5	-6.21	102.91	105.40
23	DA	1299	G	N9-C4-C5	-6.21	102.91	105.40
23	DA	1366	A	C2-N3-C4	-6.21	107.49	110.60
23	DA	2489	G	N1-C6-O6	6.21	123.63	119.90
23	DA	2822	G	C8-N9-C4	6.21	108.89	106.40
1	AA	1415	G	N1-C6-O6	6.21	123.63	119.90
23	BA	594	U	N1-C2-N3	6.21	118.63	114.90
23	BA	1776	G	C5-C6-N1	6.21	114.60	111.50
23	DA	640	C	C6-N1-C2	6.21	122.78	120.30
23	BA	1899	G	N1-C2-N3	6.20	127.62	123.90
23	DA	1304	C	C6-N1-C2	6.20	122.78	120.30
23	BA	512	G	C5-N7-C8	-6.20	101.20	104.30
23	BA	798	G	N1-C2-N3	6.20	127.62	123.90
23	BA	2069	G	C8-N9-C4	6.20	108.88	106.40
23	DA	328	U	C4-C5-C6	6.20	123.42	119.70
23	DA	2559	C	C2-N3-C4	-6.20	116.80	119.90
23	DA	1480	G	N1-C6-O6	6.20	123.62	119.90
23	BA	1264	G	N1-C2-N3	6.20	127.62	123.90
23	DA	1698	A	N9-C4-C5	-6.20	103.32	105.80
23	DA	704	G	N1-C6-O6	6.19	123.61	119.90
23	BA	1704	G	N7-C8-N9	-6.19	110.00	113.10
23	BA	2689	U	C5-C6-N1	-6.19	119.60	122.70
23	DA	965	C	C6-N1-C2	-6.19	117.82	120.30
23	DA	1253	A	C5-N7-C8	-6.19	100.81	103.90
23	DA	662	G	C8-N9-C4	6.19	108.88	106.40
23	BA	1674	G	C8-N9-C4	6.18	108.87	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BA	2005	A	C2-N3-C4	-6.18	107.51	110.60
23	DA	450	G	C5-N7-C8	6.18	107.39	104.30
23	DA	686	G	C5-C6-O6	-6.18	124.89	128.60
23	BA	956	G	N1-C6-O6	6.18	123.61	119.90
23	BA	2700	C	C2-N3-C4	-6.18	116.81	119.90
23	BA	2506	U	C2-N1-C1'	6.18	125.11	117.70
23	DA	466	A	N1-C2-N3	6.18	132.39	129.30
23	DA	794	G	N1-C2-N3	6.18	127.61	123.90
23	BA	528	A	N1-C2-N3	6.18	132.39	129.30
23	DA	1341	U	N3-C2-O2	6.18	126.52	122.20
23	DA	768	G	N1-C2-N3	6.17	127.61	123.90
23	DA	1770	G	N1-C2-N3	6.17	127.61	123.90
23	DA	2542	A	N7-C8-N9	-6.17	110.71	113.80
23	BA	1675	C	C4-C5-C6	6.17	120.49	117.40
23	BA	1821	A	C8-N9-C4	6.17	108.27	105.80
23	BA	1937	A	N1-C2-N3	6.17	132.39	129.30
23	DA	2571	C	C2-N3-C4	-6.17	116.81	119.90
23	BA	847	U	C2-N3-C4	-6.17	123.30	127.00
23	DA	1403	C	C5-C6-N1	-6.17	117.92	121.00
23	BA	1792	G	N9-C4-C5	6.17	107.87	105.40
23	DA	141(A)	A	C6-C5-N7	-6.17	127.98	132.30
23	DA	58	G	C4-N9-C1'	6.16	134.51	126.50
23	DA	180	G	C8-N9-C4	6.16	108.86	106.40
23	DA	1802	A	N9-C4-C5	6.16	108.27	105.80
23	DA	2043	C	C2-N3-C4	-6.16	116.82	119.90
23	BA	197	A	N1-C6-N6	6.16	122.30	118.60
23	BA	586	A	C8-N9-C4	6.16	108.26	105.80
23	BA	945	A	C5-C6-N6	-6.16	118.77	123.70
1	CA	299	G	C5-C6-N1	-6.16	108.42	111.50
23	DA	2712	U	C2-N3-C4	-6.16	123.30	127.00
23	BA	2059	A	C8-N9-C4	6.16	108.26	105.80
23	DA	94	G	N3-C4-N9	6.16	129.69	126.00
23	DA	273(C)	C	C5-C6-N1	-6.16	117.92	121.00
23	DA	933	A	N7-C8-N9	6.16	116.88	113.80
23	DA	72	U	N3-C2-O2	-6.16	117.89	122.20
23	BA	564	C	C6-N1-C2	-6.15	117.84	120.30
23	DA	777	A	N1-C2-N3	6.15	132.38	129.30
23	BA	458	G	C5-C6-O6	-6.15	124.91	128.60
23	BA	114(B)	A	C2-N3-C4	-6.15	107.52	110.60
23	BA	1677	A	C8-N9-C4	-6.15	103.34	105.80
23	BA	2053	G	N9-C4-C5	-6.15	102.94	105.40
23	BA	2440	C	N1-C2-O2	-6.15	115.21	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	2724	C	N1-C2-O2	-6.15	115.21	118.90
23	BA	678	C	C2-N3-C4	-6.15	116.83	119.90
23	DA	971	C	N3-C2-O2	6.15	126.20	121.90
23	DA	2517	C	C5-C6-N1	-6.15	117.93	121.00
23	BA	786	C	C2-N3-C4	-6.15	116.83	119.90
23	BA	1225	G	N1-C6-O6	-6.15	116.21	119.90
23	BA	2829	C	C5-C6-N1	-6.15	117.93	121.00
23	DA	273(A)	G	N7-C8-N9	-6.15	110.03	113.10
1	AA	918	A	N1-C6-N6	-6.14	114.91	118.60
23	DA	1183	G	N1-C6-O6	6.14	123.59	119.90
34	BL	61	ARG	NE-CZ-NH1	6.14	123.37	120.30
23	DA	83	G	N3-C4-C5	6.14	131.67	128.60
23	DA	132	G	C8-N9-C4	6.14	108.86	106.40
23	DA	1138	G	N3-C4-C5	-6.14	125.53	128.60
23	DA	2550	G	C8-N9-C4	6.14	108.86	106.40
23	BA	1010	A	C8-N9-C4	6.14	108.25	105.80
23	BA	1678	G	C4-C5-C6	-6.14	115.12	118.80
23	DA	512	G	C8-N9-C1'	6.14	134.98	127.00
23	DA	1331	A	N1-C2-N3	6.14	132.37	129.30
23	DA	2345	G	C4-C5-N7	-6.14	108.35	110.80
23	BA	509	C	C6-N1-C2	6.13	122.75	120.30
23	DA	2510	C	C2-N3-C4	-6.13	116.84	119.90
23	BA	570	G	C4-C5-C6	6.12	122.47	118.80
23	BA	760	G	N3-C4-C5	6.12	131.66	128.60
23	DA	444	C	C2-N3-C4	-6.12	116.84	119.90
23	DA	933	A	C4-C5-N7	6.12	113.76	110.70
23	DA	1898	U	C5-C4-O4	6.12	129.57	125.90
23	DA	2044	C	N3-C4-C5	6.12	124.35	121.90
23	DA	458	G	N3-C4-N9	6.12	129.67	126.00
23	DA	752	A	N1-C2-N3	6.12	132.36	129.30
23	DA	947	G	C8-N9-C4	6.12	108.85	106.40
23	DA	1031	G	C2-N3-C4	-6.12	108.84	111.90
23	DA	582	G	N7-C8-N9	-6.11	110.04	113.10
23	DA	994	C	C4-C5-C6	6.11	120.45	117.40
23	DA	2070	G	N1-C2-N3	6.11	127.56	123.90
23	DA	2719	G	C4-N9-C1'	6.11	134.44	126.50
23	DA	1663	C	C6-N1-C2	6.11	122.74	120.30
23	BA	787	U	C5-C6-N1	-6.11	119.65	122.70
23	BA	1614	A	C4-C5-C6	6.11	120.05	117.00
23	BA	2681	C	C5-C6-N1	-6.10	117.95	121.00
23	DA	1790	C	C5-C6-N1	-6.10	117.95	121.00
23	DA	2838	G	C5-C6-O6	-6.10	124.94	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BA	494	G	C5-C6-O6	-6.10	124.94	128.60
23	BA	1208	C	C6-N1-C2	6.10	122.74	120.30
23	DA	2463	C	N1-C2-O2	-6.10	115.24	118.90
23	DA	2675	A	C8-N9-C4	6.10	108.24	105.80
23	BA	543	C	C6-N1-C2	6.10	122.74	120.30
23	BA	1783	A	N3-C4-N9	-6.10	122.52	127.40
23	DA	86	C	C6-N1-C2	6.10	122.74	120.30
23	DA	1392	A	N1-C6-N6	-6.10	114.94	118.60
23	DA	1790	C	C2-N3-C4	-6.10	116.85	119.90
23	BA	807	U	C5-C6-N1	-6.10	119.65	122.70
23	DA	564	C	C6-N1-C2	-6.10	117.86	120.30
23	BA	993	G	N9-C4-C5	6.10	107.84	105.40
23	DA	801	G	N9-C4-C5	6.10	107.84	105.40
23	DA	1022	G	N3-C4-C5	-6.10	125.55	128.60
23	BA	1827	C	C5-C6-N1	-6.09	117.95	121.00
23	DA	1830	C	C6-N1-C2	6.09	122.74	120.30
23	BA	1648	C	C5-C6-N1	-6.09	117.95	121.00
23	DA	2249	U	C6-N1-C2	-6.09	117.35	121.00
1	CA	856	C	C6-N1-C2	-6.08	117.87	120.30
23	BA	450	G	C8-N9-C1'	-6.08	119.09	127.00
23	DA	1400	G	N3-C4-N9	6.08	129.65	126.00
24	DB	83	G	N1-C6-O6	6.08	123.55	119.90
23	DA	1331	A	C5-C6-N1	-6.08	114.66	117.70
23	BA	2831	G	N3-C4-N9	-6.08	122.36	126.00
23	DA	126	A	N1-C6-N6	6.08	122.25	118.60
23	DA	1655	A	C2-N3-C4	-6.08	107.56	110.60
23	DA	1902	C	C5-C4-N4	6.08	124.45	120.20
23	BA	333	G	C8-N9-C1'	-6.07	119.11	127.00
23	DA	1258	C	C6-N1-C2	6.07	122.73	120.30
23	DA	2503	A	C4-C5-C6	-6.07	113.96	117.00
23	BA	83	G	C4-N9-C1'	-6.07	118.61	126.50
23	BA	333	G	C4-N9-C1'	6.07	134.39	126.50
23	BA	1613	G	N1-C6-O6	-6.07	116.26	119.90
23	BA	1899	G	N3-C2-N2	-6.07	115.65	119.90
23	DA	2426	A	C5-N7-C8	-6.07	100.86	103.90
23	BA	2066	C	C5-C6-N1	-6.07	117.97	121.00
23	DA	2080	G	C6-N1-C2	-6.07	121.46	125.10
23	DA	141(A)	A	C8-N9-C4	-6.07	103.37	105.80
23	DA	1937	A	C2-N3-C4	-6.07	107.57	110.60
23	BA	2250	G	N1-C6-O6	-6.06	116.26	119.90
23	BA	2510	C	C5-C6-N1	-6.06	117.97	121.00
23	DA	216	A	C5-N7-C8	-6.06	100.87	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	270(A)	A	C2-N3-C4	-6.06	107.57	110.60
23	BA	2453	A	N1-C2-N3	6.06	132.33	129.30
23	DA	60	G	P-O3'-C3'	6.06	126.98	119.70
23	DA	296	C	C6-N1-C2	6.06	122.72	120.30
23	DA	1286	A	N1-C2-N3	6.06	132.33	129.30
23	BA	1983	C	C2-N3-C4	-6.06	116.87	119.90
23	BA	528	A	C5-N7-C8	-6.06	100.87	103.90
23	BA	1248	G	C5-C6-O6	-6.06	124.96	128.60
23	BA	2330	G	N7-C8-N9	-6.06	110.07	113.10
23	DA	2436	G	N1-C6-O6	6.06	123.53	119.90
23	DA	296	C	C5-C6-N1	-6.06	117.97	121.00
23	DA	2440	C	C5-C4-N4	6.06	124.44	120.20
23	DA	133	C	C5-C6-N1	-6.05	117.97	121.00
23	DA	794	G	N1-C6-O6	-6.05	116.27	119.90
23	BA	2033	A	N1-C2-N3	6.05	132.33	129.30
23	DA	104	U	C5-C6-N1	-6.05	119.67	122.70
23	DA	224	G	C8-N9-C4	6.05	108.82	106.40
23	BA	1899	G	N9-C4-C5	6.05	107.82	105.40
23	DA	198	C	N3-C4-C5	6.05	124.32	121.90
23	DA	783	A	C5-C6-N1	-6.05	114.67	117.70
1	AA	876	G	C8-N9-C4	6.05	108.82	106.40
23	DA	2681	C	C2-N1-C1'	-6.05	112.15	118.80
23	BA	780	G	C8-N9-C4	6.04	108.82	106.40
23	BA	974(B)	C	N3-C4-C5	6.04	124.32	121.90
23	DA	2456	C	N3-C4-C5	6.04	124.32	121.90
23	DA	482	A	N1-C6-N6	6.04	122.22	118.60
23	DA	528	A	N1-C2-N3	6.04	132.32	129.30
23	DA	2584	U	N3-C4-O4	6.04	123.63	119.40
23	BA	201	C	C6-N1-C2	6.04	122.72	120.30
23	BA	209	C	C6-N1-C2	6.04	122.72	120.30
23	DA	2058	A	C8-N9-C4	6.04	108.21	105.80
23	BA	141(A)	A	N7-C8-N9	6.03	116.82	113.80
23	BA	2825	U	N3-C4-O4	-6.03	115.18	119.40
23	BA	1261	C	C2-N3-C4	-6.03	116.88	119.90
23	DA	1360	A	C8-N9-C4	-6.03	103.39	105.80
23	DA	1782	C	C6-N1-C2	6.03	122.71	120.30
23	BA	2454	G	C8-N9-C4	6.03	108.81	106.40
23	DA	1161	C	C5-C6-N1	6.03	124.01	121.00
23	DA	1707	G	C2-N3-C4	-6.03	108.89	111.90
23	DA	1843	C	N3-C4-C5	6.03	124.31	121.90
23	DA	2033	A	N1-C2-N3	6.02	132.31	129.30
23	BA	595	C	C6-N1-C2	6.02	122.71	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BA	2059	A	C6-N1-C2	-6.02	114.99	118.60
23	DA	204	A	N7-C8-N9	-6.02	110.79	113.80
23	DA	2681	C	C2-N3-C4	-6.02	116.89	119.90
23	DA	2719	G	C8-N9-C1'	-6.02	119.17	127.00
23	BA	1677	A	N7-C8-N9	6.02	116.81	113.80
23	DA	247	G	C8-N9-C4	6.02	108.81	106.40
23	DA	1528	A	C8-N9-C4	-6.02	103.39	105.80
23	BA	808	G	C5-N7-C8	6.02	107.31	104.30
23	BA	1837	C	C6-N1-C2	-6.02	117.89	120.30
23	BA	2032	G	N3-C4-N9	-6.02	122.39	126.00
23	BA	2390	U	N3-C2-O2	-6.02	117.99	122.20
23	DA	2056	G	C5-N7-C8	-6.02	101.29	104.30
23	DA	2595	G	C5-C6-N1	6.02	114.51	111.50
23	BA	1000	A	C5-C6-N6	6.01	128.51	123.70
23	DA	667	U	N1-C2-N3	6.01	118.51	114.90
23	DA	1778	U	C2-N3-C4	-6.01	123.39	127.00
23	BA	1252	G	N7-C8-N9	-6.01	110.09	113.10
23	BA	2626	C	C2-N1-C1'	-6.01	112.19	118.80
23	BA	1123	C	C5-C6-N1	-6.01	118.00	121.00
23	DA	747	U	C2-N3-C4	-6.01	123.39	127.00
23	DA	1614	A	N7-C8-N9	6.01	116.81	113.80
23	DA	86	C	C5-C6-N1	-6.01	118.00	121.00
23	DA	1903	G	N1-C6-O6	-6.00	116.30	119.90
23	DA	2713	A	C5-C6-N6	-6.00	118.90	123.70
23	DA	1032	A	C8-N9-C4	6.00	108.20	105.80
23	DA	2601	C	C5-C6-N1	-6.00	118.00	121.00
23	BA	843	G	N1-C6-O6	6.00	123.50	119.90
23	DA	2283	C	N1-C2-O2	-6.00	115.30	118.90
23	BA	2508	G	C8-N9-C4	6.00	108.80	106.40
23	DA	138	G	C8-N9-C4	-6.00	104.00	106.40
23	DA	2240	C	C6-N1-C2	6.00	122.70	120.30
23	BA	509	C	N3-C4-C5	6.00	124.30	121.90
23	BA	1977	A	C2-N3-C4	-6.00	107.60	110.60
23	DA	1367	A	C8-N9-C4	6.00	108.20	105.80
23	DA	2249	U	C5-C4-O4	6.00	129.50	125.90
23	BA	2345	G	C4-C5-N7	-6.00	108.40	110.80
23	DA	472	A	N7-C8-N9	-6.00	110.80	113.80
23	DA	2711	A	C8-N9-C4	6.00	108.20	105.80
23	DA	31	C	C5-C4-N4	-5.99	116.00	120.20
23	BA	575	A	C8-N9-C4	5.99	108.20	105.80
23	DA	434	U	N1-C2-O2	-5.99	118.61	122.80
23	DA	2283	C	N3-C2-O2	5.99	126.09	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	1204	A	C5-N7-C8	-5.99	100.91	103.90
23	DA	1963	U	N1-C2-O2	5.99	126.99	122.80
23	DA	1815	A	N9-C4-C5	5.99	108.20	105.80
23	DA	225	A	C2-N3-C4	-5.99	107.61	110.60
23	DA	1325	G	C5-C6-N1	5.99	114.49	111.50
23	BA	571	A	C4-C5-C6	-5.99	114.01	117.00
23	BA	1309	G	C8-N9-C4	5.99	108.79	106.40
23	DA	109	G	C8-N9-C4	5.99	108.79	106.40
23	DA	197	A	C5-N7-C8	-5.99	100.91	103.90
23	DA	2770	G	C4-C5-N7	-5.99	108.41	110.80
23	DA	189	G	C8-N9-C1'	-5.98	119.22	127.00
23	DA	945	A	O4'-C1'-N9	5.98	112.99	108.20
23	BA	1839	G	N3-C4-C5	5.98	131.59	128.60
23	BA	1839	G	C5-C6-O6	5.98	132.19	128.60
23	BA	2498	C	C2-N3-C4	-5.98	116.91	119.90
23	DA	1825	A	C6-N1-C2	-5.98	115.01	118.60
23	DA	1977	A	C2-N3-C4	-5.98	107.61	110.60
23	BA	600	G	N1-C6-O6	5.98	123.49	119.90
23	BA	1797	C	C6-N1-C2	5.98	122.69	120.30
23	DA	537	C	C6-N1-C2	5.98	122.69	120.30
23	DA	746	A	C4-C5-C6	5.98	119.99	117.00
23	BA	114(B)	A	C4-C5-C6	5.98	119.99	117.00
23	DA	2596	U	C5-C6-N1	-5.98	119.71	122.70
23	BA	1804	C	C2-N3-C4	-5.97	116.91	119.90
23	DA	1617	C	N1-C2-O2	-5.97	115.31	118.90
23	BA	1796	U	C5-C6-N1	-5.97	119.71	122.70
23	BA	1961	C	C5-C6-N1	-5.97	118.01	121.00
23	BA	704	G	N9-C4-C5	-5.97	103.01	105.40
23	DA	26	G	C8-N9-C4	5.97	108.79	106.40
23	BA	594	U	N3-C2-O2	-5.97	118.02	122.20
23	DA	2430	A	N7-C8-N9	5.97	116.78	113.80
23	DA	2590	A	N1-C2-N3	5.97	132.28	129.30
23	BA	129	C	C6-N1-C2	5.96	122.69	120.30
23	DA	72	U	C2-N3-C4	-5.96	123.42	127.00
23	DA	584	C	C2-N3-C4	-5.96	116.92	119.90
23	DA	1841	U	N3-C4-O4	5.96	123.58	119.40
23	DA	529	A	C5-C6-N6	-5.96	118.93	123.70
23	DA	2605	U	C5-C4-O4	5.96	129.48	125.90
23	DA	2875	C	C6-N1-C2	5.96	122.69	120.30
23	DA	840	C	C5-C6-N1	-5.96	118.02	121.00
23	BA	1956	U	C5-C6-N1	-5.96	119.72	122.70
23	BA	1980	G	N3-C4-C5	-5.96	125.62	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	322	A	N1-C6-N6	-5.96	115.03	118.60
23	DA	532	A	N1-C6-N6	-5.96	115.03	118.60
23	DA	1699	G	C4-C5-N7	-5.96	108.42	110.80
23	DA	2014	A	N1-C6-N6	5.96	122.17	118.60
23	DA	270(Z)	G	C5-C6-O6	5.96	132.17	128.60
23	BA	2086	U	C5-C4-O4	5.95	129.47	125.90
23	BA	2433	A	C4-C5-C6	5.95	119.98	117.00
23	DA	1210	A	N7-C8-N9	5.95	116.78	113.80
23	DA	1616	A	C8-N9-C4	-5.95	103.42	105.80
23	DA	2567	G	C5-C6-O6	-5.95	125.03	128.60
23	DA	2762	G	C6-C5-N7	-5.95	126.83	130.40
1	CA	926	G	N9-C4-C5	5.95	107.78	105.40
23	DA	1261	C	N3-C2-O2	5.95	126.06	121.90
23	DA	2061	G	C8-N9-C1'	-5.95	119.27	127.00
23	BA	929	G	C4-C5-C6	5.95	122.37	118.80
23	BA	933	A	C6-C5-N7	-5.95	128.14	132.30
23	DA	2521	C	C6-N1-C2	5.95	122.68	120.30
47	DY	21	LEU	CB-CG-CD1	5.95	121.11	111.00
1	AA	918	A	N9-C4-C5	5.95	108.18	105.80
23	BA	138	G	C8-N9-C4	-5.95	104.02	106.40
23	BA	1164	G	C4-N9-C1'	5.95	134.23	126.50
23	BA	2719	G	C6-C5-N7	-5.95	126.83	130.40
23	DA	2532	G	C6-C5-N7	-5.95	126.83	130.40
23	DA	933	A	C2-N3-C4	-5.94	107.63	110.60
23	DA	2442	C	C5-C6-N1	-5.94	118.03	121.00
23	BA	2092	U	C5-C4-O4	5.94	129.47	125.90
23	BA	2232	U	C5-C4-O4	5.94	129.47	125.90
23	DA	2505	G	C5-C6-N1	-5.94	108.53	111.50
23	DA	273(C)	C	C6-N1-C2	5.94	122.68	120.30
23	DA	1820	U	C6-N1-C2	5.94	124.56	121.00
23	DA	677	A	C8-N9-C4	5.94	108.17	105.80
23	DA	1385	G	C4-N9-C1'	-5.94	118.78	126.50
23	DA	1827	C	C2-N3-C4	-5.94	116.93	119.90
23	DA	2454	G	N7-C8-N9	-5.94	110.13	113.10
23	DA	2550	G	N1-C6-O6	5.94	123.46	119.90
23	DA	2597	G	N7-C8-N9	-5.94	110.13	113.10
23	BA	1770	G	C2-N3-C4	-5.93	108.93	111.90
23	DA	1989	G	C5-C6-O6	-5.93	125.04	128.60
1	AA	299	G	C4-C5-N7	-5.93	108.43	110.80
23	BA	452	G	C5-C6-O6	-5.93	125.04	128.60
23	BA	1790	C	C6-N1-C2	5.93	122.67	120.30
23	BA	1000	A	N1-C6-N6	-5.93	115.04	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	2006	C	C5-C6-N1	-5.93	118.04	121.00
23	DA	2233	U	N3-C4-C5	5.93	118.16	114.60
23	DA	734	A	N1-C6-N6	5.92	122.16	118.60
23	DA	2327	A	C8-N9-C4	5.92	108.17	105.80
23	BA	570	G	C8-N9-C4	-5.92	104.03	106.40
23	DA	1126	A	C8-N9-C4	5.92	108.17	105.80
23	DA	1679	U	N1-C2-O2	-5.92	118.65	122.80
23	BA	529	A	C4-C5-N7	5.92	113.66	110.70
23	BA	140	A	C5-N7-C8	-5.92	100.94	103.90
1	CA	810	C	C5-C6-N1	-5.92	118.04	121.00
23	DA	2578	G	N1-C6-O6	5.92	123.45	119.90
23	BA	2070	G	C8-N9-C4	5.92	108.77	106.40
23	BA	2544	G	C2-N3-C4	-5.92	108.94	111.90
23	BA	1655	A	N1-C6-N6	5.92	122.15	118.60
23	BA	1798	U	N1-C2-O2	-5.92	118.66	122.80
23	DA	187	G	N3-C4-N9	5.91	129.55	126.00
23	DA	2518	A	N3-C4-C5	5.91	130.94	126.80
23	BA	141(A)	A	N1-C6-N6	5.91	122.15	118.60
23	BA	1957	C	C6-N1-C2	5.91	122.67	120.30
23	BA	2524	G	N7-C8-N9	-5.91	110.14	113.10
23	DA	187	G	C8-N9-C1'	-5.91	119.32	127.00
23	BA	2007	C	C5-C6-N1	-5.91	118.05	121.00
23	BA	2719	G	N9-C4-C5	-5.91	103.04	105.40
23	DA	2057	A	N1-C2-N3	5.91	132.25	129.30
23	BA	1121	C	C6-N1-C2	5.91	122.66	120.30
23	DA	723	G	C5-C6-N1	-5.91	108.55	111.50
23	DA	1395	A	N1-C2-N3	-5.91	126.35	129.30
23	BA	1333	C	C5-C4-N4	-5.90	116.07	120.20
23	BA	2831	G	N3-C4-C5	5.90	131.55	128.60
23	DA	543	C	C5-C6-N1	-5.90	118.05	121.00
23	DA	570	G	C5-N7-C8	5.90	107.25	104.30
23	DA	2050	C	N1-C2-N3	5.90	123.33	119.20
23	BA	806	C	C6-N1-C2	-5.90	117.94	120.30
23	BA	1264	G	N9-C4-C5	5.90	107.76	105.40
23	BA	2593	U	C4-C5-C6	5.90	123.24	119.70
23	DA	298	G	N1-C6-O6	5.90	123.44	119.90
23	BA	1769	G	N7-C8-N9	5.89	116.05	113.10
1	AA	810	C	C5-C6-N1	-5.89	118.05	121.00
23	BA	1901	A	N1-C6-N6	-5.89	115.07	118.60
23	BA	2719	G	C8-N9-C1'	-5.89	119.34	127.00
23	BA	509	C	C2-N1-C1'	-5.89	112.32	118.80
23	DA	693	C	C4-C5-C6	5.89	120.34	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	1325	G	C4-N9-C1'	-5.89	118.84	126.50
23	BA	530	G	N7-C8-N9	5.89	116.04	113.10
23	DA	2232	U	C4-C5-C6	5.88	123.23	119.70
23	DA	2510	C	C5-C6-N1	-5.88	118.06	121.00
23	BA	1313	U	C5-C6-N1	5.88	125.64	122.70
23	BA	2593	U	N1-C2-N3	5.88	118.43	114.90
23	BA	2719	G	C4-N9-C1'	5.88	134.15	126.50
23	DA	1783	A	C6-N1-C2	-5.88	115.07	118.60
23	BA	1291	C	C6-N1-C2	5.88	122.65	120.30
1	CA	1513	A	N7-C8-N9	-5.88	110.86	113.80
23	DA	1266	G	C8-N9-C4	5.88	108.75	106.40
23	DA	1335	U	C5-C6-N1	-5.88	119.76	122.70
23	BA	840	C	C2-N3-C4	-5.88	116.96	119.90
23	BA	2544	G	C6-C5-N7	-5.88	126.87	130.40
23	BA	847	U	C6-N1-C1'	5.88	129.43	121.20
1	AA	904	C	C5-C6-N1	-5.87	118.06	121.00
23	BA	1982	C	N3-C4-N4	5.87	122.11	118.00
25	BC	177	LEU	CA-CB-CG	-5.87	101.79	115.30
23	DA	808	G	C6-N1-C2	-5.87	121.58	125.10
23	DA	841	A	C6-N1-C2	-5.87	115.08	118.60
23	DA	2549	G	N1-C2-N3	5.87	127.42	123.90
23	BA	1769	G	C6-C5-N7	-5.87	126.88	130.40
23	BA	2822	G	C8-N9-C4	5.87	108.75	106.40
23	DA	263	C	C6-N1-C2	5.87	122.65	120.30
23	DA	2587	A	C8-N9-C4	5.87	108.15	105.80
23	DA	2506	U	N3-C2-O2	-5.87	118.09	122.20
23	BA	640	C	N3-C4-N4	-5.87	113.89	118.00
23	DA	940	G	N3-C4-C5	-5.87	125.67	128.60
23	BA	239	U	C2-N1-C1'	-5.86	110.67	117.70
23	BA	1617	C	C5-C6-N1	-5.86	118.07	121.00
23	DA	298	G	C5-C6-O6	-5.86	125.08	128.60
23	DA	760	G	C8-N9-C4	5.86	108.75	106.40
23	DA	1264	G	C5-C6-O6	5.86	132.12	128.60
23	DA	1589	C	C6-N1-C2	-5.86	117.95	120.30
23	DA	2033	A	C2-N3-C4	-5.86	107.67	110.60
23	DA	2324	C	C2-N3-C4	-5.86	116.97	119.90
23	BA	968	G	N1-C6-O6	5.86	123.42	119.90
23	BA	1250	G	C8-N9-C4	5.86	108.75	106.40
23	BA	1666	G	N3-C4-C5	5.86	131.53	128.60
23	DA	2497	A	C2-N3-C4	-5.86	107.67	110.60
23	BA	799	G	C5-C6-N1	5.86	114.43	111.50
23	DA	40	C	C5-C6-N1	-5.86	118.07	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	224	G	N3-C4-C5	5.86	131.53	128.60
23	DA	2550	G	C5-C6-O6	-5.86	125.08	128.60
23	DA	2278	A	C8-N9-C4	-5.86	103.46	105.80
1	AA	1522	U	N1-C2-N3	5.86	118.41	114.90
23	BA	1325	G	C4-N9-C1'	-5.86	118.89	126.50
23	BA	2003	G	C8-N9-C4	5.86	108.74	106.40
23	BA	2496	C	C2-N3-C4	-5.86	116.97	119.90
23	DA	2392	A	C8-N9-C4	-5.85	103.46	105.80
23	DA	2581	G	C4-C5-N7	-5.85	108.46	110.80
23	BA	811	U	C5-C6-N1	-5.85	119.77	122.70
23	BA	2227	A	C2-N3-C4	-5.85	107.67	110.60
1	CA	1522	U	N1-C2-N3	5.85	118.41	114.90
23	DA	1031	G	C4-C5-N7	5.85	113.14	110.80
23	DA	1125	G	N3-C4-C5	5.85	131.52	128.60
23	BA	734	A	C2-N3-C4	-5.85	107.68	110.60
23	BA	834	C	C2-N3-C4	-5.85	116.98	119.90
1	CA	1415	G	C6-C5-N7	-5.85	126.89	130.40
23	BA	1614	A	C4-C5-N7	5.84	113.62	110.70
23	DA	1252	G	N7-C8-N9	-5.84	110.18	113.10
23	DA	1780	A	C2-N3-C4	-5.84	107.68	110.60
23	DA	2427	C	C4-C5-C6	5.84	120.32	117.40
23	BA	94	G	C6-C5-N7	-5.84	126.89	130.40
23	DA	71	A	N3-C4-C5	5.84	130.89	126.80
23	DA	213	A	C8-N9-C4	5.84	108.14	105.80
23	DA	1215	G	N7-C8-N9	-5.84	110.18	113.10
23	BA	2032	G	N3-C4-C5	5.84	131.52	128.60
23	DA	949	C	C6-N1-C2	5.84	122.64	120.30
23	DA	1349	A	C5-N7-C8	-5.84	100.98	103.90
23	DA	377	C	C2-N1-C1'	-5.84	112.38	118.80
23	DA	1302	A	N1-C6-N6	-5.84	115.10	118.60
23	BA	330	A	N3-C4-C5	5.83	130.88	126.80
23	DA	204	A	N1-C6-N6	-5.83	115.10	118.60
23	DA	2447	G	N3-C4-N9	-5.83	122.50	126.00
23	DA	2553	G	C4-C5-N7	5.83	113.13	110.80
1	AA	811	C	C6-N1-C2	5.83	122.63	120.30
23	BA	1798	U	C2-N3-C4	-5.83	123.50	127.00
23	DA	752	A	N1-C6-N6	-5.83	115.10	118.60
23	DA	1286	A	N9-C4-C5	5.83	108.13	105.80
23	DA	1402	C	C6-N1-C2	-5.83	117.97	120.30
23	DA	1898	U	C6-N1-C1'	5.83	129.37	121.20
23	BA	1253	A	C4-C5-N7	5.83	113.62	110.70
23	BA	1965	C	N1-C2-O2	5.83	122.40	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	333	G	C4-N9-C1'	5.83	134.08	126.50
23	DA	1258	C	C2-N3-C4	-5.83	116.98	119.90
1	CA	811	C	C2-N3-C4	-5.83	116.99	119.90
23	DA	1297	C	N1-C2-O2	-5.83	115.40	118.90
23	BA	2281	C	C6-N1-C2	5.83	122.63	120.30
23	BA	450	G	C4-C5-C6	5.82	122.29	118.80
23	BA	1396	U	C5-C6-N1	-5.82	119.79	122.70
23	BA	2392	A	C5-C6-N1	-5.82	114.79	117.70
23	DA	1602	U	C5-C6-N1	5.82	125.61	122.70
23	DA	2063	C	C5-C4-N4	5.82	124.28	120.20
23	DA	658	C	C5-C6-N1	-5.82	118.09	121.00
23	BA	1609	A	C2-N3-C4	-5.82	107.69	110.60
23	DA	2004	G	C6-C5-N7	-5.82	126.91	130.40
23	DA	731	C	C6-N1-C2	5.82	122.63	120.30
23	BA	138	G	N3-C4-C5	-5.82	125.69	128.60
23	BA	1369	G	C5-C6-O6	-5.82	125.11	128.60
23	DA	2086	U	C5-C4-O4	5.82	129.39	125.90
1	AA	1486	G	N1-C6-O6	5.82	123.39	119.90
23	BA	1161	C	C2-N1-C1'	5.82	125.20	118.80
23	DA	681	G	C8-N9-C1'	-5.82	119.44	127.00
23	DA	847	U	C6-N1-C1'	5.82	129.34	121.20
23	DA	676	A	O4'-C1'-N9	5.81	112.85	108.20
23	BA	2053	G	C6-C5-N7	-5.81	126.91	130.40
23	DA	1349	A	C6-C5-N7	-5.81	128.23	132.30
23	DA	2593	U	N1-C2-N3	5.81	118.39	114.90
23	BA	2253	G	C8-N9-C1'	-5.81	119.45	127.00
23	DA	1031	G	C6-C5-N7	-5.81	126.92	130.40
23	DA	1258	C	N3-C4-C5	5.81	124.22	121.90
23	DA	1306	C	N3-C4-C5	5.81	124.22	121.90
23	DA	2244	U	N1-C2-O2	5.81	126.87	122.80
23	BA	1655	A	C2-N3-C4	-5.81	107.70	110.60
23	BA	248	G	C5-C6-O6	-5.80	125.12	128.60
23	BA	1841	U	N3-C4-O4	5.80	123.46	119.40
23	DA	244	A	C5-C6-N1	5.80	120.60	117.70
23	BA	2697	G	N1-C6-O6	5.80	123.38	119.90
23	DA	784	A	C8-N9-C1'	5.80	138.14	127.70
23	DA	1190	G	C4-C5-N7	5.80	113.12	110.80
1	AA	1512	U	N1-C2-N3	5.80	118.38	114.90
23	BA	1392	A	N1-C6-N6	-5.80	115.12	118.60
23	BA	2876	G	C8-N9-C4	5.80	108.72	106.40
23	DA	570	G	C4-C5-C6	5.79	122.28	118.80
23	DA	2532	G	C8-N9-C1'	-5.79	119.47	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BA	107	C	C6-N1-C2	5.79	122.62	120.30
23	BA	655	A	N7-C8-N9	5.79	116.70	113.80
23	BA	2280	G	C5-C6-N1	5.79	114.40	111.50
23	DA	61	G	C8-N9-C4	5.79	108.72	106.40
23	DA	407	G	C8-N9-C1'	-5.79	119.47	127.00
23	DA	768	G	C8-N9-C1'	-5.79	119.47	127.00
23	DA	1698	A	C5-C6-N1	-5.79	114.80	117.70
23	BA	764	A	N1-C6-N6	5.79	122.08	118.60
23	BA	834	C	C5-C6-N1	-5.79	118.10	121.00
24	BB	76	G	N1-C6-O6	5.79	123.38	119.90
23	DA	2056	G	C5-C6-O6	-5.79	125.12	128.60
1	AA	1200	C	C6-N1-C2	5.79	122.62	120.30
23	BA	379	G	C8-N9-C4	5.79	108.72	106.40
23	BA	1248	G	C5-C6-N1	5.79	114.39	111.50
23	BA	1674	G	C8-N9-C1'	-5.79	119.47	127.00
23	BA	1933	G	N1-C6-O6	-5.79	116.43	119.90
23	DA	1804	C	C2-N3-C4	-5.79	117.01	119.90
23	DA	787	U	C2-N3-C4	-5.78	123.53	127.00
23	BA	1324	G	C4-C5-N7	5.78	113.11	110.80
23	BA	302	C	C2-N1-C1'	-5.78	112.44	118.80
23	BA	377	C	C2-N1-C1'	-5.78	112.44	118.80
23	DA	1396	U	C5-C6-N1	-5.78	119.81	122.70
23	BA	2456	C	C6-N1-C2	5.78	122.61	120.30
23	DA	2436	G	C5-C6-N1	-5.78	108.61	111.50
23	BA	450	G	C4-N9-C1'	5.78	134.01	126.50
23	DA	2248	C	C6-N1-C2	5.77	122.61	120.30
23	BA	847	U	N1-C2-N3	5.77	118.36	114.90
23	BA	979	G	N1-C6-O6	5.77	123.36	119.90
23	DA	39	C	N1-C2-O2	-5.77	115.44	118.90
23	DA	126	A	C5-C6-N6	-5.77	119.08	123.70
23	BA	2250	G	N9-C4-C5	5.77	107.71	105.40
23	BA	2875	C	N1-C2-O2	-5.77	115.44	118.90
1	AA	1472	U	N3-C4-O4	-5.77	115.36	119.40
1	CA	297	G	C8-N9-C4	5.77	108.71	106.40
23	DA	129	C	C6-N1-C2	5.77	122.61	120.30
23	DA	240	G	C5-C6-N1	-5.77	108.62	111.50
23	DA	803	U	C4-C5-C6	5.77	123.16	119.70
23	DA	1209	G	C5-C6-O6	5.77	132.06	128.60
23	DA	2638	G	C8-N9-C4	-5.77	104.09	106.40
23	BA	2648	C	N1-C2-O2	-5.77	115.44	118.90
23	DA	1315	C	N1-C2-N3	5.77	123.24	119.20
34	DL	61	ARG	NE-CZ-NH1	5.77	123.18	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BA	1329	U	C6-N1-C2	5.77	124.46	121.00
23	DA	661	C	C5-C6-N1	-5.77	118.12	121.00
23	DA	782	A	C8-N9-C4	5.77	108.11	105.80
23	DA	2272	U	C5-C6-N1	5.77	125.58	122.70
23	DA	2714	G	C4-N9-C1'	5.76	133.99	126.50
23	DA	1156	A	C5-N7-C8	-5.76	101.02	103.90
23	BA	1332	G	N1-C6-O6	5.76	123.36	119.90
23	DA	333	G	C8-N9-C1'	-5.76	119.51	127.00
23	BA	1262	A	C5-C6-N1	5.76	120.58	117.70
1	AA	754	C	N3-C2-O2	-5.76	117.87	121.90
23	BA	1007	C	C6-N1-C2	5.76	122.60	120.30
1	CA	896	C	C5-C6-N1	-5.76	118.12	121.00
23	BA	2042	A	N1-C6-N6	5.75	122.05	118.60
23	BA	2253	G	C4-N9-C1'	5.75	133.98	126.50
23	BA	2700	C	C6-N1-C2	5.75	122.60	120.30
23	DA	1764	G	C5-C6-N1	5.75	114.38	111.50
23	BA	2050	C	C5-C6-N1	-5.75	118.12	121.00
23	DA	2043	C	N3-C4-C5	5.75	124.20	121.90
23	BA	587	C	C4-C5-C6	5.75	120.28	117.40
23	DA	1627	G	C5-C6-N1	-5.75	108.63	111.50
23	BA	2486	G	N1-C6-O6	5.75	123.35	119.90
23	DA	530	G	N3-C2-N2	5.75	123.92	119.90
23	DA	2614	A	C5-C6-N6	-5.75	119.10	123.70
23	BA	675	A	N3-C4-C5	5.75	130.82	126.80
23	DA	1379	A	N1-C6-N6	5.75	122.05	118.60
23	BA	675	A	C2-N3-C4	-5.74	107.73	110.60
23	BA	2501	C	N1-C2-N3	-5.74	115.18	119.20
23	DA	263	C	C5-C6-N1	-5.74	118.13	121.00
23	DA	2719	G	N9-C4-C5	-5.74	103.10	105.40
23	BA	575	A	C2-N3-C4	-5.74	107.73	110.60
23	DA	1021	A	N1-C6-N6	5.74	122.05	118.60
23	DA	2501	C	C5-C6-N1	-5.74	118.13	121.00
23	DA	2625	G	N1-C2-N3	5.74	127.34	123.90
23	BA	1308	A	C2-N3-C4	-5.74	107.73	110.60
23	BA	1333	C	C6-N1-C1'	-5.74	113.91	120.80
23	DA	2500	U	C4-C5-C6	5.74	123.14	119.70
23	BA	1821	A	N1-C2-N3	5.74	132.17	129.30
23	DA	1403	C	N1-C2-N3	5.74	123.22	119.20
23	BA	2596	U	C5-C6-N1	-5.74	119.83	122.70
23	DA	1680	U	C6-N1-C2	-5.74	117.56	121.00
23	DA	1901	A	C5-C6-N1	5.74	120.57	117.70
23	DA	2072	G	C2-N3-C4	-5.74	109.03	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BA	1376	C	N1-C2-O2	-5.74	115.46	118.90
23	BA	2386	C	C2-N3-C4	-5.74	117.03	119.90
23	DA	244	A	C4-C5-C6	-5.74	114.13	117.00
23	BA	1304	C	N3-C4-C5	5.73	124.19	121.90
23	DA	769	G	C5-C6-N1	5.73	114.37	111.50
23	DA	756	C	C5-C6-N1	-5.73	118.13	121.00
23	DA	802	A	C6-N1-C2	-5.73	115.16	118.60
23	BA	1809	A	C4-C5-C6	5.73	119.87	117.00
23	DA	980	A	C2-N3-C4	-5.73	107.73	110.60
23	DA	1253	A	N1-C2-N3	-5.73	126.44	129.30
23	DA	1368	G	C6-N1-C2	-5.73	121.66	125.10
23	BA	114(B)	A	C5-N7-C8	-5.73	101.04	103.90
23	BA	31	C	C5-C6-N1	-5.72	118.14	121.00
23	BA	1031	G	C2-N3-C4	-5.72	109.04	111.90
23	BA	1617	C	C2-N3-C4	-5.72	117.04	119.90
1	CA	758	G	N1-C6-O6	5.72	123.33	119.90
23	DA	1325	G	C8-N9-C4	-5.72	104.11	106.40
23	BA	2518	A	N7-C8-N9	5.72	116.66	113.80
23	DA	2084	C	C5-C6-N1	-5.72	118.14	121.00
23	DA	2502	G	C8-N9-C4	5.72	108.69	106.40
23	DA	1210	A	C6-C5-N7	-5.72	128.29	132.30
23	BA	1671	U	C4-C5-C6	5.72	123.13	119.70
23	BA	807	U	C2-N3-C4	-5.72	123.57	127.00
23	BA	2601	C	C5-C6-N1	-5.72	118.14	121.00
23	BA	594	U	N3-C4-C5	-5.72	111.17	114.60
23	BA	804	A	N1-C2-N3	5.72	132.16	129.30
23	BA	2433	A	C2-N3-C4	-5.72	107.74	110.60
23	DA	816	C	C5-C4-N4	-5.72	116.20	120.20
23	DA	979	G	N3-C4-C5	5.72	131.46	128.60
23	DA	1210	A	C5-N7-C8	-5.72	101.04	103.90
23	DA	1765	C	N1-C2-O2	-5.72	115.47	118.90
23	DA	1798	U	C2-N3-C4	-5.72	123.57	127.00
23	DA	2442	C	C6-N1-C2	5.72	122.59	120.30
23	BA	37	C	N3-C4-C5	5.71	124.19	121.90
23	BA	2451	A	N1-C6-N6	-5.71	115.17	118.60
23	BA	322	A	N9-C4-C5	5.71	108.08	105.80
1	AA	904	C	C2-N3-C4	-5.71	117.04	119.90
23	DA	2503	A	C4-C5-N7	5.71	113.56	110.70
23	BA	71	A	C4-C5-N7	5.71	113.55	110.70
23	DA	1123	C	C6-N1-C2	5.71	122.58	120.30
23	DA	424	G	N1-C6-O6	5.71	123.32	119.90
23	DA	1901	A	N1-C6-N6	-5.71	115.18	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	580	C	C5-C6-N1	-5.70	118.15	121.00
23	DA	2640	G	C8-N9-C4	5.70	108.68	106.40
1	AA	529	G	C5-C6-O6	-5.70	125.18	128.60
23	BA	566	U	C2-N1-C1'	-5.70	110.86	117.70
1	CA	880	C	C5-C6-N1	-5.70	118.15	121.00
23	DA	2066	C	C5-C6-N1	-5.70	118.15	121.00
23	BA	1841	U	N1-C2-O2	-5.70	118.81	122.80
23	BA	2713	A	N7-C8-N9	5.70	116.65	113.80
23	DA	2463	C	N3-C2-O2	5.70	125.89	121.90
23	DA	2553	G	C8-N9-C4	5.70	108.68	106.40
23	BA	36	G	C5-N7-C8	5.70	107.15	104.30
23	DA	2059	A	C8-N9-C4	5.70	108.08	105.80
23	BA	71	A	C5-N7-C8	-5.70	101.05	103.90
25	DC	242	ARG	N-CA-C	-5.70	95.62	111.00
23	BA	330	A	C5-C6-N1	-5.69	114.85	117.70
23	DA	2443	C	N3-C4-C5	5.69	124.18	121.90
23	BA	1804	C	N1-C2-O2	-5.69	115.48	118.90
23	BA	1827	C	N3-C4-C5	5.69	124.18	121.90
23	BA	2510	C	C2-N3-C4	-5.69	117.05	119.90
23	DA	2515	C	N3-C4-C5	5.69	124.18	121.90
23	BA	847	U	C5-C4-O4	5.69	129.31	125.90
23	DA	197	A	C6-C5-N7	-5.69	128.32	132.30
23	DA	374	A	C2-N3-C4	-5.69	107.75	110.60
23	DA	407	G	C4-N9-C1'	5.69	133.90	126.50
1	AA	1523	G	N3-C2-N2	-5.69	115.92	119.90
23	DA	2518	A	N1-C6-N6	5.69	122.01	118.60
23	DA	1819	A	N1-C2-N3	5.69	132.14	129.30
23	DA	1839	G	N3-C4-C5	5.69	131.44	128.60
23	DA	2048	G	N1-C6-O6	-5.69	116.49	119.90
23	DA	2292	C	C6-N1-C2	5.68	122.57	120.30
23	DA	568	U	C5-C4-O4	5.68	129.31	125.90
23	DA	1310	G	C5-C6-O6	-5.68	125.19	128.60
23	DA	1555	G	C8-N9-C1'	-5.68	119.61	127.00
23	DA	2742	C	C5-C6-N1	-5.68	118.16	121.00
23	DA	1499	C	C6-N1-C2	5.68	122.57	120.30
23	BA	330	A	C8-N9-C4	5.68	108.07	105.80
23	BA	1935	G	C8-N9-C4	5.68	108.67	106.40
23	BA	1948	G	N1-C6-O6	-5.68	116.49	119.90
23	DA	2084	C	C6-N1-C2	5.68	122.57	120.30
23	BA	38	A	C5-C6-N1	5.67	120.54	117.70
23	BA	836	G	C8-N9-C4	5.67	108.67	106.40
23	DA	61	G	N7-C8-N9	-5.67	110.26	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	794	G	C2-N3-C4	-5.67	109.06	111.90
23	DA	2544	G	C6-C5-N7	-5.67	127.00	130.40
23	BA	2232	U	C4-C5-C6	5.67	123.10	119.70
23	DA	2506	U	C2-N1-C1'	5.67	124.51	117.70
23	DA	146	G	C5-C6-O6	-5.67	125.20	128.60
23	DA	1241	A	C5-C6-N1	-5.67	114.86	117.70
23	BA	810	U	N3-C2-O2	-5.67	118.23	122.20
23	BA	1330	C	N3-C4-C5	5.67	124.17	121.90
23	DA	1333	C	C6-N1-C1'	-5.67	114.00	120.80
1	AA	879	C	C6-N1-C2	5.67	122.57	120.30
23	BA	512	G	N3-C4-C5	5.67	131.43	128.60
23	BA	2648	C	C2-N1-C1'	-5.67	112.57	118.80
23	DA	794	G	N1-C2-N2	-5.67	111.10	116.20
23	DA	837	C	C6-N1-C2	-5.67	118.03	120.30
23	DA	1815	A	N1-C6-N6	-5.67	115.20	118.60
23	DA	1970	A	C6-N1-C2	-5.67	115.20	118.60
23	DA	2592	G	N3-C4-C5	-5.67	125.77	128.60
23	BA	2392	A	N1-C2-N3	5.66	132.13	129.30
23	BA	798	G	N3-C4-N9	5.66	129.40	126.00
23	DA	848	G	C8-N9-C4	5.66	108.67	106.40
23	DA	2744	G	N3-C4-C5	5.66	131.43	128.60
23	DA	2054	A	C2-N3-C4	-5.66	107.77	110.60
23	BA	1496	A	C8-N9-C4	-5.66	103.54	105.80
1	CA	501	C	C6-N1-C2	-5.66	118.04	120.30
23	DA	497	A	N1-C6-N6	5.66	122.00	118.60
23	DA	1633	G	C8-N9-C4	-5.66	104.14	106.40
23	DA	2440	C	C2-N1-C1'	-5.66	112.58	118.80
23	DA	1123	C	C5-C6-N1	-5.66	118.17	121.00
23	DA	1323	U	N1-C2-O2	-5.66	118.84	122.80
1	AA	117	G	N1-C6-O6	5.66	123.29	119.90
23	BA	779	U	C5-C6-N1	-5.66	119.87	122.70
23	DA	529	A	N1-C6-N6	5.66	121.99	118.60
23	DA	2057	A	C8-N9-C4	5.66	108.06	105.80
23	DA	2253	G	C4-N9-C1'	5.66	133.85	126.50
23	BA	945	A	O4'-C1'-N9	5.65	112.72	108.20
23	DA	194	G	N9-C4-C5	-5.65	103.14	105.40
23	DA	589	C	C5-C6-N1	-5.65	118.17	121.00
23	BA	1820	U	C6-N1-C2	5.65	124.39	121.00
23	DA	1131	G	C8-N9-C4	5.65	108.66	106.40
23	BA	1313	U	N3-C4-O4	5.65	123.35	119.40
23	DA	272	G	C4-N9-C1'	-5.65	119.16	126.50
23	DA	994	C	N1-C2-N3	5.65	123.15	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	1994	C	C5-C6-N1	-5.65	118.17	121.00
23	BA	2453	A	C2-N3-C4	-5.65	107.78	110.60
35	BM	81	VAL	CB-CA-C	-5.65	100.67	111.40
23	DA	1128	A	N1-C6-N6	-5.65	115.21	118.60
23	DA	1271	G	C8-N9-C4	5.65	108.66	106.40
23	DA	2520	C	C5-C6-N1	-5.65	118.18	121.00
23	BA	1982	C	N3-C2-O2	5.65	125.85	121.90
23	DA	684	G	C5-N7-C8	-5.65	101.48	104.30
23	BA	968	G	C4-C5-N7	5.64	113.06	110.80
23	BA	1605	C	C6-N1-C2	-5.64	118.04	120.30
23	DA	2510	C	C5-C4-N4	-5.64	116.25	120.20
23	BA	2032	G	C8-N9-C4	-5.64	104.14	106.40
23	DA	1617	C	C6-N1-C2	5.64	122.56	120.30
23	BA	964	C	C4-C5-C6	-5.64	114.58	117.40
23	BA	974(B)	C	C2-N3-C4	-5.64	117.08	119.90
23	DA	729	G	C4-C5-N7	5.64	113.06	110.80
23	DA	1620	G	N7-C8-N9	-5.64	110.28	113.10
23	DA	1999	C	N3-C4-C5	5.64	124.16	121.90
23	BA	1271	G	N3-C4-N9	5.64	129.38	126.00
23	DA	801	G	N1-C6-O6	-5.64	116.52	119.90
23	DA	1264	G	C4-C5-N7	-5.64	108.55	110.80
23	BA	484	C	N3-C4-C5	5.63	124.15	121.90
23	BA	1899	G	C5-N7-C8	-5.63	101.48	104.30
23	BA	1976	U	N3-C2-O2	-5.63	118.26	122.20
23	DA	253	C	N3-C4-C5	-5.63	119.65	121.90
23	DA	2346	A	C5-C6-N1	-5.63	114.88	117.70
23	DA	2540	C	C5-C6-N1	-5.63	118.18	121.00
23	BA	537	C	C6-N1-C2	5.63	122.55	120.30
23	BA	1776	G	C8-N9-C4	5.63	108.65	106.40
23	BA	2009	G	N9-C4-C5	5.63	107.65	105.40
23	DA	1980	G	N1-C2-N3	5.63	127.28	123.90
23	DA	2324	C	C2-N1-C1'	-5.63	112.61	118.80
1	CA	576	G	C4-N9-C1'	5.63	133.82	126.50
23	BA	330	A	C5-N7-C8	-5.63	101.09	103.90
23	BA	580	C	N3-C4-C5	5.63	124.15	121.90
23	BA	1655	A	N9-C4-C5	-5.63	103.55	105.80
23	BA	1898	U	C2-N1-C1'	-5.63	110.95	117.70
23	BA	1979	C	N3-C2-O2	5.63	125.84	121.90
23	DA	77	C	N3-C4-C5	5.63	124.15	121.90
23	BA	671	C	N1-C2-N3	5.63	123.14	119.20
23	BA	1314	C	C2-N1-C1'	5.63	124.99	118.80
23	BA	2035	G	C5-C6-N1	5.63	114.31	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	1678	G	C4-C5-C6	-5.63	115.42	118.80
23	DA	2869	G	C8-N9-C4	-5.63	104.15	106.40
23	DA	2589	A	N7-C8-N9	-5.62	110.99	113.80
23	BA	1031	G	N1-C6-O6	5.62	123.27	119.90
23	DA	30	G	C8-N9-C4	5.62	108.65	106.40
23	DA	1304	C	N1-C2-O2	-5.62	115.53	118.90
23	BA	1021	A	N3-C4-C5	5.62	130.73	126.80
23	BA	2640	G	C8-N9-C4	5.62	108.65	106.40
23	BA	529	A	C6-C5-N7	-5.62	128.37	132.30
23	BA	809	G	C5-C6-N1	-5.62	108.69	111.50
23	BA	1671	U	C2-N3-C4	5.62	130.37	127.00
23	DA	116	C	C5-C6-N1	-5.62	118.19	121.00
23	BA	58	G	C4-N9-C1'	5.62	133.80	126.50
23	DA	1302	A	C5-C6-N6	5.62	128.19	123.70
23	BA	1979	C	C2-N1-C1'	-5.62	112.62	118.80
1	AA	576	G	C4-N9-C1'	5.61	133.80	126.50
23	BA	530	G	C5-C6-O6	5.61	131.97	128.60
23	BA	1286	A	C4-C5-C6	5.61	119.81	117.00
23	DA	197	A	C4-C5-N7	5.61	113.51	110.70
23	DA	836	G	N3-C4-C5	5.61	131.41	128.60
1	AA	756	C	C5-C6-N1	-5.61	118.19	121.00
23	BA	809	G	C4-C5-C6	5.61	122.17	118.80
23	BA	1926	U	C2-N1-C1'	-5.61	110.97	117.70
23	BA	2073	C	C5-C6-N1	-5.61	118.19	121.00
23	DA	961	C	C4-C5-C6	5.61	120.20	117.40
23	DA	1674	G	C8-N9-C1'	-5.61	119.71	127.00
23	DA	1801	G	C5-C6-O6	-5.61	125.23	128.60
23	BA	2624	G	C8-N9-C4	5.61	108.64	106.40
23	BA	760	G	C2-N3-C4	-5.61	109.10	111.90
23	BA	1309	G	C4-N9-C1'	5.61	133.79	126.50
23	BA	2271	G	C8-N9-C1'	-5.61	119.71	127.00
23	DA	1287	A	C5-N7-C8	-5.61	101.10	103.90
23	BA	2606	C	N1-C2-O2	-5.61	115.54	118.90
23	DA	188	G	C6-C5-N7	-5.61	127.04	130.40
23	DA	580	C	C2-N3-C4	-5.61	117.10	119.90
23	DA	1323	U	N3-C4-O4	5.61	123.32	119.40
23	BA	60	G	O4'-C1'-N9	5.60	112.68	108.20
23	BA	2324	C	C2-N1-C1'	-5.60	112.64	118.80
23	DA	1444	G	N7-C8-N9	-5.60	110.30	113.10
23	BA	1678	G	C5-N7-C8	-5.60	101.50	104.30
1	CA	314	C	C6-N1-C2	-5.60	118.06	120.30
23	DA	2719	G	C6-C5-N7	-5.60	127.04	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BA	1007	C	C5-C6-N1	-5.60	118.20	121.00
23	BA	434	U	N1-C2-O2	-5.60	118.88	122.80
23	DA	210	C	N3-C4-C5	5.60	124.14	121.90
23	DA	1271	G	N3-C4-N9	5.60	129.36	126.00
23	DA	2634	G	C8-N9-C4	5.60	108.64	106.40
23	DA	2675	A	N7-C8-N9	-5.60	111.00	113.80
23	DA	845	G	C4-N9-C1'	5.60	133.78	126.50
23	BA	1154	G	C5-C6-O6	5.59	131.96	128.60
23	DA	248	G	C8-N9-C4	5.59	108.64	106.40
23	DA	2056	G	C6-C5-N7	-5.59	127.04	130.40
23	DA	2456	C	C6-N1-C2	5.59	122.54	120.30
23	DA	148	C	C4-C5-C6	5.59	120.20	117.40
23	BA	1834	U	C2-N1-C1'	5.59	124.41	117.70
23	BA	2056	G	C6-C5-N7	-5.59	127.05	130.40
23	DA	322	A	N9-C4-C5	5.59	108.04	105.80
23	DA	340	A	N1-C2-N3	5.59	132.09	129.30
23	DA	1901	A	C6-N1-C2	-5.59	115.25	118.60
23	BA	469	G	C8-N9-C4	5.59	108.63	106.40
23	BA	659	C	C5-C6-N1	-5.59	118.21	121.00
23	DA	71	A	C5-C6-N1	-5.59	114.91	117.70
23	DA	1570	A	N7-C8-N9	-5.59	111.01	113.80
23	DA	1821	A	C8-N9-C4	5.59	108.03	105.80
23	DA	2009	G	C4-C5-N7	-5.59	108.57	110.80
23	DA	70	G	C8-N9-C4	-5.58	104.17	106.40
23	DA	657	U	N1-C2-O2	5.58	126.71	122.80
23	DA	1325	G	N1-C6-O6	-5.58	116.55	119.90
23	DA	2233	U	C5-C6-N1	-5.58	119.91	122.70
23	BA	697	C	N3-C4-C5	5.58	124.13	121.90
23	BA	773	U	C5-C6-N1	-5.58	119.91	122.70
23	DA	127	A	C5-C6-N1	5.58	120.49	117.70
1	CA	815	A	N9-C4-C5	5.58	108.03	105.80
23	DA	2496	C	C5-C6-N1	-5.58	118.21	121.00
23	BA	1841	U	N3-C4-C5	-5.58	111.25	114.60
23	DA	815	C	C2-N3-C4	-5.58	117.11	119.90
23	DA	1826	G	N7-C8-N9	-5.58	110.31	113.10
23	BA	2235	G	C5-C6-O6	-5.58	125.25	128.60
23	DA	2206	C	C6-N1-C2	5.58	122.53	120.30
36	DN	65	LEU	CA-CB-CG	-5.58	102.47	115.30
23	BA	1341	U	C5-C6-N1	5.58	125.49	122.70
23	BA	1385	G	C4-N9-C1'	-5.58	119.25	126.50
23	DA	1603	A	C8-N9-C4	-5.58	103.57	105.80
23	DA	1613	G	N3-C2-N2	5.58	123.80	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	1804	C	N1-C2-N3	5.58	123.10	119.20
23	DA	843	G	N1-C6-O6	5.57	123.24	119.90
23	DA	1022	G	C5-C6-O6	5.57	131.94	128.60
23	BA	1787	A	C8-N9-C4	5.57	108.03	105.80
23	DA	1332	G	N1-C6-O6	5.57	123.24	119.90
23	DA	2053	G	C4-C5-N7	5.57	113.03	110.80
47	DY	60	LEU	CA-CB-CG	-5.57	102.48	115.30
1	AA	523	A	N1-C6-N6	5.57	121.94	118.60
23	BA	332	A	N1-C2-N3	5.57	132.09	129.30
23	BA	1309	G	N1-C2-N3	5.57	127.24	123.90
23	BA	2510	C	C6-N1-C2	5.57	122.53	120.30
23	DA	1770	G	N1-C6-O6	5.57	123.24	119.90
23	DA	2507	C	C2-N3-C4	-5.57	117.11	119.90
23	BA	2647	U	C6-N1-C2	5.57	124.34	121.00
23	DA	535	C	N1-C2-O2	-5.57	115.56	118.90
23	BA	192	C	C5-C6-N1	-5.57	118.22	121.00
23	DA	1898	U	C2-N1-C1'	-5.57	111.02	117.70
23	DA	2488	A	C6-N1-C2	-5.57	115.26	118.60
1	AA	552	U	C5-C6-N1	-5.57	119.92	122.70
23	BA	700	G	N1-C6-O6	5.57	123.24	119.90
23	BA	1842	G	N1-C6-O6	5.57	123.24	119.90
23	BA	2450	A	C6-N1-C2	-5.57	115.26	118.60
23	DA	2279	G	N1-C6-O6	-5.57	116.56	119.90
23	DA	2698	U	C5-C6-N1	-5.57	119.92	122.70
24	DB	84	C	C6-N1-C2	-5.57	118.07	120.30
23	BA	180	G	C8-N9-C4	5.56	108.62	106.40
23	BA	1769	G	C4-N9-C1'	5.56	133.73	126.50
23	BA	2700	C	N1-C2-O2	-5.56	115.56	118.90
23	BA	1576	U	N3-C2-O2	-5.56	118.31	122.20
23	BA	1839	G	N9-C4-C5	5.56	107.62	105.40
23	BA	2614	A	C5-C6-N1	5.56	120.48	117.70
23	DA	1496	A	N7-C8-N9	5.56	116.58	113.80
23	DA	1692	U	N3-C4-O4	-5.56	115.51	119.40
23	BA	1270	C	C2-N1-C1'	-5.56	112.69	118.80
23	DA	826	U	C6-N1-C2	5.56	124.33	121.00
23	DA	2506	U	N1-C2-O2	5.56	126.69	122.80
23	DA	2239	G	C2-N3-C4	-5.56	109.12	111.90
23	DA	2430	A	C4-C5-N7	5.56	113.48	110.70
1	AA	768	A	N1-C2-N3	5.55	132.08	129.30
23	BA	115	C	C4-C5-C6	5.55	120.18	117.40
23	BA	2056	G	N9-C4-C5	-5.55	103.18	105.40
23	DA	2010	G	C5-C6-O6	-5.55	125.27	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BA	1443	G	N9-C4-C5	-5.55	103.18	105.40
23	BA	847	U	N1-C2-O2	-5.55	118.91	122.80
23	BA	1899	G	N7-C8-N9	5.55	115.88	113.10
23	DA	85	G	C8-N9-C4	5.55	108.62	106.40
23	DA	1191	G	C4-C5-N7	-5.55	108.58	110.80
23	DA	1665	A	C6-C5-N7	-5.55	128.41	132.30
23	DA	2542	A	C8-N9-C4	5.55	108.02	105.80
23	BA	512	G	C4-N9-C1'	-5.55	119.29	126.50
23	DA	194	G	N7-C8-N9	-5.55	110.33	113.10
23	DA	2417	C	C5-C6-N1	-5.55	118.22	121.00
23	DA	2235	G	C4-C5-N7	5.55	113.02	110.80
23	DA	2827	C	C6-N1-C2	5.55	122.52	120.30
23	BA	1402	C	C6-N1-C2	-5.55	118.08	120.30
23	DA	340	A	C2-N3-C4	-5.55	107.83	110.60
23	BA	1260	G	C5-C6-N1	5.54	114.27	111.50
23	BA	2072	G	C5-C6-N1	-5.54	108.73	111.50
23	DA	1962	C	N3-C2-O2	-5.54	118.02	121.90
23	BA	214	G	C8-N9-C1'	5.54	134.20	127.00
23	BA	587	C	C5-C4-N4	5.54	124.08	120.20
23	DA	73	A	N1-C6-N6	-5.54	115.28	118.60
23	DA	1287	A	N1-C6-N6	5.54	121.92	118.60
23	DA	111	A	C2-N3-C4	-5.54	107.83	110.60
1	AA	1522	U	C5-C4-O4	5.54	129.22	125.90
23	BA	213	A	C8-N9-C4	5.54	108.02	105.80
23	DA	933	A	N1-C6-N6	5.54	121.92	118.60
23	DA	239	U	C2-N1-C1'	-5.54	111.06	117.70
23	DA	1232	G	N1-C6-O6	5.54	123.22	119.90
23	BA	1128	A	C8-N9-C4	5.53	108.01	105.80
23	BA	1328	G	C4-C5-N7	5.53	113.01	110.80
23	DA	2081	C	C6-N1-C2	5.53	122.51	120.30
23	DA	2426	A	N7-C8-N9	5.53	116.57	113.80
23	DA	2441	C	N1-C2-O2	-5.53	115.58	118.90
23	BA	1780	A	N1-C2-N3	5.53	132.07	129.30
23	BA	453	C	N3-C4-N4	5.53	121.87	118.00
23	BA	2361	A	C8-N9-C4	5.53	108.01	105.80
23	DA	2075	U	C6-N1-C2	5.53	124.32	121.00
23	BA	794	G	C2-N3-C4	-5.53	109.14	111.90
23	BA	1349	A	C4-C5-N7	5.53	113.46	110.70
1	CA	892	A	C5-C6-N6	-5.53	119.28	123.70
23	BA	1977	A	C8-N9-C4	5.53	108.01	105.80
23	BA	2241	A	C2-N3-C4	-5.52	107.84	110.60
23	BA	2614	A	C5-C6-N6	-5.52	119.28	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	114(B)	A	C4-C5-N7	5.52	113.46	110.70
23	DA	2257	U	N1-C2-O2	-5.52	118.93	122.80
1	AA	576	G	C8-N9-C1'	-5.52	119.83	127.00
23	DA	2042	A	N1-C6-N6	5.52	121.91	118.60
23	BA	94	G	N3-C4-C5	-5.52	125.84	128.60
23	DA	216	A	C4-C5-N7	5.52	113.46	110.70
23	BA	527	C	N3-C4-C5	5.51	124.11	121.90
23	DA	799	G	C5-C6-N1	5.51	114.26	111.50
23	DA	1855	G	C8-N9-C4	5.51	108.61	106.40
23	DA	2544	G	N9-C4-C5	-5.51	103.19	105.40
23	BA	461	C	N3-C2-O2	5.51	125.76	121.90
23	DA	2431	U	C5-C6-N1	-5.51	119.94	122.70
23	BA	83	G	C8-N9-C4	5.51	108.60	106.40
23	BA	1976	U	C6-N1-C2	-5.51	117.69	121.00
23	DA	1791	A	N9-C4-C5	-5.51	103.60	105.80
1	AA	691	G	C5-C6-O6	-5.51	125.29	128.60
23	BA	1571	A	C8-N9-C4	5.51	108.00	105.80
1	CA	918	A	N9-C4-C5	5.51	108.00	105.80
23	DA	513	A	N7-C8-N9	5.51	116.56	113.80
23	DA	825	C	C4-C5-C6	5.51	120.16	117.40
23	DA	1496	A	C4-N9-C1'	5.51	136.22	126.30
23	DA	1960	A	C8-N9-C4	5.51	108.00	105.80
23	DA	2521	C	C5-C6-N1	-5.51	118.25	121.00
23	BA	664	C	C5-C6-N1	-5.51	118.25	121.00
23	BA	844	C	C2-N3-C4	-5.51	117.15	119.90
23	BA	789	A	C4-C5-N7	5.50	113.45	110.70
23	BA	676	A	C6-N1-C2	5.50	121.90	118.60
23	BA	1286	A	N9-C4-C5	5.50	108.00	105.80
23	BA	2646	C	N1-C2-O2	-5.50	115.60	118.90
1	CA	695	A	C2-N3-C4	-5.50	107.85	110.60
1	CA	1524	C	C6-N1-C2	5.50	122.50	120.30
23	DA	409	C	C6-N1-C2	5.50	122.50	120.30
23	DA	1983	C	C5-C6-N1	-5.50	118.25	121.00
23	DA	2635	C	C5-C6-N1	-5.50	118.25	121.00
23	BA	1840	G	N1-C6-O6	5.50	123.20	119.90
23	DA	1670	C	N1-C2-O2	-5.50	115.60	118.90
23	BA	23	G	N3-C2-N2	-5.50	116.05	119.90
23	DA	1622	G	N1-C2-N3	5.50	127.20	123.90
23	DA	2022	U	C5-C4-O4	-5.50	122.60	125.90
23	DA	2702	U	C5-C6-N1	-5.50	119.95	122.70
23	BA	972	G	N3-C4-N9	5.49	129.30	126.00
23	DA	2044	C	C6-N1-C2	5.49	122.50	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	148	C	C2-N3-C4	-5.49	117.15	119.90
23	DA	737	C	C5-C4-N4	-5.49	116.36	120.20
23	BA	2053	G	C2-N3-C4	-5.49	109.16	111.90
23	DA	734	A	N9-C4-C5	-5.49	103.60	105.80
23	BA	564	C	N3-C4-C5	-5.49	119.70	121.90
23	BA	804	A	C6-N1-C2	-5.49	115.31	118.60
23	DA	1832	C	C5-C6-N1	-5.49	118.26	121.00
1	AA	720	C	C2-N1-C1'	5.48	124.83	118.80
23	DA	1295	C	C5-C6-N1	-5.48	118.26	121.00
23	BA	1616	A	C5-N7-C8	-5.48	101.16	103.90
23	DA	388	G	C6-C5-N7	5.48	133.69	130.40
23	DA	1157	G	N1-C6-O6	5.48	123.19	119.90
23	BA	2005	A	N1-C6-N6	5.48	121.89	118.60
1	CA	799	G	N1-C6-O6	5.48	123.19	119.90
23	DA	1704	G	C8-N9-C4	5.48	108.59	106.40
23	BA	36	G	C4-C5-N7	-5.48	108.61	110.80
23	BA	126	A	N1-C6-N6	5.48	121.89	118.60
23	BA	571	A	C8-N9-C4	-5.48	103.61	105.80
23	BA	408	G	N3-C4-C5	5.48	131.34	128.60
23	BA	589	C	N1-C2-O2	-5.48	115.61	118.90
23	DA	1782	C	N1-C2-O2	5.48	122.19	118.90
23	BA	334	C	N1-C2-O2	-5.47	115.62	118.90
23	BA	845	G	C4-N9-C1'	5.47	133.62	126.50
23	BA	1190	G	N1-C6-O6	5.47	123.19	119.90
23	BA	2076	U	C5-C4-O4	5.47	129.18	125.90
23	DA	513	A	N1-C2-N3	5.47	132.04	129.30
23	DA	114(B)	A	C5-C6-N1	-5.47	114.96	117.70
23	DA	1683	C	N1-C2-O2	-5.47	115.61	118.90
23	DA	2085	C	C5-C6-N1	-5.47	118.26	121.00
23	BA	768	G	C4-C5-C6	5.47	122.08	118.80
23	BA	786	C	C5-C6-N1	-5.47	118.26	121.00
23	DA	2358	G	C8-N9-C4	-5.47	104.21	106.40
12	AL	9	LEU	CA-CB-CG	-5.47	102.72	115.30
23	DA	1830	C	C5-C4-N4	-5.47	116.37	120.20
23	BA	675	A	C5-C6-N1	-5.47	114.97	117.70
23	BA	2719	G	C4-C5-N7	5.47	112.99	110.80
23	DA	784	A	N3-C4-N9	-5.47	123.02	127.40
23	DA	1657	C	N1-C2-O2	-5.47	115.62	118.90
23	BA	2513	G	N1-C6-O6	-5.47	116.62	119.90
1	AA	55	A	C8-N9-C4	-5.47	103.61	105.80
23	BA	2634	G	N7-C8-N9	-5.47	110.37	113.10
1	CA	35	G	N1-C6-O6	5.47	123.18	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	2676	C	N1-C2-O2	-5.47	115.62	118.90
23	BA	512	G	N1-C6-O6	-5.46	116.62	119.90
23	DA	512	G	N3-C4-N9	-5.46	122.72	126.00
23	DA	2007	C	C2-N3-C4	-5.46	117.17	119.90
23	BA	94	G	N3-C4-N9	5.46	129.28	126.00
23	BA	1309	G	N1-C6-O6	5.46	123.18	119.90
23	BA	2556	C	N3-C4-N4	5.46	121.82	118.00
23	DA	681	G	C8-N9-C4	5.46	108.58	106.40
23	DA	2254	C	N1-C2-O2	-5.46	115.62	118.90
1	AA	1484	C	C6-N1-C2	5.46	122.48	120.30
23	DA	1368	G	C5-C6-N1	5.46	114.23	111.50
23	BA	2244	U	N3-C2-O2	-5.46	118.38	122.20
23	BA	2601	C	C6-N1-C2	5.46	122.48	120.30
23	BA	2619	C	C5-C6-N1	-5.46	118.27	121.00
23	DA	1604	C	N3-C4-N4	5.46	121.82	118.00
25	BC	46	GLN	N-CA-C	-5.46	96.27	111.00
1	CA	117	G	C5-C6-O6	-5.46	125.33	128.60
23	DA	802	A	N1-C2-N3	5.46	132.03	129.30
23	BA	494	G	C8-N9-C4	5.45	108.58	106.40
23	BA	1235	G	C5-C6-N1	-5.45	108.77	111.50
23	DA	261	G	N1-C6-O6	5.45	123.17	119.90
23	DA	1669	A	C8-N9-C4	-5.45	103.62	105.80
23	DA	1839	G	N3-C2-N2	-5.45	116.08	119.90
23	BA	71	A	C2-N3-C4	-5.45	107.88	110.60
23	DA	333	G	N1-C6-O6	5.45	123.17	119.90
23	DA	1294	U	N3-C2-O2	-5.45	118.39	122.20
23	DA	1325	G	C6-C5-N7	5.45	133.67	130.40
23	BA	722	A	C2-N3-C4	-5.45	107.88	110.60
23	DA	749	C	N3-C4-C5	5.45	124.08	121.90
23	DA	1982	C	N1-C2-O2	-5.45	115.63	118.90
23	DA	249	C	C6-N1-C2	5.45	122.48	120.30
23	BA	1677	A	N1-C2-N3	5.45	132.02	129.30
23	BA	2708	G	C5-C6-N1	-5.45	108.78	111.50
23	DA	1902	C	C5-C6-N1	-5.45	118.28	121.00
1	AA	1432	G	C5-C6-N1	-5.44	108.78	111.50
23	BA	774	A	N1-C2-N3	5.44	132.02	129.30
23	DA	2000	G	N1-C6-O6	-5.44	116.63	119.90
1	AA	45	U	C6-N1-C2	5.44	124.27	121.00
1	AA	1414	U	C6-N1-C2	5.44	124.27	121.00
23	BA	972	G	N3-C4-C5	-5.44	125.88	128.60
23	BA	2253	G	C6-C5-N7	-5.44	127.13	130.40
23	DA	2061	G	C6-C5-N7	-5.44	127.13	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	466	A	C8-N9-C4	5.44	107.98	105.80
23	DA	1624	G	C6-N1-C2	-5.44	121.83	125.10
23	DA	1964	G	N3-C4-N9	5.44	129.26	126.00
23	BA	104	U	C2-N1-C1'	-5.44	111.17	117.70
23	BA	1271	G	C8-N9-C1'	-5.44	119.93	127.00
23	BA	150	C	C6-N1-C2	5.44	122.47	120.30
23	DA	915	C	C5-C6-N1	5.44	123.72	121.00
23	BA	1616	A	C2-N3-C4	-5.43	107.88	110.60
23	DA	512	G	C4-N9-C1'	-5.43	119.44	126.50
23	DA	2448	A	C6-C5-N7	-5.43	128.50	132.30
23	DA	2648	C	C2-N1-C1'	-5.43	112.82	118.80
23	DA	2766	G	C4-N9-C1'	5.43	133.57	126.50
23	BA	807	U	N1-C2-N3	5.43	118.16	114.90
23	BA	1991	U	C5-C6-N1	-5.43	119.98	122.70
23	DA	1332	G	C6-C5-N7	5.43	133.66	130.40
23	BA	1763	G	C2-N3-C4	-5.43	109.19	111.90
23	DA	1689	A	N1-C6-N6	-5.43	115.34	118.60
23	DA	387	U	N3-C4-O4	5.43	123.20	119.40
23	BA	1516	U	N3-C2-O2	-5.43	118.40	122.20
23	DA	979	G	N7-C8-N9	5.43	115.81	113.10
23	DA	2253	G	C6-C5-N7	-5.43	127.14	130.40
23	DA	2544	G	C4-C5-N7	5.43	112.97	110.80
1	AA	327	A	C8-N9-C4	-5.43	103.63	105.80
1	CA	1523	G	C8-N9-C4	5.43	108.57	106.40
23	DA	116	C	N1-C2-O2	-5.43	115.64	118.90
23	BA	58	G	C8-N9-C1'	-5.42	119.95	127.00
23	BA	2028	U	N1-C2-O2	-5.42	119.00	122.80
1	CA	791	G	C8-N9-C4	5.42	108.57	106.40
23	BA	239	U	N1-C2-O2	-5.42	119.00	122.80
23	BA	510	C	N1-C2-O2	-5.42	115.65	118.90
23	BA	799	G	C5-C6-O6	-5.42	125.35	128.60
23	BA	1994	C	C5-C6-N1	-5.42	118.29	121.00
23	DA	2498	C	N1-C2-O2	-5.42	115.65	118.90
23	DA	694	U	N1-C2-O2	5.42	126.59	122.80
23	DA	1213	A	C8-N9-C4	5.42	107.97	105.80
23	DA	1323	U	C4-C5-C6	5.42	122.95	119.70
23	DA	1302	A	C4-C5-N7	-5.42	107.99	110.70
23	DA	2544	G	C8-N9-C4	5.42	108.57	106.40
1	AA	1527	C	C6-N1-C2	5.41	122.47	120.30
23	BA	2675	A	C8-N9-C4	5.41	107.97	105.80
23	DA	286	C	C6-N1-C2	5.41	122.47	120.30
23	DA	1403	C	C2-N3-C4	-5.41	117.19	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	1572	A	N9-C4-C5	-5.41	103.64	105.80
23	DA	444	C	C2-N1-C1'	-5.41	112.85	118.80
23	DA	1842	G	C8-N9-C4	5.41	108.56	106.40
23	BA	2502	G	N9-C4-C5	-5.41	103.24	105.40
23	DA	258	G	N1-C6-O6	5.41	123.14	119.90
23	DA	936	C	C5-C6-N1	-5.41	118.30	121.00
23	DA	130	C	C2-N3-C4	-5.41	117.20	119.90
23	BA	2249	U	C6-N1-C2	-5.41	117.76	121.00
23	DA	2590	A	C2-N3-C4	-5.41	107.90	110.60
23	BA	193	U	C5-C6-N1	-5.40	120.00	122.70
23	BA	723	G	C8-N9-C4	5.40	108.56	106.40
23	DA	968	G	C8-N9-C4	5.40	108.56	106.40
23	BA	208	C	C6-N1-C2	5.40	122.46	120.30
23	BA	1789	A	C5-C6-N1	5.40	120.40	117.70
23	DA	271(B)	C	C6-N1-C2	5.40	122.46	120.30
23	DA	461	C	N3-C2-O2	5.40	125.68	121.90
23	DA	793	A	C8-N9-C4	-5.40	103.64	105.80
23	DA	2619	C	C2-N1-C1'	-5.40	112.86	118.80
23	BA	397	G	C6-C5-N7	-5.40	127.16	130.40
23	BA	1496	A	N7-C8-N9	5.40	116.50	113.80
1	CA	503	C	C5-C6-N1	5.40	123.70	121.00
23	DA	204	A	C8-N9-C4	5.40	107.96	105.80
1	AA	577	G	C8-N9-C4	5.40	108.56	106.40
1	AA	766	A	N1-C6-N6	5.40	121.84	118.60
23	BA	594	U	C4-C5-C6	5.40	122.94	119.70
23	BA	845	G	N3-C4-N9	5.40	129.24	126.00
23	DA	729	G	C4-N9-C1'	5.40	133.52	126.50
23	DA	2383	G	C4-N9-C1'	5.39	133.51	126.50
23	BA	124	G	N1-C6-O6	5.39	123.14	119.90
25	BC	242	ARG	N-CA-C	-5.39	96.44	111.00
23	DA	1204	A	N7-C8-N9	5.39	116.50	113.80
23	DA	2392	A	N7-C8-N9	5.39	116.50	113.80
23	DA	2519	U	C5-C6-N1	-5.39	120.00	122.70
23	BA	309	G	N1-C6-O6	5.39	123.13	119.90
23	BA	459	U	C5-C6-N1	-5.39	120.01	122.70
1	CA	899	C	C6-N1-C2	5.39	122.46	120.30
23	DA	2841	C	C6-N1-C2	5.39	122.46	120.30
23	DA	976	C	C5-C6-N1	-5.39	118.31	121.00
23	DA	1646	C	C6-N1-C2	5.39	122.45	120.30
23	DA	2846	G	C4-C5-N7	5.39	112.95	110.80
23	BA	535	C	N1-C2-O2	-5.39	115.67	118.90
23	BA	1290	C	C5-C6-N1	-5.39	118.31	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	312	G	C8-N9-C4	5.39	108.56	106.40
23	DA	1521	G	C8-N9-C4	-5.39	104.25	106.40
23	DA	1802	A	C4-C5-C6	5.39	119.69	117.00
23	DA	2253	G	C8-N9-C1'	-5.39	120.00	127.00
23	BA	1683	C	N3-C2-O2	5.38	125.67	121.90
1	CA	918	A	C8-N9-C4	-5.38	103.65	105.80
23	BA	1628	G	N1-C6-O6	5.38	123.13	119.90
23	BA	602	G	C6-C5-N7	5.38	133.63	130.40
23	BA	1204	A	C6-C5-N7	-5.38	128.53	132.30
23	DA	211	A	N7-C8-N9	-5.38	111.11	113.80
23	DA	814	C	C5-C6-N1	-5.38	118.31	121.00
23	DA	993	G	C6-C5-N7	5.38	133.63	130.40
23	BA	83	G	C6-N1-C2	5.38	128.33	125.10
23	DA	1801	G	C4-C5-N7	5.38	112.95	110.80
23	BA	1244	G	N7-C8-N9	-5.38	110.41	113.10
23	DA	375	C	C5-C6-N1	-5.38	118.31	121.00
23	DA	1309	G	N7-C8-N9	-5.38	110.41	113.10
23	DA	1423	G	C8-N9-C4	5.38	108.55	106.40
23	DA	1662	C	N1-C2-N3	5.38	122.97	119.20
23	BA	682	G	N1-C6-O6	-5.38	116.67	119.90
23	BA	2061	G	N1-C6-O6	5.38	123.13	119.90
23	BA	2496	C	N3-C2-O2	-5.38	118.14	121.90
23	DA	1792	G	N9-C4-C5	5.38	107.55	105.40
23	BA	1792	G	C8-N9-C4	-5.38	104.25	106.40
23	DA	1600	C	N3-C2-O2	5.38	125.66	121.90
23	BA	956	G	C8-N9-C4	5.37	108.55	106.40
23	BA	1934	C	C2-N1-C1'	-5.37	112.89	118.80
23	DA	1698	A	N7-C8-N9	5.37	116.49	113.80
23	DA	2592	G	C6-N1-C2	-5.37	121.88	125.10
23	DA	1164	G	C8-N9-C1'	-5.37	120.02	127.00
23	BA	2044	C	C5-C4-N4	-5.37	116.44	120.20
23	BA	2688	U	N3-C4-O4	-5.37	115.64	119.40
23	DA	55	G	C6-N1-C2	-5.37	121.88	125.10
23	BA	2596	U	C5-C4-O4	5.37	129.12	125.90
23	DA	681	G	N7-C8-N9	-5.37	110.42	113.10
23	DA	798	G	C5-C6-O6	-5.37	125.38	128.60
25	DC	46	GLN	N-CA-C	-5.37	96.50	111.00
23	BA	1286	A	C4-C5-N7	-5.37	108.02	110.70
23	DA	1980	G	N1-C2-N2	-5.37	111.37	116.20
23	BA	1264	G	C8-N9-C4	-5.37	104.25	106.40
23	DA	138	G	N7-C8-N9	5.37	115.78	113.10
1	AA	562	C	N3-C4-C5	5.36	124.05	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BA	1616	A	C4-C5-N7	5.36	113.38	110.70
23	BA	2005	A	C8-N9-C4	5.36	107.94	105.80
23	DA	704	G	C5-C6-O6	-5.36	125.38	128.60
23	BA	1788	C	N3-C4-C5	5.36	124.04	121.90
23	DA	298	G	N7-C8-N9	5.36	115.78	113.10
23	DA	1555	G	C4-N9-C1'	5.36	133.47	126.50
23	DA	2824	C	N1-C2-O2	-5.36	115.68	118.90
23	BA	1161	C	C5-C6-N1	5.36	123.68	121.00
23	DA	1268	A	N1-C2-N3	5.36	131.98	129.30
23	BA	272	G	C4-N9-C1'	-5.36	119.53	126.50
23	BA	1385	G	C8-N9-C1'	5.36	133.97	127.00
23	DA	2713	A	N1-C2-N3	5.36	131.98	129.30
1	AA	266	G	N3-C4-C5	5.36	131.28	128.60
23	BA	746	A	C5-C6-N1	5.36	120.38	117.70
23	BA	1555	G	C4-N9-C1'	5.36	133.46	126.50
23	BA	2022	U	N1-C2-N3	-5.36	111.69	114.90
23	DA	489	G	C8-N9-C4	-5.36	104.26	106.40
23	DA	1429	G	C5-C6-O6	5.36	131.81	128.60
23	DA	2219	G	C8-N9-C4	5.36	108.54	106.40
23	DA	2743	C	N1-C2-O2	-5.36	115.69	118.90
23	DA	841	A	C5-C6-N1	5.35	120.38	117.70
23	DA	2082	A	C5-C6-N6	-5.35	119.42	123.70
1	AA	1480	G	C5-C6-O6	-5.35	125.39	128.60
23	BA	1783	A	N1-C2-N3	5.35	131.98	129.30
23	BA	2447	G	C5-C6-O6	-5.35	125.39	128.60
23	BA	2507	C	N3-C4-N4	-5.35	114.25	118.00
23	DA	83	G	C6-N1-C2	5.35	128.31	125.10
23	DA	2010	G	C5-N7-C8	-5.35	101.62	104.30
23	DA	586	A	N9-C4-C5	-5.35	103.66	105.80
23	DA	1802	A	C6-N1-C2	-5.35	115.39	118.60
23	BA	1385	G	N3-C4-N9	-5.35	122.79	126.00
23	DA	661	C	C2-N3-C4	-5.35	117.22	119.90
23	BA	434	U	N3-C2-O2	5.35	125.94	122.20
23	DA	133	C	C2-N3-C4	-5.35	117.23	119.90
23	BA	773	U	N1-C2-O2	-5.35	119.06	122.80
23	BA	797	C	C5-C6-N1	-5.35	118.33	121.00
23	BA	208	C	N3-C4-C5	5.34	124.04	121.90
23	DA	729	G	C6-C5-N7	-5.34	127.19	130.40
23	DA	2748	A	C8-N9-C4	-5.34	103.66	105.80
23	BA	578	A	N1-C6-N6	-5.34	115.39	118.60
23	BA	1163	G	N3-C2-N2	-5.34	116.16	119.90
23	DA	967	C	C5-C6-N1	-5.34	118.33	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	2208	U	N3-C2-O2	5.34	125.94	122.20
23	DA	2324	C	N3-C4-N4	-5.34	114.26	118.00
23	BA	1022	G	C8-N9-C4	-5.34	104.27	106.40
23	DA	322	A	C8-N9-C4	-5.34	103.67	105.80
23	DA	827	U	C6-N1-C2	5.34	124.20	121.00
23	DA	2514	U	C6-N1-C2	5.34	124.20	121.00
23	DA	2707	G	C8-N9-C4	5.34	108.53	106.40
23	BA	1555	G	N3-C4-N9	5.33	129.20	126.00
23	BA	1400	G	N3-C4-C5	-5.33	125.93	128.60
23	BA	1496	A	C4-N9-C1'	5.33	135.90	126.30
23	BA	2280	G	C2-N3-C4	5.33	114.57	111.90
23	DA	179	G	N1-C6-O6	5.33	123.10	119.90
23	DA	2081	C	C2-N3-C4	-5.33	117.23	119.90
23	BA	1937	A	C2-N3-C4	-5.33	107.93	110.60
23	BA	2840	C	C6-N1-C2	5.33	122.43	120.30
1	CA	17	U	N3-C2-O2	-5.33	118.47	122.20
23	DA	2075	U	C5-C6-N1	-5.33	120.03	122.70
23	DA	2826	A	N1-C2-N3	5.33	131.97	129.30
23	BA	1495	A	N1-C2-N3	-5.33	126.64	129.30
23	BA	2507	C	C5-C6-N1	-5.33	118.33	121.00
23	DA	2007	C	C6-N1-C2	5.33	122.43	120.30
46	DX	29	GLY	N-CA-C	-5.33	99.78	113.10
23	DA	459	U	C5-C6-N1	-5.33	120.04	122.70
23	BA	1617	C	C6-N1-C2	5.33	122.43	120.30
23	DA	1317	A	C8-N9-C4	5.33	107.93	105.80
23	BA	211	A	C8-N9-C4	5.32	107.93	105.80
23	BA	1791	A	C8-N9-C4	5.32	107.93	105.80
23	DA	727	A	N1-C6-N6	5.32	121.79	118.60
23	DA	1700	A	N1-C6-N6	5.32	121.80	118.60
23	DA	1348	G	C4-C5-N7	5.32	112.93	110.80
23	DA	1606	G	C5-C6-N1	5.32	114.16	111.50
23	DA	1790	C	N3-C4-N4	-5.32	114.28	118.00
23	DA	2232	U	N3-C4-C5	-5.32	111.41	114.60
23	DA	2519	U	C6-N1-C2	5.32	124.19	121.00
23	BA	1191	G	N1-C6-O6	-5.32	116.71	119.90
23	BA	1664	A	C2-N3-C4	-5.32	107.94	110.60
23	DA	151	C	C6-N1-C2	5.32	122.43	120.30
23	DA	707	G	C8-N9-C4	5.32	108.53	106.40
23	DA	2419	U	C5-C4-O4	5.32	129.09	125.90
23	DA	1286	A	N1-C6-N6	-5.32	115.41	118.60
23	DA	2005	A	C5-C6-N1	-5.32	115.04	117.70
23	BA	2056	G	C8-N9-C1'	-5.32	120.09	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	34	C	C6-N1-C2	5.32	122.43	120.30
1	CA	926	G	C4-C5-N7	-5.32	108.67	110.80
23	DA	2433	A	C5-N7-C8	-5.32	101.24	103.90
23	BA	583	G	C5-C6-N1	5.32	114.16	111.50
23	BA	1200	C	N3-C2-O2	5.32	125.62	121.90
23	BA	1671	U	N1-C2-O2	-5.32	119.08	122.80
23	DA	2227	A	N3-C4-N9	-5.32	123.15	127.40
23	DA	1843	C	C2-N3-C4	-5.31	117.24	119.90
23	DA	2397	G	C6-C5-N7	-5.31	127.21	130.40
23	DA	2762	G	N1-C6-O6	5.31	123.09	119.90
34	DL	54	GLY	N-CA-C	-5.31	99.82	113.10
23	BA	1342	A	C4-C5-N7	5.31	113.36	110.70
23	BA	2004	G	N1-C6-O6	5.31	123.09	119.90
23	DA	958	U	C2-N1-C1'	5.31	124.08	117.70
23	DA	1327	C	N3-C4-C5	-5.31	119.78	121.90
23	BA	661	C	C5-C6-N1	-5.31	118.34	121.00
23	BA	1765	C	N1-C2-O2	-5.31	115.71	118.90
23	BA	2519	U	C5-C6-N1	-5.31	120.05	122.70
23	DA	408	G	N3-C4-C5	5.31	131.25	128.60
23	BA	211	A	N7-C8-N9	-5.31	111.15	113.80
23	DA	197	A	C5-C6-N6	-5.31	119.45	123.70
23	DA	300	A	N1-C6-N6	5.31	121.78	118.60
23	DA	1164	G	C4-N9-C1'	5.31	133.40	126.50
1	AA	1192	C	C5-C6-N1	5.31	123.65	121.00
23	BA	1775	U	N3-C4-O4	-5.31	115.69	119.40
1	AA	1053	G	N3-C4-C5	5.30	131.25	128.60
23	BA	1971	A	C5-C6-N6	-5.30	119.46	123.70
23	DA	2828	C	C6-N1-C2	5.30	122.42	120.30
23	BA	2345	G	C5-C6-O6	5.30	131.78	128.60
23	DA	138	G	C5-C6-N1	5.30	114.15	111.50
23	BA	116	C	C4-C5-C6	5.30	120.05	117.40
23	DA	115	C	C2-N3-C4	-5.30	117.25	119.90
23	DA	2271	G	C8-N9-C1'	-5.30	120.11	127.00
23	BA	1964	G	C8-N9-C1'	-5.30	120.11	127.00
23	BA	1204	A	C4-C5-N7	5.30	113.35	110.70
23	DA	1802	A	C8-N9-C4	-5.30	103.68	105.80
23	BA	126	A	C8-N9-C4	5.30	107.92	105.80
23	BA	945	A	N9-C4-C5	-5.30	103.68	105.80
23	BA	2688	U	C5-C6-N1	-5.30	120.05	122.70
23	DA	1400	G	N3-C4-C5	-5.30	125.95	128.60
23	DA	1613	G	N1-C2-N2	-5.30	111.43	116.20
23	DA	2250	G	N9-C4-C5	5.30	107.52	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	811	U	C2-N1-C1'	-5.29	111.35	117.70
23	DA	180	G	N9-C4-C5	-5.29	103.28	105.40
23	DA	334	C	N1-C2-O2	-5.29	115.72	118.90
23	DA	1268	A	C6-N1-C2	-5.29	115.42	118.60
23	DA	2399	G	N7-C8-N9	-5.29	110.45	113.10
23	BA	772	C	N3-C4-C5	5.29	124.02	121.90
23	BA	859	G	C8-N9-C4	5.29	108.52	106.40
23	BA	1309	G	C2-N3-C4	-5.29	109.25	111.90
24	BB	80	U	C5-C6-N1	-5.29	120.05	122.70
23	DA	783	A	N3-C4-C5	5.29	130.50	126.80
23	DA	1835	G	C5-C6-N1	5.29	114.14	111.50
23	DA	210	C	C2-N1-C1'	-5.29	112.98	118.80
23	DA	178	G	C8-N9-C4	5.29	108.52	106.40
23	BA	141(A)	A	C6-C5-N7	-5.29	128.60	132.30
23	BA	2075	U	C5-C6-N1	-5.29	120.06	122.70
1	CA	1415	G	C8-N9-C1'	-5.29	120.13	127.00
23	DA	2280	G	C5-C6-N1	5.29	114.14	111.50
23	BA	1138	G	N3-C4-C5	-5.28	125.96	128.60
23	BA	1615	C	N1-C2-O2	-5.28	115.73	118.90
23	BA	1942	C	C5-C6-N1	5.28	123.64	121.00
23	DA	72	U	N1-C2-N3	5.28	118.07	114.90
23	DA	1524	G	N3-C4-C5	-5.28	125.96	128.60
23	DA	2440	C	N3-C4-C5	-5.28	119.79	121.90
1	CA	55	A	C8-N9-C4	-5.28	103.69	105.80
23	DA	450	G	C6-C5-N7	-5.28	127.23	130.40
23	DA	687	C	N3-C4-C5	5.28	124.01	121.90
23	DA	1602	U	C5-C4-O4	5.28	129.07	125.90
23	DA	2524	G	N7-C8-N9	-5.28	110.46	113.10
23	DA	2626	C	C2-N1-C1'	-5.28	112.99	118.80
23	DA	2762	G	C4-C5-N7	5.28	112.91	110.80
23	DA	270(B)	A	N7-C8-N9	-5.28	111.16	113.80
23	DA	2685	G	C4-C5-C6	5.28	121.97	118.80
23	BA	244	A	C2-N3-C4	-5.28	107.96	110.60
23	BA	1614	A	C4-N9-C1'	5.28	135.80	126.30
23	BA	2081	C	C6-N1-C2	5.28	122.41	120.30
23	BA	2252	G	N1-C2-N3	5.28	127.07	123.90
23	BA	2271	G	N3-C2-N2	5.28	123.59	119.90
23	BA	2499	C	C4-C5-C6	5.28	120.04	117.40
1	CA	1515	C	C5-C6-N1	-5.28	118.36	121.00
23	DA	798	G	C6-C5-N7	-5.28	127.23	130.40
23	DA	802	A	C8-N9-C4	5.28	107.91	105.80
23	BA	94	G	C4-N9-C1'	5.28	133.36	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BA	531	C	C2-N3-C4	-5.28	117.26	119.90
23	BA	2513	G	C5-C6-N1	5.28	114.14	111.50
23	DA	2713	A	N7-C8-N9	5.28	116.44	113.80
23	DA	1385	G	C8-N9-C1'	5.27	133.86	127.00
23	DA	2252	G	C8-N9-C4	5.27	108.51	106.40
23	DA	2578	G	C8-N9-C4	5.27	108.51	106.40
23	BA	32	C	N3-C2-O2	5.27	125.59	121.90
23	BA	388	G	N3-C4-N9	-5.27	122.84	126.00
23	BA	937	U	C5-C6-N1	-5.27	120.06	122.70
23	BA	2783	G	N3-C4-N9	5.27	129.16	126.00
23	DA	1349	A	C5-C6-N6	-5.27	119.48	123.70
23	DA	2383	G	C8-N9-C1'	-5.27	120.15	127.00
23	BA	397	G	C8-N9-C4	5.27	108.51	106.40
23	BA	2574	G	N1-C2-N3	5.27	127.06	123.90
23	DA	2432	A	C4-C5-N7	5.27	113.33	110.70
23	BA	197	A	C5-C6-N6	-5.27	119.49	123.70
23	BA	720	C	C6-N1-C2	5.27	122.41	120.30
23	BA	738	G	C5-C6-O6	-5.27	125.44	128.60
23	BA	845	G	C8-N9-C1'	-5.27	120.15	127.00
23	DA	214	G	C4-N9-C1'	-5.27	119.65	126.50
23	DA	2276	G	C5-C6-O6	-5.27	125.44	128.60
23	DA	2564	A	N1-C6-N6	5.27	121.76	118.60
25	DC	52	ARG	NE-CZ-NH1	-5.27	117.67	120.30
23	DA	861	A	N7-C8-N9	5.27	116.43	113.80
23	DA	945	A	C1'-O4'-C4'	-5.27	105.69	109.90
23	DA	2555	U	C2-N1-C1'	-5.27	111.38	117.70
1	CA	819	A	N1-C6-N6	5.26	121.76	118.60
23	DA	2092	U	N1-C2-N3	5.26	118.06	114.90
23	DA	2271	G	N3-C2-N2	5.26	123.58	119.90
23	DA	2524	G	C8-N9-C4	5.26	108.51	106.40
23	BA	768	G	C8-N9-C1'	-5.26	120.16	127.00
1	CA	552	U	C2-N3-C4	-5.26	123.84	127.00
23	DA	677	A	N1-C2-N3	5.26	131.93	129.30
23	DA	2035	G	C4-C5-N7	-5.26	108.69	110.80
23	BA	806	C	C2-N1-C1'	5.26	124.59	118.80
23	BA	847	U	N3-C4-O4	-5.26	115.72	119.40
1	CA	918	A	N1-C6-N6	-5.26	115.44	118.60
23	DA	138	G	N3-C4-C5	-5.26	125.97	128.60
23	DA	1182	A	C8-N9-C4	-5.26	103.70	105.80
23	BA	1824	G	C6-N1-C2	-5.26	121.94	125.10
23	DA	340	A	C5-C6-N1	-5.26	115.07	117.70
23	DA	777	A	N1-C6-N6	-5.26	115.44	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	1261	C	C2-N1-C1'	-5.26	113.02	118.80
23	BA	979	G	N7-C8-N9	5.26	115.73	113.10
23	BA	568	U	C2-N3-C4	5.25	130.15	127.00
23	DA	1282	U	C6-N1-C2	-5.25	117.85	121.00
23	BA	1493	C	C6-N1-C1'	-5.25	114.50	120.80
23	DA	1008	C	C6-N1-C2	5.25	122.40	120.30
23	DA	1322	A	C6-N1-C2	-5.25	115.45	118.60
23	DA	2570	G	C2-N3-C4	-5.25	109.27	111.90
23	DA	114	U	C2-N1-C1'	5.25	124.00	117.70
23	DA	2251	G	C6-N1-C2	-5.25	121.95	125.10
23	DA	2624	G	C8-N9-C4	5.25	108.50	106.40
23	DA	2055	C	C4-C5-C6	5.25	120.03	117.40
23	DA	1663	C	C2-N3-C4	-5.25	117.28	119.90
23	BA	801	G	N9-C4-C5	5.25	107.50	105.40
24	BB	98	G	C4-N9-C1'	5.25	133.32	126.50
23	DA	704	G	N9-C4-C5	-5.25	103.30	105.40
23	DA	746	A	C8-N9-C4	-5.25	103.70	105.80
23	DA	1190	G	N1-C6-O6	5.25	123.05	119.90
23	DA	1658	C	N3-C4-C5	5.25	124.00	121.90
23	BA	945	A	C1'-O4'-C4'	-5.25	105.70	109.90
23	BA	2501	C	C2-N1-C1'	-5.25	113.03	118.80
23	DA	1306	C	C6-N1-C2	5.25	122.40	120.30
23	DA	49	A	N1-C2-N3	-5.24	126.68	129.30
23	DA	1271	G	C8-N9-C1'	-5.24	120.18	127.00
23	DA	2789	C	C6-N1-C2	5.24	122.40	120.30
23	BA	444	C	N3-C2-O2	5.24	125.57	121.90
23	BA	1138	G	C4-N9-C1'	5.24	133.31	126.50
23	BA	1190	G	C5-N7-C8	-5.24	101.68	104.30
23	BA	2392	A	C4-C5-C6	5.24	119.62	117.00
23	BA	2464	C	C5-C6-N1	-5.24	118.38	121.00
23	DA	2391	G	C4-C5-N7	-5.24	108.70	110.80
23	DA	2574	G	N3-C4-N9	5.24	129.14	126.00
23	DA	929	G	C6-C5-N7	-5.24	127.26	130.40
23	DA	1655	A	N9-C4-C5	-5.24	103.70	105.80
23	BA	1647	G	C8-N9-C4	5.24	108.50	106.40
23	DA	2053	G	C6-C5-N7	-5.24	127.26	130.40
1	CA	1513	A	C8-N9-C4	5.24	107.89	105.80
23	DA	1345	C	C2-N3-C4	-5.24	117.28	119.90
23	DA	2378	A	C8-N9-C4	5.24	107.89	105.80
23	DA	2439	A	P-O3'-C3'	5.23	125.98	119.70
1	AA	1053	G	N3-C4-N9	-5.23	122.86	126.00
23	BA	1348	G	N1-C6-O6	5.23	123.04	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	576	G	C6-C5-N7	-5.23	127.26	130.40
1	CA	781	A	C4-C5-N7	5.23	113.32	110.70
23	DA	56	A	N1-C2-N3	5.23	131.92	129.30
23	DA	1898	U	C4-C5-C6	5.23	122.84	119.70
23	DA	1905	C	C6-N1-C2	5.23	122.39	120.30
23	DA	1977	A	C8-N9-C4	5.23	107.89	105.80
23	DA	2504	U	C5-C4-O4	5.23	129.04	125.90
23	BA	2236	C	C5-C6-N1	-5.23	118.39	121.00
23	DA	845	G	C8-N9-C1'	-5.23	120.20	127.00
23	DA	2250	G	N1-C6-O6	-5.23	116.76	119.90
23	DA	2581	G	C6-C5-N7	5.23	133.54	130.40
23	BA	1842	G	C8-N9-C1'	-5.23	120.20	127.00
1	AA	770	C	N3-C4-C5	5.23	123.99	121.90
23	BA	996	A	N1-C6-N6	5.23	121.74	118.60
23	BA	1558	A	C2-N3-C4	-5.23	107.99	110.60
23	BA	1980	G	N3-C4-N9	5.23	129.14	126.00
23	DA	1318	C	N3-C4-C5	5.23	123.99	121.90
23	DA	2049	G	C5-C6-O6	-5.23	125.47	128.60
23	BA	474	G	N3-C4-C5	-5.22	125.99	128.60
23	BA	723	G	C2-N3-C4	-5.22	109.29	111.90
23	BA	1612	C	C4-C5-C6	5.22	120.01	117.40
23	BA	2059	A	C5-C6-N1	5.22	120.31	117.70
23	DA	258	G	C5-C6-N1	-5.22	108.89	111.50
23	DA	1671	U	C6-N1-C2	-5.22	117.87	121.00
23	DA	993	G	N9-C4-C5	5.22	107.49	105.40
23	BA	1760	A	N1-C6-N6	-5.22	115.47	118.60
23	BA	811	U	C2-N1-C1'	-5.22	111.44	117.70
23	DA	698	C	C2-N1-C1'	-5.22	113.06	118.80
23	DA	727	A	C5-N7-C8	-5.22	101.29	103.90
23	DA	2247	A	N1-C2-N3	5.22	131.91	129.30
23	BA	1790	C	C2-N1-C1'	-5.22	113.06	118.80
23	DA	1842	G	C8-N9-C1'	-5.22	120.22	127.00
23	DA	2014	A	N9-C4-C5	-5.22	103.71	105.80
23	BA	1313	U	N1-C2-O2	-5.22	119.15	122.80
23	DA	131	G	C5-C6-N1	5.22	114.11	111.50
23	DA	810	U	N3-C2-O2	-5.22	118.55	122.20
23	DA	1021	A	C6-C5-N7	-5.22	128.65	132.30
23	DA	1617	C	N3-C2-O2	5.22	125.55	121.90
23	BA	705	A	C2-N3-C4	-5.21	107.99	110.60
23	BA	2091	U	C4-C5-C6	5.21	122.83	119.70
1	CA	811	C	C5-C6-N1	-5.21	118.39	121.00
23	DA	1496	A	C8-N9-C4	-5.21	103.71	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	1677	A	C4-C5-C6	5.21	119.61	117.00
23	DA	1783	A	N1-C6-N6	-5.21	115.47	118.60
23	BA	1204	A	C2-N3-C4	-5.21	107.99	110.60
23	DA	729	G	C5-N7-C8	-5.21	101.69	104.30
23	DA	2427	C	N1-C2-O2	-5.21	115.77	118.90
23	BA	1821	A	N7-C8-N9	-5.21	111.19	113.80
23	DA	1589	C	N3-C4-C5	-5.21	119.81	121.90
23	BA	393	C	N1-C2-O2	-5.21	115.77	118.90
23	DA	945	A	C6-N1-C2	-5.21	115.47	118.60
23	DA	2088	G	N1-C2-N3	5.21	127.03	123.90
23	DA	2438	U	C2-N3-C4	-5.21	123.87	127.00
23	BA	1779	U	C5-C4-O4	-5.21	122.78	125.90
23	BA	2595	G	N9-C4-C5	-5.21	103.32	105.40
1	AA	904	C	N3-C2-O2	-5.21	118.25	121.90
23	BA	2328	A	C8-N9-C4	5.21	107.88	105.80
1	CA	1515	C	C4-C5-C6	5.21	120.00	117.40
23	DA	40	C	C2-N3-C4	-5.21	117.30	119.90
23	DA	2239	G	N1-C2-N3	5.21	127.02	123.90
24	BB	100	G	N9-C4-C5	-5.21	103.32	105.40
23	BA	1619	G	C8-N9-C4	5.20	108.48	106.40
23	BA	1663	C	C5-C6-N1	-5.20	118.40	121.00
23	DA	1624	G	N7-C8-N9	-5.20	110.50	113.10
23	DA	1699	G	N9-C4-C5	5.20	107.48	105.40
1	AA	1524	C	C6-N1-C2	5.20	122.38	120.30
23	DA	140	A	N1-C6-N6	5.20	121.72	118.60
23	DA	1398	C	N3-C4-C5	-5.20	119.82	121.90
23	DA	2377	A	C8-N9-C4	5.20	107.88	105.80
23	DA	2434	A	C8-N9-C4	-5.20	103.72	105.80
24	DB	100	G	C8-N9-C4	5.20	108.48	106.40
23	DA	74	A	C8-N9-C4	-5.20	103.72	105.80
23	DA	332	A	N1-C2-N3	5.20	131.90	129.30
23	DA	1443	G	C5-C6-O6	-5.20	125.48	128.60
23	DA	1605	C	C5-C6-N1	5.20	123.60	121.00
23	BA	679	C	N3-C2-O2	5.20	125.54	121.90
23	BA	1355	G	C5-C6-N1	5.20	114.10	111.50
23	BA	116	C	C5-C6-N1	-5.20	118.40	121.00
23	BA	959	A	C2-N3-C4	-5.20	108.00	110.60
23	BA	1645	G	N1-C6-O6	-5.20	116.78	119.90
23	BA	1776	G	N9-C4-C5	-5.20	103.32	105.40
23	BA	2241	A	N1-C2-N3	5.20	131.90	129.30
23	BA	2249	U	C5-C4-O4	5.20	129.02	125.90
23	DA	1030	G	N7-C8-N9	-5.20	110.50	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	2717	G	N3-C4-C5	-5.20	126.00	128.60
1	CA	720	C	N1-C2-O2	5.19	122.02	118.90
23	DA	1330	C	N3-C2-O2	5.19	125.54	121.90
23	DA	2498	C	N3-C2-O2	5.19	125.54	121.90
23	DA	2774	C	C6-N1-C2	5.19	122.38	120.30
23	BA	773	U	N1-C2-N3	5.19	118.02	114.90
23	BA	1409	C	C6-N1-C2	5.19	122.38	120.30
23	DA	83	G	C5-C6-O6	5.19	131.72	128.60
23	DA	211	A	C5-C6-N6	5.19	127.85	123.70
23	DA	678	C	N3-C4-N4	-5.19	114.36	118.00
23	DA	1241	A	C2-N3-C4	-5.19	108.00	110.60
23	DA	2197	U	C5-C6-N1	-5.19	120.10	122.70
23	BA	1690	A	N1-C6-N6	-5.19	115.49	118.60
23	DA	247	G	N9-C4-C5	-5.19	103.32	105.40
23	DA	270(Z)	G	N3-C4-N9	-5.19	122.89	126.00
23	DA	1632	A	N1-C6-N6	5.19	121.72	118.60
23	DA	422	A	N1-C6-N6	-5.19	115.49	118.60
23	BA	298	G	C8-N9-C4	-5.19	104.33	106.40
23	BA	407	G	C4-N9-C1'	5.19	133.25	126.50
23	DA	443	A	N9-C4-C5	5.19	107.88	105.80
23	DA	647	G	C8-N9-C4	-5.19	104.33	106.40
23	DA	1558	A	C2-N3-C4	-5.19	108.01	110.60
23	DA	2522	U	C5-C6-N1	-5.19	120.11	122.70
23	DA	2670	A	C8-N9-C4	5.19	107.88	105.80
23	DA	69	C	C4-C5-C6	5.19	119.99	117.40
23	DA	70	G	N3-C4-C5	-5.18	126.01	128.60
23	DA	397	G	N3-C4-C5	5.18	131.19	128.60
23	DA	2032	G	N3-C4-N9	-5.18	122.89	126.00
23	DA	2876	G	C8-N9-C4	5.18	108.47	106.40
23	BA	1555	G	C8-N9-C1'	-5.18	120.27	127.00
23	DA	2070	G	C5-N7-C8	5.18	106.89	104.30
1	AA	576	G	C5-C6-N1	-5.18	108.91	111.50
23	BA	849	A	C4-C5-N7	5.18	113.29	110.70
23	DA	74	A	N1-C6-N6	-5.18	115.49	118.60
23	DA	473	G	N1-C2-N3	5.18	127.01	123.90
23	DA	2093	G	N1-C6-O6	5.18	123.01	119.90
23	DA	2547	U	C2-N3-C4	-5.18	123.89	127.00
1	AA	778	G	C4-N9-C1'	5.18	133.23	126.50
23	DA	455	C	N3-C4-C5	5.18	123.97	121.90
23	BA	458	G	N3-C4-N9	5.18	129.11	126.00
23	BA	774	A	N3-C4-N9	-5.18	123.26	127.40
23	DA	1926	U	C2-N1-C1'	-5.18	111.49	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	1671	U	N1-C2-O2	-5.17	119.18	122.80
23	BA	1244	G	N9-C4-C5	-5.17	103.33	105.40
23	DA	1963	U	N3-C2-O2	-5.17	118.58	122.20
23	BA	2017	U	C5-C6-N1	-5.17	120.11	122.70
23	BA	2450	A	N1-C2-N3	5.17	131.89	129.30
1	CA	691	G	N9-C4-C5	-5.17	103.33	105.40
23	DA	1604	C	C5-C4-N4	-5.17	116.58	120.20
23	DA	1827	C	C5-C6-N1	-5.17	118.41	121.00
23	BA	849	A	N1-C6-N6	5.17	121.70	118.60
23	DA	116	C	C4-C5-C6	5.17	119.98	117.40
23	DA	1971	A	N9-C4-C5	-5.17	103.73	105.80
1	AA	395	C	C6-N1-C2	5.17	122.37	120.30
23	BA	935	C	C6-N1-C2	5.17	122.37	120.30
23	BA	1677	A	C5-N7-C8	-5.17	101.32	103.90
23	BA	2456	C	C4-C5-C6	-5.17	114.82	117.40
23	DA	1603	A	N7-C8-N9	5.17	116.38	113.80
1	AA	1508	G	C8-N9-C4	5.17	108.47	106.40
23	BA	1245	G	C8-N9-C4	5.17	108.47	106.40
23	BA	1769	G	N1-C2-N3	5.17	127.00	123.90
23	DA	271	G	C2-N3-C4	-5.17	109.32	111.90
1	AA	815	A	C5-C6-N6	5.17	127.83	123.70
23	BA	575	A	N7-C8-N9	-5.16	111.22	113.80
23	BA	1681	G	N1-C6-O6	5.16	123.00	119.90
23	DA	861	A	C8-N9-C4	-5.16	103.73	105.80
23	DA	1138	G	C8-N9-C1'	-5.16	120.29	127.00
23	DA	2253	G	N1-C6-O6	5.16	123.00	119.90
23	DA	2578	G	C4-C5-N7	5.16	112.86	110.80
23	BA	1783	A	C8-N9-C4	-5.16	103.73	105.80
23	BA	2675	A	N3-C4-C5	5.16	130.41	126.80
23	DA	1622	G	C2-N3-C4	-5.16	109.32	111.90
23	BA	96	G	C8-N9-C1'	-5.16	120.29	127.00
23	BA	2773	C	C6-N1-C2	5.16	122.36	120.30
23	DA	734	A	C2-N3-C4	-5.16	108.02	110.60
23	DA	1321	A	C2-N3-C4	-5.16	108.02	110.60
23	DA	1555	G	N3-C4-N9	5.16	129.10	126.00
23	DA	2017	U	N1-C2-N3	5.16	118.00	114.90
23	DA	520	G	N3-C4-N9	5.16	129.09	126.00
23	DA	819	A	C5-N7-C8	-5.16	101.32	103.90
23	BA	813	U	N1-C2-N3	5.16	117.99	114.90
23	BA	1666	G	N3-C4-N9	-5.16	122.91	126.00
23	BA	2824	C	C6-N1-C2	5.16	122.36	120.30
23	DA	809	G	C6-C5-N7	-5.16	127.31	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	2846	G	N1-C6-O6	5.16	122.99	119.90
23	BA	802	A	C8-N9-C4	5.16	107.86	105.80
23	BA	1803	A	N7-C8-N9	-5.16	111.22	113.80
1	CA	1484	C	C6-N1-C2	5.16	122.36	120.30
23	DA	908	C	N1-C2-O2	-5.16	115.81	118.90
23	DA	1770	G	C6-C5-N7	-5.16	127.31	130.40
23	DA	2532	G	N9-C4-C5	-5.16	103.34	105.40
23	BA	384	U	C5-C6-N1	-5.15	120.12	122.70
23	DA	1996	C	C5-C6-N1	-5.15	118.42	121.00
23	BA	803	U	C4-C5-C6	5.15	122.79	119.70
23	BA	2688	U	N3-C2-O2	-5.15	118.59	122.20
23	DA	1395	A	C5-C6-N1	5.15	120.28	117.70
1	AA	264	U	N1-C2-N3	5.15	117.99	114.90
23	BA	114(B)	A	C4-C5-N7	5.15	113.28	110.70
23	BA	2253	G	N1-C6-O6	5.15	122.99	119.90
46	BX	27	GLU	N-CA-C	5.15	124.91	111.00
23	DA	302	C	C2-N1-C1'	-5.15	113.14	118.80
23	BA	706	A	C2-N3-C4	-5.15	108.03	110.60
23	BA	2395	C	C6-N1-C2	5.15	122.36	120.30
23	BA	140	A	N7-C8-N9	5.15	116.37	113.80
23	BA	397	G	C2-N3-C4	-5.15	109.33	111.90
23	BA	530	G	N1-C2-N2	-5.15	111.57	116.20
23	BA	660	G	C8-N9-C4	5.15	108.46	106.40
23	BA	2681	C	C2-N3-C4	-5.15	117.33	119.90
34	DL	61	ARG	NE-CZ-NH2	-5.15	117.73	120.30
23	BA	1832	C	N1-C2-O2	-5.14	115.81	118.90
23	DA	1616	A	C5-C6-N6	-5.14	119.58	123.70
23	DA	2419	U	C2-N1-C1'	-5.14	111.53	117.70
23	DA	2605	U	N1-C2-N3	5.14	117.99	114.90
23	DA	2724	C	N3-C4-C5	5.14	123.96	121.90
23	DA	1815	A	C4-C5-N7	-5.14	108.13	110.70
23	DA	2505	G	N3-C4-N9	-5.14	122.92	126.00
23	BA	460	A	C2-N3-C4	-5.14	108.03	110.60
23	BA	1122	G	C4-N9-C1'	-5.14	119.82	126.50
23	DA	2766	G	C8-N9-C4	-5.14	104.34	106.40
1	AA	1415	G	C5-C6-N1	-5.14	108.93	111.50
1	CA	576	G	N1-C6-O6	5.14	122.98	119.90
23	DA	114(B)	A	N7-C8-N9	5.14	116.37	113.80
23	BA	2584	U	N3-C4-O4	5.14	123.00	119.40
1	CA	768	A	N7-C8-N9	-5.14	111.23	113.80
23	DA	2078	C	N3-C4-C5	5.14	123.95	121.90
23	BA	1841	U	N3-C2-O2	5.14	125.80	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	750	A	C5-C6-N6	-5.14	119.59	123.70
23	DA	1005	C	N3-C4-C5	5.14	123.95	121.90
23	DA	1024	G	N9-C4-C5	-5.14	103.34	105.40
23	DA	1573	G	C8-N9-C4	5.14	108.45	106.40
23	DA	2626	C	N3-C4-C5	5.14	123.95	121.90
23	BA	429	A	C6-N1-C2	-5.13	115.52	118.60
23	BA	774	A	C5-N7-C8	-5.13	101.33	103.90
23	BA	1157	G	N1-C6-O6	5.13	122.98	119.90
1	CA	674	G	N1-C6-O6	5.13	122.98	119.90
1	CA	1053	G	N3-C4-C5	5.13	131.17	128.60
23	DA	588	U	N3-C4-C5	-5.13	111.52	114.60
40	DR	18	LEU	CA-CB-CG	5.13	127.11	115.30
23	BA	1670	C	N1-C2-O2	-5.13	115.82	118.90
23	DA	681	G	N1-C2-N3	5.13	126.98	123.90
23	BA	2454	G	C4-C5-N7	-5.13	108.75	110.80
23	BA	2590	A	N1-C6-N6	5.13	121.68	118.60
23	BA	2597	G	N3-C4-C5	5.13	131.17	128.60
24	BB	80	U	C2-N1-C1'	-5.13	111.54	117.70
23	DA	62	C	C5-C6-N1	-5.13	118.43	121.00
23	DA	104	U	C2-N1-C1'	-5.13	111.54	117.70
23	DA	2564	A	C5-N7-C8	-5.13	101.33	103.90
1	CA	43	C	C5-C6-N1	-5.13	118.44	121.00
23	DA	1363	C	N1-C2-N3	5.13	122.79	119.20
23	BA	140	A	C6-C5-N7	-5.13	128.71	132.30
23	BA	795	C	C2-N3-C4	-5.13	117.33	119.90
23	DA	2345	G	C5-C6-N1	-5.13	108.94	111.50
1	AA	922	G	N1-C6-O6	5.13	122.98	119.90
23	BA	2555	U	C6-N1-C1'	5.13	128.38	121.20
23	DA	1673	U	C5-C4-O4	-5.13	122.82	125.90
23	DA	561	G	C8-N9-C4	5.12	108.45	106.40
23	DA	2762	G	C5-C6-O6	-5.12	125.53	128.60
1	AA	758	G	N1-C6-O6	5.12	122.97	119.90
23	BA	1680	U	N3-C2-O2	-5.12	118.61	122.20
23	DA	1666	G	N3-C4-N9	-5.12	122.93	126.00
23	DA	2445	G	C2-N3-C4	-5.12	109.34	111.90
23	DA	2502	G	C4-C5-N7	5.12	112.85	110.80
23	DA	2680	C	C6-N1-C2	5.12	122.35	120.30
23	BA	2563	U	C5-C6-N1	-5.12	120.14	122.70
23	DA	2078	C	C5-C4-N4	-5.12	116.61	120.20
23	DA	2244	U	C2-N1-C1'	5.12	123.85	117.70
23	DA	2330	G	N3-C4-C5	5.12	131.16	128.60
23	DA	934	G	N1-C6-O6	5.12	122.97	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BA	2002	G	C4-C5-C6	-5.12	115.73	118.80
23	DA	802	A	C4-N9-C1'	5.12	135.51	126.30
23	DA	1788	C	C2-N3-C4	-5.12	117.34	119.90
23	BA	979	G	N3-C2-N2	-5.12	116.32	119.90
1	CA	1482	G	N9-C4-C5	-5.12	103.35	105.40
23	DA	1235	G	C8-N9-C1'	-5.12	120.35	127.00
23	DA	2627	G	C4-C5-N7	5.12	112.85	110.80
23	BA	378	C	N1-C2-O2	-5.11	115.83	118.90
23	BA	387	U	N1-C2-N3	5.11	117.97	114.90
23	BA	687	C	N1-C2-O2	-5.11	115.83	118.90
23	BA	1902	C	N3-C2-O2	-5.11	118.32	121.90
23	BA	2433	A	C6-N1-C2	-5.11	115.53	118.60
23	DA	97	C	C5-C6-N1	-5.11	118.44	121.00
23	DA	150	C	N3-C4-C5	5.11	123.94	121.90
23	DA	773	U	N1-C2-N3	5.11	117.97	114.90
23	DA	2054	A	C6-C5-N7	-5.11	128.72	132.30
23	DA	2681	C	C4-C5-C6	5.11	119.96	117.40
1	AA	1053	G	N1-C2-N3	-5.11	120.83	123.90
23	BA	338	G	N3-C4-N9	5.11	129.07	126.00
23	BA	572	A	C5-C6-N6	-5.11	119.61	123.70
23	BA	1224	C	N3-C2-O2	5.11	125.48	121.90
23	BA	2041	U	C2-N3-C4	-5.11	123.93	127.00
23	BA	2432	A	C4-C5-C6	5.11	119.56	117.00
23	BA	2574	G	C6-N1-C2	-5.11	122.03	125.10
23	DA	336	C	C4-C5-C6	5.11	119.96	117.40
23	DA	2392	A	C2-N3-C4	-5.11	108.05	110.60
23	DA	2600	A	C8-N9-C4	5.11	107.84	105.80
23	BA	1309	G	C6-C5-N7	-5.11	127.33	130.40
23	BA	1612	C	N1-C2-O2	-5.11	115.83	118.90
23	BA	1980	G	C5-C6-N1	5.11	114.06	111.50
1	CA	583	A	N1-C6-N6	5.11	121.67	118.60
1	CA	898	G	C8-N9-C4	5.11	108.44	106.40
23	BA	1138	G	C8-N9-C1'	-5.11	120.36	127.00
23	BA	1627	G	C6-C5-N7	-5.11	127.33	130.40
23	BA	2056	G	C5-N7-C8	-5.11	101.75	104.30
23	BA	2581	G	N3-C4-N9	-5.11	122.94	126.00
23	DA	428	A	N1-C2-N3	5.11	131.85	129.30
23	DA	768	G	C5-N7-C8	5.11	106.85	104.30
23	DA	1603	A	N1-C2-N3	5.11	131.85	129.30
23	DA	2681	C	C6-N1-C2	5.11	122.34	120.30
23	BA	559	G	C8-N9-C4	5.11	108.44	106.40
23	BA	760	G	N9-C4-C5	-5.11	103.36	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BA	1778	U	C5-C6-N1	-5.11	120.15	122.70
23	BA	1962	C	C2-N3-C4	5.11	122.45	119.90
23	DA	1710	C	C6-N1-C2	5.11	122.34	120.30
23	DA	1899	G	C5-C6-N1	-5.11	108.95	111.50
23	DA	1960	A	N7-C8-N9	-5.11	111.25	113.80
23	DA	2036	C	N3-C4-N4	5.11	121.57	118.00
23	BA	1325	G	C6-C5-N7	5.10	133.46	130.40
23	BA	1941	C	C6-N1-C2	5.10	122.34	120.30
23	DA	845	G	C6-C5-N7	-5.10	127.34	130.40
23	BA	970	C	C5-C4-N4	-5.10	116.63	120.20
23	BA	987	G	N3-C2-N2	-5.10	116.33	119.90
23	DA	2048	G	C5-C6-N1	5.10	114.05	111.50
23	DA	2539	C	C5-C6-N1	-5.10	118.45	121.00
23	DA	2673	G	C6-C5-N7	-5.10	127.34	130.40
1	AA	895	G	C8-N9-C4	5.10	108.44	106.40
23	DA	207	A	C6-N1-C2	-5.10	115.54	118.60
23	BA	1253	A	C5-C6-N1	5.10	120.25	117.70
23	DA	65	C	N3-C2-O2	5.10	125.47	121.90
23	DA	120	U	C6-N1-C2	5.10	124.06	121.00
23	DA	203	C	C5-C6-N1	-5.10	118.45	121.00
23	DA	1611	C	C5-C4-N4	-5.10	116.63	120.20
23	DA	2086	U	N3-C2-O2	-5.10	118.63	122.20
23	DA	2232	U	C2-N1-C1'	-5.10	111.58	117.70
23	BA	1942	C	C6-N1-C2	-5.10	118.26	120.30
23	DA	190	A	C6-N1-C2	-5.10	115.54	118.60
23	DA	332	A	N9-C4-C5	5.10	107.84	105.80
23	DA	452	G	C5-C6-O6	-5.10	125.54	128.60
23	DA	746	A	N9-C4-C5	5.10	107.84	105.80
23	DA	2742	C	C6-N1-C2	5.10	122.34	120.30
23	BA	1444	G	C8-N9-C4	5.10	108.44	106.40
23	DA	655	A	N7-C8-N9	5.10	116.35	113.80
23	BA	1776	G	N1-C2-N2	-5.09	111.61	116.20
23	DA	1341	U	C2-N3-C4	5.09	130.06	127.00
23	DA	98	G	C4-C5-N7	5.09	112.84	110.80
23	DA	2580	U	C6-N1-C1'	5.09	128.33	121.20
23	BA	2032	G	C4-C5-C6	-5.09	115.75	118.80
23	BA	2841	C	N3-C4-C5	5.09	123.94	121.90
23	DA	140	A	C6-C5-N7	-5.09	128.74	132.30
23	DA	465	G	C6-C5-N7	-5.09	127.34	130.40
23	DA	640	C	N3-C4-C5	5.09	123.94	121.90
23	BA	1342	A	C5-N7-C8	-5.09	101.36	103.90
23	BA	1551	C	C6-N1-C2	-5.09	118.26	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BA	1573	G	N7-C8-N9	-5.09	110.56	113.10
23	BA	2061	G	C6-C5-N7	-5.09	127.35	130.40
23	DA	211	A	C8-N9-C4	5.09	107.83	105.80
23	DA	595	C	C2-N3-C4	-5.09	117.36	119.90
23	DA	1817	G	C2-N3-C4	-5.09	109.36	111.90
23	BA	387	U	N1-C2-O2	-5.09	119.24	122.80
23	BA	2714	G	C4-N9-C1'	5.09	133.11	126.50
23	DA	135	G	N1-C6-O6	5.09	122.95	119.90
23	DA	677	A	N7-C8-N9	-5.09	111.26	113.80
23	DA	784	A	C4-N9-C1'	-5.09	117.14	126.30
23	DA	2006	C	C4-C5-C6	5.09	119.94	117.40
23	DA	2462	U	C5-C4-O4	-5.09	122.85	125.90
23	DA	294	A	N9-C4-C5	-5.08	103.77	105.80
23	DA	795	C	C6-N1-C2	5.08	122.33	120.30
23	BA	566	U	C2-N3-C4	-5.08	123.95	127.00
23	BA	848	G	N9-C4-C5	-5.08	103.37	105.40
23	BA	114(B)	A	C4-N9-C1'	5.08	135.45	126.30
23	DA	847	U	N1-C2-N3	5.08	117.95	114.90
23	DA	2619	C	N3-C2-O2	5.08	125.46	121.90
23	BA	565	C	N3-C4-C5	-5.08	119.87	121.90
23	BA	677	A	N3-C4-C5	5.08	130.36	126.80
23	DA	458	G	N3-C2-N2	5.08	123.46	119.90
23	DA	566	U	C5-C6-N1	-5.08	120.16	122.70
23	BA	2489	G	C2-N3-C4	-5.08	109.36	111.90
23	DA	98	G	C6-C5-N7	-5.08	127.35	130.40
23	DA	1904	G	N1-C6-O6	-5.08	116.85	119.90
23	DA	2497	A	N3-C4-C5	5.08	130.35	126.80
25	DC	215	LEU	CA-CB-CG	-5.08	103.62	115.30
23	BA	1137	G	N1-C6-O6	5.08	122.95	119.90
23	BA	1662	C	C5-C6-N1	-5.08	118.46	121.00
23	BA	1803	A	C8-N9-C4	5.08	107.83	105.80
23	DA	1672	C	N3-C4-N4	5.08	121.55	118.00
23	DA	2724	C	C2-N3-C4	-5.08	117.36	119.90
23	BA	640	C	C2-N3-C4	-5.08	117.36	119.90
23	DA	532	A	C5-N7-C8	5.08	106.44	103.90
23	DA	789	A	N1-C6-N6	5.08	121.64	118.60
23	DA	1378	A	N9-C4-C5	5.08	107.83	105.80
23	DA	1571	A	C8-N9-C4	5.08	107.83	105.80
23	DA	2238	G	C6-C5-N7	-5.08	127.36	130.40
23	BA	2279	G	N3-C4-C5	-5.07	126.06	128.60
1	CA	907	A	C8-N9-C4	-5.07	103.77	105.80
23	DA	1825	A	C5-C6-N1	5.07	120.24	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	867	C	N3-C4-C5	-5.07	119.87	121.90
23	BA	582	G	C8-N9-C4	5.07	108.43	106.40
23	BA	738	G	N1-C6-O6	5.07	122.94	119.90
23	BA	2544	G	C5-N7-C8	-5.07	101.77	104.30
23	DA	240	G	C4-C5-N7	-5.07	108.77	110.80
23	DA	509	C	C5-C6-N1	-5.07	118.47	121.00
23	DA	1592	C	C5-C6-N1	-5.07	118.46	121.00
23	DA	2698	U	C4-C5-C6	5.07	122.74	119.70
34	DL	50	ARG	NE-CZ-NH2	-5.07	117.77	120.30
1	AA	560	U	C2-N1-C1'	5.07	123.78	117.70
23	BA	2004	G	C2-N3-C4	-5.07	109.37	111.90
23	BA	2697	G	C2-N3-C4	-5.07	109.37	111.90
23	DA	1128	A	C5-C6-N1	5.07	120.23	117.70
23	DA	1128	A	C2-N3-C4	5.07	113.13	110.60
23	DA	2715	C	C6-N1-C2	5.07	122.33	120.30
23	BA	844	C	C5-C6-N1	-5.07	118.47	121.00
23	BA	1332	G	C6-C5-N7	5.07	133.44	130.40
23	BA	2432	A	C2-N3-C4	-5.07	108.07	110.60
23	DA	366(B)	C	N1-C2-O2	-5.07	115.86	118.90
23	DA	748	G	N7-C8-N9	-5.07	110.57	113.10
23	DA	1024	G	C8-N9-C1'	-5.07	120.42	127.00
23	DA	797	C	C4-C5-C6	5.06	119.93	117.40
23	DA	1286	A	C5-C6-N6	5.06	127.75	123.70
23	BA	2028	U	N1-C2-N3	5.06	117.94	114.90
23	BA	2346	A	C8-N9-C4	-5.06	103.78	105.80
23	DA	500	G	C8-N9-C4	5.06	108.42	106.40
23	DA	582	G	N1-C2-N3	5.06	126.94	123.90
23	DA	1225	G	N3-C2-N2	5.06	123.44	119.90
23	DA	1825	A	N1-C2-N3	5.06	131.83	129.30
23	DA	2435	A	C5-N7-C8	-5.06	101.37	103.90
23	BA	189	G	C8-N9-C1'	-5.06	120.42	127.00
23	BA	2035	G	C6-C5-N7	5.06	133.44	130.40
23	BA	2084	C	N3-C4-C5	5.06	123.92	121.90
40	BR	18	LEU	CA-CB-CG	5.06	126.94	115.30
23	DA	771	G	C5-C6-O6	-5.06	125.56	128.60
23	DA	2087	G	N1-C6-O6	5.06	122.94	119.90
1	AA	901	A	C5-N7-C8	-5.06	101.37	103.90
23	BA	1998	G	C8-N9-C4	5.06	108.42	106.40
23	DA	201	C	C5-C6-N1	-5.06	118.47	121.00
23	DA	600	G	C8-N9-C4	5.06	108.42	106.40
23	DA	956	G	C2-N3-C4	-5.06	109.37	111.90
23	DA	1631	A	N1-C2-N3	5.06	131.83	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	2233	U	N1-C2-O2	-5.06	119.26	122.80
1	AA	1529	G	C4-N9-C1'	5.06	133.07	126.50
23	DA	2876	G	N9-C4-C5	-5.06	103.38	105.40
1	AA	819	A	N1-C6-N6	5.05	121.63	118.60
23	BA	120	U	C6-N1-C2	5.05	124.03	121.00
23	BA	1807	G	N1-C6-O6	-5.05	116.87	119.90
23	BA	2698	U	C5-C4-O4	5.05	128.93	125.90
23	DA	263	C	N3-C4-C5	5.05	123.92	121.90
23	DA	2026	C	N1-C2-O2	-5.05	115.87	118.90
23	BA	70	G	N3-C4-C5	-5.05	126.07	128.60
23	BA	1240	U	N3-C4-C5	-5.05	111.57	114.60
23	BA	2056	G	C5-C6-O6	-5.05	125.57	128.60
23	BA	2391	G	N9-C4-C5	5.05	107.42	105.40
1	AA	1512	U	C4-C5-C6	5.05	122.73	119.70
23	BA	761	A	N3-C4-N9	5.05	131.44	127.40
23	BA	1634	A	N9-C4-C5	5.05	107.82	105.80
23	DA	771	G	C4-C5-N7	5.05	112.82	110.80
23	BA	374	A	C8-N9-C4	5.05	107.82	105.80
23	BA	2059	A	N7-C8-N9	-5.05	111.28	113.80
23	BA	2346	A	N7-C8-N9	5.05	116.33	113.80
23	DA	1686	C	N1-C2-O2	-5.05	115.87	118.90
23	DA	1496	A	C6-C5-N7	-5.05	128.77	132.30
23	DA	1677	A	N9-C4-C5	5.05	107.82	105.80
23	DA	1951	U	C5-C6-N1	-5.05	120.18	122.70
23	BA	334	C	C3'-C2'-C1'	5.05	105.54	101.50
23	BA	675	A	C5-N7-C8	-5.05	101.38	103.90
23	BA	681	G	C8-N9-C1'	-5.05	120.44	127.00
23	BA	807	U	N3-C4-O4	-5.05	115.87	119.40
23	BA	1649	G	C2-N3-C4	-5.05	109.38	111.90
23	DA	1634	A	C8-N9-C4	5.05	107.82	105.80
23	DA	1687	G	C5-C6-N1	-5.05	108.98	111.50
23	BA	2426	A	C5-N7-C8	-5.04	101.38	103.90
23	BA	2518	A	C2-N3-C4	-5.04	108.08	110.60
23	BA	2777	G	N7-C8-N9	-5.04	110.58	113.10
23	DA	1658	C	C6-N1-C1'	-5.04	114.75	120.80
23	DA	2497	A	N3-C4-N9	-5.04	123.36	127.40
1	AA	1530	G	N1-C6-O6	5.04	122.93	119.90
1	CA	691	G	C6-C5-N7	-5.04	127.37	130.40
23	DA	334	C	C3'-C2'-C1'	5.04	105.53	101.50
23	DA	1368	G	N1-C6-O6	-5.04	116.87	119.90
23	BA	1210	A	C5-C6-N1	-5.04	115.18	117.70
23	BA	1903	G	C8-N9-C4	5.04	108.42	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BA	2580	U	N1-C2-N3	5.04	117.92	114.90
1	CA	720	C	C2-N1-C1'	5.04	124.35	118.80
23	DA	389	G	C8-N9-C4	5.04	108.42	106.40
1	AA	810	C	C4-C5-C6	5.04	119.92	117.40
23	BA	19	C	C2-N3-C4	-5.04	117.38	119.90
23	BA	1198	U	N1-C2-N3	5.04	117.92	114.90
23	DA	337	C	C2-N1-C1'	-5.04	113.26	118.80
23	DA	441	U	C6-N1-C2	5.04	124.02	121.00
23	DA	2572	A	N1-C6-N6	5.04	121.62	118.60
23	DA	2448	A	C2-N3-C4	-5.04	108.08	110.60
23	BA	543	C	C5-C6-N1	-5.04	118.48	121.00
23	BA	1155	A	C8-N9-C4	-5.04	103.79	105.80
23	DA	1203	G	C4-C5-N7	-5.04	108.79	110.80
23	DA	1351	C	C6-N1-C2	5.04	122.31	120.30
23	DA	1633	G	C5-C6-N1	-5.04	108.98	111.50
23	DA	1644	C	C2-N1-C1'	5.04	124.34	118.80
23	DA	2323	G	C8-N9-C4	5.04	108.41	106.40
23	DA	2327	A	N1-C6-N6	5.04	121.62	118.60
1	AA	1097	C	C6-N1-C2	-5.03	118.29	120.30
23	DA	681	G	N3-C4-N9	5.03	129.02	126.00
23	DA	1122	G	C4-N9-C1'	-5.03	119.96	126.50
1	AA	575	G	N1-C6-O6	-5.03	116.88	119.90
23	BA	784	A	C4-N9-C1'	-5.03	117.24	126.30
23	BA	2538	C	C5-C6-N1	-5.03	118.48	121.00
23	DA	686	G	N1-C6-O6	5.03	122.92	119.90
23	BA	1899	G	C8-N9-C1'	5.03	133.54	127.00
23	BA	2327	A	C8-N9-C4	5.03	107.81	105.80
23	BA	2839	G	C5-C6-O6	-5.03	125.58	128.60
23	DA	31	C	N3-C4-C5	5.03	123.91	121.90
23	DA	202	U	C5-C4-O4	-5.03	122.88	125.90
23	DA	1022	G	N1-C2-N3	5.03	126.92	123.90
23	DA	2490	G	N9-C4-C5	-5.03	103.39	105.40
23	DA	1653	G	C8-N9-C1'	-5.03	120.46	127.00
23	BA	1558	A	C5-C6-N1	-5.03	115.19	117.70
23	BA	1971	A	C4-C5-N7	5.03	113.21	110.70
23	DA	809	G	N1-C2-N3	5.03	126.92	123.90
23	DA	1365	A	C5-N7-C8	-5.03	101.39	103.90
23	DA	1499	C	C2-N1-C1'	-5.03	113.27	118.80
23	DA	2731	G	C5-C6-N1	5.03	114.01	111.50
23	BA	2440	C	C2-N1-C1'	-5.03	113.27	118.80
23	BA	2597	G	C2-N3-C4	-5.03	109.39	111.90
23	DA	1661	G	C5-C6-N1	5.03	114.01	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BA	835	A	C5-N7-C8	5.02	106.41	103.90
23	DA	855	G	C8-N9-C4	-5.02	104.39	106.40
23	DA	1299	G	C8-N9-C4	5.02	108.41	106.40
23	BA	834	C	N3-C4-N4	-5.02	114.48	118.00
1	CA	552	U	N3-C4-O4	-5.02	115.89	119.40
23	DA	671	C	N3-C4-N4	5.02	121.52	118.00
23	DA	1022	G	C4-C5-N7	-5.02	108.79	110.80
23	BA	802	A	C4-N9-C1'	5.02	135.34	126.30
23	DA	450	G	N3-C4-C5	-5.02	126.09	128.60
23	DA	727	A	C8-N9-C4	-5.02	103.79	105.80
23	DA	2333	A	C8-N9-C4	5.02	107.81	105.80
23	BA	2766	G	C4-N9-C1'	5.02	133.03	126.50
23	DA	473	G	C8-N9-C4	5.02	108.41	106.40
23	DA	1493	C	C6-N1-C1'	-5.02	114.78	120.80
23	DA	1792	G	C8-N9-C4	-5.02	104.39	106.40
23	BA	1270	C	C6-N1-C1'	5.02	126.82	120.80
23	DA	1375	C	C5-C4-N4	-5.02	116.69	120.20
23	BA	789	A	N9-C4-C5	-5.01	103.79	105.80
23	BA	2064	C	C6-N1-C2	-5.01	118.29	120.30
23	BA	2555	U	C2-N1-C1'	-5.01	111.68	117.70
23	DA	803	U	N1-C2-N3	5.01	117.91	114.90
23	DA	968	G	N9-C4-C5	-5.01	103.39	105.40
23	DA	1185	C	N3-C4-C5	5.01	123.91	121.90
23	BA	2448	A	C2-N3-C4	-5.01	108.09	110.60
23	DA	2330	G	N7-C8-N9	-5.01	110.59	113.10
1	AA	917	G	C4-N9-C1'	5.01	133.01	126.50
23	BA	964	C	N3-C4-C5	5.01	123.91	121.90
23	BA	1325	G	N3-C4-N9	-5.01	122.99	126.00
23	BA	1948	G	N3-C4-C5	-5.01	126.09	128.60
23	BA	2443	C	N1-C2-O2	5.01	121.91	118.90
23	BA	2596	U	C6-N1-C2	5.01	124.01	121.00
23	DA	530	G	C5-C6-O6	5.01	131.61	128.60
23	BA	815	C	N3-C4-C5	5.01	123.90	121.90
23	BA	2056	G	C6-N1-C2	-5.01	122.09	125.10
23	BA	2498	C	N1-C2-O2	-5.01	115.89	118.90
23	DA	728	G	N1-C2-N3	5.01	126.91	123.90
23	DA	1652	A	C5-C6-N6	-5.01	119.69	123.70
23	DA	2374	C	C5-C6-N1	-5.01	118.50	121.00
23	BA	1310	G	C5-C6-O6	-5.01	125.59	128.60
23	BA	1330	C	C4-C5-C6	-5.01	114.90	117.40
23	BA	1188	U	C6-N1-C2	-5.01	118.00	121.00
1	CA	18	C	C6-N1-C2	-5.01	118.30	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	DA	1397	U	N1-C2-O2	5.01	126.30	122.80
23	DA	1429	G	N1-C2-N3	5.01	126.90	123.90
23	DA	1677	A	C8-N9-C4	-5.01	103.80	105.80
23	DA	1928	A	C8-N9-C4	5.01	107.80	105.80
23	DA	2447	G	N1-C2-N3	5.01	126.90	123.90
23	BA	62	C	C6-N1-C2	5.00	122.30	120.30
23	BA	2252	G	C8-N9-C4	5.00	108.40	106.40
23	DA	961	C	N3-C2-O2	-5.00	118.40	121.90
23	BA	1632	A	N1-C6-N6	5.00	121.60	118.60
23	DA	337	C	C6-N1-C2	5.00	122.30	120.30
23	DA	2831	G	N3-C4-N9	-5.00	123.00	126.00
23	BA	1677	A	C2-N3-C4	-5.00	108.10	110.60

There are no chirality outliers.

All (21) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
27	BE	47	GLY	Peptide
34	BL	29	LYS	Peptide
34	BL	37	GLY	Peptide
34	BL	39	LYS	Peptide
34	BL	52	GLU	Peptide
34	BL	9	ASN	Peptide
35	BM	7	MET	Peptide
36	BN	11	ASN	Peptide
39	BQ	33	ARG	Peptide
39	BQ	91	ASP	Peptide
25	DC	237	GLU	Peptide
27	DE	47	GLY	Peptide
34	DL	29	LYS	Peptide
34	DL	37	GLY	Peptide
34	DL	39	LYS	Peptide
34	DL	52	GLU	Peptide
34	DL	9	ASN	Peptide
35	DM	7	MET	Peptide
36	DN	11	ASN	Peptide
39	DQ	33	ARG	Peptide
39	DQ	91	ASP	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	32372	0	16339	1680	0
1	CA	32372	0	16339	1784	0
2	AB	1901	0	1951	173	0
2	CB	1901	0	1951	180	0
3	AC	1613	0	1677	180	0
3	CC	1613	0	1677	186	0
4	AD	1703	0	1764	192	0
4	CD	1703	0	1764	182	1
5	AE	1156	0	1213	141	0
5	CE	1156	0	1213	141	0
6	AF	843	0	857	96	1
6	CF	843	0	857	93	0
7	AG	1257	0	1296	95	0
7	CG	1257	0	1296	92	0
8	AH	1116	0	1177	133	0
8	CH	1116	0	1177	140	0
9	AI	1011	0	1043	100	0
9	CI	1011	0	1043	112	0
10	AJ	795	0	840	93	0
10	CJ	795	0	840	92	0
11	AK	885	0	904	76	0
11	CK	885	0	904	72	0
12	AL	971	0	1057	126	0
12	CL	971	0	1057	139	0
13	AM	929	0	987	83	0
13	CM	929	0	987	83	0
14	AN	492	0	530	49	0
14	CN	492	0	532	61	0
15	AO	734	0	771	66	0
15	CO	734	0	771	60	0
16	AP	701	0	720	96	0
16	CP	701	0	720	90	0
17	AQ	824	0	893	66	0
17	CQ	824	0	893	77	0
18	AR	574	0	644	70	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
18	CR	574	0	644	70	0
19	AS	630	0	652	70	0
19	CS	630	0	652	60	0
20	AT	762	0	859	64	0
20	CT	762	0	859	70	0
21	AU	209	0	221	16	0
21	CU	209	0	221	17	0
22	AV	719	0	366	58	0
22	CV	719	0	366	57	0
23	BA	59440	0	29964	2618	0
23	DA	59442	0	29965	2593	0
24	BB	2551	0	1295	147	0
24	DB	2551	0	1295	148	0
25	BC	2105	0	2182	353	0
25	DC	2105	0	2182	347	0
26	BD	1564	0	1629	224	0
26	DD	1564	0	1629	224	0
27	BE	1587	0	1632	147	0
27	DE	1587	0	1632	155	0
28	BF	1475	0	1537	155	0
28	DF	1475	0	1537	150	0
29	BG	1223	0	1282	114	0
29	DG	1223	0	1282	121	0
30	BH	1133	0	1220	131	0
30	DH	1133	0	1220	133	0
31	BI	254	0	275	8	0
31	DI	254	0	275	8	0
32	BJ	1097	0	1168	170	0
32	DJ	1097	0	1168	158	0
33	BK	932	0	994	97	0
33	DK	932	0	994	100	0
34	BL	1114	0	1187	270	0
34	DL	1114	0	1187	279	0
35	BM	1079	0	1127	170	0
35	DM	1079	0	1127	172	0
36	BN	960	0	1021	153	0
36	DN	960	0	1021	142	0
37	BO	771	0	832	95	0
37	DO	771	0	832	100	0
38	BP	1144	0	1211	129	0
38	DP	1144	0	1211	132	0
39	BQ	953	0	1013	150	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
39	DQ	953	0	1013	155	0
40	BR	779	0	852	131	0
40	DR	779	0	852	128	0
41	BS	891	0	951	106	0
41	DS	891	0	951	110	0
42	BT	726	0	778	88	0
42	DT	726	0	778	92	0
43	BU	776	0	870	138	0
43	DU	776	0	870	139	0
44	BV	1492	0	1513	174	0
44	DV	1492	0	1513	171	0
45	BW	605	0	628	71	0
45	DW	605	0	628	63	0
46	BX	695	0	764	112	0
46	DX	695	0	764	106	0
47	BY	521	0	575	81	0
47	DY	521	0	575	81	0
48	BZ	468	0	523	46	0
48	DZ	468	0	523	46	0
49	B1	226	0	225	23	0
49	D1	226	0	225	24	0
50	B2	405	0	420	61	0
50	D2	405	0	420	64	0
51	B3	381	0	391	25	0
51	D3	381	0	391	26	0
52	B4	419	0	467	50	0
52	D4	419	0	467	48	0
53	B5	508	0	576	111	0
53	D5	508	0	576	110	0
54	AA	163	0	0	0	0
54	AD	1	0	0	0	0
54	AV	4	0	0	0	0
54	B2	1	0	0	0	0
54	BA	408	0	0	0	0
54	BB	17	0	0	0	0
54	BK	1	0	0	0	0
54	CA	140	0	0	0	0
54	CP	1	0	0	0	0
54	CV	1	0	0	0	0
54	D2	1	0	0	0	0
54	D4	1	0	0	0	0
54	DA	436	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
54	DB	17	0	0	0	0
54	DE	1	0	0	0	0
54	DG	1	0	0	0	0
55	AD	1	0	0	0	0
55	AN	1	0	0	0	0
55	CD	1	0	0	0	0
55	CN	1	0	0	0	0
All	All	282142	0	191729	18333	1

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 39.

All (18333) close contacts within the same asymmetric unit are listed below.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DL:59:LEU:HA	34:DL:61:ARG:NE	1.55	1.20
34:DL:57:THR:HG23	34:DL:59:LEU:HD22	1.22	1.20
35:BM:81:VAL:O	35:BM:82:ARG:HG2	1.39	1.19
34:BL:57:THR:HG23	34:BL:59:LEU:HD22	1.21	1.19
52:D4:8:ASN:C	52:D4:8:ASN:HD22	1.42	1.18
47:BY:2:LYS:H	47:BY:2:LYS:HE2	1.08	1.16
23:BA:2389:G:H5''	23:BA:2390:U:H5'	1.19	1.16
43:BU:7:VAL:HG12	43:BU:8:LYS:HG3	1.25	1.16
47:DY:2:LYS:HE2	47:DY:2:LYS:H	1.02	1.15
34:DL:114:ILE:HD12	34:DL:114:ILE:H	1.11	1.15
1:AA:1123:A:H4'	10:AJ:36:GLY:HA3	1.30	1.14
52:B4:8:ASN:C	52:B4:8:ASN:HD22	1.46	1.14
23:DA:2015:A:H1'	50:D2:2:ALA:HA	1.30	1.14
23:DA:2439:A:H5'	23:DA:2439:A:C8	1.83	1.13
34:BL:59:LEU:HA	34:BL:61:ARG:NE	1.63	1.13
26:BD:201:THR:HG22	26:BD:202:LYS:H	1.08	1.12
23:BA:2015:A:H1'	50:B2:2:ALA:HA	1.28	1.12
47:DY:2:LYS:N	47:DY:2:LYS:HE2	1.63	1.12
35:DM:81:VAL:O	35:DM:82:ARG:HG2	1.49	1.11
26:DD:101:ARG:HD3	26:DD:169:ASN:HD21	1.13	1.11
36:DN:12:ARG:HG2	36:DN:16:HIS:CD2	1.84	1.11
47:BY:2:LYS:HE2	47:BY:2:LYS:N	1.65	1.11
23:BA:1174:A:H3'	23:BA:1175:U:H5''	1.24	1.11
23:BA:2781:A:H5''	23:BA:2782:G:H5'	1.11	1.11
23:DA:1541:U:H3'	23:DA:1542:G:H3'	1.13	1.11
10:AJ:48:THR:HA	10:AJ:62:HIS:HB3	1.32	1.11
45:BW:23:VAL:HA	45:BW:38:VAL:HG22	1.26	1.11
45:DW:23:VAL:HA	45:DW:38:VAL:HG22	1.28	1.11

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:1541:U:H3'	23:BA:1542:G:H3'	1.13	1.10
25:BC:155:LEU:HD23	25:BC:177:LEU:HD21	1.32	1.10
7:CG:113:GLU:HB2	7:CG:119:ARG:HG2	1.32	1.10
43:DU:7:VAL:HG12	43:DU:8:LYS:HG3	1.20	1.10
23:BA:2272:U:H6	23:BA:2272:U:H5''	1.16	1.10
23:DA:1174:A:H3'	23:DA:1175:U:H5''	1.24	1.09
38:DP:51:ARG:HG3	38:DP:51:ARG:HH11	1.08	1.09
28:DF:60:LEU:HD11	28:DF:92:VAL:HG11	1.33	1.09
2:AB:185:ILE:HG22	2:AB:199:TYR:HB2	1.29	1.09
34:BL:128:HIS:HA	34:BL:147:LEU:HB3	1.14	1.09
23:DA:2781:A:H5''	23:DA:2782:G:H5'	1.15	1.09
23:BA:807:U:OP2	34:BL:39:LYS:HG3	1.52	1.09
1:AA:82:U:H2'	1:AA:85:U:H5	1.18	1.09
34:DL:128:HIS:HA	34:DL:147:LEU:HB3	1.15	1.09
1:CA:1347:G:C8	9:CI:107:ARG:HB3	1.87	1.09
1:AA:979:C:H3'	1:AA:980:C:H5''	1.34	1.09
26:DD:201:THR:HG22	26:DD:202:LYS:H	1.07	1.08
26:BD:101:ARG:HD3	26:BD:169:ASN:HD21	1.16	1.08
23:BA:2439:A:H5'	23:BA:2439:A:C8	1.87	1.08
2:CB:111:ARG:HG2	2:CB:111:ARG:HH11	1.10	1.08
22:AV:6194:C:H2'	22:AV:6195:G:H8	1.14	1.08
28:BF:60:LEU:HD11	28:BF:92:VAL:HG11	1.31	1.08
7:AG:113:GLU:HB2	7:AG:119:ARG:HG2	1.33	1.08
10:CJ:48:THR:HA	10:CJ:62:HIS:HB3	1.32	1.08
1:CA:82:U:H2'	1:CA:85:U:H5	1.18	1.07
34:BL:33:ARG:N	34:BL:36:LYS:HE2	1.70	1.07
36:BN:12:ARG:HG2	36:BN:16:HIS:CD2	1.88	1.07
1:AA:365:U:H5''	1:AA:366:C:OP1	1.52	1.07
5:CE:101:ILE:HD11	5:CE:119:LEU:HD23	1.31	1.07
2:AB:111:ARG:HG2	2:AB:111:ARG:HH11	1.11	1.07
23:BA:2186:G:H2'	23:BA:2187:G:H8	1.17	1.07
25:BC:10:THR:HG23	25:BC:13:ARG:HB3	1.31	1.07
22:CV:6194:C:H2'	22:CV:6195:G:H8	1.16	1.07
38:DP:54:ARG:HG3	38:DP:54:ARG:HH11	1.14	1.07
23:DA:807:U:OP2	34:DL:39:LYS:HG3	1.55	1.06
23:DA:2389:G:H5''	23:DA:2390:U:H5'	1.20	1.06
1:CA:979:C:H3'	1:CA:980:C:H5''	1.32	1.06
5:AE:101:ILE:HD11	5:AE:119:LEU:HD23	1.31	1.06
38:BP:51:ARG:HG3	38:BP:51:ARG:HH11	1.15	1.06
1:AA:955:U:H1'	1:AA:1227:A:H61	1.18	1.06
1:CA:365:U:H5''	1:CA:366:C:OP1	1.56	1.06
27:BE:67:GLN:O	27:BE:67:GLN:HG3	1.56	1.06

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DE:67:GLN:O	27:DE:67:GLN:HG3	1.54	1.06
53:B5:30:ARG:O	53:B5:31:HIS:HB3	1.52	1.06
34:BL:114:ILE:HD12	34:BL:114:ILE:H	1.17	1.05
34:DL:62:LEU:HD22	34:DL:62:LEU:H	1.19	1.05
23:BA:2502:G:H5'	23:BA:2503:A:H5''	1.36	1.05
42:DT:63:LYS:HD2	42:DT:72:LYS:HA	1.05	1.05
38:BP:54:ARG:HG3	38:BP:54:ARG:HH11	1.15	1.05
37:BO:11:LYS:HG2	37:BO:12:PHE:H	1.18	1.05
34:DL:33:ARG:H	34:DL:36:LYS:HE2	1.21	1.05
2:CB:185:ILE:HG22	2:CB:199:TYR:HB2	1.30	1.05
26:DD:201:THR:O	26:DD:202:LYS:HD3	1.57	1.04
23:DA:2272:U:H6	23:DA:2272:U:H5''	1.20	1.04
32:BJ:157:ARG:H	32:BJ:158:PRO:HD3	1.18	1.04
23:DA:1899:G:H22	23:DA:1902:C:N4	1.54	1.04
23:DA:2186:G:H2'	23:DA:2187:G:H8	1.18	1.04
1:CA:1123:A:H4'	10:CJ:36:GLY:HA3	1.37	1.04
23:BA:1899:G:H22	23:BA:1902:C:N4	1.56	1.04
23:DA:2502:G:H5'	23:DA:2503:A:H5''	1.34	1.03
25:DC:10:THR:HG23	25:DC:13:ARG:HB3	1.36	1.03
34:DL:33:ARG:HE	34:DL:36:LYS:HD3	1.23	1.02
26:BD:132:HIS:CD2	26:BD:135:HIS:NE2	2.27	1.02
34:BL:64:LYS:O	34:BL:66:GLY:N	1.92	1.02
1:CA:955:U:H1'	1:CA:1227:A:H61	1.19	1.02
34:BL:57:THR:CG2	34:BL:59:LEU:HD22	1.88	1.02
34:BL:62:LEU:HD22	34:BL:62:LEU:H	1.19	1.02
34:DL:33:ARG:N	34:DL:36:LYS:HE2	1.73	1.02
26:BD:201:THR:O	26:BD:202:LYS:HD3	1.59	1.01
23:BA:1021:A:H62	23:BA:1141:U:H3	1.04	1.01
27:BE:164:ARG:HH11	27:BE:164:ARG:HG2	1.23	1.01
23:BA:973:A:OP2	40:BR:78:LYS:NZ	1.91	1.01
34:BL:33:ARG:H	34:BL:36:LYS:HE2	1.22	1.01
29:DG:101:ARG:NE	29:DG:101:ARG:H	1.57	1.01
42:BT:63:LYS:HD2	42:BT:72:LYS:HA	1.05	1.01
29:BG:101:ARG:H	29:BG:101:ARG:NE	1.58	1.01
42:DT:50:LYS:H	42:DT:87:GLN:HE22	1.07	1.01
32:DJ:157:ARG:H	32:DJ:158:PRO:HD3	1.20	1.01
23:DA:1658:C:OP1	26:DD:132:HIS:ND1	1.94	1.01
36:DN:38:VAL:HB	36:DN:39:PRO:HD3	1.42	1.01
23:DA:1264:G:H5'	50:D2:11:THR:HG21	1.42	1.01
41:BS:12:ILE:HD13	41:BS:17:VAL:HG13	1.40	1.01
52:B4:9:ARG:HE	52:B4:48:LYS:HB2	1.24	1.00
23:BA:676:A:H8	23:BA:2069:G:H21	1.06	1.00

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DE:164:ARG:HG2	27:DE:164:ARG:HH11	1.22	1.00
23:BA:603:A:H61	23:BA:655:A:C4'	1.75	1.00
47:DY:14:ARG:HA	47:DY:17:SER:HB2	1.41	1.00
23:BA:919:G:H5'	24:BB:81:G:H1'	1.44	1.00
28:BF:84:LYS:HG3	28:BF:85:GLY:H	1.27	1.00
52:D4:9:ARG:HE	52:D4:48:LYS:HB2	1.22	1.00
23:BA:2579:C:O3'	26:BD:131:ALA:HB2	1.61	1.00
9:CI:13:ALA:HB2	9:CI:68:GLY:HA3	1.44	1.00
39:DQ:88:ILE:HB	39:DQ:90:VAL:HG12	1.42	1.00
34:BL:33:ARG:HE	34:BL:36:LYS:HD3	1.25	0.99
32:BJ:157:ARG:H	32:BJ:158:PRO:CD	1.70	0.99
25:DC:33:LEU:O	25:DC:35:LYS:N	1.93	0.99
35:DM:75:THR:HA	35:DM:88:GLY:HA2	1.43	0.99
32:DJ:157:ARG:H	32:DJ:158:PRO:CD	1.72	0.99
23:BA:1899:G:H22	23:BA:1902:C:H41	1.01	0.99
23:DA:1614:A:H62	41:DS:93:ALA:HB2	1.25	0.99
25:BC:106:ILE:H	25:BC:106:ILE:HD12	1.28	0.99
23:DA:860:U:H5	23:DA:917:A:N7	1.59	0.99
23:BA:1826:G:H4'	25:BC:242:ARG:HE	1.27	0.99
34:DL:40:SER:O	34:DL:41:ARG:HD3	1.62	0.99
32:BJ:154:GLN:HE21	32:BJ:155:ALA:HB3	1.28	0.99
23:BA:810:U:H3	34:BL:36:LYS:HZ3	1.03	0.98
42:BT:50:LYS:H	42:BT:87:GLN:HE22	1.07	0.98
9:AI:13:ALA:HB2	9:AI:68:GLY:HA3	1.44	0.98
32:DJ:154:GLN:HE21	32:DJ:155:ALA:HB3	1.27	0.98
1:AA:673:G:H2'	1:AA:674:G:C8	1.98	0.98
38:DP:24:PRO:HA	38:DP:49:VAL:HG13	1.45	0.98
50:B2:20:ARG:HA	50:B2:23:HIS:HD2	1.25	0.98
28:DF:84:LYS:HG3	28:DF:85:GLY:H	1.24	0.98
23:DA:1021:A:H62	23:DA:1141:U:H3	1.03	0.98
16:CP:4:ILE:HG12	16:CP:21:VAL:HG12	1.45	0.98
3:AC:20:SER:HB2	3:AC:40:ARG:HH12	1.27	0.98
50:D2:20:ARG:HA	50:D2:23:HIS:HD2	1.28	0.98
30:BH:83:ALA:HB2	30:BH:123:LEU:HD12	1.45	0.98
41:DS:12:ILE:HD13	41:DS:17:VAL:HG13	1.44	0.98
23:BA:1544:C:OP1	23:BA:1544:C:H6	1.45	0.98
34:DL:64:LYS:O	34:DL:66:GLY:N	1.94	0.98
40:BR:2:PHE:CE2	40:BR:13:ARG:HD3	1.97	0.98
53:D5:30:ARG:O	53:D5:31:HIS:HB3	1.61	0.98
42:BT:11:PRO:HA	42:BT:28:PHE:HB3	1.43	0.98
39:BQ:88:ILE:HB	39:BQ:90:VAL:HG12	1.45	0.97
4:AD:49:ARG:NH2	4:AD:50:ARG:HB2	1.79	0.97

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:1614:A:H62	41:BS:93:ALA:HB2	1.29	0.97
1:CA:673:G:H2'	1:CA:674:G:C8	1.99	0.97
23:BA:2729:G:H1'	26:BD:187:ALA:HB2	1.47	0.97
26:DD:201:THR:HG22	26:DD:202:LYS:N	1.80	0.97
23:DA:2729:G:H1'	26:DD:187:ALA:HB2	1.44	0.97
34:BL:40:SER:O	34:BL:41:ARG:HD3	1.65	0.97
28:DF:128:ARG:HE	28:DF:129:GLY:H	1.12	0.97
37:DO:11:LYS:HG2	37:DO:12:PHE:H	1.25	0.97
23:BA:1541:U:C3'	23:BA:1542:G:H3'	1.95	0.97
47:BY:14:ARG:HA	47:BY:17:SER:HB2	1.44	0.97
25:BC:87:ASN:HD22	25:BC:87:ASN:H	1.06	0.97
16:AP:4:ILE:HG12	16:AP:21:VAL:HG12	1.43	0.97
25:DC:155:LEU:HD23	25:DC:177:LEU:HD21	1.46	0.97
4:CD:49:ARG:NH2	4:CD:50:ARG:HB2	1.79	0.97
3:CC:20:SER:HB2	3:CC:40:ARG:HH12	1.26	0.97
32:BJ:38:LEU:HD23	32:BJ:157:ARG:HG3	1.46	0.97
23:DA:2579:C:O3'	26:DD:131:ALA:HB2	1.65	0.97
43:BU:29:GLU:HB3	43:BU:38:ILE:HB	1.46	0.97
3:AC:182:ILE:HG12	3:AC:203:PHE:HA	1.45	0.96
23:DA:676:A:H8	23:DA:2069:G:H21	1.11	0.96
23:BA:1658:C:OP1	26:BD:132:HIS:ND1	1.98	0.96
4:AD:104:VAL:HG11	4:AD:146:ILE:HD13	1.45	0.96
42:DT:84:ALA:HB3	42:DT:87:GLN:HE21	1.27	0.96
23:DA:603:A:H61	23:DA:655:A:C4'	1.77	0.96
12:AL:26:LEU:HG	12:AL:32:ARG:HH11	1.28	0.96
4:CD:65:ARG:HG3	4:CD:75:PHE:CD1	1.99	0.96
25:BC:33:LEU:O	25:BC:35:LYS:N	1.98	0.96
23:DA:1541:U:C3'	23:DA:1542:G:H3'	1.93	0.96
23:BA:860:U:H5	23:BA:917:A:N7	1.61	0.96
42:BT:63:LYS:HD2	42:BT:72:LYS:CA	1.96	0.96
32:DJ:38:LEU:HD23	32:DJ:157:ARG:HG3	1.45	0.96
1:CA:392:G:H2'	1:CA:393:A:H8	1.30	0.96
33:BK:119:PRO:HB2	38:BP:68:TYR:CE1	2.01	0.96
23:BA:252:G:OP2	34:BL:50:ARG:NH2	1.98	0.96
4:AD:9:CYS:HB3	4:AD:32:ALA:HB2	1.47	0.96
52:D4:19:ARG:HG3	52:D4:19:ARG:HH11	1.27	0.96
3:CC:182:ILE:HG12	3:CC:203:PHE:HA	1.46	0.96
4:CD:104:VAL:HG11	4:CD:146:ILE:HD13	1.47	0.96
34:BL:62:LEU:HD22	34:BL:62:LEU:N	1.80	0.96
1:AA:1320:C:H42	19:AS:36:ARG:HG3	1.28	0.96
40:DR:2:PHE:CE2	40:DR:13:ARG:HD3	2.01	0.96
35:BM:75:THR:HA	35:BM:88:GLY:CA	1.94	0.96

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:1813:G:H1'	25:DC:50:THR:HG21	1.47	0.96
34:DL:57:THR:CG2	34:DL:59:LEU:HD22	1.94	0.96
35:DM:75:THR:HA	35:DM:88:GLY:CA	1.96	0.95
4:CD:22:LYS:HB2	4:CD:26:CYS:SG	2.05	0.95
23:DA:1541:U:H3'	23:DA:1542:G:C3'	1.95	0.95
47:DY:6:VAL:HG12	47:DY:10:LEU:HD11	1.48	0.95
25:DC:106:ILE:HD12	25:DC:106:ILE:H	1.30	0.95
47:BY:35:LEU:HD12	47:BY:53:LEU:HD12	1.45	0.95
2:CB:174:VAL:O	2:CB:178:ARG:HB2	1.66	0.95
1:AA:691:G:C6	11:AK:52:GLY:HA2	2.02	0.95
42:DT:11:PRO:HA	42:DT:28:PHE:HB3	1.48	0.95
13:CM:52:GLU:HA	13:CM:55:ARG:HB3	1.46	0.95
47:BY:6:VAL:HG12	47:BY:10:LEU:HD11	1.48	0.94
23:BA:1813:G:H1'	25:BC:50:THR:HG21	1.46	0.94
30:DH:83:ALA:HB2	30:DH:123:LEU:HD12	1.47	0.94
20:AT:26:ASN:HB2	20:AT:71:THR:HG23	1.47	0.94
13:AM:52:GLU:HA	13:AM:55:ARG:HB3	1.46	0.94
26:BD:36:ARG:HD3	26:BD:85:ASN:HD21	1.29	0.94
16:AP:28:ARG:HG2	16:AP:28:ARG:HH11	1.30	0.94
25:DC:158:ALA:HB3	25:DC:161:THR:HG21	1.47	0.94
23:BA:1541:U:H3'	23:BA:1542:G:C3'	1.97	0.94
34:BL:114:ILE:HD11	34:BL:127:ALA:HB3	1.48	0.94
1:AA:1097:C:H2'	1:AA:1098:C:H6	1.32	0.94
1:AA:1253:G:H1	1:AA:1284:C:H42	1.14	0.94
23:DA:2712:U:H1'	23:DA:712(B):A:C8	2.00	0.94
4:AD:22:LYS:HB2	4:AD:26:CYS:SG	2.07	0.94
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.02	0.94
23:DA:1544:C:H6	23:DA:1544:C:OP1	1.49	0.94
25:BC:96:HIS:CD2	25:BC:102:LYS:HD3	2.02	0.94
25:BC:31:LYS:O	25:BC:35:LYS:HB2	1.67	0.94
23:BA:197:A:H5'	23:BA:197:A:H8	1.30	0.94
43:DU:14:LEU:HD23	43:DU:15:VAL:N	1.83	0.94
34:DL:62:LEU:N	34:DL:62:LEU:HD22	1.80	0.94
29:DG:101:ARG:HE	29:DG:101:ARG:N	1.66	0.94
40:BR:39:LEU:HD12	40:BR:47:VAL:HG11	1.49	0.94
39:BQ:55:ARG:HA	39:BQ:58:ARG:HD2	1.47	0.94
35:BM:75:THR:HA	35:BM:88:GLY:HA2	1.44	0.94
23:BA:94:G:H21	47:BY:47:ASN:ND2	1.64	0.94
8:CH:121:ASP:O	8:CH:125:ARG:HB2	1.68	0.94
23:DA:973:A:OP2	40:DR:78:LYS:NZ	2.00	0.94
52:D4:8:ASN:C	52:D4:8:ASN:ND2	2.18	0.94
34:DL:38:GLN:HG3	34:DL:39:LYS:H	1.33	0.94

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:172:ARG:O	3:CC:173:VAL:HG23	1.66	0.94
3:CC:173:VAL:O	3:CC:173:VAL:HG12	1.69	0.93
34:DL:114:ILE:HD11	34:DL:127:ALA:HB3	1.49	0.93
23:BA:804:A:H5'	23:BA:805:G:OP1	1.68	0.93
28:DF:38:VAL:HG22	28:DF:93:THR:HG23	1.49	0.93
1:CA:91:C:H2'	1:CA:92:G:H8	1.33	0.93
23:BA:1210:A:H8	23:BA:1210:A:C5'	1.81	0.93
35:BM:74:TYR:HD2	35:BM:91:GLU:HB2	1.29	0.93
35:BM:74:TYR:CD2	35:BM:91:GLU:HB2	2.04	0.93
52:D4:11:LYS:O	52:D4:15:THR:HG23	1.69	0.93
16:CP:28:ARG:HH11	16:CP:28:ARG:HG2	1.34	0.93
20:CT:26:ASN:HB2	20:CT:71:THR:HG23	1.48	0.93
28:DF:5:LEU:HD21	49:D1:50:THR:HG23	1.51	0.93
28:BF:128:ARG:HE	28:BF:129:GLY:H	1.14	0.93
23:BA:1287:A:N7	36:BN:107:ASP:HB3	1.84	0.93
39:DQ:92:ARG:HG2	40:DR:11:GLN:NE2	1.84	0.93
23:BA:2210:G:N2	23:BA:2211:G:H5'	1.84	0.93
39:BQ:92:ARG:HG2	40:BR:11:GLN:NE2	1.81	0.93
23:BA:547:A:H2'	23:BA:548:A:C8	2.03	0.93
4:AD:65:ARG:HG3	4:AD:75:PHE:CD1	2.03	0.93
23:DA:252:G:OP2	34:DL:50:ARG:NH2	2.02	0.93
23:DA:547:A:H2'	23:DA:548:A:C8	2.03	0.93
23:BA:1405:U:H2'	23:BA:1406:U:C6	2.04	0.93
49:D1:59:VAL:HG12	49:D1:60:GLU:H	1.34	0.93
22:AV:6213:A:H2'	22:AV:6214:C:C6	2.04	0.93
2:AB:174:VAL:O	2:AB:178:ARG:HB2	1.69	0.93
26:BD:201:THR:HG22	26:BD:202:LYS:N	1.83	0.93
23:DA:919:G:H5'	24:DB:81:G:H1'	1.49	0.93
2:CB:187:LEU:HA	2:CB:201:ILE:HB	1.51	0.93
42:DT:63:LYS:HD2	42:DT:72:LYS:CA	1.97	0.92
35:DM:74:TYR:HD2	35:DM:91:GLU:HB2	1.35	0.92
1:AA:38:G:N2	1:AA:397:A:H5'	1.84	0.92
23:BA:140:A:H8	23:BA:1408:C:HO2'	0.96	0.92
23:DA:1287:A:N7	36:DN:107:ASP:HB3	1.84	0.92
32:DJ:105:LEU:HD12	32:DJ:106:LYS:H	1.34	0.92
3:CC:134:ILE:HG23	3:CC:151:VAL:HB	1.51	0.92
23:DA:1826:G:H4'	25:DC:242:ARG:HE	1.32	0.92
23:DA:1899:G:H22	23:DA:1902:C:H41	1.05	0.92
29:BG:101:ARG:HE	29:BG:101:ARG:N	1.67	0.92
28:BF:38:VAL:HG22	28:BF:93:THR:HG23	1.51	0.92
23:BA:2439:A:H5'	23:BA:2439:A:H8	1.31	0.92
23:BA:1209:G:H21	23:BA:1210:A:H62	1.15	0.92

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:1170:G:H1	23:DA:1179:C:H42	1.17	0.92
4:AD:108:LEU:HD21	4:AD:183:GLY:HA3	1.52	0.92
8:AH:121:ASP:O	8:AH:125:ARG:HB2	1.70	0.92
44:DV:48:PHE:HA	44:DV:51:ALA:HB3	1.51	0.92
12:CL:26:LEU:HG	12:CL:32:ARG:HH11	1.32	0.92
42:BT:84:ALA:HB3	42:BT:87:GLN:HE21	1.34	0.92
16:AP:19:ILE:HG22	16:AP:36:ILE:HG13	1.51	0.92
23:DA:94:G:H21	47:DY:47:ASN:ND2	1.67	0.92
1:AA:91:C:H2'	1:AA:92:G:H8	1.34	0.92
35:BM:47:ILE:HG22	35:BM:48:GLU:N	1.82	0.92
26:BD:5:LEU:HB2	26:BD:51:PHE:HD2	1.34	0.92
26:DD:132:HIS:CD2	26:DD:135:HIS:NE2	2.37	0.92
29:BG:68:THR:O	29:BG:72:ILE:HG12	1.70	0.92
27:DE:9:ILE:HD11	27:DE:125:LEU:HG	1.48	0.92
23:DA:1021:A:H3'	23:DA:1021:A:H8	1.34	0.92
41:BS:75:TYR:CE2	41:BS:104:THR:HB	2.04	0.92
1:CA:38:G:N2	1:CA:397:A:H5'	1.84	0.92
23:DA:330:A:HO2'	23:DA:331:A:H8	1.16	0.92
23:DA:860:U:O2'	23:DA:861:A:H5'	1.69	0.92
39:BQ:91:ASP:OD1	39:BQ:96:ALA:HB2	1.68	0.92
23:DA:2210:G:N2	23:DA:2211:G:H5'	1.85	0.92
25:DC:31:LYS:O	25:DC:35:LYS:HB2	1.70	0.91
23:BA:1405:U:H2'	23:BA:1406:U:H6	1.30	0.91
23:BA:2219:G:C2'	23:BA:2224:G:H5'	2.01	0.91
23:DA:2068:U:H3	23:DA:2430:A:H2	0.93	0.91
23:BA:1021:A:H3'	23:BA:1021:A:H8	1.32	0.91
39:BQ:83:LEU:HG	39:BQ:88:ILE:HD11	1.50	0.91
23:BA:1170:G:H1	23:BA:1179:C:H42	1.16	0.91
39:BQ:92:ARG:NH2	40:BR:11:GLN:H	1.67	0.91
3:AC:172:ARG:O	3:AC:173:VAL:HG23	1.69	0.91
23:BA:2681:C:H5	23:BA:2725:A:H62	0.96	0.91
3:CC:14:ILE:HG23	3:CC:15:THR:H	1.35	0.91
23:DA:2392:A:H2	23:DA:2424:C:H42	1.17	0.91
23:DA:2267:A:H5''	23:DA:2268:A:H5'	1.51	0.91
23:BA:2219:G:H2'	23:BA:2224:G:H5'	1.49	0.91
23:DA:363(A):G:H2'	23:DA:363(B):A:H8	1.33	0.91
23:DA:1405:U:H2'	23:DA:1406:U:H6	1.32	0.91
23:DA:1405:U:H2'	23:DA:1406:U:C6	2.05	0.91
23:BA:363(A):G:H2'	23:BA:363(B):A:H8	1.34	0.91
23:DA:662:G:OP1	34:DL:18:ARG:HD2	1.71	0.91
47:DY:2:LYS:CE	47:DY:2:LYS:H	1.84	0.91
23:BA:2887:U:H2'	23:BA:2888:C:H6	1.34	0.91

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:33:LEU:HD21	14:CN:53:LEU:HD22	1.52	0.91
23:BA:2068:U:N3	23:BA:2430:A:H2	1.67	0.91
1:AA:392:G:H2'	1:AA:393:A:H8	1.34	0.91
26:DD:101:ARG:HD3	26:DD:169:ASN:ND2	1.85	0.91
45:BW:23:VAL:HA	45:BW:38:VAL:CG2	2.01	0.91
23:DA:197:A:H8	23:DA:197:A:H5'	1.34	0.91
25:BC:158:ALA:HB3	25:BC:161:THR:HG21	1.50	0.91
3:AC:33:LEU:HD21	14:AN:53:LEU:HD22	1.52	0.91
2:AB:71:VAL:HG23	2:AB:164:VAL:HG13	1.52	0.91
34:DL:35:HIS:O	34:DL:36:LYS:HB2	1.69	0.91
40:DR:39:LEU:HD12	40:DR:47:VAL:HG11	1.51	0.91
28:DF:76:SER:HB3	28:DF:82:LEU:HB3	1.52	0.91
1:CA:265:G:H2'	1:CA:266:G:H5''	1.52	0.91
27:BE:167:ALA:HB1	27:BE:173:VAL:HG11	1.52	0.91
27:DE:64:ILE:HD12	27:DE:64:ILE:O	1.71	0.90
42:DT:63:LYS:CD	42:DT:72:LYS:HA	2.00	0.90
40:DR:38:LEU:O	40:DR:39:LEU:HD13	1.71	0.90
6:CF:86:ARG:O	6:CF:87:ARG:HB2	1.71	0.90
23:BA:2272:U:H5''	23:BA:2272:U:C6	2.06	0.90
23:BA:2712:U:H1'	23:BA:712(B):A:C8	2.06	0.90
26:DD:36:ARG:HD3	26:DD:85:ASN:HD21	1.32	0.90
53:D5:33:ASN:HD22	53:D5:34:TRP:H	1.15	0.90
23:BA:2267:A:H5''	23:BA:2268:A:H5'	1.51	0.90
23:BA:141(A):A:H8	23:BA:1595:G:H21	1.18	0.90
1:CA:1201:A:H1'	1:CA:1202:G:OP2	1.71	0.90
4:CD:9:CYS:HB3	4:CD:32:ALA:HB2	1.52	0.90
23:DA:1771:C:HO2'	23:DA:1786:A:H8	0.98	0.90
22:AV:6194:C:H2'	22:AV:6195:G:C8	2.05	0.90
1:CA:38:G:H22	1:CA:397:A:H5'	1.35	0.90
26:DD:49:LEU:HD22	26:DD:49:LEU:H	1.36	0.90
45:DW:23:VAL:HA	45:DW:38:VAL:CG2	2.02	0.90
23:BA:2185:C:H2'	23:BA:2186:G:C8	2.06	0.90
23:DA:1264:G:H5'	50:D2:11:THR:CG2	2.01	0.90
47:DY:35:LEU:HD12	47:DY:53:LEU:HD12	1.51	0.90
39:DQ:55:ARG:HA	39:DQ:58:ARG:HD2	1.52	0.90
49:B1:59:VAL:HG12	49:B1:60:GLU:H	1.34	0.90
23:DA:2185:C:H2'	23:DA:2186:G:C8	2.07	0.90
39:DQ:91:ASP:OD1	39:DQ:96:ALA:HB2	1.72	0.90
5:CE:43:LEU:HD22	5:CE:136:MET:HG3	1.51	0.90
41:BS:4:LYS:HA	41:BS:106:ILE:HG22	1.53	0.90
34:DL:59:LEU:HA	34:DL:61:ARG:CD	2.01	0.90
6:AF:86:ARG:O	6:AF:87:ARG:HB2	1.70	0.90

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:38:G:H22	1:AA:397:A:H5'	1.36	0.90
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.05	0.90
36:DN:10:LEU:HB3	36:DN:17:ARG:NE	1.87	0.90
44:BV:48:PHE:HA	44:BV:51:ALA:HB3	1.52	0.90
25:DC:96:HIS:CD2	25:DC:102:LYS:HD3	2.06	0.90
23:BA:810:U:H3	34:BL:36:LYS:NZ	1.70	0.90
22:CV:6213:A:H2'	22:CV:6214:C:C6	2.06	0.90
22:CV:6194:C:H2'	22:CV:6195:G:C8	2.07	0.90
1:CA:1253:G:H1	1:CA:1284:C:H42	1.15	0.90
1:CA:737:A:H2'	1:CA:738:C:C6	2.07	0.90
5:AE:43:LEU:HD22	5:AE:136:MET:HG3	1.53	0.90
30:DH:56:LYS:HA	30:DH:59:ALA:HB3	1.53	0.90
43:DU:29:GLU:HB3	43:DU:38:ILE:HB	1.53	0.90
23:DA:2887:U:H2'	23:DA:2888:C:H6	1.35	0.90
16:CP:19:ILE:HG22	16:CP:36:ILE:HG13	1.54	0.89
3:AC:134:ILE:HG23	3:AC:151:VAL:HB	1.53	0.89
4:AD:15:GLU:HG2	4:AD:63:LYS:HG3	1.52	0.89
25:BC:231:HIS:HD2	25:BC:249:PRO:HA	1.35	0.89
20:AT:57:ARG:NH1	20:AT:102:GLY:HA2	1.87	0.89
30:BH:56:LYS:HA	30:BH:59:ALA:HB3	1.54	0.89
37:DO:69:VAL:O	37:DO:72:ALA:HB3	1.70	0.89
23:BA:2186:G:H2'	23:BA:2187:G:C8	2.06	0.89
23:BA:1899:G:N2	23:BA:1902:C:H41	1.70	0.89
1:AA:199:G:H1	1:AA:218:C:H42	1.17	0.89
34:BL:57:THR:HG23	34:BL:59:LEU:CD2	2.02	0.89
23:BA:860:U:O2'	23:BA:861:A:H5'	1.72	0.89
2:CB:111:ARG:NH1	2:CB:111:ARG:HG2	1.83	0.89
37:DO:11:LYS:HG2	37:DO:12:PHE:N	1.87	0.89
26:DD:5:LEU:HB2	26:DD:51:PHE:HD2	1.37	0.89
1:CA:1097:C:H2'	1:CA:1098:C:H6	1.35	0.89
12:AL:69:ILE:HG23	12:AL:99:ILE:HG21	1.53	0.89
23:DA:810:U:H3	34:DL:36:LYS:HZ1	1.18	0.89
23:DA:1286:A:O2'	23:DA:1288:U:OP2	1.89	0.89
5:AE:51:VAL:HB	5:AE:52:PRO:HD3	1.53	0.89
24:DB:79:C:H2'	24:DB:80:U:O4'	1.72	0.89
23:DA:2542:A:N3	23:DA:2542:A:H5''	1.87	0.89
1:CA:1070:U:H2'	1:CA:1071:C:H6	1.37	0.89
23:DA:2439:A:C5'	23:DA:2439:A:H8	1.85	0.89
28:BF:76:SER:HB3	28:BF:82:LEU:HB3	1.52	0.89
35:BM:68:ILE:HD13	35:BM:103:MET:HG2	1.55	0.89
44:BV:132:ASN:O	44:BV:134:PRO:HD3	1.71	0.89
11:AK:57:THR:HG22	11:AK:59:TYR:H	1.36	0.89

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BS:9:TYR:H	41:BS:102:HIS:HD2	1.21	0.89
42:BT:35:THR:O	42:BT:39:ILE:HG12	1.73	0.89
23:DA:94:G:H21	47:DY:47:ASN:HD22	1.19	0.89
23:BA:2542:A:H5''	23:BA:2542:A:N3	1.87	0.89
13:CM:10:PRO:HB2	13:CM:18:ALA:HB1	1.55	0.89
39:DQ:92:ARG:NH2	40:DR:11:GLN:H	1.70	0.89
1:AA:386:C:H2'	1:AA:387:U:H5''	1.54	0.89
6:CF:91:VAL:HG12	6:CF:92:LYS:O	1.73	0.89
28:BF:5:LEU:HD21	49:B1:50:THR:HG23	1.52	0.89
8:AH:91:ARG:HH11	8:AH:91:ARG:CG	1.85	0.89
34:DL:114:ILE:HD13	34:DL:130:PHE:CD1	2.08	0.88
1:AA:955:U:H1'	1:AA:1227:A:N6	1.87	0.88
23:BA:94:G:H21	47:BY:47:ASN:HD22	1.17	0.88
2:CB:187:LEU:HD11	2:CB:205:ASP:HB3	1.54	0.88
25:DC:87:ASN:H	25:DC:87:ASN:HD22	1.16	0.88
8:AH:92:ARG:HB3	8:AH:94:TYR:HE2	1.39	0.88
23:BA:1771:C:HO2'	23:BA:1786:A:H8	0.94	0.88
29:DG:68:THR:O	29:DG:72:ILE:HG12	1.71	0.88
23:DA:2439:A:C5'	23:DA:2439:A:C8	2.56	0.88
23:BA:1021:A:C8	23:BA:1021:A:H3'	2.08	0.88
11:CK:57:THR:HG22	11:CK:59:TYR:H	1.35	0.88
23:DA:1437:C:H2'	23:DA:1438:U:H6	1.37	0.88
52:B4:19:ARG:HG3	52:B4:19:ARG:HH11	1.37	0.88
1:AA:1070:U:H2'	1:AA:1071:C:H6	1.38	0.88
41:DS:4:LYS:HA	41:DS:106:ILE:HG22	1.55	0.88
23:DA:2439:A:H5'	23:DA:2439:A:H8	1.34	0.88
25:DC:67:PHE:CE2	25:DC:106:ILE:HD11	2.07	0.88
19:CS:63:THR:HG22	19:CS:66:MET:HG2	1.55	0.88
2:AB:111:ARG:NH1	2:AB:111:ARG:HG2	1.85	0.88
34:DL:33:ARG:HB3	34:DL:36:LYS:HG3	1.54	0.88
23:DA:2186:G:H2'	23:DA:2187:G:C8	2.07	0.88
1:CA:386:C:H2'	1:CA:387:U:H5''	1.55	0.88
48:BZ:40:THR:HG23	48:BZ:43:ILE:HG12	1.52	0.88
7:AG:107:ALA:HB2	7:AG:134:ALA:HB2	1.54	0.88
1:CA:955:U:H1'	1:CA:1227:A:N6	1.87	0.88
4:CD:119:GLN:HG3	4:CD:123:HIS:CD2	2.09	0.88
25:DC:231:HIS:HD2	25:DC:249:PRO:HA	1.37	0.88
1:CA:199:G:H1	1:CA:218:C:H42	1.17	0.88
2:AB:187:LEU:HD11	2:AB:205:ASP:HB3	1.54	0.88
6:AF:7:ASN:HD21	18:AR:34:TYR:HE1	1.21	0.88
53:B5:33:ASN:HD22	53:B5:34:TRP:N	1.71	0.88
35:DM:74:TYR:CD2	35:DM:91:GLU:HB2	2.08	0.88

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:DZ:40:THR:HG23	48:DZ:43:ILE:HG12	1.56	0.88
32:BJ:105:LEU:HD12	32:BJ:106:LYS:H	1.36	0.88
9:CI:3:GLN:HG2	9:CI:20:ARG:HG2	1.55	0.88
1:AA:265:G:H2'	1:AA:266:G:H5''	1.53	0.88
23:BA:2353:G:N1	23:BA:2353:G:C5	2.36	0.88
1:CA:1329:A:H5''	13:CM:26:GLY:H	1.38	0.88
25:BC:70:TRP:HZ3	25:BC:146:GLU:OE1	1.57	0.88
37:DO:24:LEU:HD12	37:DO:84:GLN:HB3	1.56	0.88
3:CC:92:ALA:HB2	3:CC:99:VAL:HG13	1.56	0.88
3:AC:14:ILE:HG23	3:AC:15:THR:H	1.37	0.88
50:B2:25:LEU:H	50:B2:25:LEU:HD12	1.39	0.88
41:DS:13:SER:HB3	41:DS:16:LYS:HD3	1.54	0.88
27:BE:9:ILE:HD11	27:BE:125:LEU:HG	1.55	0.88
46:DX:13:ILE:HG12	46:DX:63:ALA:HB2	1.55	0.88
53:D5:33:ASN:HD22	53:D5:34:TRP:N	1.70	0.87
37:BO:11:LYS:HG2	37:BO:12:PHE:N	1.84	0.87
1:AA:1201:A:H1'	1:AA:1202:G:OP2	1.73	0.87
23:BA:96:G:H4'	47:BY:48:HIS:CE1	2.09	0.87
11:CK:24:SER:HB3	11:CK:27:ASN:O	1.73	0.87
26:BD:101:ARG:HD3	26:BD:169:ASN:ND2	1.89	0.87
40:DR:35:LEU:HB2	40:DR:57:VAL:HG13	1.55	0.87
10:CJ:32:ALA:HB3	10:CJ:76:ASN:HB2	1.54	0.87
9:AI:3:GLN:HG2	9:AI:20:ARG:HG2	1.55	0.87
35:BM:81:VAL:O	35:BM:82:ARG:CG	2.22	0.87
23:DA:1899:G:N2	23:DA:1902:C:H41	1.71	0.87
50:B2:20:ARG:HA	50:B2:23:HIS:CD2	2.09	0.87
28:BF:34:LEU:HD23	28:BF:161:THR:HG23	1.55	0.87
1:AA:448:A:O2'	1:AA:449:C:H5'	1.74	0.87
53:D5:32:LEU:HD23	53:D5:33:ASN:H	1.37	0.87
37:DO:24:LEU:O	37:DO:86:ALA:HB3	1.73	0.87
36:DN:55:ALA:HA	36:DN:80:PHE:CE1	2.09	0.87
37:BO:24:LEU:HD12	37:BO:84:GLN:HB3	1.55	0.87
34:DL:59:LEU:CA	34:DL:61:ARG:NE	2.37	0.87
23:DA:1021:A:C8	23:DA:1021:A:H3'	2.08	0.87
12:CL:69:ILE:HG23	12:CL:99:ILE:HG21	1.54	0.87
1:CA:57:G:H2'	1:CA:58:C:H6	1.40	0.87
34:BL:59:LEU:HA	34:BL:61:ARG:CD	2.05	0.87
23:BA:744:G:OP1	26:BD:132:HIS:HB3	1.75	0.87
2:AB:187:LEU:HA	2:AB:201:ILE:HB	1.55	0.87
23:DA:2681:C:H5	23:DA:2725:A:H62	0.91	0.87
52:B4:8:ASN:HD21	52:B4:11:LYS:H	1.22	0.87
46:BX:73:LEU:HD11	46:BX:94:LEU:HB3	1.56	0.87

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DU:81:LYS:HD3	43:DU:97:ARG:H	1.39	0.87
23:BA:1437:C:H2'	23:BA:1438:U:H6	1.39	0.87
37:DO:89:ARG:HG3	37:DO:94:TYR:HB2	1.57	0.87
30:DH:77:LEU:O	30:DH:143:SER:HB3	1.75	0.87
4:AD:153:ARG:HH11	4:AD:181:MET:HE3	1.38	0.87
10:AJ:32:ALA:HB3	10:AJ:76:ASN:HB2	1.55	0.87
26:BD:49:LEU:HD22	26:BD:49:LEU:H	1.38	0.87
24:BB:66:A:N6	24:BB:107:U:H2'	1.90	0.87
23:DA:84:A:H5''	43:DU:9:LYS:HD2	1.55	0.87
2:CB:71:VAL:HG23	2:CB:164:VAL:HG13	1.54	0.87
36:BN:11:ASN:OD1	36:BN:12:ARG:N	2.08	0.86
1:CA:1295:G:H21	1:CA:1302:U:H3	1.23	0.86
8:CH:91:ARG:CG	8:CH:91:ARG:HH11	1.87	0.86
5:CE:126:ARG:CG	5:CE:126:ARG:HH11	1.88	0.86
1:CA:688:G:H2'	1:CA:689:C:H6	1.40	0.86
26:BD:120:TRP:CD2	26:BD:155:LYS:HD3	2.09	0.86
1:AA:1347:G:C8	9:AI:107:ARG:HB3	2.09	0.86
23:DA:2267:A:H5''	23:DA:2268:A:C5'	2.05	0.86
23:DA:2068:U:N3	23:DA:2430:A:H2	1.72	0.86
25:BC:87:ASN:HD22	25:BC:87:ASN:N	1.71	0.86
3:CC:88:ARG:HB3	3:CC:99:VAL:HG21	1.55	0.86
23:BA:323:G:H5'	27:BE:169:ASN:HD21	1.40	0.86
8:AH:20:TYR:HA	8:AH:65:TYR:CE2	2.10	0.86
42:BT:71:GLY:O	42:BT:72:LYS:HG3	1.75	0.86
4:AD:108:LEU:HB3	4:AD:110:PHE:CE2	2.10	0.86
23:DA:1209:G:H21	23:DA:1210:A:H62	1.21	0.86
36:DN:51:LEU:HD23	36:DN:66:VAL:HG22	1.57	0.86
50:D2:25:LEU:HD12	50:D2:25:LEU:H	1.40	0.86
11:AK:24:SER:HB3	11:AK:27:ASN:O	1.72	0.86
11:AK:59:TYR:CE1	11:AK:63:LEU:HD21	2.10	0.86
36:BN:10:LEU:HB3	36:BN:17:ARG:NE	1.91	0.86
25:BC:172:TYR:CD1	25:BC:186:HIS:HA	2.09	0.86
4:AD:128:VAL:HG12	4:AD:129:ASN:OD1	1.75	0.86
43:BU:17:SER:HA	43:BU:71:LYS:HD2	1.57	0.86
35:DM:58:PHE:HD1	35:DM:58:PHE:O	1.59	0.86
25:DC:172:TYR:CD1	25:DC:186:HIS:HA	2.10	0.86
40:BR:38:LEU:O	40:BR:39:LEU:HD13	1.75	0.86
28:DF:34:LEU:HD23	28:DF:161:THR:HG23	1.55	0.86
26:DD:120:TRP:CD2	26:DD:155:LYS:HD3	2.11	0.86
23:DA:1587:A:H2'	23:DA:1588:C:C6	2.11	0.86
52:D4:19:ARG:CG	52:D4:19:ARG:HH11	1.87	0.86
46:DX:13:ILE:HB	46:DX:62:VAL:HG23	1.57	0.86

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:CT:57:ARG:NH1	20:CT:102:GLY:HA2	1.90	0.86
5:AE:122:GLU:O	5:AE:123:LEU:HD23	1.76	0.86
52:D4:8:ASN:HD22	52:D4:9:ARG:N	1.73	0.86
23:BA:1529:A:H62	23:BA:1542:G:N2	1.74	0.86
23:BA:2439:A:C5'	23:BA:2439:A:H8	1.88	0.86
23:DA:603:A:H61	23:DA:655:A:H4'	1.41	0.86
3:AC:92:ALA:HB2	3:AC:99:VAL:HG13	1.56	0.86
44:DV:132:ASN:O	44:DV:134:PRO:HD3	1.75	0.86
12:CL:52:ARG:CG	12:CL:52:ARG:HH11	1.89	0.86
23:BA:674:G:H1'	27:BE:74:ARG:HD3	1.54	0.86
1:CA:250:A:H4'	1:CA:251:G:O5'	1.75	0.86
40:DR:66:ARG:HD2	40:DR:88:ARG:CZ	2.06	0.86
24:BB:79:C:H2'	24:BB:80:U:O4'	1.76	0.86
1:CA:965:A:C2	1:CA:969:A:C2	2.64	0.86
42:DT:71:GLY:O	42:DT:72:LYS:HG3	1.74	0.86
2:CB:138:LEU:HD12	2:CB:141:GLU:HG3	1.58	0.86
38:BP:24:PRO:HA	38:BP:49:VAL:HG13	1.55	0.86
34:DL:59:LEU:HA	34:DL:61:ARG:HE	1.35	0.85
20:AT:26:ASN:HD22	20:AT:26:ASN:H	1.21	0.85
1:AA:1295:G:H21	1:AA:1302:U:H3	1.21	0.85
24:DB:66:A:N6	24:DB:107:U:H2'	1.90	0.85
23:BA:2015:A:C1'	50:B2:2:ALA:HA	2.06	0.85
1:AA:971:G:C8	1:AA:1365:G:H4'	2.11	0.85
19:AS:63:THR:HG22	19:AS:66:MET:HG2	1.55	0.85
1:CA:1124:G:H5'	10:CJ:35:SER:HB2	1.57	0.85
41:DS:29:LEU:HD21	41:DS:33:ARG:HE	1.41	0.85
3:AC:88:ARG:HB3	3:AC:99:VAL:HG21	1.56	0.85
23:DA:2219:G:H2'	23:DA:2224:G:H5'	1.57	0.85
37:DO:51:ALA:HB1	37:DO:72:ALA:HB1	1.58	0.85
35:DM:47:ILE:HG22	35:DM:48:GLU:N	1.91	0.85
1:CA:59:A:H1'	1:CA:354:G:N2	1.92	0.85
36:BN:55:ALA:HA	36:BN:80:PHE:CE1	2.11	0.85
43:BU:14:LEU:HD23	43:BU:15:VAL:N	1.90	0.85
43:DU:17:SER:HA	43:DU:71:LYS:HD2	1.57	0.85
53:B5:32:LEU:HD23	53:B5:33:ASN:H	1.42	0.85
24:DB:80:U:H2'	24:DB:81:G:H21	1.39	0.85
23:DA:2219:G:C2'	23:DA:2224:G:H5'	2.06	0.85
23:DA:2272:U:C6	23:DA:2272:U:H5'	2.11	0.85
4:CD:15:GLU:HG2	4:CD:63:LYS:HG3	1.56	0.85
23:BA:197:A:C8	23:BA:197:A:H5'	2.12	0.85
41:DS:75:TYR:CE2	41:DS:104:THR:HB	2.11	0.85
23:BA:1264:G:H5'	50:B2:11:THR:HG21	1.58	0.85

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DM:81:VAL:O	35:DM:82:ARG:CG	2.25	0.85
38:DP:56:GLY:O	38:DP:59:THR:HG22	1.76	0.85
33:BK:77:ILE:HD13	38:BP:74:ARG:HG3	1.56	0.85
53:B5:34:TRP:CG	53:B5:35:GLN:N	2.40	0.85
4:AD:119:GLN:HG3	4:AD:123:HIS:CD2	2.11	0.85
2:AB:26:PRO:HG2	2:AB:27:LYS:HD3	1.57	0.85
6:CF:35:ALA:HB1	6:CF:65:VAL:HG21	1.58	0.85
43:BU:15:VAL:HG22	43:BU:72:VAL:HG12	1.59	0.85
26:BD:201:THR:CG2	26:BD:202:LYS:H	1.90	0.85
12:CL:26:LEU:HG	12:CL:32:ARG:NH1	1.92	0.85
1:CA:737:A:H2'	1:CA:738:C:H6	1.39	0.85
30:BH:113:ARG:HB2	30:BH:130:TYR:CZ	2.11	0.85
36:BN:38:VAL:HB	36:BN:39:PRO:HD3	1.56	0.85
23:DA:1343:G:H5'	23:DA:1343:G:C8	2.11	0.85
30:BH:77:LEU:O	30:BH:143:SER:HB3	1.76	0.85
1:CA:392:G:H2'	1:CA:393:A:C8	2.11	0.85
41:BS:29:LEU:HD21	41:BS:33:ARG:HE	1.41	0.85
23:BA:2875:C:H4'	38:BP:5:ALA:HB2	1.59	0.85
13:AM:10:PRO:HB2	13:AM:18:ALA:HB1	1.57	0.85
6:CF:7:ASN:HD21	18:CR:34:TYR:HE1	1.21	0.85
29:DG:44:VAL:HG12	29:DG:45:VAL:H	1.42	0.85
1:AA:1124:G:H5'	10:AJ:35:SER:HB2	1.59	0.85
1:CA:320:C:H5''	1:CA:321:A:OP2	1.77	0.85
1:CA:82:U:H2'	1:CA:85:U:C5	2.10	0.85
25:BC:67:PHE:CE2	25:BC:106:ILE:HD11	2.11	0.85
23:DA:141(A):A:H8	23:DA:1595:G:H21	1.20	0.85
23:BA:2377:A:H2'	23:BA:2378:A:C8	2.11	0.85
29:DG:19:VAL:HG12	29:DG:20:ALA:H	1.42	0.85
45:DW:42:GLY:HA2	45:DW:57:PHE:CD2	2.11	0.85
23:BA:529:A:H62	23:BA:2041:U:H3	1.22	0.85
7:CG:107:ALA:HB2	7:CG:134:ALA:HB2	1.56	0.85
23:DA:2502:G:H5'	23:DA:2503:A:C5'	2.07	0.84
50:D2:20:ARG:HA	50:D2:23:HIS:CD2	2.11	0.84
34:DL:16:ARG:HE	34:DL:16:ARG:C	1.79	0.84
4:CD:128:VAL:HG12	4:CD:129:ASN:OD1	1.77	0.84
29:DG:148:ILE:O	29:DG:151:ILE:HG12	1.77	0.84
27:BE:164:ARG:HG3	27:BE:175:THR:OG1	1.78	0.84
3:AC:66:VAL:HB	3:AC:101:LEU:HD23	1.59	0.84
1:AA:57:G:H2'	1:AA:58:C:H6	1.42	0.84
40:DR:27:ALA:HB3	40:DR:61:VAL:HG11	1.59	0.84
1:CA:971:G:C8	1:CA:1365:G:H4'	2.12	0.84
12:AL:26:LEU:HG	12:AL:32:ARG:NH1	1.91	0.84

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DD:31:CYS:HB3	26:DD:49:LEU:HB3	1.56	0.84
23:DA:1156:A:C8	39:DQ:51:LYS:HD2	2.12	0.84
12:AL:52:ARG:HH11	12:AL:52:ARG:CG	1.90	0.84
23:DA:322:A:H3'	27:DE:169:ASN:ND2	1.91	0.84
5:AE:126:ARG:CG	5:AE:126:ARG:HH11	1.89	0.84
23:BA:2781:A:C5'	23:BA:2782:G:H5'	2.02	0.84
34:DL:33:ARG:HB3	34:DL:36:LYS:CD	2.07	0.84
5:AE:78:HIS:HD2	8:AH:104:ARG:HG2	1.42	0.84
3:AC:195:VAL:HG12	3:AC:196:LEU:H	1.43	0.84
8:CH:92:ARG:HB3	8:CH:94:TYR:HE2	1.41	0.84
18:CR:58:LEU:HD23	18:CR:62:GLU:HB3	1.59	0.84
1:AA:250:A:H4'	1:AA:251:G:O5'	1.76	0.84
42:DT:9:LEU:HB2	42:DT:29:TRP:O	1.77	0.84
32:DJ:142:ARG:HG3	32:DJ:142:ARG:HH11	1.42	0.84
46:DX:27:GLU:HB2	46:DX:33:LYS:HA	1.59	0.84
23:BA:2391:G:OP1	53:B5:32:LEU:HB2	1.77	0.84
37:BO:89:ARG:HG3	37:BO:94:TYR:HB2	1.56	0.84
32:BJ:85:VAL:HG22	32:BJ:89:LYS:HG3	1.59	0.84
39:DQ:91:ASP:CG	39:DQ:96:ALA:HB2	1.98	0.84
42:DT:35:THR:O	42:DT:39:ILE:HG12	1.77	0.84
30:DH:113:ARG:HB2	30:DH:130:TYR:CZ	2.12	0.84
12:CL:68:TYR:O	12:CL:99:ILE:HG22	1.77	0.84
1:CA:57:G:H2'	1:CA:58:C:C6	2.11	0.84
35:BM:6:ARG:O	35:BM:7:MET:HG3	1.77	0.84
23:BA:2307:G:H2'	23:BA:2308:G:H5'	1.59	0.84
23:DA:2307:G:H2'	23:DA:2308:G:H5'	1.59	0.84
3:CC:195:VAL:HG12	3:CC:196:LEU:H	1.42	0.84
38:BP:62:THR:HG22	38:BP:75:ILE:HG13	1.59	0.84
11:CK:108:ILE:HG21	18:CR:88:LYS:HG2	1.59	0.84
23:BA:1379:A:H4'	23:BA:1380:G:OP2	1.78	0.84
29:BG:84:SER:HA	29:BG:133:VAL:O	1.77	0.84
6:AF:35:ALA:HB1	6:AF:65:VAL:HG21	1.59	0.84
53:D5:34:TRP:CG	53:D5:35:GLN:N	2.40	0.84
34:BL:38:GLN:HG3	34:BL:39:LYS:H	1.42	0.84
5:CE:122:GLU:O	5:CE:123:LEU:HD23	1.78	0.84
29:DG:46:GLU:HG3	29:DG:51:ARG:NE	1.91	0.84
23:BA:84:A:H5''	43:BU:9:LYS:HD2	1.59	0.84
23:DA:1495:A:H5''	23:DA:1496:A:OP2	1.78	0.84
46:DX:73:LEU:HD11	46:DX:94:LEU:HB3	1.57	0.84
26:BD:111:ARG:HD2	26:BD:160:TYR:HE1	1.42	0.84
43:BU:81:LYS:CD	43:BU:97:ARG:HB3	2.07	0.84
24:BB:80:U:H2'	24:BB:81:G:H21	1.42	0.84

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DJ:53:ILE:HG23	32:DJ:75:VAL:HG11	1.60	0.84
41:BS:13:SER:HB3	41:BS:16:LYS:HD3	1.59	0.84
12:AL:68:TYR:O	12:AL:99:ILE:HG22	1.77	0.84
23:BA:2562:U:H1'	33:BK:23:ARG:HH11	1.42	0.84
23:DA:2577:A:H5''	23:DA:2578:G:H5'	1.60	0.84
46:BX:11:ARG:HB3	46:BX:12:PRO:CD	2.08	0.84
23:BA:1343:G:H5'	23:BA:1343:G:C8	2.12	0.84
47:BY:2:LYS:H	47:BY:2:LYS:CE	1.90	0.84
34:BL:33:ARG:HB3	34:BL:36:LYS:HG3	1.58	0.84
20:CT:26:ASN:H	20:CT:26:ASN:HD22	1.25	0.84
1:CA:721:G:H4'	1:CA:722:A:O4'	1.77	0.84
33:BK:35:VAL:HG23	33:BK:65:THR:HG23	1.60	0.84
23:BA:1544:C:OP1	23:BA:1544:C:C6	2.30	0.84
1:AA:965:A:C2	1:AA:969:A:C2	2.66	0.84
35:DM:75:THR:CA	35:DM:88:GLY:HA2	2.08	0.84
40:BR:39:LEU:HB3	40:BR:47:VAL:HG21	1.60	0.84
41:DS:9:TYR:H	41:DS:102:HIS:HD2	1.23	0.84
26:BD:9:VAL:HG13	26:BD:25:VAL:O	1.77	0.84
2:AB:87:ARG:HG3	2:AB:233:SER:HB3	1.60	0.84
1:CA:1320:C:H42	19:CS:36:ARG:HG3	1.43	0.84
24:BB:11:C:H3'	24:BB:12:C:H6	1.42	0.83
23:DA:322:A:H3'	27:DE:169:ASN:HD21	1.41	0.83
1:CA:448:A:O2'	1:CA:449:C:H5'	1.78	0.83
23:BA:2808:U:H2'	23:BA:2809:A:H5'	1.60	0.83
23:BA:2786:U:H4'	26:BD:65:GLY:O	1.77	0.83
1:AA:1329:A:H5''	13:AM:26:GLY:H	1.41	0.83
2:AB:138:LEU:HD12	2:AB:141:GLU:HG3	1.58	0.83
1:AA:82:U:H2'	1:AA:85:U:C5	2.10	0.83
39:DQ:83:LEU:HG	39:DQ:88:ILE:HD11	1.59	0.83
39:BQ:83:LEU:HD12	39:BQ:113:ALA:HB2	1.61	0.83
47:BY:17:SER:HB3	47:BY:18:PRO:HD3	1.59	0.83
43:DU:81:LYS:CD	43:DU:97:ARG:HB3	2.08	0.83
15:CO:18:PHE:CE1	15:CO:21:ASP:HB2	2.12	0.83
5:CE:51:VAL:HB	5:CE:52:PRO:HD3	1.59	0.83
34:DL:114:ILE:N	34:DL:114:ILE:HD12	1.92	0.83
1:CA:877:C:H5''	8:CH:88:LYS:HD3	1.60	0.83
23:DA:96:G:H4'	47:DY:48:HIS:CE1	2.12	0.83
30:BH:133:HIS:CD2	30:BH:135:GLU:HG2	2.13	0.83
29:DG:84:SER:HA	29:DG:133:VAL:O	1.77	0.83
23:DA:1401:G:H2'	23:DA:1402:C:H6	1.43	0.83
23:DA:2391:G:OP1	53:D5:32:LEU:HB2	1.79	0.83
26:DD:201:THR:CG2	26:DD:202:LYS:H	1.91	0.83

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DU:8:LYS:HZ2	43:DU:8:LYS:H	1.24	0.83
32:DJ:85:VAL:HG22	32:DJ:89:LYS:HG3	1.59	0.83
1:AA:57:G:H2'	1:AA:58:C:C6	2.14	0.83
23:BA:1495:A:H5''	23:BA:1496:A:OP2	1.78	0.83
23:BA:1858:G:H1'	23:BA:1884:A:N6	1.94	0.83
23:DA:2015:A:C1'	50:D2:2:ALA:HA	2.07	0.83
41:BS:40:ASN:O	41:BS:41:LYS:HG2	1.78	0.83
46:BX:27:GLU:HB2	46:BX:33:LYS:HA	1.58	0.83
38:DP:53:ARG:HH11	38:DP:53:ARG:HG2	1.42	0.83
25:BC:79:VAL:HG21	25:BC:111:LEU:HD11	1.61	0.83
29:BG:46:GLU:HG3	29:BG:51:ARG:NE	1.94	0.83
40:BR:27:ALA:HB3	40:BR:61:VAL:HG11	1.58	0.83
23:BA:2267:A:H5''	23:BA:2268:A:C5'	2.07	0.83
23:DA:2781:A:C5'	23:DA:2782:G:H5'	2.04	0.83
53:B5:33:ASN:HD22	53:B5:34:TRP:H	1.21	0.83
30:DH:100:ALA:HA	30:DH:103:ARG:HB2	1.61	0.83
27:DE:167:ALA:HB1	27:DE:173:VAL:HG11	1.60	0.83
35:DM:6:ARG:O	35:DM:7:MET:HG3	1.79	0.83
23:BA:2790:A:H2'	23:BA:2791:C:H5''	1.60	0.83
4:CD:153:ARG:HH11	4:CD:181:MET:HE3	1.42	0.83
4:AD:92:VAL:HG12	4:AD:96:LEU:HD23	1.61	0.83
52:B4:8:ASN:ND2	52:B4:8:ASN:C	2.23	0.83
23:BA:2577:A:H5''	23:BA:2578:G:H5'	1.59	0.83
23:DA:1019:U:H3	23:DA:114(B):A:N6	1.77	0.83
23:DA:2787:C:H1'	26:DD:62:PRO:HB3	1.60	0.83
4:CD:108:LEU:HD21	4:CD:183:GLY:HA3	1.58	0.83
52:B4:11:LYS:O	52:B4:15:THR:HG23	1.78	0.83
2:CB:111:ARG:HH11	2:CB:111:ARG:CG	1.92	0.83
39:BQ:91:ASP:CG	39:BQ:96:ALA:HB2	1.98	0.83
23:BA:1210:A:H5''	23:BA:1210:A:H8	1.43	0.83
23:BA:1264:G:H5'	50:B2:11:THR:CG2	2.09	0.83
8:CH:20:TYR:HA	8:CH:65:TYR:CE2	2.12	0.83
2:CB:26:PRO:HG2	2:CB:27:LYS:HD3	1.60	0.83
19:AS:19:VAL:HG21	19:AS:44:MET:HG3	1.60	0.83
40:BR:35:LEU:HB2	40:BR:57:VAL:HG13	1.61	0.83
30:DH:92:VAL:HG23	30:DH:96:ASP:HB2	1.60	0.83
46:BX:13:ILE:HG12	46:BX:63:ALA:HB2	1.61	0.83
23:DA:1510:A:H2'	23:DA:1511:A:C8	2.14	0.83
23:DA:848:G:H2'	23:DA:849:A:C8	2.14	0.83
46:BX:19:GLN:HG3	46:BX:41:ARG:HE	1.43	0.83
42:BT:9:LEU:HB2	42:BT:29:TRP:O	1.79	0.83
4:CD:126:ILE:HG22	4:CD:127:THR:H	1.43	0.83

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:2598:A:OP1	25:DC:235:GLY:HA3	1.79	0.83
27:BE:101:LEU:HD12	27:BE:102:PRO:HD2	1.58	0.83
6:CF:26:ILE:O	6:CF:30:LEU:HD12	1.78	0.83
25:BC:132:PRO:HD3	25:BC:190:TYR:CZ	2.14	0.83
1:AA:320:C:H5''	1:AA:321:A:OP2	1.77	0.83
22:AV:6213:A:H2'	22:AV:6214:C:H6	1.43	0.82
23:DA:674:G:H1'	27:DE:74:ARG:HD3	1.59	0.82
23:BA:2502:G:H5'	23:BA:2503:A:C5'	2.08	0.82
47:BY:9:GLN:O	47:BY:12:GLU:HB3	1.78	0.82
23:DA:1055:G:H2'	23:DA:1056:G:C8	2.14	0.82
47:DY:9:GLN:O	47:DY:12:GLU:HB3	1.78	0.82
1:AA:1238:A:N7	1:AA:1303:C:H1'	1.94	0.82
39:DQ:82:GLY:HA3	39:DQ:113:ALA:HB1	1.62	0.82
35:DM:68:ILE:HD13	35:DM:103:MET:HG2	1.60	0.82
23:DA:2327:A:H2'	23:DA:2328:A:C8	2.14	0.82
52:D4:12:ARG:HH11	52:D4:12:ARG:HG3	1.43	0.82
1:AA:818:G:O2'	1:AA:819:A:H5'	1.80	0.82
23:BA:1188:U:O2'	23:BA:1189:A:H5'	1.78	0.82
2:CB:87:ARG:HG3	2:CB:233:SER:HB3	1.61	0.82
32:BJ:53:ILE:HG23	32:BJ:75:VAL:HG11	1.61	0.82
26:BD:31:CYS:HB3	26:BD:49:LEU:HB3	1.59	0.82
1:CA:1294:G:H2'	1:CA:1295:G:C8	2.15	0.82
1:AA:1152:A:H2'	1:AA:1153:C:H6	1.44	0.82
1:AA:737:A:H2'	1:AA:738:C:C6	2.14	0.82
1:AA:987:G:H1	1:AA:1218:C:H42	1.28	0.82
8:CH:83:ILE:HG13	8:CH:137:VAL:HG22	1.60	0.82
23:BA:2009:G:H2'	23:BA:2010:G:H5'	1.60	0.82
25:DC:166:GLN:CA	25:DC:166:GLN:HE21	1.93	0.82
1:AA:475:G:H2'	1:AA:476:G:H8	1.45	0.82
52:D4:8:ASN:HD21	52:D4:11:LYS:H	1.27	0.82
25:BC:106:ILE:N	25:BC:106:ILE:HD12	1.95	0.82
32:DJ:93:LYS:HE3	32:DJ:95:TYR:HE1	1.45	0.82
23:DA:528:A:H3'	23:DA:528:A:H8	1.44	0.82
40:BR:24:LYS:HA	40:BR:92:THR:HG23	1.62	0.82
23:BA:1587:A:H2'	23:BA:1588:C:C6	2.14	0.82
8:CH:12:ARG:HH12	8:CH:26:VAL:HA	1.44	0.82
43:BU:8:LYS:H	43:BU:8:LYS:HZ2	1.24	0.82
34:BL:33:ARG:HG2	34:BL:34:GLY:N	1.93	0.82
1:CA:1154:G:H2'	1:CA:1155:G:H8	1.44	0.82
33:DK:113:LYS:O	33:DK:117:LEU:HD12	1.79	0.82
33:DK:77:ILE:HD13	38:DP:74:ARG:HG3	1.62	0.82
34:BL:35:HIS:O	34:BL:36:LYS:HB2	1.79	0.82

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:242:G:H5''	53:B5:63:PRO:HG2	1.62	0.82
1:AA:877:C:H5''	8:AH:88:LYS:HD3	1.61	0.82
23:BA:2306:C:H3'	23:BA:2307:G:C8	2.15	0.82
39:BQ:92:ARG:CD	39:BQ:94:ASN:HB3	2.10	0.82
33:DK:99:PHE:N	33:DK:99:PHE:HD1	1.77	0.82
23:DA:2808:U:H2'	23:DA:2809:A:H5'	1.59	0.82
34:DL:33:ARG:HB3	34:DL:36:LYS:CG	2.10	0.82
46:DX:11:ARG:HB3	46:DX:12:PRO:CD	2.10	0.82
29:BG:148:ILE:O	29:BG:151:ILE:HG12	1.78	0.82
27:DE:101:LEU:HD12	27:DE:102:PRO:HD2	1.60	0.82
25:DC:21:PHE:HB3	25:DC:24:ILE:HD12	1.59	0.82
25:BC:21:PHE:HB3	25:BC:24:ILE:HD12	1.60	0.82
27:DE:8:GLN:CD	27:DE:8:GLN:H	1.82	0.82
18:CR:54:ARG:HD2	18:CR:54:ARG:H	1.44	0.82
23:BA:1614:A:N6	41:BS:87:PRO:HA	1.95	0.81
23:DA:2377:A:H2'	23:DA:2378:A:C8	2.15	0.81
1:AA:1294:G:H2'	1:AA:1295:G:C8	2.15	0.81
23:DA:2306:C:H3'	23:DA:2307:G:H8	1.45	0.81
4:CD:108:LEU:HB3	4:CD:110:PHE:CE2	2.15	0.81
8:AH:112:LEU:HA	8:AH:134:ILE:HG12	1.62	0.81
40:DR:34:GLU:O	40:DR:36:PRO:HD3	1.80	0.81
23:BA:1510:A:H2'	23:BA:1511:A:C8	2.14	0.81
53:D5:28:GLY:O	53:D5:32:LEU:HD21	1.80	0.81
23:DA:2393:A:H5''	34:DL:62:LEU:HD12	1.60	0.81
35:BM:75:THR:CA	35:BM:88:GLY:HA2	2.08	0.81
23:BA:2787:C:H1'	26:BD:62:PRO:HB3	1.62	0.81
48:DZ:43:ILE:N	48:DZ:43:ILE:HD13	1.94	0.81
15:AO:18:PHE:CE1	15:AO:21:ASP:HB2	2.15	0.81
19:CS:19:VAL:HG21	19:CS:44:MET:HG3	1.60	0.81
1:CA:624:C:H4'	16:CP:11:SER:H	1.43	0.81
40:DR:24:LYS:HA	40:DR:92:THR:HG23	1.61	0.81
17:AQ:53:LEU:HD11	17:AQ:85:VAL:HG21	1.62	0.81
23:DA:1529:A:H62	23:DA:1542:G:N2	1.78	0.81
23:DA:1544:C:C6	23:DA:1544:C:OP1	2.33	0.81
23:DA:1174:A:C3'	23:DA:1175:U:H5''	2.10	0.81
32:BJ:142:ARG:HG3	32:BJ:142:ARG:HH11	1.44	0.81
23:BA:603:A:H61	23:BA:655:A:H4'	1.45	0.81
23:DA:996:A:H4'	39:DQ:92:ARG:NH1	1.95	0.81
23:DA:860:U:C5	23:DA:917:A:N7	2.48	0.81
23:DA:242:G:H5''	53:D5:63:PRO:HG2	1.61	0.81
23:BA:2068:U:H3	23:BA:2430:A:H2	0.86	0.81
5:CE:76:ILE:HG12	5:CE:77:PRO:HD2	1.62	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AE:76:ILE:HG12	5:AE:77:PRO:HD2	1.61	0.81
23:DA:2887:U:H2'	23:DA:2888:C:C6	2.15	0.81
46:DX:27:GLU:CD	46:DX:33:LYS:HE3	2.01	0.81
23:DA:1401:G:H2'	23:DA:1402:C:C6	2.15	0.81
37:DO:104:GLY:HA2	37:DO:107:GLU:HG2	1.63	0.81
23:BA:2777:G:H5''	23:BA:2778:A:H5'	1.61	0.81
29:BG:19:VAL:HG12	29:BG:20:ALA:H	1.43	0.81
23:BA:1055:G:H2'	23:BA:1056:G:C8	2.14	0.81
11:CK:34:ASP:N	11:CK:40:ILE:HD11	1.95	0.81
23:DA:1858:G:H1'	23:DA:1884:A:N6	1.96	0.81
23:BA:1110:G:HO2'	23:BA:1111:A:H8	0.84	0.81
38:BP:53:ARG:HG2	38:BP:53:ARG:HH11	1.45	0.81
37:BO:104:GLY:HA2	37:BO:107:GLU:HG2	1.62	0.81
7:CG:115:ARG:O	7:CG:118:VAL:HG22	1.80	0.81
37:BO:69:VAL:O	37:BO:72:ALA:HB3	1.80	0.81
33:BK:113:LYS:O	33:BK:117:LEU:HD12	1.79	0.81
27:BE:64:ILE:O	27:BE:64:ILE:HD12	1.80	0.81
1:AA:721:G:H4'	1:AA:722:A:O4'	1.81	0.81
36:BN:63:ARG:HH11	36:BN:63:ARG:HB2	1.45	0.81
42:DT:53:LYS:HB3	42:DT:82:GLN:HB3	1.62	0.81
33:BK:19:ILE:H	33:BK:19:ILE:HD13	1.43	0.81
33:DK:35:VAL:HG23	33:DK:65:THR:HG23	1.60	0.81
2:AB:111:ARG:HH11	2:AB:111:ARG:CG	1.93	0.81
23:DA:330:A:O2'	23:DA:331:A:H8	1.62	0.81
23:BA:2306:C:H3'	23:BA:2307:G:H8	1.45	0.81
1:CA:818:G:O2'	1:CA:819:A:H5'	1.80	0.81
37:BO:31:SER:HB3	37:BO:34:HIS:HB2	1.63	0.81
23:BA:910:A:C5	35:BM:13:GLN:OE1	2.33	0.81
23:BA:1286:A:O2'	23:BA:1288:U:OP2	1.98	0.81
11:AK:108:ILE:HG21	18:AR:88:LYS:HG2	1.62	0.81
1:CA:979:C:H42	14:CN:18:VAL:HG12	1.44	0.81
34:BL:114:ILE:HD13	34:BL:130:PHE:CD1	2.15	0.81
30:BH:92:VAL:HG23	30:BH:96:ASP:HB2	1.63	0.81
23:BA:848:G:H2'	23:BA:849:A:C8	2.16	0.81
45:DW:42:GLY:HA2	45:DW:57:PHE:CE2	2.15	0.81
42:BT:53:LYS:HB3	42:BT:82:GLN:HB3	1.61	0.81
16:CP:39:TYR:CD1	16:CP:73:LEU:HD13	2.16	0.81
38:DP:51:ARG:HH11	38:DP:51:ARG:CG	1.93	0.81
23:BA:996:A:H4'	39:BQ:92:ARG:NH1	1.96	0.81
23:BA:2887:U:H2'	23:BA:2888:C:C6	2.14	0.81
26:DD:111:ARG:HD2	26:DD:160:TYR:HE1	1.41	0.81
5:AE:31:LEU:HD21	5:AE:43:LEU:HD12	1.63	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AE:57:LYS:O	5:AE:61:TYR:HD2	1.63	0.81
4:CD:100:ARG:HH21	4:CD:118:ARG:HH12	1.29	0.81
23:BA:2009:G:C2'	23:BA:2010:G:H5'	2.11	0.81
1:CA:1152:A:H2'	1:CA:1153:C:H6	1.45	0.81
16:AP:39:TYR:CD1	16:AP:73:LEU:HD13	2.16	0.81
42:DT:41:ASN:O	42:DT:45:THR:HG23	1.81	0.81
23:DA:1418:G:H8	23:DA:1418:G:O5'	1.63	0.81
24:BB:82:G:O2'	24:BB:83:G:H5'	1.80	0.81
5:CE:78:HIS:HD2	8:CH:104:ARG:HG2	1.43	0.81
8:AH:92:ARG:HB3	8:AH:94:TYR:CE2	2.15	0.81
41:DS:40:ASN:O	41:DS:41:LYS:HG2	1.81	0.81
25:DC:27:THR:HG23	25:DC:27:THR:O	1.79	0.81
23:DA:810:U:H3	34:DL:36:LYS:NZ	1.79	0.81
39:DQ:83:LEU:HD12	39:DQ:113:ALA:HB2	1.61	0.81
28:DF:128:ARG:NE	28:DF:129:GLY:H	1.78	0.81
1:AA:1281:U:H4'	1:AA:1282:C:OP2	1.81	0.81
20:CT:45:GLN:HB2	20:CT:91:LEU:HD13	1.63	0.81
23:BA:2327:A:H2'	23:BA:2328:A:C8	2.16	0.80
53:D5:62:LEU:HB3	53:D5:63:PRO:HD3	1.61	0.80
2:CB:167:PRO:O	2:CB:171:ALA:HB2	1.80	0.80
44:DV:125:LEU:HD22	44:DV:164:ALA:HB3	1.63	0.80
11:CK:59:TYR:CE1	11:CK:63:LEU:HD21	2.16	0.80
46:BX:13:ILE:HB	46:BX:62:VAL:HG23	1.60	0.80
4:AD:166:LYS:HE2	25:DC:134:ARG:HH21	1.45	0.80
1:AA:957:U:H4'	19:AS:79:THR:HB	1.62	0.80
1:AA:781:A:C3'	1:AA:782:A:H5'	2.11	0.80
25:BC:87:ASN:ND2	25:BC:87:ASN:H	1.79	0.80
23:DA:1210:A:C5'	23:DA:1210:A:H8	1.94	0.80
1:AA:392:G:H2'	1:AA:393:A:C8	2.16	0.80
36:DN:63:ARG:HB2	36:DN:63:ARG:HH11	1.46	0.80
23:DA:2306:C:H3'	23:DA:2307:G:C8	2.16	0.80
23:BA:661:C:H4'	34:BL:18:ARG:HG2	1.62	0.80
23:DA:875:G:H4'	44:DV:170:THR:HG21	1.63	0.80
38:DP:62:THR:HG22	38:DP:75:ILE:HG13	1.64	0.80
7:AG:115:ARG:O	7:AG:118:VAL:HG22	1.80	0.80
23:DA:804:A:H5''	23:DA:805:G:OP1	1.80	0.80
23:DA:744:G:OP1	26:DD:132:HIS:HB3	1.81	0.80
2:AB:187:LEU:CD1	2:AB:205:ASP:HB3	2.11	0.80
37:BO:24:LEU:O	37:BO:86:ALA:HB3	1.81	0.80
23:DA:529:A:H62	23:DA:2041:U:H3	1.27	0.80
32:DJ:118:PRO:O	32:DJ:121:VAL:HG22	1.81	0.80
4:AD:25:ARG:HG2	4:AD:30:LYS:HG3	1.63	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DL:16:ARG:HH21	34:DL:17:LYS:HA	1.46	0.80
1:CA:1070:U:H2'	1:CA:1071:C:C6	2.16	0.80
1:AA:1064:G:H21	1:AA:1190:G:H2'	1.45	0.80
6:AF:91:VAL:HG12	6:AF:92:LYS:O	1.81	0.80
8:AH:12:ARG:HH12	8:AH:26:VAL:HA	1.43	0.80
1:CA:1238:A:N7	1:CA:1303:C:H1'	1.96	0.80
23:DA:329:G:OP2	43:DU:71:LYS:HE3	1.82	0.80
53:B5:28:GLY:O	53:B5:32:LEU:HD21	1.82	0.80
39:DQ:92:ARG:HB2	39:DQ:92:ARG:HH11	1.44	0.80
25:BC:233:HIS:HE1	25:BC:247:ALA:H	1.29	0.80
44:BV:69:THR:HG22	44:BV:90:VAL:HA	1.62	0.80
1:AA:737:A:H2'	1:AA:738:C:H6	1.46	0.80
1:CA:1281:U:H4'	1:CA:1282:C:OP2	1.82	0.80
1:AA:175:C:H2'	1:AA:176:C:H6	1.46	0.80
27:BE:157:VAL:HB	27:BE:194:MET:HB3	1.62	0.80
1:AA:324:G:N2	1:AA:327:A:C8	2.50	0.80
3:AC:173:VAL:HG12	3:AC:173:VAL:O	1.81	0.80
1:AA:1191:A:H5''	3:AC:4:LYS:NZ	1.96	0.80
2:AB:167:PRO:O	2:AB:171:ALA:HB2	1.81	0.80
41:BS:29:LEU:CD2	41:BS:33:ARG:HE	1.94	0.80
23:BA:1487:G:H2'	23:BA:1488:G:H8	1.46	0.80
1:AA:59:A:H1'	1:AA:354:G:N2	1.96	0.80
23:BA:7:G:H1	23:BA:2896:C:H42	1.28	0.80
27:BE:8:GLN:H	27:BE:8:GLN:CD	1.83	0.80
8:CH:112:LEU:HA	8:CH:134:ILE:HG12	1.64	0.80
34:DL:147:LEU:HD13	34:DL:148:LEU:O	1.81	0.80
23:BA:1174:A:C3'	23:BA:1175:U:H5''	2.10	0.80
39:DQ:92:ARG:CD	39:DQ:94:ASN:HB3	2.12	0.80
23:DA:363(A):G:H2'	23:DA:363(B):A:C8	2.17	0.80
3:CC:66:VAL:HB	3:CC:101:LEU:HD23	1.61	0.80
2:AB:77:ALA:HB2	2:AB:211:ILE:HD13	1.64	0.80
23:DA:528:A:H2	23:DA:2043:C:C5'	1.95	0.80
30:DH:133:HIS:CD2	30:DH:135:GLU:HG2	2.16	0.80
18:AR:54:ARG:H	18:AR:54:ARG:HD2	1.45	0.80
53:D5:57:ARG:HB2	53:D5:57:ARG:NH1	1.96	0.80
23:DA:1658:C:OP1	26:DD:132:HIS:O	2.00	0.80
26:BD:54:GLN:HG2	26:BD:76:ARG:HG3	1.64	0.80
6:CF:26:ILE:HG22	6:CF:30:LEU:HD11	1.64	0.80
1:AA:625:G:C4	1:AA:626:U:C5	2.70	0.80
27:DE:89:VAL:HG12	27:DE:90:PHE:N	1.97	0.80
1:CA:324:G:N2	1:CA:327:A:C8	2.49	0.80
22:CV:6213:A:H2'	22:CV:6214:C:H6	1.46	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BJ:27:TYR:CD2	39:BQ:100:VAL:HG11	2.17	0.80
47:DY:46:GLN:HB2	47:DY:49:LYS:NZ	1.96	0.80
27:DE:103:LYS:HA	27:DE:106:ARG:HG3	1.62	0.80
1:AA:1117:G:H21	1:AA:1180:A:H1'	1.45	0.80
8:AH:83:ILE:HG13	8:AH:137:VAL:HG22	1.63	0.80
40:BR:100:ARG:HG3	40:BR:100:ARG:O	1.80	0.80
40:BR:66:ARG:HD2	40:BR:88:ARG:CZ	2.10	0.80
23:DA:2777:G:H5''	23:DA:2778:A:H5'	1.64	0.80
33:DK:101:PRO:O	33:DK:102:VAL:HG13	1.82	0.80
23:DA:910:A:C5	35:DM:13:GLN:OE1	2.34	0.80
23:DA:197:A:H5'	23:DA:197:A:C8	2.17	0.80
5:AE:126:ARG:HG2	5:AE:126:ARG:HH11	1.47	0.80
42:BT:24:GLY:HA3	42:BT:82:GLN:HE22	1.47	0.80
23:DA:1110:G:HO2'	23:DA:1111:A:H8	0.81	0.80
1:CA:710:G:OP1	6:CF:54:LYS:HE2	1.82	0.80
23:BA:605:C:H1'	23:BA:657:U:O2'	1.82	0.80
24:DB:11:C:H3'	24:DB:12:C:H6	1.46	0.80
1:AA:1154:G:H2'	1:AA:1155:G:H8	1.46	0.80
23:BA:733:G:N7	23:BA:761:A:C6	2.50	0.80
35:BM:58:PHE:O	35:BM:58:PHE:HD1	1.65	0.80
23:DA:557:U:H2'	23:DA:558:G:H8	1.46	0.79
23:BA:1373:A:H2'	23:BA:1374:G:O4'	1.82	0.79
25:BC:8:PRO:HB3	25:BC:14:ARG:HB2	1.62	0.79
28:BF:39:ILE:HG12	28:BF:157:ILE:HG22	1.64	0.79
23:BA:875:G:H4'	44:BV:170:THR:HG21	1.64	0.79
33:DK:119:PRO:HB2	38:DP:68:TYR:CE1	2.18	0.79
3:CC:43:LEU:HD22	3:CC:47:LEU:HD22	1.62	0.79
2:AB:101:MET:HA	2:AB:108:ILE:HG13	1.63	0.79
34:BL:33:ARG:HB3	34:BL:36:LYS:CD	2.12	0.79
47:DY:17:SER:HB3	47:DY:18:PRO:HD3	1.63	0.79
23:BA:330:A:HO2'	23:BA:331:A:H8	1.30	0.79
2:CB:187:LEU:CD1	2:CB:205:ASP:HB3	2.13	0.79
5:CE:57:LYS:O	5:CE:61:TYR:HD2	1.66	0.79
5:CE:126:ARG:HG2	5:CE:126:ARG:HH11	1.45	0.79
23:DA:1110:G:O2'	23:DA:1111:A:H8	1.64	0.79
23:DA:752:A:H3'	52:D4:1:MET:HE3	1.65	0.79
1:CA:475:G:H2'	1:CA:476:G:C8	2.17	0.79
38:BP:54:ARG:HH11	38:BP:54:ARG:CG	1.94	0.79
3:AC:152:ILE:HD11	3:AC:167:TRP:CD1	2.17	0.79
8:AH:20:TYR:HA	8:AH:65:TYR:HE2	1.47	0.79
1:CA:475:G:H2'	1:CA:476:G:H8	1.45	0.79
15:CO:30:ALA:HA	15:CO:85:LEU:HD11	1.64	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:828:A:H5''	1:AA:859:A:C2	2.17	0.79
1:CA:828:A:H5''	1:CA:859:A:C2	2.16	0.79
23:DA:1952:A:C5	33:DK:22:ILE:HD11	2.18	0.79
34:BL:59:LEU:HA	34:BL:61:ARG:HE	1.46	0.79
40:DR:39:LEU:HB3	40:DR:47:VAL:HG21	1.65	0.79
25:DC:70:TRP:HZ3	25:DC:146:GLU:OE1	1.65	0.79
23:DA:1487:G:H2'	23:DA:1488:G:H8	1.45	0.79
45:DW:36:ILE:HD12	45:DW:58:THR:HG21	1.63	0.79
42:BT:41:ASN:O	42:BT:45:THR:HG23	1.81	0.79
23:DA:605:C:H1'	23:DA:657:U:O2'	1.82	0.79
23:BA:1019:U:H3	23:BA:114(B):A:N6	1.79	0.79
3:CC:138:VAL:HG23	3:CC:151:VAL:HG23	1.64	0.79
3:CC:152:ILE:HD11	3:CC:167:TRP:CD1	2.17	0.79
44:DV:69:THR:HG22	44:DV:90:VAL:HA	1.63	0.79
26:BD:51:PHE:CD1	26:BD:52:LEU:HD12	2.18	0.79
23:BA:363(A):G:H2'	23:BA:363(B):A:C8	2.17	0.79
12:CL:52:ARG:HG3	12:CL:52:ARG:HH11	1.46	0.79
37:DO:31:SER:HB3	37:DO:34:HIS:HB2	1.64	0.79
1:AA:556:C:O2	1:AA:556:C:H2'	1.83	0.79
4:CD:92:VAL:HG12	4:CD:96:LEU:HD23	1.63	0.79
23:DA:2208:U:O2'	23:DA:2209:C:H5'	1.82	0.79
23:DA:2790:A:H2'	23:DA:2791:C:H5''	1.61	0.79
29:BG:44:VAL:HG12	29:BG:45:VAL:H	1.45	0.79
52:B4:8:ASN:ND2	52:B4:11:LYS:H	1.81	0.79
23:BA:857:C:H4'	45:BW:23:VAL:HG21	1.64	0.79
19:AS:6:LYS:HG2	19:AS:7:LYS:HD3	1.63	0.79
30:BH:83:ALA:CB	30:BH:123:LEU:HD12	2.13	0.79
41:DS:29:LEU:CD2	41:DS:33:ARG:HE	1.94	0.79
1:AA:1329:A:H5''	13:AM:26:GLY:N	1.97	0.79
33:DK:90:GLN:O	33:DK:91:LEU:HB2	1.83	0.79
30:BH:66:GLU:HG2	30:BH:67:ARG:NH2	1.96	0.79
3:AC:43:LEU:HD22	3:AC:47:LEU:HD22	1.63	0.79
34:DL:132:LYS:H	34:DL:132:LYS:HD3	1.48	0.79
39:BQ:92:ARG:HB2	39:BQ:92:ARG:HH11	1.47	0.79
23:DA:1437:C:H2'	23:DA:1438:U:C6	2.18	0.79
52:B4:19:ARG:HH11	52:B4:19:ARG:CG	1.96	0.79
46:DX:13:ILE:HG12	46:DX:63:ALA:CB	2.13	0.79
34:BL:16:ARG:NH1	34:BL:18:ARG:HG3	1.97	0.79
23:BA:760:G:C2'	23:BA:761:A:H5'	2.13	0.79
18:CR:26:LEU:HD11	18:CR:42:ARG:HD2	1.62	0.79
43:BU:17:SER:CA	43:BU:71:LYS:HD2	2.12	0.79
1:AA:950:U:OP2	13:AM:102:ARG:HG3	1.81	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DT:84:ALA:HB3	42:DT:87:GLN:NE2	1.97	0.79
1:AA:91:C:H2'	1:AA:92:G:C8	2.18	0.79
1:AA:832:C:H42	1:AA:854:G:H1	1.31	0.79
1:CA:370:C:O2'	1:CA:371:G:H5'	1.82	0.79
28:DF:39:ILE:HG12	28:DF:157:ILE:HG22	1.64	0.79
13:CM:67:GLU:HG3	13:CM:68:GLY:H	1.48	0.79
38:DP:51:ARG:NH1	38:DP:51:ARG:HG3	1.88	0.79
1:CA:1371:G:OP1	9:CI:11:LYS:HB3	1.82	0.79
1:AA:1070:U:H2'	1:AA:1071:C:C6	2.18	0.79
4:AD:126:ILE:HG22	4:AD:127:THR:H	1.48	0.79
34:BL:16:ARG:C	34:BL:16:ARG:HE	1.85	0.79
27:BE:132:VAL:HG23	27:BE:133:ASN:H	1.49	0.79
53:B5:57:ARG:HB2	53:B5:57:ARG:NH1	1.97	0.79
23:DA:1373:A:H2'	23:DA:1374:G:O4'	1.82	0.79
6:AF:98:LEU:HD13	6:AF:101:ALA:HB2	1.64	0.79
15:AO:56:LEU:O	15:AO:60:VAL:HG23	1.83	0.79
34:BL:59:LEU:CA	34:BL:61:ARG:NE	2.45	0.78
39:DQ:91:ASP:OD2	39:DQ:96:ALA:HB2	1.81	0.78
2:CB:101:MET:HA	2:CB:108:ILE:HG13	1.64	0.78
1:CA:556:C:O2	1:CA:556:C:H2'	1.83	0.78
23:BA:780:G:H21	23:BA:783:A:H62	1.27	0.78
38:DP:54:ARG:CG	38:DP:54:ARG:HH11	1.94	0.78
38:BP:51:ARG:HG3	38:BP:51:ARG:NH1	1.94	0.78
5:AE:78:HIS:CD2	8:AH:104:ARG:HG2	2.19	0.78
1:AA:476:G:H2'	1:AA:477:G:H8	1.48	0.78
23:BA:2531:A:H5'	29:BG:157:TYR:CZ	2.18	0.78
40:DR:100:ARG:HG3	40:DR:100:ARG:O	1.81	0.78
46:DX:19:GLN:HG3	46:DX:41:ARG:HE	1.47	0.78
27:BE:53:THR:HG23	27:BE:56:GLU:OE1	1.83	0.78
43:DU:17:SER:CA	43:DU:71:LYS:HD2	2.13	0.78
4:AD:100:ARG:NH1	4:AD:137:SER:HA	1.99	0.78
28:BF:41:GLN:HB3	28:BF:43:LEU:HD13	1.66	0.78
23:BA:2219:G:H2'	23:BA:2224:G:C5'	2.14	0.78
1:CA:266:G:H5'	1:CA:267:C:C5	2.18	0.78
8:CH:92:ARG:HB3	8:CH:94:TYR:CE2	2.17	0.78
32:DJ:63:PRO:O	39:DQ:64:ARG:HD2	1.81	0.78
3:AC:59:ARG:HG2	3:AC:64:VAL:HG22	1.65	0.78
3:CC:105:GLU:HG2	3:CC:106:VAL:H	1.48	0.78
23:DA:528:A:H3'	23:DA:528:A:C8	2.19	0.78
30:BH:100:ALA:HA	30:BH:103:ARG:HB2	1.64	0.78
52:B4:12:ARG:HH11	52:B4:12:ARG:HG3	1.49	0.78
1:AA:99:C:O2'	1:AA:101:A:H5''	1.84	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BT:63:LYS:CD	42:BT:72:LYS:HA	2.01	0.78
53:B5:62:LEU:HB3	53:B5:63:PRO:HD3	1.65	0.78
1:CA:91:C:H2'	1:CA:92:G:C8	2.18	0.78
1:CA:1154:G:H2'	1:CA:1155:G:C8	2.17	0.78
23:DA:1046:A:H3'	23:DA:1047:G:H5''	1.66	0.78
18:AR:58:LEU:HD23	18:AR:62:GLU:HB3	1.63	0.78
13:AM:67:GLU:HG3	13:AM:68:GLY:H	1.48	0.78
27:DE:157:VAL:HB	27:DE:194:MET:HB3	1.65	0.78
30:BH:5:LEU:H	30:BH:5:LEU:HD23	1.47	0.78
23:DA:106:C:H1'	43:DU:2:ARG:HE	1.49	0.78
52:B4:8:ASN:HD22	52:B4:9:ARG:N	1.82	0.78
34:BL:114:ILE:HD11	34:BL:127:ALA:CB	2.12	0.78
23:DA:1658:C:OP1	26:DD:132:HIS:CE1	2.36	0.78
42:DT:57:LEU:CD1	42:DT:78:LYS:HB2	2.14	0.78
3:CC:195:VAL:HG12	3:CC:196:LEU:N	1.99	0.78
29:BG:144:VAL:O	29:BG:148:ILE:HG12	1.82	0.78
1:CA:987:G:H1	1:CA:1218:C:H42	1.32	0.78
20:AT:45:GLN:HB2	20:AT:91:LEU:HD13	1.64	0.78
1:CA:1010:G:H2'	1:CA:1011:G:C8	2.19	0.78
23:DA:971:C:H2'	23:DA:972:G:H5'	1.65	0.78
50:D2:41:PRO:HG2	50:D2:44:THR:HG21	1.65	0.78
13:AM:91:ARG:HH11	19:AS:81:ARG:HH22	1.31	0.78
1:AA:688:G:H2'	1:AA:689:C:H6	1.48	0.78
23:BA:1209:G:H21	23:BA:1210:A:N6	1.81	0.78
23:DA:661:C:H4'	34:DL:18:ARG:HG2	1.64	0.78
5:AE:50:GLU:OE2	5:AE:51:VAL:HG23	1.83	0.78
1:AA:475:G:H2'	1:AA:476:G:C8	2.18	0.78
42:DT:24:GLY:HA3	42:DT:82:GLN:HE22	1.48	0.78
25:DC:8:PRO:HB3	25:DC:14:ARG:HB2	1.65	0.78
1:AA:601:C:H2'	1:AA:602:A:C8	2.19	0.78
1:AA:495:A:H4'	1:AA:496:A:OP1	1.83	0.78
24:BB:49:C:OP1	37:BO:97:ARG:HG3	1.84	0.78
29:BG:95:ARG:HH22	29:BG:97:ARG:NH2	1.82	0.78
28:BF:109:VAL:HG11	28:BF:142:PRO:HG3	1.66	0.78
10:AJ:51:ARG:HB2	10:AJ:60:ARG:HA	1.66	0.78
34:DL:33:ARG:HB3	34:DL:36:LYS:HD3	1.66	0.78
44:BV:125:LEU:HD22	44:BV:164:ALA:HB3	1.66	0.78
26:DD:51:PHE:CD1	26:DD:52:LEU:HD12	2.18	0.78
25:DC:87:ASN:N	25:DC:87:ASN:HD22	1.79	0.78
26:BD:111:ARG:HA	36:BN:2:ARG:HH11	1.49	0.78
43:DU:2:ARG:HG2	43:DU:3:VAL:HG23	1.66	0.78
23:BA:1520:U:H2'	23:BA:1521:G:O4'	1.84	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:2875:C:H4'	38:DP:5:ALA:HB2	1.66	0.78
2:CB:8:LYS:HA	2:CB:217:ARG:HH12	1.49	0.78
36:DN:38:VAL:HB	36:DN:39:PRO:CD	2.14	0.78
39:BQ:82:GLY:HA3	39:BQ:113:ALA:HB1	1.64	0.78
3:AC:195:VAL:HG12	3:AC:196:LEU:N	1.99	0.78
25:BC:27:THR:HG23	25:BC:27:THR:O	1.83	0.78
1:AA:1129:C:H1'	1:AA:1130:A:OP2	1.84	0.78
1:CA:1117:G:H21	1:CA:1180:A:H1'	1.47	0.78
4:AD:3:ARG:HD3	4:AD:5:ILE:HD11	1.64	0.77
23:DA:389:G:N1	34:DL:71:VAL:HG23	1.99	0.77
3:AC:105:GLU:HG2	3:AC:106:VAL:H	1.49	0.77
1:AA:509:A:H5'	4:AD:54:TYR:HD2	1.49	0.77
29:DG:30:LYS:HE2	29:DG:80:SER:O	1.84	0.77
32:BJ:81:ASP:CG	32:BJ:147:ALA:HB1	2.04	0.77
4:AD:204:ILE:HG21	5:AE:98:THR:O	1.84	0.77
34:DL:114:ILE:HD13	34:DL:130:PHE:CE1	2.20	0.77
36:DN:11:ASN:OD1	36:DN:12:ARG:N	2.17	0.77
32:BJ:93:LYS:HE3	32:BJ:95:TYR:HE1	1.49	0.77
42:DT:49:VAL:HG21	42:DT:83:VAL:HG12	1.65	0.77
23:DA:1021:A:N6	23:DA:1141:U:H3	1.82	0.77
23:BA:1437:C:H2'	23:BA:1438:U:C6	2.19	0.77
23:BA:662:G:OP1	34:BL:18:ARG:HD2	1.83	0.77
25:DC:125:ILE:O	25:DC:125:ILE:HG22	1.84	0.77
23:BA:1658:C:OP1	26:BD:132:HIS:CE1	2.37	0.77
25:DC:106:ILE:HD12	25:DC:106:ILE:N	1.98	0.77
24:BB:15:A:H5'	24:BB:16:G:C8	2.19	0.77
2:AB:97:TRP:HZ2	2:AB:102:LEU:HD13	1.48	0.77
1:AA:1154:G:H2'	1:AA:1155:G:C8	2.19	0.77
2:AB:8:LYS:HA	2:AB:217:ARG:HH12	1.49	0.77
25:DC:28:GLU:HB3	25:DC:29:PRO:HD3	1.67	0.77
34:DL:97:PRO:HD3	34:DL:126:VAL:HG12	1.66	0.77
25:DC:33:LEU:O	25:DC:36:PRO:HD2	1.84	0.77
1:CA:377:G:OP1	16:CP:3:LYS:HD2	1.84	0.77
25:BC:33:LEU:O	25:BC:36:PRO:HD2	1.84	0.77
34:DL:16:ARG:O	34:DL:16:ARG:NE	2.17	0.77
36:DN:2:ARG:C	36:DN:4:LEU:H	1.87	0.77
10:AJ:75:ILE:HG13	10:AJ:76:ASN:H	1.49	0.77
40:BR:34:GLU:O	40:BR:36:PRO:HD3	1.84	0.77
6:CF:78:GLU:O	6:CF:81:ILE:HG13	1.84	0.77
32:DJ:81:ASP:CG	32:DJ:147:ALA:HB1	2.04	0.77
10:AJ:48:THR:HG22	10:AJ:62:HIS:ND1	2.00	0.77
23:BA:860:U:C5	23:BA:917:A:N7	2.52	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:1546:A:N7	23:BA:154(B):C:O2	2.18	0.77
34:BL:147:LEU:HD13	34:BL:148:LEU:O	1.84	0.77
27:DE:164:ARG:HG3	27:DE:175:THR:OG1	1.84	0.77
42:BT:49:VAL:HG21	42:BT:83:VAL:HG12	1.67	0.77
4:AD:108:LEU:HB3	4:AD:110:PHE:HE2	1.47	0.77
23:DA:2687:U:C4	23:DA:2688:U:C5	2.73	0.77
33:DK:99:PHE:CD1	33:DK:99:PHE:N	2.50	0.77
1:CA:625:G:C4	1:CA:626:U:C5	2.72	0.77
29:DG:88:LEU:HB3	29:DG:90:LYS:HD3	1.67	0.77
23:DA:2562:U:H1'	33:DK:23:ARG:HH11	1.49	0.77
23:DA:2531:A:H5'	29:DG:157:TYR:CZ	2.19	0.77
23:DA:2286:A:H4'	23:DA:2287:A:O4'	1.85	0.77
43:BU:44:ILE:HG22	43:BU:45:VAL:H	1.49	0.77
23:BA:1963:U:H2'	23:BA:1963:U:O2	1.84	0.77
1:CA:1129:C:H1'	1:CA:1130:A:OP2	1.84	0.77
52:D4:11:LYS:HD2	52:D4:15:THR:CG2	2.14	0.77
1:AA:790:A:H5'	22:AV:6192:G:H4'	1.67	0.77
23:DA:114(B):A:H4'	32:DJ:48:ARG:HH22	1.48	0.77
23:BA:380:U:C2	46:BX:20:ARG:NH2	2.52	0.77
13:AM:23:TYR:CZ	13:AM:71:ARG:HD3	2.20	0.77
32:DJ:38:LEU:CD2	32:DJ:157:ARG:HG3	2.15	0.77
47:BY:6:VAL:O	47:BY:10:LEU:HG	1.85	0.77
4:CD:25:ARG:HG2	4:CD:30:LYS:HG3	1.65	0.77
26:DD:77:ILE:HD13	26:DD:195:LEU:HD12	1.65	0.77
23:BA:528:A:H2	23:BA:2043:C:C5'	1.98	0.77
23:BA:528:A:H8	23:BA:528:A:H3'	1.49	0.77
36:BN:2:ARG:C	36:BN:4:LEU:H	1.87	0.77
33:DK:98:VAL:HG11	33:DK:114:ILE:HG23	1.66	0.77
1:AA:1010:G:H2'	1:AA:1011:G:C8	2.20	0.77
1:CA:1064:G:H21	1:CA:1190:G:H2'	1.48	0.77
25:BC:125:ILE:O	25:BC:125:ILE:HG22	1.85	0.77
33:BK:99:PHE:N	33:BK:99:PHE:HD1	1.81	0.77
47:BY:1:MET:SD	47:BY:5:GLU:HG2	2.25	0.77
25:DC:10:THR:HG23	25:DC:13:ARG:CB	2.13	0.77
29:DG:101:ARG:HE	29:DG:101:ARG:H	0.81	0.77
10:CJ:75:ILE:HG13	10:CJ:76:ASN:H	1.49	0.77
23:DA:323:G:H5'	27:DE:169:ASN:HD21	1.48	0.77
23:BA:1046:A:H3'	23:BA:1047:G:H5''	1.66	0.77
1:AA:370:C:O2'	1:AA:371:G:H5'	1.85	0.77
23:DA:7:G:H1	23:DA:2896:C:H42	1.31	0.77
1:CA:781:A:C3'	1:CA:782:A:H5'	2.14	0.77
23:BA:2781:A:H5''	23:BA:2782:G:C5'	2.05	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DU:7:VAL:HG12	43:DU:8:LYS:CG	2.07	0.77
25:BC:233:HIS:CE1	25:BC:247:ALA:H	2.03	0.77
35:BM:76:LYS:N	35:BM:88:GLY:HA2	1.99	0.77
42:DT:31:HIS:ND1	42:DT:32:PRO:HD2	2.00	0.77
28:BF:128:ARG:NE	28:BF:129:GLY:H	1.81	0.77
4:CD:28:SER:HB3	4:CD:29:PRO:HD2	1.67	0.77
1:AA:1073:U:H2'	1:AA:1074:G:H8	1.50	0.77
25:DC:25:THR:CG2	25:DC:82:ILE:H	1.98	0.77
1:CA:1191:A:H5''	3:CC:4:LYS:NZ	2.00	0.77
43:BU:50:ARG:HD3	43:BU:51:VAL:H	1.48	0.77
53:D5:52:LYS:H	53:D5:53:PRO:HD2	1.50	0.77
53:D5:62:LEU:HB3	53:D5:63:PRO:CD	2.15	0.77
39:BQ:98:LEU:O	39:BQ:100:VAL:N	2.17	0.77
32:DJ:105:LEU:CD1	32:DJ:106:LYS:H	1.98	0.77
23:BA:2353:G:O6	23:BA:2353:G:C5	2.38	0.77
28:BF:77:ILE:HG22	28:BF:80:PHE:H	1.50	0.77
23:BA:389:G:N1	34:BL:71:VAL:HG23	2.01	0.77
11:CK:21:ILE:HA	11:CK:30:VAL:HG12	1.67	0.77
34:DL:7:ARG:O	34:DL:10:PRO:HD3	1.85	0.77
24:DB:78:A:C2	24:DB:99:A:C4	2.73	0.77
34:BL:33:ARG:HB3	34:BL:36:LYS:CG	2.15	0.76
23:BA:1210:A:C8	23:BA:1210:A:C5'	2.67	0.76
8:AH:58:TYR:O	8:AH:59:LEU:HD23	1.85	0.76
1:AA:625:G:H2'	1:AA:626:U:H6	1.47	0.76
23:BA:2688:U:H3'	23:BA:2688:U:O2	1.85	0.76
43:DU:44:ILE:HG22	43:DU:45:VAL:H	1.48	0.76
23:BA:2598:A:OP1	25:BC:235:GLY:HA3	1.84	0.76
23:BA:2393:A:H5''	34:BL:62:LEU:HD12	1.66	0.76
23:BA:1019:U:H2'	23:BA:1020:A:H8	1.50	0.76
53:B5:62:LEU:HB3	53:B5:63:PRO:CD	2.15	0.76
23:DA:71:A:H2	42:DT:31:HIS:CE1	2.03	0.76
1:AA:735:C:H2'	1:AA:736:C:H6	1.50	0.76
30:DH:5:LEU:H	30:DH:5:LEU:HD23	1.50	0.76
23:DA:1520:U:H2'	23:DA:1521:G:O4'	1.84	0.76
1:AA:106:C:O2'	1:AA:107:G:H5'	1.85	0.76
27:DE:203:GLN:HA	27:DE:206:ILE:O	1.85	0.76
25:BC:28:GLU:HB3	25:BC:29:PRO:HD3	1.67	0.76
1:CA:106:C:O2'	1:CA:107:G:H5'	1.85	0.76
38:BP:42:ILE:O	38:BP:42:ILE:HD12	1.86	0.76
23:DA:733:G:N7	23:DA:761:A:C6	2.53	0.76
23:BA:1683:C:H42	23:BA:1705:G:H1	1.31	0.76
25:BC:238:GLY:O	25:BC:239:ARG:C	2.22	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:100:ARG:HH21	4:AD:118:ARG:HH12	1.32	0.76
48:BZ:43:ILE:HD13	48:BZ:43:ILE:N	2.01	0.76
40:BR:27:ALA:CB	40:BR:61:VAL:HG11	2.14	0.76
23:DA:270(H):C:H2'	23:DA:270(I):C:H6	1.49	0.76
23:BA:256:A:C2'	23:BA:257:A:H5'	2.15	0.76
1:CA:738:C:H2'	1:CA:739:C:C6	2.20	0.76
27:DE:34:TRP:HB2	34:DL:10:PRO:O	1.86	0.76
25:BC:166:GLN:HE21	25:BC:166:GLN:CA	1.97	0.76
1:AA:1422:G:H5''	33:BK:48:PRO:HB3	1.67	0.76
23:DA:226:G:N2	23:DA:228:A:H62	1.83	0.76
34:DL:33:ARG:HG2	34:DL:34:GLY:N	2.00	0.76
23:BA:114(B):A:H4'	32:BJ:48:ARG:HH22	1.51	0.76
25:DC:87:ASN:N	25:DC:87:ASN:ND2	2.32	0.76
23:DA:911:A:H2'	35:DM:9:TYR:OH	1.83	0.76
23:BA:270(H):C:H2'	23:BA:270(I):C:H6	1.49	0.76
1:AA:262:A:H2'	1:AA:263:A:C8	2.20	0.76
45:BW:36:ILE:HD12	45:BW:58:THR:HG21	1.65	0.76
23:DA:960:A:H5''	23:DA:961:C:OP2	1.85	0.76
10:CJ:48:THR:HG22	10:CJ:62:HIS:ND1	1.99	0.76
25:BC:10:THR:HG23	25:BC:13:ARG:CB	2.11	0.76
28:DF:128:ARG:HE	28:DF:129:GLY:N	1.84	0.76
34:DL:16:ARG:NH1	34:DL:18:ARG:HG3	2.01	0.76
5:CE:78:HIS:CD2	8:CH:104:ARG:HG2	2.20	0.76
1:AA:266:G:H5'	1:AA:267:C:C5	2.21	0.76
1:CA:476:G:H2'	1:CA:477:G:H8	1.49	0.76
53:B5:22:VAL:HB	53:B5:54:GLU:HG3	1.68	0.76
23:BA:1475:G:N2	23:BA:1519:G:C4	2.54	0.76
1:CA:170:U:O2'	1:CA:171:A:H5'	1.84	0.76
13:AM:27:LYS:HE2	13:AM:31:LYS:HE3	1.66	0.76
3:CC:59:ARG:HG2	3:CC:64:VAL:HG22	1.67	0.76
1:CA:957:U:H4'	19:CS:79:THR:HB	1.67	0.76
2:AB:63:MET:HG2	2:AB:225:ALA:HB1	1.67	0.76
45:BW:56:ASP:O	45:BW:57:PHE:HB2	1.85	0.76
36:DN:97:VAL:HA	36:DN:113:LEU:O	1.85	0.76
22:AV:6182:A:C2	22:AV:6183:G:C4	2.74	0.76
23:DA:1614:A:H62	41:DS:93:ALA:CB	1.98	0.76
40:BR:40:LEU:HD23	40:BR:47:VAL:HG23	1.68	0.76
25:DC:233:HIS:CE1	25:DC:247:ALA:H	2.03	0.76
26:DD:54:GLN:HG2	26:DD:76:ARG:HG3	1.66	0.76
6:AF:26:ILE:O	6:AF:30:LEU:HD12	1.85	0.76
40:DR:25:LEU:H	40:DR:92:THR:HG21	1.47	0.76
1:CA:625:G:H2'	1:CA:626:U:H6	1.50	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:AK:34:ASP:N	11:AK:40:ILE:HD11	2.00	0.76
23:BA:65:C:H2'	23:BA:66:C:C6	2.20	0.76
43:BU:42:VAL:HG12	43:BU:65:ALA:HB3	1.66	0.76
19:CS:6:LYS:HG2	19:CS:7:LYS:HD3	1.67	0.76
27:BE:34:TRP:HB2	34:BL:10:PRO:O	1.86	0.76
1:AA:624:C:H4'	16:AP:11:SER:H	1.51	0.76
23:BA:2250:G:C6	35:BM:82:ARG:HD2	2.21	0.76
22:CV:6182:A:C2	22:CV:6183:G:C4	2.74	0.76
38:BP:56:GLY:O	38:BP:59:THR:HG22	1.84	0.76
39:BQ:91:ASP:OD2	39:BQ:96:ALA:HB2	1.85	0.76
26:BD:4:ILE:HG12	26:BD:28:ALA:HB1	1.68	0.76
8:CH:58:TYR:O	8:CH:59:LEU:HD23	1.84	0.76
1:AA:555:C:H2'	1:AA:556:C:H6	1.51	0.76
10:AJ:74:ILE:H	10:AJ:74:ILE:HD13	1.49	0.76
29:BG:30:LYS:HE2	29:BG:80:SER:O	1.86	0.76
23:DA:286:C:H2'	23:DA:287:C:H6	1.48	0.76
36:BN:51:LEU:HD23	36:BN:66:VAL:HG22	1.66	0.76
43:DU:15:VAL:HG22	43:DU:72:VAL:HG12	1.66	0.76
32:BJ:38:LEU:CD2	32:BJ:157:ARG:HG3	2.16	0.76
34:DL:50:ARG:HD2	34:DL:51:PHE:N	2.01	0.76
4:AD:110:PHE:H	4:AD:110:PHE:HD2	1.34	0.76
1:CA:265:G:H5'	17:CQ:64:PRO:O	1.86	0.76
43:BU:81:LYS:HD3	43:BU:97:ARG:H	1.51	0.76
1:CA:643:C:H5'	8:CH:31:PHE:CE1	2.20	0.76
23:DA:780:G:H21	23:DA:783:A:H62	1.34	0.76
23:DA:256:A:C2'	23:DA:257:A:H5'	2.16	0.76
13:CM:27:LYS:HE2	13:CM:31:LYS:HE3	1.67	0.76
29:DG:85:LYS:HD3	29:DG:86:GLU:OE2	1.85	0.76
26:BD:5:LEU:HB2	26:BD:51:PHE:CD2	2.21	0.76
3:AC:138:VAL:HG23	3:AC:151:VAL:HG23	1.68	0.76
23:DA:760:G:C2'	23:DA:761:A:H5'	2.16	0.76
4:CD:117:ALA:O	4:CD:121:VAL:HG23	1.86	0.76
28:DF:77:ILE:HG22	28:DF:80:PHE:H	1.50	0.76
33:BK:90:GLN:O	33:BK:91:LEU:HB2	1.85	0.76
23:DA:1379:A:H4'	23:DA:1380:G:OP2	1.86	0.76
18:AR:26:LEU:HD11	18:AR:42:ARG:HD2	1.67	0.76
23:DA:2786:U:H4'	26:DD:65:GLY:O	1.85	0.76
32:DJ:27:TYR:CD2	39:DQ:100:VAL:HG11	2.21	0.76
43:DU:50:ARG:HD3	43:DU:51:VAL:H	1.50	0.76
34:DL:57:THR:HG23	34:DL:59:LEU:CD2	2.12	0.75
38:DP:100:TYR:HB3	38:DP:103:ARG:NH1	2.01	0.75
1:CA:971:G:H1'	1:CA:1365:G:O2'	1.86	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:AT:26:ASN:ND2	20:AT:26:ASN:H	1.83	0.75
20:CT:26:ASN:ND2	20:CT:26:ASN:H	1.84	0.75
27:BE:103:LYS:HA	27:BE:106:ARG:HG3	1.68	0.75
23:DA:1045:A:H5''	23:DA:1047:G:O4'	1.86	0.75
18:CR:26:LEU:HD21	18:CR:42:ARG:HH11	1.49	0.75
45:BW:53:MET:HB2	45:BW:59:LEU:HD23	1.68	0.75
23:DA:966:G:H2'	23:DA:967:C:H6	1.49	0.75
25:BC:182:LEU:H	25:BC:272:ALA:HB3	1.51	0.75
28:DF:114:ILE:HB	28:DF:117:PHE:HB2	1.67	0.75
2:AB:72:GLY:O	2:AB:94:ASN:HA	1.86	0.75
43:BU:2:ARG:HG2	43:BU:3:VAL:HG23	1.67	0.75
23:DA:1778:U:H2'	23:DA:1784:A:N6	2.01	0.75
17:CQ:15:MET:HB3	17:CQ:18:THR:HB	1.68	0.75
32:BJ:118:PRO:O	32:BJ:121:VAL:HG22	1.86	0.75
23:BA:2439:A:C5'	23:BA:2439:A:C8	2.63	0.75
3:CC:18:TRP:CD1	14:CN:54:PRO:HA	2.21	0.75
2:AB:178:ARG:HH22	2:AB:196:LEU:HA	1.51	0.75
44:DV:136:PHE:C	44:DV:137:ILE:HD12	2.05	0.75
23:BA:1434:A:H61	23:BA:1558:A:N6	1.84	0.75
38:BP:26:ASP:HB2	38:BP:90:GLN:O	1.86	0.75
15:AO:30:ALA:HA	15:AO:85:LEU:HD11	1.67	0.75
43:BU:47:LYS:HA	43:BU:60:PHE:CE2	2.21	0.75
23:DA:2593:U:H2'	23:DA:2594:C:C6	2.21	0.75
17:CQ:40:LYS:HD2	17:CQ:42:TYR:CE1	2.22	0.75
47:BY:46:GLN:HB2	47:BY:49:LYS:NZ	2.01	0.75
23:DA:857:C:H4'	45:DW:23:VAL:HG21	1.68	0.75
25:BC:77:ALA:HB2	25:BC:97:TYR:HA	1.68	0.75
23:BA:1110:G:O2'	23:BA:1111:A:H8	1.65	0.75
23:BA:733:G:N7	23:BA:761:A:N6	2.34	0.75
43:DU:76:CYS:HB3	43:DU:77:PRO:HD2	1.68	0.75
26:DD:117:MET:CE	26:DD:124:GLY:HA3	2.17	0.75
27:DE:132:VAL:HG23	27:DE:133:ASN:H	1.51	0.75
23:BA:773:U:C4'	25:BC:47:GLY:HA3	2.17	0.75
24:BB:78:A:C2	24:BB:99:A:C4	2.73	0.75
52:D4:8:ASN:ND2	52:D4:11:LYS:H	1.85	0.75
24:DB:8:U:H5''	37:DO:15:ARG:HH22	1.51	0.75
28:DF:41:GLN:HB3	28:DF:43:LEU:HD13	1.67	0.75
23:BA:330:A:O2'	23:BA:331:A:H8	1.69	0.75
23:DA:547:A:H2'	23:DA:548:A:H8	1.48	0.75
4:CD:9:CYS:CB	4:CD:32:ALA:HB2	2.15	0.75
24:DB:66:A:H61	24:DB:107:U:H2'	1.50	0.75
23:DA:1475:G:N2	23:DA:1519:G:C4	2.54	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:CO:56:LEU:O	15:CO:60:VAL:HG23	1.87	0.75
23:BA:1679:U:C2'	23:BA:1680:U:H5'	2.17	0.75
23:BA:580:C:H2'	23:BA:581:C:H6	1.52	0.75
1:AA:712:A:O2'	1:AA:713:G:H5'	1.87	0.75
13:CM:9:ILE:HG22	13:CM:11:ARG:HG3	1.69	0.75
47:BY:1:MET:HE1	47:BY:5:GLU:HG2	1.69	0.75
25:DC:242:ARG:HH11	25:DC:242:ARG:HG2	1.51	0.75
24:DB:15:A:H5'	24:DB:16:G:C8	2.22	0.75
1:CA:1073:U:H2'	1:CA:1074:G:H8	1.49	0.75
46:DX:46:LEU:HD21	46:DX:61:ARG:HE	1.52	0.75
43:DU:81:LYS:HD3	43:DU:97:ARG:N	2.01	0.75
23:BA:557:U:H2'	23:BA:558:G:H8	1.49	0.75
26:BD:111:ARG:HA	36:BN:2:ARG:HD3	1.69	0.75
23:BA:388:G:OP1	46:BX:33:LYS:HB3	1.86	0.75
46:BX:27:GLU:CD	46:BX:33:LYS:HE3	2.07	0.75
25:DC:133:LEU:C	25:DC:135:PHE:H	1.89	0.75
28:BF:114:ILE:HB	28:BF:117:PHE:HB2	1.68	0.75
22:CV:6177:U:H2'	22:CV:6178:A:C8	2.20	0.75
23:BA:2593:U:H2'	23:BA:2594:C:C6	2.22	0.75
22:AV:6177:U:H2'	22:AV:6178:A:C8	2.20	0.75
23:DA:773:U:H4'	25:DC:47:GLY:HA3	1.69	0.75
12:CL:32:ARG:O	12:CL:84:ILE:HD12	1.85	0.75
37:BO:15:ARG:O	37:BO:19:LYS:HG3	1.87	0.75
29:BG:101:ARG:HE	29:BG:101:ARG:H	0.82	0.75
23:DA:861:A:H2'	23:DA:862:G:H5'	1.68	0.75
23:DA:2210:G:H3'	23:DA:2210:G:N3	2.02	0.75
25:DC:87:ASN:H	25:DC:87:ASN:ND2	1.84	0.75
8:AH:12:ARG:NH1	8:AH:26:VAL:HA	2.01	0.75
28:DF:109:VAL:HG11	28:DF:142:PRO:HG3	1.66	0.75
40:DR:20:LEU:HD23	40:DR:94:LEU:HB2	1.69	0.75
29:DG:95:ARG:HH22	29:DG:97:ARG:NH2	1.83	0.75
29:BG:92:ILE:HG22	29:BG:93:GLY:N	2.02	0.75
23:DA:1132:A:O2'	23:DA:1133:U:H5'	1.86	0.75
1:CA:1226:C:N4	13:CM:104:ARG:HD2	2.01	0.75
34:BL:114:ILE:HD13	34:BL:130:PHE:CE1	2.21	0.75
23:BA:1021:A:N6	23:BA:1141:U:H3	1.83	0.75
25:BC:72:LYS:HD2	25:BC:75:ILE:HD12	1.68	0.75
2:CB:54:THR:HG21	2:CB:201:ILE:HD11	1.67	0.75
42:BT:31:HIS:ND1	42:BT:32:PRO:HD2	2.00	0.75
6:CF:98:LEU:HD13	6:CF:101:ALA:HB2	1.68	0.75
24:BB:21:G:H1	24:BB:62:C:H42	1.34	0.75
27:BE:183:VAL:O	27:BE:187:VAL:HG23	1.86	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BB:75:G:H21	44:BV:85:HIS:HE1	1.33	0.75
11:AK:21:ILE:HA	11:AK:30:VAL:HG12	1.69	0.75
25:DC:131:LEU:HA	25:DC:190:TYR:CE2	2.22	0.75
36:BN:97:VAL:HA	36:BN:113:LEU:O	1.87	0.75
23:DA:2015:A:H1'	50:D2:2:ALA:CA	2.14	0.75
25:BC:155:LEU:CD2	25:BC:177:LEU:HD21	2.14	0.75
43:DU:27:VAL:HG23	43:DU:27:VAL:O	1.85	0.75
13:CM:91:ARG:HH11	19:CS:81:ARG:HH22	1.31	0.75
40:DR:40:LEU:HD23	40:DR:47:VAL:HG23	1.67	0.75
30:DH:83:ALA:CB	30:DH:123:LEU:HD12	2.16	0.75
23:BA:2210:G:H3'	23:BA:2210:G:N3	2.01	0.75
26:BD:5:LEU:HD23	26:BD:5:LEU:N	2.00	0.75
23:DA:2688:U:O2	23:DA:2688:U:H3'	1.86	0.75
24:BB:15:A:H5'	24:BB:16:G:H8	1.52	0.75
5:AE:77:PRO:HD2	5:AE:142:LEU:HD22	1.69	0.75
36:BN:54:LEU:HD22	36:BN:66:VAL:HG23	1.69	0.75
23:BA:1401:G:H2'	23:BA:1402:C:C6	2.21	0.75
23:BA:1418:G:H8	23:BA:1418:G:O5'	1.70	0.75
23:BA:2637:U:H5''	26:BD:82:ARG:NH2	2.00	0.75
30:BH:2:LYS:HG3	30:BH:39:ALA:HB3	1.69	0.75
23:DA:1541:U:H5''	23:DA:1543:A:P	2.27	0.75
25:BC:106:ILE:H	25:BC:106:ILE:CD1	2.00	0.75
42:BT:28:PHE:CD1	42:BT:28:PHE:N	2.55	0.75
26:DD:111:ARG:HA	36:DN:2:ARG:HD3	1.68	0.75
1:AA:1152:A:H2'	1:AA:1153:C:C6	2.21	0.75
46:BX:11:ARG:HG3	46:BX:11:ARG:HH11	1.52	0.75
5:CE:50:GLU:OE2	5:CE:51:VAL:HG23	1.87	0.75
23:BA:380:U:O2'	46:BX:20:ARG:HB3	1.86	0.75
23:BA:1679:U:H2'	23:BA:1680:U:H5'	1.69	0.75
25:DC:132:PRO:HG3	25:DC:190:TYR:CE1	2.22	0.75
1:AA:913:A:H1'	1:AA:914:A:OP2	1.87	0.75
43:BU:7:VAL:HG12	43:BU:8:LYS:CG	2.12	0.74
23:DA:1543:A:H3'	23:DA:1543:A:H8	1.51	0.74
23:BA:1543:A:H8	23:BA:1543:A:H3'	1.51	0.74
23:DA:917:A:H5'	23:DA:918:A:OP2	1.87	0.74
3:AC:18:TRP:CD1	14:AN:54:PRO:HA	2.21	0.74
47:DY:6:VAL:O	47:DY:10:LEU:HG	1.86	0.74
28:BF:128:ARG:HE	28:BF:129:GLY:N	1.84	0.74
43:BU:27:VAL:O	43:BU:27:VAL:HG23	1.86	0.74
1:CA:1152:A:H2'	1:CA:1153:C:C6	2.22	0.74
23:BA:773:U:H4'	25:BC:47:GLY:HA3	1.67	0.74
35:DM:66:ILE:HG22	35:DM:104:PHE:CD2	2.22	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DB:18:G:H1	24:DB:65:C:H42	1.35	0.74
9:CI:19:LEU:HD21	9:CI:59:PHE:HB3	1.68	0.74
12:AL:110:LYS:O	12:AL:111:ASP:HB2	1.86	0.74
43:DU:47:LYS:HA	43:DU:60:PHE:CE2	2.21	0.74
43:DU:8:LYS:HD2	43:DU:13:VAL:HG21	1.69	0.74
1:CA:1226:C:H2'	13:CM:103:THR:HB	1.69	0.74
1:AA:691:G:O6	11:AK:52:GLY:HA2	1.87	0.74
23:BA:547:A:H2'	23:BA:548:A:H8	1.48	0.74
23:DA:1596:A:C2'	23:DA:1597:A:H5'	2.17	0.74
26:DD:5:LEU:N	26:DD:5:LEU:HD23	2.02	0.74
23:BA:2747:G:O6	23:BA:2755:C:H5''	1.87	0.74
3:AC:43:LEU:O	3:AC:47:LEU:HB3	1.88	0.74
23:DA:257:A:H2'	23:DA:258:G:O5'	1.87	0.74
1:CA:1259:C:H1'	1:CA:1283:G:H21	1.53	0.74
33:BK:31:LYS:HB3	33:BK:32:TYR:CE1	2.23	0.74
1:CA:832:C:H42	1:CA:854:G:H1	1.35	0.74
21:CU:18:TYR:HD2	21:CU:22:ARG:HG2	1.52	0.74
38:DP:26:ASP:HB2	38:DP:90:GLN:O	1.87	0.74
1:AA:337:C:H2'	1:AA:338:A:H8	1.52	0.74
40:DR:40:LEU:H	40:DR:47:VAL:HG22	1.51	0.74
37:DO:15:ARG:O	37:DO:19:LYS:HG3	1.87	0.74
20:AT:72:LEU:HD23	20:AT:73:HIS:N	2.02	0.74
23:DA:662:G:P	34:DL:18:ARG:HD2	2.27	0.74
44:BV:58:VAL:HA	44:BV:67:LEU:O	1.87	0.74
32:DJ:38:LEU:HD12	32:DJ:39:ILE:N	2.02	0.74
42:DT:28:PHE:CD1	42:DT:28:PHE:N	2.55	0.74
23:DA:1209:G:H21	23:DA:1210:A:N6	1.85	0.74
23:DA:1331:A:HO2'	23:DA:1332:G:H8	1.36	0.74
42:BT:30:VAL:HG12	42:BT:31:HIS:N	2.02	0.74
23:DA:388:G:OP1	46:DX:33:LYS:HB3	1.86	0.74
1:AA:39:G:C2	1:AA:40:C:C6	2.75	0.74
7:AG:131:LYS:HE3	7:AG:136:LYS:NZ	2.03	0.74
23:DA:333:G:C6	23:DA:334:C:N4	2.55	0.74
2:AB:127:ILE:N	2:AB:127:ILE:HD13	2.02	0.74
23:DA:737:C:C2'	23:DA:738:G:H5'	2.18	0.74
1:CA:376:G:OP2	16:CP:67:THR:HG21	1.86	0.74
16:CP:22:THR:HG22	16:CP:32:TYR:HB3	1.68	0.74
33:BK:119:PRO:HB2	38:BP:68:TYR:HE1	1.53	0.74
23:DA:1188:U:O2'	23:DA:1189:A:H5'	1.87	0.74
25:DC:238:GLY:O	25:DC:239:ARG:C	2.26	0.74
46:DX:31:GLY:O	46:DX:32:LYS:HB2	1.87	0.74
46:BX:11:ARG:HH12	46:BX:61:ARG:H	1.35	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:911:A:H2'	35:BM:9:TYR:OH	1.87	0.74
3:CC:43:LEU:O	3:CC:47:LEU:HB3	1.87	0.74
35:BM:120:ILE:O	35:BM:123:HIS:HB2	1.87	0.74
1:CA:175:C:H2'	1:CA:176:C:H6	1.53	0.74
44:DV:179:ASP:OD1	44:DV:180:VAL:HG13	1.87	0.74
33:BK:98:VAL:HG11	33:BK:114:ILE:HG23	1.69	0.74
1:AA:979:C:H3'	1:AA:980:C:C5'	2.16	0.74
40:DR:13:ARG:C	40:DR:13:ARG:HD2	2.08	0.74
12:AL:32:ARG:O	12:AL:84:ILE:HD12	1.87	0.74
2:CB:77:ALA:HB2	2:CB:211:ILE:HD13	1.69	0.74
47:DY:28:LYS:HE3	47:DY:56:GLN:HE22	1.50	0.74
4:CD:3:ARG:HD3	4:CD:5:ILE:HD11	1.69	0.74
32:BJ:105:LEU:CD1	32:BJ:106:LYS:H	1.99	0.74
1:AA:1347:G:N2	1:AA:1373:G:H2'	2.03	0.74
23:BA:528:A:H2	23:BA:2043:C:H5'	1.51	0.74
25:BC:132:PRO:HG3	25:BC:190:TYR:CE1	2.23	0.74
23:BA:1401:G:H2'	23:BA:1402:C:H6	1.51	0.74
23:DA:17:G:H4'	39:DQ:25:TRP:CH2	2.22	0.74
1:AA:841:U:O2'	1:AA:842:C:H5''	1.86	0.74
1:CA:495:A:H4'	1:CA:496:A:OP1	1.87	0.74
50:D2:40:LYS:NZ	50:D2:49:CYS:HB3	2.03	0.74
43:BU:63:LYS:HG3	43:BU:64:GLU:H	1.53	0.74
4:AD:117:ALA:O	4:AD:121:VAL:HG23	1.86	0.74
16:CP:17:TYR:H	16:CP:17:TYR:HD1	1.33	0.74
40:BR:13:ARG:HD2	40:BR:13:ARG:C	2.08	0.74
1:CA:262:A:H2'	1:CA:263:A:C8	2.23	0.74
1:CA:1329:A:N7	21:CU:7:ARG:NH2	2.36	0.74
24:BB:66:A:H61	24:BB:107:U:H2'	1.50	0.74
40:BR:64:HIS:CD2	40:BR:92:THR:HG22	2.22	0.74
1:AA:170:U:O2'	1:AA:171:A:H5'	1.88	0.74
29:BG:95:ARG:HH22	29:BG:97:ARG:HH21	1.34	0.74
40:DR:91:TYR:CG	40:DR:91:TYR:O	2.39	0.74
23:DA:1434:A:H61	23:DA:1558:A:N6	1.83	0.74
1:CA:1057:G:H4'	3:CC:197:GLY:H	1.52	0.74
22:CV:6192:G:H2'	22:CV:6193:U:C6	2.23	0.74
23:DA:2846:G:H2'	23:DA:2847:U:H6	1.53	0.74
23:DA:1566:A:OP1	25:DC:211:ARG:NH1	2.21	0.74
23:DA:1614:A:N6	41:DS:87:PRO:HA	2.02	0.74
23:DA:1019:U:H3	23:DA:114(B):A:H62	1.35	0.74
23:DA:1639:U:C2'	23:DA:1640:C:H5''	2.18	0.74
41:BS:9:TYR:H	41:BS:102:HIS:CD2	2.04	0.74
23:BA:966:G:H2'	23:BA:967:C:H6	1.52	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1513:A:H2'	1:CA:1514:C:C6	2.23	0.74
25:DC:79:VAL:HG21	25:DC:111:LEU:HD11	1.70	0.74
23:DA:1799:G:H8	25:DC:181:GLU:OE1	1.69	0.74
23:DA:2681:C:H5	23:DA:2725:A:N6	1.76	0.74
23:DA:2219:G:H2'	23:DA:2224:G:C5'	2.18	0.74
1:AA:828:A:H2'	1:AA:829:G:O4'	1.88	0.74
13:CM:23:TYR:CZ	13:CM:71:ARG:HD3	2.22	0.74
23:BA:2815:C:O2'	50:B2:43:HIS:HD2	1.69	0.74
30:DH:66:GLU:HG2	30:DH:67:ARG:NH2	2.02	0.74
18:CR:66:LEU:O	18:CR:70:ILE:HG13	1.87	0.74
26:BD:170:LEU:HD23	26:BD:170:LEU:N	2.03	0.74
27:DE:164:ARG:HG2	27:DE:164:ARG:NH1	1.98	0.74
34:DL:47:ASP:OD1	34:DL:49:ARG:HG2	1.88	0.74
32:DJ:154:GLN:NE2	32:DJ:155:ALA:HB3	2.03	0.74
3:CC:20:SER:HB2	3:CC:40:ARG:NH1	2.03	0.74
20:CT:72:LEU:HD23	20:CT:73:HIS:N	2.03	0.74
23:DA:1826:G:OP1	25:DC:233:HIS:HD2	1.71	0.74
23:DA:1404:C:O2	23:DA:1404:C:H2'	1.87	0.74
25:BC:231:HIS:CD2	25:BC:249:PRO:HA	2.21	0.74
2:AB:54:THR:HG21	2:AB:201:ILE:HD11	1.67	0.74
1:CA:828:A:H2'	1:CA:829:G:O4'	1.88	0.74
24:DB:49:C:OP1	37:DO:97:ARG:HG3	1.87	0.74
23:BA:1952:A:C5	33:BK:22:ILE:HD11	2.22	0.74
20:CT:13:LEU:H	20:CT:13:LEU:HD12	1.53	0.74
23:BA:2208:U:O2'	23:BA:2209:C:H5'	1.87	0.74
13:AM:9:ILE:HG22	13:AM:11:ARG:HG3	1.69	0.74
25:DC:176:ARG:HG2	25:DC:176:ARG:HH11	1.52	0.74
23:BA:1541:U:H5''	23:BA:1543:A:P	2.27	0.73
25:BC:76:PRO:HB3	25:BC:116:GLN:HE21	1.53	0.73
1:CA:735:C:H2'	1:CA:736:C:H6	1.52	0.73
8:CH:91:ARG:HH11	8:CH:91:ARG:HG3	1.52	0.73
36:DN:54:LEU:HD22	36:DN:66:VAL:HG23	1.70	0.73
27:BE:101:LEU:O	27:BE:106:ARG:NH1	2.20	0.73
53:B5:51:ALA:H	53:B5:54:GLU:HB2	1.52	0.73
10:AJ:4:ILE:HD12	10:AJ:100:THR:HG22	1.70	0.73
28:DF:36:LYS:HB3	28:DF:160:VAL:HB	1.70	0.73
10:CJ:51:ARG:HB2	10:CJ:60:ARG:HA	1.70	0.73
6:CF:87:ARG:HG3	6:CF:87:ARG:HH11	1.51	0.73
4:AD:9:CYS:CB	4:AD:32:ALA:HB2	2.17	0.73
1:CA:93:U:H2'	1:CA:95:G:C8	2.23	0.73
1:CA:99:C:O2'	1:CA:101:A:H5''	1.87	0.73
18:AR:26:LEU:HD21	18:AR:42:ARG:HH11	1.52	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BU:30:VAL:HG23	43:BU:37:VAL:HG12	1.71	0.73
24:DB:21:G:H1	24:DB:62:C:H42	1.36	0.73
4:CD:36:ARG:HG2	4:CD:38:TYR:OH	1.89	0.73
17:AQ:31:LEU:HD23	17:AQ:32:TYR:CZ	2.22	0.73
9:AI:19:LEU:HG	9:AI:60:ASP:O	1.87	0.73
23:BA:2015:A:H1'	50:B2:2:ALA:CA	2.13	0.73
22:AV:6192:G:H2'	22:AV:6193:U:C6	2.23	0.73
6:AF:87:ARG:HH11	6:AF:87:ARG:HG3	1.53	0.73
23:DA:140:A:H8	23:DA:1408:C:HO2'	1.36	0.73
12:AL:45:LYS:HG3	12:AL:91:ASP:O	1.87	0.73
34:BL:7:ARG:O	34:BL:10:PRO:HD3	1.87	0.73
23:DA:2784:C:H1'	26:DD:37:ARG:HH12	1.53	0.73
38:BP:89:VAL:O	38:BP:90:GLN:HB2	1.87	0.73
25:BC:201:HIS:O	25:BC:204:ILE:HG13	1.89	0.73
23:BA:2101:G:H2'	23:BA:2102:U:H5'	1.70	0.73
10:CJ:74:ILE:H	10:CJ:74:ILE:HD13	1.53	0.73
1:CA:1432:G:OP1	38:DP:107:ASP:HB2	1.87	0.73
1:CA:659:U:O2'	1:CA:660:G:H5'	1.87	0.73
34:DL:38:GLN:CG	34:DL:39:LYS:H	2.00	0.73
23:DA:2389:G:H5''	23:DA:2390:U:C5'	2.12	0.73
1:CA:136(A):C:C2'	1:CA:136(B):C:H5''	2.18	0.73
23:BA:322:A:H3'	27:BE:169:ASN:ND2	2.03	0.73
20:AT:57:ARG:HH11	20:AT:102:GLY:HA2	1.53	0.73
1:AA:17:U:H1'	1:AA:1080:A:N3	2.04	0.73
37:BO:51:ALA:HB1	37:BO:72:ALA:HB1	1.68	0.73
4:AD:166:LYS:HE2	25:DC:134:ARG:NH2	2.03	0.73
34:BL:16:ARG:O	34:BL:16:ARG:NE	2.19	0.73
35:DM:54:MET:HG2	35:DM:64:ILE:HD13	1.70	0.73
46:BX:37:ILE:HG23	46:BX:38:SER:N	2.02	0.73
23:BA:971:C:H2'	23:BA:972:G:H5'	1.69	0.73
1:AA:136(A):C:C2'	1:AA:136(B):C:H5''	2.17	0.73
23:BA:2286:A:H4'	23:BA:2287:A:O4'	1.88	0.73
35:BM:141:GLN:H	44:BV:53:ILE:HB	1.53	0.73
5:AE:50:GLU:HG3	5:AE:52:PRO:HD2	1.69	0.73
23:BA:71:A:H2	42:BT:31:HIS:CE1	2.07	0.73
25:DC:223:GLY:HA3	25:DC:231:HIS:CE1	2.23	0.73
35:DM:58:PHE:CD1	35:DM:58:PHE:O	2.41	0.73
23:DA:1495:A:N3	23:DA:1496:A:C2	2.56	0.73
1:CA:601:C:H2'	1:CA:602:A:C8	2.22	0.73
26:DD:167:VAL:HG22	26:DD:170:LEU:HD21	1.71	0.73
1:CA:1347:G:N2	1:CA:1373:G:H2'	2.04	0.73
1:AA:971:G:H1'	1:AA:1365:G:O2'	1.87	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:973:G:H3'	1:AA:974:A:H5''	1.69	0.73
40:BR:40:LEU:H	40:BR:47:VAL:HG22	1.53	0.73
23:BA:330:A:H2	23:BA:1210:A:H2'	1.53	0.73
35:DM:141:GLN:H	44:DV:53:ILE:HB	1.52	0.73
23:DA:1210:A:H5''	23:DA:1210:A:H8	1.51	0.73
44:BV:30:ASN:OD1	44:BV:33:LEU:HB3	1.88	0.73
1:AA:457:C:O2	1:AA:457:C:H2'	1.87	0.73
1:CA:457:C:H2'	1:CA:457:C:O2	1.89	0.73
23:BA:1270:C:H5''	23:BA:1271:G:O5'	1.88	0.73
29:DG:92:ILE:HG22	29:DG:93:GLY:N	2.01	0.73
23:BA:1388:G:H2'	23:BA:1389:G:H8	1.54	0.73
35:DM:20:ALA:HB1	35:DM:99:PRO:O	1.89	0.73
23:DA:2101:G:H2'	23:DA:2102:U:H5'	1.70	0.73
27:DE:183:VAL:O	27:DE:187:VAL:HG23	1.87	0.73
47:BY:35:LEU:CD1	47:BY:53:LEU:HD12	2.19	0.73
23:BA:2210:G:H21	23:BA:2211:G:C5'	2.01	0.73
2:AB:173:ALA:O	2:AB:176:GLU:HB2	1.89	0.73
6:AF:26:ILE:HG22	6:AF:30:LEU:HD11	1.71	0.73
1:AA:659:U:O2'	1:AA:660:G:H5'	1.88	0.73
23:DA:1358:G:O2'	23:DA:1359:A:H5''	1.89	0.73
44:DV:58:VAL:HA	44:DV:67:LEU:O	1.88	0.73
28:BF:36:LYS:HB3	28:BF:160:VAL:HB	1.69	0.73
27:DE:101:LEU:HD12	27:DE:102:PRO:CD	2.18	0.73
34:BL:16:ARG:NH2	34:BL:18:ARG:H	1.87	0.73
23:BA:105:C:H2'	23:BA:106:C:H6	1.53	0.73
8:CH:5:PRO:O	8:CH:8:ASP:HB3	1.89	0.73
23:DA:1963:U:O2	23:DA:1963:U:H2'	1.87	0.73
43:DU:42:VAL:HG12	43:DU:65:ALA:HB3	1.71	0.73
24:BB:8:U:H5''	37:BO:15:ARG:HH22	1.51	0.73
23:BA:1019:U:H3	23:BA:114(B):A:H62	1.36	0.73
23:BA:1022:G:H8	32:BJ:92:GLN:HE22	1.37	0.73
34:DL:49:ARG:CG	34:DL:50:ARG:H	2.02	0.73
23:DA:2210:G:H21	23:DA:2211:G:C5'	2.02	0.73
2:CB:97:TRP:HZ2	2:CB:102:LEU:HD13	1.52	0.73
46:DX:11:ARG:HG3	46:DX:11:ARG:HH11	1.54	0.73
1:CA:820:U:H4'	1:CA:821:G:OP2	1.88	0.73
11:CK:44:SER:OG	11:CK:47:VAL:HG23	1.89	0.73
1:CA:555:C:H2'	1:CA:556:C:H6	1.54	0.73
23:BA:65:C:H2'	23:BA:66:C:H6	1.54	0.73
10:CJ:4:ILE:HD12	10:CJ:100:THR:HG22	1.70	0.73
23:BA:286:C:H2'	23:BA:287:C:H6	1.54	0.73
1:AA:1259:C:H1'	1:AA:1283:G:H21	1.52	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BQ:5:LYS:HG2	39:BQ:6:THR:N	2.03	0.73
25:DC:31:LYS:HG3	25:DC:33:LEU:HG	1.71	0.73
35:DM:76:LYS:N	35:DM:88:GLY:HA2	2.04	0.73
25:DC:233:HIS:HE1	25:DC:247:ALA:H	1.37	0.73
5:CE:31:LEU:HD21	5:CE:43:LEU:HD12	1.70	0.73
26:DD:111:ARG:HA	36:DN:2:ARG:HH11	1.53	0.73
5:CE:50:GLU:HG3	5:CE:52:PRO:HD2	1.71	0.73
1:AA:1014:A:H5'	19:AS:14:HIS:CD2	2.24	0.73
30:BH:5:LEU:HD23	30:BH:5:LEU:N	2.03	0.73
23:DA:2658:C:H4'	29:DG:158:HIS:CE1	2.24	0.73
1:CA:1064:G:H1'	1:CA:1065:U:OP2	1.89	0.73
4:CD:134:ASP:O	4:CD:136:PRO:HD3	1.89	0.73
4:AD:134:ASP:O	4:AD:136:PRO:HD3	1.87	0.73
21:AU:18:TYR:HD2	21:AU:22:ARG:HG2	1.53	0.73
8:CH:51:VAL:HG21	8:CH:60:ARG:HG3	1.71	0.73
17:CQ:53:LEU:HD11	17:CQ:85:VAL:HG21	1.69	0.73
35:BM:20:ALA:HB1	35:BM:99:PRO:O	1.89	0.73
25:BC:176:ARG:HH11	25:BC:176:ARG:HG2	1.54	0.73
23:BA:941:A:H4'	34:BL:35:HIS:CE1	2.24	0.72
23:BA:2392:A:H2	23:BA:2424:C:H42	1.35	0.72
34:DL:33:ARG:HE	34:DL:36:LYS:CD	2.00	0.72
24:DB:70:C:H2'	24:DB:71:C:H6	1.54	0.72
3:CC:91:LEU:HD22	3:CC:99:VAL:HG12	1.71	0.72
46:DX:11:ARG:HB2	46:DX:13:ILE:HG22	1.71	0.72
46:DX:27:GLU:CB	46:DX:33:LYS:HG3	2.19	0.72
41:DS:9:TYR:H	41:DS:102:HIS:CD2	2.07	0.72
8:CH:20:TYR:HA	8:CH:65:TYR:HE2	1.52	0.72
1:CA:1281:U:H5'	1:CA:1282:C:H5	1.54	0.72
1:AA:556:C:C2'	1:AA:557:G:H5'	2.19	0.72
8:AH:51:VAL:HG21	8:AH:60:ARG:HG3	1.70	0.72
12:CL:45:LYS:HG3	12:CL:91:ASP:O	1.89	0.72
23:BA:1156:A:C8	39:BQ:51:LYS:HD2	2.24	0.72
1:AA:216:G:H2'	1:AA:217:C:C6	2.24	0.72
23:DA:540:G:H2'	23:DA:541:C:H6	1.54	0.72
7:CG:131:LYS:HE3	7:CG:136:LYS:NZ	2.02	0.72
1:CA:841:U:O2'	1:CA:842:C:H5''	1.88	0.72
25:DC:30:GLU:HG3	25:DC:63:ARG:CZ	2.18	0.72
1:AA:1234:C:H1'	1:AA:1364:U:O2	1.88	0.72
34:BL:33:ARG:HB3	34:BL:36:LYS:HD3	1.69	0.72
1:AA:1097:C:H2'	1:AA:1098:C:C6	2.21	0.72
2:CB:27:LYS:HG3	2:CB:194:PRO:HD2	1.71	0.72
40:DR:64:HIS:CD2	40:DR:92:THR:HG22	2.23	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:954:G:C5	23:BA:955:C:C5	2.77	0.72
46:DX:40:ARG:HG2	46:DX:41:ARG:N	2.04	0.72
45:BW:42:GLY:HA2	45:BW:57:PHE:CD2	2.24	0.72
44:BV:179:ASP:OD1	44:BV:180:VAL:HG13	1.89	0.72
1:AA:706:A:O4'	11:AK:29:ILE:HD11	1.87	0.72
32:BJ:63:PRO:O	39:BQ:64:ARG:HD2	1.89	0.72
34:DL:114:ILE:HD11	34:DL:127:ALA:CB	2.18	0.72
47:DY:1:MET:SD	47:DY:5:GLU:HG2	2.29	0.72
23:BA:2846:G:H2'	23:BA:2847:U:H6	1.54	0.72
24:DB:82:G:O2'	24:DB:83:G:H5'	1.89	0.72
23:BA:2353:G:H5''	45:BW:32:ARG:NH2	2.05	0.72
46:DX:46:LEU:CD2	46:DX:61:ARG:HE	2.03	0.72
23:DA:966:G:C4	23:DA:967:C:C5	2.76	0.72
6:AF:78:GLU:O	6:AF:81:ILE:HG13	1.89	0.72
2:CB:72:GLY:O	2:CB:94:ASN:HA	1.88	0.72
23:BA:1871:A:H2'	23:BA:1872:A:C8	2.23	0.72
1:CA:1468:A:H2'	1:CA:1469:G:O4'	1.89	0.72
23:DA:277:C:H3'	23:DA:278:A:H5''	1.71	0.72
44:DV:13:GLU:HB3	44:DV:18:LEU:HD11	1.71	0.72
12:CL:110:LYS:O	12:CL:111:ASP:HB2	1.89	0.72
2:CB:70:PHE:O	2:CB:92:TYR:HA	1.89	0.72
40:DR:38:LEU:O	40:DR:52:VAL:HG12	1.89	0.72
1:AA:376:G:OP2	16:AP:67:THR:HG21	1.90	0.72
23:BA:2210:G:H21	23:BA:2211:G:H5'	1.52	0.72
23:BA:1639:U:C2'	23:BA:1640:C:H5''	2.19	0.72
47:DY:31:GLU:O	47:DY:35:LEU:HB2	1.89	0.72
2:CB:173:ALA:O	2:CB:176:GLU:HB2	1.89	0.72
26:DD:120:TRP:CE3	26:DD:155:LYS:HD3	2.23	0.72
23:BA:2658:C:H4'	29:BG:158:HIS:CE1	2.24	0.72
27:DE:50:SER:HA	27:DE:92:PRO:O	1.90	0.72
25:DC:228:PRO:HD3	25:DC:234:GLY:O	1.89	0.72
23:DA:2415:G:H1'	34:DL:67:MET:HE1	1.71	0.72
43:DU:13:VAL:HG11	43:DU:72:VAL:HB	1.72	0.72
53:B5:30:ARG:O	53:B5:31:HIS:CB	2.30	0.72
40:DR:13:ARG:HD2	40:DR:14:VAL:N	2.03	0.72
40:BR:2:PHE:HE2	40:BR:13:ARG:HD3	1.50	0.72
35:BM:76:LYS:H	35:BM:88:GLY:HA2	1.54	0.72
1:CA:38:G:C2	1:CA:397:A:C2	2.77	0.72
26:DD:5:LEU:HB2	26:DD:51:PHE:CD2	2.23	0.72
23:BA:1045:A:H5''	23:BA:1047:G:O4'	1.89	0.72
23:BA:1331:A:HO2'	23:BA:1332:G:H8	1.34	0.72
27:DE:117:ARG:HD2	27:DE:190:GLU:O	1.89	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BB:18:G:H1	24:BB:65:C:H42	1.37	0.72
25:DC:76:PRO:HB3	25:DC:116:GLN:HE21	1.54	0.72
29:BG:88:LEU:HB3	29:BG:90:LYS:HD3	1.69	0.72
38:DP:1:MET:C	38:DP:3:ARG:H	1.91	0.72
39:DQ:5:LYS:HG2	39:DQ:6:THR:N	2.03	0.72
1:AA:950:U:O4	13:AM:105:THR:HG21	1.89	0.72
32:BJ:38:LEU:HD12	32:BJ:39:ILE:N	2.04	0.72
32:DJ:38:LEU:HD23	32:DJ:157:ARG:CG	2.19	0.72
3:AC:18:TRP:HB3	3:AC:20:SER:O	1.89	0.72
25:DC:106:ILE:CD1	25:DC:106:ILE:H	2.03	0.72
1:CA:39:G:C2	1:CA:40:C:C6	2.77	0.72
4:CD:100:ARG:NH1	4:CD:137:SER:HA	2.04	0.72
4:CD:108:LEU:HB3	4:CD:110:PHE:HE2	1.54	0.72
25:BC:131:LEU:HA	25:BC:190:TYR:CE2	2.23	0.72
23:BA:534:U:O2'	39:BQ:49:HIS:CD2	2.43	0.72
23:DA:2009:G:C2'	23:DA:2010:G:H5'	2.19	0.72
23:BA:300:A:OP1	43:BU:84:ARG:NH2	2.21	0.72
39:DQ:114:LYS:O	39:DQ:117:GLN:HB2	1.90	0.72
1:CA:1053:G:H3'	1:CA:1054:C:H5'	1.72	0.72
46:DX:10:LYS:O	46:DX:11:ARG:HG2	1.88	0.72
29:DG:144:VAL:O	29:DG:148:ILE:HG12	1.89	0.72
42:BT:57:LEU:CD1	42:BT:78:LYS:HB2	2.20	0.72
1:CA:556:C:C2'	1:CA:557:G:H5'	2.20	0.72
23:BA:2687:U:C4	23:BA:2688:U:C5	2.78	0.72
23:DA:774:A:H2	23:DA:787:U:HO2'	1.37	0.72
23:DA:534:U:O2'	39:DQ:49:HIS:CD2	2.42	0.72
8:CH:86:ILE:HB	8:CH:133:LEU:HD22	1.71	0.72
27:BE:89:VAL:HG12	27:BE:90:PHE:N	2.04	0.72
23:DA:301:G:C4	23:DA:302:C:C5	2.77	0.72
21:AU:6:ARG:HG3	21:AU:15:ARG:NH1	2.05	0.72
1:CA:1234:C:H1'	1:CA:1364:U:O2	1.89	0.72
25:BC:31:LYS:HG3	25:BC:33:LEU:HG	1.72	0.72
12:AL:52:ARG:HH11	12:AL:52:ARG:HG3	1.51	0.72
1:CA:556:C:H2'	1:CA:557:G:H5'	1.72	0.72
23:DA:2285:C:H2'	23:DA:2286:A:H5''	1.71	0.72
1:CA:216:G:H2'	1:CA:217:C:C6	2.25	0.72
23:BA:1966:A:H4'	23:BA:1967:C:OP1	1.89	0.72
23:BA:1348:G:H2'	23:BA:1349:A:H5''	1.71	0.72
1:AA:1220:G:H2'	1:AA:1221:G:H8	1.53	0.72
23:DA:1019:U:H2'	23:DA:1020:A:H8	1.55	0.72
40:BR:38:LEU:O	40:BR:52:VAL:HG12	1.89	0.72
1:AA:93:U:H2'	1:AA:95:G:C8	2.24	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:2787:C:C1'	26:DD:62:PRO:HB3	2.18	0.72
52:D4:12:ARG:NH1	52:D4:12:ARG:HG3	2.04	0.72
1:CA:1129:C:H4'	1:CA:1130:A:O5'	1.89	0.72
9:AI:19:LEU:HD21	9:AI:59:PHE:HB3	1.69	0.72
23:BA:2850:A:OP2	23:BA:2866:U:H5	1.72	0.72
23:DA:1396:U:H2'	23:DA:1396:U:O2	1.88	0.72
50:B2:33:CYS:HG	50:B2:49:CYS:HG	1.31	0.72
33:DK:2:ILE:HG12	33:DK:8:LEU:HD11	1.72	0.72
32:BJ:160:LYS:HE3	32:BJ:161:LEU:H	1.54	0.72
2:AB:70:PHE:O	2:AB:92:TYR:HA	1.90	0.72
38:BP:51:ARG:HH11	38:BP:51:ARG:CG	1.99	0.72
27:BE:67:GLN:CG	27:BE:67:GLN:O	2.35	0.72
2:CB:162:ILE:O	2:CB:185:ILE:HG12	1.90	0.72
42:BT:84:ALA:HB3	42:BT:87:GLN:NE2	2.04	0.72
39:BQ:79:PHE:C	39:BQ:79:PHE:CD1	2.62	0.72
34:BL:45:LEU:HD23	34:BL:46:LYS:N	2.05	0.72
23:BA:330:A:C2	23:BA:1210:A:H2'	2.25	0.72
1:AA:91:C:O2'	1:AA:92:G:H5'	1.90	0.72
1:CA:266:G:H5'	1:CA:267:C:H5	1.53	0.72
43:DU:81:LYS:NZ	43:DU:98:VAL:HG12	2.05	0.72
34:BL:16:ARG:HH21	34:BL:17:LYS:HA	1.54	0.72
1:CA:1191:A:H5''	3:CC:4:LYS:HZ2	1.51	0.72
23:BA:256:A:O2'	23:BA:257:A:H5'	1.90	0.72
23:DA:1388:G:H2'	23:DA:1389:G:H8	1.55	0.72
16:AP:74:LEU:O	16:AP:79:VAL:HG23	1.89	0.72
23:BA:1007:C:O2'	32:BJ:131:PRO:HA	1.90	0.72
1:CA:913:A:H1'	1:CA:914:A:OP2	1.89	0.72
25:BC:30:GLU:HG3	25:BC:63:ARG:CZ	2.19	0.72
34:BL:61:ARG:C	34:BL:62:LEU:HD13	2.11	0.71
23:BA:917:A:H5'	23:BA:918:A:OP2	1.91	0.71
2:CB:178:ARG:HH22	2:CB:196:LEU:HA	1.53	0.71
1:CA:1329:A:H5''	13:CM:26:GLY:N	2.04	0.71
23:BA:528:A:C8	23:BA:528:A:H3'	2.25	0.71
40:DR:27:ALA:CB	40:DR:61:VAL:HG11	2.20	0.71
23:BA:1495:A:N3	23:BA:1496:A:C2	2.58	0.71
23:BA:1332:G:N2	23:BA:1610:A:C8	2.57	0.71
3:CC:58:GLU:O	3:CC:59:ARG:HG3	1.90	0.71
4:CD:204:ILE:HG21	5:CE:98:THR:O	1.89	0.71
1:CA:1443:G:N2	38:DP:119:LYS:HA	2.05	0.71
35:DM:120:ILE:O	35:DM:123:HIS:HB2	1.90	0.71
1:AA:1136:U:H5''	1:AA:1137:C:OP2	1.90	0.71
40:BR:20:LEU:HD23	40:BR:94:LEU:HB2	1.72	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BL:132:LYS:H	34:BL:132:LYS:HD3	1.55	0.71
53:D5:30:ARG:O	53:D5:31:HIS:CB	2.37	0.71
43:BU:8:LYS:HD2	43:BU:13:VAL:HG21	1.71	0.71
26:DD:11:MET:HB2	26:DD:23:VAL:O	1.89	0.71
23:DA:2781:A:H5''	23:DA:2782:G:C5'	2.09	0.71
37:DO:87:PHE:CE1	37:DO:102:ALA:HB2	2.25	0.71
25:BC:87:ASN:ND2	25:BC:87:ASN:N	2.29	0.71
47:BY:28:LYS:HE3	47:BY:56:GLN:HE22	1.55	0.71
30:DH:79:ILE:HG22	30:DH:81:VAL:HG23	1.72	0.71
24:BB:70:C:H2'	24:BB:71:C:H6	1.55	0.71
1:CA:1097:C:H2'	1:CA:1098:C:C6	2.24	0.71
28:BF:5:LEU:CD2	28:BF:6:ALA:H	2.04	0.71
1:CA:1053:G:C3'	1:CA:1054:C:H5'	2.20	0.71
23:DA:2443:C:O2'	23:DA:2444:G:H5'	1.89	0.71
29:BG:85:LYS:HD3	29:BG:86:GLU:OE2	1.90	0.71
17:AQ:15:MET:HB3	17:AQ:18:THR:HB	1.72	0.71
27:BE:205:ARG:O	27:BE:206:ILE:HG23	1.90	0.71
20:AT:13:LEU:HD12	20:AT:13:LEU:H	1.54	0.71
23:DA:1541:U:O3'	23:DA:1543:A:OP1	2.07	0.71
40:BR:5:VAL:CG1	40:BR:14:VAL:HG21	2.20	0.71
1:AA:430:A:OP1	4:AD:9:CYS:HB2	1.90	0.71
1:CA:91:C:O2'	1:CA:92:G:H5'	1.90	0.71
24:DB:15:A:H5'	24:DB:16:G:H8	1.54	0.71
25:BC:231:HIS:CD2	25:BC:232:PRO:HD2	2.25	0.71
1:AA:1191:A:H5''	3:AC:4:LYS:HZ2	1.52	0.71
46:BX:11:ARG:HB2	46:BX:13:ILE:HG22	1.71	0.71
23:BA:1329:U:H5''	23:BA:1330:C:H5	1.54	0.71
23:BA:1799:G:H8	25:BC:181:GLU:OE1	1.73	0.71
23:DA:773:U:C4'	25:DC:47:GLY:HA3	2.20	0.71
9:CI:19:LEU:HG	9:CI:60:ASP:O	1.90	0.71
23:DA:2639:A:H2'	23:DA:2640:G:H5'	1.72	0.71
23:BA:2092:U:C5	23:BA:2226:C:OP2	2.42	0.71
43:BU:76:CYS:HB3	43:BU:77:PRO:HD2	1.70	0.71
44:DV:23:LYS:HB3	44:DV:38:TYR:HD1	1.54	0.71
26:BD:11:MET:HE3	26:BD:186:GLY:HA2	1.72	0.71
22:CV:6182:A:N1	22:CV:6195:G:C2	2.59	0.71
28:DF:84:LYS:HG3	28:DF:85:GLY:N	2.04	0.71
40:BR:13:ARG:HD2	40:BR:14:VAL:N	2.06	0.71
1:CA:393:A:C2	1:CA:394:G:C8	2.78	0.71
1:AA:690:G:H2'	1:AA:691:G:C8	2.24	0.71
1:CA:1530:G:OP1	1:CA:1530:G:H4'	1.90	0.71
1:AA:1289:A:OP1	21:AU:10:ARG:HD3	1.90	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:813:U:H2'	23:BA:814:C:C6	2.24	0.71
33:DK:19:ILE:H	33:DK:19:ILE:HD13	1.54	0.71
34:BL:114:ILE:N	34:BL:114:ILE:HD12	1.99	0.71
23:BA:2294:C:H2'	23:BA:2295:C:C6	2.24	0.71
32:BJ:38:LEU:HD23	32:BJ:157:ARG:CG	2.20	0.71
34:BL:50:ARG:HD2	34:BL:51:PHE:N	2.04	0.71
4:AD:28:SER:HB3	4:AD:29:PRO:HD2	1.72	0.71
20:AT:26:ASN:HD22	20:AT:26:ASN:N	1.88	0.71
26:BD:36:ARG:HD3	26:BD:85:ASN:ND2	2.06	0.71
34:DL:16:ARG:NH2	34:DL:18:ARG:H	1.89	0.71
1:CA:735:C:O2'	1:CA:736:C:H5'	1.89	0.71
23:BA:2353:G:O6	23:BA:2353:G:N1	2.23	0.71
1:CA:691:G:C6	11:CK:52:GLY:HA2	2.25	0.71
9:AI:113:LYS:HG2	9:AI:119:ALA:HA	1.73	0.71
23:DA:2305:A:H5''	28:DF:134:GLY:HA3	1.73	0.71
25:BC:133:LEU:C	25:BC:135:PHE:H	1.93	0.71
44:BV:39:VAL:HG21	44:BV:44:PHE:HB2	1.72	0.71
12:CL:86:GLY:HA2	12:CL:97:TYR:HA	1.71	0.71
35:BM:66:ILE:HG22	35:BM:104:PHE:CD2	2.25	0.71
21:CU:6:ARG:HG3	21:CU:15:ARG:NH1	2.04	0.71
2:CB:63:MET:HG2	2:CB:225:ALA:HB1	1.70	0.71
34:DL:101:VAL:HB	34:DL:106:LEU:HB3	1.71	0.71
23:DA:1543:A:H3'	23:DA:1543:A:C8	2.26	0.71
2:AB:162:ILE:O	2:AB:185:ILE:HG12	1.91	0.71
28:DF:5:LEU:CD2	28:DF:6:ALA:H	2.03	0.71
28:BF:25:TYR:CD1	28:BF:30:GLU:HB3	2.25	0.71
27:DE:9:ILE:HD11	27:DE:125:LEU:CG	2.21	0.71
45:BW:72:ARG:CZ	45:BW:75:LEU:HD13	2.21	0.71
25:DC:121:PRO:HB3	25:DC:135:PHE:CE2	2.25	0.71
1:AA:1117:G:O3'	9:AI:104:ARG:HG3	1.89	0.71
1:CA:712:A:O2'	1:CA:713:G:H5'	1.91	0.71
1:AA:556:C:H2'	1:AA:557:G:H5'	1.71	0.71
23:DA:256:A:O2'	23:DA:257:A:H5'	1.90	0.71
23:DA:2469:A:H2	23:DA:2481:G:H21	1.39	0.71
44:DV:39:VAL:HG21	44:DV:44:PHE:HB2	1.71	0.71
23:DA:1817:G:OP1	25:DC:88:ARG:NH2	2.21	0.71
1:CA:650:G:O2'	1:CA:651:C:H5'	1.90	0.71
1:AA:1053:G:C3'	1:AA:1054:C:H5'	2.20	0.71
28:BF:174:GLU:HG2	28:BF:180:PHE:CE1	2.26	0.71
23:BA:2346:A:H5''	23:BA:2383:G:H1'	1.73	0.71
23:BA:404:C:H4'	23:BA:405:U:H5'	1.72	0.71
23:BA:1778:U:H2'	23:BA:1784:A:N6	2.05	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:1966:A:H4'	23:DA:1967:C:OP1	1.91	0.71
2:CB:167:PRO:HG2	2:CB:192:SER:OG	1.91	0.71
23:BA:2768:C:C4	23:BA:2769:C:C5	2.79	0.71
1:AA:1281:U:H5'	1:AA:1282:C:H5	1.54	0.71
38:DP:53:ARG:NH1	38:DP:53:ARG:HG2	2.01	0.71
1:AA:1530:G:H4'	1:AA:1530:G:OP1	1.91	0.71
1:AA:820:U:H4'	1:AA:821:G:OP2	1.89	0.71
1:CA:819:A:H4'	1:CA:820:U:OP2	1.90	0.71
1:AA:1129:C:H4'	1:AA:1130:A:O5'	1.91	0.71
23:BA:105:C:H2'	23:BA:106:C:C6	2.25	0.71
3:CC:23:TYR:CD2	3:CC:24:ALA:N	2.59	0.71
44:BV:13:GLU:HB3	44:BV:18:LEU:HD11	1.72	0.71
46:DX:37:ILE:HG23	46:DX:38:SER:N	2.06	0.71
33:BK:101:PRO:O	33:BK:102:VAL:HG13	1.90	0.71
23:BA:960:A:H5''	23:BA:961:C:OP2	1.90	0.71
23:BA:2415:G:H1'	34:BL:67:MET:HE1	1.73	0.71
26:BD:101:ARG:HH21	26:BD:171:GLU:HB3	1.54	0.71
34:BL:33:ARG:HG2	34:BL:34:GLY:H	1.56	0.71
34:DL:49:ARG:HG3	34:DL:50:ARG:H	1.54	0.71
1:AA:376:G:O2'	1:AA:377:G:H5'	1.90	0.71
1:AA:386:C:C2'	1:AA:387:U:H5''	2.20	0.71
23:DA:1329:U:H5''	23:DA:1330:C:H5	1.56	0.71
8:AH:91:ARG:HG3	8:AH:91:ARG:HH11	1.55	0.71
1:AA:266:G:H5'	1:AA:267:C:H5	1.54	0.71
43:DU:81:LYS:HZ3	43:DU:98:VAL:N	1.88	0.71
23:BA:2784:C:H1'	26:BD:37:ARG:HH12	1.55	0.71
23:DA:580:C:H2'	23:DA:581:C:H6	1.55	0.71
12:AL:86:GLY:HA2	12:AL:97:TYR:HA	1.72	0.71
28:DF:50:ALA:O	28:DF:53:LEU:HB3	1.91	0.71
23:DA:357:A:H2'	23:DA:358:U:H6	1.54	0.71
17:AQ:40:LYS:HD2	17:AQ:42:TYR:CE1	2.26	0.71
1:CA:1136:U:H5''	1:CA:1137:C:OP2	1.90	0.71
34:DL:146:VAL:HG13	34:DL:147:LEU:HD12	1.73	0.71
23:BA:1528:A:C2	23:BA:1529:A:C2	2.79	0.71
22:CV:6188:G:N2	22:CV:6216:U:C2	2.58	0.71
28:DF:25:TYR:CD1	28:DF:30:GLU:HB3	2.25	0.71
5:CE:77:PRO:HD2	5:CE:142:LEU:HD22	1.72	0.71
36:BN:7:GLY:O	36:BN:8:ARG:HB3	1.91	0.71
43:BU:81:LYS:HD3	43:BU:97:ARG:HB3	1.72	0.71
1:AA:735:C:O2'	1:AA:736:C:H5'	1.91	0.71
16:AP:8:ARG:O	16:AP:9:PHE:CD2	2.44	0.71
25:BC:25:THR:HG21	25:BC:81:ALA:HA	1.72	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:914:A:H2'	1:AA:915:A:H5'	1.73	0.71
26:DD:108:SER:O	26:DD:162:ALA:HA	1.90	0.71
23:DA:1270:C:H5''	23:DA:1271:G:O5'	1.91	0.71
52:B4:9:ARG:NE	52:B4:48:LYS:HB2	2.04	0.71
25:BC:70:TRP:C	25:BC:70:TRP:CD1	2.64	0.71
3:AC:20:SER:HB2	3:AC:40:ARG:NH1	2.04	0.71
39:BQ:92:ARG:CG	40:BR:11:GLN:NE2	2.53	0.71
47:DY:6:VAL:HG12	47:DY:10:LEU:CD1	2.20	0.71
2:AB:27:LYS:HG3	2:AB:194:PRO:HD2	1.72	0.71
30:DH:62:LYS:HB2	30:DH:133:HIS:CE1	2.25	0.71
29:DG:95:ARG:HH22	29:DG:97:ARG:HH21	1.36	0.71
17:AQ:19:VAL:HG23	17:AQ:44:ALA:HB3	1.72	0.71
23:DA:1679:U:C2'	23:DA:1680:U:H5'	2.20	0.71
1:CA:538:G:O3'	12:CL:113:LYS:HG3	1.90	0.71
23:DA:404:C:H4'	23:DA:405:U:H5'	1.73	0.71
43:DU:8:LYS:HZ3	43:DU:8:LYS:C	1.93	0.70
2:CB:162:ILE:HD11	2:CB:184:VAL:HG13	1.73	0.70
40:DR:5:VAL:CG1	40:DR:14:VAL:HG21	2.20	0.70
39:BQ:79:PHE:C	39:BQ:79:PHE:HD1	1.93	0.70
23:DA:2768:C:C4	23:DA:2769:C:C5	2.79	0.70
36:DN:57:ARG:HG2	36:DN:58:GLY:H	1.56	0.70
23:BA:784:A:H5'	23:BA:785:G:OP1	1.90	0.70
3:AC:58:GLU:O	3:AC:59:ARG:HG3	1.91	0.70
25:DC:125:ILE:CG2	25:DC:125:ILE:O	2.39	0.70
35:DM:23:GLY:HA3	35:DM:98:LYS:HB2	1.73	0.70
1:CA:337:C:H2'	1:CA:338:A:H8	1.54	0.70
26:DD:46:ALA:HB2	26:DD:82:ARG:HA	1.73	0.70
16:CP:74:LEU:O	16:CP:79:VAL:HG23	1.91	0.70
23:DA:1290:C:H2'	23:DA:1291:C:H6	1.56	0.70
43:BU:8:LYS:N	43:BU:8:LYS:HZ2	1.88	0.70
23:DA:1546:A:N7	23:DA:154(B):C:O2	2.24	0.70
1:CA:1347:G:H8	9:CI:107:ARG:HB3	1.55	0.70
23:DA:861:A:C2'	23:DA:862:G:H5'	2.20	0.70
30:DH:68:LEU:O	30:DH:138:ILE:HD13	1.91	0.70
1:CA:323:U:O3'	20:CT:22:ARG:HG2	1.91	0.70
1:AA:16:A:O2'	1:AA:17:U:H5'	1.91	0.70
2:AB:167:PRO:HG2	2:AB:192:SER:OG	1.91	0.70
26:BD:120:TRP:CE3	26:BD:155:LYS:HD3	2.26	0.70
25:BC:121:PRO:HB3	25:BC:135:PHE:CE2	2.25	0.70
23:DA:588:U:H2'	23:DA:589:C:C6	2.26	0.70
23:DA:733:G:N7	23:DA:761:A:N6	2.39	0.70
23:DA:784:A:H5'	23:DA:785:G:OP1	1.90	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:863:A:OP1	35:BM:21:THR:HB	1.90	0.70
1:AA:1053:G:H3'	1:AA:1054:C:H5'	1.72	0.70
23:DA:249:C:O2	53:D5:12:LYS:HE3	1.91	0.70
17:CQ:19:VAL:HG23	17:CQ:44:ALA:HB3	1.73	0.70
41:DS:22:ASP:HA	41:DS:25:ARG:HH12	1.56	0.70
23:BA:1794:U:H2'	23:BA:1795:C:H6	1.56	0.70
23:BA:333:G:C6	23:BA:334:C:N4	2.59	0.70
23:BA:861:A:H2'	23:BA:862:G:H5'	1.73	0.70
22:AV:6182:A:N1	22:AV:6195:G:C2	2.59	0.70
47:BY:6:VAL:HG12	47:BY:10:LEU:CD1	2.22	0.70
16:AP:22:THR:HG22	16:AP:32:TYR:HB3	1.73	0.70
4:AD:3:ARG:N	4:AD:3:ARG:HD2	2.06	0.70
6:AF:79:LEU:HB2	6:AF:88:VAL:HG21	1.72	0.70
8:CH:12:ARG:NH1	8:CH:26:VAL:HA	2.06	0.70
8:AH:86:ILE:HB	8:AH:133:LEU:HD22	1.73	0.70
23:DA:910:A:H62	35:DM:12:GLN:HA	1.56	0.70
30:DH:5:LEU:N	30:DH:5:LEU:HD23	2.05	0.70
23:BA:1386:C:H2'	23:BA:1387:C:H6	1.54	0.70
23:BA:2631:G:N3	23:BA:2810:A:H2	1.88	0.70
23:DA:2402:C:H5'	23:DA:2403:C:OP2	1.90	0.70
1:CA:979:C:H3'	1:CA:980:C:C5'	2.15	0.70
32:BJ:154:GLN:NE2	32:BJ:155:ALA:HB3	2.03	0.70
37:DO:38:GLN:HB3	37:DO:47:THR:HG21	1.73	0.70
1:AA:1066:C:H2'	1:AA:1066:C:O2	1.89	0.70
1:AA:255:G:H2'	1:AA:256:U:H6	1.57	0.70
12:CL:44:PRO:HG3	12:CL:52:ARG:HE	1.55	0.70
36:BN:2:ARG:C	36:BN:4:LEU:N	2.43	0.70
6:CF:79:LEU:HB2	6:CF:88:VAL:HG21	1.72	0.70
38:BP:53:ARG:HG2	38:BP:53:ARG:NH1	2.03	0.70
23:BA:1358:G:O2'	23:BA:1359:A:H5''	1.90	0.70
43:DU:2:ARG:O	43:DU:4:LYS:N	2.23	0.70
1:CA:105:G:H2'	1:CA:106:C:H6	1.55	0.70
25:DC:132:PRO:HD3	25:DC:190:TYR:CZ	2.27	0.70
26:BD:108:SER:O	26:BD:162:ALA:HA	1.91	0.70
23:DA:18:C:O3'	39:DQ:23:GLY:HA2	1.90	0.70
6:AF:3:ARG:HG3	6:AF:66:GLU:HG2	1.72	0.70
23:DA:1728:G:O5'	23:DA:1728:G:H8	1.74	0.70
23:BA:1309:G:H3'	52:B4:9:ARG:NH1	2.05	0.70
34:BL:97:PRO:HD3	34:BL:126:VAL:HG12	1.72	0.70
27:BE:63:LYS:NZ	27:BE:67:GLN:HE21	1.88	0.70
12:AL:26:LEU:HB3	12:AL:29:ALA:HB3	1.74	0.70
1:AA:1064:G:H1'	1:AA:1065:U:OP2	1.90	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CL:44:PRO:HG3	12:CL:52:ARG:NE	2.07	0.70
23:DA:2747:G:O6	23:DA:2755:C:H5"	1.91	0.70
8:CH:97:VAL:O	8:CH:100:ILE:HG13	1.91	0.70
33:BK:99:PHE:N	33:BK:99:PHE:CD1	2.52	0.70
27:DE:205:ARG:O	27:DE:206:ILE:HG23	1.92	0.70
32:BJ:69:VAL:HG13	32:BJ:71:MET:HG3	1.73	0.70
34:BL:85:LEU:HA	34:BL:88:LEU:HB2	1.73	0.70
29:DG:55:PRO:HG2	29:DG:61:HIS:CE1	2.27	0.70
23:BA:828:U:O2	23:BA:828:U:H3'	1.91	0.70
28:BF:50:ALA:O	28:BF:53:LEU:HB3	1.92	0.70
23:BA:2639:A:H2'	23:BA:2640:G:H5'	1.74	0.70
23:BA:1541:U:O3'	23:BA:1543:A:OP1	2.10	0.70
1:CA:1346:A:N1	1:CA:1374:A:H5"	2.07	0.70
23:DA:125:G:H4'	23:DA:126:A:OP2	1.90	0.70
23:BA:140:A:H8	23:BA:1408:C:O2'	1.70	0.70
26:BD:77:ILE:HD13	26:BD:195:LEU:HD12	1.74	0.70
3:CC:206:GLU:HG2	3:CC:207:VAL:HG23	1.73	0.70
11:AK:57:THR:HG22	11:AK:59:TYR:N	2.07	0.70
23:BA:126:A:O5'	52:B4:19:ARG:HG2	1.92	0.70
40:DR:98:GLU:HG2	40:DR:100:ARG:HD3	1.74	0.70
50:B2:40:LYS:NZ	50:B2:49:CYS:HB3	2.06	0.70
1:CA:1423:G:H5"	33:DK:49:ARG:HH22	1.56	0.70
23:DA:2661:G:O2'	23:DA:2662:A:H5'	1.91	0.70
9:CI:97:LYS:HD3	9:CI:102:LEU:HD12	1.72	0.70
1:CA:922:G:C6	1:CA:923:A:C6	2.80	0.70
1:CA:579:G:H2'	1:CA:580:U:H6	1.57	0.70
23:BA:774:A:H2	23:BA:787:U:HO2'	1.37	0.70
23:DA:1170:G:H1	23:DA:1179:C:N4	1.90	0.70
40:DR:2:PHE:HE2	40:DR:13:ARG:HD3	1.56	0.70
34:DL:45:LEU:HD23	34:DL:46:LYS:N	2.07	0.70
1:CA:386:C:C2'	1:CA:387:U:H5"	2.21	0.70
16:CP:20:VAL:HG23	16:CP:34:GLU:O	1.92	0.70
1:AA:38:G:C2	1:AA:397:A:C2	2.80	0.70
23:BA:547:A:C6	23:BA:548:A:C6	2.80	0.70
23:BA:1596:A:C2'	23:BA:1597:A:H5'	2.20	0.70
34:DL:18:ARG:HB3	34:DL:18:ARG:NH1	2.07	0.70
1:AA:393:A:C2	1:AA:394:G:C8	2.80	0.70
5:CE:43:LEU:HD22	5:CE:136:MET:CG	2.21	0.70
11:CK:57:THR:HG22	11:CK:59:TYR:N	2.06	0.70
48:BZ:28:LEU:N	48:BZ:28:LEU:HD12	2.06	0.70
45:BW:49:LYS:HB2	45:BW:80:HIS:HB3	1.74	0.70
29:DG:19:VAL:HG12	29:DG:20:ALA:N	2.05	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BX:31:GLY:O	46:BX:32:LYS:HB2	1.91	0.70
8:AH:58:TYR:C	8:AH:59:LEU:HD23	2.12	0.70
38:DP:89:VAL:O	38:DP:90:GLN:HB2	1.90	0.70
23:BA:1396:U:H2'	23:BA:1396:U:O2	1.90	0.70
1:AA:1157:A:H4'	1:AA:1158:C:O5'	1.92	0.70
29:DG:27:LYS:HG2	29:DG:32:GLU:HG3	1.74	0.70
17:CQ:31:LEU:HD23	17:CQ:32:TYR:CZ	2.27	0.70
16:CP:8:ARG:O	16:CP:9:PHE:CD2	2.45	0.70
1:AA:579:G:H2'	1:AA:580:U:H6	1.55	0.70
9:AI:97:LYS:HD3	9:AI:102:LEU:HD12	1.72	0.70
1:AA:940:C:C2	1:AA:941:G:C8	2.79	0.70
8:AH:5:PRO:O	8:AH:8:ASP:HB3	1.91	0.70
23:BA:1543:A:C8	23:BA:1543:A:H3'	2.26	0.70
4:AD:51:PRO:HB3	4:AD:55:ALA:HB3	1.73	0.70
23:BA:1411:C:H2'	23:BA:1412:A:H8	1.57	0.70
44:DV:30:ASN:O	44:DV:32:HIS:N	2.25	0.70
1:CA:1292:U:H2'	1:CA:1293:G:H8	1.56	0.70
53:B5:52:LYS:H	53:B5:53:PRO:HD2	1.57	0.70
23:DA:1411:C:H2'	23:DA:1412:A:H8	1.55	0.70
30:DH:2:LYS:HG3	30:DH:39:ALA:HB3	1.72	0.70
45:DW:49:LYS:HB2	45:DW:80:HIS:HB3	1.74	0.70
44:BV:37:VAL:HG23	44:BV:38:TYR:N	2.06	0.70
23:DA:2353:G:H5''	45:DW:32:ARG:NH2	2.07	0.70
1:CA:505:G:C6	1:CA:535:A:C2	2.80	0.70
30:BH:62:LYS:HB2	30:BH:133:HIS:CE1	2.27	0.70
29:DG:77:LYS:HA	29:DG:80:SER:HB2	1.72	0.70
34:BL:14:LYS:O	34:BL:15:ARG:HB2	1.90	0.70
29:BG:30:LYS:HB2	29:BG:79:VAL:HA	1.74	0.70
2:AB:126:GLU:C	2:AB:127:ILE:HD13	2.12	0.70
11:AK:23:ALA:HA	11:AK:28:THR:OG1	1.92	0.70
41:BS:59:VAL:HG12	41:BS:60:ASN:OD1	1.92	0.70
23:BA:116:C:H2'	23:BA:117:G:C8	2.27	0.70
23:BA:1728:G:H8	23:BA:1728:G:O5'	1.75	0.70
16:AP:43:LYS:HG2	16:AP:48:TRP:CD2	2.27	0.70
53:D5:22:VAL:HB	53:D5:54:GLU:HG3	1.74	0.70
23:BA:729:G:OP2	25:BC:13:ARG:NH1	2.25	0.70
25:DC:70:TRP:CD1	25:DC:70:TRP:C	2.64	0.70
4:CD:67:ILE:HG22	4:CD:68:TYR:CD1	2.26	0.70
28:DF:41:GLN:HG2	28:DF:155:MET:HB3	1.74	0.70
1:CA:668:G:H1'	15:CO:46:HIS:HD2	1.56	0.70
5:AE:57:LYS:O	5:AE:61:TYR:CD2	2.45	0.70
6:CF:90:VAL:HG12	6:CF:91:VAL:N	2.06	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:206:GLU:HG2	3:AC:207:VAL:HG23	1.73	0.70
12:CL:44:PRO:HG3	12:CL:52:ARG:CD	2.22	0.70
1:AA:1295:G:N2	1:AA:1302:U:H3	1.90	0.70
23:DA:1046:A:N3	31:DI:4:LYS:HD3	2.07	0.70
1:AA:66:G:H4'	1:AA:173:U:C5	2.26	0.70
23:DA:2346:A:H5''	23:DA:2383:G:H1'	1.72	0.70
39:DQ:98:LEU:O	39:DQ:100:VAL:N	2.25	0.70
1:AA:914:A:C2'	1:AA:915:A:H5'	2.22	0.70
1:CA:862:C:C2'	1:CA:863:U:H5'	2.22	0.70
44:BV:23:LYS:HB3	44:BV:38:TYR:HD1	1.55	0.70
1:AA:1022:G:H2'	1:AA:1023:G:H8	1.57	0.70
8:AH:97:VAL:HG13	8:AH:98:LYS:H	1.57	0.70
23:BA:301:G:C4	23:BA:302:C:C5	2.80	0.70
23:BA:1170:G:H1	23:BA:1179:C:N4	1.89	0.69
3:AC:91:LEU:HD22	3:AC:99:VAL:HG12	1.74	0.69
23:BA:1639:U:H2'	23:BA:1640:C:H5''	1.74	0.69
1:AA:15:G:H4'	5:AE:24:ARG:HH12	1.56	0.69
4:CD:3:ARG:N	4:CD:3:ARG:HD2	2.07	0.69
1:AA:1346:A:N1	1:AA:1374:A:H5''	2.06	0.69
20:CT:57:ARG:HH11	20:CT:102:GLY:HA2	1.55	0.69
40:BR:25:LEU:H	40:BR:92:THR:HG21	1.57	0.69
1:CA:729:A:H2'	1:CA:730:G:H8	1.56	0.69
23:BA:1857:G:N2	23:BA:1886:C:N4	2.40	0.69
23:DA:1309:G:H3'	52:D4:9:ARG:NH1	2.07	0.69
9:CI:113:LYS:HG2	9:CI:119:ALA:HA	1.73	0.69
23:BA:2731:G:C6	23:BA:2732:G:O6	2.45	0.69
4:CD:119:GLN:HG3	4:CD:123:HIS:HD2	1.55	0.69
36:BN:2:ARG:O	36:BN:4:LEU:N	2.25	0.69
43:BU:81:LYS:NZ	43:BU:98:VAL:HG12	2.07	0.69
45:DW:53:MET:HB2	45:DW:59:LEU:HD23	1.73	0.69
9:AI:22:GLY:HA3	9:AI:60:ASP:OD2	1.92	0.69
27:BE:203:GLN:HA	27:BE:206:ILE:O	1.92	0.69
44:DV:22:GLY:O	44:DV:41:LEU:HB2	1.91	0.69
23:BA:826:U:H4'	34:BL:55:ARG:HB2	1.72	0.69
23:DA:987:G:H2'	23:DA:988:A:H5'	1.74	0.69
33:BK:25:LEU:HB2	33:BK:38:VAL:O	1.91	0.69
32:DJ:160:LYS:HE3	32:DJ:161:LEU:H	1.55	0.69
23:BA:990:A:H5''	23:BA:991:C:P	2.32	0.69
23:DA:1871:A:H2'	23:DA:1872:A:C8	2.27	0.69
26:DD:101:ARG:HH21	26:DD:171:GLU:HB3	1.57	0.69
34:BL:49:ARG:CG	34:BL:50:ARG:H	2.04	0.69
45:BW:72:ARG:HB3	45:BW:75:LEU:HD12	1.73	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CM:10:PRO:HG3	13:CM:22:ILE:HD11	1.74	0.69
1:AA:1292:U:H2'	1:AA:1293:G:H8	1.57	0.69
46:DX:86:SER:O	46:DX:90:ILE:HG12	1.93	0.69
1:CA:625:G:H4'	16:CP:16:HIS:CD2	2.26	0.69
27:DE:199:TRP:O	27:DE:203:GLN:HG2	1.92	0.69
29:BG:77:LYS:HA	29:BG:80:SER:HB2	1.75	0.69
26:DD:37:ARG:O	26:DD:45:THR:HA	1.92	0.69
35:BM:23:GLY:HA3	35:BM:98:LYS:HB2	1.74	0.69
25:DC:77:ALA:HB2	25:DC:97:TYR:HA	1.74	0.69
23:DA:1679:U:H2'	23:DA:1680:U:H5'	1.72	0.69
1:CA:1426:C:H2'	1:CA:1427:U:H6	1.58	0.69
23:BA:314:A:O2'	23:BA:315:G:H5'	1.92	0.69
6:CF:3:ARG:HG3	6:CF:66:GLU:HG2	1.74	0.69
40:BR:91:TYR:O	40:BR:91:TYR:CD2	2.44	0.69
1:CA:940:C:C2	1:CA:941:G:C8	2.79	0.69
51:D3:42:TRP:HA	51:D3:42:TRP:CE3	2.27	0.69
23:BA:1607:C:H4'	23:BA:1608:A:O5'	1.92	0.69
32:DJ:57:LEU:O	32:DJ:72:GLY:HA3	1.92	0.69
1:AA:963:G:H2'	1:AA:964:A:H8	1.58	0.69
32:BJ:142:ARG:HG3	32:BJ:142:ARG:NH1	2.07	0.69
16:CP:17:TYR:N	16:CP:17:TYR:CD1	2.59	0.69
25:BC:35:LYS:HE2	25:BC:103:ARG:HA	1.74	0.69
1:CA:690:G:H2'	1:CA:691:G:C8	2.26	0.69
23:DA:863:A:OP1	35:DM:21:THR:HB	1.93	0.69
8:AH:51:VAL:HG21	8:AH:60:ARG:CG	2.22	0.69
1:AA:650:G:O2'	1:AA:651:C:H5'	1.91	0.69
36:BN:52:ILE:HG21	36:BN:94:TYR:CG	2.27	0.69
34:BL:101:VAL:HB	34:BL:106:LEU:HB3	1.74	0.69
27:DE:67:GLN:O	27:DE:67:GLN:CG	2.32	0.69
23:BA:603:A:N6	23:BA:655:A:H4'	2.07	0.69
23:BA:1826:G:OP1	25:BC:233:HIS:HD2	1.74	0.69
47:BY:31:GLU:O	47:BY:35:LEU:HB2	1.92	0.69
44:DV:94:GLU:H	44:DV:94:GLU:CD	1.94	0.69
47:DY:9:GLN:C	47:DY:12:GLU:HB3	2.12	0.69
27:DE:89:VAL:HG12	27:DE:90:PHE:H	1.57	0.69
53:B5:22:VAL:HG12	53:B5:50:LEU:HD12	1.73	0.69
23:DA:737:C:H2'	23:DA:738:G:H5'	1.73	0.69
26:DD:4:ILE:HG12	26:DD:28:ALA:HB1	1.73	0.69
23:DA:2092:U:C5	23:DA:2226:C:OP2	2.45	0.69
28:DF:7:LEU:HD23	28:DF:10:LYS:HD2	1.75	0.69
29:BG:98:LEU:HD12	29:BG:99:VAL:N	2.06	0.69
23:DA:1746:G:C2	23:DA:1747:G:C8	2.80	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:B2:41:PRO:HG2	50:B2:44:THR:HG21	1.73	0.69
23:BA:861:A:C2'	23:BA:862:G:H5'	2.22	0.69
34:BL:112:LEU:HD23	34:BL:113:LYS:N	2.07	0.69
37:BO:87:PHE:CE1	37:BO:102:ALA:HB2	2.28	0.69
26:DD:2:LYS:HE2	26:DD:95:ILE:O	1.93	0.69
36:DN:7:GLY:O	36:DN:8:ARG:HB3	1.93	0.69
44:BV:53:ILE:HG22	44:BV:71:VAL:O	1.92	0.69
29:BG:19:VAL:HG12	29:BG:20:ALA:N	2.07	0.69
1:CA:833:U:H2'	1:CA:834:C:C6	2.28	0.69
40:BR:91:TYR:O	40:BR:91:TYR:CG	2.45	0.69
27:BE:46:ARG:HG2	27:BE:46:ARG:HH11	1.57	0.69
1:CA:255:G:H2'	1:CA:256:U:H6	1.57	0.69
23:DA:1248:G:OP1	39:DQ:2:PRO:HD2	1.92	0.69
1:CA:909:A:H2'	1:CA:910:C:O4'	1.92	0.69
23:DA:924:C:H2'	23:DA:925:C:H6	1.57	0.69
1:AA:1446:A:H61	38:BP:118:ARG:NH2	1.89	0.69
23:DA:1348:G:H2'	23:DA:1349:A:H5''	1.75	0.69
3:CC:76:VAL:HG21	3:CC:103:VAL:HG11	1.75	0.69
34:DL:59:LEU:CA	34:DL:61:ARG:HE	2.01	0.69
34:DL:62:LEU:HD23	34:DL:62:LEU:O	1.92	0.69
26:BD:11:MET:HB2	26:BD:23:VAL:O	1.93	0.69
23:DA:603:A:N6	23:DA:655:A:H4'	2.07	0.69
25:BC:96:HIS:HD2	25:BC:102:LYS:HD3	1.57	0.69
25:BC:77:ALA:CB	25:BC:97:TYR:HA	2.22	0.69
23:BA:2787:C:C1'	26:BD:62:PRO:HB3	2.22	0.69
43:DU:78:ALA:HB3	43:DU:81:LYS:HE3	1.74	0.69
1:CA:1220:G:H2'	1:CA:1221:G:H8	1.54	0.69
1:AA:819:A:H4'	1:AA:820:U:OP2	1.92	0.69
23:DA:105:C:H2'	23:DA:106:C:H6	1.58	0.69
23:DA:2815:C:O2'	50:D2:43:HIS:HD2	1.75	0.69
26:BD:46:ALA:HB2	26:BD:82:ARG:HA	1.72	0.69
23:BA:2285:C:H2'	23:BA:2286:A:H5''	1.73	0.69
25:DC:72:LYS:HD2	25:DC:75:ILE:HD12	1.74	0.69
1:CA:1194:U:H2'	1:CA:1195:C:C6	2.28	0.69
20:CT:90:GLN:O	20:CT:93:GLU:HB3	1.93	0.69
1:CA:1157:A:H4'	1:CA:1158:C:O5'	1.92	0.69
13:CM:76:ALA:HA	13:CM:79:LYS:HE2	1.73	0.69
1:AA:862:C:C2'	1:AA:863:U:H5'	2.23	0.69
23:BA:277:C:H3'	23:BA:278:A:H5''	1.72	0.69
23:DA:1754:C:OP1	38:DP:96:ARG:NH1	2.23	0.69
1:CA:16:A:O2'	1:CA:17:U:H5'	1.93	0.69
23:BA:1909:C:C2	23:BA:1922:G:N2	2.61	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DK:31:LYS:HB3	33:DK:32:TYR:CE1	2.27	0.69
23:DA:2850:A:OP2	23:DA:2866:U:H5	1.76	0.69
23:DA:65:C:H2'	23:DA:66:C:C6	2.27	0.69
34:DL:138:LEU:HD11	34:DL:144:GLU:HB3	1.75	0.69
23:BA:2415:G:H4'	34:BL:66:GLY:CA	2.23	0.69
52:D4:9:ARG:NE	52:D4:48:LYS:HB2	2.03	0.69
1:CA:1368:G:O2'	1:CA:1369:C:H5'	1.93	0.69
1:AA:979:C:H5''	1:AA:980:C:OP2	1.93	0.69
10:AJ:55:LYS:HD2	10:AJ:55:LYS:O	1.93	0.69
13:AM:107:ALA:O	13:AM:111:LYS:HG3	1.92	0.69
34:BL:33:ARG:HE	34:BL:36:LYS:CD	2.04	0.69
23:BA:1021:A:H2'	23:BA:1023:U:H5'	1.73	0.69
23:BA:1021:A:C3'	23:BA:1021:A:C8	2.75	0.69
40:BR:79:VAL:O	40:BR:79:VAL:HG13	1.91	0.69
39:BQ:108:GLU:HG3	40:BR:44:LYS:HG2	1.72	0.69
44:DV:30:ASN:OD1	44:DV:33:LEU:HB3	1.92	0.69
12:AL:44:PRO:HG3	12:AL:52:ARG:CD	2.23	0.69
42:DT:57:LEU:HD11	42:DT:78:LYS:HB2	1.74	0.69
19:AS:19:VAL:O	19:AS:22:LEU:HB2	1.93	0.69
27:BE:39:TRP:O	27:BE:43:LYS:HG2	1.93	0.69
23:BA:1046:A:N3	31:BI:4:LYS:HD3	2.08	0.69
53:B5:50:LEU:O	53:B5:51:ALA:HB2	1.93	0.69
1:AA:600:C:H2'	1:AA:601:C:C6	2.28	0.69
25:BC:25:THR:CG2	25:BC:82:ILE:H	2.04	0.69
23:DA:9:U:C4	23:DA:2629:A:C6	2.80	0.69
45:BW:42:GLY:HA2	45:BW:57:PHE:CE2	2.27	0.69
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.28	0.69
8:AH:97:VAL:HG13	8:AH:98:LYS:N	2.08	0.69
1:CA:1426:C:H2'	1:CA:1427:U:C6	2.26	0.69
23:BA:1606:G:H5''	23:BA:1607:C:OP1	1.92	0.69
38:BP:1:MET:C	38:BP:3:ARG:H	1.96	0.69
8:AH:77:GLU:HG3	8:AH:78:GLN:N	2.08	0.69
13:AM:76:ALA:HA	13:AM:79:LYS:HE2	1.73	0.69
23:DA:273(G):C:H2'	23:DA:274:G:H5''	1.74	0.69
23:BA:2433:A:H5''	23:BA:2434:A:P	2.32	0.69
25:BC:228:PRO:HD3	25:BC:234:GLY:O	1.93	0.69
23:BA:1537:C:H2'	23:BA:1538:G:O4'	1.93	0.69
23:BA:1290:C:H2'	23:BA:1291:C:H6	1.57	0.69
23:BA:2402:C:H5'	23:BA:2403:C:OP2	1.92	0.69
1:CA:1022:G:H2'	1:CA:1023:G:H8	1.57	0.69
53:D5:32:LEU:HD23	53:D5:33:ASN:N	2.08	0.69
47:DY:1:MET:CE	47:DY:5:GLU:HG2	2.22	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DQ:79:PHE:CD1	39:DQ:79:PHE:C	2.66	0.69
23:BA:993:G:C5	23:BA:994:C:H5	2.10	0.69
40:BR:47:VAL:O	40:BR:49:THR:O	2.11	0.69
23:DA:1812:A:C2'	23:DA:1813:G:H5'	2.23	0.69
23:BA:1404:C:O2	23:BA:1404:C:H2'	1.92	0.69
43:BU:78:ALA:HB3	43:BU:81:LYS:HE3	1.75	0.69
43:BU:81:LYS:HD3	43:BU:97:ARG:N	2.08	0.69
30:BH:66:GLU:HG2	30:BH:67:ARG:CZ	2.23	0.69
38:BP:88:ILE:HD12	38:BP:89:VAL:H	1.58	0.69
32:DJ:77:VAL:HB	32:DJ:145:VAL:HG22	1.74	0.69
25:BC:226:MET:C	25:BC:227:ASN:HD22	1.95	0.69
43:DU:8:LYS:HZ2	43:DU:8:LYS:N	1.91	0.69
23:DA:1264:G:C5'	50:D2:11:THR:HG21	2.22	0.69
1:AA:482:A:N3	1:AA:482:A:H2'	2.08	0.69
16:AP:28:ARG:HH11	16:AP:28:ARG:CG	2.05	0.69
23:DA:2712:U:H1'	23:DA:712(B):A:H8	1.57	0.69
23:BA:94:G:N2	47:BY:47:ASN:ND2	2.39	0.69
40:DR:79:VAL:O	40:DR:79:VAL:HG13	1.91	0.69
23:DA:1332:G:N2	23:DA:1610:A:C8	2.61	0.69
44:BV:136:PHE:C	44:BV:137:ILE:HD12	2.13	0.69
1:AA:1081:G:OP1	5:AE:18:ARG:HG2	1.93	0.69
25:DC:231:HIS:CD2	25:DC:249:PRO:HA	2.26	0.69
43:DU:81:LYS:HD3	43:DU:97:ARG:HB3	1.74	0.69
1:CA:688:G:H2'	1:CA:689:C:C6	2.25	0.69
23:DA:1343:G:H5'	23:DA:1343:G:H8	1.56	0.69
45:DW:56:ASP:O	45:DW:57:PHE:HB2	1.92	0.69
29:DG:140:LYS:O	29:DG:144:VAL:HG23	1.93	0.69
25:DC:25:THR:HG21	25:DC:81:ALA:CA	2.23	0.69
23:BA:760:G:H2'	23:BA:761:A:H5'	1.72	0.69
1:AA:833:U:H2'	1:AA:834:C:H6	1.58	0.69
25:BC:25:THR:HG21	25:BC:81:ALA:CA	2.22	0.69
1:CA:833:U:H2'	1:CA:834:C:H6	1.57	0.69
50:D2:33:CYS:HG	50:D2:49:CYS:HG	1.34	0.69
23:BA:1386:C:OP2	23:BA:1396:U:H5	1.75	0.69
11:AK:44:SER:OG	11:AK:47:VAL:HG23	1.92	0.69
27:BE:199:TRP:O	27:BE:203:GLN:HG2	1.92	0.69
23:DA:987:G:C2'	23:DA:988:A:H5'	2.22	0.69
11:CK:23:ALA:HA	11:CK:28:THR:OG1	1.93	0.69
23:DA:1024:G:O5'	23:DA:1024:G:H8	1.76	0.69
1:CA:1483:A:H5''	1:CA:1484:C:OP2	1.93	0.69
1:CA:1410:G:O2'	1:CA:1411:C:H5'	1.93	0.69
23:DA:1276:A:H1'	36:DN:16:HIS:HE1	1.58	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BD:167:VAL:HG22	26:BD:170:LEU:HD21	1.74	0.68
3:CC:13:GLY:CA	14:CN:57:ARG:HE	2.07	0.68
53:B5:31:HIS:C	53:B5:33:ASN:N	2.45	0.68
13:CM:39:ILE:HD11	13:CM:52:GLU:HG2	1.74	0.68
1:CA:397:A:H3'	1:CA:397:A:N3	2.08	0.68
24:BB:11:C:H3'	24:BB:12:C:C6	2.26	0.68
1:CA:105:G:H2'	1:CA:106:C:C6	2.27	0.68
27:BE:31:HIS:ND1	34:BL:13:ASN:HB2	2.07	0.68
29:BG:102:ALA:HB2	29:BG:116:GLU:HA	1.75	0.68
43:DU:6:HIS:HD2	43:DU:35:TYR:CE1	2.11	0.68
23:DA:609(B):G:N2	23:DA:619:G:H1'	2.07	0.68
6:AF:33:TYR:CE1	6:AF:75:LEU:HA	2.28	0.68
2:AB:22:LYS:HA	2:AB:22:LYS:HZ2	1.57	0.68
23:BA:2364:C:C2'	23:BA:2365:G:H5'	2.22	0.68
28:DF:174:GLU:HG2	28:DF:180:PHE:CE1	2.28	0.68
23:DA:630:G:N2	23:DA:632:A:H3'	2.09	0.68
13:AM:96:LEU:HB3	13:AM:97:PRO:HD2	1.75	0.68
32:DJ:157:ARG:N	32:DJ:158:PRO:CD	2.52	0.68
43:BU:29:GLU:CB	43:BU:38:ILE:HB	2.21	0.68
23:DA:330:A:H2	23:DA:1210:A:H2'	1.58	0.68
36:BN:57:ARG:HG2	36:BN:58:GLY:H	1.56	0.68
23:BA:2724:C:OP1	26:BD:118:LYS:HE3	1.92	0.68
1:AA:332:G:OP2	20:AT:10:LEU:HD23	1.93	0.68
1:CA:600:C:H2'	1:CA:601:C:C6	2.29	0.68
40:BR:98:GLU:HG2	40:BR:100:ARG:HD3	1.73	0.68
1:CA:1066:C:O2	1:CA:1066:C:H2'	1.92	0.68
27:DE:31:HIS:ND1	34:DL:13:ASN:HB2	2.08	0.68
23:BA:2636:U:H4'	26:BD:80:GLU:CD	2.13	0.68
23:DA:580:C:H2'	23:DA:581:C:C6	2.29	0.68
1:AA:729:A:H2'	1:AA:730:G:H8	1.58	0.68
23:BA:270(J):G:HO2'	23:BA:270(K):G:H8	1.41	0.68
13:AM:25:ILE:HD11	13:AM:66:LEU:HD13	1.75	0.68
28:BF:84:LYS:O	28:BF:86:MET:HG3	1.93	0.68
23:DA:993:G:C5	23:DA:994:C:H5	2.11	0.68
28:DF:5:LEU:HD23	28:DF:6:ALA:H	1.59	0.68
23:DA:330:A:C2	23:DA:1210:A:H2'	2.29	0.68
1:CA:1073:U:H2'	1:CA:1074:G:C8	2.29	0.68
23:BA:2305:A:H5"	28:BF:134:GLY:HA3	1.76	0.68
6:CF:33:TYR:CE1	6:CF:75:LEU:HA	2.28	0.68
23:DA:481:G:C4	23:DA:507:A:C2	2.81	0.68
23:DA:2009:G:H2'	23:DA:2010:G:H5'	1.74	0.68
10:AJ:40:LEU:HB2	10:AJ:69:ASN:HB3	1.75	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1356:G:H2'	1:CA:1357:A:C8	2.28	0.68
23:BA:651:G:OP1	53:B5:19:SER:HB3	1.93	0.68
23:BA:999:U:H5''	23:BA:1154:G:O6	1.93	0.68
41:BS:65:LEU:HB2	41:BS:68:ARG:HE	1.57	0.68
25:DC:257:LEU:C	25:DC:257:LEU:HD23	2.13	0.68
1:AA:498:A:H4'	1:AA:500:G:OP1	1.93	0.68
34:BL:62:LEU:O	34:BL:62:LEU:HD23	1.93	0.68
47:BY:1:MET:CE	47:BY:5:GLU:HG2	2.24	0.68
38:DP:74:ARG:HD3	38:DP:76:PHE:CE2	2.28	0.68
5:AE:101:ILE:O	5:AE:120:THR:HG23	1.92	0.68
23:BA:603:A:C2	23:BA:655:A:N3	2.61	0.68
39:DQ:88:ILE:HD12	39:DQ:90:VAL:CG1	2.23	0.68
35:DM:76:LYS:H	35:DM:88:GLY:HA2	1.56	0.68
3:AC:153:VAL:HG12	3:AC:198:VAL:HG22	1.75	0.68
23:BA:1786:A:H4'	23:BA:1787:A:OP2	1.92	0.68
47:BY:9:GLN:C	47:BY:12:GLU:HB3	2.12	0.68
8:CH:58:TYR:C	8:CH:59:LEU:HD23	2.14	0.68
45:BW:36:ILE:HG23	45:BW:58:THR:HG23	1.76	0.68
23:DA:1386:C:OP2	23:DA:1396:U:H5	1.77	0.68
1:CA:914:A:C2'	1:CA:915:A:H5'	2.24	0.68
3:AC:89:GLU:O	3:AC:93:LYS:HB2	1.92	0.68
29:BG:27:LYS:HG2	29:BG:32:GLU:HG3	1.76	0.68
23:DA:813:U:H2'	23:DA:814:C:C6	2.28	0.68
27:BE:36:VAL:O	27:BE:40:GLN:HG3	1.93	0.68
47:DY:1:MET:HE1	47:DY:5:GLU:HG2	1.74	0.68
23:DA:2438:U:O3'	23:DA:2439:A:H3'	1.94	0.68
38:DP:51:ARG:HD3	38:DP:62:THR:HG23	1.75	0.68
2:AB:185:ILE:CG2	2:AB:199:TYR:HB2	2.17	0.68
23:BA:1899:G:O2'	23:BA:1900:A:OP2	2.10	0.68
40:DR:6:LYS:HG3	40:DR:11:GLN:HG2	1.76	0.68
1:AA:674:G:H2'	1:AA:675:A:H8	1.58	0.68
41:BS:73:ALA:O	41:BS:106:ILE:HG12	1.94	0.68
25:DC:166:GLN:HA	25:DC:166:GLN:HE21	1.59	0.68
36:DN:99:LYS:CD	36:DN:99:LYS:H	2.04	0.68
44:BV:22:GLY:O	44:BV:41:LEU:HB2	1.93	0.68
26:DD:9:VAL:HG13	26:DD:25:VAL:O	1.92	0.68
10:AJ:45:ARG:HB3	10:AJ:47:PHE:CZ	2.29	0.68
1:CA:482:A:N3	1:CA:482:A:H2'	2.08	0.68
23:DA:300:A:OP1	43:DU:84:ARG:NH2	2.26	0.68
23:BA:329:G:OP2	43:BU:71:LYS:HE3	1.94	0.68
47:DY:2:LYS:HA	47:DY:5:GLU:OE2	1.94	0.68
23:DA:84:A:C5'	43:DU:9:LYS:HD2	2.24	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BL:109:GLY:O	34:BL:111:ARG:N	2.27	0.68
10:CJ:48:THR:HA	10:CJ:62:HIS:CB	2.18	0.68
34:DL:38:GLN:HG3	34:DL:39:LYS:N	2.07	0.68
38:BP:100:TYR:HB3	38:BP:103:ARG:NH1	2.08	0.68
16:CP:19:ILE:HB	16:CP:37:GLY:O	1.94	0.68
13:AM:33:ALA:HB1	13:AM:56:LEU:HD21	1.74	0.68
28:DF:8:LYS:HD3	28:DF:9:ARG:HG3	1.74	0.68
23:DA:547:A:C6	23:DA:548:A:C6	2.81	0.68
23:DA:2210:G:H21	23:DA:2211:G:H5'	1.54	0.68
17:CQ:45:HIS:CD2	17:CQ:47:PRO:HD3	2.28	0.68
23:DA:1607:C:H4'	23:DA:1608:A:O5'	1.94	0.68
36:DN:55:ALA:HA	36:DN:80:PHE:HE1	1.56	0.68
1:CA:1152:A:OP1	10:CJ:68:HIS:CD2	2.47	0.68
1:AA:833:U:H2'	1:AA:834:C:C6	2.28	0.68
29:DG:30:LYS:HB2	29:DG:79:VAL:HA	1.75	0.68
1:AA:919:A:O2'	1:AA:920:U:H5'	1.93	0.68
23:BA:2740:A:H2'	23:BA:2741:A:C8	2.29	0.68
23:DA:1537:C:H2'	23:DA:1538:G:O4'	1.94	0.68
33:BK:2:ILE:HG12	33:BK:8:LEU:HD11	1.73	0.68
10:AJ:96:ILE:HD13	10:AJ:96:ILE:H	1.59	0.68
23:BA:987:G:C2'	23:BA:988:A:H5'	2.23	0.68
51:D3:30:THR:HG22	51:D3:31:PRO:HD2	1.75	0.68
12:CL:74:HIS:HD2	12:CL:76:LEU:H	1.39	0.68
23:DA:2433:A:H5''	23:DA:2434:A:P	2.34	0.68
34:DL:85:LEU:HA	34:DL:88:LEU:HB2	1.74	0.68
23:BA:918:A:N3	24:BB:80:U:O2'	2.27	0.68
2:CB:163:PHE:HD1	2:CB:185:ILE:HG13	1.59	0.68
4:CD:51:PRO:HB3	4:CD:55:ALA:HB3	1.75	0.68
3:AC:113:ALA:HB3	3:AC:114:PRO:HD3	1.75	0.68
42:DT:30:VAL:HG12	42:DT:31:HIS:N	2.09	0.68
20:AT:71:THR:HG22	20:AT:72:LEU:H	1.59	0.68
3:CC:195:VAL:CG1	3:CC:196:LEU:H	2.07	0.68
1:CA:10:A:H2'	1:CA:11:G:H8	1.59	0.68
1:CA:350:G:O2'	1:CA:351:G:H5'	1.94	0.68
23:BA:2209:C:O2	23:BA:2216:G:C2	2.47	0.68
23:DA:1536:A:H5''	23:DA:1537:C:OP2	1.94	0.68
1:AA:909:A:H2'	1:AA:910:C:O4'	1.94	0.68
23:BA:357:A:H2'	23:BA:358:U:H6	1.58	0.68
1:CA:345:C:OP2	38:DP:39:ARG:NH2	2.20	0.68
3:AC:23:TYR:CD2	3:AC:24:ALA:N	2.62	0.68
23:BA:1946:U:H2'	23:BA:1947:C:H6	1.59	0.68
25:DC:201:HIS:O	25:DC:204:ILE:HG13	1.93	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:1862:G:H2'	23:DA:1863:G:H8	1.59	0.68
23:DA:1528:A:C2	23:DA:1529:A:C2	2.81	0.68
23:BA:1566:A:OP1	25:BC:211:ARG:NH1	2.27	0.68
42:DT:63:LYS:HZ1	42:DT:72:LYS:HB3	1.58	0.68
23:DA:1019:U:N3	23:DA:114(B):A:N6	2.42	0.68
3:CC:18:TRP:HB3	3:CC:20:SER:O	1.93	0.68
42:BT:51:VAL:HG11	42:BT:81:VAL:HG12	1.76	0.68
23:BA:1343:G:H5'	23:BA:1343:G:H8	1.56	0.68
1:AA:629:G:H2'	1:AA:630:G:C8	2.29	0.68
23:DA:999:U:H5''	23:DA:1154:G:O6	1.94	0.68
1:AA:106:C:C2'	1:AA:107:G:H5'	2.24	0.68
23:BA:2469:A:H2	23:BA:2481:G:H21	1.42	0.68
5:AE:96:PRO:HA	5:AE:117:ASP:CG	2.13	0.68
32:DJ:101:TYR:HB3	32:DJ:102:PRO:HD2	1.75	0.68
23:DA:2093:G:H1	23:DA:2196:C:H42	1.39	0.68
1:CA:629:G:H2'	1:CA:630:G:C8	2.29	0.68
3:CC:150:LYS:HB3	3:CC:201:TYR:HB2	1.76	0.68
10:CJ:45:ARG:HB3	10:CJ:47:PHE:CZ	2.29	0.68
10:CJ:96:ILE:H	10:CJ:96:ILE:HD13	1.59	0.68
23:BA:1310:G:OP2	52:B4:9:ARG:NH1	2.27	0.68
10:AJ:48:THR:CA	10:AJ:62:HIS:HB3	2.18	0.68
34:BL:146:VAL:HG13	34:BL:147:LEU:HD12	1.74	0.68
38:BP:54:ARG:HG3	38:BP:54:ARG:NH1	1.96	0.68
2:CB:185:ILE:CG2	2:CB:199:TYR:HB2	2.18	0.68
39:DQ:92:ARG:CB	39:DQ:92:ARG:HH11	2.06	0.68
23:DA:918:A:N3	24:DB:80:U:O2'	2.26	0.68
39:BQ:90:VAL:HG13	39:BQ:91:ASP:H	1.59	0.68
40:BR:40:LEU:C	40:BR:45:THR:HB	2.15	0.68
1:CA:89:U:H2'	1:CA:90:C:C6	2.29	0.68
39:DQ:57:PHE:O	39:DQ:58:ARG:C	2.32	0.68
36:DN:2:ARG:O	36:DN:4:LEU:N	2.27	0.68
23:BA:847:U:OP2	23:BA:929:G:O6	2.12	0.68
26:BD:120:TRP:CD1	26:BD:155:LYS:HB3	2.27	0.68
1:AA:987:G:H1	1:AA:1218:C:N4	1.90	0.68
35:BM:8:LYS:HG3	35:BM:9:TYR:H	1.59	0.68
1:AA:625:G:H4'	16:AP:16:HIS:CD2	2.29	0.68
1:AA:976:G:N2	1:AA:136(A):C:H2'	2.08	0.68
1:AA:1016:A:H2'	1:AA:1017:G:O4'	1.94	0.68
1:AA:108:G:H5'	1:AA:109:A:H5''	1.75	0.68
2:AB:115:LEU:HD12	2:AB:118:LEU:HD12	1.74	0.68
1:CA:108:G:H5'	1:CA:109:A:H5''	1.76	0.68
35:BM:54:MET:HG2	35:BM:64:ILE:HD13	1.74	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:AR:66:LEU:O	18:AR:70:ILE:HG13	1.94	0.68
43:BU:17:SER:OG	43:BU:18:GLY:N	2.25	0.68
10:AJ:48:THR:HA	10:AJ:62:HIS:CB	2.18	0.68
34:BL:126:VAL:HA	34:BL:145:PRO:HG2	1.75	0.68
53:B5:32:LEU:HD23	53:B5:33:ASN:N	2.08	0.68
34:DL:35:HIS:O	34:DL:36:LYS:CB	2.41	0.68
38:DP:24:PRO:HA	38:DP:49:VAL:CG1	2.23	0.68
1:CA:376:G:O2'	1:CA:377:G:H5'	1.94	0.68
44:DV:29:TYR:HA	44:DV:33:LEU:O	1.94	0.68
15:AO:53:HIS:HE1	23:BA:715:G:O6	1.77	0.68
23:DA:760:G:H2'	23:DA:761:A:H5'	1.76	0.68
23:DA:1476:C:H6	23:DA:1476:C:H3'	1.59	0.68
8:AH:97:VAL:O	8:AH:100:ILE:HG13	1.94	0.68
23:DA:2871:C:H5''	23:DA:2872:G:OP1	1.94	0.68
5:CE:96:PRO:HA	5:CE:117:ASP:CG	2.14	0.68
23:BA:273(G):C:H2'	23:BA:274:G:H5''	1.74	0.68
8:CH:64:LYS:HB3	8:CH:79:VAL:HG11	1.75	0.68
10:CJ:40:LEU:HB2	10:CJ:69:ASN:HB3	1.74	0.68
38:DP:86:ILE:O	38:DP:86:ILE:HG12	1.94	0.68
35:BM:32:PHE:HZ	35:BM:111:GLU:HG2	1.58	0.68
13:CM:99:ARG:HB2	13:CM:101:GLN:NE2	2.09	0.68
22:AV:6189:G:O2'	22:AV:6190:U:H5'	1.94	0.67
1:CA:552:U:O2'	1:CA:553:A:H5'	1.95	0.67
40:BR:38:LEU:HD23	40:BR:39:LEU:N	2.09	0.67
23:DA:2335:A:O2'	23:DA:2336:A:H5''	1.94	0.67
13:CM:33:ALA:HB1	13:CM:56:LEU:HD21	1.75	0.67
23:BA:1654:A:OP1	36:BN:2:ARG:N	2.27	0.67
46:BX:13:ILE:HG12	46:BX:63:ALA:CB	2.23	0.67
1:AA:105:G:H2'	1:AA:106:C:H6	1.59	0.67
8:CH:51:VAL:HG21	8:CH:60:ARG:CG	2.24	0.67
1:AA:1194:U:H2'	1:AA:1195:C:C6	2.28	0.67
26:DD:30:PRO:O	26:DD:32:PRO:HD3	1.94	0.67
1:AA:521:G:O2'	1:AA:522:C:H5'	1.94	0.67
1:AA:24:U:H2'	1:AA:25:C:H6	1.57	0.67
32:DJ:80:ALA:O	32:DJ:82:LYS:N	2.27	0.67
21:AU:6:ARG:HG3	21:AU:15:ARG:HH12	1.58	0.67
32:BJ:157:ARG:HG2	32:BJ:157:ARG:O	1.93	0.67
28:BF:86:MET:H	28:BF:87:PRO:CD	2.08	0.67
23:DA:1021:A:C3'	23:DA:1021:A:C8	2.76	0.67
26:BD:2:LYS:HE2	26:BD:95:ILE:O	1.95	0.67
3:CC:153:VAL:HG12	3:CC:198:VAL:HG22	1.76	0.67
28:BF:41:GLN:HG2	28:BF:155:MET:HB3	1.76	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AM:10:PRO:HG3	13:AM:22:ILE:HD11	1.76	0.67
6:CF:26:ILE:HG22	6:CF:30:LEU:CD1	2.25	0.67
1:CA:624:C:O3'	16:CP:10:GLY:HA2	1.94	0.67
1:CA:1151:A:O2'	1:CA:1152:A:H8	1.78	0.67
23:DA:227:A:H5'	23:DA:228:A:C2	2.29	0.67
23:BA:2637:U:H5''	26:BD:82:ARG:HH21	1.57	0.67
1:AA:1051:C:H42	1:AA:1207:G:H1	1.43	0.67
24:BB:30:C:H2'	24:BB:31:C:H5'	1.77	0.67
12:AL:6:ILE:HD12	12:AL:6:ILE:H	1.59	0.67
23:BA:492:A:H2'	23:BA:493:G:O4'	1.95	0.67
3:AC:76:VAL:HG21	3:AC:103:VAL:HG11	1.75	0.67
23:BA:603:A:N6	23:BA:655:A:C4'	2.55	0.67
25:BC:242:ARG:HG2	25:BC:242:ARG:HH11	1.59	0.67
1:AA:89:U:H2'	1:AA:90:C:C6	2.28	0.67
34:DL:16:ARG:CZ	34:DL:18:ARG:H	2.07	0.67
4:CD:100:ARG:HH21	4:CD:118:ARG:NH1	1.91	0.67
23:DA:528:A:H2	23:DA:2043:C:H5'	1.58	0.67
23:DA:1669:A:O3'	23:DA:2549:G:H5'	1.94	0.67
53:B5:50:LEU:O	53:B5:51:ALA:CB	2.42	0.67
23:DA:971:C:C2'	23:DA:972:G:H5'	2.24	0.67
22:AV:6177:U:H2'	22:AV:6178:A:H8	1.60	0.67
36:BN:99:LYS:H	36:BN:99:LYS:CD	2.05	0.67
1:CA:255:G:C4	1:CA:256:U:C5	2.82	0.67
10:AJ:92:THR:HG23	10:AJ:93:GLY:H	1.59	0.67
23:DA:229:A:H5'	23:DA:230:U:H5'	1.76	0.67
4:AD:36:ARG:HG2	4:AD:38:TYR:OH	1.94	0.67
15:AO:69:TYR:HD1	15:AO:72:ARG:HH21	1.40	0.67
23:DA:1007:C:O2'	32:DJ:131:PRO:HA	1.93	0.67
38:BP:86:ILE:O	38:BP:86:ILE:HG12	1.93	0.67
6:CF:12:PRO:HG2	6:CF:55:ASP:OD2	1.94	0.67
23:DA:628:G:H2'	23:DA:629:G:H8	1.58	0.67
43:DU:13:VAL:CG1	43:DU:72:VAL:HB	2.24	0.67
13:CM:107:ALA:O	13:CM:111:LYS:HG3	1.93	0.67
23:BA:1658:C:OP1	26:BD:132:HIS:O	2.13	0.67
23:BA:1141:U:OP2	32:BJ:86:THR:CG2	2.43	0.67
23:DA:242:G:C5'	53:D5:63:PRO:HG2	2.25	0.67
23:BA:322:A:H3'	27:BE:169:ASN:HD21	1.57	0.67
36:DN:4:LEU:O	36:DN:6:SER:N	2.27	0.67
5:AE:51:VAL:O	5:AE:55:VAL:HG23	1.94	0.67
1:CA:1301:U:H3'	1:CA:1302:U:H5''	1.76	0.67
8:AH:21:LYS:O	8:AH:63:LEU:HD12	1.95	0.67
25:BC:132:PRO:O	25:BC:136:ILE:HD12	1.95	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CS:19:VAL:O	19:CS:22:LEU:HB2	1.94	0.67
42:DT:52:VAL:HG23	42:DT:82:GLN:O	1.94	0.67
23:DA:2277:G:H5''	35:DM:85:LYS:HB2	1.74	0.67
23:DA:380:U:C2	46:DX:20:ARG:NH2	2.61	0.67
33:BK:102:VAL:HG23	33:BK:121:VAL:HA	1.76	0.67
23:DA:357:A:H2'	23:DA:358:U:C6	2.30	0.67
29:DG:102:ALA:HB2	29:DG:116:GLU:HA	1.75	0.67
23:BA:1862:G:H2'	23:BA:1863:G:H8	1.60	0.67
23:DA:565:C:H2'	23:DA:566:U:O5'	1.95	0.67
23:DA:314:A:O2'	23:DA:315:G:H5'	1.94	0.67
25:BC:70:TRP:CZ3	25:BC:146:GLU:OE1	2.45	0.67
23:DA:941:A:H4'	34:DL:35:HIS:CE1	2.28	0.67
1:AA:692:U:O2'	1:AA:694:A:N7	2.22	0.67
1:CA:37:U:P	12:CL:122:LYS:HG3	2.34	0.67
9:AI:17:VAL:HG13	9:AI:63:ILE:HD11	1.77	0.67
23:BA:910:A:H62	35:BM:12:GLN:HA	1.59	0.67
1:AA:625:G:H2'	1:AA:626:U:C6	2.29	0.67
1:CA:66:G:H4'	1:CA:173:U:C5	2.30	0.67
22:CV:6177:U:H2'	22:CV:6178:A:H8	1.60	0.67
23:BA:335:C:H2'	23:BA:336:C:H6	1.59	0.67
1:CA:976:G:C8	1:CA:1358:U:H2'	2.29	0.67
8:AH:64:LYS:HB3	8:AH:79:VAL:HG11	1.76	0.67
3:AC:175:LEU:HD23	3:AC:175:LEU:O	1.94	0.67
23:DA:2631:G:N3	23:DA:2810:A:H2	1.91	0.67
23:DA:116:C:H2'	23:DA:117:G:C8	2.29	0.67
1:CA:973:G:H3'	1:CA:974:A:H5''	1.74	0.67
36:BN:44:LEU:O	36:BN:44:LEU:HD13	1.95	0.67
23:BA:2275:C:H5'	23:BA:2275:C:H6	1.60	0.67
23:DA:826:U:H4'	34:DL:55:ARG:HB2	1.76	0.67
22:AV:6182:A:C2	22:AV:6195:G:C2	2.83	0.67
38:BP:51:ARG:HD3	38:BP:62:THR:HG23	1.77	0.67
23:DA:729:G:OP2	25:DC:13:ARG:NH1	2.26	0.67
1:AA:438:G:H4'	4:AD:123:HIS:ND1	2.09	0.67
1:AA:397:A:H3'	1:AA:397:A:N3	2.09	0.67
30:DH:111:PRO:HG2	30:DH:112:LYS:HE2	1.77	0.67
28:BF:129:GLY:HA3	28:BF:163:ALA:HB3	1.76	0.67
23:DA:94:G:N2	47:DY:47:ASN:ND2	2.41	0.67
23:DA:1596:A:H2'	23:DA:1597:A:H5'	1.76	0.67
44:BV:30:ASN:O	44:BV:32:HIS:N	2.27	0.67
1:AA:1368:G:O2'	1:AA:1369:C:H5'	1.93	0.67
25:BC:79:VAL:HG12	25:BC:113:VAL:HA	1.77	0.67
40:BR:28:GLU:OE1	40:BR:31:ALA:HB2	1.95	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:588:U:H1'	27:DE:90:PHE:CD1	2.30	0.67
1:CA:914:A:H2'	1:CA:915:A:H5'	1.76	0.67
21:CU:6:ARG:HG3	21:CU:15:ARG:HH12	1.58	0.67
3:CC:89:GLU:O	3:CC:93:LYS:HB2	1.94	0.67
4:AD:71:SER:HB2	4:AD:74:GLN:HB2	1.76	0.67
35:DM:134:ARG:O	35:DM:136:ALA:N	2.28	0.67
51:B3:30:THR:HG22	51:B3:31:PRO:HD2	1.75	0.67
23:DA:1909:C:C2	23:DA:1922:G:N2	2.63	0.67
6:AF:67:MET:HB2	6:AF:68:PRO:HD2	1.76	0.67
13:CM:25:ILE:HD11	13:CM:66:LEU:HD13	1.76	0.67
2:CB:127:ILE:HD13	2:CB:127:ILE:N	2.09	0.67
2:AB:69:LEU:HD13	2:AB:91:PRO:HB2	1.77	0.67
34:BL:38:GLN:HG3	34:BL:39:LYS:N	2.10	0.67
1:CA:1347:G:N7	9:CI:107:ARG:HB3	2.08	0.67
12:CL:26:LEU:HB3	12:CL:29:ALA:HB3	1.77	0.67
39:DQ:108:GLU:HG3	40:DR:44:LYS:HG2	1.76	0.67
23:DA:1021:A:H2'	23:DA:1023:U:H5'	1.76	0.67
30:BH:79:ILE:HG22	30:BH:81:VAL:HG23	1.74	0.67
23:BA:1158:C:O2'	23:BA:1159:U:H5'	1.95	0.67
39:BQ:79:PHE:O	39:BQ:83:LEU:HD13	1.95	0.67
37:DO:12:PHE:HE1	37:DO:16:ASN:HD21	1.43	0.67
4:AD:119:GLN:HG3	4:AD:123:HIS:HD2	1.57	0.67
26:DD:84:PHE:CZ	26:DD:86:PRO:HG3	2.30	0.67
5:AE:33:VAL:HG11	5:AE:109:ILE:HA	1.77	0.67
2:CB:97:TRP:CH2	2:CB:176:GLU:HG3	2.30	0.67
42:DT:29:TRP:CZ3	42:DT:78:LYS:HG3	2.29	0.67
23:BA:1858:G:HO2'	23:BA:1859:A:H8	1.41	0.67
45:DW:72:ARG:HB3	45:DW:75:LEU:HD12	1.77	0.67
53:B5:57:ARG:HA	53:B5:57:ARG:NE	2.10	0.67
1:AA:511:C:H1'	4:AD:43:HIS:NE2	2.10	0.67
32:BJ:160:LYS:HE3	32:BJ:161:LEU:N	2.08	0.67
1:CA:579:G:C5	1:CA:580:U:C5	2.82	0.67
23:DA:1593:G:H2'	23:DA:1594:G:C8	2.30	0.67
23:BA:2840:C:H4'	36:BN:53:HIS:CD2	2.30	0.67
1:AA:1468:A:H2'	1:AA:1469:G:O4'	1.94	0.67
12:CL:22:LYS:O	12:CL:96:ARG:HD2	1.94	0.67
23:BA:2322:A:H3'	23:BA:2323:G:H8	1.60	0.67
51:B3:42:TRP:CE3	51:B3:42:TRP:HA	2.28	0.67
25:DC:95:LEU:HD12	25:DC:95:LEU:O	1.95	0.67
23:BA:2036:C:H6	23:BA:2036:C:H5'	1.60	0.67
1:CA:1229:A:H2'	1:CA:1230:C:C6	2.30	0.67
34:DL:112:LEU:HD23	34:DL:113:LYS:N	2.09	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DU:17:SER:OG	43:DU:18:GLY:N	2.27	0.67
23:BA:807:U:OP2	34:BL:39:LYS:CG	2.38	0.67
34:DL:33:ARG:H	34:DL:36:LYS:CE	2.03	0.67
24:DB:83:G:H5''	48:DZ:52:HIS:CE1	2.29	0.67
1:AA:411:A:N7	1:AA:429:U:H5	1.93	0.67
23:DA:2723:C:O3'	36:DN:2:ARG:NH2	2.27	0.67
25:DC:231:HIS:CD2	25:DC:232:PRO:HD2	2.30	0.67
25:BC:166:GLN:N	25:BC:166:GLN:HE21	1.93	0.67
39:DQ:5:LYS:HG2	39:DQ:6:THR:H	1.58	0.67
43:DU:63:LYS:HG3	43:DU:64:GLU:H	1.58	0.67
1:AA:1512:U:H3	1:AA:1523:G:H1	1.43	0.67
1:CA:433:C:H2'	1:CA:434:U:H6	1.59	0.67
23:BA:540:G:H2'	23:BA:541:C:H6	1.59	0.67
35:DM:116:GLU:OE1	35:DM:116:GLU:HA	1.94	0.67
7:AG:142:GLU:O	7:AG:145:ALA:HB3	1.94	0.67
1:CA:937:A:H1'	1:CA:1379:G:N2	2.10	0.67
20:AT:90:GLN:O	20:AT:93:GLU:HB3	1.95	0.67
23:DA:1946:U:H2'	23:DA:1947:C:H6	1.59	0.67
53:D5:57:ARG:NE	53:D5:57:ARG:HA	2.10	0.67
23:DA:2415:G:H4'	34:DL:66:GLY:CA	2.24	0.67
23:DA:637:A:OP2	34:DL:115:LEU:HB2	1.94	0.67
23:BA:2389:G:H5''	23:BA:2390:U:C5'	2.11	0.67
25:BC:145:VAL:HG12	25:BC:146:GLU:O	1.94	0.67
9:CI:113:LYS:H	9:CI:119:ALA:HA	1.60	0.67
22:CV:6182:A:C2	22:CV:6195:G:C2	2.83	0.67
1:CA:950:U:H4'	1:CA:971:G:N2	2.10	0.67
1:CA:1250:A:H5'	9:CI:67:GLY:HA2	1.77	0.67
44:BV:94:GLU:CD	44:BV:94:GLU:H	1.99	0.67
44:BV:132:ASN:C	44:BV:134:PRO:HD3	2.14	0.67
6:CF:37:VAL:HG12	6:CF:38:GLU:O	1.94	0.67
40:DR:28:GLU:OE1	40:DR:31:ALA:HB2	1.95	0.67
23:DA:2599:G:C8	25:DC:237:GLU:HG3	2.30	0.67
37:DO:34:HIS:CE1	37:DO:54:LEU:HB3	2.29	0.67
23:BA:580:C:H2'	23:BA:581:C:C6	2.30	0.67
11:AK:21:ILE:N	11:AK:21:ILE:HD12	2.10	0.67
35:DM:60:ARG:H	44:DV:179:ASP:CG	1.99	0.67
1:CA:300:A:H1'	1:CA:565:U:O2	1.95	0.67
23:BA:2871:C:H5''	23:BA:2872:G:OP1	1.94	0.67
32:BJ:101:TYR:HB3	32:BJ:102:PRO:HD2	1.77	0.67
23:DA:2322:A:H3'	23:DA:2323:G:H8	1.60	0.67
23:DA:1683:C:H42	23:DA:1705:G:H1	1.41	0.67
23:DA:1310:G:OP2	52:D4:9:ARG:NH1	2.28	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:B4:11:LYS:HD2	52:B4:15:THR:CG2	2.25	0.67
3:AC:13:GLY:CA	14:AN:57:ARG:HE	2.07	0.67
32:DJ:127:LYS:HB2	32:DJ:140:PHE:CE1	2.30	0.67
39:BQ:92:ARG:CB	39:BQ:92:ARG:HH11	2.08	0.67
4:AD:94:LEU:HA	4:AD:97:LEU:HD12	1.76	0.67
23:DA:1786:A:H4'	23:DA:1787:A:OP2	1.94	0.67
3:AC:195:VAL:CG1	3:AC:196:LEU:H	2.07	0.67
46:BX:62:VAL:HG22	46:BX:63:ALA:N	2.10	0.67
25:DC:134:ARG:HD3	25:DC:135:PHE:CE1	2.30	0.67
10:CJ:55:LYS:HD2	10:CJ:55:LYS:O	1.95	0.67
23:BA:971:C:H2'	23:BA:972:G:C5'	2.25	0.67
25:DC:77:ALA:CB	25:DC:97:TYR:HA	2.25	0.67
23:BA:534:U:O2'	39:BQ:49:HIS:HD2	1.78	0.67
1:AA:24:U:H2'	1:AA:25:C:C6	2.30	0.67
1:CA:346:G:OP1	38:DP:41:ARG:NH2	2.27	0.67
29:DG:98:LEU:HD12	29:DG:99:VAL:N	2.09	0.67
28:BF:7:LEU:HD23	28:BF:10:LYS:HD2	1.75	0.67
23:BA:2705:A:H2	36:BN:64:ARG:NH1	1.93	0.67
35:DM:43:THR:OG1	35:DM:45:GLN:HG2	1.95	0.67
3:AC:40:ARG:O	3:AC:44:GLU:HG2	1.94	0.66
1:AA:1073:U:H2'	1:AA:1074:G:C8	2.30	0.66
9:AI:113:LYS:H	9:AI:119:ALA:HA	1.60	0.66
6:AF:63:TYR:N	6:AF:63:TYR:HD2	1.92	0.66
33:DK:103:ALA:HB1	33:DK:105:GLU:OE1	1.95	0.66
23:BA:7:G:H2'	23:BA:8:A:C8	2.30	0.66
23:DA:971:C:H2'	23:DA:972:G:C5'	2.24	0.66
23:DA:389:G:H1	34:DL:71:VAL:H	1.43	0.66
1:AA:105:G:H2'	1:AA:106:C:C6	2.30	0.66
43:DU:76:CYS:SG	43:DU:77:PRO:HD3	2.35	0.66
23:BA:2593:U:H2'	23:BA:2594:C:H6	1.58	0.66
1:CA:532:A:H2	1:CA:1207:G:H4'	1.60	0.66
24:DB:75:G:H21	44:DV:85:HIS:HE1	1.40	0.66
1:CA:564:C:C2	17:CQ:31:LEU:HD11	2.30	0.66
1:CA:632:A:C8	1:CA:633:G:C8	2.83	0.66
12:AL:6:ILE:O	12:AL:10:VAL:HG23	1.95	0.66
19:CS:49:ILE:HD12	19:CS:49:ILE:H	1.60	0.66
15:AO:15:PHE:O	15:AO:27:VAL:HG22	1.95	0.66
23:BA:978:G:C2'	23:BA:979:G:H5'	2.25	0.66
8:AH:7:ALA:HB2	8:AH:85:ARG:HD3	1.76	0.66
22:AV:6188:G:N2	22:AV:6216:U:C2	2.63	0.66
32:BJ:157:ARG:N	32:BJ:158:PRO:HD3	2.02	0.66
16:AP:20:VAL:HG21	16:AP:32:TYR:CD1	2.30	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:CT:71:THR:HG22	20:CT:72:LEU:H	1.60	0.66
28:BF:5:LEU:HD23	28:BF:6:ALA:H	1.60	0.66
8:AH:91:ARG:HG2	8:AH:91:ARG:HH11	1.59	0.66
41:DS:4:LYS:HD3	41:DS:6:ILE:HD11	1.77	0.66
36:BN:9:LYS:C	36:BN:10:LEU:HG	2.14	0.66
4:CD:126:ILE:HG22	4:CD:127:THR:N	2.09	0.66
23:BA:1858:G:O2'	23:BA:1859:A:H8	1.77	0.66
25:DC:166:GLN:NE2	25:DC:166:GLN:HA	2.10	0.66
23:BA:2758:A:C4	29:BG:67:LEU:HD21	2.30	0.66
13:AM:99:ARG:HB2	13:AM:101:GLN:NE2	2.10	0.66
35:BM:134:ARG:O	35:BM:136:ALA:N	2.27	0.66
7:CG:27:ILE:HD11	7:CG:43:PHE:HD2	1.59	0.66
23:BA:2661:G:O2'	23:BA:2662:A:H5'	1.95	0.66
1:CA:24:U:H2'	1:CA:25:C:H6	1.59	0.66
1:AA:1111:A:H8	1:AA:1111:A:O5'	1.79	0.66
1:AA:1426:C:H2'	1:AA:1427:U:C6	2.30	0.66
34:DL:91:PHE:HD1	34:DL:91:PHE:N	1.93	0.66
34:DL:91:PHE:N	34:DL:91:PHE:CD1	2.63	0.66
23:BA:1546:A:C8	23:BA:154(B):C:O2	2.48	0.66
1:AA:1229:A:H2'	1:AA:1230:C:C6	2.30	0.66
23:BA:1141:U:OP2	32:BJ:86:THR:HG23	1.94	0.66
39:DQ:79:PHE:HD1	39:DQ:79:PHE:C	1.98	0.66
16:AP:17:TYR:CD1	16:AP:17:TYR:N	2.63	0.66
23:BA:1813:G:C1'	25:BC:50:THR:HG21	2.22	0.66
3:CC:35:GLU:HA	3:CC:38:ARG:HG2	1.77	0.66
23:DA:1606:G:H5''	23:DA:1607:C:OP1	1.95	0.66
23:DA:1495:A:N3	23:DA:1495:A:H2'	2.08	0.66
46:BX:10:LYS:O	46:BX:11:ARG:HG2	1.95	0.66
23:BA:2277:G:H5''	35:BM:85:LYS:HB2	1.76	0.66
35:DM:8:LYS:HG3	35:DM:9:TYR:H	1.59	0.66
24:DB:11:C:H3'	24:DB:12:C:C6	2.30	0.66
23:BA:1683:C:N4	23:BA:1705:G:H1	1.93	0.66
11:AK:32:ILE:HD12	11:AK:72:ALA:HB2	1.78	0.66
1:AA:710:G:OP1	6:AF:54:LYS:HE2	1.94	0.66
40:DR:91:TYR:CD2	40:DR:91:TYR:O	2.48	0.66
1:AA:707:C:H2'	1:AA:708:C:H6	1.60	0.66
23:DA:1386:C:H2'	23:DA:1387:C:H6	1.61	0.66
17:AQ:18:THR:HG23	17:AQ:69:LYS:HE3	1.77	0.66
23:DA:814:C:H41	34:DL:27:HIS:CD2	2.13	0.66
16:CP:43:LYS:HG2	16:CP:48:TRP:CD2	2.29	0.66
1:AA:1410:G:O2'	1:AA:1411:C:H5'	1.95	0.66
23:DA:2036:C:H6	23:DA:2036:C:H5'	1.58	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:227:A:H5'	23:BA:228:A:C2	2.30	0.66
1:AA:433:C:H2'	1:AA:434:U:H6	1.61	0.66
13:CM:96:LEU:HB3	13:CM:97:PRO:HD2	1.76	0.66
1:AA:1252:A:H61	1:AA:1285:A:H61	1.44	0.66
23:DA:1828:G:OP2	25:DC:239:ARG:NH1	2.28	0.66
12:AL:44:PRO:HG3	12:AL:52:ARG:HE	1.61	0.66
1:AA:738:C:H2'	1:AA:739:C:C6	2.30	0.66
37:BO:34:HIS:CE1	37:BO:54:LEU:HB3	2.30	0.66
23:BA:966:G:C4	23:BA:967:C:C5	2.83	0.66
1:AA:1010:G:H2'	1:AA:1011:G:H8	1.59	0.66
44:BV:24:LEU:HD11	44:BV:86:VAL:HG22	1.77	0.66
9:CI:22:GLY:HA3	9:CI:60:ASP:OD2	1.94	0.66
23:BA:796:C:H2'	23:BA:797:C:C6	2.31	0.66
23:BA:1856:G:N2	23:BA:1886:C:O2	2.28	0.66
23:BA:1536:A:H5''	23:BA:1537:C:OP2	1.94	0.66
23:BA:1746:G:C2	23:BA:1747:G:C8	2.84	0.66
8:AH:39:LEU:HB3	8:AH:45:ILE:HG23	1.78	0.66
23:DA:855:G:H5''	23:DA:856:C:OP2	1.95	0.66
23:BA:752:A:H3'	52:B4:1:MET:HE3	1.78	0.66
1:CA:498:A:H4'	1:CA:500:G:OP1	1.95	0.66
23:BA:609(B):G:N2	23:BA:619:G:H1'	2.09	0.66
40:BR:7:THR:HG23	40:BR:22:VAL:HG11	1.76	0.66
1:AA:1226:C:N4	13:AM:104:ARG:HD2	2.10	0.66
25:BC:108:PRO:HB3	25:BC:143:HIS:CE1	2.31	0.66
23:DA:2294:C:H2'	23:DA:2295:C:C6	2.30	0.66
25:DC:155:LEU:CD2	25:DC:177:LEU:HD21	2.23	0.66
5:CE:33:VAL:HG11	5:CE:109:ILE:HA	1.76	0.66
23:DA:1331:A:O2'	23:DA:1332:G:H8	1.78	0.66
2:CB:97:TRP:HH2	2:CB:176:GLU:HG3	1.60	0.66
28:BF:105:LYS:HZ3	49:B1:52:SER:HB2	1.61	0.66
1:AA:255:G:C4	1:AA:256:U:C5	2.84	0.66
46:DX:45:ASN:HD21	46:DX:47:GLN:HE21	1.41	0.66
6:CF:63:TYR:N	6:CF:63:TYR:HD2	1.94	0.66
1:AA:57:G:C5	1:AA:58:C:C4	2.84	0.66
23:BA:2785:C:H2'	23:BA:2786:U:O4'	1.96	0.66
43:BU:2:ARG:O	43:BU:4:LYS:N	2.24	0.66
1:AA:976:G:C8	1:AA:1358:U:H2'	2.31	0.66
23:BA:814:C:H41	34:BL:27:HIS:CD2	2.14	0.66
10:CJ:92:THR:HG23	10:CJ:93:GLY:H	1.60	0.66
1:CA:862:C:H2'	1:CA:863:U:H5'	1.77	0.66
39:DQ:18:LEU:HD11	39:DQ:31:SER:H	1.60	0.66
6:CF:67:MET:HB2	6:CF:68:PRO:HD2	1.77	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:BF:94:LEU:HD12	28:BF:99:MET:HA	1.78	0.66
23:BA:481:G:C4	23:BA:507:A:C2	2.84	0.66
12:CL:6:ILE:O	12:CL:10:VAL:HG23	1.96	0.66
10:CJ:7:LYS:O	10:CJ:8:LEU:HD12	1.95	0.66
1:CA:1016:A:H2'	1:CA:1017:G:O4'	1.95	0.66
41:BS:22:ASP:HA	41:BS:25:ARG:HH12	1.61	0.66
23:BA:1019:U:N3	23:BA:114(B):A:N6	2.43	0.66
28:BF:84:LYS:HG3	28:BF:85:GLY:N	2.07	0.66
40:DR:38:LEU:HD23	40:DR:39:LEU:N	2.11	0.66
23:BA:1614:A:H62	41:BS:93:ALA:CB	2.05	0.66
16:AP:19:ILE:HB	16:AP:37:GLY:O	1.96	0.66
13:AM:39:ILE:HD11	13:AM:52:GLU:HG2	1.76	0.66
28:DF:70:VAL:HG12	28:DF:90:LEU:HD22	1.77	0.66
49:D1:50:THR:HG22	49:D1:51:TYR:H	1.60	0.66
30:BH:111:PRO:HG2	30:BH:112:LYS:HE2	1.77	0.66
23:BA:9:U:C4	23:BA:2629:A:C6	2.83	0.66
24:BB:21:G:H1	24:BB:62:C:N4	1.93	0.66
50:B2:40:LYS:HZ3	50:B2:49:CYS:HB3	1.59	0.66
29:BG:98:LEU:HD12	29:BG:99:VAL:H	1.60	0.66
1:CA:373:A:O2'	1:CA:374:A:H5'	1.96	0.66
29:BG:55:PRO:HG2	29:BG:61:HIS:CE1	2.29	0.66
3:AC:35:GLU:HA	3:AC:38:ARG:HG2	1.76	0.66
6:AF:15:ASP:OD1	6:AF:17:SER:HB2	1.95	0.66
23:DA:628:G:H2'	23:DA:629:G:C8	2.31	0.66
26:DD:170:LEU:N	26:DD:170:LEU:HD23	2.09	0.66
22:AV:6182:A:C6	22:AV:6183:G:C5	2.84	0.66
22:CV:6189:G:O2'	22:CV:6190:U:H5'	1.96	0.66
23:BA:2729:G:H2'	23:BA:2730:C:H6	1.61	0.66
5:CE:57:LYS:O	5:CE:61:TYR:CD2	2.49	0.66
46:DX:62:VAL:HG22	46:DX:63:ALA:N	2.11	0.66
4:CD:105:VAL:HG13	4:CD:110:PHE:HB2	1.78	0.66
1:AA:668:G:H1'	15:AO:46:HIS:HD2	1.60	0.66
34:BL:18:ARG:NH1	34:BL:18:ARG:HB3	2.10	0.66
45:DW:36:ILE:HG23	45:DW:58:THR:HG23	1.76	0.66
29:DG:94:TYR:H	29:DG:94:TYR:HD1	1.44	0.66
23:DA:912:C:H2'	23:DA:912:C:O2	1.96	0.66
23:DA:1411:C:H2'	23:DA:1412:A:C8	2.30	0.66
51:D3:42:TRP:HA	51:D3:42:TRP:HE3	1.60	0.66
23:BA:2773:C:OP1	26:BD:166:THR:OG1	2.13	0.66
8:CH:7:ALA:HB2	8:CH:85:ARG:HD3	1.76	0.66
2:CB:115:LEU:HD12	2:CB:118:LEU:HD12	1.76	0.66
34:DL:75:ILE:HD12	34:DL:75:ILE:H	1.61	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:18:C:O3'	39:BQ:23:GLY:HA2	1.96	0.66
23:BA:2780:G:H4'	23:BA:2781:A:OP2	1.95	0.66
32:DJ:114:LEU:HA	32:DJ:118:PRO:HB3	1.77	0.66
16:AP:17:TYR:H	16:AP:17:TYR:HD1	1.42	0.66
23:DA:603:A:C2	23:DA:655:A:N3	2.64	0.66
3:CC:113:ALA:HB3	3:CC:114:PRO:HD3	1.77	0.66
23:DA:1813:G:C1'	25:DC:50:THR:HG21	2.24	0.66
42:DT:51:VAL:HG11	42:DT:81:VAL:HG12	1.76	0.66
44:DV:132:ASN:C	44:DV:134:PRO:HD3	2.16	0.66
44:DV:134:PRO:O	44:DV:136:PHE:N	2.28	0.66
46:BX:11:ARG:HH12	46:BX:61:ARG:N	1.94	0.66
16:AP:72:ARG:O	16:AP:73:LEU:HD23	1.96	0.66
25:DC:134:ARG:HG3	25:DC:135:PHE:CD1	2.31	0.66
52:B4:12:ARG:HG3	52:B4:12:ARG:NH1	2.10	0.66
23:BA:2599:G:C8	25:BC:237:GLU:HG3	2.31	0.66
23:DA:582:G:OP1	39:DQ:14:HIS:HD2	1.78	0.66
9:CI:97:LYS:HB3	9:CI:98:PRO:HD3	1.78	0.66
32:DJ:160:LYS:HE3	32:DJ:161:LEU:N	2.10	0.66
8:CH:64:LYS:HG2	8:CH:79:VAL:HG21	1.78	0.66
23:BA:1248:G:OP1	39:BQ:2:PRO:HD2	1.96	0.66
23:DA:1794:U:H2'	23:DA:1795:C:H6	1.59	0.66
32:DJ:148:GLY:HA3	32:DJ:149:PRO:O	1.96	0.66
1:CA:444:C:O2'	1:CA:445:G:H5'	1.96	0.66
23:DA:2051:A:H4'	26:DD:141:ILE:HG23	1.78	0.66
1:AA:1513:A:H2'	1:AA:1514:C:C6	2.30	0.66
12:AL:74:HIS:HD2	12:AL:76:LEU:H	1.41	0.66
23:BA:328:U:H4'	43:BU:68:HIS:ND1	2.11	0.66
15:CO:15:PHE:O	15:CO:27:VAL:HG22	1.96	0.66
1:CA:222:U:H2'	1:CA:223:U:H6	1.59	0.66
23:DA:651:G:OP1	53:D5:19:SER:HB3	1.96	0.66
10:AJ:63:PHE:HD1	14:AN:58:LYS:HA	1.60	0.66
1:CA:1346:A:C8	7:CG:10:ARG:NH2	2.64	0.66
23:DA:2846:G:H2'	23:DA:2847:U:C6	2.31	0.66
39:DQ:90:VAL:HG13	39:DQ:91:ASP:H	1.61	0.66
25:BC:238:GLY:O	25:BC:239:ARG:O	2.13	0.66
30:DH:102:SER:HA	30:DH:107:ILE:O	1.95	0.66
23:DA:1210:A:C5'	23:DA:1210:A:C8	2.79	0.66
23:DA:2724:C:OP1	26:DD:118:LYS:HE3	1.96	0.66
26:DD:120:TRP:CD1	26:DD:155:LYS:HB3	2.31	0.66
23:DA:1156:A:H4'	23:DA:1157:G:OP2	1.96	0.66
16:CP:72:ARG:O	16:CP:73:LEU:HD23	1.96	0.66
8:CH:97:VAL:HG13	8:CH:98:LYS:N	2.11	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:20:U:C2'	1:CA:21:G:H5'	2.26	0.66
1:CA:1081:G:OP1	5:CE:18:ARG:HG2	1.96	0.66
1:AA:300:A:O5'	1:AA:300:A:H8	1.79	0.66
36:BN:85:PRO:O	36:BN:87:TYR:N	2.29	0.66
17:AQ:45:HIS:CD2	17:AQ:47:PRO:HD3	2.31	0.66
25:BC:257:LEU:HD23	25:BC:257:LEU:C	2.17	0.66
23:BA:737:C:C2'	23:BA:738:G:H5'	2.26	0.66
1:AA:1483:A:H5''	1:AA:1484:C:OP2	1.96	0.66
23:DA:2190:G:H2'	23:DA:2191:G:H8	1.60	0.66
1:AA:1126:U:H2'	1:AA:1127:G:C8	2.31	0.66
23:BA:1218:C:O2'	23:BA:1219:G:H5'	1.95	0.66
16:CP:20:VAL:HG21	16:CP:32:TYR:CG	2.31	0.66
30:BH:102:SER:HA	30:BH:107:ILE:O	1.95	0.66
39:BQ:88:ILE:HD12	39:BQ:90:VAL:CG1	2.26	0.66
44:DV:53:ILE:HG22	44:DV:71:VAL:O	1.96	0.66
49:B1:50:THR:HG22	49:B1:51:TYR:H	1.59	0.66
23:BA:125:G:H4'	23:BA:126:A:OP2	1.95	0.66
2:AB:97:TRP:CH2	2:AB:176:GLU:HG3	2.31	0.66
6:AF:8:ILE:HD11	6:AF:79:LEU:HD13	1.78	0.66
36:BN:4:LEU:O	36:BN:6:SER:N	2.28	0.66
4:CD:110:PHE:H	4:CD:110:PHE:HD2	1.43	0.66
27:BE:101:LEU:HD12	27:BE:102:PRO:CD	2.27	0.66
1:AA:579:G:C5	1:AA:580:U:C5	2.84	0.66
1:AA:1446:A:H4'	1:AA:1446:A:OP1	1.96	0.66
2:AB:118:LEU:HD13	2:AB:142:LEU:HB2	1.77	0.66
3:AC:150:LYS:HB3	3:AC:201:TYR:HB2	1.76	0.66
8:CH:39:LEU:HB3	8:CH:45:ILE:HG23	1.76	0.66
33:BK:80:ASP:OD2	38:BP:71:GLY:HA3	1.94	0.66
1:AA:1306:A:H1'	1:AA:1332:A:C2	2.31	0.66
34:BL:58:THR:O	34:BL:61:ARG:NE	2.26	0.65
32:DJ:86:THR:O	32:DJ:89:LYS:HG2	1.95	0.65
39:BQ:57:PHE:O	39:BQ:58:ARG:C	2.34	0.65
37:DO:38:GLN:HB3	37:DO:47:THR:CG2	2.26	0.65
1:AA:551:U:H5'	12:AL:118:LYS:NZ	2.10	0.65
28:BF:70:VAL:HG12	28:BF:90:LEU:HD22	1.77	0.65
5:AE:43:LEU:HD22	5:AE:136:MET:CG	2.24	0.65
1:CA:57:G:C5	1:CA:58:C:C4	2.84	0.65
9:AI:28:VAL:HG22	9:AI:63:ILE:HB	1.78	0.65
4:AD:126:ILE:HG22	4:AD:127:THR:N	2.10	0.65
23:DA:558:G:OP1	32:DJ:134:PRO:HD2	1.94	0.65
34:DL:14:LYS:O	34:DL:15:ARG:HB2	1.95	0.65
35:BM:60:ARG:H	44:BV:179:ASP:CG	1.99	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:588:U:H2'	23:BA:589:C:C6	2.31	0.65
1:AA:1298:C:H4'	1:AA:1299:A:N9	2.11	0.65
23:BA:1710:C:O2'	23:BA:1711:C:H5'	1.95	0.65
23:DA:1726:G:H2'	23:DA:1727:U:C6	2.31	0.65
24:DB:30:C:H2'	24:DB:31:C:H5'	1.78	0.65
43:BU:6:HIS:HD2	43:BU:35:TYR:CE1	2.14	0.65
39:DQ:79:PHE:O	39:DQ:83:LEU:HD13	1.96	0.65
39:BQ:92:ARG:HD3	39:BQ:94:ASN:HB3	1.78	0.65
16:AP:4:ILE:HB	16:AP:66:PRO:HB3	1.76	0.65
4:CD:94:LEU:HA	4:CD:97:LEU:HD12	1.78	0.65
1:CA:397:A:N7	1:CA:548:G:C8	2.65	0.65
23:DA:1493:C:C4	23:DA:2210:G:O2'	2.49	0.65
36:DN:2:ARG:C	36:DN:4:LEU:N	2.47	0.65
3:AC:130:VAL:HG11	3:AC:153:VAL:HG21	1.78	0.65
2:AB:97:TRP:HH2	2:AB:176:GLU:HG3	1.61	0.65
3:AC:15:THR:HG21	3:AC:181:ASN:HA	1.78	0.65
4:AD:155:LEU:HD23	4:AD:156:GLU:H	1.61	0.65
1:CA:622:A:C8	1:CA:623:C:C6	2.84	0.65
19:AS:6:LYS:CG	19:AS:7:LYS:HD3	2.26	0.65
23:BA:106:C:H1'	43:BU:2:ARG:HE	1.60	0.65
23:BA:773:U:H5'	25:BC:47:GLY:HA3	1.78	0.65
1:CA:521:G:O6	1:CA:529:G:C2	2.50	0.65
23:BA:1153:C:H5'	39:BQ:76:TYR:HE2	1.60	0.65
23:BA:987:G:H2'	23:BA:988:A:H5'	1.77	0.65
23:BA:226:G:N2	23:BA:228:A:H62	1.92	0.65
23:DA:1893:C:C5	23:DA:1894:C:C5	2.84	0.65
23:DA:2740:A:H2'	23:DA:2741:A:C8	2.32	0.65
23:BA:1754:C:OP1	38:BP:96:ARG:NH1	2.25	0.65
23:DA:2773:C:OP1	26:DD:166:THR:OG1	2.14	0.65
41:DS:65:LEU:HB2	41:DS:68:ARG:HE	1.60	0.65
1:AA:1448:C:H2'	1:AA:1449:C:H6	1.59	0.65
23:BA:2093:G:H1	23:BA:2196:C:H42	1.44	0.65
1:AA:1095:U:H2'	1:AA:1096:C:C6	2.31	0.65
34:BL:61:ARG:HA	34:BL:62:LEU:HD13	1.77	0.65
23:DA:942:G:H5'	34:DL:35:HIS:HB3	1.78	0.65
16:CP:20:VAL:HG21	16:CP:32:TYR:CD1	2.32	0.65
30:BH:68:LEU:O	30:BH:138:ILE:HD13	1.95	0.65
47:DY:28:LYS:HE3	47:DY:56:GLN:NE2	2.11	0.65
42:BT:30:VAL:HG11	42:BT:39:ILE:CD1	2.27	0.65
1:CA:692:U:O2'	1:CA:694:A:N7	2.28	0.65
12:CL:41:THR:HA	12:CL:52:ARG:O	1.95	0.65
43:BU:81:LYS:HZ3	43:BU:98:VAL:N	1.93	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:155:LEU:HD23	4:CD:156:GLU:H	1.61	0.65
42:BT:57:LEU:HD11	42:BT:78:LYS:HB2	1.78	0.65
9:CI:17:VAL:HG13	9:CI:63:ILE:HD11	1.77	0.65
23:BA:662:G:P	34:BL:18:ARG:HD2	2.36	0.65
8:CH:97:VAL:HG13	8:CH:98:LYS:H	1.60	0.65
1:CA:457:C:H42	1:CA:475:G:H1	1.44	0.65
1:CA:106:C:C2'	1:CA:107:G:H5'	2.27	0.65
38:BP:27:THR:CG2	38:BP:90:GLN:HB3	2.26	0.65
23:DA:335:C:H2'	23:DA:336:C:H6	1.61	0.65
1:AA:707:C:H2'	1:AA:708:C:C6	2.32	0.65
40:BR:21:ARG:CZ	40:BR:91:TYR:HE1	2.09	0.65
1:CA:1411:C:O2'	1:CA:1412:C:H5'	1.96	0.65
8:AH:64:LYS:HG2	8:AH:79:VAL:HG21	1.78	0.65
23:BA:17:G:H4'	39:BQ:25:TRP:CH2	2.31	0.65
26:BD:30:PRO:O	26:BD:32:PRO:HD3	1.96	0.65
23:DA:795:C:H2'	23:DA:796:C:H6	1.60	0.65
1:CA:1306:A:H1'	1:CA:1332:A:C2	2.32	0.65
27:DE:127:GLU:O	27:DE:129:PHE:N	2.28	0.65
27:DE:46:ARG:HH11	27:DE:46:ARG:HG2	1.61	0.65
12:AL:37:THR:O	12:AL:78:GLU:HG2	1.96	0.65
23:BA:1430:C:H2'	23:BA:1431:U:C6	2.31	0.65
23:BA:430:G:H5''	23:BA:431:U:OP2	1.96	0.65
38:DP:74:ARG:HD3	38:DP:76:PHE:CZ	2.31	0.65
22:AV:6182:A:H2'	22:AV:6183:G:O4'	1.97	0.65
32:BJ:74:PHE:CE1	32:BJ:142:ARG:HD2	2.30	0.65
1:AA:552:U:O2'	1:AA:553:A:H5'	1.96	0.65
1:AA:691:G:N1	11:AK:52:GLY:HA2	2.12	0.65
3:CC:130:VAL:HG11	3:CC:153:VAL:HG21	1.78	0.65
24:DB:104:A:O4'	44:DV:29:TYR:HE1	1.80	0.65
1:AA:1301:U:H3'	1:AA:1302:U:H5''	1.77	0.65
1:CA:332:G:OP2	20:CT:10:LEU:HD23	1.97	0.65
46:BX:46:LEU:CD2	46:BX:61:ARG:HE	2.10	0.65
25:DC:79:VAL:HG12	25:DC:113:VAL:HA	1.77	0.65
23:BA:865:C:H4'	23:BA:866:A:N7	2.11	0.65
23:BA:1165:U:H2'	23:BA:1166:C:C6	2.31	0.65
40:BR:21:ARG:CZ	40:BR:91:TYR:CE1	2.79	0.65
23:DA:924:C:H2'	23:DA:925:C:C6	2.31	0.65
1:CA:500:G:N2	1:CA:546:G:H1'	2.10	0.65
39:DQ:30:LYS:O	39:DQ:31:SER:CB	2.45	0.65
1:CA:1430:C:H2'	1:CA:1431:C:C6	2.31	0.65
1:CA:411:A:C4	1:CA:413:G:O4'	2.50	0.65
26:BD:158:GLY:O	26:BD:159:HIS:C	2.34	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:2840:C:H4'	36:DN:53:HIS:CD2	2.31	0.65
5:CE:147:ASP:O	5:CE:151:LEU:HG	1.96	0.65
23:DA:184:C:H2'	23:DA:185:U:H6	1.60	0.65
7:CG:142:GLU:O	7:CG:145:ALA:HB3	1.96	0.65
52:D4:11:LYS:HD2	52:D4:15:THR:HG21	1.77	0.65
43:BU:13:VAL:HG11	43:BU:72:VAL:HB	1.79	0.65
23:DA:2780:G:H4'	23:DA:2781:A:OP2	1.96	0.65
10:CJ:48:THR:CA	10:CJ:62:HIS:HB3	2.18	0.65
27:BE:164:ARG:NH1	27:BE:164:ARG:HG2	2.01	0.65
25:DC:70:TRP:CH2	25:DC:150:LYS:HA	2.31	0.65
44:BV:134:PRO:O	44:BV:136:PHE:N	2.30	0.65
25:DC:172:TYR:HD1	25:DC:185:VAL:O	1.80	0.65
23:DA:2219:G:O2'	23:DA:2224:G:H5'	1.96	0.65
25:DC:166:GLN:N	25:DC:166:GLN:HE21	1.94	0.65
9:CI:28:VAL:HG22	9:CI:63:ILE:HB	1.77	0.65
1:CA:707:C:H2'	1:CA:708:C:C6	2.31	0.65
35:BM:58:PHE:O	35:BM:58:PHE:CD1	2.47	0.65
23:BA:2636:U:H4'	26:BD:80:GLU:OE1	1.95	0.65
23:BA:828:U:O2	23:BA:828:U:C2'	2.42	0.65
1:CA:1430:C:H2'	1:CA:1431:C:H6	1.60	0.65
1:CA:1095:U:H2'	1:CA:1096:C:C6	2.31	0.65
1:CA:193:C:H2'	1:CA:194:C:C6	2.31	0.65
27:DE:13:SER:OG	27:DE:14:PRO:HD2	1.96	0.65
23:DA:461:C:O2'	23:DA:462:C:H5'	1.96	0.65
23:BA:2889:C:H2'	23:BA:2891:G:C8	2.31	0.65
15:AO:37:ASN:HD22	15:AO:37:ASN:H	1.45	0.65
23:DA:2056:G:N2	50:D2:4:HIS:O	2.30	0.65
38:BP:64:ARG:HD2	38:BP:73:GLU:HG2	1.78	0.65
1:CA:501:C:OP1	12:CL:116:ARG:NH2	2.30	0.65
37:BO:38:GLN:HB3	37:BO:47:THR:HG21	1.79	0.65
34:DL:33:ARG:HG2	34:DL:34:GLY:H	1.60	0.65
53:D5:11:LYS:O	53:D5:11:LYS:HE2	1.96	0.65
23:DA:1141:U:H6	32:DJ:86:THR:OG1	1.80	0.65
4:CD:63:LYS:HD2	4:CD:198:VAL:HG22	1.77	0.65
1:AA:323:U:O3'	20:AT:22:ARG:HG2	1.96	0.65
23:DA:140:A:H8	23:DA:1408:C:O2'	1.79	0.65
1:CA:1295:G:N2	1:CA:1302:U:H3	1.92	0.65
6:CF:63:TYR:N	6:CF:63:TYR:CD2	2.65	0.65
46:BX:32:LYS:HG2	46:BX:33:LYS:H	1.62	0.65
1:CA:339:C:OP2	33:DK:97:ARG:NH1	2.29	0.65
23:BA:1478:G:HO2'	23:BA:1558:A:H2	1.44	0.65
25:BC:125:ILE:O	25:BC:125:ILE:CG2	2.44	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:BV:180:VAL:C	44:BV:182:LYS:H	2.00	0.65
12:CL:23:VAL:HG13	12:CL:97:TYR:CE2	2.32	0.65
1:CA:974:A:H8	1:CA:974:A:OP1	1.80	0.65
7:CG:138:LYS:HE2	7:CG:142:GLU:OE2	1.97	0.65
19:AS:49:ILE:HD12	19:AS:49:ILE:H	1.61	0.65
52:B4:35:ARG:HG3	52:B4:42:LEU:HD11	1.79	0.65
15:CO:69:TYR:HD1	15:CO:72:ARG:HH21	1.43	0.65
43:DU:30:VAL:HG23	43:DU:37:VAL:HG12	1.79	0.65
45:DW:35:ASN:HD22	45:DW:35:ASN:H	1.44	0.65
7:AG:27:ILE:HD11	7:AG:43:PHE:HD2	1.61	0.65
32:BJ:127:LYS:HB2	32:BJ:140:PHE:CE1	2.32	0.65
10:CJ:63:PHE:HD1	14:CN:58:LYS:HA	1.61	0.65
2:CB:69:LEU:HD13	2:CB:91:PRO:HB2	1.78	0.65
23:DA:1899:G:N2	23:DA:1902:C:C5	2.65	0.65
23:BA:197:A:C5'	23:BA:197:A:H8	2.06	0.65
23:BA:1210:A:H8	23:BA:1210:A:H5'	1.62	0.65
23:BA:1596:A:H2'	23:BA:1597:A:H5'	1.77	0.65
35:BM:48:GLU:O	35:BM:52:VAL:HG12	1.96	0.65
2:CB:173:ALA:HA	2:CB:176:GLU:HG3	1.77	0.65
36:BN:9:LYS:HE2	36:BN:43:GLU:OE2	1.97	0.65
23:DA:528:A:C2	23:DA:2043:C:C5'	2.80	0.65
1:CA:1010:G:H2'	1:CA:1011:G:H8	1.58	0.65
23:DA:226:G:N2	23:DA:228:A:N6	2.45	0.65
2:AB:135:GLN:O	2:AB:139:LYS:HG2	1.96	0.65
23:DA:17:G:H4'	39:DQ:25:TRP:CZ3	2.32	0.65
23:BA:912:C:H2'	23:BA:912:C:O2	1.96	0.65
23:BA:828:U:C3'	23:BA:828:U:O2	2.45	0.65
51:B3:42:TRP:HA	51:B3:42:TRP:HE3	1.61	0.65
23:DA:992:C:O3'	40:DR:72:VAL:HG11	1.96	0.65
23:DA:222:A:H5''	23:DA:421:U:OP1	1.97	0.65
23:BA:2846:G:H2'	23:BA:2847:U:C6	2.31	0.65
32:BJ:90:LEU:O	32:BJ:111:GLU:HG3	1.97	0.65
40:DR:47:VAL:O	40:DR:49:THR:O	2.14	0.65
42:DT:30:VAL:HG11	42:DT:39:ILE:CD1	2.26	0.65
26:BD:52:LEU:O	26:BD:76:ARG:N	2.30	0.65
3:CC:15:THR:HG21	3:CC:181:ASN:HA	1.79	0.65
2:AB:80:ILE:HD12	2:AB:211:ILE:HB	1.78	0.65
23:DA:322:A:OP2	27:DE:169:ASN:HB2	1.97	0.65
46:BX:27:GLU:CB	46:BX:33:LYS:HG3	2.26	0.65
1:AA:350:G:O2'	1:AA:351:G:H5'	1.97	0.65
23:BA:1434:A:H61	23:BA:1558:A:H62	1.44	0.65
27:DE:31:HIS:CG	34:DL:13:ASN:HB2	2.32	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:277:C:H5'	23:DA:278:A:OP2	1.96	0.65
1:CA:579:G:C4	1:CA:580:U:C5	2.84	0.65
23:BA:277:C:H5'	23:BA:278:A:OP2	1.97	0.65
1:AA:754:C:H6	15:AO:69:TYR:CE2	2.14	0.65
35:DM:32:PHE:HZ	35:DM:111:GLU:HG2	1.60	0.65
23:BA:979:G:H3'	23:BA:980:A:H5''	1.79	0.65
24:DB:31:C:O2	24:DB:31:C:H2'	1.97	0.65
44:DV:5:LEU:HG	44:DV:47:VAL:HG21	1.79	0.65
44:DV:5:LEU:HD23	44:DV:6:LYS:N	2.11	0.65
25:BC:244:ARG:HB2	25:BC:245:PRO:CD	2.26	0.65
8:AH:119:LEU:HB2	8:AH:124:ALA:HB2	1.77	0.65
12:AL:5:THR:HG23	12:AL:8:GLN:HG3	1.78	0.65
1:CA:1298:C:H4'	1:CA:1299:A:N9	2.11	0.65
32:BJ:80:ALA:O	32:BJ:83:ILE:HG12	1.97	0.65
32:BJ:80:ALA:O	32:BJ:83:ILE:CG1	2.45	0.65
46:BX:30:VAL:O	46:BX:30:VAL:HG12	1.97	0.65
34:BL:75:ILE:HD12	34:BL:75:ILE:H	1.61	0.65
24:DB:2:C:H2'	24:DB:3:C:C6	2.32	0.65
27:DE:39:TRP:O	27:DE:43:LYS:HG2	1.96	0.65
47:DY:2:LYS:HA	47:DY:5:GLU:CD	2.17	0.65
1:CA:965:A:H2	1:CA:969:A:C2	2.14	0.65
40:DR:41:GLY:HA3	40:DR:45:THR:OG1	1.97	0.65
23:DA:1141:U:OP2	32:DJ:86:THR:HG23	1.97	0.65
37:DO:89:ARG:O	37:DO:90:GLY:O	2.14	0.65
1:AA:377:G:OP1	16:AP:3:LYS:HD2	1.97	0.65
44:DV:51:ALA:HB1	44:DV:57:ILE:HD11	1.77	0.65
42:BT:39:ILE:O	42:BT:43:VAL:HG12	1.96	0.65
25:BC:172:TYR:HD1	25:BC:186:HIS:HA	1.57	0.65
25:DC:186:HIS:CD2	25:DC:188:GLU:H	2.15	0.65
36:BN:38:VAL:HB	36:BN:39:PRO:CD	2.26	0.65
36:BN:100:LEU:HD21	36:BN:113:LEU:HB2	1.79	0.65
23:BA:2476:A:C2	23:BA:2477:C:C6	2.85	0.65
10:CJ:4:ILE:HB	10:CJ:74:ILE:HD11	1.79	0.65
8:CH:77:GLU:HG3	8:CH:78:GLN:N	2.12	0.65
23:DA:1973:G:H2'	23:DA:1974:C:H6	1.62	0.65
23:DA:1710:C:O2'	23:DA:1711:C:H5'	1.97	0.65
1:CA:382:A:H2'	1:CA:383:A:C8	2.32	0.65
14:AN:44:LEU:HD12	14:AN:44:LEU:O	1.96	0.65
32:BJ:68:ASN:ND2	32:BJ:68:ASN:H	1.95	0.65
53:D5:50:LEU:O	53:D5:51:ALA:CB	2.44	0.65
28:DF:161:THR:HG21	28:DF:172:LEU:HD23	1.79	0.65
1:AA:386:C:H2'	1:AA:387:U:C5'	2.27	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:134:ILE:CG2	3:CC:151:VAL:HB	2.26	0.65
3:CC:91:LEU:HB3	3:CC:99:VAL:HG11	1.79	0.65
41:DS:73:ALA:O	41:DS:106:ILE:HG12	1.97	0.65
5:CE:51:VAL:O	5:CE:55:VAL:HG23	1.95	0.65
1:AA:457:C:H42	1:AA:475:G:H1	1.45	0.65
23:DA:557:U:H2'	23:DA:558:G:C8	2.31	0.65
23:BA:1288:U:C2	23:BA:1327:C:O2	2.50	0.65
37:DO:36:TYR:CD1	37:DO:36:TYR:N	2.65	0.65
27:BE:31:HIS:CG	34:BL:13:ASN:HB2	2.32	0.65
33:BK:87:ILE:HG13	33:BK:91:LEU:HD12	1.78	0.65
38:DP:27:THR:CG2	38:DP:90:GLN:HB3	2.27	0.65
23:DA:2637:U:H5''	26:DD:82:ARG:NH2	2.11	0.65
9:AI:97:LYS:HB3	9:AI:98:PRO:HD3	1.78	0.65
1:AA:1448:C:H2'	1:AA:1449:C:C6	2.32	0.65
26:BD:32:PRO:HA	26:BD:90:THR:HG22	1.78	0.65
6:AF:44:GLY:HA2	6:AF:59:TYR:CZ	2.32	0.65
1:AA:968:A:OP1	1:AA:968:A:H8	1.80	0.65
23:DA:1857:G:N2	23:DA:1886:C:N4	2.45	0.65
22:CV:6182:A:H2'	22:CV:6183:G:O4'	1.96	0.64
39:DQ:83:LEU:HD12	39:DQ:113:ALA:CB	2.27	0.64
23:BA:1614:A:H61	41:BS:88:ARG:H	1.45	0.64
23:BA:2219:G:O2'	23:BA:2224:G:H5'	1.96	0.64
24:BB:103:U:O2'	24:BB:104:A:H5'	1.96	0.64
3:AC:134:ILE:HG21	3:AC:168:ALA:HB3	1.79	0.64
25:BC:172:TYR:HD1	25:BC:185:VAL:O	1.79	0.64
23:DA:380:U:O2'	46:DX:20:ARG:HB3	1.97	0.64
23:BA:2815:C:O2'	50:B2:43:HIS:CD2	2.50	0.64
30:DH:66:GLU:HG2	30:DH:67:ARG:CZ	2.27	0.64
28:DF:36:LYS:HD3	28:DF:160:VAL:HG21	1.79	0.64
27:DE:117:ARG:NH2	27:DE:187:VAL:HA	2.12	0.64
23:BA:1006:C:H1'	32:BJ:129:MET:HB3	1.79	0.64
1:CA:1446:A:OP1	1:CA:1446:A:H4'	1.97	0.64
25:DC:80:ALA:HB3	25:DC:94:LEU:HD13	1.78	0.64
23:DA:1268:A:H2'	23:DA:1269:A:O5'	1.97	0.64
23:DA:2364:C:C2'	23:DA:2365:G:H5'	2.27	0.64
26:DD:16:ARG:O	26:DD:18:ASP:N	2.29	0.64
15:CO:44:LYS:HZ3	15:CO:44:LYS:HB2	1.61	0.64
1:AA:334:C:H2'	1:AA:335:C:H6	1.63	0.64
23:DA:626:U:O2	34:DL:105:LEU:HB3	1.97	0.64
34:DL:109:GLY:O	34:DL:111:ARG:N	2.30	0.64
23:DA:2262:U:H2'	23:DA:2263:C:H6	1.62	0.64
23:BA:1971:A:C2	25:BC:241:PRO:HD3	2.31	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:114(B):A:H4'	32:BJ:48:ARG:NH2	2.11	0.64
25:DC:35:LYS:HE2	25:DC:103:ARG:HA	1.79	0.64
4:CD:49:ARG:NE	4:CD:50:ARG:H	1.95	0.64
43:BU:29:GLU:HB3	43:BU:38:ILE:CB	2.26	0.64
23:BA:2698:U:H2'	23:BA:2699:C:C6	2.33	0.64
44:BV:51:ALA:HB1	44:BV:57:ILE:HD11	1.77	0.64
37:DO:51:ALA:HB1	37:DO:72:ALA:CB	2.26	0.64
23:DA:2758:A:C4	29:DG:67:LEU:HD21	2.32	0.64
11:CK:95:ILE:HG21	11:CK:108:ILE:HD13	1.79	0.64
23:DA:847:U:OP2	23:DA:929:G:O6	2.15	0.64
23:DA:2892:A:H2'	23:DA:2893:G:H5'	1.79	0.64
25:DC:25:THR:HG21	25:DC:81:ALA:HA	1.77	0.64
1:AA:1180:A:H5'	9:AI:103:THR:HG23	1.78	0.64
23:DA:2209:C:O2	23:DA:2216:G:C2	2.51	0.64
38:BP:90:GLN:NE2	38:BP:90:GLN:HA	2.12	0.64
23:BA:2346:A:H5''	23:BA:2383:G:C1'	2.27	0.64
1:AA:579:G:C4	1:AA:580:U:C5	2.84	0.64
23:BA:1162:G:C2'	23:BA:1163:G:H5'	2.28	0.64
12:CL:6:ILE:H	12:CL:6:ILE:HD12	1.61	0.64
23:BA:2394:C:OP1	34:BL:63:PRO:HD2	1.97	0.64
23:BA:2852:G:O2'	23:BA:2853:C:H5'	1.97	0.64
19:AS:5:LEU:HD12	19:AS:8:GLY:O	1.97	0.64
1:AA:222:U:H2'	1:AA:223:U:H6	1.62	0.64
1:CA:1311:G:H1	1:CA:1326:C:H42	1.43	0.64
34:DL:95:VAL:HG23	34:DL:125:VAL:HG23	1.79	0.64
34:DL:62:LEU:CD2	53:D5:25:MET:HB2	2.27	0.64
23:DA:2275:C:H5'	23:DA:2275:C:H6	1.62	0.64
53:D5:11:LYS:HD2	53:D5:64:TYR:CZ	2.33	0.64
4:CD:21:LEU:HD12	4:CD:21:LEU:H	1.63	0.64
4:AD:21:LEU:HD12	4:AD:21:LEU:H	1.61	0.64
20:CT:26:ASN:N	20:CT:26:ASN:HD22	1.91	0.64
26:DD:1:MET:HB3	26:DD:84:PHE:HB2	1.79	0.64
23:DA:1654:A:OP1	36:DN:2:ARG:N	2.30	0.64
1:CA:738:C:H2'	1:CA:739:C:H6	1.59	0.64
1:AA:781:A:C2'	1:AA:782:A:H5'	2.28	0.64
23:DA:2593:U:H2'	23:DA:2594:C:H6	1.60	0.64
10:AJ:45:ARG:HH12	14:AN:36:PHE:HD2	1.45	0.64
27:BE:127:GLU:O	27:BE:129:PHE:N	2.28	0.64
38:BP:84:GLN:HA	38:BP:84:GLN:HE21	1.62	0.64
23:BA:565:C:H2'	23:BA:566:U:O5'	1.95	0.64
5:AE:140:ARG:O	5:AE:140:ARG:HG2	1.96	0.64
1:AA:444:C:O2'	1:AA:445:G:H5'	1.96	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:186(D):G:C6	1:AA:191(E):G:N1	2.65	0.64
53:D5:23:VAL:CG1	53:D5:47:LYS:HB3	2.27	0.64
53:D5:22:VAL:HG12	53:D5:50:LEU:HD12	1.79	0.64
23:DA:960:A:H61	35:DM:82:ARG:NH2	1.96	0.64
34:BL:95:VAL:HG23	34:BL:125:VAL:HG23	1.78	0.64
1:CA:979:C:H5''	1:CA:980:C:OP2	1.96	0.64
16:CP:28:ARG:HH11	16:CP:28:ARG:CG	2.09	0.64
12:AL:85:ARG:HB2	12:AL:100:VAL:HG23	1.80	0.64
12:AL:103:VAL:O	12:AL:106:ALA:HB3	1.96	0.64
30:DH:82:ARG:C	30:DH:89:TYR:HB2	2.18	0.64
28:DF:71:THR:HG22	28:DF:89:GLY:O	1.98	0.64
23:BA:1411:C:H2'	23:BA:1412:A:C8	2.32	0.64
1:CA:397:A:N6	1:CA:548:G:C5	2.66	0.64
25:BC:223:GLY:HA3	25:BC:231:HIS:CE1	2.32	0.64
26:DD:52:LEU:O	26:DD:76:ARG:N	2.31	0.64
12:AL:44:PRO:HG3	12:AL:52:ARG:NE	2.12	0.64
29:BG:140:LYS:O	29:BG:144:VAL:HG23	1.96	0.64
23:BA:1486:A:N6	23:BA:1504:C:H42	1.95	0.64
24:DB:13:A:C8	45:DW:74:ARG:NH2	2.65	0.64
36:DN:100:LEU:HD21	36:DN:113:LEU:HB2	1.80	0.64
24:DB:21:G:H1	24:DB:62:C:N4	1.94	0.64
23:DA:2820:A:O4'	36:DN:5:LYS:HG3	1.97	0.64
1:CA:17:U:H1'	1:CA:1080:A:N3	2.12	0.64
2:CB:118:LEU:HD13	2:CB:142:LEU:HB2	1.78	0.64
23:DA:2365:G:H4'	45:DW:60:PHE:CZ	2.33	0.64
44:BV:5:LEU:HG	44:BV:47:VAL:HG21	1.78	0.64
36:DN:85:PRO:O	36:DN:87:TYR:N	2.30	0.64
23:DA:2212:A:H1'	23:DA:2215:G:C4	2.33	0.64
32:DJ:53:ILE:O	32:DJ:57:LEU:HD22	1.96	0.64
37:BO:12:PHE:HE1	37:BO:16:ASN:HD21	1.45	0.64
32:BJ:157:ARG:N	32:BJ:158:PRO:CD	2.51	0.64
28:DF:84:LYS:O	28:DF:86:MET:HG3	1.96	0.64
1:AA:411:A:C5	1:AA:429:U:C5	2.86	0.64
1:CA:1252:A:H61	1:CA:1285:A:H61	1.45	0.64
46:DX:11:ARG:HB3	46:DX:12:PRO:HD2	1.80	0.64
23:DA:1510:A:H2'	23:DA:1511:A:H8	1.61	0.64
1:CA:987:G:H1	1:CA:1218:C:N4	1.94	0.64
1:CA:625:G:H2'	1:CA:626:U:C6	2.31	0.64
35:DM:22:LYS:HD3	35:DM:22:LYS:O	1.98	0.64
29:DG:54:ARG:HB3	29:DG:65:HIS:CD2	2.32	0.64
23:BA:990:A:H5''	23:BA:991:C:OP2	1.96	0.64
8:AH:77:GLU:HG3	8:AH:78:GLN:H	1.61	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:1006:C:H1'	32:DJ:129:MET:HB3	1.79	0.64
23:DA:2036:C:C6	23:DA:2036:C:H5'	2.32	0.64
50:D2:4:HIS:HB3	50:D2:5:PRO:HD3	1.79	0.64
29:BG:54:ARG:HB3	29:BG:65:HIS:CD2	2.33	0.64
23:DA:176:G:C2'	23:DA:177:G:H5'	2.27	0.64
1:CA:1448:C:H2'	1:CA:1449:C:H6	1.63	0.64
4:AD:173:TRP:CD1	4:AD:174:LEU:HG	2.33	0.64
23:DA:2828:C:O2'	23:DA:2829:C:H5'	1.98	0.64
39:BQ:114:LYS:O	39:BQ:117:GLN:HB2	1.97	0.64
22:CV:6198:U:H2'	22:CV:6199:G:H8	1.63	0.64
23:BA:855:G:H5''	23:BA:856:C:OP2	1.97	0.64
23:DA:492:A:H2'	23:DA:493:G:O4'	1.96	0.64
43:BU:89:PHE:H	43:BU:90:LEU:HD23	1.62	0.64
1:AA:950:U:H4'	1:AA:971:G:N2	2.12	0.64
38:DP:57:PHE:O	38:DP:59:THR:N	2.31	0.64
25:DC:182:LEU:H	25:DC:272:ALA:HB3	1.62	0.64
16:AP:28:ARG:NH1	16:AP:29:ASP:OD1	2.30	0.64
25:DC:242:ARG:HG2	25:DC:242:ARG:NH1	2.11	0.64
23:BA:2886:G:O2'	23:BA:2887:U:H5'	1.98	0.64
5:CE:109:ILE:HG22	5:CE:110:LEU:HD23	1.80	0.64
27:BE:9:ILE:HD11	27:BE:125:LEU:CG	2.28	0.64
46:BX:13:ILE:HG23	46:BX:14:VAL:H	1.63	0.64
46:BX:45:ASN:HD21	46:BX:47:GLN:HE21	1.45	0.64
25:BC:134:ARG:HG3	25:BC:135:PHE:CD1	2.32	0.64
23:BA:952:G:P	35:BM:16:ARG:HH22	2.21	0.64
1:CA:781:A:C2'	1:CA:782:A:H5'	2.27	0.64
23:DA:1475:G:N2	23:DA:1519:G:C5	2.66	0.64
35:BM:37:LEU:HG	35:BM:128:LYS:O	1.97	0.64
35:BM:22:LYS:O	35:BM:22:LYS:HD3	1.98	0.64
4:CD:79:PHE:CG	4:CD:207:TYR:HD1	2.16	0.64
24:BB:31:C:H2'	24:BB:31:C:O2	1.98	0.64
1:AA:1111:A:C2	3:AC:177:THR:HG23	2.33	0.64
1:AA:937:A:H1'	1:AA:1379:G:N2	2.12	0.64
23:BA:1833:U:C2	23:BA:1834:U:C5	2.86	0.64
1:CA:638:G:O2'	1:CA:639:G:H5'	1.96	0.64
23:BA:2190:G:H2'	23:BA:2191:G:H8	1.61	0.64
26:BD:47:VAL:HG21	26:BD:86:PRO:HD3	1.78	0.64
23:DA:1187:G:H5''	40:DR:81:TYR:CE2	2.33	0.64
1:CA:622:A:C8	1:CA:623:C:C5	2.85	0.64
32:DJ:69:VAL:HG13	32:DJ:71:MET:HG3	1.79	0.64
28:BF:174:GLU:HG2	28:BF:180:PHE:CD1	2.33	0.64
23:DA:2655:G:N2	23:DA:2664:G:C5	2.66	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:255:G:H4'	17:CQ:17:LYS:HD3	1.79	0.64
10:CJ:45:ARG:HH12	14:CN:36:PHE:HD2	1.46	0.64
1:AA:1411:C:O2'	1:AA:1412:C:H5'	1.97	0.64
27:BE:13:SER:OG	27:BE:14:PRO:HD2	1.97	0.64
1:CA:1126:U:H2'	1:CA:1127:G:C8	2.32	0.64
24:BB:2:C:H2'	24:BB:3:C:C6	2.33	0.64
11:CK:48:ILE:HD11	11:CK:64:ALA:HA	1.80	0.64
51:D3:38:LYS:HG2	51:D3:39:TYR:H	1.63	0.64
1:CA:1512:U:H3	1:CA:1523:G:H1	1.46	0.64
23:DA:83:G:H1	23:DA:102:G:HO2'	0.66	0.64
42:DT:63:LYS:NZ	42:DT:72:LYS:HB3	2.13	0.64
32:DJ:157:ARG:HG2	32:DJ:157:ARG:O	1.96	0.64
26:DD:59:VAL:O	26:DD:59:VAL:HG12	1.98	0.64
2:AB:97:TRP:HZ2	2:AB:102:LEU:CD1	2.11	0.64
25:DC:172:TYR:HD1	25:DC:186:HIS:HA	1.60	0.64
23:BA:588:U:H1'	27:BE:90:PHE:CD1	2.33	0.64
1:CA:1443:G:H3'	1:CA:1446:A:H5''	1.79	0.64
23:DA:2401:U:H2'	23:DA:2402:C:H5''	1.80	0.64
1:AA:862:C:H2'	1:AA:863:U:H5'	1.80	0.64
1:AA:922:G:C6	1:AA:923:A:C6	2.85	0.64
7:AG:50:ILE:HD12	7:AG:61:VAL:HG11	1.80	0.64
29:BG:54:ARG:HB3	29:BG:65:HIS:HD2	1.63	0.64
44:BV:9:TYR:CZ	44:BV:61:LEU:HD13	2.33	0.64
23:BA:60:G:H4'	23:BA:61:G:P	2.37	0.64
1:CA:1111:A:O5'	1:CA:1111:A:H8	1.80	0.64
27:BE:181:LEU:HD21	27:BE:186:ILE:HD11	1.80	0.64
2:AB:158:LEU:H	2:AB:158:LEU:HD12	1.63	0.64
15:CO:76:GLU:OE2	15:CO:76:GLU:HA	1.98	0.64
32:BJ:148:GLY:HA3	32:BJ:149:PRO:O	1.98	0.64
36:BN:11:ASN:O	36:BN:12:ARG:HB2	1.98	0.64
40:BR:41:GLY:HA3	40:BR:45:THR:OG1	1.98	0.64
37:DO:12:PHE:O	37:DO:15:ARG:HG3	1.97	0.64
30:DH:92:VAL:CG2	30:DH:97:ILE:HG12	2.27	0.64
23:BA:1493:C:C4	23:BA:2210:G:O2'	2.51	0.64
23:DA:1786:A:H1'	23:DA:1938:A:N6	2.13	0.64
25:DC:85:ASP:OD2	25:DC:86:PRO:HD2	1.98	0.64
36:DN:50:HIS:O	36:DN:54:LEU:HB2	1.97	0.64
46:DX:27:GLU:CG	46:DX:33:LYS:HG3	2.28	0.64
23:BA:2892:A:H2'	23:BA:2893:G:H5'	1.80	0.64
23:DA:2785:C:H2'	23:DA:2786:U:O4'	1.98	0.64
23:BA:1669:A:O3'	23:BA:2549:G:H5'	1.98	0.64
43:BU:76:CYS:SG	43:BU:77:PRO:HD3	2.38	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:65:C:H2'	23:DA:66:C:H6	1.60	0.64
29:DG:98:LEU:HD12	29:DG:99:VAL:H	1.62	0.64
1:AA:382:A:H2'	1:AA:383:A:C8	2.33	0.64
40:DR:7:THR:HG23	40:DR:22:VAL:HG11	1.79	0.64
1:CA:775:G:C2'	1:CA:776:G:H5'	2.27	0.64
35:BM:80:GLU:HA	35:BM:80:GLU:OE2	1.97	0.64
6:CF:18:GLN:HA	6:CF:21:LEU:HD23	1.80	0.64
44:BV:120:ILE:HD13	44:BV:120:ILE:N	2.12	0.64
26:DD:21:VAL:HG12	26:DD:23:VAL:HG13	1.80	0.64
5:AE:102:ALA:HB2	5:AE:120:THR:CG2	2.28	0.64
23:BA:2846:G:C5	23:BA:2847:U:C5	2.85	0.64
36:DN:38:VAL:CB	36:DN:39:PRO:HD3	2.24	0.64
42:BT:44:GLU:OE2	42:BT:50:LYS:HG2	1.97	0.64
6:AF:53:ALA:HB3	6:AF:86:ARG:NH1	2.13	0.64
53:B5:11:LYS:HD2	53:B5:64:TYR:CZ	2.33	0.64
23:BA:242:G:C5'	53:B5:63:PRO:HG2	2.27	0.64
34:BL:45:LEU:HD23	34:BL:46:LYS:H	1.61	0.64
23:DA:2723:C:H4'	36:DN:2:ARG:NH2	2.12	0.64
3:AC:152:ILE:HD11	3:AC:167:TRP:HD1	1.60	0.64
19:AS:63:THR:N	19:AS:66:MET:HE3	2.13	0.64
1:CA:53:A:N1	1:CA:54:C:C2	2.67	0.64
6:AF:26:ILE:HG22	6:AF:30:LEU:CD1	2.28	0.64
23:BA:1495:A:H2'	23:BA:1495:A:N3	2.13	0.64
8:CH:21:LYS:O	8:CH:63:LEU:HD12	1.98	0.64
1:AA:632:A:C8	1:AA:633:G:C8	2.85	0.64
23:DA:2842:G:H1	23:DA:2875:C:H42	1.43	0.64
40:DR:21:ARG:CZ	40:DR:91:TYR:CE1	2.81	0.64
23:BA:992:C:O3'	40:BR:72:VAL:HG11	1.98	0.64
25:DC:260:ARG:O	25:DC:261:LYS:O	2.15	0.64
23:BA:626:U:O2	34:BL:105:LEU:HB3	1.98	0.64
1:AA:160:A:H2'	1:AA:161:A:O4'	1.98	0.64
34:BL:62:LEU:CD2	53:B5:25:MET:HB2	2.28	0.63
34:BL:58:THR:C	34:BL:61:ARG:HE	2.01	0.63
2:AB:162:ILE:O	2:AB:162:ILE:HD12	1.97	0.63
22:CV:6182:A:C6	22:CV:6183:G:C5	2.85	0.63
2:CB:162:ILE:HD12	2:CB:162:ILE:O	1.97	0.63
30:BH:82:ARG:C	30:BH:89:TYR:HB2	2.19	0.63
1:CA:674:G:H2'	1:CA:675:A:H8	1.63	0.63
1:AA:688:G:H2'	1:AA:689:C:C6	2.33	0.63
26:BD:1:MET:HB3	26:BD:84:PHE:HB2	1.80	0.63
28:BF:71:THR:HG22	28:BF:89:GLY:O	1.98	0.63
44:DV:72:ARG:HG2	44:DV:89:PHE:HB2	1.80	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:735:C:H2'	1:CA:736:C:C6	2.34	0.63
8:AH:89:PRO:HA	8:AH:92:ARG:NH1	2.11	0.63
2:AB:173:ALA:HA	2:AB:176:GLU:HG3	1.80	0.63
10:AJ:42:THR:HG23	10:AJ:68:HIS:HA	1.79	0.63
1:AA:735:C:H2'	1:AA:736:C:C6	2.32	0.63
19:CS:6:LYS:CG	19:CS:7:LYS:HD3	2.28	0.63
1:AA:976:G:H21	1:AA:136(A):C:H2'	1.62	0.63
26:DD:26:ILE:N	26:DD:26:ILE:HD13	2.14	0.63
3:AC:77:ILE:C	3:AC:83:ARG:HB3	2.18	0.63
23:DA:2365:G:O6	53:D5:39:LYS:HE3	1.98	0.63
27:DE:53:THR:HG23	27:DE:56:GLU:OE1	1.98	0.63
23:DA:1870:C:H2'	23:DA:1870:C:O2	1.97	0.63
22:AV:6198:U:H2'	22:AV:6199:G:H8	1.63	0.63
23:DA:1546:A:C8	23:DA:154(B):C:O2	2.51	0.63
2:AB:163:PHE:HD1	2:AB:185:ILE:HG13	1.63	0.63
1:CA:980:C:O2	14:CN:21:TYR:HD1	1.81	0.63
1:CA:551:U:O2'	12:CL:85:ARG:HD2	1.99	0.63
25:DC:33:LEU:HD23	25:DC:33:LEU:N	2.13	0.63
16:CP:28:ARG:NH1	16:CP:29:ASP:OD1	2.31	0.63
23:DA:2335:A:C8	23:DA:2337:G:C5	2.86	0.63
34:DL:18:ARG:HB3	34:DL:18:ARG:CZ	2.27	0.63
36:DN:9:LYS:HE2	36:DN:43:GLU:OE2	1.98	0.63
1:AA:1352:C:C2	1:AA:1371:G:C2	2.86	0.63
8:AH:20:TYR:HD1	8:AH:65:TYR:CD2	2.16	0.63
46:BX:46:LEU:HD21	46:BX:61:ARG:HE	1.62	0.63
34:BL:16:ARG:CZ	34:BL:18:ARG:H	2.10	0.63
1:CA:626:U:H2'	1:CA:627:G:C8	2.34	0.63
23:DA:226:G:H21	23:DA:228:A:H62	1.46	0.63
23:DA:966:G:C6	23:DA:967:C:N4	2.67	0.63
18:CR:47:THR:OG1	18:CR:49:LYS:HG2	1.98	0.63
2:CB:135:GLN:O	2:CB:139:LYS:HG2	1.96	0.63
23:DA:1856:G:N2	23:DA:1886:C:O2	2.32	0.63
23:DA:1162:G:C2'	23:DA:1163:G:H5'	2.28	0.63
35:BM:10:ARG:HB3	35:BM:11:LYS:HG2	1.79	0.63
23:DA:903:C:H2'	23:DA:904:C:H6	1.64	0.63
38:DP:42:ILE:HD12	38:DP:42:ILE:O	1.98	0.63
2:CB:22:LYS:HZ3	2:CB:22:LYS:H	1.46	0.63
12:CL:103:VAL:O	12:CL:106:ALA:HB3	1.97	0.63
23:BA:222:A:H5''	23:BA:421:U:OP1	1.98	0.63
29:DG:109:PHE:CE2	29:DG:152:ARG:NH1	2.66	0.63
23:DA:1218:C:O2'	23:DA:1219:G:H5'	1.98	0.63
32:BJ:57:LEU:O	32:BJ:72:GLY:HA3	1.97	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:162:ILE:HD11	2:AB:184:VAL:HG13	1.79	0.63
25:BC:143:HIS:HD2	25:BC:144:ALA:CB	2.12	0.63
53:D5:60:LEU:O	53:D5:62:LEU:HB2	1.99	0.63
23:DA:114(B):A:H4'	32:DJ:48:ARG:NH2	2.13	0.63
16:CP:4:ILE:HB	16:CP:66:PRO:HB3	1.80	0.63
23:DA:603:A:N6	23:DA:655:A:C4'	2.58	0.63
47:DY:35:LEU:CD1	47:DY:53:LEU:HD12	2.28	0.63
41:BS:4:LYS:HD3	41:BS:6:ILE:HD11	1.80	0.63
4:AD:64:LEU:HD12	4:AD:64:LEU:O	1.99	0.63
23:BA:528:A:C2	23:BA:2043:C:C5'	2.80	0.63
6:AF:37:VAL:HG12	6:AF:38:GLU:O	1.98	0.63
23:BA:2820:A:O4'	36:BN:5:LYS:HG3	1.97	0.63
2:CB:24:TRP:CE3	2:CB:25:ASN:O	2.52	0.63
53:B5:52:LYS:HD3	53:B5:52:LYS:N	2.12	0.63
23:DA:1152:C:H5''	39:DQ:80:ILE:HG22	1.80	0.63
25:BC:25:THR:HG23	25:BC:25:THR:O	1.99	0.63
23:DA:966:G:H2'	23:DA:967:C:C6	2.32	0.63
1:AA:677:U:H3	1:AA:713:G:H22	1.45	0.63
29:DG:54:ARG:HB3	29:DG:65:HIS:HD2	1.62	0.63
23:BA:302:C:H2'	23:BA:303:U:C6	2.34	0.63
23:DA:571:A:C8	23:DA:2030:A:N6	2.66	0.63
38:DP:48:ILE:H	38:DP:48:ILE:HD12	1.62	0.63
23:BA:2461:C:O2	23:BA:2461:C:H2'	1.99	0.63
44:BV:121:HIS:HB3	44:BV:123:ASP:O	1.98	0.63
4:AD:99:SER:O	4:AD:140:VAL:HG23	1.99	0.63
23:DA:1541:U:H2'	23:DA:1541:U:O2	1.97	0.63
23:BA:2185:C:H2'	23:BA:2186:G:H8	1.63	0.63
34:BL:50:ARG:HB2	53:B5:60:LEU:HD11	1.81	0.63
16:AP:20:VAL:HG23	16:AP:34:GLU:O	1.98	0.63
3:CC:173:VAL:N	3:CC:174:PRO:HD3	2.13	0.63
3:CC:152:ILE:HD11	3:CC:167:TRP:HD1	1.60	0.63
23:BA:1439:A:C2	23:BA:1553:A:C5	2.86	0.63
9:AI:17:VAL:HA	9:AI:63:ILE:HG13	1.81	0.63
1:AA:10:A:H2'	1:AA:11:G:H8	1.63	0.63
29:DG:23:ARG:N	29:DG:23:ARG:HD3	2.14	0.63
27:DE:101:LEU:O	27:DE:106:ARG:NH1	2.24	0.63
37:BO:36:TYR:CD1	37:BO:36:TYR:N	2.66	0.63
23:DA:954:G:H5''	35:DM:13:GLN:CG	2.28	0.63
1:CA:677:U:H3	1:CA:713:G:H22	1.46	0.63
10:AJ:4:ILE:HB	10:AJ:74:ILE:HD11	1.78	0.63
46:BX:23:LYS:HG3	46:BX:23:LYS:O	1.98	0.63
23:DA:828:U:H3'	23:DA:828:U:O2	1.96	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AF:14:LEU:HD23	6:AF:15:ASP:O	1.98	0.63
23:BA:2655:G:N2	23:BA:2664:G:C5	2.67	0.63
23:BA:2849:U:H4'	23:BA:2868:A:C2	2.33	0.63
1:CA:186(D):G:C6	1:CA:191(E):G:N1	2.67	0.63
2:CB:30:ARG:HG3	2:CB:31:TYR:CD2	2.33	0.63
50:B2:36:CYS:SG	50:B2:37:LYS:N	2.72	0.63
13:CM:34:LEU:HD13	13:CM:41:PRO:HG3	1.80	0.63
1:CA:1040:U:H2'	1:CA:1041:A:C8	2.34	0.63
1:AA:1123:A:H4'	10:AJ:36:GLY:CA	2.17	0.63
45:DW:23:VAL:HB	45:DW:26:TYR:CE2	2.34	0.63
25:DC:143:HIS:HD2	25:DC:144:ALA:CB	2.11	0.63
25:DC:267:SER:O	25:DC:269:PHE:N	2.32	0.63
13:CM:33:ALA:HA	13:CM:59:TYR:HE2	1.64	0.63
23:BA:140:A:C8	23:BA:1408:C:O2'	2.49	0.63
27:DE:155:LEU:HD12	27:DE:174:VAL:HB	1.80	0.63
33:DK:87:ILE:HG13	33:DK:91:LEU:HD12	1.79	0.63
8:CH:87:SER:HA	8:CH:93:VAL:HG23	1.79	0.63
44:DV:37:VAL:HG23	44:DV:38:TYR:N	2.13	0.63
1:AA:1053:G:C4	1:AA:1199:U:C5	2.87	0.63
10:CJ:45:ARG:NH1	14:CN:36:PHE:CD2	2.67	0.63
18:AR:70:ILE:O	18:AR:74:ARG:HG3	1.99	0.63
12:AL:6:ILE:CD1	12:AL:6:ILE:H	2.11	0.63
35:DM:43:THR:HG23	35:DM:46:GLN:OE1	1.97	0.63
1:CA:222:U:H2'	1:CA:223:U:C6	2.33	0.63
32:BJ:80:ALA:O	32:BJ:82:LYS:N	2.32	0.63
1:AA:186(D):G:C4	1:AA:191(E):G:N2	2.66	0.63
44:DV:104:PHE:HB3	44:DV:141:VAL:HG11	1.79	0.63
7:CG:99:LEU:HB3	7:CG:103:TRP:CZ3	2.33	0.63
23:BA:1930:G:N2	23:BA:1968:G:H2'	2.14	0.63
23:DA:990:A:H5''	23:DA:991:C:P	2.38	0.63
26:BD:117:MET:CE	26:BD:124:GLY:HA3	2.28	0.63
53:B5:26:LYS:HA	53:B5:48:PHE:HE2	1.64	0.63
34:DL:62:LEU:CD2	34:DL:62:LEU:N	2.52	0.63
37:BO:11:LYS:O	37:BO:12:PHE:HB3	1.99	0.63
23:BA:1899:G:N2	23:BA:1902:C:C5	2.66	0.63
40:DR:40:LEU:C	40:DR:45:THR:HB	2.18	0.63
47:BY:14:ARG:HA	47:BY:17:SER:CB	2.23	0.63
2:CB:80:ILE:HD12	2:CB:211:ILE:HB	1.79	0.63
1:CA:40:C:H2'	1:CA:41:G:O4'	1.99	0.63
1:AA:1151:A:O2'	1:AA:1152:A:H8	1.81	0.63
37:DO:33:LYS:O	37:DO:54:LEU:HG	1.98	0.63
39:DQ:62:ILE:O	39:DQ:63:VAL:C	2.37	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:11:LEU:HD12	2:CB:217:ARG:NH2	2.14	0.63
1:AA:511:C:H1'	4:AD:43:HIS:HE2	1.63	0.63
25:BC:237:GLU:O	25:BC:237:GLU:OE2	2.17	0.63
44:BV:24:LEU:CB	44:BV:41:LEU:HG	2.28	0.63
50:D2:40:LYS:HZ1	50:D2:49:CYS:HB3	1.64	0.63
1:CA:1051:C:H42	1:CA:1207:G:H1	1.47	0.63
1:CA:648:A:H2'	1:CA:649:G:H8	1.64	0.63
23:BA:2432:A:H2'	23:BA:2433:A:C8	2.33	0.63
23:DA:185:U:H2'	23:DA:186:G:C8	2.33	0.63
1:CA:186(D):G:C4	1:CA:191(E):G:N2	2.67	0.63
32:DJ:94:ILE:CG2	32:DJ:107:LYS:HB3	2.28	0.63
33:DK:11:ALA:HB3	33:DK:85:VAL:HG23	1.80	0.63
12:CL:5:THR:HG23	12:CL:8:GLN:HG3	1.80	0.63
15:AO:76:GLU:OE2	15:AO:76:GLU:HA	1.98	0.63
39:BQ:30:LYS:O	39:BQ:31:SER:CB	2.46	0.63
34:BL:91:PHE:CD1	34:BL:91:PHE:N	2.66	0.63
39:DQ:92:ARG:CG	40:DR:11:GLN:NE2	2.57	0.63
28:DF:86:MET:H	28:DF:87:PRO:CD	2.11	0.63
25:BC:35:LYS:CE	25:BC:103:ARG:HA	2.29	0.63
25:DC:244:ARG:HB2	25:DC:245:PRO:CD	2.29	0.63
26:BD:51:PHE:HB3	26:BD:77:ILE:HD12	1.80	0.63
28:BF:105:LYS:NZ	49:B1:52:SER:HB2	2.13	0.63
28:BF:8:LYS:HD3	28:BF:9:ARG:HG3	1.80	0.63
45:BW:50:ASN:C	45:BW:62:LEU:HB2	2.19	0.63
36:DN:67:LEU:HD22	36:DN:76:VAL:HG11	1.81	0.63
23:DA:296:C:O2'	23:DA:297:C:H5'	1.99	0.63
29:BG:94:TYR:H	29:BG:94:TYR:HD1	1.44	0.63
23:BA:2036:C:H5'	23:BA:2036:C:C6	2.34	0.63
40:BR:22:VAL:HG12	40:BR:23:GLU:N	2.13	0.63
26:DD:176:ILE:O	26:DD:176:ILE:HG22	1.96	0.63
10:AJ:7:LYS:O	10:AJ:8:LEU:HD12	1.98	0.63
23:BA:1726:G:H2'	23:BA:1727:U:C6	2.34	0.63
28:DF:55:LYS:HD2	28:DF:58:GLN:HE21	1.63	0.63
35:BM:43:THR:HG23	35:BM:46:GLN:OE1	1.98	0.63
36:DN:44:LEU:O	36:DN:44:LEU:HD13	1.99	0.63
35:DM:80:GLU:OE2	35:DM:80:GLU:HA	1.98	0.63
23:BA:1132:A:O2'	23:BA:1133:U:H5'	1.98	0.63
1:AA:643:C:H5'	8:AH:31:PHE:CE1	2.33	0.63
1:AA:805:C:H2'	1:AA:806:C:H6	1.64	0.63
34:DL:61:ARG:C	34:DL:62:LEU:HD13	2.18	0.63
47:BY:2:LYS:HA	47:BY:5:GLU:CD	2.19	0.63
23:DA:1139:G:OP1	32:DJ:125:ALA:HB2	1.99	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1347:G:C6	9:CI:107:ARG:NH2	2.61	0.63
7:CG:9:VAL:HG22	7:CG:94:ARG:HH11	1.63	0.63
1:AA:364:A:C2	1:AA:365:U:O4	2.51	0.63
39:DQ:92:ARG:HD3	39:DQ:94:ASN:HB3	1.79	0.63
23:DA:1022:G:H8	32:DJ:92:GLN:HE22	1.45	0.63
23:BA:2541:A:H5''	23:BA:2542:A:OP2	1.99	0.63
23:BA:2543:G:H2'	23:BA:2544:G:C8	2.34	0.63
7:AG:9:VAL:HG22	7:AG:94:ARG:HH11	1.62	0.63
35:DM:48:GLU:O	35:DM:52:VAL:HG12	1.99	0.63
23:BA:379:G:H1	46:BX:20:ARG:HH22	1.45	0.63
23:BA:1558:A:H1'	23:BA:1559:G:OP2	1.98	0.63
23:DA:2531:A:H5'	29:DG:157:TYR:CE1	2.34	0.63
1:CA:781:A:H2'	1:CA:782:A:H5'	1.80	0.63
17:CQ:18:THR:HG23	17:CQ:69:LYS:HE3	1.79	0.63
23:DA:336:C:H2'	23:DA:336:C:O2	1.98	0.63
7:AG:138:LYS:HE2	7:AG:142:GLU:OE2	1.98	0.63
23:DA:2485:G:H5''	35:DM:46:GLN:HE21	1.64	0.63
6:AF:18:GLN:HA	6:AF:21:LEU:HD23	1.80	0.63
35:BM:43:THR:HG23	35:BM:46:GLN:CD	2.19	0.63
2:AB:106:LYS:HE2	2:AB:110:GLN:NE2	2.14	0.63
29:DG:168:PRO:O	29:DG:170:ARG:HG3	1.97	0.63
23:DA:628:G:H5''	53:D5:18:ALA:CB	2.29	0.63
53:D5:50:LEU:O	53:D5:51:ALA:HB2	1.99	0.63
53:D5:51:ALA:H	53:D5:54:GLU:HB2	1.63	0.63
34:DL:58:THR:C	34:DL:61:ARG:HE	2.02	0.63
23:BA:310:A:OP1	43:BU:18:GLY:HA2	1.99	0.63
9:CI:10:ARG:HD3	9:CI:11:LYS:HG3	1.81	0.63
23:DA:2846:G:C5	23:DA:2847:U:C5	2.86	0.63
23:BA:1141:U:H6	32:BJ:86:THR:OG1	1.80	0.63
34:DL:49:ARG:CG	34:DL:50:ARG:N	2.59	0.63
1:CA:386:C:H2'	1:CA:387:U:C5'	2.27	0.63
4:CD:109:GLY:C	4:CD:111:ALA:H	2.01	0.63
23:BA:2712:U:H1'	23:BA:712(B):A:H8	1.64	0.63
6:CF:90:VAL:CG1	6:CF:91:VAL:N	2.61	0.63
26:BD:37:ARG:O	26:BD:45:THR:HA	1.99	0.63
23:DA:2808:U:C2'	23:DA:2809:A:H5'	2.29	0.63
23:DA:1010:A:H1'	23:DA:1153:C:H1'	1.81	0.63
23:BA:1476:C:H3'	23:BA:1476:C:H6	1.63	0.63
38:DP:89:VAL:HG22	38:DP:89:VAL:O	1.98	0.63
38:DP:90:GLN:HA	38:DP:90:GLN:NE2	2.13	0.63
23:DA:2476:A:C2	23:DA:2477:C:C6	2.87	0.63
28:DF:174:GLU:HG2	28:DF:180:PHE:CD1	2.34	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:45:ARG:NH1	14:AN:36:PHE:CD2	2.67	0.63
44:BV:5:LEU:HD23	44:BV:6:LYS:N	2.12	0.63
6:CF:15:ASP:OD1	6:CF:17:SER:HB2	1.97	0.63
23:DA:1162:G:H2'	23:DA:1163:G:H5'	1.81	0.63
23:DA:1165:U:H2'	23:DA:1166:C:C6	2.34	0.63
32:DJ:94:ILE:HG21	32:DJ:107:LYS:HB3	1.81	0.63
2:AB:30:ARG:HG3	2:AB:31:TYR:CD2	2.33	0.63
23:DA:270(J):G:HO2'	23:DA:270(K):G:H8	1.44	0.63
44:BV:104:PHE:HB3	44:BV:141:VAL:HG11	1.81	0.63
44:BV:108:PRO:HA	44:BV:142:SER:O	1.99	0.63
51:B3:38:LYS:HG2	51:B3:39:TYR:H	1.63	0.63
38:BP:48:ILE:HD12	38:BP:48:ILE:H	1.63	0.63
34:DL:128:HIS:CA	34:DL:147:LEU:HB3	2.10	0.62
34:BL:138:LEU:HD11	34:BL:144:GLU:HB3	1.81	0.62
23:BA:2335:A:O2'	23:BA:2336:A:H5''	1.98	0.62
23:DA:1900:A:N1	23:DA:1970:A:C6	2.68	0.62
23:BA:114(B):A:C4	23:BA:1144:G:C8	2.87	0.62
32:BJ:93:LYS:CE	32:BJ:95:TYR:HE1	2.12	0.62
25:DC:267:SER:O	25:DC:270:ILE:HG13	1.99	0.62
28:BF:32:PRO:HB2	28:BF:172:LEU:HD22	1.80	0.62
3:AC:91:LEU:HB3	3:AC:99:VAL:HG11	1.79	0.62
1:CA:736:C:H2'	1:CA:737:A:C8	2.34	0.62
23:DA:2378:A:O2'	37:DO:21:THR:HG21	1.99	0.62
46:DX:13:ILE:HD12	46:DX:13:ILE:C	2.19	0.62
1:AA:1152:A:OP1	10:AJ:68:HIS:CD2	2.52	0.62
3:AC:195:VAL:O	3:AC:196:LEU:HB2	1.98	0.62
23:BA:2747:G:C6	23:BA:2754:U:C5	2.86	0.62
37:BO:72:ALA:O	37:BO:76:LYS:HG3	1.99	0.62
40:BR:66:ARG:HD2	40:BR:88:ARG:NH1	2.13	0.62
1:CA:1083:U:C5	1:CA:1084:G:C5	2.88	0.62
25:BC:235:GLY:O	25:BC:237:GLU:N	2.32	0.62
30:DH:15:VAL:O	30:DH:17:GLN:N	2.32	0.62
23:DA:1434:A:H61	23:DA:1558:A:H62	1.46	0.62
23:BA:1794:U:H2'	23:BA:1795:C:C6	2.34	0.62
23:BA:336:C:O2	23:BA:336:C:H2'	1.98	0.62
1:AA:1328:C:OP1	13:AM:28:ALA:HB2	1.99	0.62
23:BA:229:A:H5'	23:BA:230:U:H5'	1.80	0.62
24:BB:93:C:H2'	24:BB:94:C:H6	1.65	0.62
23:DA:628:G:H5''	53:D5:18:ALA:HB2	1.82	0.62
1:CA:1352:C:C2	1:CA:1371:G:C2	2.87	0.62
23:DA:2185:C:H2'	23:DA:2186:G:H8	1.63	0.62
40:DR:40:LEU:H	40:DR:47:VAL:CG2	2.10	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BT:49:VAL:HG23	42:BT:50:LYS:N	2.13	0.62
25:DC:145:VAL:HG12	25:DC:146:GLU:O	1.99	0.62
30:DH:79:ILE:HB	30:DH:144:VAL:HA	1.81	0.62
30:DH:88:ILE:CG2	30:DH:90:GLY:H	2.12	0.62
2:AB:215:LEU:O	2:AB:219:VAL:HG23	1.99	0.62
29:DG:43:VAL:HG12	29:DG:52:VAL:HG22	1.81	0.62
46:DX:32:LYS:HG2	46:DX:33:LYS:H	1.64	0.62
6:AF:63:TYR:N	6:AF:63:TYR:CD2	2.63	0.62
23:DA:1486:A:N6	23:DA:1504:C:H42	1.97	0.62
33:DK:102:VAL:HG23	33:DK:121:VAL:HA	1.80	0.62
27:BE:53:THR:N	27:BE:56:GLU:OE1	2.32	0.62
23:BA:2597:G:O2'	23:BA:2598:A:H5'	1.98	0.62
23:DA:270(I):C:O2	23:DA:270(I):C:H2'	1.97	0.62
36:BN:54:LEU:HD23	36:BN:62:ALA:HB1	1.80	0.62
23:BA:483:A:H4'	43:BU:49:VAL:HG23	1.81	0.62
1:CA:509:A:H5'	4:CD:54:TYR:HD2	1.64	0.62
23:BA:795:C:H2'	23:BA:796:C:H6	1.64	0.62
1:CA:24:U:H2'	1:CA:25:C:C6	2.33	0.62
23:BA:1449:G:H2'	23:BA:1450:C:C6	2.34	0.62
35:DM:69:PHE:CD1	35:DM:70:PRO:HD2	2.33	0.62
15:AO:7:GLU:O	15:AO:11:VAL:HG23	1.99	0.62
1:AA:505:G:H2'	1:AA:506:G:H8	1.64	0.62
3:AC:126:ARG:O	3:AC:127:ARG:HB2	1.99	0.62
25:DC:40:THR:HG22	25:DC:41:GLY:N	2.14	0.62
15:CO:7:GLU:O	15:CO:11:VAL:HG23	1.99	0.62
43:BU:13:VAL:CG1	43:BU:72:VAL:HB	2.28	0.62
27:DE:66:PRO:HB3	27:DE:68:LYS:NZ	2.15	0.62
23:DA:1899:G:N2	23:DA:1902:C:N4	2.35	0.62
40:DR:55:ALA:HA	40:DR:101:GLY:O	1.99	0.62
24:DB:16:G:C6	24:DB:69:G:C2	2.87	0.62
5:CE:14:ARG:NH1	5:CE:129:ILE:HD11	2.14	0.62
5:CE:43:LEU:HD11	5:CE:132:ALA:HB1	1.81	0.62
1:AA:1201:A:C1'	1:AA:1202:G:OP2	2.47	0.62
30:BH:130:TYR:O	30:BH:132:PRO:HD3	1.99	0.62
32:DJ:142:ARG:HG3	32:DJ:142:ARG:NH1	2.07	0.62
23:DA:2329:G:H2'	23:DA:2330:G:C8	2.34	0.62
8:CH:119:LEU:HB2	8:CH:124:ALA:HB2	1.80	0.62
23:BA:1156:A:H4'	23:BA:1157:G:OP2	1.98	0.62
23:DA:1592:C:H2'	23:DA:1593:G:H8	1.64	0.62
1:AA:648:A:H2'	1:AA:649:G:H8	1.63	0.62
1:CA:1111:A:C2	3:CC:177:THR:HG23	2.34	0.62
2:CB:32:ILE:HD11	2:CB:190:THR:HG21	1.81	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:1051:G:C6	23:DA:1052:C:N3	2.67	0.62
1:CA:160:A:H2'	1:CA:161:A:O4'	1.99	0.62
1:AA:1430:C:H2'	1:AA:1431:C:H6	1.64	0.62
34:DL:140:ALA:O	34:DL:141:ALA:HB2	1.99	0.62
34:BL:91:PHE:HD1	34:BL:91:PHE:N	1.96	0.62
32:DJ:143:LEU:HD13	32:DJ:143:LEU:C	2.18	0.62
1:AA:963:G:H2'	1:AA:964:A:C8	2.34	0.62
1:CA:950:U:H2'	1:CA:951:G:H8	1.63	0.62
32:BJ:94:ILE:HG21	32:BJ:107:LYS:HB3	1.82	0.62
34:BL:49:ARG:HG3	34:BL:50:ARG:H	1.63	0.62
25:BC:31:LYS:O	25:BC:35:LYS:CB	2.46	0.62
25:DC:158:ALA:O	25:DC:161:THR:HG23	2.00	0.62
3:CC:173:VAL:CG1	3:CC:173:VAL:O	2.41	0.62
26:DD:111:ARG:HD2	26:DD:160:TYR:CE1	2.31	0.62
5:AE:41:VAL:HG11	5:AE:113:ALA:CB	2.28	0.62
1:AA:1083:U:C5	1:AA:1084:G:C5	2.87	0.62
1:AA:1124:G:H4'	10:AJ:38:ILE:HD11	1.80	0.62
1:CA:878:G:H5'	8:CH:89:PRO:HG2	1.81	0.62
46:BX:19:GLN:CG	46:BX:41:ARG:HE	2.10	0.62
46:BX:19:GLN:HG3	46:BX:41:ARG:NE	2.13	0.62
1:AA:349:A:O2'	1:AA:350:G:H5'	1.99	0.62
1:AA:1179:A:H4'	9:AI:103:THR:HA	1.81	0.62
2:AB:11:LEU:HD12	2:AB:217:ARG:NH2	2.13	0.62
2:AB:63:MET:CG	2:AB:225:ALA:HB1	2.30	0.62
36:BN:50:HIS:O	36:BN:54:LEU:HB2	1.99	0.62
1:AA:920:U:H2'	1:AA:921:U:H6	1.64	0.62
7:CG:47:CYS:O	7:CG:50:ILE:HB	1.99	0.62
6:CF:14:LEU:HD23	6:CF:15:ASP:O	1.98	0.62
1:AA:505:G:C6	1:AA:535:A:C2	2.87	0.62
1:AA:1430:C:H2'	1:AA:1431:C:C6	2.35	0.62
5:AE:145:LYS:HE3	5:AE:149:GLU:OE1	1.99	0.62
1:CA:799:G:H2'	1:CA:800:G:O5'	1.99	0.62
41:BS:36:LEU:HD12	41:BS:48:ALA:HA	1.80	0.62
43:DU:89:PHE:H	43:DU:90:LEU:HD23	1.64	0.62
23:DA:1449:G:H2'	23:DA:1450:C:C6	2.35	0.62
23:BA:2371:G:O2'	51:B3:45:LYS:HB3	2.00	0.62
33:DK:80:ASP:OD2	38:DP:71:GLY:HA3	1.99	0.62
38:DP:84:GLN:HA	38:DP:84:GLN:HE21	1.64	0.62
5:CE:15:ARG:HG2	5:CE:15:ARG:O	1.98	0.62
34:DL:58:THR:O	34:DL:61:ARG:NE	2.29	0.62
34:BL:59:LEU:HA	34:BL:61:ARG:HD2	1.80	0.62
22:CV:6195:G:N2	22:CV:6196:A:C4	2.67	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:B2:20:ARG:CA	50:B2:23:HIS:HD2	2.08	0.62
32:DJ:113:MET:O	32:DJ:116:THR:O	2.17	0.62
40:BR:5:VAL:HG21	40:BR:35:LEU:HG	1.80	0.62
40:BR:6:LYS:HG3	40:BR:11:GLN:HG2	1.80	0.62
1:AA:376:G:OP1	16:AP:5:ARG:HB2	1.99	0.62
25:DC:108:PRO:HB3	25:DC:143:HIS:CE1	2.34	0.62
3:AC:11:ARG:HH21	3:AC:180:ALA:HB3	1.64	0.62
35:BM:47:ILE:CG2	35:BM:48:GLU:N	2.56	0.62
3:AC:173:VAL:N	3:AC:174:PRO:HD3	2.15	0.62
24:BB:13:A:C8	45:BW:74:ARG:NH2	2.68	0.62
9:CI:17:VAL:HA	9:CI:63:ILE:HG13	1.81	0.62
10:CJ:42:THR:HG23	10:CJ:68:HIS:HA	1.80	0.62
23:BA:257:A:H2'	23:BA:258:G:O5'	1.99	0.62
43:DU:76:CYS:HB3	43:DU:77:PRO:CD	2.29	0.62
1:AA:300:A:H1'	1:AA:565:U:O2	1.99	0.62
23:DA:991:C:C5	23:DA:1185:C:C4	2.88	0.62
23:BA:2485:G:H5''	35:BM:46:GLN:HE21	1.63	0.62
2:AB:95:GLN:HG3	2:AB:147:LYS:O	2.00	0.62
6:CF:74:ASP:HB3	6:CF:77:ARG:HH22	1.64	0.62
9:AI:69:GLY:O	9:AI:73:GLN:HG3	1.99	0.62
23:BA:2212:A:H1'	23:BA:2215:G:C4	2.34	0.62
2:CB:177:ALA:HB1	2:CB:182:ILE:HB	1.82	0.62
23:DA:2718:G:H2'	23:DA:2719:G:H8	1.64	0.62
25:BC:155:LEU:HD23	25:BC:177:LEU:CD2	2.20	0.62
28:BF:76:SER:HB2	28:BF:83:ARG:C	2.19	0.62
39:BQ:83:LEU:HA	39:BQ:86:ALA:HB3	1.82	0.62
28:DF:129:GLY:HA3	28:DF:163:ALA:HB3	1.80	0.62
37:DO:90:GLY:O	37:DO:92:TYR:N	2.33	0.62
1:AA:405:U:H5''	1:AA:406:G:O4'	2.00	0.62
4:AD:100:ARG:HH21	4:AD:118:ARG:NH1	1.95	0.62
1:AA:193:C:H2'	1:AA:194:C:C6	2.34	0.62
23:BA:2090:G:H21	46:BX:45:ASN:HD21	1.46	0.62
6:CF:8:ILE:HD11	6:CF:79:LEU:HD13	1.82	0.62
23:BA:1055:G:H2'	23:BA:1056:G:H8	1.63	0.62
1:CA:324:G:OP1	20:CT:70:SER:HB2	2.00	0.62
23:DA:7:G:H2'	23:DA:8:A:C8	2.34	0.62
23:BA:2101:G:C2'	23:BA:2102:U:H5'	2.30	0.62
12:AL:23:VAL:HG13	12:AL:97:TYR:CE2	2.35	0.62
1:AA:1311:G:H1	1:AA:1326:C:H42	1.45	0.62
1:CA:137:C:O4'	16:CP:63:GLY:HA3	1.99	0.62
1:AA:1040:U:H2'	1:AA:1041:A:C8	2.34	0.62
29:DG:89:ILE:O	29:DG:89:ILE:HG22	1.99	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AF:74:ASP:HB3	6:AF:77:ARG:HH22	1.64	0.62
32:BJ:114:LEU:HA	32:BJ:118:PRO:HB3	1.81	0.62
23:DA:1018:C:N3	23:DA:1019:U:C5	2.68	0.62
23:DA:1142:U:H5''	23:DA:114(B):A:H5'	1.80	0.62
23:BA:2218:G:O2'	23:BA:2219:G:H5'	2.00	0.62
26:DD:36:ARG:HD3	26:DD:85:ASN:ND2	2.10	0.62
23:DA:1586:A:N6	23:DA:1587:A:C2	2.68	0.62
12:AL:41:THR:HA	12:AL:52:ARG:O	1.99	0.62
23:DA:556:G:H2'	23:DA:557:U:C6	2.34	0.62
8:AH:86:ILE:HG21	8:AH:133:LEU:HD13	1.82	0.62
11:AK:95:ILE:HG21	11:AK:108:ILE:HD13	1.81	0.62
23:DA:2273:A:O2'	23:DA:2274:A:H5'	2.00	0.62
1:AA:102:G:H2'	1:AA:103:C:C6	2.35	0.62
35:BM:21:THR:O	35:BM:23:GLY:N	2.33	0.62
39:BQ:30:LYS:O	39:BQ:31:SER:HB3	1.99	0.62
23:DA:978:G:C2'	23:DA:979:G:H5'	2.30	0.62
26:BD:149:ARG:HG3	26:BD:150:VAL:N	2.15	0.62
24:DB:93:C:H2'	24:DB:94:C:H6	1.64	0.62
15:CO:78:TYR:O	15:CO:82:ILE:HG22	2.00	0.62
1:CA:836:G:C6	1:CA:851:G:C6	2.88	0.62
53:D5:33:ASN:HA	53:D5:36:LYS:HD3	1.81	0.62
22:AV:6191:A:H2'	22:AV:6192:G:C8	2.34	0.62
23:BA:2847:U:OP1	38:BP:98:LYS:HD3	2.00	0.62
30:BH:79:ILE:HB	30:BH:144:VAL:HA	1.82	0.62
40:BR:39:LEU:CB	40:BR:47:VAL:HG21	2.30	0.62
23:DA:2729:G:H1'	26:DD:187:ALA:CB	2.26	0.62
16:AP:20:VAL:HG21	16:AP:32:TYR:CG	2.35	0.62
25:DC:155:LEU:HD23	25:DC:177:LEU:CD2	2.26	0.62
52:D4:19:ARG:NH1	52:D4:19:ARG:HG3	2.03	0.62
4:AD:93:PHE:O	4:AD:97:LEU:HG	1.99	0.62
1:AA:1347:G:H22	1:AA:1373:G:H2'	1.64	0.62
26:BD:111:ARG:HD2	26:BD:160:TYR:CE1	2.30	0.62
23:BA:1586:A:N6	23:BA:1587:A:C2	2.67	0.62
23:DA:1858:G:O2'	23:DA:1859:A:H8	1.82	0.62
23:DA:244:A:C2	23:DA:255:A:C4	2.88	0.62
40:DR:21:ARG:CZ	40:DR:91:TYR:HE1	2.12	0.62
1:CA:919:A:O2'	1:CA:920:U:H5'	1.99	0.62
1:AA:1443:G:H3'	1:AA:1446:A:H5''	1.80	0.62
7:AG:47:CYS:O	7:AG:50:ILE:HB	1.99	0.62
1:AA:152:A:H62	1:AA:169:C:N4	1.97	0.62
23:BA:903:C:H2'	23:BA:904:C:H6	1.65	0.62
23:DA:245:G:H2'	23:DA:246:C:H6	1.63	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:AN:26:ARG:NH1	14:AN:47:LEU:HD21	2.15	0.62
9:CI:79:LEU:HD23	9:CI:101:PHE:O	1.99	0.62
51:B3:34:LEU:HD22	51:B3:34:LEU:O	2.00	0.62
23:BA:2262:U:H2'	23:BA:2263:C:H6	1.65	0.62
30:BH:88:ILE:HG12	30:BH:123:LEU:HA	1.82	0.62
25:DC:142:VAL:HG23	25:DC:193:VAL:HA	1.82	0.62
30:DH:88:ILE:HG22	30:DH:90:GLY:H	1.65	0.62
24:DB:45:A:H1'	28:DF:95:ARG:NH2	2.15	0.62
2:CB:215:LEU:O	2:CB:219:VAL:HG23	1.99	0.62
1:CA:405:U:H5''	1:CA:406:G:O4'	1.99	0.62
4:CD:3:ARG:HH21	4:CD:118:ARG:HD3	1.65	0.62
9:AI:10:ARG:HD3	9:AI:11:LYS:HG3	1.81	0.62
36:DN:54:LEU:HD23	36:DN:62:ALA:HB1	1.81	0.62
23:DA:1343:G:H8	23:DA:1343:G:C5'	2.13	0.62
1:AA:736:C:H2'	1:AA:737:A:C8	2.35	0.62
1:CA:623:C:C4	1:CA:624:C:C5	2.88	0.62
15:CO:30:ALA:CA	15:CO:85:LEU:HD11	2.29	0.62
40:DR:20:LEU:HD23	40:DR:20:LEU:O	2.00	0.62
1:CA:1053:G:C4	1:CA:1199:U:C5	2.87	0.62
36:BN:52:ILE:CD1	36:BN:79:LEU:HD21	2.29	0.62
1:AA:920:U:H2'	1:AA:921:U:C6	2.35	0.62
5:AE:147:ASP:O	5:AE:151:LEU:HG	1.99	0.62
23:BA:2401:U:H2'	23:BA:2402:C:H5''	1.81	0.62
23:BA:1010:A:H1'	23:BA:1153:C:H1'	1.82	0.62
40:BR:22:VAL:CG1	40:BR:23:GLU:N	2.62	0.62
7:CG:69:VAL:O	7:CG:71:PRO:HD3	2.00	0.62
7:CG:71:PRO:HG3	7:CG:103:TRP:HZ3	1.65	0.62
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.35	0.62
23:BA:924:C:H2'	23:BA:925:C:C6	2.35	0.62
44:BV:117:LEU:O	44:BV:117:LEU:HG	2.00	0.62
2:CB:158:LEU:H	2:CB:158:LEU:HD12	1.65	0.62
1:AA:1516:G:H2'	1:AA:1518:A:OP2	2.00	0.62
34:DL:59:LEU:HA	34:DL:61:ARG:HD2	1.79	0.62
53:B5:23:VAL:CG1	53:B5:47:LYS:HB3	2.30	0.62
36:DN:11:ASN:O	36:DN:12:ARG:HB2	1.98	0.62
12:CL:85:ARG:HB2	12:CL:100:VAL:HG23	1.81	0.62
42:DT:49:VAL:HG23	42:DT:50:LYS:N	2.15	0.62
30:DH:88:ILE:HG12	30:DH:123:LEU:HA	1.81	0.62
36:BN:55:ALA:HA	36:BN:80:PHE:HE1	1.59	0.62
23:BA:558:G:OP1	32:BJ:134:PRO:HD2	2.00	0.62
23:BA:1331:A:O2'	23:BA:1332:G:H8	1.82	0.62
23:DA:1153:C:H5'	39:DQ:76:TYR:HE2	1.65	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1117:G:O3'	9:CI:104:ARG:HG3	1.99	0.62
1:CA:781:A:H4'	1:CA:1522:U:O2'	2.00	0.62
38:BP:26:ASP:HB3	38:BP:92:GLY:H	1.64	0.62
35:BM:119:ARG:HG2	35:BM:120:ILE:HD13	1.82	0.62
23:DA:1558:A:H1'	23:DA:1559:G:OP2	2.00	0.62
1:CA:109:A:N6	1:CA:326:G:C5	2.68	0.62
2:CB:126:GLU:C	2:CB:127:ILE:HD13	2.20	0.62
27:DE:108:LYS:O	27:DE:112:MET:HG3	2.00	0.62
1:CA:304:U:H2'	1:CA:305:G:C8	2.35	0.62
34:BL:30:THR:HG22	34:BL:31:ALA:N	2.15	0.62
23:DA:573:G:O2'	23:DA:574:C:H3'	1.99	0.62
21:CU:24:ARG:HG3	21:CU:25:LYS:H	1.65	0.62
29:BG:109:PHE:CE2	29:BG:152:ARG:NH1	2.68	0.62
19:CS:5:LEU:HD12	19:CS:8:GLY:O	1.99	0.62
2:CB:106:LYS:HE2	2:CB:110:GLN:NE2	2.15	0.62
39:BQ:16:LYS:O	39:BQ:20:LEU:HD22	2.00	0.62
4:CD:57:ARG:HB3	4:CD:206:PHE:HB2	1.82	0.62
5:CE:102:ALA:HB2	5:CE:120:THR:CG2	2.28	0.61
16:CP:67:THR:HG22	16:CP:68:ASP:H	1.64	0.61
42:BT:14:SER:O	42:BT:17:ALA:N	2.33	0.61
1:AA:406:G:N2	1:AA:437:U:C2	2.68	0.61
30:DH:88:ILE:HD11	30:DH:123:LEU:HG	1.82	0.61
20:AT:71:THR:HG22	20:AT:72:LEU:N	2.15	0.61
13:AM:33:ALA:HA	13:AM:59:TYR:HE2	1.64	0.61
5:AE:31:LEU:HD21	5:AE:43:LEU:CD1	2.29	0.61
3:AC:134:ILE:CG2	3:AC:168:ALA:HB3	2.30	0.61
1:AA:193:C:O4'	20:AT:60:GLU:OE2	2.17	0.61
11:AK:59:TYR:CZ	11:AK:63:LEU:HD11	2.35	0.61
2:AB:25:ASN:HB3	2:AB:26:PRO:HD2	1.82	0.61
11:CK:92:GLU:HA	11:CK:95:ILE:HG13	1.81	0.61
23:DA:1487:G:N3	23:DA:1488:G:C8	2.68	0.61
40:BR:64:HIS:CD2	40:BR:92:THR:CG2	2.83	0.61
18:CR:54:ARG:HD2	18:CR:54:ARG:N	2.14	0.61
40:DR:58:VAL:HG12	40:DR:97:LYS:HB2	1.82	0.61
25:BC:166:GLN:NE2	25:BC:166:GLN:HA	2.15	0.61
36:BN:99:LYS:HA	36:BN:112:ALA:CB	2.30	0.61
23:DA:356:G:H2'	23:DA:357:A:H8	1.64	0.61
26:BD:117:MET:HE2	26:BD:124:GLY:HA3	1.82	0.61
23:BA:1981:A:H5''	23:BA:1982:C:OP2	2.00	0.61
23:DA:188:G:H2'	23:DA:189:G:H5'	1.81	0.61
37:BO:41:ASP:OD2	37:BO:44:LYS:HD3	2.00	0.61
25:BC:95:LEU:O	25:BC:95:LEU:HD12	2.00	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:2705:A:H2	36:DN:64:ARG:NH1	1.98	0.61
17:AQ:7:THR:O	17:AQ:23:VAL:HG13	2.00	0.61
23:DA:310:A:OP1	43:DU:18:GLY:HA2	1.99	0.61
23:DA:860:U:HO2'	23:DA:861:A:H5'	1.65	0.61
39:BQ:92:ARG:NH2	40:BR:11:GLN:N	2.44	0.61
34:BL:50:ARG:HG3	53:B5:7:HIS:CD2	2.35	0.61
3:CC:40:ARG:O	3:CC:44:GLU:HG2	1.98	0.61
23:DA:2542:A:OP1	23:DA:2542:A:H4'	1.97	0.61
11:CK:63:LEU:N	11:CK:63:LEU:HD23	2.15	0.61
19:CS:63:THR:N	19:CS:66:MET:HE3	2.16	0.61
40:DR:66:ARG:HD2	40:DR:88:ARG:NH1	2.15	0.61
29:DG:144:VAL:HA	29:DG:147:ASN:HB2	1.82	0.61
43:BU:81:LYS:NZ	43:BU:97:ARG:HD3	2.14	0.61
37:BO:39:ILE:HG13	37:BO:73:LEU:HD13	1.81	0.61
23:BA:2273:A:O2'	23:BA:2274:A:H5'	1.99	0.61
1:AA:781:A:H2'	1:AA:782:A:H5'	1.82	0.61
23:DA:1046:A:H3'	23:DA:1047:G:C5'	2.30	0.61
29:DG:73:ALA:O	29:DG:77:LYS:HG2	2.00	0.61
23:DA:2531:A:C5'	29:DG:157:TYR:CZ	2.83	0.61
27:BE:117:ARG:NH2	27:BE:187:VAL:HA	2.14	0.61
44:BV:39:VAL:HG23	44:BV:40:ASP:N	2.14	0.61
8:AH:48:TYR:HA	8:AH:60:ARG:O	2.00	0.61
23:DA:1389:G:H2'	23:DA:1390:U:C6	2.35	0.61
44:DV:39:VAL:HG23	44:DV:40:ASP:N	2.14	0.61
23:BA:357:A:H2'	23:BA:358:U:C6	2.35	0.61
14:CN:36:PHE:CD1	14:CN:36:PHE:O	2.54	0.61
35:DM:43:THR:HG23	35:DM:46:GLN:CD	2.20	0.61
5:CE:151:LEU:HD13	8:CH:77:GLU:HG2	1.82	0.61
39:DQ:15:LYS:O	39:DQ:19:LYS:HG3	1.99	0.61
18:AR:19:LYS:O	18:AR:20:ALA:HB2	1.99	0.61
23:BA:2086:U:OP2	25:BC:263:ARG:HD3	2.01	0.61
1:AA:114:U:H2'	1:AA:115:G:C8	2.35	0.61
5:CE:140:ARG:HG2	5:CE:140:ARG:O	2.00	0.61
23:BA:1216:G:OP1	39:BQ:8:VAL:HG12	2.00	0.61
23:BA:2064:C:H2'	23:BA:2065:C:C6	2.36	0.61
44:DV:127:LYS:HD3	44:DV:162:GLU:OE1	1.99	0.61
6:CF:16:GLN:H	6:CF:16:GLN:CD	2.03	0.61
39:BQ:15:LYS:O	39:BQ:19:LYS:HG3	2.00	0.61
45:DW:23:VAL:HB	45:DW:26:TYR:HE2	1.65	0.61
38:DP:64:ARG:HD2	38:DP:73:GLU:OE2	1.99	0.61
1:AA:1223:C:P	1:AA:1224:G:H2'	2.40	0.61
1:AA:950:U:H2'	1:AA:951:G:H8	1.66	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:942:G:H5'	34:BL:35:HIS:HB3	1.81	0.61
1:CA:1324:A:H4'	1:CA:136(A):C:O3'	2.00	0.61
1:CA:552:U:H4'	12:CL:85:ARG:HG2	1.82	0.61
34:DL:32:THR:HG21	34:DL:37:GLY:HA2	1.82	0.61
23:BA:1141:U:H6	32:BJ:86:THR:HG1	1.45	0.61
42:BT:50:LYS:H	42:BT:87:GLN:NE2	1.89	0.61
1:AA:373:A:O2'	1:AA:374:A:H5'	1.99	0.61
23:BA:1812:A:C2'	23:BA:1813:G:H5'	2.30	0.61
24:DB:103:U:O2'	44:DV:72:ARG:HG3	2.00	0.61
26:DD:47:VAL:HG21	26:DD:86:PRO:HD3	1.81	0.61
24:BB:104:A:O4'	44:BV:29:TYR:HE1	1.83	0.61
44:BV:29:TYR:HA	44:BV:33:LEU:O	2.00	0.61
32:DJ:74:PHE:CE1	32:DJ:142:ARG:HD2	2.35	0.61
36:BN:4:LEU:O	36:BN:4:LEU:HD23	1.99	0.61
23:BA:2808:U:C2'	23:BA:2809:A:H5'	2.30	0.61
6:CF:44:GLY:HA2	6:CF:59:TYR:CZ	2.35	0.61
1:AA:625:G:C5	1:AA:626:U:C5	2.88	0.61
23:BA:2531:A:H5'	29:BG:157:TYR:CE1	2.35	0.61
1:CA:1130:A:H5'	1:CA:1131:G:OP2	1.99	0.61
11:CK:21:ILE:HD12	11:CK:21:ILE:N	2.15	0.61
38:BP:26:ASP:HB3	38:BP:92:GLY:N	2.15	0.61
21:AU:18:TYR:HD2	21:AU:22:ARG:CG	2.13	0.61
37:DO:41:ASP:OD2	37:DO:44:LYS:HD3	2.01	0.61
13:AM:34:LEU:HD13	13:AM:41:PRO:HG3	1.81	0.61
25:BC:40:THR:HG22	25:BC:41:GLY:N	2.14	0.61
1:AA:1257:U:O4'	1:AA:1257:U:OP2	2.18	0.61
7:AG:69:VAL:O	7:AG:71:PRO:HD3	1.99	0.61
7:AG:99:LEU:HB3	7:AG:103:TRP:CZ3	2.34	0.61
4:CD:62:GLN:O	4:CD:66:ARG:HG3	2.01	0.61
23:BA:1541:U:O2	23:BA:1541:U:H2'	1.98	0.61
2:AB:82:ARG:HA	2:AB:92:TYR:CE1	2.36	0.61
32:BJ:77:VAL:HB	32:BJ:145:VAL:HG22	1.82	0.61
26:BD:132:HIS:CG	26:BD:135:HIS:NE2	2.68	0.61
34:DL:48:PRO:O	34:DL:49:ARG:O	2.18	0.61
1:CA:376:G:C4	1:CA:389:A:C2	2.89	0.61
30:BH:92:VAL:O	30:BH:120:ILE:HD12	2.01	0.61
37:DO:11:LYS:O	37:DO:12:PHE:HB3	2.00	0.61
1:AA:501:C:OP1	12:AL:116:ARG:NH2	2.33	0.61
1:CA:265:G:C2'	1:CA:266:G:H5''	2.28	0.61
1:CA:1201:A:C1'	1:CA:1202:G:OP2	2.46	0.61
1:AA:1083:U:H5	1:AA:1084:G:C6	2.19	0.61
48:DZ:43:ILE:N	48:DZ:43:ILE:CD1	2.63	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:1264:G:C5'	50:B2:11:THR:HG21	2.31	0.61
2:AB:24:TRP:C	2:AB:25:ASN:HD22	2.03	0.61
23:DA:2746:U:H2'	23:DA:2747:G:O5'	2.01	0.61
1:CA:599:C:H2'	1:CA:600:C:C6	2.36	0.61
1:CA:707:C:H2'	1:CA:708:C:H6	1.64	0.61
23:BA:783:A:H2'	23:BA:785:G:OP1	2.00	0.61
1:AA:1130:A:H5'	1:AA:1131:G:OP2	1.99	0.61
21:CU:18:TYR:HD2	21:CU:22:ARG:CG	2.12	0.61
35:DM:119:ARG:HG2	35:DM:120:ILE:HD13	1.81	0.61
3:CC:17:ASP:HB3	3:CC:21:ARG:NH2	2.15	0.61
17:AQ:5:VAL:HG22	17:AQ:60:ILE:HG13	1.81	0.61
18:AR:47:THR:OG1	18:AR:49:LYS:HG2	2.00	0.61
1:AA:222:U:H2'	1:AA:223:U:C6	2.35	0.61
23:DA:991:C:C5	23:DA:1185:C:N4	2.69	0.61
23:DA:2233:U:H2'	23:DA:2234:G:C8	2.35	0.61
23:BA:1024:G:O5'	23:BA:1024:G:H8	1.83	0.61
37:BO:14:VAL:HG12	37:BO:18:ILE:HD11	1.82	0.61
1:AA:1057:G:H2'	1:AA:1058:G:O4'	2.01	0.61
1:CA:968:A:OP1	1:CA:968:A:H8	1.82	0.61
43:DU:8:LYS:NZ	43:DU:8:LYS:H	1.98	0.61
22:AV:6192:G:C2	22:AV:6193:U:C2	2.89	0.61
1:AA:365:U:C5'	1:AA:366:C:OP1	2.40	0.61
40:DR:5:VAL:HG21	40:DR:35:LEU:HG	1.83	0.61
39:BQ:83:LEU:HD12	39:BQ:113:ALA:CB	2.28	0.61
23:BA:2728:U:O2	23:BA:2729:G:C8	2.54	0.61
34:BL:47:ASP:OD1	34:BL:49:ARG:HG2	2.01	0.61
24:DB:66:A:C5	24:DB:108:C:C5	2.88	0.61
46:BX:13:ILE:C	46:BX:13:ILE:HD12	2.21	0.61
1:AA:476:G:H2'	1:AA:477:G:C8	2.34	0.61
29:BG:139:GLN:HG3	29:BG:140:LYS:N	2.14	0.61
18:AR:54:ARG:N	18:AR:54:ARG:HD2	2.14	0.61
23:DA:910:A:C6	23:DA:911:A:C6	2.88	0.61
15:CO:81:LEU:O	15:CO:85:LEU:HB2	2.00	0.61
1:AA:624:C:O3'	16:AP:10:GLY:HA2	2.00	0.61
1:CA:1513:A:H2'	1:CA:1514:C:H6	1.63	0.61
23:BA:628:G:H5''	53:B5:18:ALA:CB	2.30	0.61
1:CA:1418:A:C2	1:CA:1483:A:C2	2.88	0.61
23:BA:2365:G:O6	53:B5:39:LYS:HE3	2.01	0.61
23:BA:2854:G:H2'	23:BA:2855:C:H6	1.65	0.61
23:DA:979:G:H3'	23:DA:980:A:H5''	1.83	0.61
23:DA:2461:C:O2	23:DA:2461:C:H2'	2.01	0.61
44:DV:121:HIS:HB3	44:DV:123:ASP:O	1.99	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DE:11:VAL:O	27:DE:12:LEU:HD12	2.00	0.61
23:DA:2774:C:H2'	23:DA:2775:A:O4'	2.00	0.61
1:CA:1257:U:O4'	1:CA:1257:U:OP2	2.19	0.61
23:BA:1336:A:OP1	42:BT:64:LYS:HD3	2.01	0.61
34:DL:62:LEU:HD23	53:D5:25:MET:HB2	1.82	0.61
22:AV:6195:G:N2	22:AV:6196:A:C4	2.68	0.61
1:CA:551:U:H5'	12:CL:118:LYS:NZ	2.15	0.61
42:BT:14:SER:O	42:BT:15:GLU:C	2.39	0.61
23:DA:2727:G:C4	23:DA:2728:U:C5	2.89	0.61
28:BF:32:PRO:CB	28:BF:172:LEU:HD22	2.30	0.61
20:CT:56:MET:O	20:CT:59:ALA:HB3	2.01	0.61
19:AS:63:THR:HG23	19:AS:65:ASN:H	1.65	0.61
25:BC:134:ARG:HD3	25:BC:135:PHE:CE1	2.36	0.61
29:BG:144:VAL:HA	29:BG:147:ASN:HB2	1.81	0.61
25:DC:25:THR:CG2	25:DC:82:ILE:N	2.64	0.61
25:DC:25:THR:HG22	25:DC:82:ILE:O	2.00	0.61
23:DA:105:C:H2'	23:DA:106:C:C6	2.35	0.61
1:AA:623:C:C4	1:AA:624:C:C5	2.89	0.61
11:AK:21:ILE:HB	11:AK:84:VAL:HG12	1.82	0.61
26:BD:46:ALA:CB	26:BD:82:ARG:HA	2.30	0.61
1:CA:1057:G:H2'	1:CA:1058:G:O4'	1.99	0.61
23:DA:2100:G:N2	23:DA:2101:G:H1'	2.15	0.61
32:BJ:65:TRP:O	39:BQ:64:ARG:NH1	2.33	0.61
23:DA:302:C:H2'	23:DA:303:U:C6	2.36	0.61
1:CA:1483:A:H2	23:DA:1959:G:N3	1.99	0.61
3:CC:175:LEU:O	3:CC:175:LEU:HD23	1.99	0.61
44:DV:108:PRO:HA	44:DV:142:SER:O	2.01	0.61
23:DA:1164:G:C6	23:DA:1165:U:C4	2.88	0.61
26:BD:176:ILE:HB	26:BD:181:LEU:HB2	1.82	0.61
3:AC:17:ASP:HB3	3:AC:21:ARG:NH2	2.15	0.61
44:BV:127:LYS:HD3	44:BV:162:GLU:OE1	2.01	0.61
6:AF:12:PRO:HG2	6:AF:55:ASP:OD2	2.00	0.61
1:AA:775:G:C2'	1:AA:776:G:H5'	2.31	0.61
23:DA:484:C:H2'	23:DA:485:C:C6	2.36	0.61
43:BU:59:GLY:HA3	43:BU:61:ILE:HG12	1.83	0.61
3:CC:34:LEU:HG	14:CN:25:VAL:HG11	1.83	0.61
53:D5:57:ARG:HH11	53:D5:57:ARG:HB2	1.65	0.61
33:DK:76:ALA:HB3	38:DP:75:ILE:HB	1.83	0.61
34:DL:33:ARG:O	34:DL:35:HIS:O	2.17	0.61
23:BA:1018:C:N3	23:BA:1019:U:C5	2.69	0.61
25:DC:31:LYS:O	25:DC:35:LYS:CB	2.47	0.61
34:DL:45:LEU:HD23	34:DL:46:LYS:H	1.66	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:114(B):A:C4	23:DA:1144:G:C8	2.88	0.61
2:CB:174:VAL:O	2:CB:178:ARG:CB	2.46	0.61
1:CA:404:U:H2'	1:CA:405:U:H6	1.66	0.61
46:DX:46:LEU:HD23	46:DX:46:LEU:C	2.21	0.61
43:DU:81:LYS:NZ	43:DU:97:ARG:HD3	2.15	0.61
8:CH:91:ARG:HG2	8:CH:91:ARG:HH11	1.64	0.61
8:CH:20:TYR:HD1	8:CH:65:TYR:CD2	2.19	0.61
23:BA:2758:A:C5	29:BG:67:LEU:HD21	2.36	0.61
37:BO:51:ALA:HB1	37:BO:72:ALA:CB	2.31	0.61
33:BK:19:ILE:N	33:BK:19:ILE:HD13	2.15	0.61
23:BA:966:G:C6	23:BA:967:C:N4	2.69	0.61
35:BM:8:LYS:CG	35:BM:9:TYR:H	2.13	0.61
1:AA:175:C:H2'	1:AA:176:C:C6	2.34	0.61
23:DA:483:A:H4'	43:DU:49:VAL:HG23	1.82	0.61
44:DV:180:VAL:C	44:DV:182:LYS:H	2.03	0.61
23:DA:2101:G:C2'	23:DA:2102:U:H5'	2.29	0.61
25:DC:30:GLU:HG3	25:DC:63:ARG:NH2	2.14	0.61
23:DA:2639:A:C2'	23:DA:2640:G:H5'	2.30	0.61
5:AE:151:LEU:HD13	8:AH:77:GLU:HG2	1.81	0.61
7:CG:50:ILE:HD12	7:CG:61:VAL:HG11	1.83	0.61
23:BA:737:C:H2'	23:BA:738:G:H5'	1.83	0.61
1:CA:411:A:N7	1:CA:429:U:H5	1.97	0.61
36:DN:52:ILE:HG21	36:DN:94:TYR:CG	2.35	0.61
3:AC:34:LEU:HG	14:AN:25:VAL:HG11	1.83	0.61
38:BP:29:ARG:HD2	38:BP:44:ASP:OD2	2.01	0.61
23:BA:1232:G:H2'	23:BA:1233:C:H6	1.65	0.61
36:BN:103:ARG:NH1	36:BN:110:PRO:HG3	2.15	0.61
23:BA:249:C:O2	53:B5:12:LYS:HE3	2.00	0.61
21:AU:24:ARG:HG3	21:AU:25:LYS:H	1.65	0.61
1:AA:638:G:O2'	1:AA:639:G:H5'	2.01	0.61
23:DA:2392:A:OP2	53:D5:31:HIS:CE1	2.54	0.61
34:BL:61:ARG:CA	34:BL:62:LEU:HD13	2.30	0.61
23:BA:2329:G:H2'	23:BA:2330:G:C8	2.35	0.61
10:AJ:63:PHE:HA	14:AN:59:ALA:H	1.65	0.61
23:BA:1448:G:N3	23:BA:1529:A:H2	1.98	0.61
25:BC:155:LEU:N	25:BC:155:LEU:CD1	2.63	0.61
12:CL:26:LEU:HD12	12:CL:29:ALA:HB2	1.83	0.61
23:DA:1657:C:H2'	23:DA:1658:C:H6	1.63	0.61
28:BF:84:LYS:CG	28:BF:85:GLY:H	2.09	0.61
23:BA:2731:G:C6	23:BA:2732:G:C6	2.88	0.61
37:DO:12:PHE:CD1	37:DO:12:PHE:C	2.74	0.61
25:BC:158:ALA:O	25:BC:161:THR:HG23	2.01	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:2712:U:O2'	23:BA:712(B):A:H5''	2.01	0.61
26:DD:2:LYS:HD3	26:DD:95:ILE:HB	1.83	0.61
23:DA:2723:C:C2'	23:DA:2724:C:O5'	2.48	0.61
10:AJ:75:ILE:HG13	10:AJ:76:ASN:N	2.15	0.61
2:AB:24:TRP:CE3	2:AB:25:ASN:O	2.54	0.61
23:BA:528:A:C2	23:BA:2043:C:H4'	2.36	0.61
25:DC:133:LEU:C	25:DC:135:PHE:N	2.54	0.61
36:BN:67:LEU:HD22	36:BN:76:VAL:HG11	1.81	0.61
39:DQ:98:LEU:O	39:DQ:101:ARG:O	2.19	0.61
17:CQ:5:VAL:HG22	17:CQ:60:ILE:HG13	1.82	0.61
24:BB:75:G:H21	44:BV:85:HIS:CE1	2.18	0.61
8:CH:48:TYR:HA	8:CH:60:ARG:O	2.00	0.61
23:DA:115:C:C2'	23:DA:116:C:H5'	2.31	0.61
23:BA:1162:G:H2'	23:BA:1163:G:H5'	1.82	0.61
51:D3:38:LYS:HD3	51:D3:46:HIS:ND1	2.16	0.61
33:BK:11:ALA:HB3	33:BK:85:VAL:HG23	1.81	0.61
24:BB:28:C:H2'	24:BB:29:A:H8	1.66	0.61
1:CA:356:A:O2'	1:CA:357:G:H5'	2.00	0.61
23:DA:1430:C:H2'	23:DA:1431:U:C6	2.36	0.61
7:AG:86:GLN:HB2	7:AG:148:ASN:HD22	1.65	0.61
23:DA:1216:G:OP1	39:DQ:8:VAL:HG12	2.00	0.61
1:CA:563:A:N7	1:CA:567:G:H1'	2.15	0.61
23:DA:2853:C:H2'	23:DA:2854:G:H8	1.64	0.61
3:CC:191:THR:HB	3:CC:193:TYR:CE2	2.35	0.61
23:BA:1973:G:H2'	23:BA:1974:C:H6	1.65	0.61
1:CA:963:G:H2'	1:CA:964:A:H8	1.66	0.61
23:DA:2416:C:H2'	23:DA:2417:C:H6	1.66	0.61
34:DL:126:VAL:HA	34:DL:145:PRO:HG2	1.82	0.61
23:BA:858:U:C2	23:BA:2268:A:C2	2.88	0.61
23:BA:861:A:H2'	23:BA:862:G:C5'	2.31	0.61
23:BA:1899:G:HO2'	23:BA:1900:A:P	2.23	0.61
23:BA:1142:U:H5''	23:BA:114(B):A:H5'	1.82	0.61
23:DA:994:C:O2'	23:DA:996:A:OP1	2.19	0.61
30:BH:92:VAL:CG2	30:BH:97:ILE:HG12	2.31	0.61
4:AD:3:ARG:HH21	4:AD:118:ARG:HD3	1.64	0.61
42:DT:28:PHE:HD1	42:DT:28:PHE:N	1.99	0.61
23:DA:2712:U:O2'	23:DA:712(B):A:H5''	2.00	0.61
28:DF:105:LYS:NZ	49:D1:52:SER:HB2	2.16	0.61
24:DB:103:U:O2'	24:DB:104:A:H5'	2.00	0.61
42:BT:30:VAL:CG1	42:BT:31:HIS:N	2.64	0.61
46:BX:86:SER:O	46:BX:90:ILE:HG12	2.00	0.61
1:CA:1291:G:H4'	9:CI:38:GLN:O	2.00	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:1495:A:C5'	23:DA:1496:A:OP2	2.48	0.61
40:BR:64:HIS:HD2	40:BR:92:THR:HG22	1.65	0.61
6:AF:90:VAL:HG12	6:AF:91:VAL:N	2.16	0.61
1:AA:622:A:C8	1:AA:623:C:C5	2.89	0.61
25:DC:136:ILE:HG23	25:DC:137:PRO:HD2	1.83	0.61
23:DA:865:C:H4'	23:DA:866:A:N7	2.15	0.61
25:DC:75:ILE:O	25:DC:118:VAL:HG23	2.01	0.61
23:BA:628:G:H5''	53:B5:18:ALA:HB2	1.83	0.61
23:DA:2432:A:H5''	23:DA:2433:A:OP2	2.01	0.61
8:CH:77:GLU:HG3	8:CH:78:GLN:H	1.66	0.61
19:AS:53:ASN:HD21	19:AS:55:LYS:HB3	1.66	0.61
24:BB:45:A:H1'	28:BF:95:ARG:NH2	2.15	0.61
23:DA:1916:A:H2'	23:DA:1917:U:O4'	2.01	0.61
4:CD:173:TRP:CD1	4:CD:174:LEU:HG	2.35	0.61
1:AA:540:G:H2'	1:AA:541:G:O4'	2.01	0.61
24:BB:111:U:O2	24:BB:112:G:C8	2.54	0.61
37:DO:93:LYS:NZ	37:DO:93:LYS:HB2	2.15	0.61
44:BV:177:PRO:O	44:BV:178:GLU:HB3	2.01	0.61
24:DB:56:G:H4'	24:DB:57:A:C8	2.36	0.61
14:CN:26:ARG:NH1	14:CN:47:LEU:HD21	2.15	0.61
7:CG:26:PHE:CE2	7:CG:30:ILE:HD11	2.36	0.61
32:BJ:113:MET:O	32:BJ:116:THR:O	2.19	0.61
39:DQ:88:ILE:HG13	39:DQ:88:ILE:O	2.01	0.61
39:DQ:95:LEU:HD13	40:DR:4:ILE:HG23	1.83	0.61
30:BH:82:ARG:HB3	30:BH:89:TYR:CD1	2.35	0.61
39:BQ:102:GLU:HG3	40:BR:2:PHE:CD1	2.36	0.61
36:DN:9:LYS:C	36:DN:10:LEU:HG	2.21	0.61
23:BA:2723:C:H4'	36:BN:2:ARG:NH2	2.16	0.61
42:BT:57:LEU:N	42:BT:57:LEU:HD12	2.16	0.61
23:DA:528:A:C3'	23:DA:528:A:C8	2.83	0.61
25:DC:133:LEU:O	25:DC:135:PHE:N	2.33	0.61
1:CA:555:C:H2'	1:CA:556:C:C6	2.36	0.61
29:DG:94:TYR:OH	29:DG:160:LYS:HD3	2.00	0.61
45:BW:56:ASP:O	45:BW:57:PHE:CB	2.48	0.61
44:BV:74:VAL:HG22	44:BV:86:VAL:HG13	1.83	0.61
18:CR:66:LEU:HG	18:CR:70:ILE:HD11	1.83	0.61
23:DA:2637:U:H5''	26:DD:82:ARG:HH21	1.66	0.61
23:BA:637:A:OP2	34:BL:115:LEU:HB2	1.99	0.61
1:CA:920:U:H2'	1:CA:921:U:C6	2.35	0.61
32:DJ:80:ALA:O	32:DJ:83:ILE:CG1	2.49	0.61
7:CG:27:ILE:HD11	7:CG:43:PHE:CD2	2.36	0.61
23:DA:639:U:H2'	23:DA:640:C:C6	2.35	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:32:ILE:HD11	2:AB:190:THR:CG2	2.31	0.61
14:AN:25:VAL:HG23	14:AN:38:GLY:O	2.00	0.61
6:AF:96:PRO:HB3	18:AR:30:ASP:CG	2.21	0.61
30:DH:87:LYS:HA	30:DH:122:GLU:HA	1.83	0.61
26:DD:158:GLY:O	26:DD:159:HIS:C	2.39	0.61
30:DH:118:LYS:HG2	30:DH:119:PRO:N	2.16	0.61
35:BM:116:GLU:HA	35:BM:116:GLU:OE1	1.99	0.61
11:CK:125:PHE:CD1	11:CK:125:PHE:N	2.66	0.61
23:BA:706:A:H2'	23:BA:707:G:O4'	2.01	0.61
23:DA:83:G:N1	23:DA:102:G:O2'	1.96	0.60
23:DA:1178:C:O2'	23:DA:1179:C:H5'	2.00	0.60
1:AA:965:A:H2	1:AA:969:A:C2	2.15	0.60
22:CV:6192:G:C2	22:CV:6193:U:C2	2.89	0.60
25:DC:35:LYS:CE	25:DC:103:ARG:HA	2.31	0.60
25:BC:242:ARG:HG2	25:BC:242:ARG:NH1	2.15	0.60
32:DJ:93:LYS:CE	32:DJ:95:TYR:HE1	2.14	0.60
53:B5:11:LYS:HE2	53:B5:11:LYS:O	2.00	0.60
24:DB:7:G:H5''	37:DO:29:PHE:CE2	2.35	0.60
3:CC:11:ARG:HH21	3:CC:180:ALA:HB3	1.65	0.60
23:BA:1208:C:C4	23:BA:1209:G:N7	2.69	0.60
37:DO:72:ALA:O	37:DO:76:LYS:HG3	2.01	0.60
41:DS:29:LEU:O	41:DS:33:ARG:HD2	2.01	0.60
1:CA:1320:C:H2'	1:CA:1321:C:O4'	2.00	0.60
23:DA:1503:U:C2	23:DA:1504:C:C5	2.89	0.60
23:DA:686:G:O6	52:D4:12:ARG:HG3	2.01	0.60
23:BA:966:G:H2'	23:BA:967:C:C6	2.34	0.60
25:DC:25:THR:HG23	25:DC:25:THR:O	2.01	0.60
1:AA:799:G:H2'	1:AA:800:G:O5'	2.00	0.60
19:AS:6:LYS:HD2	19:AS:6:LYS:H	1.64	0.60
23:BA:2531:A:C5'	29:BG:157:TYR:CZ	2.84	0.60
23:DA:379:G:H1	46:DX:20:ARG:HH22	1.47	0.60
1:AA:102:G:H2'	1:AA:103:C:H6	1.66	0.60
1:AA:599:C:H2'	1:AA:600:C:C6	2.36	0.60
19:CS:6:LYS:HD3	19:CS:7:LYS:HD3	1.83	0.60
1:AA:622:A:C8	1:AA:623:C:C6	2.89	0.60
38:DP:1:MET:C	38:DP:3:ARG:N	2.54	0.60
23:DA:184:C:H2'	23:DA:185:U:C6	2.36	0.60
23:BA:2279:G:O6	45:BW:14:ARG:HD2	2.01	0.60
23:DA:1451:C:N3	23:DA:1459:G:O6	2.34	0.60
5:AE:68:GLU:O	5:AE:68:GLU:HG3	2.01	0.60
47:BY:2:LYS:HA	47:BY:5:GLU:OE2	2.00	0.60
23:BA:1178:C:O2'	23:BA:1179:C:H5'	2.00	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:69:GLY:O	9:CI:73:GLN:HG3	2.01	0.60
1:AA:960:U:C5	1:AA:1225:A:H1'	2.36	0.60
5:CE:101:ILE:O	5:CE:120:THR:HG23	2.01	0.60
32:BJ:94:ILE:CG2	32:BJ:107:LYS:HB3	2.30	0.60
34:DL:46:LYS:HG2	34:DL:52:GLU:OE1	2.01	0.60
39:BQ:88:ILE:HG13	39:BQ:88:ILE:O	1.99	0.60
1:AA:501:C:H2'	1:AA:502:G:H8	1.67	0.60
26:BD:59:VAL:O	26:BD:59:VAL:HG12	1.99	0.60
3:CC:57:ILE:CD1	3:CC:66:VAL:HG22	2.30	0.60
4:AD:63:LYS:HD2	4:AD:198:VAL:HG22	1.83	0.60
41:DS:36:LEU:HD12	41:DS:48:ALA:HA	1.83	0.60
1:CA:59:A:H5''	1:CA:60:A:H5''	1.83	0.60
23:BA:558:G:P	32:BJ:134:PRO:HD2	2.42	0.60
17:AQ:10:VAL:HG11	17:AQ:52:LYS:O	2.00	0.60
11:CK:32:ILE:HD12	11:CK:72:ALA:HB2	1.82	0.60
3:CC:47:LEU:HD21	3:CC:68:VAL:HG11	1.83	0.60
1:CA:1083:U:H5	1:CA:1084:G:C5	2.19	0.60
23:DA:257:A:C2'	23:DA:258:G:O5'	2.48	0.60
25:DC:132:PRO:O	25:DC:136:ILE:HD12	2.01	0.60
1:AA:40:C:H2'	1:AA:41:G:O4'	2.01	0.60
7:CG:131:LYS:HE3	7:CG:136:LYS:HZ2	1.66	0.60
44:DV:41:LEU:HD21	44:DV:83:PRO:HG2	1.83	0.60
23:BA:1152:C:H5''	39:BQ:80:ILE:HG22	1.82	0.60
23:DA:2485:G:C5'	35:DM:46:GLN:HE21	2.14	0.60
23:BA:2485:G:C5'	35:BM:46:GLN:HE21	2.14	0.60
23:BA:2233:U:H2'	23:BA:2234:G:C8	2.35	0.60
23:DA:692:C:O2'	23:DA:693:C:H5'	2.01	0.60
1:CA:334:C:H2'	1:CA:335:C:H6	1.65	0.60
1:CA:805:C:H2'	1:CA:806:C:H6	1.65	0.60
23:DA:2739:U:O2	23:DA:2739:U:H2'	1.99	0.60
41:BS:45:TYR:HD2	41:BS:46:PHE:CD1	2.19	0.60
1:AA:868:C:H2'	1:AA:869:G:O4'	2.01	0.60
19:CS:53:ASN:HD21	19:CS:55:LYS:HB3	1.66	0.60
28:BF:148:MET:HA	28:BF:148:MET:HE3	1.82	0.60
23:BA:692:C:O2'	23:BA:693:C:H5'	2.01	0.60
23:DA:1543:A:H5'	23:DA:1544:C:O5'	2.01	0.60
23:BA:943:U:OP2	34:BL:38:GLN:CD	2.39	0.60
23:DA:2847:U:OP1	38:DP:98:LYS:HD3	2.01	0.60
37:BO:12:PHE:CD1	37:BO:12:PHE:C	2.74	0.60
6:AF:87:ARG:NH1	6:AF:87:ARG:HG3	2.15	0.60
32:DJ:88:LYS:O	32:DJ:89:LYS:C	2.40	0.60
47:BY:18:PRO:O	47:BY:22:GLU:HG3	2.02	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DC:70:TRP:CZ3	25:DC:146:GLU:OE1	2.51	0.60
28:BF:128:ARG:NH2	28:BF:161:THR:O	2.34	0.60
1:AA:1083:U:H5	1:AA:1084:G:C5	2.19	0.60
25:BC:186:HIS:CD2	25:BC:188:GLU:H	2.20	0.60
1:CA:53:A:C2	1:CA:54:C:H1'	2.36	0.60
23:BA:2842:G:H1	23:BA:2875:C:H42	1.47	0.60
1:CA:318:G:N2	1:CA:319:G:C4	2.69	0.60
4:CD:105:VAL:HG12	4:CD:105:VAL:O	2.01	0.60
32:DJ:81:ASP:OD2	32:DJ:147:ALA:HB1	2.01	0.60
23:BA:1963:U:C2'	23:BA:1963:U:O2	2.50	0.60
23:DA:9:U:N3	23:DA:2629:A:N6	2.49	0.60
1:CA:102:G:H2'	1:CA:103:C:C6	2.36	0.60
1:CA:1422:G:H5''	33:DK:48:PRO:HB3	1.82	0.60
1:CA:15:G:H4'	5:CE:24:ARG:HH12	1.66	0.60
25:BC:227:ASN:N	25:BC:227:ASN:HD22	1.98	0.60
40:DR:22:VAL:HG12	40:DR:23:GLU:N	2.15	0.60
7:AG:71:PRO:HG3	7:AG:103:TRP:HZ3	1.64	0.60
23:BA:448:U:H1'	27:BE:84:VAL:HG21	1.83	0.60
26:BD:16:ARG:O	26:BD:18:ASP:N	2.34	0.60
23:DA:1547:C:H2'	23:DA:1548:C:H6	1.67	0.60
12:CL:37:THR:O	12:CL:78:GLU:HG2	2.00	0.60
36:BN:30:THR:HG22	36:BN:31:HIS:ND1	2.16	0.60
29:BG:168:PRO:O	29:BG:170:ARG:HG3	2.01	0.60
37:BO:93:LYS:NZ	37:BO:93:LYS:HB2	2.16	0.60
7:AG:26:PHE:CE2	7:AG:30:ILE:HD11	2.36	0.60
24:BB:83:G:H5''	48:BZ:52:HIS:CE1	2.36	0.60
1:AA:1320:C:H2'	1:AA:1321:C:O4'	2.01	0.60
32:BJ:85:VAL:CG2	32:BJ:89:LYS:HG3	2.30	0.60
24:DB:81:G:C6	24:DB:82:G:C5	2.89	0.60
4:AD:49:ARG:NE	4:AD:50:ARG:H	1.98	0.60
23:BA:2727:G:C4	23:BA:2728:U:C5	2.90	0.60
53:B5:60:LEU:O	53:B5:62:LEU:HB2	2.01	0.60
1:AA:411:A:C4	1:AA:413:G:O4'	2.54	0.60
30:DH:88:ILE:HG12	30:DH:123:LEU:CA	2.31	0.60
24:BB:46:A:H2'	24:BB:47:C:C6	2.36	0.60
23:BA:322:A:O4'	23:BA:340:A:H1'	2.01	0.60
36:DN:4:LEU:O	36:DN:4:LEU:HD23	2.01	0.60
10:CJ:75:ILE:HG13	10:CJ:76:ASN:N	2.15	0.60
1:CA:691:G:O6	11:CK:52:GLY:HA2	2.00	0.60
23:BA:2090:G:H21	46:BX:45:ASN:ND2	2.00	0.60
23:BA:1510:A:H2'	23:BA:1511:A:H8	1.64	0.60
29:BG:43:VAL:HG12	29:BG:52:VAL:HG22	1.83	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DO:36:TYR:N	37:DO:36:TYR:HD1	1.99	0.60
23:DA:380:U:O2	23:DA:381:G:C8	2.53	0.60
23:DA:389:G:H22	34:DL:72:PRO:HD3	1.66	0.60
23:BA:282:A:C5	23:BA:359:A:C2	2.89	0.60
1:CA:522:C:C2'	1:CA:523:A:H5'	2.31	0.60
1:CA:521:G:O2'	1:CA:522:C:H5'	2.00	0.60
1:CA:1443:G:H3'	1:CA:1446:A:C5'	2.30	0.60
23:BA:2365:G:H4'	45:BW:60:PHE:CZ	2.36	0.60
23:DA:461:C:C2'	23:DA:462:C:H5'	2.31	0.60
24:BB:2:C:H2'	24:BB:3:C:H6	1.67	0.60
2:AB:31:TYR:O	2:AB:32:ILE:HD12	2.01	0.60
25:DC:226:MET:C	25:DC:227:ASN:HD22	2.05	0.60
3:AC:191:THR:HB	3:AC:193:TYR:CE2	2.36	0.60
23:DA:270(Q):C:HO2'	23:DA:270(R):C:H6	1.48	0.60
23:DA:643:A:C2	23:DA:644:A:C4	2.90	0.60
33:DK:25:LEU:HB2	33:DK:38:VAL:O	2.00	0.60
51:D3:34:LEU:HD22	51:D3:34:LEU:O	2.01	0.60
46:DX:30:VAL:HG12	46:DX:30:VAL:O	2.01	0.60
3:AC:107:GLN:CD	3:AC:107:GLN:H	2.04	0.60
1:CA:44:G:OP2	16:CP:12:LYS:HB2	2.02	0.60
1:AA:715:A:O2'	1:AA:716:A:H5'	2.01	0.60
23:BA:2739:U:H2'	23:BA:2739:U:O2	2.00	0.60
27:DE:110:LEU:HD11	27:DE:181:LEU:HD13	1.84	0.60
23:BA:1526:G:C6	23:BA:1527:G:C2	2.90	0.60
2:AB:177:ALA:HB1	2:AB:182:ILE:HB	1.82	0.60
38:BP:74:ARG:HD3	38:BP:76:PHE:CE2	2.36	0.60
32:BJ:86:THR:O	32:BJ:89:LYS:HG2	2.01	0.60
42:BT:63:LYS:NZ	42:BT:72:LYS:HB3	2.16	0.60
23:DA:1159:U:H2'	23:DA:1160:G:H8	1.67	0.60
42:BT:28:PHE:N	42:BT:28:PHE:HD1	1.97	0.60
34:BL:49:ARG:CG	34:BL:50:ARG:N	2.62	0.60
30:DH:109:ILE:N	30:DH:109:ILE:HD13	2.16	0.60
23:BA:1210:A:H5''	23:BA:1210:A:C8	2.29	0.60
44:BV:33:LEU:HD23	44:BV:90:VAL:HG21	1.84	0.60
1:AA:1084:G:OP1	1:AA:1086:U:C2	2.54	0.60
46:DX:45:ASN:HD22	46:DX:46:LEU:N	1.99	0.60
36:BN:9:LYS:O	36:BN:10:LEU:HD23	2.02	0.60
1:CA:505:G:H2'	1:CA:506:G:H8	1.66	0.60
23:DA:2577:A:H5''	23:DA:2578:G:C5'	2.32	0.60
23:BA:1105:U:O2'	23:BA:1106:G:H5'	2.02	0.60
1:CA:1279:A:H5''	1:CA:1280:A:OP1	2.00	0.60
1:CA:66:G:C2	1:CA:67:C:C6	2.88	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DP:26:ASP:HB3	38:DP:92:GLY:H	1.67	0.60
23:DA:1433:U:O2'	23:DA:1434:A:H5'	2.02	0.60
46:DX:23:LYS:HG3	46:DX:23:LYS:O	2.01	0.60
34:BL:84:ASN:HA	34:BL:115:LEU:O	2.00	0.60
36:BN:79:LEU:HD23	36:BN:83:ILE:HB	1.84	0.60
1:CA:1076:C:C2	1:CA:1082:G:N2	2.69	0.60
1:AA:500:G:N2	1:AA:546:G:H1'	2.17	0.60
4:AD:62:GLN:O	4:AD:66:ARG:HG3	2.01	0.60
10:AJ:45:ARG:NH1	14:AN:36:PHE:HD2	1.98	0.60
23:DA:1794:U:H2'	23:DA:1795:C:C6	2.35	0.60
25:BC:246:PRO:HD2	25:BC:255:LYS:HB3	1.84	0.60
23:BA:924:C:H2'	23:BA:925:C:H6	1.66	0.60
44:DV:177:PRO:O	44:DV:178:GLU:HB3	2.01	0.60
44:DV:120:ILE:N	44:DV:120:ILE:HD13	2.16	0.60
26:BD:7:VAL:HA	26:BD:194:GLY:O	2.02	0.60
26:DD:11:MET:HE3	26:DD:24:THR:HB	1.84	0.60
23:BA:860:U:O2'	23:BA:861:A:C5'	2.48	0.60
34:BL:38:GLN:CG	34:BL:39:LYS:H	2.11	0.60
38:DP:54:ARG:NH1	38:DP:54:ARG:HG3	1.95	0.60
37:BO:38:GLN:HB3	37:BO:47:THR:CG2	2.31	0.60
23:BA:1121:C:H6	23:BA:1121:C:O5'	1.85	0.60
30:BH:88:ILE:CG2	30:BH:90:GLY:H	2.14	0.60
6:CF:53:ALA:HB3	6:CF:86:ARG:NH1	2.17	0.60
30:DH:92:VAL:O	30:DH:120:ILE:HD12	2.01	0.60
23:BA:1209:G:N2	23:BA:1210:A:H62	1.95	0.60
47:DY:60:LEU:C	47:DY:62:THR:H	2.04	0.60
3:AC:134:ILE:CG2	3:AC:151:VAL:HB	2.30	0.60
19:CS:63:THR:HG23	19:CS:65:ASN:H	1.66	0.60
23:BA:1046:A:H3'	23:BA:1047:G:C5'	2.31	0.60
37:BO:33:LYS:O	37:BO:54:LEU:HG	2.02	0.60
11:AK:92:GLU:HA	11:AK:95:ILE:HG13	1.82	0.60
23:BA:783:A:H3'	23:BA:783:A:C8	2.36	0.60
1:AA:509:A:H5'	4:AD:54:TYR:CD2	2.33	0.60
43:BU:2:ARG:N	43:BU:4:LYS:HZ2	1.99	0.60
17:CQ:40:LYS:HD2	17:CQ:42:TYR:CZ	2.37	0.60
44:DV:24:LEU:CD1	44:DV:85:HIS:HA	2.32	0.60
23:DA:356:G:H2'	23:DA:357:A:C8	2.35	0.60
1:CA:537:G:H5''	12:CL:112:ARG:NH2	2.16	0.60
1:AA:522:C:C2'	1:AA:523:A:H5'	2.30	0.60
23:DA:1946:U:H2'	23:DA:1947:C:C6	2.37	0.60
23:DA:1268:A:C2'	23:DA:1269:A:O5'	2.50	0.60
23:DA:2852:G:O2'	23:DA:2853:C:H5'	2.01	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:BF:143:GLU:CD	28:BF:143:GLU:H	2.04	0.60
27:BE:50:SER:HA	27:BE:92:PRO:O	2.00	0.60
23:DA:1169:G:H1	23:DA:1180:C:H42	1.49	0.60
1:CA:1159:U:H4'	1:CA:1160:G:OP1	2.01	0.60
24:BB:56:G:H4'	24:BB:57:A:C8	2.36	0.60
3:CC:107:GLN:CD	3:CC:107:GLN:H	2.03	0.60
11:CK:67:ASP:OD1	11:CK:71:LYS:HE3	2.02	0.60
23:DA:631:A:H2'	23:DA:632:A:O4'	2.01	0.60
23:BA:631:A:H2'	23:BA:632:A:O4'	2.01	0.60
32:BJ:143:LEU:C	32:BJ:143:LEU:HD13	2.22	0.60
37:BO:90:GLY:O	37:BO:92:TYR:N	2.35	0.60
23:BA:1019:U:H2'	23:BA:1020:A:C8	2.36	0.60
28:DF:76:SER:HB2	28:DF:83:ARG:C	2.21	0.60
23:DA:1141:U:H6	32:DJ:86:THR:HG1	1.45	0.60
6:CF:87:ARG:HG3	6:CF:87:ARG:NH1	2.13	0.60
34:BL:50:ARG:HB2	53:B5:60:LEU:CD1	2.32	0.60
23:BA:1812:A:O2'	23:BA:1813:G:H5'	2.02	0.60
28:BF:161:THR:HG21	28:BF:172:LEU:HD23	1.82	0.60
23:DA:1208:C:C4	23:DA:1209:G:N7	2.70	0.60
5:CE:12:LEU:C	5:CE:12:LEU:HD22	2.22	0.60
5:AE:10:MET:CB	5:AE:32:VAL:HG22	2.31	0.60
20:AT:56:MET:O	20:AT:59:ALA:HB3	2.02	0.60
45:BW:31:VAL:HG23	45:BW:32:ARG:O	2.02	0.60
23:DA:2681:C:C5	23:DA:2725:A:N6	2.58	0.60
1:AA:1279:A:H5''	1:AA:1280:A:OP1	2.02	0.60
23:DA:1343:G:C5'	23:DA:1343:G:C8	2.82	0.60
25:DC:237:GLU:O	25:DC:237:GLU:OE2	2.18	0.60
23:BA:1328:G:H2'	23:BA:1330:C:C5	2.37	0.60
16:AP:7:ALA:O	16:AP:9:PHE:HD2	1.85	0.60
23:DA:954:G:C5	23:DA:955:C:C5	2.89	0.60
2:AB:8:LYS:HA	2:AB:217:ARG:NH1	2.16	0.60
25:BC:166:GLN:NE2	25:BC:166:GLN:CA	2.65	0.60
36:DN:99:LYS:HA	36:DN:112:ALA:CB	2.32	0.60
23:DA:286:C:H2'	23:DA:287:C:C6	2.34	0.60
23:DA:1778:U:H2'	23:DA:1784:A:H62	1.66	0.60
26:DD:117:MET:HE2	26:DD:124:GLY:HA3	1.81	0.60
23:BA:2284:C:H1'	23:BA:2325:G:C2	2.37	0.60
35:BM:37:LEU:HD23	35:BM:37:LEU:N	2.16	0.60
1:AA:1443:G:H3'	1:AA:1446:A:C5'	2.32	0.60
23:BA:639:U:H2'	23:BA:640:C:C6	2.36	0.60
23:BA:997:G:C2'	23:BA:998:C:H5'	2.32	0.60
23:BA:1153:C:H5'	39:BQ:76:TYR:CE2	2.37	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DD:32:PRO:HA	26:DD:90:THR:HG22	1.82	0.60
1:CA:1448:C:H2'	1:CA:1449:C:C6	2.35	0.60
27:DE:53:THR:N	27:DE:56:GLU:OE1	2.35	0.60
26:DD:181:LEU:HD21	38:DP:7:ILE:CG2	2.30	0.60
23:BA:1335:U:O2'	23:BA:1336:A:H5'	2.02	0.60
1:CA:152:A:H62	1:CA:169:C:N4	2.00	0.60
23:BA:1356:G:C5	23:BA:1357:U:C5	2.89	0.60
23:DA:886:C:O2'	23:DA:887:A:H4'	2.01	0.60
23:DA:1981:A:H5''	23:DA:1982:C:OP2	2.01	0.60
53:D5:26:LYS:HA	53:D5:48:PHE:HE2	1.66	0.60
53:D5:14:VAL:CG1	53:D5:22:VAL:HG13	2.32	0.60
34:DL:80:TYR:CD1	34:DL:111:ARG:HB3	2.37	0.60
34:DL:111:ARG:HG3	34:DL:128:HIS:CB	2.32	0.60
23:DA:747:U:C4	50:D2:2:ALA:N	2.70	0.60
23:BA:1543:A:N7	23:BA:1545:A:H5''	2.16	0.60
1:CA:1251:A:H5''	9:CI:12:GLU:OE1	2.02	0.60
53:B5:33:ASN:HA	53:B5:36:LYS:HD3	1.83	0.60
32:BJ:38:LEU:HD12	32:BJ:39:ILE:H	1.66	0.60
23:BA:568:U:O4	40:BR:78:LYS:CE	2.50	0.60
32:DJ:38:LEU:HD12	32:DJ:39:ILE:H	1.65	0.60
23:DA:861:A:H2'	23:DA:862:G:C5'	2.32	0.60
28:DF:32:PRO:HB2	28:DF:172:LEU:HD22	1.83	0.60
5:AE:51:VAL:HB	5:AE:52:PRO:CD	2.25	0.60
28:BF:9:ARG:HD3	28:BF:13:GLU:OE1	2.01	0.60
23:DA:226:G:H21	23:DA:228:A:N6	1.98	0.60
23:DA:225:A:N6	23:DA:226:G:N1	2.50	0.60
44:DV:24:LEU:CB	44:DV:41:LEU:HG	2.32	0.60
23:BA:1946:U:H2'	23:BA:1947:C:C6	2.36	0.60
23:DA:2879:C:H4'	23:DA:2880:C:OP1	2.02	0.60
39:BQ:18:LEU:HD11	39:BQ:31:SER:H	1.67	0.60
41:BS:24:ILE:HG21	41:BS:36:LEU:HD21	1.81	0.60
14:CN:25:VAL:HG23	14:CN:38:GLY:O	2.01	0.60
36:DN:52:ILE:CD1	36:DN:79:LEU:HD21	2.32	0.60
1:AA:44:G:OP2	16:AP:12:LYS:HB2	2.01	0.60
39:DQ:34:LYS:HA	39:DQ:34:LYS:HE3	1.83	0.60
23:DA:1996:C:H4'	23:DA:1997:G:OP1	2.02	0.60
23:BA:958:U:OP2	35:BM:14:ARG:NH1	2.35	0.60
23:BA:886:C:O2'	23:BA:887:A:H4'	2.02	0.60
25:BC:124:PRO:HG2	25:BC:129:ASN:ND2	2.17	0.60
23:BA:2621:A:OP1	26:BD:119:ARG:NH2	2.35	0.60
23:BA:1514:U:H2'	23:BA:1515:C:H6	1.67	0.60
41:DS:59:VAL:HG12	41:DS:60:ASN:OD1	2.02	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:CV:6191:A:H2'	22:CV:6192:G:C8	2.37	0.60
4:CD:111:ALA:HA	4:CD:161:ASN:ND2	2.17	0.60
47:BY:35:LEU:HD12	47:BY:53:LEU:CD1	2.28	0.60
47:BY:57:ILE:HG22	47:BY:61:LEU:HD22	1.83	0.60
23:BA:1593:G:H2'	23:BA:1594:G:C8	2.37	0.60
49:B1:59:VAL:HG12	49:B1:60:GLU:N	2.14	0.60
1:AA:190:G:H4'	1:AA:191(A):G:OP2	2.01	0.60
1:AA:1372:U:H2'	1:AA:1373:G:O4'	1.99	0.60
5:CE:53:LEU:HD23	5:CE:53:LEU:H	1.67	0.60
23:BA:1503:U:C2	23:BA:1504:C:C5	2.89	0.60
27:BE:192:LEU:HD22	27:BE:194:MET:HG2	1.82	0.60
45:DW:72:ARG:CZ	45:DW:75:LEU:HD13	2.32	0.60
32:DJ:65:TRP:O	39:DQ:64:ARG:NH1	2.35	0.60
23:DA:241:A:H5'	23:DA:243:U:H1'	1.83	0.60
3:AC:105:GLU:HG2	3:AC:106:VAL:N	2.16	0.60
43:BU:42:VAL:HG23	43:BU:67:LEU:HD11	1.83	0.60
38:BP:89:VAL:O	38:BP:89:VAL:HG22	2.01	0.60
23:BA:1953:A:H2	23:BA:2549:G:N3	2.00	0.60
23:DA:2655:G:N2	23:DA:2664:G:C4	2.69	0.60
23:BA:753:C:OP1	52:B4:1:MET:HE3	2.01	0.60
35:BM:43:THR:OG1	35:BM:45:GLN:HG2	2.02	0.60
4:CD:71:SER:HB2	4:CD:74:GLN:HB2	1.84	0.60
20:AT:42:GLN:HG3	20:AT:43:LEU:HD23	1.84	0.60
23:BA:2718:G:H2'	23:BA:2719:G:H8	1.67	0.60
5:CE:145:LYS:HE3	5:CE:149:GLU:OE1	2.01	0.60
28:DF:94:LEU:HD12	28:DF:99:MET:HA	1.83	0.60
27:DE:150:GLY:HA2	27:DE:172:TRP:CD2	2.37	0.60
23:BA:1893:C:C5	23:BA:1894:C:C5	2.89	0.60
23:BA:630:G:N2	23:BA:632:A:H3'	2.17	0.60
26:DD:106:GLY:HA3	26:DD:189:PRO:HB2	1.84	0.60
26:DD:11:MET:CB	26:DD:24:THR:HA	2.32	0.60
10:CJ:63:PHE:HA	14:CN:59:ALA:H	1.67	0.60
34:BL:35:HIS:O	34:BL:36:LYS:CB	2.49	0.60
1:CA:1225:A:H2'	1:CA:1225:A:N3	2.17	0.60
12:CL:33:ARG:O	12:CL:60:THR:HG23	2.01	0.60
25:BC:108:PRO:HB3	25:BC:143:HIS:HE1	1.67	0.60
23:DA:1141:U:OP2	32:DJ:86:THR:CG2	2.50	0.60
37:DO:14:VAL:HG12	37:DO:18:ILE:HD11	1.84	0.60
52:D4:19:ARG:NH1	52:D4:19:ARG:HB3	2.17	0.60
35:BM:75:THR:HA	35:BM:88:GLY:HA3	1.81	0.60
30:DH:130:TYR:O	30:DH:132:PRO:HD3	2.01	0.60
26:BD:2:LYS:HD3	26:BD:95:ILE:HB	1.82	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AE:41:VAL:HG11	5:AE:113:ALA:HB2	1.82	0.60
24:DB:50:G:C5	24:DB:51:G:C8	2.89	0.60
2:AB:187:LEU:HD11	2:AB:204:ASN:O	2.02	0.60
6:AF:62:TRP:CE3	6:AF:62:TRP:O	2.55	0.60
47:DY:46:GLN:HB2	47:DY:49:LYS:HZ1	1.64	0.60
23:DA:528:A:C2	23:DA:2043:C:H4'	2.36	0.60
23:DA:2277:G:H5''	35:DM:85:LYS:CB	2.32	0.60
3:CC:105:GLU:HG2	3:CC:106:VAL:N	2.15	0.60
1:CA:1083:U:H5	1:CA:1084:G:C6	2.19	0.60
43:BU:20:TYR:CE1	43:BU:42:VAL:HA	2.37	0.60
29:DG:86:GLU:O	29:DG:86:GLU:HG2	2.01	0.60
15:AO:30:ALA:CA	15:AO:85:LEU:HD11	2.32	0.60
23:BA:773:U:C5'	25:BC:47:GLY:HA3	2.31	0.60
27:BE:117:ARG:HD2	27:BE:190:GLU:O	2.02	0.60
43:BU:30:VAL:CG2	43:BU:37:VAL:HG12	2.32	0.60
8:CH:86:ILE:HG21	8:CH:133:LEU:HD13	1.84	0.60
1:CA:540:G:H2'	1:CA:541:G:O4'	2.00	0.60
23:DA:828:U:C2'	23:DA:828:U:O2	2.49	0.60
7:AG:27:ILE:HD11	7:AG:43:PHE:CD2	2.37	0.60
2:CB:31:TYR:O	2:CB:32:ILE:HD12	2.01	0.60
1:CA:44:G:N3	1:CA:399:G:C2	2.70	0.60
23:DA:415:A:H2'	23:DA:416:C:H6	1.66	0.60
6:AF:16:GLN:CD	6:AF:16:GLN:H	2.04	0.60
23:DA:2394:C:OP1	34:DL:63:PRO:HD2	2.02	0.60
38:DP:23:ARG:HH11	38:DP:23:ARG:CG	2.15	0.60
14:CN:44:LEU:HD12	14:CN:44:LEU:O	2.01	0.60
34:BL:62:LEU:N	34:BL:62:LEU:HD13	2.17	0.59
23:BA:1543:A:C8	23:BA:1545:A:O4'	2.55	0.59
1:CA:1372:U:H2'	1:CA:1373:G:O4'	2.01	0.59
48:DZ:52:HIS:CD2	48:DZ:52:HIS:H	2.18	0.59
30:BH:123:LEU:HD23	30:BH:124:GLY:N	2.17	0.59
25:BC:34:VAL:O	25:BC:35:LYS:HD3	2.02	0.59
5:CE:43:LEU:CD1	5:CE:132:ALA:HB1	2.32	0.59
29:DG:67:LEU:O	29:DG:71:LEU:HD23	2.01	0.59
28:BF:134:GLY:C	28:BF:135:LEU:HD12	2.22	0.59
23:BA:1343:G:C5'	23:BA:1343:G:C8	2.84	0.59
1:AA:1238:A:C8	1:AA:1303:C:H1'	2.37	0.59
1:AA:781:A:H4'	1:AA:1522:U:O2'	2.02	0.59
23:DA:2346:A:H5''	23:DA:2383:G:C1'	2.32	0.59
38:DP:26:ASP:HB3	38:DP:92:GLY:N	2.17	0.59
23:BA:1386:C:OP2	23:BA:1396:U:C5	2.55	0.59
3:CC:77:ILE:C	3:CC:83:ARG:HB3	2.22	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:229:A:H5'	23:DA:230:U:C5'	2.31	0.59
23:BA:1711:C:O2'	23:BA:1712:C:H5'	2.02	0.59
23:DA:796:C:H2'	23:DA:797:C:C6	2.37	0.59
23:DA:2347:C:OP1	51:D3:39:TYR:HE1	1.84	0.59
1:CA:1112:C:H42	3:CC:177:THR:HA	1.66	0.59
26:BD:181:LEU:HD21	38:BP:7:ILE:CG2	2.32	0.59
26:DD:100:GLU:O	26:DD:172:VAL:HG23	2.02	0.59
12:AL:33:ARG:O	12:AL:60:THR:HG23	2.02	0.59
25:BC:43:ARG:HB2	25:BC:49:ILE:HA	1.84	0.59
23:DA:496:G:H1'	41:DS:61:ASN:HD21	1.67	0.59
23:DA:1773:A:H2'	23:DA:1774:C:H5'	1.84	0.59
23:BA:2056:G:N2	50:B2:4:HIS:O	2.35	0.59
38:DP:64:ARG:HA	38:DP:72:VAL:O	2.02	0.59
2:AB:61:LEU:HD21	2:AB:161:ALA:HB3	1.84	0.59
1:CA:136(A):C:O2'	1:CA:136(B):C:H5''	2.02	0.59
38:BP:57:PHE:O	38:BP:59:THR:N	2.36	0.59
23:DA:1657:C:H2'	23:DA:1658:C:C6	2.37	0.59
25:DC:71:ASP:OD2	25:DC:103:ARG:NH2	2.35	0.59
23:DA:142:G:H1'	42:DT:37:THR:HG21	1.84	0.59
30:DH:123:LEU:HD23	30:DH:124:GLY:N	2.17	0.59
20:CT:71:THR:HG22	20:CT:72:LEU:N	2.17	0.59
5:CE:10:MET:CB	5:CE:32:VAL:HG22	2.32	0.59
26:DD:50:GLY:HA2	26:DD:78:LEU:HB3	1.84	0.59
1:AA:1076:C:C2	1:AA:1082:G:N2	2.71	0.59
46:DX:11:ARG:HH12	46:DX:61:ARG:H	1.50	0.59
1:AA:1348:U:H4'	9:AI:120:ARG:HD2	1.83	0.59
29:DG:52:VAL:O	29:DG:52:VAL:HG12	2.02	0.59
5:CE:51:VAL:HB	5:CE:52:PRO:CD	2.31	0.59
1:AA:623:C:O5'	1:AA:623:C:H6	1.84	0.59
23:DA:282:A:C5	23:DA:359:A:C2	2.90	0.59
44:DV:25:PRO:O	44:DV:85:HIS:HB2	2.02	0.59
23:DA:2401:U:C2'	23:DA:2402:C:H5''	2.32	0.59
23:BA:2655:G:N2	23:BA:2664:G:C4	2.70	0.59
25:BC:80:ALA:HB3	25:BC:94:LEU:HD13	1.82	0.59
7:AG:74:GLU:O	7:AG:88:PRO:HA	2.02	0.59
23:DA:49:A:H4'	23:DA:50:U:H5''	1.84	0.59
23:DA:1149:G:H2'	23:DA:1150:C:C6	2.36	0.59
1:CA:715:A:O2'	1:CA:716:A:H5'	2.02	0.59
10:AJ:6:ILE:HG22	10:AJ:98:ILE:HG23	1.84	0.59
9:AI:79:LEU:HD23	9:AI:101:PHE:O	2.02	0.59
5:AE:36:ASP:O	5:AE:37:ARG:HB2	2.02	0.59
23:BA:1870:C:H2'	23:BA:1870:C:O2	2.01	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:136:G:C5	23:BA:137(A):C:C5	2.90	0.59
33:DK:14:THR:HG22	33:DK:52:VAL:HB	1.83	0.59
1:AA:1423:G:H2'	1:AA:1424:C:H6	1.67	0.59
1:AA:20:U:C2'	1:AA:21:G:H5'	2.31	0.59
23:DA:2436:G:C5	23:DA:2437:U:C5	2.90	0.59
52:D4:8:ASN:ND2	52:D4:9:ARG:N	2.46	0.59
22:CV:6189:G:H2'	22:CV:6190:U:H6	1.67	0.59
23:DA:2272:U:H6	23:DA:2272:U:C5'	2.07	0.59
23:BA:1188:U:H4'	40:BR:79:VAL:HG22	1.84	0.59
32:DJ:157:ARG:N	32:DJ:158:PRO:HD3	2.05	0.59
25:BC:85:ASP:OD2	25:BC:86:PRO:HD2	2.03	0.59
1:AA:376:G:C4	1:AA:389:A:C2	2.89	0.59
25:BC:33:LEU:HD23	25:BC:33:LEU:N	2.16	0.59
23:DA:1639:U:H2'	23:DA:1640:C:H5''	1.83	0.59
24:DB:45:A:N3	24:DB:45:A:H2'	2.17	0.59
23:DA:661:C:O3'	34:DL:18:ARG:HG2	2.03	0.59
3:CC:57:ILE:HD13	3:CC:66:VAL:HG22	1.84	0.59
44:BV:72:ARG:HG2	44:BV:89:PHE:HB2	1.84	0.59
5:AE:109:ILE:HG22	5:AE:110:LEU:HD23	1.84	0.59
5:AE:10:MET:HB2	5:AE:32:VAL:HG22	1.82	0.59
43:DU:29:GLU:HA	43:DU:29:GLU:OE2	2.03	0.59
48:BZ:40:THR:CG2	48:BZ:43:ILE:HG12	2.28	0.59
23:BA:557:U:H2'	23:BA:558:G:C8	2.32	0.59
19:CS:6:LYS:H	19:CS:6:LYS:HD2	1.68	0.59
15:AO:81:LEU:O	15:AO:85:LEU:HB2	2.01	0.59
17:CQ:59:ILE:HG23	17:CQ:71:PHE:CD1	2.38	0.59
44:BV:24:LEU:CD1	44:BV:85:HIS:HA	2.32	0.59
35:DM:37:LEU:HG	35:DM:128:LYS:O	2.02	0.59
28:BF:36:LYS:HD3	28:BF:160:VAL:HG21	1.83	0.59
23:BA:781:A:H2	23:BA:1776:G:N3	2.01	0.59
44:BV:13:GLU:HB3	44:BV:18:LEU:CD1	2.33	0.59
45:DW:50:ASN:C	45:DW:62:LEU:HB2	2.22	0.59
6:CF:47:ARG:HG2	6:CF:47:ARG:HH11	1.66	0.59
23:DA:565:C:C2'	23:DA:566:U:O5'	2.51	0.59
23:DA:828:U:C3'	23:DA:828:U:O2	2.51	0.59
2:AB:32:ILE:HD11	2:AB:190:THR:HG21	1.82	0.59
46:BX:53:VAL:HG22	46:BX:74:VAL:HG13	1.85	0.59
23:BA:2051:A:H4'	26:BD:141:ILE:HG23	1.83	0.59
25:DC:218:ARG:HB3	25:DC:219:PRO:HD2	1.83	0.59
23:BA:184:C:H2'	23:BA:185:U:H6	1.66	0.59
23:DA:1514:U:H2'	23:DA:1515:C:H6	1.66	0.59
17:CQ:7:THR:HA	17:CQ:57:VAL:O	2.02	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DE:158:THR:HG23	27:DE:160:ASN:N	2.17	0.59
8:AH:50:ARG:HG2	8:AH:50:ARG:HH11	1.68	0.59
50:D2:36:CYS:SG	50:D2:37:LYS:N	2.75	0.59
34:BL:140:ALA:O	34:BL:141:ALA:HB2	2.02	0.59
34:DL:84:ASN:HA	34:DL:115:LEU:O	2.02	0.59
34:DL:59:LEU:O	34:DL:59:LEU:HD23	2.03	0.59
23:DA:1448:G:N3	23:DA:1529:A:H2	1.99	0.59
38:BP:51:ARG:O	38:BP:61:PHE:HA	2.02	0.59
23:DA:1971:A:N3	25:DC:240:ALA:HA	2.17	0.59
23:BA:1187:G:H5''	40:BR:81:TYR:CE2	2.37	0.59
23:BA:1159:U:H2'	23:BA:1160:G:H8	1.67	0.59
40:BR:55:ALA:HA	40:BR:101:GLY:O	2.02	0.59
16:AP:55:ARG:NH1	16:AP:55:ARG:HB3	2.18	0.59
16:AP:55:ARG:O	16:AP:58:TYR:HB3	2.01	0.59
4:CD:109:GLY:O	4:CD:111:ALA:N	2.35	0.59
1:AA:391:G:C6	1:AA:392:G:C5	2.91	0.59
5:CE:10:MET:HB2	5:CE:32:VAL:HG22	1.83	0.59
5:AE:43:LEU:CD1	5:AE:132:ALA:HB1	2.33	0.59
46:DX:12:PRO:O	46:DX:14:VAL:HG23	2.03	0.59
23:DA:1495:A:C2	23:DA:1496:A:C2	2.91	0.59
46:BX:45:ASN:O	46:BX:63:ALA:HA	2.01	0.59
23:DA:528:A:C2	23:DA:2042:A:H2'	2.37	0.59
23:BA:1475:G:N2	23:BA:1519:G:C5	2.69	0.59
1:CA:625:G:C5	1:CA:626:U:C5	2.89	0.59
44:BV:41:LEU:HD21	44:BV:83:PRO:HG2	1.83	0.59
1:CA:750:G:C2	1:CA:751:U:C6	2.90	0.59
43:DU:20:TYR:CE1	43:DU:42:VAL:HA	2.38	0.59
23:DA:534:U:O2'	39:DQ:49:HIS:HD2	1.81	0.59
23:DA:1396:U:C2'	23:DA:1396:U:O2	2.50	0.59
4:CD:79:PHE:CZ	4:CD:204:ILE:HA	2.37	0.59
2:CB:223:ILE:C	2:CB:225:ALA:H	2.06	0.59
3:CC:22:TRP:HE3	3:CC:23:TYR:O	1.84	0.59
26:DD:46:ALA:CB	26:DD:82:ARG:HA	2.32	0.59
27:DE:181:LEU:HD21	27:DE:186:ILE:HD11	1.83	0.59
17:CQ:7:THR:O	17:CQ:23:VAL:HG13	2.02	0.59
15:CO:5:LYS:HD3	15:CO:6:GLU:H	1.67	0.59
37:BO:20:ARG:HH12	45:BW:47:PRO:HB2	1.68	0.59
6:CF:96:PRO:HB3	18:CR:30:ASP:CG	2.23	0.59
1:CA:868:C:H2'	1:CA:869:G:O4'	2.01	0.59
5:AE:15:ARG:O	5:AE:15:ARG:HG2	2.01	0.59
23:BA:1516:U:H2'	23:BA:1517:G:C8	2.37	0.59
1:AA:1333:A:C8	1:AA:1334:G:C8	2.90	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:2889:C:H2'	23:DA:2891:G:C8	2.37	0.59
23:BA:2393:A:H5'	34:BL:60:MET:O	2.02	0.59
23:BA:1268:A:H2'	23:BA:1269:A:O5'	2.03	0.59
23:BA:919:G:N2	23:BA:2269:A:OP2	2.36	0.59
1:CA:1351:U:O2'	1:CA:1352:C:H5'	2.02	0.59
1:CA:1353:G:H1	1:CA:1369:C:H42	1.49	0.59
22:CV:6213:A:C6	22:CV:6214:C:N4	2.70	0.59
1:CA:1234:C:O2'	1:CA:1235:U:H5'	2.02	0.59
37:BO:27:SER:HA	37:BO:88:ASP:HB3	1.84	0.59
39:DQ:92:ARG:NH2	40:DR:11:GLN:N	2.48	0.59
30:BH:87:LYS:HA	30:BH:122:GLU:HA	1.84	0.59
24:BB:103:U:O2'	44:BV:72:ARG:HG3	2.03	0.59
5:AE:43:LEU:HD11	5:AE:132:ALA:HB1	1.83	0.59
35:DM:47:ILE:CG2	35:DM:48:GLU:N	2.61	0.59
23:BA:528:A:C2	23:BA:2042:A:H2'	2.37	0.59
1:CA:447:G:H2'	1:CA:485:G:N2	2.18	0.59
3:CC:131:ARG:HE	5:CE:50:GLU:HG2	1.67	0.59
8:AH:87:SER:HA	8:AH:93:VAL:HG23	1.83	0.59
1:AA:555:C:H2'	1:AA:556:C:C6	2.35	0.59
53:B5:22:VAL:CG1	53:B5:50:LEU:HD12	2.32	0.59
23:BA:1478:G:C2	23:BA:1479:G:C8	2.90	0.59
23:BA:389:G:H1	34:BL:71:VAL:H	1.50	0.59
44:DV:13:GLU:HB3	44:DV:18:LEU:CD1	2.33	0.59
50:B2:48:GLU:O	50:B2:49:CYS:HB2	2.03	0.59
1:CA:1442:G:N7	1:CA:1446:A:C2	2.70	0.59
23:BA:825:C:O2	34:BL:55:ARG:NH2	2.34	0.59
1:AA:1442:G:N7	1:AA:1446:A:C2	2.71	0.59
1:AA:1095:U:H2'	1:AA:1096:C:H6	1.67	0.59
23:DA:1973:G:H2'	23:DA:1974:C:C6	2.37	0.59
1:CA:1326:C:O2	1:CA:1326:C:H2'	2.03	0.59
1:AA:113:G:O2'	1:AA:114:U:H5'	2.02	0.59
1:CA:355:C:C4	1:CA:356:A:N7	2.71	0.59
23:BA:1817:G:OP1	25:BC:88:ARG:NH2	2.31	0.59
1:AA:1394:A:H4'	1:AA:1395:C:OP2	2.01	0.59
1:AA:186(A):C:H5'	20:AT:78:ALA:HB1	1.82	0.59
33:BK:86:ILE:HD12	33:BK:86:ILE:H	1.68	0.59
49:B1:38:ALA:HA	49:B1:55:PRO:HA	1.84	0.59
45:DW:14:ARG:CZ	45:DW:14:ARG:HB2	2.32	0.59
1:CA:685:G:C2	1:CA:686:U:C4	2.90	0.59
28:BF:55:LYS:HD2	28:BF:58:GLN:HE21	1.65	0.59
23:BA:1188:U:C2'	23:BA:1189:A:H5'	2.32	0.59
47:DY:13:ALA:O	47:DY:17:SER:OG	2.05	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BH:88:ILE:HG12	30:BH:123:LEU:CA	2.32	0.59
25:BC:86:PRO:HD2	25:BC:87:ASN:ND2	2.18	0.59
25:DC:108:PRO:HG3	25:DC:143:HIS:CE1	2.38	0.59
47:BY:28:LYS:HE3	47:BY:56:GLN:NE2	2.17	0.59
1:AA:1253:G:H1	1:AA:1284:C:N4	1.94	0.59
23:DA:819:A:OP2	23:DA:1187:G:N2	2.24	0.59
41:BS:75:TYR:CE2	41:BS:104:THR:CB	2.84	0.59
24:BB:16:G:C6	24:BB:69:G:C2	2.91	0.59
23:BA:1786:A:H1'	23:BA:1938:A:N6	2.18	0.59
48:BZ:40:THR:HG23	48:BZ:43:ILE:CG1	2.28	0.59
1:AA:265:G:C2'	1:AA:266:G:H5''	2.28	0.59
24:BB:66:A:C5	24:BB:108:C:C5	2.91	0.59
17:AQ:83:ASP:O	17:AQ:86:GLU:HB2	2.03	0.59
23:BA:1332:G:N2	23:BA:1609:A:O2'	2.34	0.59
1:AA:630:G:O2'	1:AA:631:G:H5'	2.03	0.59
1:AA:667:G:H4'	15:AO:51:HIS:ND1	2.17	0.59
23:DA:2565:A:H5''	23:DA:2566:A:OP2	2.03	0.59
23:BA:270(I):C:O2	23:BA:270(I):C:H2'	2.01	0.59
1:CA:527:G:C2'	1:CA:528:C:H5'	2.33	0.59
23:BA:1218:C:C2'	23:BA:1219:G:H5'	2.33	0.59
1:AA:1239:A:H4'	1:AA:1240:U:C5'	2.33	0.59
45:DW:35:ASN:N	45:DW:35:ASN:HD22	2.01	0.59
1:AA:1326:C:O2	1:AA:1326:C:H2'	2.03	0.59
23:BA:184:C:H2'	23:BA:185:U:C6	2.38	0.59
39:BQ:65:ILE:O	39:BQ:66:ASN:C	2.40	0.59
23:DA:1526:G:C6	23:DA:1527:G:C2	2.91	0.59
23:BA:2774:C:H2'	23:BA:2775:A:O4'	2.03	0.59
23:DA:2836:U:C4	23:DA:2883:A:N6	2.69	0.59
23:DA:270(M):U:H3'	23:DA:270(N):U:H5''	1.85	0.59
26:BD:175:VAL:O	26:BD:177:PRO:HD3	2.03	0.59
33:DK:26:LYS:O	33:DK:27:GLY:O	2.21	0.59
23:DA:191:A:H2'	23:DA:192:C:C6	2.38	0.59
5:CE:68:GLU:O	5:CE:68:GLU:HG3	2.02	0.59
41:BS:52:GLU:OE2	41:BS:52:GLU:HA	2.02	0.59
15:CO:37:ASN:HD22	15:CO:37:ASN:H	1.49	0.59
10:CJ:6:ILE:HG22	10:CJ:98:ILE:HG23	1.84	0.59
23:DA:2317:C:H2'	23:DA:2318:G:H5'	1.85	0.59
32:BJ:141:LYS:O	32:BJ:144:LYS:HE3	2.02	0.59
1:CA:1349:A:H2'	1:CA:1350:A:O4'	2.02	0.59
23:BA:2438:U:O3'	23:BA:2439:A:H3'	2.02	0.59
37:BO:12:PHE:O	37:BO:15:ARG:HG3	2.03	0.59
39:DQ:102:GLU:HG3	40:DR:2:PHE:CD1	2.38	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BL:46:LYS:HG2	34:BL:52:GLU:OE1	2.03	0.59
1:AA:428:G:O4'	1:AA:430:A:C8	2.56	0.59
47:DY:6:VAL:CG1	47:DY:10:LEU:HD11	2.28	0.59
28:DF:43:LEU:O	28:DF:88:ILE:HG23	2.02	0.59
26:DD:57:LYS:HG3	26:DD:58:ARG:H	1.68	0.59
23:BA:2542:A:H4'	23:BA:2542:A:OP1	2.02	0.59
3:CC:195:VAL:O	3:CC:196:LEU:HB2	2.02	0.59
23:BA:83:G:N1	23:BA:102:G:O2'	1.97	0.59
25:DC:24:ILE:CD1	25:DC:84:TYR:HB2	2.32	0.59
1:CA:1503:A:OP1	1:CA:1531:A:O2'	2.20	0.59
34:BL:18:ARG:CZ	34:BL:18:ARG:HB3	2.32	0.59
23:DA:753:C:OP1	52:D4:1:MET:HE3	2.02	0.59
7:AG:131:LYS:HE3	7:AG:136:LYS:HZ2	1.67	0.59
18:CR:70:ILE:O	18:CR:74:ARG:HG3	2.02	0.59
1:AA:136(A):C:H2'	1:AA:136(B):C:H5''	1.83	0.59
2:CB:63:MET:CG	2:CB:225:ALA:HB1	2.31	0.59
23:DA:2036:C:H6	23:DA:2036:C:C5'	2.16	0.59
34:BL:105:LEU:HD12	34:BL:105:LEU:H	1.66	0.59
23:DA:2716:U:O2'	23:DA:2717:G:H5'	2.02	0.59
23:BA:207:A:H2'	23:BA:208:C:O4'	2.02	0.59
13:AM:29:ARG:HB3	13:AM:64:TRP:CZ2	2.38	0.59
23:BA:2879:C:H4'	23:BA:2880:C:OP1	2.01	0.59
23:BA:2443:C:O2'	23:BA:2444:G:H5'	2.03	0.59
1:CA:55:A:C4	1:CA:56:U:C6	2.91	0.59
29:BG:89:ILE:O	29:BG:89:ILE:HG22	2.03	0.59
38:DP:64:ARG:HD2	38:DP:73:GLU:HG2	1.85	0.59
1:AA:1225:A:N3	1:AA:1225:A:H2'	2.16	0.59
34:BL:33:ARG:CG	34:BL:34:GLY:N	2.65	0.59
2:CB:163:PHE:CD1	2:CB:185:ILE:HG13	2.37	0.59
23:DA:993:G:C4	23:DA:994:C:H5	2.20	0.59
28:DF:128:ARG:NH2	28:DF:161:THR:O	2.34	0.59
23:DA:71:A:C2	42:DT:31:HIS:CE1	2.89	0.59
30:DH:68:LEU:C	30:DH:138:ILE:HD13	2.23	0.59
3:AC:57:ILE:CD1	3:AC:66:VAL:HG22	2.32	0.59
25:DC:96:HIS:HD2	25:DC:102:LYS:HD3	1.63	0.59
5:AE:12:LEU:HD22	5:AE:12:LEU:C	2.23	0.59
48:DZ:40:THR:HG23	48:DZ:43:ILE:CG1	2.31	0.59
44:DV:102:LEU:HD21	44:DV:124:ILE:CD1	2.33	0.59
6:CF:62:TRP:CE3	6:CF:62:TRP:O	2.55	0.59
46:BX:11:ARG:HB3	46:BX:12:PRO:HD2	1.83	0.59
46:BX:45:ASN:HD22	46:BX:46:LEU:N	2.01	0.59
23:DA:61:G:H5'	47:DY:50:ILE:HG21	1.85	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:318:G:N2	1:AA:319:G:C4	2.71	0.59
37:BO:36:TYR:HD1	37:BO:36:TYR:N	2.00	0.59
23:BA:2469:A:H2	23:BA:2481:G:N2	2.00	0.59
23:BA:2100:G:N2	23:BA:2101:G:H1'	2.17	0.59
15:CO:8:LYS:O	15:CO:12:ILE:HG13	2.03	0.59
27:DE:36:VAL:O	27:DE:40:GLN:HG3	2.03	0.59
29:BG:86:GLU:HG2	29:BG:164:TYR:O	2.02	0.59
17:AQ:59:ILE:HG23	17:AQ:71:PHE:CD1	2.38	0.59
1:CA:863:U:H2'	1:CA:865:A:OP2	2.03	0.59
24:BB:30:C:OP2	37:BO:32:LEU:HD11	2.03	0.59
40:DR:22:VAL:CG1	40:DR:23:GLU:N	2.64	0.59
9:AI:52:ALA:HB1	9:AI:95:LYS:NZ	2.18	0.59
11:AK:48:ILE:HD11	11:AK:64:ALA:HA	1.83	0.59
1:CA:179:A:H2'	1:CA:180:U:C6	2.38	0.59
1:AA:224:C:H2'	1:AA:225:C:C6	2.38	0.59
23:DA:1901:A:N3	23:DA:1901:A:H2'	2.16	0.59
1:AA:1159:U:H4'	1:AA:1160:G:OP1	2.02	0.59
9:CI:52:ALA:HB1	9:CI:95:LYS:NZ	2.18	0.59
23:DA:958:U:OP2	35:DM:14:ARG:NH1	2.36	0.59
23:BA:747:U:OP2	50:B2:3:LYS:HD3	2.03	0.59
24:BB:81:G:C6	24:BB:82:G:C5	2.91	0.59
1:AA:1234:C:O2'	1:AA:1235:U:H5'	2.03	0.59
26:BD:167:VAL:HG11	26:BD:189:PRO:HD3	1.84	0.59
1:CA:1223:C:P	1:CA:1224:G:H2'	2.42	0.59
23:DA:727:A:C2	25:DC:9:TYR:CD2	2.90	0.59
39:DQ:92:ARG:HD2	39:DQ:95:LEU:HG	1.85	0.59
32:DJ:89:LYS:O	32:DJ:90:LEU:C	2.41	0.59
40:BR:49:THR:HB	40:BR:50:PRO:HD2	1.83	0.59
1:AA:362:G:O2'	12:AL:32:ARG:NH2	2.36	0.59
25:BC:75:ILE:O	25:BC:118:VAL:HG23	2.02	0.59
1:CA:391:G:C6	1:CA:392:G:C5	2.91	0.59
2:CB:187:LEU:HD11	2:CB:204:ASN:O	2.03	0.59
44:BV:92:SER:HB2	44:BV:94:GLU:OE2	2.03	0.59
23:DA:1288:U:C2	23:DA:1327:C:O2	2.55	0.59
2:CB:102:LEU:HD12	2:CB:102:LEU:N	2.18	0.59
42:BT:29:TRP:CZ3	42:BT:78:LYS:HG3	2.38	0.59
29:BG:23:ARG:N	29:BG:23:ARG:HD3	2.18	0.59
24:BB:33:G:C2	24:BB:50:G:C2	2.91	0.59
23:BA:910:A:C6	23:BA:911:A:C6	2.91	0.59
28:BF:133:LEU:HD23	28:BF:133:LEU:N	2.18	0.59
23:BA:1433:U:O2'	23:BA:1434:A:H5'	2.03	0.59
28:DF:7:LEU:HA	28:DF:10:LYS:HB2	1.85	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DM:134:ARG:HA	35:DM:134:ARG:NE	2.18	0.59
23:BA:2705:A:C2	36:BN:64:ARG:NH1	2.71	0.59
1:CA:178:C:O2'	1:CA:179:A:H5'	2.03	0.59
38:BP:109:GLU:O	38:BP:112:ARG:HG3	2.03	0.59
1:CA:458:C:H2'	1:CA:464:G:O4'	2.03	0.59
1:AA:685:G:C2	1:AA:686:U:C4	2.91	0.59
23:DA:1833:U:C2'	23:DA:1834:U:H5'	2.33	0.59
25:DC:43:ARG:HB2	25:DC:49:ILE:HA	1.83	0.59
24:BB:82:G:C2'	24:BB:83:G:H5'	2.33	0.59
23:DA:84:A:H2	23:DA:98:G:N3	2.01	0.59
38:BP:74:ARG:HD3	38:BP:76:PHE:CZ	2.37	0.59
32:BJ:89:LYS:O	32:BJ:90:LEU:C	2.39	0.59
23:DA:1019:U:O2'	23:DA:1021:A:C2	2.55	0.59
23:BA:94:G:N2	47:BY:47:ASN:HD22	1.97	0.59
20:CT:76:ALA:O	20:CT:80:ARG:HG2	2.03	0.59
5:CE:33:VAL:HG13	5:CE:109:ILE:HD13	1.85	0.59
5:CE:11:ILE:HB	5:CE:31:LEU:HB3	1.85	0.59
23:BA:2378:A:O2'	37:BO:21:THR:HG21	2.03	0.59
1:AA:1281:U:C5'	1:AA:1282:C:H5	2.15	0.59
41:DS:24:ILE:HG21	41:DS:36:LEU:HD21	1.84	0.59
41:BS:29:LEU:HD21	41:BS:33:ARG:NE	2.16	0.59
23:BA:1858:G:O2'	23:BA:1859:A:C8	2.53	0.59
23:DA:1105:U:O2'	23:DA:1106:G:H5'	2.03	0.59
6:AF:91:VAL:HG13	18:AR:72:ARG:NH2	2.17	0.59
28:BF:131:TYR:HE2	28:BF:133:LEU:HB3	1.68	0.59
1:CA:782:A:H2'	1:CA:783:C:H5'	1.84	0.59
18:CR:63:GLN:O	18:CR:66:LEU:HB3	2.03	0.59
23:BA:971:C:C2'	23:BA:972:G:H5'	2.32	0.59
23:DA:185:U:H2'	23:DA:186:G:H8	1.68	0.59
2:CB:32:ILE:HD11	2:CB:190:THR:CG2	2.33	0.59
35:DM:62:GLY:O	44:DV:178:GLU:HG2	2.02	0.59
39:BQ:65:ILE:O	39:BQ:68:ALA:N	2.35	0.59
25:BC:260:ARG:O	25:BC:261:LYS:O	2.21	0.59
27:DE:59:TYR:HB3	27:DE:78:ILE:HD12	1.84	0.59
28:DF:143:GLU:CD	28:DF:143:GLU:H	2.05	0.59
23:BA:2506:U:H5	23:BA:2507:C:C5	2.21	0.59
41:BS:62:HIS:C	41:BS:64:MET:H	2.06	0.59
23:BA:1850:G:C6	23:BA:1851:U:C4	2.91	0.59
40:DR:1:MET:H2	40:DR:16:PRO:HD3	1.67	0.59
32:DJ:146:TYR:CD1	32:DJ:146:TYR:N	2.70	0.59
3:CC:126:ARG:O	3:CC:127:ARG:HB2	2.01	0.59
32:BJ:114:LEU:HD21	32:BJ:121:VAL:HG21	1.83	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:62:HIS:O	14:AN:59:ALA:HB3	2.03	0.58
26:BD:11:MET:CB	26:BD:24:THR:HA	2.33	0.58
34:BL:33:ARG:O	34:BL:35:HIS:O	2.20	0.58
1:CA:960:U:C5	1:CA:1225:A:H1'	2.37	0.58
27:BE:63:LYS:HZ3	27:BE:67:GLN:NE2	2.01	0.58
37:BO:89:ARG:O	37:BO:90:GLY:O	2.21	0.58
26:DD:132:HIS:CG	26:DD:135:HIS:NE2	2.70	0.58
25:BC:108:PRO:CG	25:BC:143:HIS:HE1	2.15	0.58
23:BA:1826:G:H4'	25:BC:242:ARG:NE	2.08	0.58
32:DJ:90:LEU:O	32:DJ:111:GLU:HG3	2.02	0.58
23:BA:2729:G:H2'	23:BA:2730:C:C6	2.37	0.58
23:DA:2730:C:O2'	23:DA:2731:G:H5'	2.02	0.58
12:AL:26:LEU:HD12	12:AL:29:ALA:HB2	1.84	0.58
30:DH:82:ARG:HB3	30:DH:89:TYR:CD1	2.38	0.58
20:AT:26:ASN:O	20:AT:30:LYS:HB2	2.03	0.58
23:DA:1771:C:H1'	23:DA:1786:A:C8	2.38	0.58
43:DU:29:GLU:CB	43:DU:38:ILE:HB	2.31	0.58
48:BZ:17:LYS:C	48:BZ:17:LYS:HD3	2.23	0.58
1:AA:1349:A:P	9:AI:118:LYS:NZ	2.76	0.58
12:CL:40:ARG:HG2	12:CL:41:THR:N	2.16	0.58
23:DA:2808:U:H2'	23:DA:2809:A:C5'	2.32	0.58
1:AA:749:C:OP2	1:AA:750:G:OP2	2.21	0.58
53:B5:14:VAL:CG1	53:B5:22:VAL:HG13	2.33	0.58
25:BC:25:THR:HG22	25:BC:82:ILE:O	2.02	0.58
1:CA:1084:G:OP1	1:CA:1086:U:C2	2.56	0.58
1:CA:663:A:O2'	1:CA:664:G:H5'	2.02	0.58
23:BA:1778:U:H2'	23:BA:1784:A:H62	1.66	0.58
1:CA:920:U:H2'	1:CA:921:U:H6	1.66	0.58
8:AH:114:THR:HG22	8:AH:130:GLY:O	2.02	0.58
6:AF:47:ARG:HH11	6:AF:47:ARG:HG2	1.67	0.58
7:CG:120:ILE:HG22	7:CG:124:LEU:HD12	1.85	0.58
1:CA:342:C:C2'	1:CA:343:U:H5'	2.33	0.58
1:AA:663:A:O2'	1:AA:664:G:H5'	2.03	0.58
38:BP:124:ASP:O	38:BP:128:GLU:HB2	2.02	0.58
1:CA:1360:A:H8	1:CA:1360:A:OP1	1.86	0.58
23:BA:2038:G:H2'	23:BA:2039:C:H6	1.68	0.58
11:AK:109:VAL:CG1	18:AR:84:LYS:HB2	2.33	0.58
27:BE:158:THR:HG23	27:BE:160:ASN:N	2.17	0.58
23:DA:2058:A:N6	23:DA:2059:A:N6	2.51	0.58
16:AP:54:GLU:O	16:AP:57:ARG:HB2	2.03	0.58
53:D5:57:ARG:CZ	53:D5:57:ARG:CA	2.81	0.58
45:BW:23:VAL:HB	45:BW:26:TYR:CE2	2.38	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BL:33:ARG:CG	34:BL:34:GLY:H	2.16	0.58
27:DE:65:TRP:CZ3	27:DE:72:ARG:HB3	2.39	0.58
23:BA:1971:A:N3	25:BC:241:PRO:HD3	2.18	0.58
23:BA:1266:G:O5'	41:BS:15:ARG:NH2	2.36	0.58
41:BS:12:ILE:HG12	41:BS:13:SER:N	2.18	0.58
28:DF:84:LYS:CG	28:DF:85:GLY:H	2.07	0.58
16:CP:55:ARG:NH1	16:CP:55:ARG:HB3	2.19	0.58
23:DA:1266:G:O5'	41:DS:15:ARG:NH2	2.36	0.58
12:AL:116:ARG:O	12:AL:118:LYS:N	2.36	0.58
3:CC:130:VAL:O	3:CC:134:ILE:HG13	2.03	0.58
26:BD:57:LYS:HG3	26:BD:58:ARG:N	2.18	0.58
1:AA:191(G):G:H2'	1:AA:192:U:H6	1.68	0.58
23:DA:2787:C:H1'	26:DD:62:PRO:CB	2.33	0.58
36:DN:57:ARG:HD2	36:DN:59:ASP:OD2	2.03	0.58
1:AA:1292:U:H2'	1:AA:1293:G:C8	2.38	0.58
23:BA:2808:U:H2'	23:BA:2809:A:C5'	2.33	0.58
1:CA:349:A:O2'	1:CA:350:G:H5'	2.03	0.58
23:BA:953:A:OP2	35:BM:16:ARG:NH2	2.35	0.58
18:CR:26:LEU:HD21	18:CR:42:ARG:NH1	2.17	0.58
32:BJ:81:ASP:OD2	32:BJ:147:ALA:HB1	2.02	0.58
23:DA:2287:A:O2'	23:DA:2288:A:O5'	2.20	0.58
11:CK:21:ILE:HB	11:CK:84:VAL:HG12	1.84	0.58
1:CA:664:G:P	18:CR:64:ARG:HH21	2.25	0.58
23:DA:1746:G:C2	23:DA:1747:G:N7	2.71	0.58
1:CA:1411:C:H2'	1:CA:1412:C:H6	1.67	0.58
1:CA:632:A:N7	1:CA:633:G:C5	2.70	0.58
10:CJ:45:ARG:NH1	14:CN:36:PHE:HD2	2.00	0.58
35:BM:134:ARG:HA	35:BM:134:ARG:NE	2.18	0.58
39:DQ:30:LYS:O	39:DQ:31:SER:HB3	2.03	0.58
1:CA:1095:U:H2'	1:CA:1096:C:H6	1.68	0.58
23:DA:903:C:H2'	23:DA:904:C:C6	2.38	0.58
35:BM:43:THR:OG1	35:BM:46:GLN:HG3	2.03	0.58
2:AB:20:GLU:HB2	2:AB:190:THR:OG1	2.02	0.58
23:DA:207:A:H2'	23:DA:208:C:O4'	2.02	0.58
18:CR:19:LYS:O	18:CR:20:ALA:HB2	2.03	0.58
1:CA:816:A:OP2	1:CA:1527:C:H4'	2.04	0.58
23:BA:2317:C:H2'	23:BA:2318:G:C5'	2.32	0.58
44:DV:11:GLU:HG3	44:DV:12:GLY:N	2.18	0.58
29:DG:13:LYS:O	29:DG:15:VAL:HG13	2.03	0.58
34:DL:61:ARG:CD	53:D5:13:ARG:HD2	2.32	0.58
23:BA:2272:U:H6	23:BA:2272:U:C5'	2.03	0.58
1:AA:979:C:H42	14:AN:18:VAL:HG12	1.67	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1333:A:C8	1:CA:1334:G:C8	2.90	0.58
1:CA:1316:G:O2'	14:CN:18:VAL:HG21	2.02	0.58
24:BB:7:G:H5''	37:BO:29:PHE:CE2	2.38	0.58
23:BA:1141:U:P	32:BJ:86:THR:HG21	2.44	0.58
26:DD:132:HIS:HA	26:DD:135:HIS:CE1	2.38	0.58
23:DA:1158:C:C2'	23:DA:1159:U:H5'	2.33	0.58
40:DR:39:LEU:CB	40:DR:47:VAL:HG21	2.32	0.58
24:DB:81:G:C5	24:DB:82:G:C8	2.91	0.58
1:CA:377:G:O2'	1:CA:378:G:H5'	2.01	0.58
34:BL:49:ARG:HG3	53:B5:60:LEU:HD21	1.84	0.58
1:AA:404:U:H2'	1:AA:405:U:H6	1.67	0.58
36:DN:107:ASP:OD2	36:DN:107:ASP:C	2.40	0.58
28:BF:43:LEU:O	28:BF:88:ILE:HG23	2.03	0.58
35:BM:140:ALA:HB3	44:BV:53:ILE:HG12	1.85	0.58
45:BW:70:GLN:OE1	45:BW:72:ARG:HD3	2.03	0.58
23:BA:142:G:H1'	42:BT:37:THR:CG2	2.33	0.58
23:BA:528:A:C8	23:BA:528:A:C3'	2.87	0.58
23:BA:556:G:H2'	23:BA:557:U:C6	2.38	0.58
23:DA:2755:C:O2'	23:DA:2756:U:H2'	2.03	0.58
3:AC:47:LEU:HD23	3:AC:52:LEU:HD13	1.85	0.58
30:BH:15:VAL:HG12	30:BH:16:GLY:H	1.68	0.58
23:DA:270(H):C:H2'	23:DA:270(I):C:C6	2.36	0.58
23:BA:270(H):C:H2'	23:BA:270(I):C:C6	2.35	0.58
23:BA:1389:G:H2'	23:BA:1390:U:C6	2.38	0.58
23:DA:1389:G:O2'	23:DA:1390:U:H5'	2.04	0.58
23:BA:830:G:H4'	23:BA:831:G:OP2	2.04	0.58
1:AA:921:U:O2	5:AE:19:MET:HB2	2.04	0.58
18:AR:63:GLN:O	18:AR:66:LEU:HB3	2.04	0.58
1:AA:1426:C:H2'	1:AA:1427:U:H6	1.67	0.58
23:DA:1793:C:H2'	23:DA:1794:U:C6	2.39	0.58
23:BA:1845:G:OP1	25:BC:258:LYS:HE3	2.04	0.58
1:AA:1418:A:C2	1:AA:1483:A:C2	2.92	0.58
1:CA:411:A:C5	1:CA:429:U:C5	2.91	0.58
27:BE:14:PRO:HD3	27:BE:128:ALA:HB2	1.86	0.58
23:BA:185:U:H2'	23:BA:186:G:C8	2.37	0.58
23:BA:188:G:H2'	23:BA:189:G:H5'	1.85	0.58
1:AA:1464:G:O2'	1:AA:1465:C:H5'	2.03	0.58
44:DV:9:TYR:CZ	44:DV:61:LEU:HD13	2.37	0.58
23:BA:1459:G:N3	23:BA:1459:G:H2'	2.18	0.58
23:BA:1916:A:H2'	23:BA:1917:U:O4'	2.02	0.58
23:DA:706:A:H2'	23:DA:707:G:O4'	2.03	0.58
1:CA:826:C:H2'	8:CH:15:ASN:HD22	1.68	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CL:54:VAL:HG12	12:CL:55:ALA:H	1.68	0.58
28:BF:165:THR:OG1	28:BF:168:GLU:HG3	2.02	0.58
38:DP:124:ASP:O	38:DP:128:GLU:HB2	2.03	0.58
24:BB:116:G:H4'	37:BO:55:ALA:O	2.03	0.58
38:DP:80:SER:C	38:DP:82:LEU:H	2.06	0.58
1:AA:42:G:H8	1:AA:42:G:OP2	1.86	0.58
19:AS:16:LEU:O	19:AS:20:LEU:HG	2.04	0.58
1:CA:247:G:OP2	17:CQ:100:LYS:N	2.36	0.58
34:DL:81:GLN:HG2	34:DL:106:LEU:HD22	1.85	0.58
50:B2:4:HIS:HB3	50:B2:5:PRO:HD3	1.84	0.58
32:BJ:118:PRO:HD2	32:BJ:119:GLU:OE1	2.04	0.58
1:CA:1349:A:OP1	9:CI:120:ARG:HB2	2.03	0.58
1:AA:946:A:H2'	1:AA:947:G:H8	1.68	0.58
22:AV:6189:G:H2'	22:AV:6190:U:H6	1.69	0.58
23:BA:1190:G:H5''	34:BL:35:HIS:HA	1.84	0.58
23:DA:1158:C:O2'	23:DA:1159:U:H5'	2.03	0.58
25:BC:108:PRO:HG3	25:BC:143:HIS:CE1	2.38	0.58
34:DL:49:ARG:HG3	53:D5:60:LEU:HD21	1.84	0.58
12:AL:116:ARG:NH2	12:AL:123:LYS:HB2	2.18	0.58
23:DA:2698:U:H2'	23:DA:2699:C:C6	2.38	0.58
28:DF:88:ILE:HD11	28:DF:90:LEU:CD2	2.33	0.58
8:AH:123:GLU:O	8:AH:127:LEU:HB2	2.04	0.58
23:DA:661:C:C4'	34:DL:18:ARG:HG2	2.32	0.58
1:CA:266:G:C5'	1:CA:267:C:H5	2.16	0.58
26:DD:111:ARG:CD	26:DD:160:TYR:HE1	2.14	0.58
1:AA:1080:A:H5''	1:AA:1081:G:OP2	2.03	0.58
1:CA:409:G:H2'	1:CA:410:G:O5'	2.03	0.58
19:AS:63:THR:HG22	19:AS:66:MET:CG	2.32	0.58
33:BK:24:VAL:HB	33:BK:33:ALA:HB2	1.86	0.58
25:BC:133:LEU:C	25:BC:135:PHE:N	2.57	0.58
23:DA:952:G:OP1	35:DM:16:ARG:NH2	2.33	0.58
23:DA:226:G:C2	23:DA:228:A:N6	2.72	0.58
7:AG:136:LYS:O	7:AG:140:ASP:HB2	2.04	0.58
23:DA:1478:G:C2	23:DA:1479:G:C8	2.92	0.58
24:DB:48:A:H4'	37:DO:95:HIS:CD2	2.38	0.58
32:BJ:66:THR:O	32:BJ:69:VAL:HG12	2.03	0.58
17:AQ:4:LYS:HG3	17:AQ:5:VAL:N	2.18	0.58
1:AA:109:A:N6	1:AA:326:G:C5	2.72	0.58
1:AA:521:G:O6	1:AA:529:G:C2	2.57	0.58
1:CA:972:C:H4'	10:CJ:57:LYS:HG3	1.84	0.58
23:BA:225:A:N6	23:BA:226:G:N1	2.50	0.58
1:CA:491:G:H2'	1:CA:492:G:H8	1.67	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AE:79:GLU:CD	5:AE:79:GLU:H	2.06	0.58
23:BA:2511:U:O3'	26:BD:123:ALA:HB3	2.04	0.58
12:AL:63:TYR:O	12:AL:64:GLU:HB2	2.01	0.58
23:BA:1991:U:H2'	23:BA:1992:G:H5'	1.85	0.58
34:DL:136:GLU:O	34:DL:137:LYS:C	2.42	0.58
1:CA:136(A):C:H2'	1:CA:136(B):C:H5''	1.84	0.58
23:BA:2335:A:C8	23:BA:2337:G:C5	2.91	0.58
23:DA:2320:A:N3	23:DA:2320:A:H2'	2.19	0.58
1:CA:262:A:C6	1:CA:263:A:C6	2.92	0.58
4:AD:67:ILE:HG22	4:AD:68:TYR:CD1	2.38	0.58
26:BD:57:LYS:HG3	26:BD:58:ARG:H	1.67	0.58
26:DD:6:GLY:HA2	26:DD:51:PHE:HE2	1.69	0.58
48:BZ:40:THR:OG1	48:BZ:41:PRO:HD2	2.04	0.58
48:DZ:43:ILE:HD13	48:DZ:43:ILE:H	1.64	0.58
45:DW:70:GLN:OE1	45:DW:72:ARG:HD3	2.03	0.58
24:DB:78:A:C2	24:DB:99:A:C5	2.91	0.58
1:AA:232:G:H1'	1:AA:262:A:N1	2.19	0.58
2:AB:223:ILE:C	2:AB:225:ALA:H	2.06	0.58
21:CU:22:ARG:HD2	21:CU:23:PRO:HD2	1.84	0.58
20:CT:13:LEU:CD1	20:CT:13:LEU:H	2.15	0.58
1:CA:630:G:O2'	1:CA:631:G:H5'	2.03	0.58
1:AA:1411:C:H2'	1:AA:1412:C:H6	1.68	0.58
23:DA:640:C:H2'	23:DA:641:C:C6	2.37	0.58
23:BA:61:G:H5'	47:BY:50:ILE:HG21	1.86	0.58
2:CB:20:GLU:HB2	2:CB:190:THR:OG1	2.03	0.58
1:AA:1057:G:C2	1:AA:1204:A:C2	2.92	0.58
24:BB:28:C:H2'	24:BB:29:A:C8	2.39	0.58
16:CP:54:GLU:O	16:CP:57:ARG:HB2	2.04	0.58
53:D5:29:LYS:NZ	53:D5:29:LYS:HB3	2.19	0.58
38:DP:29:ARG:HD2	38:DP:44:ASP:OD2	2.03	0.58
23:BA:2183:C:O2	23:BA:2183:C:H2'	2.04	0.58
23:BA:1901:A:N3	23:BA:1901:A:H2'	2.19	0.58
1:AA:991:U:O2'	1:AA:993:G:C8	2.56	0.58
12:AL:22:LYS:O	12:AL:96:ARG:HD2	2.04	0.58
23:BA:1996:C:H4'	23:BA:1997:G:OP1	2.03	0.58
34:BL:111:ARG:HG3	34:BL:128:HIS:CB	2.33	0.58
26:BD:23:VAL:HA	26:BD:184:VAL:O	2.03	0.58
38:BP:64:ARG:HA	38:BP:72:VAL:O	2.03	0.58
41:BS:86:LEU:HD12	41:BS:87:PRO:HD2	1.86	0.58
23:DA:819:A:C4	23:DA:1189:A:C2	2.91	0.58
28:BF:88:ILE:HD11	28:BF:90:LEU:CD2	2.33	0.58
26:DD:6:GLY:HA2	26:DD:51:PHE:CE2	2.37	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DD:51:PHE:HB3	26:DD:77:ILE:HD12	1.84	0.58
46:DX:11:ARG:HH12	46:DX:61:ARG:N	2.01	0.58
1:AA:1349:A:OP2	9:AI:118:LYS:NZ	2.36	0.58
23:DA:2758:A:C5	29:DG:67:LEU:HD21	2.38	0.58
23:BA:1858:G:H1'	23:BA:1884:A:H62	1.68	0.58
23:DA:1055:G:H2'	23:DA:1056:G:H8	1.63	0.58
23:DA:558:G:P	32:DJ:134:PRO:HD2	2.44	0.58
8:AH:86:ILE:CB	8:AH:133:LEU:HD22	2.32	0.58
25:DC:25:THR:HG21	25:DC:82:ILE:H	1.68	0.58
25:DC:25:THR:O	25:DC:27:THR:HB	2.04	0.58
1:CA:643:C:H5'	8:CH:31:PHE:CD1	2.38	0.58
24:BB:48:A:H4'	37:BO:95:HIS:CD2	2.38	0.58
23:BA:389:G:H22	34:BL:72:PRO:HD3	1.69	0.58
2:CB:72:GLY:HA3	2:CB:165:VAL:CG1	2.34	0.58
23:BA:1006:C:C2	23:BA:1138:G:N2	2.71	0.58
34:BL:55:ARG:CG	34:BL:56:SER:N	2.63	0.58
18:AR:66:LEU:HG	18:AR:70:ILE:HD11	1.85	0.58
1:AA:1298:C:H4'	1:AA:1299:A:C8	2.38	0.58
43:DU:59:GLY:HA3	43:DU:61:ILE:HG12	1.84	0.58
23:DA:2709:G:C2'	23:DA:2710:C:H5'	2.34	0.58
1:AA:465:A:N7	1:AA:467:G:C6	2.72	0.58
19:CS:16:LEU:O	19:CS:20:LEU:HG	2.03	0.58
7:AG:70:LYS:HE2	7:AG:96:GLN:NE2	2.19	0.58
35:DM:40:ALA:HB2	35:DM:127:ILE:HD12	1.85	0.58
14:AN:12:ARG:HG2	14:AN:14:PRO:HD3	1.86	0.58
23:DA:530:G:C5	23:DA:2022:U:H5''	2.39	0.58
23:DA:46:C:H42	23:DA:179:G:H1	1.52	0.58
23:DA:399:G:H2'	23:DA:400:G:H5'	1.85	0.58
1:AA:273:A:N6	1:AA:274:A:N6	2.52	0.58
26:DD:24:THR:HB	26:DD:186:GLY:HA2	1.85	0.58
23:BA:1529:A:C8	23:BA:1530:G:C8	2.91	0.58
23:BA:727:A:C2	25:BC:9:TYR:CD2	2.92	0.58
1:CA:365:U:C5'	1:CA:366:C:OP1	2.42	0.58
23:BA:2392:A:OP1	53:B5:32:LEU:HB3	2.04	0.58
39:DQ:69:CYS:CB	39:DQ:79:PHE:HD2	2.17	0.58
50:D2:20:ARG:CA	50:D2:23:HIS:HD2	2.10	0.58
39:BQ:95:LEU:HD13	40:BR:4:ILE:HG23	1.85	0.58
28:DF:105:LYS:HZ3	49:D1:52:SER:HB2	1.69	0.58
23:DA:2723:C:H2'	23:DA:2724:C:O5'	2.03	0.58
5:AE:48:ALA:O	5:AE:50:GLU:N	2.37	0.58
2:AB:207:ALA:O	2:AB:211:ILE:HG13	2.04	0.58
1:AA:1151:A:O2'	1:AA:1152:A:C8	2.55	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:1343:G:C5'	23:BA:1343:G:H8	2.16	0.58
1:CA:723:U:H5''	1:CA:724:G:OP2	2.03	0.58
33:BK:35:VAL:HG11	33:BK:103:ALA:HB3	1.85	0.58
40:BR:64:HIS:HD2	40:BR:92:THR:CG2	2.17	0.58
8:AH:111:ILE:O	8:AH:112:LEU:HB3	2.04	0.58
1:AA:723:U:H5''	1:AA:724:G:OP2	2.04	0.58
23:BA:954:G:H5''	35:BM:13:GLN:CG	2.34	0.58
23:BA:661:C:C4'	34:BL:18:ARG:HG2	2.33	0.58
1:AA:626:U:H2'	1:AA:627:G:C8	2.37	0.58
23:DA:953:A:OP2	35:DM:16:ARG:NH2	2.36	0.58
23:DA:997:G:O2'	23:DA:998:C:H5'	2.04	0.58
1:CA:104:G:C2	1:CA:105:G:C8	2.91	0.58
1:CA:102:G:H2'	1:CA:103:C:H6	1.68	0.58
29:DG:86:GLU:HG2	29:DG:164:TYR:O	2.04	0.58
38:DP:88:ILE:HD12	38:DP:89:VAL:H	1.67	0.58
23:BA:2188:C:H2'	23:BA:2189:U:O4'	2.04	0.58
1:CA:538:G:OP1	12:CL:112:ARG:HG3	2.04	0.58
1:AA:590:C:H2'	1:AA:591:U:H6	1.68	0.58
23:BA:997:G:O2'	23:BA:998:C:H5'	2.04	0.58
14:AN:36:PHE:O	14:AN:36:PHE:CD1	2.57	0.58
39:BQ:25:TRP:C	39:BQ:25:TRP:CD1	2.76	0.58
1:CA:1298:C:H4'	1:CA:1299:A:C8	2.38	0.58
23:BA:903:C:H2'	23:BA:904:C:C6	2.38	0.58
39:BQ:20:LEU:HB2	39:BQ:39:LEU:HD11	1.85	0.58
1:CA:356:A:H2'	1:CA:357:G:H8	1.68	0.58
11:CK:109:VAL:CG1	18:CR:84:LYS:HB2	2.34	0.58
42:DT:40:LYS:O	42:DT:42:ALA:N	2.36	0.58
26:DD:175:VAL:O	26:DD:177:PRO:HD3	2.03	0.58
23:DA:851:U:O2	23:DA:928:G:C2	2.57	0.58
4:AD:57:ARG:HB3	4:AD:206:PHE:HB2	1.85	0.58
32:BJ:146:TYR:N	32:BJ:146:TYR:CD1	2.71	0.58
23:DA:2604:U:O2	23:DA:2604:U:H2'	2.02	0.58
23:BA:2828:C:O2'	23:BA:2829:C:H5'	2.03	0.58
24:DB:111:U:O2	24:DB:112:G:C8	2.56	0.58
1:CA:1347:G:H22	1:CA:1373:G:H2'	1.66	0.58
9:AI:114:TYR:HD1	10:AJ:60:ARG:CG	2.17	0.58
5:CE:90:VAL:O	5:CE:120:THR:HA	2.04	0.58
42:DT:44:GLU:OE2	42:DT:50:LYS:HG2	2.04	0.58
47:DY:14:ARG:HA	47:DY:17:SER:CB	2.25	0.58
24:DB:84:C:O2	24:DB:84:C:H2'	2.02	0.58
16:CP:55:ARG:O	16:CP:58:TYR:HB3	2.03	0.58
40:BR:52:VAL:HG13	40:BR:55:ALA:HB3	1.84	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DD:54:GLN:OE1	26:DD:55:ASN:N	2.36	0.58
1:AA:878:G:H5'	8:AH:89:PRO:HG2	1.86	0.58
43:DU:81:LYS:CG	43:DU:97:ARG:HB3	2.34	0.58
1:AA:1351:U:O2'	1:AA:1352:C:H5'	2.04	0.58
44:DV:137:ILE:HD12	44:DV:137:ILE:N	2.18	0.58
1:AA:630:G:C2'	1:AA:631:G:H5'	2.33	0.58
23:BA:2531:A:H4'	29:BG:157:TYR:CD2	2.39	0.58
25:BC:25:THR:CG2	25:BC:82:ILE:N	2.66	0.58
23:DA:2815:C:O2'	50:D2:43:HIS:CD2	2.56	0.58
11:AK:36:ASP:HB2	11:AK:38:ASN:OD1	2.04	0.58
23:DA:773:U:H5'	25:DC:47:GLY:HA3	1.85	0.58
12:CL:24:PRO:HD2	12:CL:97:TYR:OH	2.04	0.58
1:CA:921:U:O2	5:CE:19:MET:HB2	2.04	0.58
45:DW:28:GLY:HA2	45:DW:66:VAL:CG1	2.34	0.58
23:BA:991:C:C5	23:BA:1185:C:C4	2.92	0.58
23:BA:991:C:C5	23:BA:1185:C:N4	2.72	0.58
1:AA:649:G:H2'	1:AA:650:G:H8	1.67	0.58
1:AA:542:G:O2'	1:AA:543:C:H5'	2.03	0.58
5:CE:70:PRO:HB3	5:CE:144:THR:HG22	1.86	0.58
15:AO:36:ILE:HG22	15:AO:37:ASN:N	2.18	0.58
23:DA:1711:C:O2'	23:DA:1712:C:H5'	2.03	0.58
23:BA:2853:C:H2'	23:BA:2854:G:H8	1.69	0.58
23:BA:1449:G:H2'	23:BA:1450:C:H6	1.69	0.58
23:DA:1429:G:H2'	23:DA:1430:C:C6	2.39	0.58
24:BB:45:A:N3	24:BB:45:A:H2'	2.19	0.58
1:AA:458:C:H2'	1:AA:464:G:O4'	2.03	0.58
23:BA:530:G:N1	23:BA:2022:U:OP1	2.36	0.58
49:D1:38:ALA:HA	49:D1:55:PRO:HA	1.85	0.58
1:CA:525:C:OP1	12:CL:90:LYS:HG2	2.03	0.58
24:DB:113:C:O2'	37:DO:46:VAL:HG13	2.04	0.58
4:AD:103:ASN:OD1	4:AD:114:ARG:NH2	2.36	0.58
23:DA:1403:C:H5''	23:DA:1471:A:H1'	1.85	0.58
1:AA:178:C:O2'	1:AA:179:A:H5'	2.03	0.58
34:DL:50:ARG:HG3	53:D5:7:HIS:CD2	2.38	0.58
23:DA:126:A:O5'	52:D4:19:ARG:HG2	2.03	0.58
42:DT:35:THR:HG22	42:DT:36:LYS:H	1.69	0.58
26:BD:84:PHE:CZ	26:BD:86:PRO:HG3	2.38	0.58
40:DR:77:ALA:O	40:DR:79:VAL:N	2.37	0.58
23:BA:322:A:OP2	27:BE:169:ASN:HB2	2.04	0.58
1:CA:1070:U:C2	1:CA:1071:C:C5	2.92	0.58
1:CA:1292:U:H2'	1:CA:1293:G:C8	2.37	0.58
25:DC:172:TYR:HD1	25:DC:185:VAL:C	2.06	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DS:29:LEU:HD21	41:DS:33:ARG:NE	2.15	0.58
23:BA:1859:A:C6	23:BA:1884:A:C8	2.92	0.58
23:DA:848:G:O6	23:DA:929:G:H2'	2.04	0.58
1:CA:328:C:H4'	1:CA:329:A:H5'	1.85	0.58
23:DA:952:G:P	35:DM:16:ARG:HH22	2.26	0.58
39:DQ:61:TRP:O	39:DQ:64:ARG:N	2.37	0.58
23:DA:2842:G:H1	23:DA:2875:C:N4	2.02	0.58
23:DA:2284:C:H1'	23:DA:2325:G:C2	2.39	0.58
23:BA:2287:A:O2'	23:BA:2288:A:O5'	2.22	0.58
17:CQ:10:VAL:HG11	17:CQ:52:LYS:O	2.04	0.58
17:CQ:33:GLY:O	17:CQ:34:LYS:C	2.41	0.58
2:AB:22:LYS:HZ3	2:AB:22:LYS:H	1.49	0.58
23:BA:356:G:H2'	23:BA:357:A:C8	2.39	0.58
32:DJ:101:TYR:HB3	32:DJ:102:PRO:CD	2.33	0.58
36:DN:44:LEU:C	36:DN:44:LEU:HD13	2.23	0.58
23:BA:270(M):U:H3'	23:BA:270(N):U:H5''	1.84	0.58
2:CB:15:VAL:C	2:CB:16:HIS:CG	2.77	0.58
23:BA:907:U:O2'	35:BM:101:ARG:NH2	2.36	0.58
1:AA:342:C:C2'	1:AA:343:U:H5'	2.34	0.58
32:BJ:57:LEU:HD21	32:BJ:143:LEU:HB2	1.85	0.58
32:DJ:127:LYS:HB2	32:DJ:140:PHE:HE1	1.68	0.58
34:DL:33:ARG:CB	34:DL:36:LYS:HD3	2.33	0.58
26:BD:132:HIS:HA	26:BD:135:HIS:CE1	2.37	0.58
34:DL:41:ARG:NH2	34:DL:45:LEU:HD12	2.19	0.58
40:BR:40:LEU:H	40:BR:47:VAL:CG2	2.15	0.58
1:AA:37:U:H2'	1:AA:38:G:H8	1.69	0.58
4:AD:30:LYS:C	4:AD:32:ALA:H	2.06	0.58
23:DA:142:G:H1'	42:DT:37:THR:CG2	2.34	0.58
26:DD:57:LYS:HG3	26:DD:58:ARG:N	2.19	0.58
23:DA:1332:G:N2	23:DA:1609:A:O2'	2.36	0.58
46:BX:11:ARG:HB3	46:BX:12:PRO:HD3	1.85	0.58
23:BA:952:G:OP1	35:BM:16:ARG:NH2	2.35	0.58
1:AA:59:A:H5''	1:AA:60:A:H5''	1.86	0.58
35:DM:8:LYS:CG	35:DM:9:TYR:H	2.16	0.58
46:DX:19:GLN:CG	46:DX:41:ARG:HE	2.17	0.58
1:CA:1130:A:N1	1:CA:1146:A:N1	2.51	0.58
25:BC:166:GLN:HA	25:BC:166:GLN:HE21	1.68	0.58
13:CM:27:LYS:CE	13:CM:31:LYS:HE3	2.33	0.58
43:BU:2:ARG:C	43:BU:4:LYS:H	2.06	0.58
1:AA:1288:A:C6	1:AA:1289:A:C6	2.92	0.58
35:BM:37:LEU:O	35:BM:99:PRO:HB3	2.03	0.58
1:CA:1423:G:C5'	33:DK:49:ARG:HH22	2.16	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BE:46:ARG:HH11	27:BE:46:ARG:CG	2.17	0.58
1:CA:1239:A:H4'	1:CA:1240:U:C5'	2.33	0.58
23:BA:2485:G:H5''	35:BM:46:GLN:NE2	2.19	0.58
25:DC:227:ASN:N	25:DC:227:ASN:HD22	2.02	0.58
23:DA:2317:C:H2'	23:DA:2318:G:C5'	2.34	0.58
23:BA:1547:C:H2'	23:BA:1548:C:H6	1.68	0.58
11:CK:102:GLY:O	11:CK:103:LEU:HD13	2.04	0.58
48:BZ:23:LEU:N	48:BZ:23:LEU:HD12	2.19	0.58
44:BV:11:GLU:HG3	44:BV:12:GLY:N	2.19	0.58
1:CA:1386:G:O2'	1:CA:1387:G:H5'	2.04	0.58
1:CA:478:A:H2'	1:CA:479:C:H6	1.69	0.58
1:AA:1316:G:N2	1:AA:1319:A:OP2	2.37	0.58
23:DA:553:U:C2'	23:DA:554:U:H5'	2.34	0.58
39:DQ:65:ILE:O	39:DQ:68:ALA:N	2.34	0.58
23:BA:2604:U:H2'	23:BA:2604:U:O2	2.03	0.58
29:BG:38:SER:HB3	29:BG:41:MET:HG2	1.86	0.58
1:AA:816:A:OP2	1:AA:1527:C:H4'	2.04	0.58
53:D5:31:HIS:C	53:D5:33:ASN:N	2.49	0.57
23:BA:1448:G:H2'	23:BA:149(B):A:C8	2.39	0.57
23:BA:1543:A:H5'	23:BA:1544:C:O5'	2.02	0.57
13:AM:106:ASN:O	13:AM:107:ALA:HB3	2.04	0.57
23:BA:587:C:N4	34:BL:33:ARG:HB2	2.19	0.57
1:CA:979:C:N4	14:CN:18:VAL:HG12	2.16	0.57
27:DE:66:PRO:HB3	27:DE:68:LYS:HZ3	1.68	0.57
23:BA:603:A:N1	23:BA:655:A:N3	2.52	0.57
34:DL:50:ARG:HB2	53:D5:60:LEU:HD11	1.86	0.57
1:CA:376:G:OP1	16:CP:5:ARG:HB2	2.03	0.57
4:AD:161:ASN:O	4:AD:165:MET:HB2	2.03	0.57
20:AT:76:ALA:O	20:AT:80:ARG:HG2	2.04	0.57
23:DA:1487:G:C4	23:DA:1488:G:C8	2.91	0.57
1:AA:750:G:C2	1:AA:751:U:C6	2.92	0.57
1:CA:618:C:N3	1:CA:622:A:N6	2.52	0.57
24:BB:50:G:C5	24:BB:51:G:C8	2.91	0.57
1:CA:1281:U:C5'	1:CA:1282:C:H5	2.16	0.57
1:AA:782:A:H2'	1:AA:783:C:H5'	1.86	0.57
43:DU:2:ARG:C	43:DU:4:LYS:H	2.07	0.57
1:CA:1014:A:H5'	19:CS:14:HIS:CD2	2.39	0.57
24:BB:78:A:C2	24:BB:99:A:C5	2.91	0.57
17:AQ:33:GLY:O	17:AQ:34:LYS:C	2.42	0.57
39:BQ:5:LYS:HG2	39:BQ:6:THR:H	1.68	0.57
1:CA:522:C:N4	1:CA:528:C:H42	2.01	0.57
1:CA:542:G:O2'	1:CA:543:C:H5'	2.04	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BC:253:GLN:OE1	25:BC:255:LYS:HD3	2.04	0.57
2:CB:22:LYS:HZ2	2:CB:22:LYS:HA	1.69	0.57
23:DA:1218:C:C2'	23:DA:1219:G:H5'	2.34	0.57
1:AA:506:G:C5	1:AA:507:C:C5	2.92	0.57
20:CT:97:ALA:O	20:CT:99:LEU:N	2.37	0.57
1:AA:563:A:N7	1:AA:567:G:H1'	2.18	0.57
15:CO:61:GLY:O	15:CO:64:ARG:HB3	2.04	0.57
23:DA:880:G:H2'	23:DA:881:G:C8	2.39	0.57
23:DA:2371:G:O2'	51:D3:45:LYS:HB3	2.04	0.57
1:CA:1288:A:C6	1:CA:1289:A:C6	2.92	0.57
46:DX:53:VAL:HG22	46:DX:74:VAL:HG13	1.85	0.57
13:CM:15:VAL:O	13:CM:19:LEU:HD23	2.04	0.57
23:BA:2058:A:N6	23:BA:2059:A:N6	2.52	0.57
1:AA:123:C:OP1	1:AA:312:C:H5'	2.04	0.57
23:BA:1051:G:C6	23:BA:1052:C:N3	2.72	0.57
27:BE:179:GLU:CD	27:BE:179:GLU:H	2.06	0.57
28:DF:148:MET:HE3	28:DF:148:MET:HA	1.86	0.57
1:CA:114:U:H2'	1:CA:115:G:C8	2.38	0.57
12:CL:63:TYR:O	12:CL:64:GLU:HB2	2.04	0.57
23:DA:2780:G:OP2	32:DJ:141:LYS:HD3	2.03	0.57
32:DJ:118:PRO:HD2	32:DJ:119:GLU:OE1	2.04	0.57
22:AV:6191:A:H2'	22:AV:6192:G:O4'	2.04	0.57
36:BN:11:ASN:O	36:BN:12:ARG:NH1	2.32	0.57
23:DA:2261:C:O2'	23:DA:2262:U:H5'	2.04	0.57
1:CA:364:A:C2	1:CA:365:U:O4	2.57	0.57
23:BA:1899:G:N2	23:BA:1902:C:N4	2.37	0.57
1:CA:375:U:C4	1:CA:376:G:N7	2.72	0.57
16:CP:34:GLU:HG2	16:CP:35:LYS:N	2.19	0.57
30:BH:88:ILE:HD11	30:BH:123:LEU:HG	1.87	0.57
53:B5:62:LEU:C	53:B5:64:TYR:H	2.08	0.57
28:DF:32:PRO:CB	28:DF:172:LEU:HD22	2.34	0.57
1:AA:377:G:O2'	1:AA:378:G:H5'	2.04	0.57
4:CD:161:ASN:O	4:CD:165:MET:HB2	2.03	0.57
2:CB:219:VAL:HA	2:CB:222:ILE:HG12	1.86	0.57
1:CA:1202:G:H4'	14:CN:29:ARG:CD	2.34	0.57
5:CE:31:LEU:HD21	5:CE:43:LEU:CD1	2.34	0.57
37:DO:39:ILE:HG13	37:DO:73:LEU:HD13	1.85	0.57
23:BA:72:U:O4	23:BA:112:U:H4'	2.03	0.57
1:AA:265:G:H5'	17:AQ:64:PRO:O	2.03	0.57
45:BW:31:VAL:O	45:BW:64:ASP:HA	2.04	0.57
1:AA:1353:G:H1	1:AA:1369:C:H42	1.50	0.57
9:AI:9:ARG:HG3	9:AI:14:VAL:HG13	1.86	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:506:G:C5	1:CA:507:C:C5	2.91	0.57
36:BN:63:ARG:NH1	36:BN:63:ARG:HB2	2.18	0.57
23:DA:2747:G:C6	23:DA:2754:U:C5	2.91	0.57
23:BA:2755:C:O2'	23:BA:2756:U:H2'	2.05	0.57
29:BG:67:LEU:O	29:BG:71:LEU:HD23	2.04	0.57
42:BT:52:VAL:HG23	42:BT:82:GLN:O	2.03	0.57
1:CA:476:G:H2'	1:CA:477:G:C8	2.35	0.57
1:AA:1130:A:N1	1:AA:1146:A:N1	2.52	0.57
25:BC:268:ARG:HD2	25:BC:269:PHE:CE1	2.38	0.57
25:BC:267:SER:O	25:BC:269:PHE:N	2.36	0.57
43:DU:76:CYS:CB	43:DU:77:PRO:CD	2.81	0.57
23:BA:1680:U:O2	23:BA:1763:G:H3'	2.04	0.57
9:CI:114:TYR:HD1	10:CJ:60:ARG:CG	2.16	0.57
23:BA:2850:A:OP2	23:BA:2866:U:C5	2.54	0.57
20:AT:13:LEU:CD1	20:AT:13:LEU:H	2.18	0.57
1:AA:1051:C:N4	1:AA:1207:G:H1	2.02	0.57
23:DA:1414:G:H2'	23:DA:1415:U:H6	1.69	0.57
23:BA:2401:U:C2'	23:BA:2402:C:H5''	2.33	0.57
23:BA:311:A:C6	23:BA:328:U:C4	2.93	0.57
34:DL:105:LEU:H	34:DL:105:LEU:HD12	1.69	0.57
1:CA:638:G:C2'	1:CA:639:G:H5'	2.35	0.57
23:DA:571:A:H4'	23:DA:572:A:OP1	2.03	0.57
23:BA:1028:A:N6	23:BA:1125:G:H2'	2.19	0.57
23:DA:871:U:H4'	35:DM:69:PHE:CE2	2.38	0.57
9:CI:99:LEU:O	9:CI:99:LEU:HD13	2.04	0.57
23:BA:1973:G:H2'	23:BA:1974:C:C6	2.39	0.57
1:CA:1288:A:N6	1:CA:1289:A:C6	2.72	0.57
23:DA:511:U:C5	23:DA:512:G:C5	2.92	0.57
30:BH:118:LYS:HG2	30:BH:119:PRO:N	2.18	0.57
1:AA:836:G:C6	1:AA:851:G:C6	2.91	0.57
44:DV:17:ALA:HA	44:DV:20:ARG:NH1	2.19	0.57
7:CG:86:GLN:HB2	7:CG:148:ASN:HD22	1.70	0.57
41:DS:45:TYR:HD2	41:DS:46:PHE:CD1	2.22	0.57
23:BA:1149:G:H2'	23:BA:1150:C:C6	2.40	0.57
25:BC:218:ARG:HB3	25:BC:219:PRO:HD2	1.86	0.57
26:BD:73:GLU:OE2	26:BD:74:PRO:HD2	2.04	0.57
23:DA:781:A:H2	23:DA:1776:G:N3	2.02	0.57
23:DA:1543:A:C8	23:DA:1545:A:O4'	2.57	0.57
32:DJ:141:LYS:O	32:DJ:144:LYS:HE3	2.04	0.57
25:DC:11:PRO:O	25:DC:13:ARG:N	2.37	0.57
34:DL:52:GLU:OE1	34:DL:52:GLU:HA	2.04	0.57
16:AP:67:THR:HG22	16:AP:68:ASP:H	1.68	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:AT:56:MET:HG3	20:AT:88:VAL:HG21	1.85	0.57
1:AA:1065:U:C5	1:AA:1190:G:H1'	2.40	0.57
36:BN:10:LEU:HB3	36:BN:17:ARG:CD	2.35	0.57
23:BA:83:G:H1	23:BA:102:G:HO2'	0.59	0.57
23:BA:2723:C:O3'	36:BN:2:ARG:NH2	2.34	0.57
2:CB:24:TRP:C	2:CB:25:ASN:HD22	2.08	0.57
25:BC:133:LEU:HD13	25:BC:173:VAL:HG11	1.85	0.57
23:DA:1104:C:O2'	23:DA:1105:U:H5'	2.04	0.57
40:DR:64:HIS:CD2	40:DR:92:THR:CG2	2.86	0.57
23:BA:1104:C:O2'	23:BA:1105:U:H5'	2.05	0.57
30:BH:8:PRO:HB3	30:BH:14:ASP:OD1	2.03	0.57
2:CB:8:LYS:HA	2:CB:217:ARG:NH1	2.17	0.57
33:DK:24:VAL:HB	33:DK:33:ALA:HB2	1.84	0.57
23:DA:1516:U:H2'	23:DA:1517:G:C8	2.39	0.57
43:DU:42:VAL:HG23	43:DU:67:LEU:HD11	1.87	0.57
44:BV:179:ASP:CG	44:BV:180:VAL:HG13	2.24	0.57
23:DA:582:G:OP1	39:DQ:14:HIS:CD2	2.58	0.57
5:AE:144:THR:O	5:AE:148:VAL:HG23	2.05	0.57
1:CA:630:G:C2'	1:CA:631:G:H5'	2.34	0.57
32:DJ:80:ALA:O	32:DJ:83:ILE:HG12	2.04	0.57
2:CB:127:ILE:HG22	2:CB:135:GLN:HE21	1.69	0.57
26:DD:181:LEU:HD13	26:DD:181:LEU:N	2.18	0.57
51:B3:38:LYS:HD3	51:B3:46:HIS:ND1	2.18	0.57
7:AG:71:PRO:HG3	7:AG:103:TRP:CZ3	2.39	0.57
23:BA:2716:U:O2'	23:BA:2717:G:H5'	2.03	0.57
1:AA:179:A:H2'	1:AA:180:U:C6	2.39	0.57
35:DM:78:PRO:O	35:DM:79:LEU:HB2	2.04	0.57
7:CG:70:LYS:HE2	7:CG:96:GLN:NE2	2.19	0.57
23:BA:484:C:H2'	23:BA:485:C:C6	2.39	0.57
23:DA:2572:A:H62	26:DD:145:LYS:HG3	1.69	0.57
1:CA:224:C:H2'	1:CA:225:C:C6	2.39	0.57
1:AA:1360:A:H8	1:AA:1360:A:OP1	1.87	0.57
43:BU:14:LEU:HD23	43:BU:15:VAL:C	2.25	0.57
43:DU:14:LEU:HD23	43:DU:15:VAL:C	2.24	0.57
43:DU:8:LYS:CA	43:DU:8:LYS:NZ	2.68	0.57
32:DJ:143:LEU:O	32:DJ:144:LYS:HD2	2.04	0.57
34:DL:32:THR:HG21	34:DL:37:GLY:H	1.67	0.57
30:BH:88:ILE:HG22	30:BH:90:GLY:H	1.69	0.57
39:BQ:105:VAL:HG11	40:BR:40:LEU:HD13	1.87	0.57
1:AA:375:U:C4	1:AA:376:G:N7	2.72	0.57
1:AA:397:A:N7	1:AA:548:G:C8	2.73	0.57
25:BC:32:SER:O	25:BC:33:LEU:O	2.22	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:175:ARG:O	2:CB:178:ARG:HB3	2.05	0.57
42:DT:43:VAL:HG23	42:DT:47:PHE:CD1	2.39	0.57
28:DF:9:ARG:HD3	28:DF:13:GLU:OE1	2.04	0.57
24:BB:43:C:H4'	28:BF:98:ARG:HH12	1.70	0.57
26:BD:54:GLN:OE1	26:BD:55:ASN:N	2.37	0.57
3:AC:172:ARG:HB3	3:AC:174:PRO:HD3	1.87	0.57
23:DA:1439:A:C2	23:DA:1553:A:C5	2.93	0.57
1:AA:1366:C:H2'	1:AA:1367:C:C6	2.40	0.57
8:AH:63:LEU:HB2	8:AH:65:TYR:CE1	2.39	0.57
6:CF:60:PHE:C	6:CF:61:LEU:HD12	2.25	0.57
23:BA:1326:U:O2'	23:BA:2010:G:H1'	2.03	0.57
11:CK:34:ASP:H	11:CK:40:ILE:HD11	1.68	0.57
38:BP:53:ARG:HH11	38:BP:53:ARG:CG	2.17	0.57
1:AA:53:A:N1	1:AA:54:C:C2	2.72	0.57
53:B5:57:ARG:HB2	53:B5:57:ARG:HH11	1.68	0.57
23:BA:686:G:O6	52:B4:12:ARG:HG3	2.04	0.57
23:DA:2563:U:H4'	33:DK:28:SER:HA	1.85	0.57
1:AA:104:G:C2	1:AA:105:G:C8	2.92	0.57
23:DA:784:A:C5	25:DC:229:VAL:HG21	2.40	0.57
23:DA:739:G:H4'	23:DA:740:U:OP1	2.05	0.57
21:AU:22:ARG:HD2	21:AU:23:PRO:HD2	1.87	0.57
23:DA:1386:C:OP2	23:DA:1396:U:C5	2.58	0.57
26:DD:4:ILE:CG1	26:DD:28:ALA:HB1	2.34	0.57
38:BP:1:MET:C	38:BP:3:ARG:N	2.57	0.57
41:BS:55:ALA:O	41:BS:58:ALA:HB3	2.05	0.57
3:AC:150:LYS:HG3	3:AC:169:ALA:HB2	1.86	0.57
23:DA:1893:C:C6	23:DA:1894:C:C5	2.92	0.57
41:DS:55:ALA:O	41:DS:58:ALA:HB3	2.05	0.57
1:AA:684:A:H2'	1:AA:685:G:C8	2.38	0.57
1:AA:1387:G:H2'	1:AA:1388:C:C6	2.40	0.57
1:AA:110:C:H2'	1:AA:111:G:O4'	2.03	0.57
23:DA:812:C:H5'	34:DL:25:SER:O	2.03	0.57
23:DA:914:C:H5	23:DA:915:C:C6	2.21	0.57
23:BA:415:A:H2'	23:BA:416:C:H6	1.70	0.57
26:DD:7:VAL:HA	26:DD:194:GLY:O	2.04	0.57
23:DA:328:U:H4'	43:DU:68:HIS:ND1	2.20	0.57
38:DP:51:ARG:O	38:DP:61:PHE:HA	2.05	0.57
23:BA:1275:A:C4	36:BN:16:HIS:CE1	2.93	0.57
22:CV:6191:A:H2'	22:CV:6192:G:O4'	2.04	0.57
23:DA:807:U:OP2	34:DL:39:LYS:CG	2.42	0.57
24:BB:7:G:H1'	37:BO:38:GLN:NE2	2.19	0.57
23:DA:729:G:C8	25:DC:208:LYS:HD3	2.39	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BU:29:GLU:OE2	43:BU:29:GLU:HA	2.03	0.57
3:CC:182:ILE:HG23	3:CC:202:ILE:C	2.25	0.57
3:CC:134:ILE:HG21	3:CC:168:ALA:HB3	1.85	0.57
35:BM:68:ILE:HD13	35:BM:103:MET:CG	2.32	0.57
1:CA:190:G:H4'	1:CA:191(A):G:OP2	2.02	0.57
4:CD:9:CYS:SG	4:CD:31:CYS:C	2.83	0.57
24:DB:33:G:C2	24:DB:50:G:C2	2.93	0.57
36:DN:63:ARG:NH1	36:DN:63:ARG:HB2	2.17	0.57
1:CA:1220:G:H2'	1:CA:1221:G:C8	2.38	0.57
27:BE:65:TRP:CZ3	27:BE:72:ARG:HB3	2.39	0.57
15:AO:39:LEU:CD1	15:AO:56:LEU:HB2	2.35	0.57
23:DA:997:G:C2'	23:DA:998:C:H5'	2.34	0.57
29:DG:94:TYR:CZ	29:DG:160:LYS:HD3	2.40	0.57
23:DA:2531:A:H4'	29:DG:157:TYR:CD2	2.38	0.57
25:DC:76:PRO:CB	25:DC:116:GLN:HE21	2.17	0.57
8:CH:86:ILE:CB	8:CH:133:LEU:HD22	2.33	0.57
23:BA:2639:A:C2'	23:BA:2640:G:H5'	2.35	0.57
23:BA:774:A:H2	23:BA:787:U:O2'	1.88	0.57
8:AH:97:VAL:C	8:AH:99:GLU:H	2.08	0.57
23:BA:1857:G:N2	23:BA:1886:C:C4	2.72	0.57
23:DA:1538:G:H2'	23:DA:1539:G:C8	2.40	0.57
23:DA:2093:G:H1	23:DA:2196:C:N4	2.03	0.57
18:AR:45:SER:H	18:AR:51:LEU:HD11	1.68	0.57
23:BA:2036:C:H6	23:BA:2036:C:C5'	2.18	0.57
12:CL:6:ILE:H	12:CL:6:ILE:CD1	2.15	0.57
15:CO:44:LYS:NZ	15:CO:44:LYS:HB2	2.19	0.57
23:BA:2854:G:H2'	23:BA:2855:C:C6	2.39	0.57
15:AO:5:LYS:HD3	15:AO:6:GLU:H	1.69	0.57
9:AI:99:LEU:O	9:AI:99:LEU:HD13	2.04	0.57
1:AA:1159:U:C6	1:AA:1182:G:C2	2.92	0.57
23:DA:24:G:O2'	41:DS:77:ASP:HB3	2.04	0.57
23:BA:173:G:H2'	23:BA:174:C:C6	2.40	0.57
23:DA:1797:C:O2'	25:DC:259:THR:HG23	2.04	0.57
1:AA:304:U:H2'	1:AA:305:G:C8	2.40	0.57
23:BA:399:G:H2'	23:BA:400:G:H5'	1.86	0.57
23:BA:496:G:H1'	41:BS:61:ASN:HD21	1.68	0.57
23:BA:1773:A:H2'	23:BA:1774:C:H5'	1.87	0.57
47:BY:36:ARG:HA	47:BY:39:ALA:CB	2.34	0.57
8:CH:80:ILE:H	8:CH:80:ILE:HD12	1.68	0.57
25:BC:141:VAL:HG23	25:BC:162:SER:OG	2.04	0.57
23:DA:2393:A:H5'	34:DL:60:MET:O	2.04	0.57
23:DA:1171:G:H2'	23:DA:1173:G:O4'	2.05	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1220:G:H2'	1:AA:1221:G:C8	2.37	0.57
26:BD:11:MET:HB2	26:BD:24:THR:HA	1.87	0.57
22:CV:6188:G:N2	22:CV:6216:U:N3	2.52	0.57
1:CA:950:U:OP2	13:CM:102:ARG:HG3	2.04	0.57
23:DA:919:G:N2	23:DA:2269:A:OP2	2.38	0.57
23:BA:244:A:C2	23:BA:255:A:C4	2.93	0.57
23:DA:1826:G:H4'	25:DC:242:ARG:NE	2.13	0.57
25:DC:238:GLY:O	25:DC:239:ARG:O	2.22	0.57
3:AC:57:ILE:HD13	3:AC:66:VAL:HG22	1.87	0.57
5:AE:11:ILE:HB	5:AE:31:LEU:HB3	1.86	0.57
48:BZ:26:LEU:HD21	48:BZ:46:ASN:HB2	1.86	0.57
36:DN:63:ARG:HA	36:DN:80:PHE:CE2	2.39	0.57
25:BC:186:HIS:HD2	25:BC:188:GLU:HB2	1.70	0.57
36:BN:57:ARG:HD2	36:BN:59:ASP:OD2	2.05	0.57
29:DG:20:ALA:HB3	29:DG:23:ARG:O	2.04	0.57
1:CA:10:A:H2'	1:CA:11:G:C8	2.37	0.57
23:BA:2565:A:H5''	23:BA:2566:A:OP2	2.04	0.57
46:BX:9:GLY:O	46:BX:13:ILE:HG21	2.05	0.57
8:CH:63:LEU:HB2	8:CH:65:TYR:CE1	2.40	0.57
1:CA:1238:A:C8	1:CA:1303:C:H1'	2.39	0.57
1:AA:53:A:C2	1:AA:54:C:H1'	2.39	0.57
19:AS:6:LYS:HD3	19:AS:7:LYS:HD3	1.87	0.57
23:BA:390:A:C5	34:BL:71:VAL:HG21	2.40	0.57
25:BC:182:LEU:H	25:BC:272:ALA:CB	2.16	0.57
1:CA:278:G:OP2	17:CQ:41:LYS:HE2	2.05	0.57
23:DA:1568:G:P	25:DC:63:ARG:HH22	2.27	0.57
23:DA:2636:U:H4'	26:DD:80:GLU:CD	2.25	0.57
41:DS:25:ARG:HH11	41:DS:25:ARG:HB2	1.69	0.57
41:DS:22:ASP:HA	41:DS:25:ARG:NH1	2.19	0.57
23:BA:1788:C:OP1	25:BC:222:ARG:NH2	2.37	0.57
1:CA:300:A:C8	1:CA:300:A:H3'	2.40	0.57
24:DB:2:C:H2'	24:DB:3:C:H6	1.67	0.57
41:BS:43:GLY:O	41:BS:47:VAL:HG23	2.03	0.57
23:DA:1459:G:H2'	23:DA:1459:G:N3	2.19	0.57
38:BP:126:ALA:O	38:BP:128:GLU:N	2.37	0.57
23:BA:1550:C:H2'	23:BA:1551:C:H6	1.70	0.57
13:AM:15:VAL:O	13:AM:19:LEU:HD23	2.04	0.57
23:BA:289:A:H2'	23:BA:290:G:O4'	2.05	0.57
23:DA:1991:U:H2'	23:DA:1992:G:H5'	1.87	0.57
9:CI:46:ALA:O	9:CI:49:PRO:HD2	2.04	0.57
20:CT:64:ASP:O	20:CT:67:ALA:HB3	2.05	0.57
24:DB:28:C:H2'	24:DB:29:A:H8	1.70	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:16:ARG:NH1	3:AC:16:ARG:HB2	2.20	0.57
23:DA:2183:C:H2'	23:DA:2183:C:O2	2.04	0.57
5:AE:53:LEU:H	5:AE:53:LEU:HD23	1.68	0.57
34:BL:101:VAL:HG23	34:BL:107:LYS:H	1.70	0.57
38:DP:55:ASN:H	38:DP:59:THR:HB	1.69	0.57
13:CM:106:ASN:O	13:CM:107:ALA:HB3	2.04	0.57
1:CA:363:A:C8	12:CL:32:ARG:NH2	2.72	0.57
27:BE:63:LYS:NZ	27:BE:67:GLN:NE2	2.53	0.57
2:CB:82:ARG:HA	2:CB:92:TYR:CE1	2.39	0.57
34:DL:50:ARG:HD2	34:DL:51:PHE:CA	2.35	0.57
23:BA:1158:C:C2'	23:BA:1159:U:H5'	2.35	0.57
12:AL:116:ARG:O	12:AL:117:SER:C	2.43	0.57
25:BC:71:ASP:OD2	25:BC:103:ARG:NH2	2.37	0.57
52:D4:19:ARG:HH11	52:D4:19:ARG:CB	2.17	0.57
1:AA:1435:G:H2'	1:AA:1436:U:C5	2.39	0.57
23:DA:1188:U:C2'	23:DA:1189:A:H5'	2.34	0.57
2:CB:207:ALA:O	2:CB:211:ILE:HG13	2.03	0.57
4:AD:105:VAL:HG13	4:AD:110:PHE:HB2	1.87	0.57
3:CC:35:GLU:HA	3:CC:38:ARG:CG	2.35	0.57
23:DA:2543:G:H2'	23:DA:2544:G:C8	2.39	0.57
46:DX:13:ILE:HG23	46:DX:14:VAL:H	1.68	0.57
8:CH:11:THR:HA	8:CH:14:ARG:NH1	2.19	0.57
29:BG:151:ILE:HD13	29:BG:151:ILE:N	2.20	0.57
23:BA:1312:U:H4'	23:BA:1313:U:O5'	2.04	0.57
1:CA:1151:A:O2'	1:CA:1152:A:C8	2.52	0.57
23:DA:1046:A:H2	31:DI:8:GLU:OE1	1.88	0.57
28:DF:131:TYR:HE2	28:DF:133:LEU:HB3	1.70	0.57
36:DN:99:LYS:HD2	36:DN:99:LYS:H	1.69	0.57
35:DM:37:LEU:O	35:DM:99:PRO:HB3	2.04	0.57
16:CP:7:ALA:O	16:CP:9:PHE:HD2	1.88	0.57
1:CA:254:G:H2'	1:CA:255:G:H8	1.69	0.57
1:AA:865:A:C2	1:AA:918:A:H4'	2.39	0.57
23:BA:356:G:H2'	23:BA:357:A:H8	1.69	0.57
3:AC:22:TRP:HE3	3:AC:23:TYR:O	1.88	0.57
23:BA:226:G:N2	23:BA:228:A:N6	2.52	0.57
1:CA:754:C:H6	15:CO:69:TYR:CE2	2.23	0.57
22:AV:6198:U:H2'	22:AV:6199:G:C8	2.40	0.57
23:DA:270(K):G:H2'	23:DA:270(L):C:O4'	2.05	0.57
7:AG:120:ILE:HG22	7:AG:124:LEU:HD12	1.87	0.57
1:AA:1386:G:O2'	1:AA:1387:G:H5'	2.05	0.57
15:CO:53:HIS:HE1	23:DA:715:G:O6	1.86	0.57
38:BP:80:SER:C	38:BP:82:LEU:H	2.08	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BK:49:ARG:HA	33:BK:53:LYS:NZ	2.20	0.57
23:BA:1027:A:N6	23:BA:1126:A:C4	2.73	0.57
23:DA:1204:A:N1	23:DA:1241:A:H2	2.03	0.57
27:BE:59:TYR:HB3	27:BE:78:ILE:HD12	1.87	0.57
23:DA:1115:G:O2'	23:DA:1116:C:H5'	2.04	0.57
28:DF:165:THR:OG1	28:DF:168:GLU:HG3	2.04	0.57
23:DA:127:A:H5''	23:DA:128:C:C6	2.39	0.57
23:BA:165:U:N3	23:BA:171:G:C8	2.72	0.57
23:DA:631:A:OP1	34:DL:64:LYS:HE3	2.04	0.57
23:BA:1171:G:H2'	23:BA:1173:G:O4'	2.05	0.57
10:AJ:49:VAL:HG21	14:AN:41:ARG:HB3	1.87	0.57
23:BA:1828:G:OP2	25:BC:239:ARG:NH1	2.38	0.57
39:BQ:69:CYS:CB	39:BQ:79:PHE:HD2	2.18	0.57
30:DH:142:VAL:HG12	30:DH:143:SER:H	1.69	0.57
23:DA:1187:G:H8	23:DA:1187:G:O5'	1.88	0.57
3:CC:172:ARG:HB3	3:CC:174:PRO:HD3	1.86	0.57
20:CT:26:ASN:O	20:CT:30:LYS:HB2	2.04	0.57
3:AC:130:VAL:CG1	3:AC:153:VAL:HG21	2.35	0.57
23:BA:2517:C:C6	23:BA:2542:A:C2	2.92	0.57
1:AA:1068:G:N3	1:AA:1191:A:C2	2.72	0.57
46:DX:45:ASN:O	46:DX:63:ALA:HA	2.04	0.57
1:AA:1368:G:OP2	9:AI:112:LYS:HD3	2.05	0.57
9:AI:28:VAL:HG13	9:AI:63:ILE:O	2.05	0.57
41:BS:29:LEU:O	41:BS:33:ARG:HD2	2.04	0.57
1:CA:642:A:N3	8:CH:113:SER:OG	2.26	0.57
33:DK:88:ASN:ND2	33:DK:90:GLN:HB3	2.20	0.57
36:BN:47:PHE:CE2	36:BN:51:LEU:HD11	2.40	0.57
43:DU:47:LYS:HA	43:DU:60:PHE:CZ	2.40	0.57
23:BA:1856:G:H2'	23:BA:1857:G:O4'	2.05	0.57
23:DA:2243:U:H2'	23:DA:2244:U:C6	2.39	0.57
1:AA:527:G:C2'	1:AA:528:C:H5'	2.34	0.57
35:DM:133:ARG:O	35:DM:134:ARG:HB2	2.04	0.57
12:AL:78:GLU:O	12:AL:79:HIS:CD2	2.58	0.57
23:BA:564:C:O2'	23:BA:565:C:H5'	2.05	0.57
1:CA:465:A:N7	1:CA:467:G:C6	2.72	0.57
2:CB:95:GLN:HG3	2:CB:147:LYS:O	2.04	0.57
23:BA:2023:G:H5'	23:BA:2617:C:H4'	1.87	0.57
52:B4:5:TRP:NE1	52:B4:7:PRO:HG3	2.20	0.57
23:BA:1193:G:O2'	23:BA:1194:A:H5'	2.05	0.57
28:DF:137:GLU:HG2	28:DF:152:LEU:HD22	1.85	0.57
1:CA:1492:A:H2'	23:DA:1913:A:C2	2.40	0.57
23:DA:289:A:H2'	23:DA:290:G:O4'	2.04	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:749:C:O2	23:DA:1618:A:H2'	2.05	0.57
3:CC:119:ARG:O	3:CC:123:GLN:HG3	2.05	0.57
32:DJ:49:LEU:O	32:DJ:53:ILE:HG13	2.05	0.57
26:BD:101:ARG:HB3	26:BD:169:ASN:ND2	2.20	0.57
22:AV:6181:C:O2'	22:AV:6182:A:H8	1.88	0.57
1:CA:501:C:H2'	1:CA:502:G:H8	1.69	0.57
23:BA:2392:A:OP2	53:B5:31:HIS:CE1	2.58	0.57
23:BA:2320:A:H2'	23:BA:2320:A:N3	2.19	0.57
2:CB:91:PRO:HG3	2:CB:154:LEU:HD21	1.87	0.57
16:CP:67:THR:HG22	16:CP:68:ASP:N	2.20	0.57
30:BH:109:ILE:HD13	30:BH:109:ILE:N	2.20	0.57
30:BH:82:ARG:HB3	30:BH:89:TYR:CG	2.39	0.57
23:BA:993:G:C4	23:BA:994:C:H5	2.22	0.57
39:BQ:92:ARG:HD2	39:BQ:95:LEU:HG	1.86	0.57
34:BL:41:ARG:NH2	34:BL:45:LEU:HD12	2.20	0.57
1:AA:409:G:H2'	1:AA:410:G:O5'	2.05	0.57
52:D4:19:ARG:NH1	52:D4:19:ARG:CG	2.56	0.57
1:CA:232:G:H1'	1:CA:262:A:N1	2.20	0.57
25:DC:253:GLN:OE1	25:DC:255:LYS:HD3	2.04	0.57
45:BW:28:GLY:HA2	45:BW:66:VAL:CG1	2.35	0.57
23:DA:1587:A:H2'	23:DA:1588:C:H6	1.62	0.57
20:CT:56:MET:HG3	20:CT:88:VAL:HG21	1.87	0.57
37:BO:36:TYR:H	37:BO:36:TYR:HD1	1.52	0.57
1:AA:632:A:N7	1:AA:633:G:C5	2.72	0.57
23:BA:2531:A:H2	23:BA:2658:C:O2	1.88	0.57
30:BH:15:VAL:O	30:BH:17:GLN:N	2.37	0.57
23:BA:1478:G:O2'	23:BA:1558:A:H2	1.88	0.57
23:BA:2476:A:N3	23:BA:2476:A:H2'	2.20	0.57
9:CI:114:TYR:HD1	10:CJ:60:ARG:HG3	1.70	0.57
35:DM:19:GLY:O	35:DM:98:LYS:HD3	2.04	0.57
23:DA:2469:A:H2	23:DA:2481:G:N2	2.00	0.57
23:DA:18:C:OP1	39:DQ:26:GLY:HA2	2.05	0.57
1:AA:535:A:H4'	1:AA:536:C:OP2	2.05	0.57
1:AA:562:C:N4	1:AA:884:U:C6	2.73	0.57
23:BA:296:C:O2'	23:BA:297:C:H5'	2.04	0.57
26:DD:149:ARG:HG3	26:DD:150:VAL:N	2.19	0.57
1:CA:928:G:C2	1:CA:1390:U:O2	2.58	0.57
1:CA:1394:A:H4'	1:CA:1395:C:OP2	2.04	0.57
3:AC:120:VAL:HG21	3:AC:137:ALA:HB2	1.87	0.57
35:BM:26:TYR:CD1	35:BM:26:TYR:O	2.58	0.57
1:CA:1043:C:H2'	1:CA:1044:A:H8	1.70	0.57
47:BY:38:GLN:HB3	47:BY:44:LEU:O	2.05	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:355:C:C4	1:AA:356:A:N7	2.73	0.57
23:BA:2197:U:O3'	23:BA:2198:A:H8	1.88	0.57
1:AA:636:U:C5'	17:AQ:2:PRO:HG3	2.35	0.57
43:BU:15:VAL:HG13	43:BU:17:SER:HB3	1.87	0.57
23:BA:1139:G:OP1	32:BJ:125:ALA:HB2	2.05	0.57
32:BJ:49:LEU:O	32:BJ:53:ILE:HG13	2.05	0.57
23:DA:1530:G:N1	23:DA:1542:G:N2	2.53	0.57
32:BJ:74:PHE:CZ	32:BJ:142:ARG:HD2	2.40	0.57
32:DJ:90:LEU:HA	32:DJ:110:LEU:HD13	1.87	0.57
16:CP:22:THR:HG22	16:CP:32:TYR:CB	2.33	0.57
40:BR:2:PHE:O	40:BR:41:GLY:HA2	2.04	0.57
23:DA:2727:G:C5	23:DA:2728:U:C5	2.93	0.57
26:DD:134:ILE:HA	26:DD:137:HIS:CD2	2.39	0.57
25:BC:35:LYS:HZ1	25:BC:104:TYR:H	1.53	0.57
30:DH:92:VAL:CG2	30:DH:96:ASP:HB2	2.34	0.57
3:AC:173:VAL:CG1	3:AC:173:VAL:O	2.53	0.57
1:CA:1253:G:H1	1:CA:1284:C:N4	1.94	0.57
6:CF:91:VAL:HG13	18:CR:72:ARG:NH2	2.20	0.57
2:AB:219:VAL:HA	2:AB:222:ILE:HG12	1.86	0.57
23:BA:84:A:C5'	43:BU:9:LYS:HD2	2.31	0.57
33:DK:97:ARG:N	33:DK:117:LEU:HD22	2.20	0.57
23:BA:1504:C:O2'	23:BA:1505:C:O5'	2.23	0.57
8:CH:114:THR:HG22	8:CH:130:GLY:O	2.05	0.57
1:CA:1145:C:H4'	1:CA:1146:A:H8	1.70	0.57
23:BA:2688:U:C5	23:BA:2720:U:OP2	2.57	0.57
30:DH:15:VAL:HG12	30:DH:16:GLY:H	1.70	0.57
27:DE:206:ILE:O	27:DE:206:ILE:HD12	2.04	0.57
19:CS:6:LYS:CD	19:CS:7:LYS:HD3	2.35	0.57
29:BG:73:ALA:O	29:BG:77:LYS:HG2	2.05	0.57
1:AA:136(A):C:O2'	1:AA:136(B):C:H5''	2.05	0.57
23:DA:2188:C:H2'	23:DA:2189:U:O4'	2.05	0.57
23:DA:2476:A:N1	23:DA:2477:C:C4	2.73	0.57
40:BR:20:LEU:HD23	40:BR:20:LEU:O	2.05	0.57
33:DK:49:ARG:HA	33:DK:53:LYS:NZ	2.20	0.57
16:AP:43:LYS:HA	16:AP:48:TRP:HB3	1.87	0.57
8:AH:80:ILE:HD12	8:AH:80:ILE:H	1.70	0.57
23:BA:2347:C:OP1	51:B3:39:TYR:HE1	1.88	0.57
23:DA:1831:G:C5	23:DA:1832:C:C5	2.92	0.57
38:DP:126:ALA:O	38:DP:128:GLU:N	2.38	0.57
35:DM:29:PHE:O	35:DM:30:GLY:O	2.23	0.57
2:AB:37:ASN:O	2:AB:39:ILE:HD12	2.05	0.57
23:BA:2464:C:C2	23:BA:2487:G:N2	2.73	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:927:G:C2	1:CA:1391:U:O2	2.58	0.57
23:BA:219:G:N3	23:BA:234:C:O2'	2.36	0.57
23:BA:880:G:H2'	23:BA:881:G:C8	2.39	0.57
4:CD:103:ASN:OD1	4:CD:114:ARG:NH2	2.38	0.57
34:BL:62:LEU:HD23	53:B5:25:MET:HB2	1.87	0.56
26:DD:23:VAL:HA	26:DD:184:VAL:O	2.04	0.56
23:DA:1543:A:N7	23:DA:1545:A:H5''	2.19	0.56
7:CG:115:ARG:HB2	7:CG:118:VAL:CG1	2.35	0.56
32:DJ:114:LEU:HD21	32:DJ:121:VAL:HG21	1.86	0.56
1:CA:1348:U:H4'	9:CI:120:ARG:HD2	1.87	0.56
26:BD:21:VAL:HG12	26:BD:23:VAL:HG13	1.85	0.56
34:BL:33:ARG:H	34:BL:36:LYS:CE	2.06	0.56
42:DT:50:LYS:H	42:DT:87:GLN:NE2	1.90	0.56
28:BF:86:MET:N	28:BF:87:PRO:CD	2.66	0.56
30:BH:68:LEU:HD21	30:BH:107:ILE:HD11	1.87	0.56
39:BQ:98:LEU:O	39:BQ:101:ARG:O	2.23	0.56
34:BL:52:GLU:HA	34:BL:52:GLU:OE1	2.04	0.56
16:AP:34:GLU:HG2	16:AP:35:LYS:N	2.19	0.56
1:CA:1103:C:H5''	2:CB:98:LEU:HD22	1.85	0.56
11:AK:59:TYR:CE2	11:AK:63:LEU:HD11	2.40	0.56
43:DU:95:LYS:HD3	43:DU:99:CYS:O	2.05	0.56
43:BU:81:LYS:CG	43:BU:97:ARG:HB3	2.34	0.56
23:BA:380:U:O2	46:BX:20:ARG:NH2	2.38	0.56
1:AA:66:G:C2	1:AA:67:C:C6	2.93	0.56
27:DE:192:LEU:HD22	27:DE:194:MET:HG2	1.85	0.56
1:CA:173:U:C6	1:CA:197:A:C2	2.93	0.56
1:CA:236:G:H1'	17:CQ:4:LYS:HE3	1.87	0.56
17:CQ:54:GLY:HA3	17:CQ:82:MET:SD	2.45	0.56
23:DA:1326:U:O2'	23:DA:2010:G:H1'	2.05	0.56
27:BE:89:VAL:HG12	27:BE:90:PHE:H	1.68	0.56
23:BA:627:A:C6	23:BA:637:A:C8	2.93	0.56
1:CA:962:C:H42	1:CA:973:G:H1	1.53	0.56
1:CA:963:G:H2'	1:CA:964:A:C8	2.39	0.56
12:CL:78:GLU:O	12:CL:79:HIS:CD2	2.58	0.56
1:CA:342:C:O2'	1:CA:343:U:H5'	2.04	0.56
23:DA:2078:C:O2'	23:DA:2079:U:H5'	2.05	0.56
26:DD:128:SER:OG	26:DD:129:HIS:N	2.37	0.56
23:BA:974(B):C:H4'	23:BA:974(B):C:OP2	2.05	0.56
23:DA:1028:A:N6	23:DA:1125:G:H2'	2.20	0.56
26:DD:101:ARG:HB3	26:DD:169:ASN:ND2	2.20	0.56
25:BC:70:TRP:CH2	25:BC:150:LYS:HA	2.41	0.56
1:CA:1226:C:C5	13:CM:104:ARG:HB2	2.39	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1224:G:H4'	13:CM:102:ARG:HH22	1.68	0.56
40:DR:49:THR:HB	40:DR:50:PRO:HD2	1.87	0.56
35:DM:140:ALA:HB3	44:DV:53:ILE:HG12	1.87	0.56
49:B1:40:ILE:HG23	49:B1:59:VAL:HG21	1.86	0.56
36:DN:10:LEU:HB3	36:DN:17:ARG:CD	2.35	0.56
23:BA:142:G:H1'	42:BT:37:THR:HG21	1.86	0.56
19:CS:63:THR:HG22	19:CS:66:MET:CG	2.32	0.56
48:DZ:17:LYS:HD3	48:DZ:17:LYS:C	2.26	0.56
3:CC:70:VAL:HG12	3:CC:71:ALA:N	2.21	0.56
46:DX:19:GLN:O	46:DX:20:ARG:HG3	2.06	0.56
14:CN:17:LYS:C	14:CN:19:ARG:H	2.09	0.56
1:CA:626:U:H2'	1:CA:627:G:H8	1.68	0.56
30:DH:7:GLU:CD	30:DH:8:PRO:HD2	2.26	0.56
13:AM:27:LYS:CE	13:AM:31:LYS:HE3	2.33	0.56
18:AR:26:LEU:HD21	18:AR:42:ARG:NH1	2.17	0.56
23:BA:1388:G:H4'	23:BA:1525:G:O2'	2.05	0.56
23:BA:284:U:H2'	23:BA:285:C:C6	2.40	0.56
1:AA:1288:A:N6	1:AA:1289:A:C6	2.73	0.56
23:DA:988:A:C2'	23:DA:989:G:O5'	2.53	0.56
23:BA:1607:C:N4	23:BA:1621:U:H3'	2.20	0.56
23:DA:115:C:O2'	23:DA:116:C:H5'	2.05	0.56
43:BU:68:HIS:O	43:BU:70:SER:N	2.37	0.56
36:DN:93:GLY:O	36:DN:117:VAL:HG11	2.05	0.56
35:BM:62:GLY:O	44:BV:178:GLU:HG2	2.05	0.56
1:CA:525:C:H5''	12:CL:90:LYS:HE3	1.86	0.56
1:AA:814:A:N7	1:AA:816:A:C4	2.73	0.56
23:BA:1797:C:O2'	25:BC:259:THR:HG23	2.04	0.56
1:CA:273:A:N6	1:CA:274:A:N6	2.53	0.56
44:BV:17:ALA:HA	44:BV:20:ARG:NH1	2.20	0.56
23:BA:1757:U:C2'	23:BA:1758:G:OP1	2.53	0.56
18:CR:45:SER:H	18:CR:51:LEU:HD11	1.70	0.56
33:BK:14:THR:HG22	33:BK:14:THR:O	2.05	0.56
1:CA:294:U:H2'	1:CA:295:C:H6	1.69	0.56
52:D4:5:TRP:NE1	52:D4:7:PRO:HG3	2.19	0.56
35:DM:97:VAL:HG12	35:DM:97:VAL:O	2.05	0.56
45:BW:35:ASN:HD22	45:BW:35:ASN:H	1.53	0.56
2:AB:15:VAL:C	2:AB:16:HIS:CG	2.78	0.56
23:BA:747:U:C4	50:B2:2:ALA:N	2.73	0.56
25:BC:68:LYS:O	25:BC:70:TRP:CE3	2.57	0.56
23:DA:1175:U:H2'	23:DA:1176:G:H8	1.70	0.56
9:AI:114:TYR:HD1	10:AJ:60:ARG:HG3	1.69	0.56
1:AA:1226:C:H2'	13:AM:103:THR:HB	1.87	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:10:ARG:CZ	9:CI:11:LYS:HE3	2.35	0.56
1:CA:950:U:O4	13:CM:105:THR:HG21	2.05	0.56
23:DA:1899:G:O2'	23:DA:1900:A:OP2	2.20	0.56
28:DF:86:MET:N	28:DF:87:PRO:CD	2.68	0.56
1:AA:376:G:N3	1:AA:389:A:C2	2.73	0.56
25:DC:108:PRO:HB3	25:DC:143:HIS:HE1	1.69	0.56
3:AC:180:ALA:HB1	3:AC:182:ILE:HG13	1.87	0.56
4:AD:111:ALA:HB1	4:AD:116:GLN:HG2	1.87	0.56
12:AL:26:LEU:HD13	12:AL:27:LYS:N	2.20	0.56
23:DA:1812:A:O2'	25:DC:45:ASN:HB3	2.05	0.56
35:BM:47:ILE:HD11	35:BM:68:ILE:HD12	1.87	0.56
23:DA:1210:A:H5''	23:DA:1210:A:C8	2.37	0.56
23:DA:2886:G:O2'	23:DA:2887:U:H5'	2.05	0.56
5:AE:64:ARG:HG3	5:AE:65:ASN:N	2.20	0.56
4:AD:64:LEU:HD23	4:AD:203:VAL:HG21	1.87	0.56
26:DD:52:LEU:HB2	26:DD:76:ARG:HB2	1.87	0.56
12:AL:69:ILE:HG23	12:AL:99:ILE:CG2	2.31	0.56
3:AC:131:ARG:HE	5:AE:50:GLU:HG2	1.71	0.56
2:CB:97:TRP:HH2	2:CB:176:GLU:CG	2.19	0.56
1:CA:1292:U:C2	1:CA:1293:G:C8	2.93	0.56
1:CA:520:A:OP2	12:CL:50:ALA:O	2.23	0.56
23:DA:2755:C:HO2'	23:DA:2756:U:H6	1.53	0.56
28:DF:134:GLY:C	28:DF:135:LEU:HD12	2.26	0.56
43:BU:95:LYS:HD3	43:BU:99:CYS:O	2.05	0.56
1:CA:724:G:C2	1:CA:725:G:C8	2.93	0.56
23:BA:1495:A:C2	23:BA:1496:A:C2	2.93	0.56
40:BR:61:VAL:O	40:BR:61:VAL:HG23	2.04	0.56
25:BC:24:ILE:CD1	25:BC:84:TYR:HB2	2.35	0.56
40:DR:64:HIS:HD2	40:DR:92:THR:HG22	1.66	0.56
33:BK:19:ILE:HB	33:BK:41:ALA:HB1	1.87	0.56
1:CA:817:C:H4'	1:CA:818:G:OP1	2.05	0.56
8:CH:97:VAL:C	8:CH:99:GLU:H	2.09	0.56
1:CA:327:A:C4	1:CA:329:A:C8	2.93	0.56
23:DA:954:G:H5''	35:DM:13:GLN:HG3	1.87	0.56
3:CC:47:LEU:HD23	3:CC:52:LEU:HD13	1.86	0.56
1:AA:173:U:C6	1:AA:197:A:C2	2.93	0.56
30:BH:6:LEU:O	30:BH:7:GLU:HB2	2.05	0.56
4:AD:79:PHE:CG	4:AD:207:TYR:HD1	2.23	0.56
11:AK:84:VAL:HG23	11:AK:110:ASP:OD1	2.05	0.56
23:BA:2476:A:N1	23:BA:2477:C:C4	2.73	0.56
23:BA:2476:A:H2	23:BA:2477:C:C6	2.24	0.56
23:BA:2287:A:C4	23:BA:2289:G:C8	2.93	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BG:94:TYR:OH	29:BG:160:LYS:HD3	2.05	0.56
1:CA:590:C:H2'	1:CA:591:U:H6	1.69	0.56
24:DB:75:G:N1	24:DB:102:G:N2	2.53	0.56
23:BA:1793:C:H2'	23:BA:1794:U:C6	2.40	0.56
1:AA:942:G:N2	1:AA:943:U:C2	2.73	0.56
44:BV:38:TYR:O	44:BV:38:TYR:CD1	2.59	0.56
1:AA:863:U:H2'	1:AA:865:A:OP2	2.05	0.56
23:BA:270(K):G:H2'	23:BA:270(L):C:O4'	2.04	0.56
1:AA:542:G:P	4:AD:10:ARG:HH21	2.28	0.56
6:CF:12:PRO:HG3	6:CF:57:GLN:O	2.05	0.56
34:DL:55:ARG:CG	34:DL:56:SER:N	2.66	0.56
1:CA:428:G:O4'	1:CA:430:A:C8	2.58	0.56
50:D2:4:HIS:HB3	50:D2:5:PRO:CD	2.34	0.56
44:BV:5:LEU:HD23	44:BV:6:LYS:H	1.69	0.56
27:BE:181:LEU:CD2	27:BE:186:ILE:HD11	2.35	0.56
27:DE:52:LYS:HB3	27:DE:56:GLU:HB2	1.87	0.56
26:DD:181:LEU:HD21	38:DP:7:ILE:HG23	1.88	0.56
23:BA:229:A:H5'	23:BA:230:U:C5'	2.35	0.56
36:BN:30:THR:HG22	36:BN:31:HIS:CE1	2.41	0.56
26:BD:100:GLU:O	26:BD:172:VAL:HG23	2.05	0.56
1:AA:683:G:C6	1:AA:684:A:C5	2.93	0.56
23:BA:2038:G:H2'	23:BA:2039:C:C6	2.39	0.56
23:BA:2317:C:H2'	23:BA:2318:G:H5'	1.85	0.56
23:DA:2709:G:O2'	23:DA:2710:C:H5'	2.05	0.56
8:CH:80:ILE:N	8:CH:80:ILE:HD12	2.21	0.56
1:AA:478:A:H2'	1:AA:479:C:H6	1.70	0.56
1:AA:294:U:H2'	1:AA:295:C:H6	1.71	0.56
23:BA:461:C:C2'	23:BA:462:C:H5'	2.36	0.56
2:CB:17:PHE:CD1	2:CB:44:LEU:HD21	2.40	0.56
30:DH:58:LEU:C	30:DH:60:GLU:H	2.08	0.56
13:CM:29:ARG:HB3	13:CM:64:TRP:CZ2	2.40	0.56
23:DA:974(B):C:OP2	23:DA:974(B):C:H4'	2.05	0.56
8:CH:50:ARG:HG2	8:CH:50:ARG:HH11	1.70	0.56
27:BE:108:LYS:O	27:BE:112:MET:HG3	2.04	0.56
23:BA:459:U:H4'	52:B4:40:TRP:CZ3	2.41	0.56
23:BA:1015:G:C2'	23:BA:1016:G:H5'	2.34	0.56
1:AA:1047:G:C2'	1:AA:1048:G:H5'	2.34	0.56
44:DV:117:LEU:O	44:DV:117:LEU:HG	2.05	0.56
1:AA:497:U:H2'	1:AA:497:U:O2	2.06	0.56
9:CI:83:ARG:HA	9:CI:86:VAL:HG12	1.87	0.56
23:DA:2427:C:H5''	23:DA:2428:G:OP1	2.06	0.56
53:D5:52:LYS:N	53:D5:53:PRO:HD2	2.19	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DL:61:ARG:HA	34:DL:62:LEU:HD13	1.87	0.56
34:BL:81:GLN:HG2	34:BL:106:LEU:HD22	1.87	0.56
9:CI:112:LYS:HA	9:CI:119:ALA:HB2	1.87	0.56
5:AE:90:VAL:O	5:AE:120:THR:HA	2.05	0.56
23:BA:2846:G:OP2	38:BP:54:ARG:HB2	2.06	0.56
12:CL:82:VAL:HG13	12:CL:83:LEU:N	2.21	0.56
40:DR:38:LEU:C	40:DR:39:LEU:HD13	2.25	0.56
53:D5:7:HIS:HB2	53:D5:60:LEU:HB3	1.86	0.56
34:DL:50:ARG:HB3	34:DL:50:ARG:HH11	1.69	0.56
23:BA:2730:C:O2'	23:BA:2731:G:H5'	2.04	0.56
23:DA:2729:G:H2'	23:DA:2730:C:H6	1.70	0.56
16:AP:19:ILE:HG22	16:AP:19:ILE:O	2.05	0.56
12:AL:116:ARG:O	12:AL:119:TYR:N	2.37	0.56
3:CC:120:VAL:HG21	3:CC:137:ALA:HB2	1.87	0.56
20:CT:26:ASN:N	20:CT:26:ASN:ND2	2.52	0.56
3:CC:36:ASP:OD2	3:CC:57:ILE:HG21	2.06	0.56
27:BE:155:LEU:HD12	27:BE:174:VAL:HB	1.87	0.56
1:AA:1309:G:H22	1:AA:1329:A:H1'	1.70	0.56
23:DA:1858:G:O2'	23:DA:1859:A:C8	2.57	0.56
1:CA:324:G:N1	1:CA:327:A:OP2	2.39	0.56
53:B5:51:ALA:C	53:B5:52:LYS:HD3	2.26	0.56
1:CA:1068:G:N3	1:CA:1191:A:C2	2.73	0.56
2:AB:127:ILE:HG22	2:AB:135:GLN:HE21	1.70	0.56
35:DM:37:LEU:N	35:DM:37:LEU:HD23	2.20	0.56
35:BM:40:ALA:HB2	35:BM:127:ILE:HD12	1.88	0.56
44:BV:179:ASP:CG	44:BV:180:VAL:H	2.08	0.56
27:BE:88:VAL:HG13	27:BE:89:VAL:O	2.05	0.56
5:CE:98:THR:HG22	5:CE:99:GLY:N	2.20	0.56
23:BA:2641:G:OP1	32:BJ:97:ARG:HD3	2.05	0.56
23:BA:1164:G:C6	23:BA:1165:U:C4	2.94	0.56
3:CC:149:ALA:HA	3:CC:201:TYR:O	2.06	0.56
23:DA:1683:C:N4	23:DA:1705:G:H1	2.01	0.56
38:DP:36:GLU:OE2	38:DP:41:ARG:HD3	2.05	0.56
1:AA:1040:U:H2'	1:AA:1041:A:H8	1.71	0.56
36:DN:79:LEU:HD23	36:DN:83:ILE:HB	1.87	0.56
41:BS:62:HIS:O	41:BS:64:MET:N	2.38	0.56
1:CA:113:G:O2'	1:CA:114:U:H5'	2.05	0.56
23:BA:24:G:O2'	41:BS:77:ASP:HB3	2.05	0.56
1:CA:991:U:O2'	1:CA:993:G:C8	2.58	0.56
23:BA:2020:A:OP1	39:BQ:27:LEU:HB2	2.06	0.56
23:DA:165:U:N3	23:DA:171:G:C8	2.73	0.56
12:AL:75:ASN:OD1	12:AL:107:ALA:HB3	2.06	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:DZ:8:LEU:HD13	48:DZ:31:LEU:HD12	1.85	0.56
1:AA:137:C:O4'	16:AP:63:GLY:HA3	2.05	0.56
38:BP:23:ARG:HH11	38:BP:23:ARG:CG	2.19	0.56
9:AI:24:GLY:O	9:AI:26:VAL:HG23	2.05	0.56
20:CT:82:SER:O	20:CT:86:ARG:HB2	2.06	0.56
34:DL:85:LEU:CD2	34:DL:85:LEU:H	2.18	0.56
23:DA:1265:A:H5'	23:DA:1267:U:H1'	1.86	0.56
26:DD:24:THR:HG21	26:DD:188:VAL:HG12	1.87	0.56
23:BA:1169:G:H1	23:BA:1180:C:H42	1.54	0.56
32:BJ:53:ILE:O	32:BJ:57:LEU:HD22	2.04	0.56
12:CL:26:LEU:HD13	12:CL:27:LYS:N	2.21	0.56
23:BA:2338:G:O2'	23:BA:2339:G:H5'	2.05	0.56
42:DT:39:ILE:O	42:DT:43:VAL:HG12	2.04	0.56
35:BM:68:ILE:HG21	35:BM:103:MET:HG3	1.88	0.56
26:BD:4:ILE:CG1	26:BD:28:ALA:HB1	2.36	0.56
23:BA:2681:C:C5	23:BA:2725:A:N6	2.63	0.56
24:DB:50:G:OP2	37:DO:62:LYS:HD3	2.04	0.56
23:BA:1771:C:H1'	23:BA:1786:A:C8	2.41	0.56
48:DZ:40:THR:CG2	48:DZ:43:ILE:HG12	2.34	0.56
46:DX:65:SER:OG	46:DX:66:HIS:CD2	2.58	0.56
12:CL:53:LYS:HB3	12:CL:69:ILE:HG13	1.88	0.56
25:BC:172:TYR:HD1	25:BC:185:VAL:C	2.08	0.56
36:BN:55:ALA:O	36:BN:57:ARG:O	2.24	0.56
23:DA:2309:A:N6	23:DA:2310:A:N1	2.54	0.56
6:AF:60:PHE:C	6:AF:61:LEU:HD12	2.26	0.56
25:DC:25:THR:HG22	25:DC:82:ILE:H	1.69	0.56
6:AF:90:VAL:CG1	6:AF:91:VAL:N	2.68	0.56
1:CA:327:A:C2	1:CA:329:A:C4	2.93	0.56
1:AA:1118:C:P	9:AI:104:ARG:HG3	2.45	0.56
23:BA:2598:A:H2'	23:BA:2599:G:O5'	2.05	0.56
23:DA:966:G:C4	23:DA:967:C:H5	2.21	0.56
23:DA:966:G:C5	23:DA:967:C:C5	2.94	0.56
34:BL:136:GLU:O	34:BL:137:LYS:C	2.44	0.56
44:DV:38:TYR:CD1	44:DV:38:TYR:O	2.59	0.56
1:CA:865:A:C2	1:CA:918:A:H4'	2.40	0.56
1:AA:652:U:O4	1:AA:752:G:O2'	2.15	0.56
5:AE:70:PRO:HB3	5:AE:144:THR:HG22	1.87	0.56
19:CS:28:LYS:HB3	19:CS:29:ARG:NH1	2.21	0.56
3:AC:35:GLU:HA	3:AC:38:ARG:CG	2.36	0.56
50:D2:4:HIS:CB	50:D2:5:PRO:HD3	2.35	0.56
23:BA:565:C:C2'	23:BA:566:U:O5'	2.53	0.56
23:DA:1773:A:C2'	23:DA:1774:C:H5'	2.35	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:2356:C:O3'	45:DW:20:ARG:HD3	2.04	0.56
23:DA:1338:G:C2'	23:DA:1339:G:H5'	2.35	0.56
48:DZ:50:VAL:O	48:DZ:54:VAL:HG22	2.04	0.56
1:AA:55:A:C4	1:AA:56:U:C6	2.93	0.56
1:CA:177:C:OP1	20:CT:65:LYS:NZ	2.30	0.56
25:BC:52:ARG:HB3	25:BC:53:PHE:CD2	2.40	0.56
35:DM:26:TYR:CD1	35:DM:26:TYR:O	2.59	0.56
40:DR:87:HIS:CD2	40:DR:87:HIS:O	2.59	0.56
2:CB:235:SER:O	2:CB:239:VAL:HG23	2.05	0.56
23:DA:89:G:C4	23:DA:90:U:C5	2.94	0.56
26:BD:134:ILE:HA	26:BD:137:HIS:CD2	2.40	0.56
23:BA:241:A:H5'	23:BA:243:U:H1'	1.86	0.56
25:DC:44:ASN:CG	25:DC:45:ASN:N	2.58	0.56
42:DT:14:SER:O	42:DT:15:GLU:C	2.42	0.56
42:DT:30:VAL:HG11	42:DT:39:ILE:HD13	1.86	0.56
30:DH:68:LEU:HD21	30:DH:107:ILE:HD11	1.86	0.56
3:CC:134:ILE:CG2	3:CC:168:ALA:HB3	2.35	0.56
44:DV:94:GLU:HB2	44:DV:95:PRO:HD2	1.88	0.56
23:BA:2681:C:H5	23:BA:2725:A:N6	1.82	0.56
3:AC:33:LEU:HD21	14:AN:53:LEU:CD2	2.32	0.56
1:AA:15:G:C4	1:AA:16:A:C8	2.93	0.56
43:DU:81:LYS:HD2	43:DU:96:ILE:CD1	2.35	0.56
35:DM:68:ILE:HD13	35:DM:103:MET:CG	2.33	0.56
35:DM:68:ILE:HG21	35:DM:103:MET:HG3	1.87	0.56
1:AA:57:G:C8	1:AA:58:C:C5	2.93	0.56
23:DA:322:A:OP1	27:DE:168:ARG:HD3	2.06	0.56
9:CI:28:VAL:HG13	9:CI:63:ILE:O	2.06	0.56
1:AA:781:A:O2'	1:AA:1522:U:O2	2.23	0.56
23:DA:1153:C:H5'	39:DQ:76:TYR:CE2	2.40	0.56
23:DA:1152:C:H5''	39:DQ:80:ILE:CG2	2.35	0.56
1:CA:1065:U:C5	1:CA:1190:G:H1'	2.39	0.56
44:BV:24:LEU:O	44:BV:24:LEU:HG	2.04	0.56
1:AA:913:A:C1'	1:AA:914:A:OP2	2.54	0.56
9:CI:25:LYS:O	9:CI:60:ASP:HA	2.05	0.56
1:CA:749:C:OP2	1:CA:750:G:OP2	2.23	0.56
25:BC:30:GLU:HG3	25:BC:63:ARG:NH2	2.20	0.56
23:DA:2480:C:H2'	23:DA:2481:G:H5'	1.88	0.56
34:BL:132:LYS:N	34:BL:132:LYS:HD3	2.20	0.56
23:BA:640:C:H2'	23:BA:641:C:C6	2.41	0.56
13:AM:66:LEU:O	13:AM:69:GLU:HG2	2.05	0.56
1:CA:109:A:N7	1:CA:326:G:C4	2.74	0.56
3:AC:77:ILE:O	3:AC:83:ARG:HB3	2.06	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:830:G:H4'	23:DA:831:G:OP2	2.04	0.56
6:AF:14:LEU:HD21	6:AF:18:GLN:HB2	1.87	0.56
50:D2:3:LYS:O	50:D2:4:HIS:C	2.43	0.56
23:DA:2228:G:OP2	25:DC:263:ARG:NH2	2.39	0.56
12:CL:78:GLU:O	12:CL:79:HIS:CG	2.59	0.56
33:BK:14:THR:HG22	33:BK:52:VAL:HB	1.87	0.56
23:BA:914:C:H3'	23:BA:914:C:H6	1.71	0.56
23:DA:2511:U:O3'	26:DD:123:ALA:HB3	2.06	0.56
1:CA:110:C:H2'	1:CA:111:G:O4'	2.05	0.56
23:DA:1850:G:C6	23:DA:1851:U:C4	2.93	0.56
23:DA:1762:A:H8	23:DA:1762:A:O5'	1.88	0.56
1:AA:1167:A:N7	1:AA:1169:A:C6	2.74	0.56
39:DQ:16:LYS:O	39:DQ:20:LEU:HD22	2.05	0.56
9:AI:46:ALA:O	9:AI:49:PRO:HD2	2.05	0.56
51:D3:25:LYS:HD3	53:D5:34:TRP:CZ3	2.41	0.56
34:BL:59:LEU:CA	34:BL:61:ARG:HE	2.13	0.56
34:BL:61:ARG:CD	53:B5:13:ARG:HD2	2.36	0.56
38:DP:50:ILE:HA	38:DP:99:LEU:HD11	1.87	0.56
1:AA:46:G:O2'	1:AA:365:U:H1'	2.06	0.56
23:BA:729:G:C8	25:BC:208:LYS:HD3	2.41	0.56
23:BA:1266:G:C6	41:BS:16:LYS:HD2	2.40	0.56
25:DC:31:LYS:O	25:DC:36:PRO:HD3	2.06	0.56
35:DM:75:THR:HA	35:DM:88:GLY:HA3	1.86	0.56
23:DA:1121:C:O5'	23:DA:1121:C:H6	1.88	0.56
30:BH:97:ILE:O	30:BH:101:LEU:HB2	2.05	0.56
1:AA:411:A:N7	1:AA:429:U:C5	2.74	0.56
4:CD:109:GLY:C	4:CD:111:ALA:N	2.59	0.56
24:BB:40:U:O2'	24:BB:41:U:H5'	2.06	0.56
23:DA:662:G:OP1	34:DL:18:ARG:NH1	2.39	0.56
5:AE:32:VAL:O	5:AE:43:LEU:HA	2.06	0.56
37:DO:39:ILE:HG22	37:DO:39:ILE:O	2.06	0.56
9:AI:112:LYS:HA	9:AI:119:ALA:HB2	1.88	0.56
25:DC:186:HIS:HD2	25:DC:188:GLU:HB2	1.70	0.56
32:DJ:74:PHE:CZ	32:DJ:142:ARG:HD2	2.39	0.56
1:AA:832:C:N4	1:AA:854:G:H1	2.01	0.56
1:AA:618:C:N3	1:AA:622:A:N6	2.53	0.56
10:AJ:34:VAL:HG13	10:AJ:74:ILE:HG22	1.88	0.56
47:BY:46:GLN:HB2	47:BY:49:LYS:HZ3	1.70	0.56
20:CT:11:SER:HA	20:CT:13:LEU:HD13	1.88	0.56
23:DA:1414:G:C5	23:DA:1415:U:C5	2.94	0.56
23:DA:814:C:O2'	23:DA:815:C:H5'	2.05	0.56
1:CA:1254:C:OP1	10:CJ:45:ARG:HA	2.06	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:70:ILE:HG12	4:AD:71:SER:N	2.20	0.56
28:BF:7:LEU:HA	28:BF:10:LYS:HB2	1.86	0.56
35:DM:43:THR:OG1	35:DM:46:GLN:HG3	2.06	0.56
1:AA:300:A:C8	1:AA:300:A:H3'	2.41	0.56
1:CA:1428:A:H2'	1:CA:1429:C:O4'	2.05	0.56
26:DD:176:ILE:HB	26:DD:181:LEU:HB2	1.88	0.56
23:BA:880:G:H2'	23:BA:881:G:H8	1.71	0.56
23:BA:2836:U:C4	23:BA:2883:A:N6	2.74	0.56
23:BA:176:G:C2'	23:BA:177:G:H5'	2.36	0.56
23:DA:718:A:H8	23:DA:718:A:O5'	1.89	0.56
23:DA:533:G:N3	39:DQ:45:TYR:CE1	2.74	0.56
20:AT:64:ASP:O	20:AT:67:ALA:HB3	2.06	0.56
23:BA:1317:A:C6	23:BA:1318:C:C4	2.93	0.56
33:DK:86:ILE:HD12	33:DK:86:ILE:H	1.71	0.56
24:BB:115:G:H5'	37:BO:50:SER:OG	2.05	0.56
53:B5:29:LYS:HB2	53:B5:44:LYS:HB3	1.86	0.56
15:AO:78:TYR:O	15:AO:82:ILE:HG22	2.05	0.56
22:AV:6182:A:N1	22:AV:6183:G:C5	2.74	0.56
40:DR:13:ARG:HG3	40:DR:13:ARG:HH11	1.70	0.56
32:DJ:85:VAL:CG2	32:DJ:89:LYS:HG3	2.32	0.56
47:BY:60:LEU:C	47:BY:62:THR:H	2.09	0.56
49:D1:59:VAL:HG12	49:D1:60:GLU:N	2.13	0.56
23:BA:142:G:H4'	42:BT:35:THR:HG21	1.87	0.56
43:DU:81:LYS:CE	43:DU:97:ARG:HB3	2.36	0.56
9:AI:10:ARG:CZ	9:AI:11:LYS:HE3	2.35	0.56
23:BA:84:A:H2	23:BA:98:G:N3	2.03	0.56
1:AA:456:C:H42	1:AA:476:G:H1	1.54	0.56
37:DO:36:TYR:H	37:DO:36:TYR:HD1	1.53	0.56
3:AC:47:LEU:HD21	3:AC:68:VAL:HG11	1.87	0.56
23:BA:1478:G:N3	23:BA:1479:G:C8	2.74	0.56
23:DA:243:U:C2'	23:DA:244:A:H5'	2.36	0.56
1:AA:262:A:C6	1:AA:263:A:C6	2.94	0.56
7:CG:136:LYS:O	7:CG:140:ASP:HB2	2.06	0.56
25:DC:61:LEU:CB	25:DC:63:ARG:NH1	2.69	0.56
1:CA:1207:G:H2'	1:CA:1208:C:H6	1.71	0.56
29:BG:85:LYS:O	29:BG:132:ARG:HA	2.06	0.56
29:DG:54:ARG:NH2	29:DG:62:LYS:HE2	2.19	0.56
1:AA:729:A:H2'	1:AA:730:G:C8	2.40	0.56
3:AC:149:ALA:HA	3:AC:201:TYR:O	2.06	0.56
1:AA:300:A:H2'	1:AA:301:G:H5'	1.88	0.56
1:AA:1239:A:H4'	1:AA:1240:U:H5'	1.88	0.56
27:DE:14:PRO:HD3	27:DE:128:ALA:HB2	1.87	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BD:149:ARG:CG	26:BD:150:VAL:N	2.69	0.56
1:CA:1494:G:N2	23:DA:1912:A:N3	2.53	0.56
1:CA:1501:C:C5	1:CA:1504:G:C5	2.94	0.56
1:AA:342:C:O2'	1:AA:343:U:H5'	2.05	0.56
23:DA:1204:A:N1	23:DA:1241:A:C2	2.74	0.56
23:BA:1168:G:C2	23:BA:1182:A:C2	2.94	0.56
23:DA:173:G:H2'	23:DA:174:C:C6	2.41	0.56
13:CM:14:ARG:HG2	13:CM:44:ARG:NH1	2.21	0.56
1:AA:1043:C:H2'	1:AA:1044:A:H8	1.70	0.56
3:CC:55:VAL:HG22	3:CC:55:VAL:O	2.06	0.56
25:DC:198:ASN:C	25:DC:198:ASN:HD22	2.09	0.56
1:AA:439:A:H2'	1:AA:440:A:H5'	1.88	0.56
1:AA:270:A:C6	1:AA:271:C:C4	2.94	0.56
23:DA:2392:A:H2	23:DA:2424:C:N4	1.95	0.56
23:BA:2415:G:O3'	34:BL:66:GLY:HA3	2.06	0.56
26:DD:11:MET:HB2	26:DD:24:THR:HA	1.86	0.56
23:DA:1448:G:H2'	23:DA:149(B):A:C8	2.40	0.56
3:CC:13:GLY:HA2	14:CN:57:ARG:HE	1.71	0.56
23:BA:973:A:O4'	23:BA:1188:U:C6	2.58	0.56
23:DA:1263:U:O2'	50:D2:11:THR:HG23	2.06	0.56
39:DQ:88:ILE:HG22	40:DR:47:VAL:O	2.05	0.56
23:DA:666:G:H5''	34:DL:47:ASP:O	2.06	0.56
23:DA:1022:G:H22	23:DA:114(B):A:H2	1.53	0.56
39:BQ:102:GLU:HG3	40:BR:2:PHE:CE1	2.41	0.56
1:CA:37:U:H2'	1:CA:38:G:H8	1.71	0.56
1:CA:1101:A:N3	1:CA:1102:A:H1'	2.21	0.56
48:DZ:26:LEU:HD21	48:DZ:46:ASN:HB2	1.86	0.56
46:DX:10:LYS:O	46:DX:11:ARG:CB	2.54	0.56
10:AJ:33:GLN:HB2	10:AJ:75:ILE:HD11	1.88	0.56
1:CA:1124:G:H4'	10:CJ:38:ILE:HD11	1.88	0.56
23:BA:83:G:C4	23:BA:102:G:N2	2.74	0.56
23:DA:1495:A:H2'	23:DA:1496:A:N3	2.21	0.56
43:BU:81:LYS:HZ1	43:BU:98:VAL:HG12	1.70	0.56
46:BX:65:SER:OG	46:BX:66:HIS:CD2	2.59	0.56
1:CA:1084:G:C5	1:CA:1085:U:C4	2.94	0.56
23:BA:2688:U:C3'	23:BA:2688:U:O2	2.54	0.56
23:BA:2599:G:N7	25:BC:237:GLU:HG3	2.20	0.56
23:BA:300:A:P	43:BU:84:ARG:NH2	2.78	0.56
43:BU:76:CYS:HB3	43:BU:77:PRO:CD	2.35	0.56
44:DV:23:LYS:HB3	44:DV:38:TYR:CD1	2.40	0.56
44:DV:39:VAL:CG2	44:DV:44:PHE:HB2	2.36	0.56
23:BA:637:A:P	34:BL:116:GLY:HA2	2.46	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1231:G:H2'	1:AA:1232:U:H6	1.71	0.56
23:BA:1538:G:H2'	23:BA:1539:G:C8	2.41	0.56
3:CC:150:LYS:HG3	3:CC:169:ALA:HB2	1.88	0.56
34:DL:75:ILE:CD1	34:DL:75:ILE:H	2.17	0.56
23:BA:871:U:H4'	35:BM:69:PHE:CE2	2.41	0.56
45:DW:11:LYS:O	45:DW:14:ARG:NH2	2.37	0.56
23:DA:1833:U:C2	23:DA:1834:U:C5	2.93	0.56
1:CA:577:G:H1'	1:CA:816:A:N3	2.20	0.56
1:AA:42:G:C8	1:AA:42:G:OP2	2.58	0.56
23:DA:530:G:N1	23:DA:2022:U:OP1	2.39	0.56
1:CA:1387:G:H2'	1:CA:1388:C:C6	2.40	0.56
1:CA:285:G:O2'	1:CA:286:G:H5'	2.05	0.56
17:AQ:99:SER:O	17:AQ:100:LYS:HD3	2.05	0.56
23:BA:2709:G:O2'	23:BA:2710:C:H5'	2.04	0.56
1:CA:1167:A:N7	1:CA:1169:A:C6	2.74	0.56
47:DY:36:ARG:HA	47:DY:39:ALA:CB	2.35	0.56
23:BA:191:A:H2'	23:BA:192:C:C6	2.40	0.56
23:BA:2301:C:H2'	23:BA:2302:G:H8	1.70	0.56
5:CE:36:ASP:O	5:CE:37:ARG:HB2	2.06	0.56
23:DA:2064:C:H2'	23:DA:2065:C:C6	2.40	0.56
26:DD:8:LYS:HG2	26:DD:192:ASN:HD22	1.70	0.56
23:DA:2392:A:OP1	53:D5:32:LEU:HB3	2.06	0.56
26:DD:11:MET:HE3	26:DD:186:GLY:HA2	1.87	0.56
43:DU:11:ASP:OD1	43:DU:12:THR:N	2.39	0.56
9:CI:9:ARG:HG3	9:CI:14:VAL:HG13	1.87	0.56
1:AA:951:G:H1'	1:AA:970:C:O2'	2.05	0.56
3:CC:13:GLY:HA3	14:CN:57:ARG:HE	1.70	0.56
1:CA:1226:C:C4	13:CM:104:ARG:HB2	2.41	0.56
23:BA:1900:A:N1	23:BA:1970:A:C6	2.74	0.56
23:BA:1022:G:O2'	23:BA:1023:U:OP2	2.15	0.56
23:BA:2727:G:C5	23:BA:2728:U:H5	2.23	0.56
4:AD:9:CYS:SG	4:AD:31:CYS:C	2.85	0.56
3:CC:180:ALA:HB1	3:CC:182:ILE:HG13	1.88	0.56
42:DT:12:VAL:HG12	42:DT:28:PHE:HA	1.86	0.56
30:DH:77:LEU:HD12	30:DH:101:LEU:HD13	1.88	0.56
23:DA:568:U:O4	40:DR:78:LYS:NZ	2.39	0.56
23:BA:1592:C:H2'	23:BA:1593:G:H8	1.71	0.56
49:D1:40:ILE:HG23	49:D1:59:VAL:HG21	1.87	0.56
2:CB:205:ASP:C	2:CB:207:ALA:H	2.09	0.56
23:BA:2787:C:H1'	26:BD:62:PRO:CB	2.36	0.56
23:DA:363(C):G:H2'	23:DA:363(D):G:H8	1.71	0.56
23:BA:363(C):G:H2'	23:BA:363(D):G:H8	1.70	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:712(B):A:H5''	23:BA:2713:A:OP2	2.06	0.56
48:BZ:43:ILE:CD1	48:BZ:43:ILE:N	2.69	0.56
1:AA:254:G:H2'	1:AA:255:G:H8	1.70	0.56
29:DG:151:ILE:N	29:DG:151:ILE:HD13	2.20	0.56
23:BA:2307:G:O5'	23:BA:2307:G:H8	1.89	0.56
6:AF:61:LEU:HB3	6:AF:63:TYR:HE2	1.71	0.56
1:AA:456:C:N4	1:AA:476:G:H1	2.03	0.56
23:BA:1587:A:H2'	23:BA:1588:C:H6	1.66	0.56
23:BA:1512:G:C6	23:BA:1513:C:N3	2.73	0.56
24:DB:90:C:OP2	35:DM:16:ARG:HD2	2.05	0.56
19:AS:6:LYS:CD	19:AS:7:LYS:HD3	2.36	0.56
1:AA:1128:C:H42	1:AA:1143:G:H1	1.53	0.56
25:BC:265:PRO:C	25:BC:267:SER:H	2.08	0.56
25:BC:61:LEU:CB	25:BC:63:ARG:NH1	2.69	0.56
23:DA:1820:U:O2	25:DC:201:HIS:HB3	2.05	0.56
13:CM:66:LEU:O	13:CM:69:GLU:HG2	2.06	0.56
5:CE:144:THR:O	5:CE:148:VAL:HG23	2.06	0.56
44:DV:5:LEU:HD23	44:DV:6:LYS:H	1.71	0.56
1:CA:1239:A:H4'	1:CA:1240:U:H5'	1.88	0.56
22:CV:6198:U:H2'	22:CV:6199:G:C8	2.40	0.56
4:CD:4:TYR:HE1	4:CD:11:LEU:HD11	1.71	0.56
1:AA:638:G:C2'	1:AA:639:G:H5'	2.36	0.56
23:DA:914:C:H6	23:DA:914:C:H3'	1.70	0.56
23:BA:270(O):G:O2'	23:BA:270(Q):C:H5'	2.06	0.56
23:DA:1252:G:C2	23:DA:1253:A:C2	2.94	0.56
23:DA:1757:U:C2'	23:DA:1758:G:OP1	2.54	0.56
23:DA:1368:G:C2	23:DA:1369:G:C8	2.94	0.56
41:BS:95:ILE:O	41:BS:95:ILE:HG13	2.06	0.56
12:AL:19:LYS:HD3	12:AL:19:LYS:H	1.71	0.56
32:DJ:53:ILE:HD12	32:DJ:122:LEU:HD11	1.88	0.55
1:AA:974:A:OP1	1:AA:974:A:H8	1.88	0.55
13:CM:91:ARG:HH11	19:CS:81:ARG:NH2	2.02	0.55
28:BF:76:SER:HB2	28:BF:83:ARG:N	2.21	0.55
32:DJ:90:LEU:H	32:DJ:90:LEU:HD12	1.72	0.55
1:AA:397:A:N6	1:AA:548:G:C5	2.74	0.55
3:CC:182:ILE:HG23	3:CC:202:ILE:O	2.06	0.55
25:BC:44:ASN:CG	25:BC:45:ASN:N	2.59	0.55
47:DY:60:LEU:O	47:DY:62:THR:N	2.38	0.55
11:AK:63:LEU:HD23	11:AK:63:LEU:N	2.20	0.55
1:AA:1075:C:OP1	2:AB:103:THR:HG21	2.06	0.55
23:BA:848:G:N9	23:BA:933:A:H8	2.05	0.55
29:DG:139:GLN:HG3	29:DG:140:LYS:N	2.20	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:2309:A:N6	23:BA:2310:A:N1	2.54	0.55
43:BU:81:LYS:CE	43:BU:97:ARG:HB3	2.35	0.55
26:BD:26:ILE:N	26:BD:26:ILE:HD13	2.21	0.55
6:CF:8:ILE:HG22	6:CF:10:LEU:HD12	1.87	0.55
47:DY:9:GLN:HG3	47:DY:12:GLU:OE1	2.05	0.55
25:DC:24:ILE:HD11	25:DC:84:TYR:HB2	1.87	0.55
23:BA:1487:G:C4	23:BA:1488:G:C8	2.95	0.55
29:BG:19:VAL:CG1	29:BG:20:ALA:H	2.17	0.55
23:BA:9:U:N3	23:BA:2629:A:N6	2.53	0.55
1:AA:632:A:H2'	1:AA:633:G:H5'	1.89	0.55
32:DJ:62:ARG:HH21	32:DJ:64:ASP:CG	2.10	0.55
23:DA:2284:C:C2'	23:DA:2285:C:H5'	2.36	0.55
1:AA:712:A:N6	1:AA:713:G:C6	2.74	0.55
32:BJ:62:ARG:HH21	32:BJ:64:ASP:CG	2.10	0.55
50:B2:33:CYS:SG	50:B2:40:LYS:HE3	2.47	0.55
23:DA:2480:C:N4	23:DA:2481:G:C6	2.74	0.55
17:AQ:40:LYS:HD2	17:AQ:42:TYR:CZ	2.40	0.55
19:CS:31:ILE:HG23	19:CS:49:ILE:HA	1.88	0.55
1:CA:414:A:H2'	1:CA:415:A:H8	1.70	0.55
19:AS:28:LYS:HB3	19:AS:29:ARG:NH1	2.21	0.55
7:CG:71:PRO:HG3	7:CG:103:TRP:CZ3	2.41	0.55
23:BA:1028:A:N3	23:BA:2486:G:O2'	2.30	0.55
1:AA:1057:G:H4'	3:AC:197:GLY:H	1.71	0.55
23:DA:1918:A:O2'	23:DA:1920:C:N4	2.39	0.55
1:CA:1159:U:C6	1:CA:1182:G:C2	2.94	0.55
23:DA:2279:G:O6	45:DW:14:ARG:HD2	2.05	0.55
1:CA:814:A:N7	1:CA:816:A:C4	2.73	0.55
23:BA:530:G:C5	23:BA:2022:U:H5''	2.41	0.55
23:DA:553:U:O2'	23:DA:554:U:H5'	2.05	0.55
23:BA:533:G:N3	39:BQ:45:TYR:CE1	2.74	0.55
23:DA:1335:U:O2'	23:DA:1336:A:H5'	2.06	0.55
1:CA:1187:G:H2'	1:CA:1188:A:H8	1.71	0.55
32:BJ:51:THR:HG22	32:BJ:52:LYS:N	2.21	0.55
23:DA:1394:U:C5	23:DA:1395:A:C5	2.94	0.55
29:DG:118:PRO:O	29:DG:121:ILE:HG22	2.06	0.55
32:DJ:68:ASN:ND2	32:DJ:68:ASN:H	2.04	0.55
23:BA:2098:U:O2'	23:BA:2099:U:O5'	2.24	0.55
9:AI:39:GLY:O	9:AI:40:LEU:HD23	2.06	0.55
23:BA:2416:C:H2'	23:BA:2417:C:H6	1.72	0.55
48:BZ:52:HIS:H	48:BZ:52:HIS:CD2	2.23	0.55
23:BA:1530:G:N1	23:BA:1542:G:N2	2.55	0.55
41:DS:18:ARG:HH11	41:DS:18:ARG:HG2	1.72	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DC:108:PRO:CG	25:DC:143:HIS:HE1	2.19	0.55
1:AA:491:G:H2'	1:AA:492:G:H8	1.72	0.55
3:CC:182:ILE:HG12	3:CC:203:PHE:CA	2.29	0.55
20:AT:26:ASN:HB2	20:AT:71:THR:CG2	2.31	0.55
28:DF:40:ASN:O	28:DF:155:MET:HB2	2.05	0.55
23:BA:1210:A:C8	23:BA:1210:A:H5'	2.40	0.55
17:CQ:63:ARG:HG2	17:CQ:64:PRO:HD2	1.88	0.55
12:AL:53:LYS:HB3	12:AL:69:ILE:HG13	1.89	0.55
45:BW:50:ASN:O	45:BW:62:LEU:HB2	2.05	0.55
1:AA:1349:A:H2'	1:AA:1350:A:O4'	2.05	0.55
29:DG:19:VAL:CG1	29:DG:20:ALA:H	2.17	0.55
29:DG:84:SER:CA	29:DG:133:VAL:O	2.51	0.55
6:CF:88:VAL:HG12	6:CF:89:MET:N	2.22	0.55
25:DC:25:THR:HG21	25:DC:82:ILE:N	2.22	0.55
1:AA:781:A:H3'	1:AA:782:A:H5'	1.86	0.55
8:AH:11:THR:HA	8:AH:14:ARG:NH1	2.20	0.55
18:CR:22:VAL:HG11	18:CR:42:ARG:O	2.06	0.55
1:AA:601:C:H2'	1:AA:602:A:H8	1.70	0.55
5:AE:98:THR:HG22	5:AE:99:GLY:N	2.21	0.55
38:DP:89:VAL:CG2	38:DP:89:VAL:O	2.53	0.55
1:CA:1194:U:H4'	5:CE:22:GLY:O	2.05	0.55
1:CA:649:G:H2'	1:CA:650:G:H8	1.70	0.55
1:AA:590:C:H2'	1:AA:591:U:C6	2.41	0.55
6:CF:14:LEU:HD21	6:CF:18:GLN:HB2	1.88	0.55
35:BM:43:THR:O	35:BM:46:GLN:HB2	2.07	0.55
41:BS:24:ILE:HG21	41:BS:36:LEU:CD2	2.35	0.55
23:BA:1130:U:O2	26:BD:149:ARG:NH2	2.39	0.55
23:DA:2086:U:OP2	25:DC:263:ARG:HD3	2.06	0.55
11:CK:124:LYS:HD2	11:CK:125:PHE:HE1	1.70	0.55
1:AA:851:G:O2'	1:AA:852:G:H5'	2.06	0.55
23:BA:2097:C:O2'	23:BA:2098:U:H5'	2.06	0.55
1:AA:1005:A:H2'	1:AA:1006:C:H5'	1.88	0.55
30:BH:58:LEU:C	30:BH:60:GLU:H	2.09	0.55
23:BA:49:A:H4'	23:BA:50:U:H5''	1.87	0.55
27:BE:122:LYS:HD2	27:BE:122:LYS:N	2.20	0.55
38:BP:36:GLU:OE2	38:BP:41:ARG:HD3	2.06	0.55
23:BA:1204:A:N1	23:BA:1241:A:H2	2.03	0.55
35:BM:78:PRO:O	35:BM:79:LEU:HB2	2.05	0.55
1:CA:142:G:N2	1:CA:143:A:C4	2.74	0.55
23:DA:637:A:P	34:DL:116:GLY:HA2	2.46	0.55
23:DA:2250:G:C6	35:DM:82:ARG:HD2	2.41	0.55
3:AC:13:GLY:HA2	14:AN:57:ARG:HE	1.71	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:1543:A:C8	23:BA:1543:A:C3'	2.88	0.55
23:BA:806:C:OP2	34:BL:39:LYS:HD3	2.06	0.55
1:AA:960:U:H5	1:AA:1225:A:H1'	1.71	0.55
35:DM:89:ASN:C	35:DM:92:GLY:H	2.09	0.55
41:BS:86:LEU:HD12	41:BS:87:PRO:CD	2.36	0.55
4:AD:111:ALA:HB1	4:AD:116:GLN:OE1	2.06	0.55
4:AD:3:ARG:HG2	4:AD:5:ILE:HD13	1.88	0.55
30:DH:88:ILE:HG22	30:DH:90:GLY:N	2.21	0.55
23:DA:330:A:O2'	23:DA:331:A:C8	2.50	0.55
47:DY:57:ILE:HG22	47:DY:61:LEU:HD22	1.88	0.55
36:DN:8:ARG:HD3	36:DN:43:GLU:OE1	2.06	0.55
25:BC:231:HIS:HD2	25:BC:249:PRO:CA	2.13	0.55
23:BA:71:A:C2	42:BT:31:HIS:CE1	2.92	0.55
1:AA:266:G:C5'	1:AA:267:C:H5	2.19	0.55
46:BX:40:ARG:HG2	46:BX:41:ARG:N	2.22	0.55
42:BT:23:GLU:HA	42:BT:23:GLU:OE1	2.05	0.55
1:AA:626:U:H2'	1:AA:627:G:H8	1.71	0.55
6:AF:98:LEU:CD1	6:AF:101:ALA:HB2	2.36	0.55
23:DA:2287:A:C4	23:DA:2289:G:C8	2.95	0.55
44:DV:38:TYR:CG	44:DV:38:TYR:O	2.59	0.55
1:CA:515:G:C2	1:CA:537:G:C2	2.94	0.55
32:BJ:101:TYR:HB3	32:BJ:102:PRO:CD	2.36	0.55
39:DQ:50:ARG:HH12	40:DR:72:VAL:HG12	1.72	0.55
43:BU:90:LEU:HG	43:BU:91:GLU:N	2.21	0.55
27:DE:181:LEU:CD2	27:DE:186:ILE:HD11	2.37	0.55
20:AT:97:ALA:O	20:AT:99:LEU:N	2.37	0.55
23:DA:1445:C:C2	23:DA:1446:C:C5	2.95	0.55
1:CA:562:C:H1'	12:CL:14:ARG:HB3	1.87	0.55
38:DP:109:GLU:O	38:DP:112:ARG:HG3	2.05	0.55
11:AK:67:ASP:OD1	11:AK:71:LYS:HE3	2.07	0.55
20:CT:42:GLN:HG3	20:CT:43:LEU:HD23	1.87	0.55
1:AA:1399:C:C4	1:AA:1502:A:N1	2.75	0.55
23:DA:2038:G:H2'	23:DA:2039:C:C6	2.41	0.55
46:BX:17:SER:HA	46:BX:44:PRO:HD3	1.88	0.55
34:DL:80:TYR:CE1	34:DL:111:ARG:HG2	2.42	0.55
1:CA:1333:A:H2'	1:CA:1334:G:O4'	2.06	0.55
27:BE:63:LYS:HZ1	27:BE:67:GLN:HE21	1.51	0.55
1:AA:671:G:H2'	1:AA:672:U:H6	1.71	0.55
23:BA:2727:G:C5	23:BA:2728:U:C5	2.94	0.55
23:DA:2727:G:C5	23:DA:2728:U:H5	2.24	0.55
53:B5:62:LEU:C	53:B5:64:TYR:N	2.60	0.55
1:AA:62:U:O2'	1:AA:379:C:H1'	2.06	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:104:VAL:C	4:AD:106:TYR:H	2.09	0.55
23:DA:1812:A:O2'	23:DA:1813:G:H5'	2.06	0.55
42:DT:12:VAL:HG13	42:DT:27:THR:O	2.06	0.55
4:AD:105:VAL:O	4:AD:105:VAL:HG12	2.05	0.55
5:CE:64:ARG:HG3	5:CE:65:ASN:N	2.21	0.55
23:BA:125:G:OP2	52:B4:19:ARG:NH1	2.38	0.55
1:AA:1072:G:H2'	1:AA:1073:U:C6	2.41	0.55
1:CA:406:G:N2	1:CA:437:U:C2	2.74	0.55
23:DA:1789:A:OP1	25:DC:222:ARG:HG3	2.07	0.55
1:AA:255:G:H2'	1:AA:256:U:C6	2.40	0.55
1:AA:256:U:H2'	1:AA:257:G:C8	2.41	0.55
46:DX:14:VAL:HG12	46:DX:14:VAL:O	2.07	0.55
23:DA:2218:G:O2'	23:DA:2219:G:H5'	2.05	0.55
46:BX:11:ARG:O	46:BX:12:PRO:C	2.44	0.55
23:BA:1495:A:C5'	23:BA:1496:A:OP2	2.51	0.55
23:BA:2746:U:O3'	29:BG:138:LYS:HD3	2.06	0.55
23:DA:1858:G:H1'	23:DA:1884:A:H61	1.71	0.55
23:BA:1046:A:H2	31:BI:8:GLU:OE1	1.90	0.55
1:AA:1179:A:H2'	1:AA:1180:A:O4'	2.07	0.55
19:AS:6:LYS:HD2	19:AS:6:LYS:N	2.22	0.55
3:AC:70:VAL:HG12	3:AC:71:ALA:N	2.21	0.55
1:CA:1128:C:H42	1:CA:1143:G:H1	1.55	0.55
30:DH:6:LEU:O	30:DH:7:GLU:HB2	2.06	0.55
43:DU:19:LYS:HB3	43:DU:20:TYR:CD1	2.40	0.55
32:BJ:59:GLY:O	32:BJ:65:TRP:HE3	1.89	0.55
1:CA:255:G:H2'	1:CA:256:U:C6	2.40	0.55
5:CE:18:ARG:HH21	5:CE:25:ARG:CB	2.20	0.55
1:CA:632:A:H2'	1:CA:633:G:H5'	1.88	0.55
23:BA:328:U:H4'	43:BU:68:HIS:CE1	2.40	0.55
23:DA:1726:G:H2'	23:DA:1727:U:H6	1.70	0.55
23:DA:1184:G:C5	23:DA:1185:C:C5	2.94	0.55
8:AH:31:PHE:O	8:AH:35:ILE:HG12	2.07	0.55
19:CS:53:ASN:ND2	19:CS:55:LYS:HB3	2.21	0.55
1:AA:44:G:N3	1:AA:399:G:C2	2.75	0.55
46:BX:67:ILE:HB	46:BX:68:PRO:HD3	1.87	0.55
1:AA:247:G:OP2	17:AQ:100:LYS:N	2.38	0.55
18:AR:53:ARG:C	18:AR:55:ARG:H	2.09	0.55
3:AC:188:LEU:O	3:AC:189:ALA:HB2	2.07	0.55
4:CD:99:SER:O	4:CD:140:VAL:HG23	2.06	0.55
2:AB:52:GLU:O	2:AB:56:ARG:HG3	2.05	0.55
12:AL:46:LYS:HB3	12:AL:47:PRO:HD3	1.89	0.55
23:DA:2032:G:H21	26:DD:146:THR:HG23	1.72	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:186:PHE:HZ	3:CC:188:LEU:HD13	1.71	0.55
34:DL:97:PRO:HA	34:DL:112:LEU:HD12	1.87	0.55
1:CA:1372:U:H5''	9:CI:71:SER:HB3	1.88	0.55
26:BD:24:THR:HB	26:BD:186:GLY:HA2	1.88	0.55
22:AV:6182:A:N1	22:AV:6183:G:C4	2.74	0.55
22:CV:6182:A:N1	22:CV:6183:G:C5	2.75	0.55
1:CA:1225:A:H5''	1:CA:1226:C:OP2	2.05	0.55
1:CA:503:C:C2	1:CA:504:C:C5	2.94	0.55
32:BJ:37:VAL:HG12	32:BJ:38:LEU:H	1.72	0.55
23:BA:114(B):A:C5	23:BA:1144:G:C5	2.95	0.55
32:BJ:88:LYS:O	32:BJ:89:LYS:C	2.44	0.55
39:DQ:79:PHE:CD1	39:DQ:83:LEU:HD13	2.41	0.55
3:AC:182:ILE:HG23	3:AC:202:ILE:C	2.27	0.55
4:AD:111:ALA:HA	4:AD:161:ASN:ND2	2.21	0.55
23:DA:1188:U:H4'	40:DR:79:VAL:HG22	1.87	0.55
3:CC:14:ILE:HG12	3:CC:15:THR:N	2.21	0.55
1:CA:187:C:O2	1:CA:191(A):G:C6	2.59	0.55
23:BA:848:G:C4	23:BA:933:A:H8	2.25	0.55
48:DZ:28:LEU:N	48:DZ:28:LEU:HD12	2.20	0.55
23:BA:2723:C:C2'	23:BA:2724:C:O5'	2.54	0.55
23:DA:528:A:C2	23:DA:2043:C:O5'	2.60	0.55
1:AA:339:C:OP2	33:BK:97:ARG:NH1	2.39	0.55
23:BA:1332:G:N2	23:BA:1610:A:H8	2.03	0.55
23:DA:2284:C:H2'	23:DA:2285:C:H5'	1.89	0.55
38:BP:27:THR:HG22	38:BP:90:GLN:HB3	1.88	0.55
44:DV:24:LEU:HD11	44:DV:86:VAL:HG22	1.89	0.55
23:BA:115:C:C2'	23:BA:116:C:H5'	2.36	0.55
1:AA:592:G:C2	1:AA:593:G:N7	2.74	0.55
23:BA:2364:C:O2'	23:BA:2365:G:H5'	2.07	0.55
23:DA:1538:G:H2'	23:DA:1539:G:H8	1.71	0.55
7:CG:69:VAL:O	7:CG:69:VAL:HG12	2.07	0.55
23:BA:1336:A:H2'	23:BA:1337:G:C8	2.42	0.55
53:B5:29:LYS:HB3	53:B5:29:LYS:NZ	2.21	0.55
23:DA:2097:C:C2'	23:DA:2098:U:H5'	2.36	0.55
35:DM:73:PRO:HB3	35:DM:93:TYR:CE2	2.41	0.55
23:DA:2399:G:H2'	23:DA:2400:G:O4'	2.06	0.55
1:CA:1480:G:C5	1:CA:1481:U:C5	2.95	0.55
3:AC:55:VAL:HG22	3:AC:55:VAL:O	2.06	0.55
42:DT:75:ASP:O	42:DT:76:ARG:HG3	2.06	0.55
34:DL:111:ARG:HD2	34:DL:128:HIS:CD2	2.41	0.55
45:BW:23:VAL:HB	45:BW:26:TYR:HE2	1.71	0.55
1:AA:1225:A:H5''	1:AA:1226:C:OP2	2.07	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:AV:6192:G:H2'	22:AV:6193:U:O4'	2.07	0.55
5:CE:102:ALA:HB2	5:CE:120:THR:HG23	1.88	0.55
22:CV:6192:G:H2'	22:CV:6193:U:O4'	2.07	0.55
1:AA:1228:C:N4	1:AA:1229:A:H62	2.04	0.55
1:CA:46:G:O2'	1:CA:365:U:H1'	2.07	0.55
34:DL:32:THR:HG21	34:DL:37:GLY:CA	2.36	0.55
25:DC:33:LEU:HD23	25:DC:33:LEU:H	1.72	0.55
23:DA:860:U:O2	23:DA:860:U:O4'	2.22	0.55
50:B2:17:ASP:O	50:B2:20:ARG:HB2	2.07	0.55
23:DA:1022:G:O2'	23:DA:1023:U:OP2	2.21	0.55
23:BA:242:G:N7	53:B5:5:LYS:HG2	2.22	0.55
30:DH:82:ARG:HB3	30:DH:89:TYR:CG	2.41	0.55
23:BA:1414:G:H2'	23:BA:1415:U:H6	1.70	0.55
27:DE:124:LEU:HD12	27:DE:125:LEU:O	2.06	0.55
1:CA:38:G:H22	1:CA:397:A:C5'	2.16	0.55
1:CA:1071:C:H5''	5:CE:49:PRO:HG2	1.89	0.55
23:BA:848:G:O6	23:BA:929:G:H2'	2.07	0.55
1:CA:689:C:H2'	1:CA:690:G:O4'	2.07	0.55
36:BN:8:ARG:HD3	36:BN:43:GLU:OE1	2.06	0.55
1:CA:62:U:O2'	1:CA:379:C:H1'	2.06	0.55
23:BA:1506:C:H2'	23:BA:1508:A:C8	2.42	0.55
23:BA:2277:G:H5''	35:BM:85:LYS:CB	2.35	0.55
1:AA:853:G:C2'	1:AA:854:G:H5'	2.36	0.55
43:BU:2:ARG:HG2	43:BU:3:VAL:N	2.22	0.55
38:BP:28:VAL:HA	38:BP:89:VAL:HG12	1.89	0.55
1:AA:712:A:C2'	1:AA:713:G:H5'	2.37	0.55
50:D2:48:GLU:O	50:D2:49:CYS:HB2	2.06	0.55
23:BA:1270:C:H5''	23:BA:1271:G:C5'	2.37	0.55
23:BA:1138:G:O2'	32:BJ:128:GLY:HA3	2.06	0.55
27:BE:206:ILE:O	27:BE:206:ILE:HD12	2.06	0.55
43:BU:76:CYS:CB	43:BU:77:PRO:CD	2.85	0.55
8:AH:80:ILE:HD12	8:AH:80:ILE:N	2.21	0.55
1:CA:300:A:H8	1:CA:300:A:O5'	1.88	0.55
7:CG:40:ALA:O	7:CG:44:TYR:CD1	2.60	0.55
23:BA:18:C:OP1	39:BQ:26:GLY:HA2	2.05	0.55
24:DB:30:C:OP2	37:DO:32:LEU:HD11	2.06	0.55
1:AA:191(D):U:H2'	1:AA:191(E):G:C8	2.42	0.55
53:B5:26:LYS:HA	53:B5:48:PHE:CE2	2.41	0.55
23:DA:2279:G:N2	23:DA:2280:G:H1'	2.21	0.55
9:AI:95:LYS:HD3	9:AI:96:LEU:N	2.22	0.55
1:CA:577:G:H1'	1:CA:816:A:C4	2.42	0.55
23:DA:898:C:H2'	23:DA:899:A:O4'	2.06	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:461:C:O2'	23:BA:462:C:H5'	2.07	0.55
23:DA:2097:C:O2'	23:DA:2098:U:H5'	2.07	0.55
23:DA:482:A:C2	23:DA:506:G:C5	2.95	0.55
28:BF:137:GLU:HG2	28:BF:152:LEU:HD22	1.87	0.55
23:DA:2301:C:H2'	23:DA:2302:G:H8	1.71	0.55
23:DA:1448:G:N2	23:DA:149(B):A:N6	2.54	0.55
33:BK:76:ALA:HB3	38:BP:75:ILE:HB	1.88	0.55
51:B3:25:LYS:HD3	53:B5:34:TRP:CZ3	2.41	0.55
2:CB:61:LEU:HD21	2:CB:161:ALA:HB3	1.87	0.55
39:DQ:90:VAL:O	39:DQ:92:ARG:N	2.39	0.55
53:D5:6:THR:HG21	53:D5:64:TYR:HD1	1.72	0.55
30:BH:142:VAL:HG12	30:BH:143:SER:H	1.72	0.55
4:CD:64:LEU:HD23	4:CD:203:VAL:HG21	1.87	0.55
5:CE:75:THR:HG23	5:CE:76:ILE:N	2.22	0.55
5:CE:79:GLU:H	5:CE:79:GLU:CD	2.08	0.55
5:AE:11:ILE:CB	5:AE:31:LEU:HD13	2.37	0.55
23:DA:2541:A:H5''	23:DA:2542:A:OP2	2.06	0.55
1:AA:447:G:H2'	1:AA:485:G:N2	2.21	0.55
23:DA:2599:G:N7	25:DC:237:GLU:HG3	2.22	0.55
1:AA:659:U:C2	1:AA:660:G:C8	2.94	0.55
23:DA:1884:A:C2	23:DA:1885:A:C8	2.94	0.55
24:BB:90:C:OP2	35:BM:16:ARG:HD2	2.07	0.55
23:DA:1952:A:C6	33:DK:22:ILE:CD1	2.89	0.55
25:DC:15:PHE:O	25:DC:205:VAL:HG11	2.06	0.55
1:AA:1145:C:H4'	1:AA:1146:A:H8	1.71	0.55
44:BV:44:PHE:CE2	44:BV:86:VAL:HG11	2.41	0.55
23:BA:2284:C:C2'	23:BA:2285:C:H5'	2.36	0.55
23:BA:2284:C:H2'	23:BA:2285:C:H5'	1.89	0.55
1:CA:590:C:H2'	1:CA:591:U:C6	2.42	0.55
1:CA:337:C:H2'	1:CA:338:A:C8	2.40	0.55
1:CA:1357:A:C6	1:CA:1358:U:N3	2.75	0.55
1:AA:1112:C:C5	3:AC:178:LEU:HD23	2.41	0.55
15:CO:24:SER:O	15:CO:28:GLN:HG3	2.07	0.55
27:DE:46:ARG:HH11	27:DE:46:ARG:CG	2.19	0.55
23:DA:270(O):G:O2'	23:DA:270(Q):C:H5'	2.06	0.55
8:AH:50:ARG:HG2	8:AH:50:ARG:NH1	2.21	0.55
23:BA:2037:G:C6	23:BA:2038:G:C6	2.95	0.55
48:DZ:23:LEU:N	48:DZ:23:LEU:HD12	2.20	0.55
23:DA:969:U:H2'	23:DA:970:C:C6	2.41	0.55
23:DA:1382:G:O2'	23:DA:1383:C:H5'	2.06	0.55
46:DX:52:ARG:O	46:DX:56:GLN:O	2.25	0.55
41:BS:54:ALA:HB1	41:BS:107:LEU:HD22	1.88	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BX:48:LYS:NZ	46:BX:50:ARG:NH1	2.55	0.55
34:DL:101:VAL:HG23	34:DL:107:LYS:H	1.72	0.55
34:DL:132:LYS:N	34:DL:132:LYS:HD3	2.18	0.55
23:DA:1540:G:H3'	23:DA:1541:U:H6	1.72	0.55
13:AM:91:ARG:HH11	19:AS:81:ARG:NH2	2.02	0.55
7:AG:115:ARG:HB2	7:AG:118:VAL:CG1	2.36	0.55
23:BA:810:U:O5'	23:BA:810:U:H6	1.89	0.55
23:BA:1276:A:H1'	36:BN:16:HIS:HE1	1.71	0.55
23:DA:993:G:C5	23:DA:994:C:C5	2.95	0.55
23:DA:1614:A:N6	41:DS:93:ALA:HB2	2.08	0.55
30:BH:77:LEU:HD12	30:BH:101:LEU:HD13	1.88	0.55
1:CA:671:G:H2'	1:CA:672:U:H6	1.72	0.55
28:DF:161:THR:C	28:DF:163:ALA:H	2.10	0.55
1:AA:1435:G:H2'	1:AA:1436:U:H6	1.67	0.55
24:DB:43:C:H4'	28:DF:98:ARG:HH12	1.70	0.55
23:BA:1414:G:C5	23:BA:1415:U:C5	2.95	0.55
26:BD:52:LEU:HB2	26:BD:76:ARG:HB2	1.88	0.55
36:DN:10:LEU:CB	36:DN:17:ARG:NE	2.67	0.55
23:DA:2633:G:O2'	26:DD:61:ARG:HD3	2.07	0.55
23:DA:2090:G:H21	46:DX:45:ASN:ND2	2.05	0.55
10:CJ:33:GLN:HB2	10:CJ:75:ILE:HD11	1.89	0.55
1:CA:535:A:H4'	1:CA:536:C:OP2	2.07	0.55
1:CA:318:G:O2'	1:CA:319:G:H5'	2.07	0.55
8:CH:10:LEU:HB3	8:CH:83:ILE:HD13	1.89	0.55
8:CH:111:ILE:O	8:CH:112:LEU:HB3	2.07	0.55
53:B5:52:LYS:N	53:B5:53:PRO:HD2	2.21	0.55
23:BA:1476:C:C5	23:BA:1477:A:N7	2.75	0.55
1:CA:781:A:O2'	1:CA:1522:U:O2	2.24	0.55
1:CA:101:A:C4	1:CA:102:G:C8	2.95	0.55
23:DA:1777:U:O2'	23:DA:1778:U:H5'	2.05	0.55
36:BN:100:LEU:HD23	36:BN:100:LEU:N	2.21	0.55
1:AA:1286:A:N7	21:AU:22:ARG:NH2	2.53	0.55
23:BA:864:G:O2'	23:BA:865:C:H5'	2.06	0.55
45:DW:31:VAL:O	45:DW:64:ASP:HA	2.07	0.55
1:CA:1080:A:H5''	1:CA:1081:G:OP2	2.07	0.55
1:AA:728:A:H2'	1:AA:729:A:C8	2.42	0.55
23:BA:1152:C:HO2'	39:BQ:76:TYR:HE2	1.55	0.55
7:AG:138:LYS:O	7:AG:142:GLU:HG3	2.06	0.55
23:DA:634:C:H2'	23:DA:635:C:C6	2.41	0.55
26:BD:181:LEU:HD21	38:BP:7:ILE:HG23	1.88	0.55
36:BN:31:HIS:O	36:BN:33:ARG:N	2.39	0.55
23:BA:1917:U:C2'	23:BA:1918:A:H5'	2.36	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BD:114:ALA:O	26:BD:157:ALA:HB1	2.07	0.55
1:AA:1480:G:C5	1:AA:1481:U:C5	2.95	0.55
1:CA:1005:A:H2'	1:CA:1006:C:H5'	1.88	0.55
23:BA:2356:C:O3'	45:BW:20:ARG:HD3	2.07	0.55
1:AA:503:C:H2'	1:AA:504:C:H6	1.72	0.55
11:AK:125:PHE:N	11:AK:125:PHE:CD1	2.70	0.55
23:BA:1338:G:C2'	23:BA:1339:G:H5'	2.36	0.55
34:DL:61:ARG:HD3	53:D5:13:ARG:HD2	1.89	0.55
32:BJ:127:LYS:HB2	32:BJ:140:PHE:HE1	1.71	0.55
23:DA:1141:U:H4'	23:DA:114(B):A:O4'	2.07	0.55
4:CD:63:LYS:HD2	4:CD:198:VAL:CG2	2.37	0.55
23:DA:142:G:H4'	42:DT:35:THR:HG21	1.88	0.55
42:DT:28:PHE:H	42:DT:28:PHE:HD1	1.53	0.55
1:AA:324:G:N1	1:AA:327:A:OP2	2.40	0.55
24:DB:71:C:C2	24:DB:72:G:C8	2.95	0.55
23:DA:1407:C:H2'	23:DA:1408:C:H6	1.72	0.55
1:CA:266:G:C5'	1:CA:267:C:C5	2.90	0.55
5:CE:41:VAL:HG11	5:CE:113:ALA:CB	2.36	0.55
5:AE:11:ILE:HG12	5:AE:33:VAL:HG23	1.89	0.55
23:BA:72:U:C4	23:BA:112:U:H4'	2.42	0.55
48:DZ:26:LEU:HB2	48:DZ:28:LEU:CD1	2.36	0.55
17:AQ:63:ARG:HG2	17:AQ:64:PRO:HD2	1.89	0.55
23:DA:2307:G:O5'	23:DA:2307:G:H8	1.90	0.55
29:DG:123:PHE:HB3	29:DG:133:VAL:HG13	1.88	0.55
25:BC:25:THR:O	25:BC:27:THR:HB	2.07	0.55
27:DE:31:HIS:O	27:DE:34:TRP:HB3	2.07	0.55
23:BA:2636:U:H4'	26:BD:80:GLU:OE2	2.07	0.55
23:BA:2468:G:O2'	23:BA:2476:A:N7	2.40	0.55
23:DA:1476:C:C2'	23:DA:1477:A:H5'	2.37	0.55
23:DA:1478:G:N3	23:DA:1479:G:C8	2.75	0.55
44:DV:37:VAL:O	44:DV:38:TYR:HB3	2.07	0.55
1:CA:729:A:H2'	1:CA:730:G:C8	2.38	0.55
12:AL:74:HIS:HB2	12:AL:76:LEU:CD2	2.36	0.55
19:AS:31:ILE:HG23	19:AS:49:ILE:HA	1.88	0.55
19:AS:53:ASN:ND2	19:AS:55:LYS:HB3	2.22	0.55
23:DA:1920:C:H2'	23:DA:1920:C:O2	2.07	0.55
53:D5:26:LYS:HG2	53:D5:48:PHE:CD2	2.42	0.55
23:DA:399:G:C2'	23:DA:400:G:H5'	2.36	0.55
23:BA:1757:U:H2'	23:BA:1758:G:OP1	2.07	0.55
23:BA:1445:C:C2	23:BA:1446:C:C5	2.95	0.55
33:BK:26:LYS:O	33:BK:27:GLY:O	2.24	0.55
14:AN:17:LYS:C	14:AN:19:ARG:H	2.10	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1089:G:C5	1:CA:1090:U:C5	2.94	0.55
1:AA:118:U:O4	1:AA:288:A:H2'	2.07	0.55
35:DM:137:TYR:HB3	44:DV:76:LEU:HD21	1.89	0.55
7:CG:74:GLU:O	7:CG:88:PRO:HA	2.07	0.55
2:CB:75:LYS:C	2:CB:75:LYS:HD3	2.27	0.55
27:DE:28:ILE:O	27:DE:28:ILE:HG13	2.07	0.55
23:DA:1275:A:C4	36:DN:16:HIS:CE1	2.95	0.55
23:BA:1175:U:H2'	23:BA:1176:G:H8	1.72	0.55
32:BJ:143:LEU:O	32:BJ:144:LYS:HD2	2.06	0.55
23:DA:83:G:C4	23:DA:102:G:N2	2.75	0.55
43:DU:15:VAL:HG13	43:DU:17:SER:HB3	1.88	0.55
2:AB:163:PHE:CD1	2:AB:185:ILE:HG13	2.41	0.55
1:CA:1346:A:H61	1:CA:1374:A:H3'	1.72	0.55
1:CA:1369:C:OP1	9:CI:111:ARG:HG3	2.07	0.55
25:BC:15:PHE:O	25:BC:205:VAL:HG11	2.07	0.55
1:CA:1316:G:N2	1:CA:1319:A:OP2	2.39	0.55
12:CL:116:ARG:O	12:CL:119:TYR:N	2.35	0.55
3:AC:18:TRP:HD1	14:AN:54:PRO:HA	1.72	0.55
23:BA:666:G:H5''	34:BL:47:ASP:O	2.07	0.55
25:DC:108:PRO:HG3	25:DC:143:HIS:HE1	1.72	0.55
25:BC:76:PRO:CB	25:BC:116:GLN:HE21	2.19	0.55
1:CA:392:G:C4	1:CA:393:A:C8	2.95	0.55
4:CD:111:ALA:HB1	4:CD:116:GLN:OE1	2.07	0.55
47:BY:53:LEU:O	47:BY:57:ILE:HG13	2.07	0.55
24:DB:40:U:O2'	24:DB:41:U:H5'	2.06	0.55
1:CA:92:G:C2'	1:CA:93:U:H5'	2.37	0.55
1:AA:92:G:C6	1:AA:93:U:C2	2.95	0.55
24:BB:71:C:C2	24:BB:72:G:C8	2.95	0.55
44:BV:3:TYR:CD1	44:BV:3:TYR:N	2.74	0.55
23:DA:1607:C:N4	23:DA:1621:U:H3'	2.22	0.55
23:BA:932:G:H4'	23:BA:933:A:O5'	2.06	0.55
1:AA:187:C:O2	1:AA:191(A):G:C6	2.60	0.55
1:CA:1309:G:C6	1:CA:1329:A:C2	2.95	0.55
1:AA:1375:A:C2	1:AA:1376:U:C2	2.95	0.55
26:BD:111:ARG:CD	26:BD:160:TYR:HE1	2.15	0.55
46:BX:10:LYS:O	46:BX:11:ARG:CB	2.55	0.55
46:BX:11:ARG:NH1	46:BX:61:ARG:N	2.55	0.55
23:BA:1487:G:N3	23:BA:1488:G:C8	2.74	0.55
1:CA:623:C:H6	1:CA:623:C:O5'	1.89	0.55
42:DT:23:GLU:HG3	42:DT:24:GLY:H	1.72	0.55
33:DK:35:VAL:HG11	33:DK:103:ALA:HB3	1.87	0.55
9:CI:17:VAL:HG21	9:CI:80:GLY:HA3	1.88	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CH:31:PHE:O	8:CH:35:ILE:HG12	2.07	0.55
44:BV:24:LEU:HB3	44:BV:41:LEU:HG	1.88	0.55
25:DC:131:LEU:HD11	25:DC:136:ILE:HG13	1.88	0.55
20:AT:13:LEU:HD12	20:AT:13:LEU:N	2.21	0.55
7:CG:40:ALA:O	7:CG:44:TYR:HD1	1.89	0.55
23:BA:481:G:OP1	23:BA:481:G:H4'	2.06	0.55
12:AL:78:GLU:O	12:AL:79:HIS:CG	2.60	0.55
1:AA:927:G:C2	1:AA:1391:U:O2	2.60	0.55
36:DN:79:LEU:HD23	36:DN:83:ILE:HG13	1.89	0.55
23:DA:2854:G:H2'	23:DA:2855:C:H6	1.71	0.55
7:CG:67:GLU:OE1	7:CG:70:LYS:HD2	2.06	0.55
1:AA:636:U:H5'	17:AQ:2:PRO:HG3	1.88	0.55
47:DY:36:ARG:HA	47:DY:39:ALA:HB3	1.89	0.55
23:DA:2038:G:C5	23:DA:2039:C:C5	2.94	0.55
23:DA:231:C:N4	23:DA:232:G:N1	2.55	0.55
23:DA:263:C:H2'	23:DA:264:C:O4'	2.07	0.55
18:CR:53:ARG:C	18:CR:55:ARG:H	2.11	0.55
23:DA:2771:C:H2'	23:DA:2771:C:O2	2.07	0.55
2:CB:52:GLU:O	2:CB:56:ARG:HG3	2.06	0.55
1:CA:1047:G:C2'	1:CA:1048:G:H5'	2.37	0.55
11:CK:123:LYS:O	11:CK:126:ARG:HB2	2.07	0.55
40:BR:1:MET:H2	40:BR:16:PRO:HD3	1.72	0.55
18:AR:36:ASN:HB2	18:AR:39:VAL:HG23	1.87	0.55
34:BL:135:LEU:HD13	34:BL:139:LYS:HB2	1.89	0.55
34:DL:125:VAL:O	34:DL:145:PRO:HD2	2.06	0.54
24:BB:83:G:C2	24:BB:84:C:C6	2.95	0.54
24:BB:84:C:H2'	24:BB:84:C:O2	2.06	0.54
22:CV:6181:C:O2'	22:CV:6182:A:H8	1.89	0.54
23:DA:2846:G:OP2	38:DP:54:ARG:HB2	2.07	0.54
38:DP:56:GLY:O	38:DP:59:THR:CG2	2.50	0.54
23:DA:587:C:N4	34:DL:33:ARG:HB2	2.22	0.54
23:BA:1022:G:H22	23:BA:114(B):A:H2	1.54	0.54
40:DR:52:VAL:HG13	40:DR:55:ALA:HB3	1.89	0.54
41:DS:14:PRO:O	41:DS:16:LYS:N	2.39	0.54
39:BQ:92:ARG:HD2	39:BQ:95:LEU:H	1.72	0.54
3:AC:182:ILE:HG12	3:AC:203:PHE:CA	2.29	0.54
42:DT:14:SER:O	42:DT:17:ALA:N	2.39	0.54
3:CC:130:VAL:CG1	3:CC:153:VAL:HG21	2.37	0.54
24:DB:73:A:C4	24:DB:74:U:C6	2.95	0.54
37:DO:69:VAL:O	37:DO:72:ALA:CB	2.52	0.54
41:DS:24:ILE:HG21	41:DS:36:LEU:CD2	2.37	0.54
23:DA:2219:G:C2'	23:DA:2224:G:C5'	2.81	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1309:G:C6	1:AA:1329:A:C2	2.95	0.54
33:DK:97:ARG:H	33:DK:117:LEU:HD22	1.73	0.54
1:AA:748:C:H4'	1:AA:749:C:O5'	2.07	0.54
1:CA:682:G:C6	1:CA:709:G:C6	2.95	0.54
23:DA:9:U:C4	23:DA:2629:A:N6	2.75	0.54
9:AI:25:LYS:O	9:AI:60:ASP:HA	2.07	0.54
1:CA:518:C:C5	1:CA:530:G:C4	2.95	0.54
23:DA:2476:A:N3	23:DA:2476:A:H2'	2.22	0.54
23:BA:1777:U:C2'	23:BA:1778:U:H5'	2.37	0.54
23:BA:628:G:H2'	23:BA:629:G:C8	2.42	0.54
1:AA:648:A:H2'	1:AA:649:G:C8	2.41	0.54
23:DA:2850:A:OP2	23:DA:2866:U:C5	2.58	0.54
10:CJ:49:VAL:HG21	14:CN:41:ARG:HB3	1.88	0.54
1:CA:974:A:OP2	14:CN:41:ARG:NH1	2.40	0.54
1:AA:1333:A:H2'	1:AA:1334:G:O4'	2.07	0.54
10:CJ:6:ILE:O	10:CJ:71:LEU:HD12	2.07	0.54
46:DX:70:VAL:O	46:DX:74:VAL:HG23	2.07	0.54
23:DA:1993:U:H4'	26:DD:128:SER:CB	2.37	0.54
3:AC:186:PHE:CZ	3:AC:188:LEU:HD13	2.43	0.54
29:BG:118:PRO:O	29:BG:121:ILE:HG22	2.07	0.54
23:BA:2399:G:H2'	23:BA:2400:G:O4'	2.07	0.54
3:AC:139:GLN:OE1	3:AC:139:GLN:HA	2.07	0.54
31:DI:14:LYS:HE2	31:DI:14:LYS:HA	1.89	0.54
33:DK:7:TYR:HE1	33:DK:20:MET:HE3	1.72	0.54
23:DA:2527:C:C4	23:DA:2528:U:C5	2.95	0.54
26:DD:167:VAL:HG11	26:DD:189:PRO:HD3	1.88	0.54
1:CA:1371:G:H5''	9:CI:69:GLY:H	1.72	0.54
1:AA:962:C:H42	1:AA:973:G:H1	1.53	0.54
26:BD:11:MET:HE3	26:BD:24:THR:HB	1.90	0.54
23:BA:1657:C:H2'	23:BA:1658:C:H6	1.72	0.54
39:DQ:105:VAL:HG11	40:DR:40:LEU:HD13	1.89	0.54
30:BH:88:ILE:HG12	30:BH:123:LEU:N	2.22	0.54
40:BR:2:PHE:HE2	40:BR:13:ARG:CD	2.18	0.54
12:AL:31:PHE:HD2	12:AL:85:ARG:HA	1.72	0.54
35:BM:75:THR:C	35:BM:88:GLY:HA2	2.28	0.54
42:DT:11:PRO:HG2	42:DT:13:LEU:HD21	1.89	0.54
23:BA:2711:A:OP1	23:BA:712(B):A:OP1	2.25	0.54
3:AC:130:VAL:O	3:AC:134:ILE:HG13	2.07	0.54
11:CK:59:TYR:CZ	11:CK:63:LEU:HD11	2.42	0.54
1:CA:57:G:C8	1:CA:58:C:C5	2.95	0.54
38:BP:24:PRO:HA	38:BP:49:VAL:CG1	2.33	0.54
23:BA:2842:G:H1	23:BA:2875:C:N4	2.05	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CH:89:PRO:HA	8:CH:92:ARG:NH1	2.22	0.54
25:BC:136:ILE:HG23	25:BC:137:PRO:HD2	1.88	0.54
37:BO:65:VAL:O	37:BO:69:VAL:HG12	2.06	0.54
1:AA:724:G:C2	1:AA:725:G:C8	2.95	0.54
1:AA:99:C:C2	1:AA:101:A:C8	2.95	0.54
23:DA:480:A:OP2	43:DU:46:LYS:HE2	2.07	0.54
50:D2:52:TYR:C	50:D2:52:TYR:CD1	2.80	0.54
25:BC:148:GLU:HB2	25:BC:151:LYS:HD2	1.89	0.54
38:DP:105:LEU:O	38:DP:107:ASP:CG	2.46	0.54
23:DA:1963:U:C2'	23:DA:1963:U:O2	2.54	0.54
23:BA:1348:G:C2'	23:BA:1349:A:H5''	2.35	0.54
44:DV:24:LEU:O	44:DV:24:LEU:HG	2.07	0.54
44:DV:85:HIS:ND1	44:DV:85:HIS:C	2.61	0.54
44:DV:24:LEU:HD11	44:DV:85:HIS:HA	1.90	0.54
23:BA:2346:A:C2	23:BA:2383:G:C2	2.95	0.54
17:AQ:40:LYS:HG2	17:AQ:41:LYS:N	2.23	0.54
1:AA:579:G:C4	1:AA:580:U:C6	2.95	0.54
44:BV:37:VAL:O	44:BV:38:TYR:HB3	2.07	0.54
23:BA:2243:U:H2'	23:BA:2244:U:C6	2.42	0.54
23:DA:1449:G:H2'	23:DA:1450:C:H6	1.71	0.54
7:CG:26:PHE:HB2	7:CG:62:PHE:HZ	1.72	0.54
1:AA:1423:G:H2'	1:AA:1424:C:C6	2.42	0.54
23:DA:2023:G:H5'	23:DA:2617:C:H4'	1.90	0.54
9:CI:86:VAL:HG23	9:CI:93:ARG:HB2	1.90	0.54
23:BA:1638:C:H4'	23:BA:2710:C:O2	2.07	0.54
3:CC:186:PHE:CZ	3:CC:188:LEU:HD13	2.43	0.54
3:CC:121:ALA:HB1	3:CC:188:LEU:O	2.07	0.54
11:AK:124:LYS:HD2	11:AK:125:PHE:HE1	1.73	0.54
23:DA:907:U:O2'	35:DM:101:ARG:NH2	2.40	0.54
26:DD:73:GLU:OE2	26:DD:74:PRO:HD2	2.08	0.54
47:DY:38:GLN:HB3	47:DY:44:LEU:O	2.07	0.54
23:BA:749:C:O2	23:BA:1618:A:H2'	2.07	0.54
1:CA:1296:C:C5	1:CA:1297:C:H5	2.24	0.54
3:AC:13:GLY:HA3	14:AN:57:ARG:HE	1.70	0.54
32:BJ:112:LYS:O	32:BJ:116:THR:HG23	2.07	0.54
23:DA:993:G:C4	23:DA:994:C:C5	2.95	0.54
30:BH:88:ILE:HG22	30:BH:90:GLY:N	2.22	0.54
23:BA:994:C:O2'	23:BA:996:A:OP1	2.25	0.54
25:DC:126:GLN:HG2	25:DC:127:VAL:N	2.22	0.54
23:DA:603:A:N1	23:DA:655:A:N3	2.55	0.54
44:DV:3:TYR:CD1	44:DV:3:TYR:N	2.74	0.54
5:AE:139:LEU:HA	5:AE:142:LEU:HD12	1.89	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1068:G:N7	1:AA:1094:G:C8	2.75	0.54
48:DZ:26:LEU:HD21	48:DZ:46:ASN:CB	2.37	0.54
2:AB:24:TRP:CZ3	2:AB:29:ALA:HB2	2.42	0.54
46:BX:62:VAL:CG2	46:BX:63:ALA:N	2.70	0.54
40:BR:28:GLU:O	40:BR:61:VAL:HG21	2.07	0.54
42:DT:23:GLU:OE1	42:DT:23:GLU:HA	2.06	0.54
25:DC:133:LEU:HD13	25:DC:173:VAL:HG11	1.89	0.54
40:BR:58:VAL:HG12	40:BR:97:LYS:HB2	1.88	0.54
1:CA:712:A:N6	1:CA:713:G:C6	2.75	0.54
28:DF:133:LEU:HD23	28:DF:133:LEU:N	2.22	0.54
23:BA:784:A:C5	25:BC:229:VAL:HG21	2.43	0.54
30:BH:7:GLU:CD	30:BH:8:PRO:HD2	2.28	0.54
23:DA:1777:U:C2'	23:DA:1778:U:H5'	2.36	0.54
1:AA:564:C:C2	17:AQ:31:LEU:HD11	2.42	0.54
32:BJ:65:TRP:HA	32:BJ:71:MET:HE1	1.89	0.54
23:DA:1390:U:O2'	23:DA:1391:U:H5'	2.06	0.54
23:DA:1388:G:H4'	23:DA:1525:G:O2'	2.06	0.54
1:CA:20:U:O2'	1:CA:21:G:H5'	2.07	0.54
29:BG:86:GLU:O	29:BG:86:GLU:HG2	2.07	0.54
23:BA:1921:G:O2'	23:BA:1922:G:H5'	2.08	0.54
39:BQ:62:ILE:HD12	39:BQ:76:TYR:CE1	2.42	0.54
23:DA:1845:G:OP1	25:DC:258:LYS:HE3	2.07	0.54
16:CP:43:LYS:HA	16:CP:48:TRP:HB3	1.88	0.54
23:DA:271(C):G:N7	23:DA:421:U:H2'	2.23	0.54
8:AH:119:LEU:N	8:AH:119:LEU:HD23	2.22	0.54
23:DA:1856:G:H2'	23:DA:1857:G:O4'	2.07	0.54
23:DA:1856:G:C2	23:DA:1887:C:N3	2.76	0.54
23:DA:2364:C:H2'	23:DA:2365:G:O4'	2.08	0.54
1:CA:1040:U:H2'	1:CA:1041:A:H8	1.70	0.54
1:AA:20:U:O2'	1:AA:21:G:H5'	2.07	0.54
23:BA:1918:A:O2'	23:BA:1920:C:N4	2.40	0.54
48:BZ:23:LEU:CD1	48:BZ:23:LEU:N	2.70	0.54
1:AA:1387:G:H2'	1:AA:1388:C:H6	1.71	0.54
23:BA:464:U:H4'	52:B4:5:TRP:CZ3	2.43	0.54
1:AA:1381:U:O2'	1:AA:1382:C:H5'	2.07	0.54
2:AB:235:SER:O	2:AB:239:VAL:HG23	2.07	0.54
2:CB:37:ASN:O	2:CB:39:ILE:HD12	2.07	0.54
23:BA:1115:G:O2'	23:BA:1116:C:H5'	2.07	0.54
23:BA:1762:A:O5'	23:BA:1762:A:H8	1.91	0.54
26:DD:114:ALA:O	26:DD:157:ALA:HB1	2.06	0.54
23:BA:2079:U:H2'	23:BA:2080:G:O5'	2.06	0.54
1:AA:258:G:H2'	1:AA:259:G:H8	1.72	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:D5:22:VAL:CG1	53:D5:50:LEU:HD12	2.37	0.54
1:CA:1366:C:C4	1:CA:1367:C:C4	2.96	0.54
34:BL:32:THR:HB	34:BL:36:LYS:HB2	1.89	0.54
23:DA:1257:C:OP1	27:DE:72:ARG:NH1	2.40	0.54
2:CB:154:LEU:HD13	2:CB:155:LEU:N	2.22	0.54
34:DL:49:ARG:O	34:DL:50:ARG:C	2.46	0.54
23:DA:114(B):A:C5	23:DA:1144:G:C5	2.95	0.54
23:BA:195:A:OP1	34:BL:46:LYS:HE2	2.07	0.54
16:AP:22:THR:HG22	16:AP:32:TYR:CB	2.37	0.54
12:AL:31:PHE:HB3	12:AL:84:ILE:O	2.06	0.54
44:DV:48:PHE:CZ	44:DV:52:SER:HA	2.42	0.54
3:AC:36:ASP:OD2	3:AC:57:ILE:HG21	2.07	0.54
1:AA:17:U:H2'	1:AA:18:C:C6	2.42	0.54
1:AA:1366:C:C4	1:AA:1367:C:C4	2.95	0.54
1:CA:506:G:C6	1:CA:507:C:C4	2.95	0.54
23:DA:2330:G:O2'	45:DW:41:ARG:HB2	2.08	0.54
23:BA:1257:C:OP1	27:BE:72:ARG:NH1	2.40	0.54
1:AA:859:A:H2'	1:AA:860:A:O4'	2.07	0.54
23:BA:783:A:C3'	23:BA:783:A:C8	2.89	0.54
23:DA:390:A:C5	34:DL:71:VAL:HG21	2.43	0.54
4:AD:79:PHE:CZ	4:AD:204:ILE:HA	2.43	0.54
23:BA:1670:C:OP2	23:BA:2550:G:OP1	2.25	0.54
38:DP:1:MET:O	38:DP:3:ARG:N	2.41	0.54
26:DD:110:GLY:O	36:DN:5:LYS:NZ	2.39	0.54
2:AB:22:LYS:HA	2:AB:22:LYS:NZ	2.22	0.54
28:BF:10:LYS:O	28:BF:14:GLU:HB3	2.08	0.54
41:BS:22:ASP:HA	41:BS:25:ARG:NH1	2.21	0.54
23:DA:176:G:O2'	23:DA:177:G:H5'	2.07	0.54
35:BM:69:PHE:CD1	35:BM:70:PRO:HD2	2.42	0.54
23:DA:1451:C:H42	23:DA:1459:G:H1	1.56	0.54
23:DA:2572:A:H2'	26:DD:144:ARG:HG3	1.89	0.54
1:CA:667:G:H4'	15:CO:51:HIS:ND1	2.22	0.54
23:BA:914:C:H5	23:BA:915:C:C6	2.25	0.54
23:DA:611:C:C2	23:DA:612:G:C8	2.95	0.54
36:DN:14:SER:O	36:DN:15:SER:C	2.44	0.54
24:DB:35:U:O2'	24:DB:36:C:H5'	2.08	0.54
2:CB:96:ARG:H	2:CB:96:ARG:HD2	1.72	0.54
3:AC:12:LEU:O	3:AC:12:LEU:HD13	2.06	0.54
23:DA:544:C:H6	23:DA:544:C:O5'	1.90	0.54
1:AA:285:G:O2'	1:AA:286:G:H5'	2.08	0.54
23:BA:1268:A:C2'	23:BA:1269:A:O5'	2.56	0.54
1:CA:1366:C:H2'	1:CA:1367:C:C6	2.42	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:946:A:H2'	1:CA:947:G:H8	1.72	0.54
25:BC:108:PRO:HG3	25:BC:143:HIS:HE1	1.73	0.54
16:AP:21:VAL:HG23	16:AP:33:ILE:HB	1.90	0.54
4:AD:9:CYS:SG	4:AD:31:CYS:O	2.66	0.54
23:DA:125:G:OP2	52:D4:19:ARG:NH1	2.40	0.54
23:BA:1813:G:O2'	25:BC:50:THR:HG21	2.07	0.54
24:DB:46:A:H2'	24:DB:47:C:C6	2.43	0.54
44:DV:33:LEU:HD23	44:DV:90:VAL:HG21	1.89	0.54
1:AA:392:G:C4	1:AA:393:A:C8	2.95	0.54
5:AE:10:MET:HG3	5:AE:13:ILE:HD11	1.90	0.54
1:CA:1309:G:H22	1:CA:1329:A:H1'	1.72	0.54
41:DS:23:LEU:HD22	50:D2:25:LEU:HD13	1.88	0.54
1:CA:332:G:O2'	1:CA:333:G:H5'	2.07	0.54
29:DG:46:GLU:O	29:DG:49:VAL:HG22	2.08	0.54
23:DA:2894:G:H2'	23:DA:2894:G:N3	2.22	0.54
23:DA:1953:A:H2	23:DA:2549:G:N3	2.04	0.54
53:B5:57:ARG:CZ	53:B5:57:ARG:CA	2.84	0.54
18:AR:56:THR:HB	18:AR:58:LEU:CD1	2.38	0.54
25:BC:25:THR:HG22	25:BC:82:ILE:H	1.73	0.54
1:CA:1179:A:H2'	1:CA:1180:A:O4'	2.07	0.54
43:BU:47:LYS:HA	43:BU:60:PHE:CZ	2.42	0.54
38:DP:27:THR:HG22	38:DP:90:GLN:HB3	1.89	0.54
23:DA:334:C:O2'	23:DA:335:C:P	2.66	0.54
1:AA:1357:A:C6	1:AA:1358:U:N3	2.75	0.54
35:BM:38:GLU:HB2	35:BM:127:ILE:CG1	2.38	0.54
23:DA:1414:G:C4	23:DA:1415:U:C5	2.96	0.54
36:BN:93:GLY:O	36:BN:117:VAL:HG11	2.07	0.54
1:AA:518:C:C5	1:AA:530:G:C4	2.96	0.54
1:CA:565:U:C6	1:CA:566:G:C8	2.95	0.54
8:CH:38:ILE:HD11	8:CH:118:VAL:O	2.07	0.54
1:CA:160:A:H4'	1:CA:344:A:C6	2.43	0.54
6:AF:12:PRO:HG3	6:AF:57:GLN:O	2.08	0.54
23:BA:1231:G:O2'	23:BA:1232:G:H5'	2.08	0.54
1:AA:1262:C:OP2	21:AU:25:LYS:HD3	2.08	0.54
1:CA:356:A:H2'	1:CA:357:G:C8	2.43	0.54
19:CS:53:ASN:HD22	19:CS:55:LYS:H	1.53	0.54
23:BA:399:G:C2'	23:BA:400:G:H5'	2.38	0.54
23:BA:1027:A:C2	23:BA:2488:A:H5'	2.43	0.54
1:AA:356:A:O2'	1:AA:357:G:H5'	2.08	0.54
23:BA:898:C:H2'	23:BA:899:A:O4'	2.07	0.54
23:BA:2097:C:C2'	23:BA:2098:U:H5'	2.37	0.54
23:DA:2098:U:O2'	23:DA:2099:U:O5'	2.24	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1516:G:H2'	1:CA:1518:A:OP2	2.07	0.54
23:BA:263:C:H2'	23:BA:264:C:O4'	2.07	0.54
34:DL:30:THR:HG22	34:DL:31:ALA:N	2.22	0.54
1:CA:127:G:C2	1:CA:128:G:C8	2.96	0.54
1:CA:1217:C:H5''	14:CN:9:LYS:HZ1	1.72	0.54
1:CA:744:C:H3'	1:CA:744:C:C6	2.42	0.54
3:CC:16:ARG:NH1	3:CC:16:ARG:HB2	2.22	0.54
42:BT:75:ASP:O	42:BT:76:ARG:HG3	2.07	0.54
2:AB:154:LEU:HD13	2:AB:155:LEU:N	2.23	0.54
2:AB:70:PHE:O	2:AB:71:VAL:HG13	2.07	0.54
34:BL:33:ARG:CB	34:BL:36:LYS:HD3	2.38	0.54
12:CL:31:PHE:HB3	12:CL:84:ILE:O	2.08	0.54
39:BQ:88:ILE:HG22	40:BR:47:VAL:O	2.07	0.54
1:AA:386:C:C3'	1:AA:387:U:H5''	2.37	0.54
46:DX:10:LYS:O	46:DX:11:ARG:CG	2.55	0.54
40:DR:61:VAL:O	40:DR:61:VAL:HG23	2.07	0.54
2:CB:8:LYS:HG2	2:CB:217:ARG:NH1	2.22	0.54
11:AK:20:TYR:O	11:AK:30:VAL:HA	2.08	0.54
1:CA:592:G:C2	1:CA:593:G:N7	2.75	0.54
12:AL:23:VAL:HG12	12:AL:23:VAL:O	2.06	0.54
3:AC:86:VAL:O	3:AC:90:GLU:HG2	2.07	0.54
3:AC:150:LYS:O	3:AC:200:ALA:HA	2.07	0.54
23:BA:1746:G:C2	23:BA:1747:G:N7	2.76	0.54
7:AG:40:ALA:O	7:AG:44:TYR:HD1	1.90	0.54
14:AN:43:CYS:SG	14:AN:44:LEU:N	2.81	0.54
23:BA:573:G:O2'	23:BA:574:C:H3'	2.07	0.54
23:DA:205:G:HO2'	23:DA:206:U:P	2.28	0.54
53:D5:29:LYS:HB2	53:D5:44:LYS:HB3	1.89	0.54
24:DB:28:C:H2'	24:DB:29:A:O4'	2.08	0.54
33:DK:60:ALA:HB2	33:DK:86:ILE:HA	1.87	0.54
23:DA:1015:G:C2'	23:DA:1016:G:H5'	2.37	0.54
1:CA:439:A:H2'	1:CA:440:A:H5'	1.89	0.54
1:AA:1389:C:H2'	1:AA:1390:U:O4'	2.08	0.54
23:BA:57:C:H2'	23:BA:58:G:O4'	2.08	0.54
27:DE:126:VAL:O	27:DE:196:LEU:HG	2.07	0.54
3:AC:111:LEU:HD23	3:AC:146:ALA:HB2	1.89	0.54
30:DH:12:LEU:HD22	30:DH:12:LEU:N	2.23	0.54
8:CH:123:GLU:O	8:CH:127:LEU:HB2	2.08	0.54
45:BW:27:GLU:HB2	45:BW:69:PHE:HD1	1.72	0.54
1:AA:1305:G:C8	1:AA:1305:G:OP2	2.61	0.54
43:BU:8:LYS:HZ3	43:BU:8:LYS:C	2.09	0.54
26:DD:24:THR:HG21	26:DD:188:VAL:CG1	2.38	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:858:U:C2	23:DA:2268:A:C2	2.95	0.54
23:DA:307:G:N1	23:DA:310:A:OP2	2.41	0.54
43:DU:68:HIS:O	43:DU:70:SER:N	2.41	0.54
2:AB:181:PHE:O	2:AB:183:PRO:HD3	2.07	0.54
7:AG:113:GLU:CB	7:AG:119:ARG:HG2	2.23	0.54
23:DA:806:C:OP2	34:DL:39:LYS:HD3	2.08	0.54
38:BP:56:GLY:C	38:BP:57:PHE:O	2.45	0.54
25:BC:126:GLN:HG2	25:BC:127:VAL:N	2.22	0.54
1:CA:386:C:C3'	1:CA:387:U:H5''	2.37	0.54
23:DA:1266:G:C6	41:DS:16:LYS:HD2	2.43	0.54
1:AA:328:C:H4'	1:AA:329:A:H5'	1.88	0.54
28:BF:40:ASN:O	28:BF:155:MET:HB2	2.08	0.54
23:DA:140:A:C8	23:DA:1408:C:O2'	2.55	0.54
5:CE:110:LEU:O	5:CE:113:ALA:HB3	2.08	0.54
1:CA:199:G:H1	1:CA:218:C:N4	1.98	0.54
43:DU:81:LYS:CD	43:DU:96:ILE:HG13	2.37	0.54
1:AA:10:A:H2'	1:AA:11:G:C8	2.42	0.54
1:AA:11:G:C5	1:AA:12:U:C5	2.95	0.54
1:AA:1292:U:C2	1:AA:1293:G:C8	2.96	0.54
23:DA:752:A:H3'	52:D4:1:MET:CE	2.37	0.54
1:CA:616:G:H1'	1:CA:625:G:N2	2.22	0.54
23:DA:7:G:N2	23:DA:2897:U:C4	2.76	0.54
10:CJ:34:VAL:HG13	10:CJ:74:ILE:HG22	1.90	0.54
23:BA:1568:G:OP2	25:BC:63:ARG:NH2	2.38	0.54
44:DV:44:PHE:CE2	44:DV:86:VAL:HG11	2.43	0.54
4:AD:4:TYR:HE1	4:AD:11:LEU:HD11	1.72	0.54
23:DA:2432:A:H2'	23:DA:2433:A:C8	2.43	0.54
23:BA:752:A:H3'	52:B4:1:MET:CE	2.37	0.54
1:AA:1429:C:H2'	1:AA:1430:C:C6	2.43	0.54
23:DA:2705:A:C2	36:DN:64:ARG:NH1	2.76	0.54
1:AA:716:A:N3	11:AK:118:GLY:HA2	2.23	0.54
23:BA:185:U:H2'	23:BA:186:G:H8	1.73	0.54
23:DA:880:G:H2'	23:DA:881:G:H8	1.72	0.54
24:DB:116:G:H4'	37:DO:55:ALA:O	2.07	0.54
23:BA:1241:A:N6	23:BA:1242:A:C6	2.76	0.54
5:CE:103:GLY:O	5:CE:104:ALA:C	2.46	0.54
23:DA:430:G:H5''	23:DA:431:U:OP2	2.08	0.54
27:BE:150:GLY:HA2	27:BE:172:TRP:CD2	2.41	0.54
19:CS:40:ILE:HD13	19:CS:62:ILE:HD11	1.90	0.54
9:AI:83:ARG:HA	9:AI:86:VAL:HG12	1.88	0.54
9:AI:85:LEU:O	9:AI:89:ASN:HB2	2.07	0.54
23:BA:2607:G:H2'	23:BA:2608:G:O4'	2.06	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:1465:G:C2	23:DA:1466:G:C8	2.96	0.54
1:CA:497:U:O2	1:CA:497:U:H2'	2.07	0.54
3:CC:12:LEU:HD13	3:CC:12:LEU:O	2.08	0.54
25:BC:210:GLY:HA2	25:BC:213:ARG:HG3	1.89	0.54
23:DA:2419:U:O4	53:D5:30:ARG:NH1	2.40	0.54
10:AJ:63:PHE:HB3	14:AN:57:ARG:O	2.08	0.54
23:BA:1543:A:C8	23:BA:1545:A:H5''	2.42	0.54
22:AV:6213:A:C6	22:AV:6214:C:N4	2.76	0.54
10:CJ:62:HIS:O	14:CN:59:ALA:HB3	2.08	0.54
12:CL:31:PHE:HD2	12:CL:85:ARG:HA	1.71	0.54
23:BA:1022:G:H8	32:BJ:92:GLN:NE2	2.05	0.54
23:BA:1141:U:H4'	23:BA:114(B):A:O4'	2.06	0.54
23:BA:2579:C:O4'	26:BD:134:ILE:HG12	2.08	0.54
36:BN:107:ASP:OD2	36:BN:107:ASP:C	2.44	0.54
23:BA:1414:G:C4	23:BA:1415:U:C5	2.96	0.54
25:DC:246:PRO:HD2	25:DC:255:LYS:HB3	1.90	0.54
44:DV:97:GLU:HB3	44:DV:125:LEU:HD21	1.89	0.54
5:CE:111:GLU:C	5:CE:113:ALA:H	2.12	0.54
1:AA:191(F):U:H2'	1:AA:191(G):G:H8	1.72	0.54
25:DC:86:PRO:HD2	25:DC:87:ASN:ND2	2.23	0.54
4:AD:129:ASN:N	4:AD:129:ASN:OD1	2.41	0.54
41:BS:29:LEU:HD21	41:BS:33:ARG:HH21	1.73	0.54
23:BA:528:A:OP2	32:BJ:134:PRO:HB3	2.08	0.54
12:AL:52:ARG:NH1	12:AL:52:ARG:CG	2.61	0.54
29:BG:84:SER:CA	29:BG:133:VAL:O	2.53	0.54
23:BA:2894:G:H2'	23:BA:2894:G:N3	2.23	0.54
23:BA:1496:A:N7	23:BA:1498:C:N3	2.55	0.54
2:CB:24:TRP:CZ3	2:CB:29:ALA:HB2	2.42	0.54
1:AA:832:C:N4	1:AA:855:G:C6	2.76	0.54
23:DA:2562:U:H2'	23:DA:2563:U:H5'	1.89	0.54
23:BA:81:G:H21	43:BU:2:ARG:NH2	2.05	0.54
17:CQ:4:LYS:HG3	17:CQ:5:VAL:N	2.22	0.54
26:DD:117:MET:HE1	26:DD:124:GLY:HA3	1.89	0.54
13:CM:3:ARG:HG2	13:CM:9:ILE:CD1	2.37	0.54
44:DV:179:ASP:CG	44:DV:180:VAL:HG13	2.27	0.54
50:D2:40:LYS:CD	50:D2:46:CYS:HB3	2.38	0.54
23:DA:1478:G:O2'	23:DA:1558:A:H2	1.91	0.54
44:DV:74:VAL:HG22	44:DV:86:VAL:HG13	1.88	0.54
45:DW:51:VAL:HG21	45:DW:80:HIS:HA	1.89	0.54
1:CA:728:A:H2'	1:CA:729:A:C8	2.43	0.54
1:AA:546:G:P	4:AD:72:GLU:HB2	2.47	0.54
3:AC:175:LEU:HD11	3:AC:201:TYR:HE2	1.72	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:AO:24:SER:O	15:AO:28:GLN:HG3	2.07	0.54
23:BA:1726:G:C2	23:BA:1735:U:O2	2.61	0.54
19:AS:53:ASN:HD22	19:AS:55:LYS:H	1.54	0.54
7:AG:26:PHE:HB2	7:AG:62:PHE:HZ	1.73	0.54
1:AA:145:G:C2	1:AA:178:C:N3	2.76	0.54
23:BA:1204:A:N1	23:BA:1241:A:C2	2.75	0.54
23:DA:2038:G:H2'	23:DA:2039:C:H6	1.72	0.54
1:CA:258:G:H2'	1:CA:259:G:H8	1.73	0.54
48:BZ:10:LYS:HB3	48:BZ:53:LEU:HD23	1.89	0.54
36:BN:96:ARG:HD3	36:BN:98:LEU:HD21	1.90	0.54
23:DA:298:G:OP2	43:DU:85:VAL:HG22	2.07	0.54
1:CA:270:A:C6	1:CA:271:C:C4	2.95	0.54
23:BA:1403:C:H5''	23:BA:1471:A:H1'	1.90	0.54
27:DE:93:LYS:HB3	27:DE:94:PRO:HD2	1.89	0.54
3:CC:139:GLN:HA	3:CC:139:GLN:OE1	2.07	0.54
30:DH:57:ARG:O	30:DH:57:ARG:HG2	2.08	0.54
34:DL:115:LEU:HA	34:DL:134:ALA:CB	2.38	0.54
22:CV:6182:A:N1	22:CV:6183:G:C4	2.75	0.54
1:CA:1364:U:O2'	1:CA:1365:G:H5'	2.08	0.54
42:DT:63:LYS:HE3	42:DT:72:LYS:HG2	1.89	0.54
2:CB:181:PHE:O	2:CB:183:PRO:HD3	2.08	0.54
23:BA:1971:A:C5	25:BC:241:PRO:HG3	2.43	0.54
39:DQ:102:GLU:HG3	40:DR:2:PHE:CE1	2.43	0.54
25:DC:34:VAL:O	25:DC:35:LYS:HD3	2.07	0.54
23:DA:748:G:C8	23:DA:750:A:C8	2.96	0.54
1:CA:376:G:N3	1:CA:389:A:C2	2.75	0.54
23:DA:2731:G:C6	23:DA:2732:G:O6	2.61	0.54
47:BY:28:LYS:HG3	47:BY:60:LEU:HD12	1.90	0.54
23:BA:1407:C:H2'	23:BA:1408:C:C6	2.43	0.54
23:BA:1589:C:O2	23:BA:1589:C:H2'	2.08	0.54
23:BA:1408:C:H42	23:BA:1594:G:H1	1.55	0.54
4:CD:31:CYS:O	4:CD:32:ALA:HB3	2.08	0.54
1:AA:15:G:H2'	1:AA:16:A:H8	1.71	0.54
4:CD:100:ARG:NH2	4:CD:118:ARG:HH12	2.03	0.54
10:AJ:13:HIS:CE1	10:AJ:14:LYS:HG3	2.43	0.54
41:DS:29:LEU:HD22	41:DS:69:LEU:HD11	1.90	0.54
1:CA:9:G:H2'	1:CA:10:A:H8	1.73	0.54
8:CH:9:MET:O	8:CH:12:ARG:HB2	2.08	0.54
1:AA:616:G:H1'	1:AA:625:G:N2	2.23	0.54
1:CA:456:C:N4	1:CA:476:G:H1	2.06	0.54
38:BP:89:VAL:O	38:BP:90:GLN:CB	2.55	0.54
23:BA:282:A:N6	23:BA:284:U:C2	2.76	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:AT:11:SER:HA	20:AT:13:LEU:HD13	1.89	0.54
1:CA:862:C:H2'	1:CA:863:U:C5'	2.38	0.54
3:CC:150:LYS:O	3:CC:200:ALA:HA	2.08	0.54
1:CA:1378:C:H3'	1:CA:1379:G:H5''	1.90	0.54
1:AA:1089:G:C5	1:AA:1090:U:C5	2.96	0.54
1:CA:414:A:H2'	1:CA:415:A:C8	2.43	0.54
23:BA:2852:G:H2'	23:BA:2853:C:C6	2.43	0.54
1:AA:1428:A:H2'	1:AA:1429:C:O4'	2.08	0.54
9:CI:99:LEU:HD12	9:CI:101:PHE:CE2	2.43	0.54
23:DA:205:G:O2'	23:DA:206:U:OP2	2.19	0.54
26:BD:176:ILE:O	26:BD:176:ILE:HG22	2.06	0.54
41:BS:45:TYR:CD2	41:BS:45:TYR:C	2.81	0.54
5:AE:79:GLU:HB3	5:AE:92:LYS:HA	1.89	0.54
23:DA:1336:A:OP1	42:DT:64:LYS:HD3	2.08	0.54
1:AA:926:G:C6	1:AA:1505:G:C5	2.96	0.54
3:CC:125:GLU:OE2	3:CC:189:ALA:HA	2.08	0.54
35:DM:73:PRO:HA	35:DM:93:TYR:CD2	2.43	0.54
3:AC:81:GLY:O	3:AC:85:ARG:HD3	2.08	0.54
39:BQ:47:TYR:C	39:BQ:47:TYR:CD2	2.80	0.54
48:DZ:10:LYS:HB3	48:DZ:53:LEU:HD23	1.89	0.54
13:AM:14:ARG:HG2	13:AM:44:ARG:NH1	2.21	0.54
23:DA:2564:A:OP1	23:DA:2648:C:H4'	2.08	0.54
23:DA:433:C:H2'	23:DA:434:U:C6	2.43	0.54
23:BA:482:A:C2	23:BA:506:G:C5	2.96	0.54
14:CN:12:ARG:HG2	14:CN:14:PRO:HD3	1.89	0.54
7:AG:49:ILE:HG22	7:AG:49:ILE:O	2.08	0.54
23:BA:2602:A:OP2	23:BA:2602:A:H4'	2.08	0.54
42:DT:4:ALA:C	42:DT:6:ASP:H	2.11	0.54
23:BA:1689:A:H62	23:BA:1698:A:H2	1.56	0.54
2:AB:183:PRO:HA	2:AB:198:ASP:OD1	2.08	0.54
1:CA:1353:G:H8	1:CA:1353:G:OP2	1.91	0.54
34:DL:33:ARG:CG	34:DL:34:GLY:N	2.71	0.54
32:BJ:90:LEU:H	32:BJ:90:LEU:HD12	1.73	0.54
42:BT:71:GLY:C	42:BT:72:LYS:HG3	2.28	0.54
28:BF:86:MET:N	28:BF:87:PRO:HD3	2.23	0.54
25:BC:142:VAL:HG23	25:BC:193:VAL:HA	1.90	0.54
30:BH:68:LEU:C	30:BH:138:ILE:HD13	2.27	0.54
39:BQ:92:ARG:NE	39:BQ:94:ASN:HB3	2.23	0.54
23:BA:253:C:H2'	23:BA:254:G:O4'	2.08	0.54
23:BA:1812:A:O2'	25:BC:45:ASN:HB3	2.08	0.54
1:CA:92:G:C6	1:CA:93:U:C2	2.95	0.54
26:BD:50:GLY:HA2	26:BD:78:LEU:HB3	1.89	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:1493:C:O2	23:DA:1493:C:H2'	2.08	0.54
5:CE:41:VAL:HG11	5:CE:113:ALA:HB2	1.90	0.54
44:BV:102:LEU:HD21	44:BV:124:ILE:CD1	2.38	0.54
1:AA:17:U:O4'	1:AA:1080:A:H1'	2.07	0.54
46:DX:45:ASN:ND2	46:DX:47:GLN:HE21	2.06	0.54
25:DC:186:HIS:CD2	25:DC:188:GLU:HB2	2.42	0.54
29:DG:44:VAL:HG12	29:DG:45:VAL:N	2.18	0.54
25:BC:133:LEU:O	25:BC:135:PHE:N	2.40	0.54
35:DM:16:ARG:C	35:DM:17:LEU:HD23	2.28	0.54
23:BA:2658:C:H4'	29:BG:158:HIS:NE2	2.23	0.54
1:CA:781:A:H3'	1:CA:782:A:H5'	1.91	0.54
23:DA:909:A:C2	23:DA:912:C:C6	2.96	0.54
43:DU:36:ALA:HA	43:DU:67:LEU:O	2.08	0.54
35:BM:21:THR:C	35:BM:23:GLY:N	2.60	0.54
1:CA:841:U:C2'	1:CA:842:C:H5''	2.38	0.54
23:DA:2443:C:C2'	23:DA:2444:G:H5'	2.38	0.54
33:BK:63:VAL:HB	33:BK:102:VAL:HG12	1.90	0.54
1:CA:1231:G:H2'	1:CA:1232:U:H6	1.72	0.54
23:DA:564:C:O2'	23:DA:565:C:H5'	2.08	0.54
23:BA:226:G:C2	23:BA:228:A:N6	2.76	0.54
3:AC:31:HIS:O	3:AC:35:GLU:HG2	2.08	0.54
1:AA:1513:A:H2'	1:AA:1514:C:H6	1.71	0.54
7:CG:138:LYS:O	7:CG:142:GLU:HG3	2.08	0.54
7:AG:69:VAL:HG12	7:AG:69:VAL:O	2.08	0.54
1:CA:44:G:C2	1:CA:399:G:C2	2.96	0.54
10:AJ:6:ILE:O	10:AJ:71:LEU:HD12	2.08	0.54
18:CR:84:LYS:HB3	18:CR:84:LYS:NZ	2.23	0.54
23:DA:1403:C:H5''	23:DA:1471:A:C1'	2.37	0.54
1:CA:1167:A:N7	1:CA:1169:A:C5	2.76	0.54
42:DT:64:LYS:HG2	42:DT:65:ARG:HH21	1.73	0.54
23:DA:2038:G:C6	23:DA:2039:C:C4	2.96	0.54
9:CI:24:GLY:O	9:CI:26:VAL:HG23	2.08	0.54
7:AG:38:LEU:O	7:AG:42:ILE:HG13	2.08	0.54
23:BA:1717:G:C6	23:BA:1743:G:C6	2.96	0.54
1:AA:698:G:C6	1:AA:699:C:C4	2.96	0.54
23:DA:370:G:H4'	23:DA:371:A:OP2	2.08	0.54
11:AK:86:GLY:C	11:AK:88:GLY:H	2.11	0.54
29:BG:13:LYS:O	29:BG:15:VAL:HG13	2.08	0.54
31:DI:57:THR:HG23	31:DI:60:ARG:HH12	1.73	0.54
35:BM:83:MET:O	35:BM:83:MET:HG3	2.08	0.54
41:DS:62:HIS:C	41:DS:64:MET:H	2.12	0.54
1:AA:419:C:O2	1:AA:425:G:C2	2.61	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:DW:27:GLU:HB2	45:DW:69:PHE:HD1	1.71	0.54
46:DX:17:SER:HA	46:DX:44:PRO:HD3	1.90	0.54
36:DN:30:THR:HG22	36:DN:31:HIS:ND1	2.23	0.54
23:DA:627:A:C6	23:DA:637:A:C8	2.95	0.53
47:BY:3:LEU:O	47:BY:4:SER:C	2.47	0.53
26:DD:171:GLU:HG2	26:DD:185:LYS:HG2	1.90	0.53
26:DD:102:VAL:HA	26:DD:199:ARG:O	2.08	0.53
25:DC:208:LYS:HG3	25:DC:211:ARG:H	1.73	0.53
39:DQ:92:ARG:NE	39:DQ:94:ASN:HB3	2.22	0.53
35:DM:88:GLY:C	35:DM:89:ASN:CG	2.67	0.53
23:DA:1615:C:C2	41:DS:87:PRO:HG2	2.43	0.53
39:BQ:92:ARG:HH22	40:BR:11:GLN:H	1.53	0.53
23:DA:2729:G:H2'	23:DA:2730:C:C6	2.43	0.53
3:AC:116:VAL:HG21	3:AC:202:ILE:HD11	1.90	0.53
4:CD:93:PHE:O	4:CD:97:LEU:HG	2.07	0.53
3:CC:29:TYR:HD1	3:CC:29:TYR:O	1.90	0.53
44:BV:94:GLU:HB2	44:BV:95:PRO:HD2	1.89	0.53
2:AB:97:TRP:CZ2	2:AB:102:LEU:HD13	2.37	0.53
1:AA:1346:A:H5''	9:AI:120:ARG:HH12	1.74	0.53
25:BC:186:HIS:CD2	25:BC:188:GLU:HB2	2.43	0.53
33:BK:103:ALA:HB1	33:BK:105:GLU:OE1	2.08	0.53
23:DA:1504:C:O2'	23:DA:1505:C:O5'	2.26	0.53
23:BA:1329:U:H5''	23:BA:1330:C:C5	2.40	0.53
1:AA:1118:C:C5'	9:AI:104:ARG:HG3	2.38	0.53
1:AA:101:A:C4	1:AA:102:G:C8	2.96	0.53
1:AA:620:C:H2'	1:AA:621:A:O4'	2.07	0.53
28:DF:111:LEU:HB2	28:DF:112:PRO:HD3	1.90	0.53
23:BA:2478:A:H2'	23:BA:2479:G:O4'	2.07	0.53
27:DE:153:SER:OG	27:DE:190:GLU:HG3	2.08	0.53
23:DA:276:A:N7	23:DA:278:A:H8	2.06	0.53
1:AA:1207:G:H2'	1:AA:1208:C:H6	1.72	0.53
17:CQ:29:HIS:CE1	17:CQ:32:TYR:CD1	2.96	0.53
23:BA:1538:G:H2'	23:BA:1539:G:H8	1.73	0.53
7:AG:40:ALA:O	7:AG:44:TYR:CD1	2.60	0.53
23:DA:492:A:C2'	23:DA:493:G:H5'	2.38	0.53
1:AA:160:A:H4'	1:AA:344:A:C6	2.42	0.53
2:CB:22:LYS:NZ	2:CB:22:LYS:HA	2.23	0.53
23:DA:2079:U:H2'	23:DA:2080:G:O5'	2.09	0.53
23:BA:531:C:H4'	23:BA:532:A:H5''	1.89	0.53
23:DA:444:C:H4'	27:DE:49:ALA:HB2	1.91	0.53
19:CS:25:LYS:HB3	19:CS:27:GLU:OE1	2.08	0.53
23:BA:2771:C:O2	23:BA:2771:C:H2'	2.07	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:1356:G:C5	23:DA:1357:U:C5	2.96	0.53
2:AB:74:LYS:HZ2	2:AB:74:LYS:CB	2.20	0.53
23:BA:89:G:C4	23:BA:90:U:C5	2.96	0.53
23:DA:2602:A:OP2	23:DA:2602:A:H4'	2.09	0.53
23:BA:1647:G:OP2	23:BA:1647:G:H3'	2.09	0.53
23:DA:2607:G:H2'	23:DA:2608:G:O4'	2.08	0.53
35:BM:55:VAL:HG22	35:BM:56:ARG:N	2.23	0.53
53:D5:51:ALA:C	53:D5:52:LYS:HD3	2.29	0.53
34:DL:132:LYS:O	34:DL:136:GLU:HG2	2.08	0.53
23:DA:1529:A:C8	23:DA:1530:G:C8	2.96	0.53
24:BB:81:G:C5	24:BB:82:G:C8	2.96	0.53
12:CL:116:ARG:O	12:CL:118:LYS:N	2.42	0.53
23:BA:819:A:C4	23:BA:1189:A:C2	2.95	0.53
23:DA:2338:G:O2'	23:DA:2339:G:H5'	2.08	0.53
1:AA:408:A:H2'	1:AA:409:G:H8	1.73	0.53
12:AL:26:LEU:HB3	12:AL:29:ALA:CB	2.38	0.53
25:BC:33:LEU:C	25:BC:35:LYS:N	2.61	0.53
42:DT:35:THR:HG22	42:DT:36:LYS:N	2.24	0.53
3:CC:33:LEU:HD21	14:CN:53:LEU:CD2	2.32	0.53
1:CA:1252:A:O2'	1:CA:1253:G:H5'	2.08	0.53
49:B1:51:TYR:O	49:B1:52:SER:HB2	2.07	0.53
23:BA:2352:A:H2'	23:BA:2353:G:H5'	1.90	0.53
1:AA:1202:G:H4'	14:AN:29:ARG:CD	2.38	0.53
19:AS:40:ILE:HD13	19:AS:62:ILE:HD11	1.89	0.53
5:AE:126:ARG:NH1	5:AE:126:ARG:CG	2.60	0.53
23:BA:2723:C:OP2	26:BD:109:LYS:NZ	2.40	0.53
29:BG:12:PRO:HB2	29:BG:49:VAL:HA	1.91	0.53
23:DA:1511:A:H2'	23:DA:1512:G:C8	2.42	0.53
25:DC:58:HIS:HD2	25:DC:59:LYS:O	1.91	0.53
41:DS:43:GLY:O	41:DS:47:VAL:HG23	2.07	0.53
52:D4:1:MET:O	52:D4:2:LYS:C	2.46	0.53
1:CA:859:A:H2'	1:CA:860:A:O4'	2.07	0.53
27:BE:132:VAL:HG23	27:BE:133:ASN:N	2.22	0.53
11:CK:20:TYR:O	11:CK:30:VAL:HA	2.07	0.53
23:BA:2598:A:C2'	23:BA:2599:G:O5'	2.56	0.53
36:DN:99:LYS:HD2	36:DN:99:LYS:N	2.23	0.53
28:BF:111:LEU:HB2	28:BF:112:PRO:HD3	1.89	0.53
25:DC:131:LEU:HG	25:DC:136:ILE:HD11	1.91	0.53
1:CA:659:U:C2	1:CA:660:G:C8	2.95	0.53
1:CA:748:C:H4'	1:CA:749:C:O5'	2.08	0.53
12:AL:24:PRO:HD2	12:AL:97:TYR:OH	2.08	0.53
1:AA:938:A:C6	1:AA:939:G:C5	2.96	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:DW:31:VAL:HG23	45:DW:32:ARG:O	2.07	0.53
16:AP:43:LYS:HG2	16:AP:48:TRP:CG	2.43	0.53
23:BA:988:A:C2'	23:BA:989:G:O5'	2.56	0.53
12:CL:74:HIS:HD2	12:CL:76:LEU:N	2.06	0.53
23:DA:1862:G:H2'	23:DA:1863:G:C8	2.41	0.53
38:DP:41:ARG:HB3	38:DP:41:ARG:HH11	1.73	0.53
23:BA:1025:G:C4	23:BA:1135:C:H1'	2.43	0.53
23:DA:2058:A:C6	23:DA:2059:A:N6	2.76	0.53
1:CA:814:A:C8	1:CA:816:A:C8	2.96	0.53
38:DP:81:PRO:C	38:DP:82:LEU:HD23	2.28	0.53
23:BA:49:A:H5''	23:BA:51:G:O4'	2.07	0.53
4:CD:120:LEU:O	4:CD:125:HIS:HB2	2.08	0.53
23:DA:2822:G:H2'	23:DA:2823:A:H5''	1.88	0.53
7:CG:80:VAL:HG23	7:CG:83:ALA:HB3	1.90	0.53
1:CA:191(G):G:H2'	1:CA:192:U:H6	1.73	0.53
33:DK:9:GLU:OE1	33:DK:18:LYS:HE2	2.08	0.53
23:DA:833:U:H2'	23:DA:834:C:C6	2.42	0.53
23:BA:2527:C:C4	23:BA:2528:U:C5	2.96	0.53
12:CL:19:LYS:H	12:CL:19:LYS:HD3	1.74	0.53
29:DG:105:LEU:N	29:DG:105:LEU:HD23	2.23	0.53
34:BL:125:VAL:HG11	34:BL:138:LEU:HD22	1.89	0.53
34:BL:125:VAL:O	34:BL:145:PRO:HD2	2.09	0.53
23:BA:943:U:OP2	34:BL:38:GLN:OE1	2.26	0.53
23:BA:2420:C:OP1	53:B5:34:TRP:HA	2.08	0.53
23:BA:2296:U:O2	23:BA:2333:A:N3	2.42	0.53
39:DQ:79:PHE:HE2	39:DQ:106:PHE:CZ	2.25	0.53
35:DM:89:ASN:O	35:DM:92:GLY:N	2.40	0.53
28:DF:25:TYR:OH	28:DF:32:PRO:HD3	2.08	0.53
24:DB:7:G:H5''	37:DO:29:PHE:CD2	2.43	0.53
16:AP:67:THR:HG22	16:AP:68:ASP:N	2.22	0.53
1:AA:362:G:O3'	12:AL:32:ARG:NH2	2.42	0.53
1:AA:413:G:H21	1:AA:428:G:H1'	1.74	0.53
23:BA:1209:G:N2	23:BA:1210:A:N6	2.52	0.53
23:DA:1407:C:H2'	23:DA:1408:C:C6	2.43	0.53
23:BA:275:G:OP2	23:BA:363(A):G:N2	2.42	0.53
24:BB:73:A:C4	24:BB:104:A:C2	2.96	0.53
5:AE:41:VAL:CG1	5:AE:113:ALA:HA	2.37	0.53
3:AC:151:VAL:O	3:AC:152:ILE:HG13	2.09	0.53
46:DX:13:ILE:HA	46:DX:66:HIS:ND1	2.23	0.53
18:CR:56:THR:HB	18:CR:58:LEU:CD1	2.38	0.53
46:DX:31:GLY:O	46:DX:32:LYS:CB	2.57	0.53
46:BX:27:GLU:HB2	46:BX:33:LYS:CA	2.37	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:AQ:53:LEU:HD12	17:AQ:54:GLY:H	1.74	0.53
43:DU:2:ARG:N	43:DU:4:LYS:HZ2	2.06	0.53
4:CD:121:VAL:O	4:CD:134:ASP:HA	2.08	0.53
23:BA:2592:G:C5	23:BA:2593:U:C5	2.97	0.53
1:AA:841:U:C2'	1:AA:842:C:H5''	2.38	0.53
23:BA:1389:G:O2'	23:BA:1390:U:H5'	2.08	0.53
35:BM:20:ALA:O	35:BM:21:THR:O	2.26	0.53
23:DA:1467:C:H42	23:DA:1525:G:H1	1.55	0.53
1:CA:648:A:H2'	1:CA:649:G:C8	2.43	0.53
1:CA:509:A:C6	1:CA:510:A:N1	2.77	0.53
23:DA:988:A:H2'	23:DA:989:G:O5'	2.08	0.53
12:CL:10:VAL:HG11	17:CQ:36:ILE:HG21	1.90	0.53
23:BA:575:A:H2'	23:BA:575:A:N3	2.23	0.53
23:BA:2213:U:H5''	23:BA:2215:G:OP2	2.08	0.53
23:DA:2854:G:H2'	23:DA:2855:C:C6	2.43	0.53
1:CA:145:G:C2	1:CA:178:C:N3	2.76	0.53
23:BA:2039:C:H2'	23:BA:2040:C:H6	1.72	0.53
1:CA:224:C:C2	1:CA:225:C:C5	2.97	0.53
8:CH:50:ARG:HG2	8:CH:50:ARG:NH1	2.23	0.53
1:AA:741:G:H2'	1:AA:742:G:O4'	2.08	0.53
1:AA:1296:C:C5	1:AA:1297:C:H5	2.27	0.53
1:CA:933:G:N7	7:CG:3:ARG:NH2	2.56	0.53
23:BA:2493:U:C4	23:BA:2494:G:C8	2.95	0.53
18:CR:36:ASN:HB2	18:CR:39:VAL:HG23	1.90	0.53
3:AC:119:ARG:O	3:AC:123:GLN:HG3	2.07	0.53
41:DS:52:GLU:OE2	41:DS:52:GLU:HA	2.08	0.53
23:DA:1647:G:H3'	23:DA:1647:G:OP2	2.07	0.53
1:CA:785:G:N2	1:CA:798:G:C4	2.76	0.53
23:DA:219:G:N3	23:DA:234:C:O2'	2.37	0.53
23:DA:1543:A:H5'	23:DA:1544:C:P	2.48	0.53
34:BL:113:LYS:HA	34:BL:129:ALA:O	2.08	0.53
34:BL:80:TYR:CD1	34:BL:111:ARG:HB3	2.43	0.53
25:BC:11:PRO:O	25:BC:13:ARG:N	2.40	0.53
23:BA:1252:G:C2	23:BA:1253:A:C2	2.96	0.53
23:BA:2338:G:C2'	23:BA:2339:G:H5'	2.38	0.53
23:DA:1614:A:H61	41:DS:88:ARG:H	1.56	0.53
24:DB:83:G:C2	24:DB:84:C:C6	2.96	0.53
53:D5:62:LEU:C	53:D5:64:TYR:H	2.12	0.53
23:DA:195:A:H4'	23:DA:251:A:O2'	2.08	0.53
39:BQ:90:VAL:HG13	39:BQ:91:ASP:N	2.22	0.53
39:BQ:98:LEU:O	39:BQ:99:ALA:C	2.47	0.53
25:BC:86:PRO:HD2	25:BC:87:ASN:HD21	1.73	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BM:89:ASN:C	35:BM:92:GLY:H	2.12	0.53
2:CB:80:ILE:HD11	2:CB:208:ILE:CG2	2.38	0.53
1:CA:1202:G:H4'	14:CN:29:ARG:HD3	1.90	0.53
44:BV:97:GLU:HB3	44:BV:125:LEU:HD21	1.89	0.53
43:DU:29:GLU:HB3	43:DU:38:ILE:CB	2.33	0.53
2:AB:97:TRP:HH2	2:AB:176:GLU:CG	2.20	0.53
1:CA:42:G:C8	1:CA:42:G:OP2	2.62	0.53
1:CA:689:C:H2'	1:CA:689:C:O2	2.09	0.53
20:CT:53:LEU:HD13	20:CT:102:GLY:HA3	1.91	0.53
45:DW:56:ASP:O	45:DW:57:PHE:CB	2.56	0.53
1:CA:878:G:H1'	8:CH:3:THR:HG21	1.90	0.53
46:DX:27:GLU:CB	46:DX:33:LYS:HA	2.35	0.53
23:BA:2821:A:OP2	36:BN:5:LYS:NZ	2.37	0.53
23:BA:379:G:N1	46:BX:20:ARG:NH2	2.55	0.53
23:DA:556:G:H2'	23:DA:557:U:H6	1.72	0.53
29:BG:21:PRO:HB2	29:BG:23:ARG:NH1	2.24	0.53
8:CH:119:LEU:N	8:CH:119:LEU:HD23	2.24	0.53
23:DA:2531:A:H2	23:DA:2658:C:O2	1.92	0.53
23:DA:8:A:H2'	23:DA:9:U:C6	2.44	0.53
23:BA:2638:G:OP2	26:BD:82:ARG:NH2	2.42	0.53
18:CR:44:LEU:HA	18:CR:49:LYS:O	2.09	0.53
1:CA:658:G:C5	1:CA:659:U:C5	2.96	0.53
25:DC:72:LYS:HE2	25:DC:101:GLU:HG2	1.90	0.53
23:BA:2862:G:C6	23:BA:2863:C:C4	2.96	0.53
1:CA:913:A:C1'	1:CA:914:A:OP2	2.57	0.53
45:DW:66:VAL:O	45:DW:81:VAL:HA	2.09	0.53
1:CA:942:G:N2	1:CA:943:U:C2	2.76	0.53
1:CA:15:G:C4	1:CA:16:A:C8	2.97	0.53
1:AA:545:C:O2'	1:AA:546:G:O5'	2.26	0.53
1:CA:413:G:H21	1:CA:428:G:H1'	1.73	0.53
6:AF:9:VAL:HA	6:AF:59:TYR:O	2.08	0.53
1:AA:506:G:C6	1:AA:507:C:C4	2.97	0.53
17:AQ:7:THR:HA	17:AQ:57:VAL:O	2.08	0.53
23:BA:2279:G:N2	23:BA:2280:G:H1'	2.23	0.53
23:DA:2831:G:O4'	23:DA:2883:A:C2	2.62	0.53
23:BA:1451:C:N3	23:BA:1459:G:O6	2.42	0.53
1:CA:1386:G:C2	1:CA:1387:G:C8	2.96	0.53
1:CA:123:C:OP1	1:CA:312:C:H5'	2.09	0.53
23:BA:553:U:O2'	23:BA:554:U:H5'	2.08	0.53
24:BB:35:U:O2'	24:BB:36:C:H5'	2.09	0.53
8:CH:109:ILE:HG12	8:CH:110:ALA:N	2.23	0.53
11:AK:102:GLY:O	11:AK:103:LEU:HD13	2.08	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DQ:46:ALA:O	39:DQ:47:TYR:C	2.47	0.53
1:CA:8:A:N7	4:CD:208:SER:OG	2.40	0.53
1:AA:515:G:C2	1:AA:537:G:C2	2.97	0.53
23:BA:2564:A:OP1	23:BA:2648:C:H4'	2.09	0.53
53:D5:57:ARG:NE	53:D5:57:ARG:CA	2.70	0.53
50:B2:4:HIS:HB3	50:B2:5:PRO:CD	2.39	0.53
23:DA:84:A:C2	23:DA:98:G:N3	2.76	0.53
32:DJ:57:LEU:HD21	32:DJ:143:LEU:HB2	1.88	0.53
1:AA:1221:G:H1'	19:AS:54:GLY:HA3	1.88	0.53
23:BA:1190:G:H2'	23:BA:1191:G:C8	2.43	0.53
23:BA:2419:U:O4	53:B5:30:ARG:NH1	2.42	0.53
2:CB:163:PHE:HA	2:CB:185:ILE:O	2.08	0.53
25:DC:33:LEU:C	25:DC:35:LYS:N	2.61	0.53
34:DL:50:ARG:HB2	53:D5:60:LEU:CD1	2.39	0.53
23:BA:993:G:C5	23:BA:994:C:C5	2.94	0.53
23:DA:2338:G:C2'	23:DA:2339:G:H5'	2.39	0.53
23:DA:1813:G:H1'	25:DC:50:THR:CG2	2.30	0.53
42:DT:12:VAL:CG1	42:DT:28:PHE:HA	2.38	0.53
42:DT:30:VAL:CG1	42:DT:31:HIS:N	2.71	0.53
30:DH:132:PRO:O	30:DH:134:PRO:HD3	2.08	0.53
28:BF:19:LEU:HD11	28:BF:172:LEU:HD13	1.90	0.53
23:BA:2633:G:O2'	26:BD:61:ARG:HD3	2.08	0.53
17:CQ:45:HIS:HB3	17:CQ:72:ARG:HG2	1.90	0.53
5:CE:139:LEU:HA	5:CE:142:LEU:HD12	1.89	0.53
52:B4:19:ARG:HB3	52:B4:19:ARG:NH1	2.23	0.53
8:AH:19:VAL:HG23	8:AH:21:LYS:HG2	1.91	0.53
46:BX:27:GLU:CB	46:BX:33:LYS:HA	2.34	0.53
47:BY:9:GLN:HG3	47:BY:12:GLU:OE1	2.08	0.53
1:AA:1503:A:OP1	1:AA:1531:A:O2'	2.26	0.53
2:CB:83:MET:O	2:CB:87:ARG:HB2	2.09	0.53
23:BA:2746:U:H2'	23:BA:2747:G:O5'	2.09	0.53
23:BA:1486:A:H2'	23:BA:1487:G:H8	1.73	0.53
23:BA:9:U:C4	23:BA:2629:A:N6	2.77	0.53
23:DA:1046:A:H8	23:DA:1046:A:O5'	1.92	0.53
24:DB:78:A:H61	24:DB:98:G:H1'	1.74	0.53
11:AK:34:ASP:HB2	11:AK:35:PRO:CD	2.39	0.53
25:BC:267:SER:O	25:BC:270:ILE:HG13	2.08	0.53
25:BC:148:GLU:HB2	25:BC:151:LYS:CD	2.38	0.53
35:DM:22:LYS:HD3	35:DM:22:LYS:C	2.29	0.53
12:CL:46:LYS:HB3	12:CL:47:PRO:HD3	1.90	0.53
23:DA:580:C:O2'	23:DA:581:C:H5'	2.09	0.53
23:BA:276:A:N7	23:BA:278:A:H8	2.06	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BQ:62:ILE:HD11	39:BQ:93:LYS:HG2	1.91	0.53
23:DA:1921:G:O2'	23:DA:1922:G:H5'	2.08	0.53
20:AT:82:SER:O	20:AT:86:ARG:HB2	2.08	0.53
1:CA:498:A:H4'	1:CA:500:G:H5'	1.91	0.53
23:DA:1726:G:C2	23:DA:1735:U:O2	2.61	0.53
23:DA:1857:G:N2	23:DA:1886:C:C4	2.76	0.53
1:CA:851:G:O2'	1:CA:852:G:H5'	2.08	0.53
15:CO:36:ILE:HG22	15:CO:37:ASN:N	2.22	0.53
24:DB:28:C:H2'	24:DB:29:A:C8	2.42	0.53
47:BY:42:GLY:O	47:BY:44:LEU:N	2.32	0.53
1:AA:1167:A:N7	1:AA:1169:A:C5	2.76	0.53
23:BA:812:C:H5'	34:BL:25:SER:O	2.08	0.53
35:BM:29:PHE:O	35:BM:30:GLY:O	2.27	0.53
12:AL:125:LYS:HE2	12:AL:127:ALA:H	1.73	0.53
23:DA:2506:U:H5	23:DA:2507:C:C5	2.26	0.53
31:DI:9:LEU:HD23	31:DI:9:LEU:O	2.09	0.53
15:AO:61:GLY:O	15:AO:64:ARG:HB3	2.08	0.53
23:DA:772:C:H2'	23:DA:772:C:O2	2.08	0.53
23:DA:681:G:C2'	23:DA:682:G:O5'	2.56	0.53
53:D5:52:LYS:HD3	53:D5:52:LYS:N	2.22	0.53
13:AM:96:LEU:HD22	13:AM:103:THR:HG21	1.89	0.53
26:BD:170:LEU:CD2	26:BD:170:LEU:N	2.72	0.53
38:DP:98:LYS:HB3	38:DP:100:TYR:CE1	2.43	0.53
23:DA:673:C:H5''	27:DE:81:PRO:HD2	1.89	0.53
37:BO:28:VAL:HG21	37:BO:87:PHE:CE1	2.44	0.53
27:BE:164:ARG:NH1	27:BE:164:ARG:CG	2.70	0.53
32:DJ:112:LYS:O	32:DJ:116:THR:HG23	2.08	0.53
39:BQ:92:ARG:HG2	40:BR:11:GLN:HE21	1.70	0.53
25:DC:268:ARG:HD2	25:DC:269:PHE:CE1	2.43	0.53
30:DH:129:THR:HA	30:DH:138:ILE:O	2.09	0.53
1:AA:327:A:C2	1:AA:329:A:C4	2.96	0.53
25:DC:141:VAL:HG23	25:DC:162:SER:OG	2.08	0.53
4:CD:28:SER:HB3	4:CD:29:PRO:CD	2.36	0.53
5:CE:10:MET:HG3	5:CE:13:ILE:HD11	1.91	0.53
44:BV:48:PHE:CZ	44:BV:52:SER:HA	2.43	0.53
1:AA:586:C:H1'	1:AA:878:G:O2'	2.09	0.53
9:AI:17:VAL:HG21	9:AI:80:GLY:HA3	1.89	0.53
35:DM:55:VAL:HG22	35:DM:56:ARG:N	2.23	0.53
13:AM:84:ILE:CG2	19:AS:74:PHE:HE1	2.21	0.53
6:AF:8:ILE:HG22	6:AF:10:LEU:HD12	1.90	0.53
6:AF:63:TYR:O	6:AF:65:VAL:HG12	2.09	0.53
47:DY:9:GLN:HA	47:DY:12:GLU:HB3	1.91	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BO:52:SER:O	37:BO:53:SER:HB2	2.08	0.53
33:BK:97:ARG:N	33:BK:117:LEU:HD22	2.23	0.53
8:AH:28:ALA:HA	8:AH:59:LEU:HD21	1.88	0.53
23:DA:1003:G:O2'	23:DA:1010:A:N1	2.36	0.53
23:DA:598:G:H5'	34:DL:15:ARG:HG2	1.89	0.53
1:CA:105:G:C4	1:CA:106:C:C5	2.96	0.53
36:BN:66:VAL:HG13	36:BN:70:LEU:HD12	1.91	0.53
2:AB:72:GLY:HA3	2:AB:165:VAL:CG1	2.38	0.53
1:AA:337:C:H2'	1:AA:338:A:C8	2.38	0.53
50:D2:40:LYS:HZ3	50:D2:49:CYS:HB3	1.74	0.53
12:CL:21:SER:O	12:CL:23:VAL:N	2.42	0.53
23:BA:628:G:H2'	23:BA:629:G:H8	1.73	0.53
23:BA:828:U:H4'	23:BA:831:G:N1	2.24	0.53
1:CA:579:G:C4	1:CA:580:U:C6	2.96	0.53
1:AA:1446:A:N1	38:BP:118:ARG:CZ	2.71	0.53
12:CL:74:HIS:CD2	12:CL:76:LEU:H	2.25	0.53
23:BA:492:A:C2'	23:BA:493:G:H5'	2.39	0.53
52:B4:1:MET:O	52:B4:2:LYS:C	2.47	0.53
23:DA:2739:U:C2'	23:DA:2739:U:O2	2.55	0.53
1:CA:44:G:N2	1:CA:399:G:C4	2.76	0.53
4:CD:70:ILE:HG12	4:CD:71:SER:N	2.22	0.53
23:DA:2572:A:P	26:DD:144:ARG:HB2	2.49	0.53
15:CO:50:HIS:O	15:CO:53:HIS:HB3	2.07	0.53
7:AG:80:VAL:HG23	7:AG:83:ALA:HB3	1.90	0.53
23:DA:2641:G:OP1	32:DJ:97:ARG:HD3	2.08	0.53
26:BD:173:VAL:HG12	26:BD:174:ASP:H	1.73	0.53
23:DA:532:A:C8	23:DA:2021:C:C5	2.97	0.53
20:CT:37:SER:O	20:CT:40:ALA:HB3	2.09	0.53
23:BA:2436:G:C5	23:BA:2437:U:C5	2.97	0.53
2:AB:96:ARG:H	2:AB:96:ARG:HD2	1.73	0.53
43:BU:75:ILE:HG13	43:BU:79:CYS:HA	1.91	0.53
42:DT:66:LEU:HD23	42:DT:67:GLY:N	2.24	0.53
2:AB:17:PHE:CD1	2:AB:44:LEU:HD21	2.44	0.53
23:DA:2416:C:C2	23:DA:2417:C:C5	2.96	0.53
23:DA:2415:G:O3'	34:DL:66:GLY:HA3	2.08	0.53
32:BJ:119:GLU:N	32:BJ:119:GLU:OE1	2.29	0.53
23:DA:1543:A:C8	23:DA:1543:A:C3'	2.88	0.53
2:AB:69:LEU:HD12	2:AB:70:PHE:N	2.24	0.53
1:CA:960:U:H5	1:CA:1225:A:H1'	1.73	0.53
23:BA:2334:G:H4'	23:BA:2335:A:OP2	2.09	0.53
39:DQ:83:LEU:HA	39:DQ:86:ALA:HB3	1.89	0.53
34:DL:47:ASP:CB	34:DL:51:PHE:HB2	2.38	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DF:76:SER:HB2	28:DF:83:ARG:N	2.24	0.53
41:DS:14:PRO:C	41:DS:16:LYS:N	2.62	0.53
41:BS:86:LEU:C	41:BS:86:LEU:HD12	2.27	0.53
30:DH:77:LEU:HD21	30:DH:104:GLN:HB2	1.91	0.53
44:DV:92:SER:HB2	44:DV:94:GLU:OE2	2.09	0.53
1:AA:92:G:C2'	1:AA:93:U:H5'	2.38	0.53
26:BD:6:GLY:HA2	26:BD:51:PHE:CE2	2.43	0.53
11:CK:59:TYR:CE2	11:CK:63:LEU:HD11	2.44	0.53
1:CA:42:G:H8	1:CA:42:G:OP2	1.90	0.53
46:DX:46:LEU:HD21	46:DX:61:ARG:HG3	1.90	0.53
1:AA:1369:C:H2'	1:AA:1370:G:O4'	2.09	0.53
1:AA:57:G:C5	1:AA:58:C:C5	2.97	0.53
12:AL:40:ARG:HG2	12:AL:41:THR:N	2.24	0.53
23:DA:319:C:H2'	23:DA:320:A:C8	2.44	0.53
1:CA:644:G:C5'	8:CH:92:ARG:HH21	2.22	0.53
29:BG:123:PHE:HB3	29:BG:133:VAL:HG13	1.91	0.53
46:BX:12:PRO:O	46:BX:14:VAL:HG23	2.08	0.53
1:AA:738:C:H2'	1:AA:739:C:H6	1.70	0.53
23:DA:773:U:C5'	25:DC:47:GLY:HA3	2.38	0.53
1:AA:841:U:O2	1:AA:841:U:H3'	2.09	0.53
13:AM:3:ARG:HG2	13:AM:9:ILE:CD1	2.38	0.53
1:CA:1423:G:H2'	1:CA:1424:C:H6	1.73	0.53
23:DA:2364:C:O2'	23:DA:2365:G:H5'	2.09	0.53
35:BM:43:THR:HG1	35:BM:45:GLN:HG2	1.72	0.53
23:BA:2228:G:OP2	25:BC:263:ARG:NH2	2.41	0.53
45:DW:14:ARG:CB	45:DW:14:ARG:CZ	2.86	0.53
3:AC:186:PHE:HZ	3:AC:188:LEU:HD13	1.72	0.53
7:CG:80:VAL:CG2	7:CG:83:ALA:HB3	2.39	0.53
10:CJ:17:ASP:O	10:CJ:21:GLN:HB2	2.09	0.53
46:DX:48:LYS:NZ	46:DX:50:ARG:CZ	2.72	0.53
34:DL:135:LEU:HD13	34:DL:139:LYS:HB2	1.90	0.53
39:BQ:73:GLY:O	39:BQ:74:LEU:HB3	2.09	0.53
23:DA:351:G:H5''	23:DA:352:G:OP1	2.09	0.53
11:AK:123:LYS:O	11:AK:126:ARG:HB2	2.09	0.53
12:CL:75:ASN:OD1	12:CL:107:ALA:HB3	2.09	0.53
9:CI:85:LEU:O	9:CI:89:ASN:HB2	2.09	0.53
34:DL:125:VAL:HG11	34:DL:138:LEU:HD22	1.90	0.53
23:DA:2267:A:H5''	23:DA:2268:A:H5''	1.91	0.53
32:DJ:119:GLU:OE1	32:DJ:119:GLU:N	2.33	0.53
1:AA:1364:U:O2'	1:AA:1365:G:H5'	2.08	0.53
42:DT:71:GLY:C	42:DT:72:LYS:HG3	2.29	0.53
23:DA:114(B):A:C4'	32:DJ:48:ARG:HH22	2.20	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:518:G:H4'	41:DS:18:ARG:NH1	2.23	0.53
42:BT:12:VAL:CG1	42:BT:28:PHE:HA	2.39	0.53
24:DB:7:G:H1'	37:DO:38:GLN:NE2	2.23	0.53
3:AC:182:ILE:HG23	3:AC:202:ILE:O	2.09	0.53
23:BA:1493:C:O2	23:BA:1493:C:H2'	2.08	0.53
29:BG:35:VAL:HG21	29:BG:75:ALA:HB2	1.90	0.53
4:CD:31:CYS:C	4:CD:33:MET:H	2.11	0.53
5:AE:11:ILE:HG22	5:AE:12:LEU:N	2.24	0.53
1:AA:1070:U:C2	1:AA:1071:C:C5	2.97	0.53
2:AB:173:ALA:O	2:AB:176:GLU:N	2.42	0.53
48:BZ:26:LEU:HB2	48:BZ:28:LEU:HD13	1.91	0.53
1:CA:57:G:C5	1:CA:58:C:C5	2.97	0.53
1:AA:1346:A:C8	7:AG:10:ARG:NH2	2.77	0.53
46:DX:27:GLU:HB2	46:DX:33:LYS:CA	2.36	0.53
46:BX:11:ARG:CG	46:BX:61:ARG:O	2.56	0.53
47:DY:46:GLN:HB2	47:DY:49:LYS:HZ3	1.71	0.53
23:DA:848:G:C4	23:DA:933:A:H8	2.26	0.53
23:BA:2755:C:HO2'	23:BA:2756:U:H6	1.57	0.53
33:BK:19:ILE:HG22	33:BK:43:VAL:HA	1.89	0.53
23:BA:1684:C:C2	23:BA:1705:G:N2	2.77	0.53
23:DA:270(H):C:C5	23:DA:270(I):C:H5	2.27	0.53
18:AR:22:VAL:HG11	18:AR:42:ARG:O	2.08	0.53
38:BP:89:VAL:O	38:BP:89:VAL:CG2	2.57	0.53
27:DE:132:VAL:HG23	27:DE:133:ASN:N	2.23	0.53
1:AA:677:U:H2'	1:AA:678:U:C6	2.43	0.53
1:CA:841:U:H3'	1:CA:841:U:O2	2.08	0.53
23:BA:336:C:C2'	23:BA:336:C:O2	2.57	0.53
23:BA:681:G:C2'	23:BA:682:G:O5'	2.56	0.53
1:CA:939:G:H2'	1:CA:940:C:C6	2.44	0.53
23:BA:270(J):G:O2'	23:BA:270(K):G:H8	1.91	0.53
1:CA:373:A:C2	1:CA:482:A:N6	2.77	0.53
36:BN:44:LEU:HD13	36:BN:44:LEU:C	2.28	0.53
23:DA:2485:G:H5''	35:DM:46:GLN:NE2	2.23	0.53
23:BA:226:G:H21	23:BA:228:A:N6	2.07	0.53
1:AA:433:C:H2'	1:AA:434:U:C6	2.43	0.53
23:BA:1336:A:H2'	23:BA:1337:G:H8	1.73	0.53
23:DA:270(Q):C:O2'	23:DA:270(R):C:H6	1.91	0.53
9:AI:99:LEU:HD12	9:AI:101:PHE:CE2	2.44	0.53
1:AA:664:G:P	18:AR:64:ARG:HH21	2.32	0.53
1:CA:142:G:C2	1:CA:143:A:C5	2.97	0.53
37:BO:67:ARG:HG3	37:BO:100:ALA:HB1	1.90	0.53
23:BA:2026:C:C2	23:BA:2027:G:C8	2.97	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BX:77:ALA:HA	46:BX:80:LEU:HB2	1.91	0.53
23:BA:833:U:H2'	23:BA:834:C:C6	2.44	0.53
23:DA:1281:G:C5	23:DA:1282:U:C5	2.97	0.53
1:CA:1489:G:C6	1:CA:1490:C:N4	2.77	0.53
23:BA:2557:G:H2'	23:BA:2558:C:C6	2.44	0.53
34:DL:62:LEU:N	34:DL:62:LEU:HD13	2.23	0.53
7:CG:113:GLU:CB	7:CG:119:ARG:HG2	2.23	0.53
28:DF:60:LEU:O	28:DF:64:THR:HG22	2.09	0.53
7:AG:115:ARG:HB2	7:AG:118:VAL:HG11	1.90	0.53
1:CA:951:G:H1'	1:CA:970:C:O2'	2.09	0.53
5:AE:102:ALA:HB2	5:AE:120:THR:HG23	1.90	0.53
25:DC:35:LYS:HZ1	25:DC:104:TYR:H	1.57	0.53
23:DA:1144:G:C4	23:DA:1145:C:C5	2.97	0.53
1:CA:376:G:C2	1:CA:377:G:C8	2.97	0.53
41:DS:12:ILE:HG12	41:DS:13:SER:N	2.23	0.53
25:DC:265:PRO:C	25:DC:267:SER:H	2.11	0.53
1:AA:327:A:C4	1:AA:329:A:C8	2.96	0.53
23:BA:197:A:C8	23:BA:197:A:C5'	2.87	0.53
24:BB:71:C:C4	24:BB:72:G:N7	2.77	0.53
5:AE:75:THR:HG23	5:AE:76:ILE:N	2.24	0.53
48:BZ:26:LEU:HD21	48:BZ:46:ASN:CB	2.38	0.53
2:AB:80:ILE:HD11	2:AB:208:ILE:CG2	2.39	0.53
1:CA:506:G:C4	1:CA:507:C:C5	2.97	0.53
23:BA:2562:U:H2'	23:BA:2563:U:H5'	1.90	0.53
46:BX:11:ARG:HG3	46:BX:61:ARG:O	2.09	0.53
46:BX:27:GLU:CG	46:BX:33:LYS:HG3	2.38	0.53
4:CD:152:SER:O	4:CD:155:LEU:HB2	2.09	0.53
46:DX:19:GLN:HG3	46:DX:41:ARG:NE	2.20	0.53
1:CA:197:A:C5	1:CA:221:C:H4'	2.44	0.53
17:CQ:40:LYS:HG2	17:CQ:41:LYS:N	2.24	0.53
23:BA:582:G:OP1	39:BQ:14:HIS:HD2	1.92	0.53
1:CA:832:C:N4	1:CA:855:G:C6	2.77	0.53
1:AA:682:G:C6	1:AA:709:G:C6	2.96	0.53
34:BL:85:LEU:CD2	34:BL:85:LEU:H	2.22	0.53
23:DA:1746:G:N3	23:DA:1747:G:C8	2.77	0.53
23:BA:634:C:H2'	23:BA:635:C:C6	2.44	0.53
1:AA:518:C:O2	1:AA:529:G:C6	2.62	0.53
1:AA:560:U:H5'	1:AA:566:G:N2	2.24	0.53
23:DA:2345:G:OP2	51:D3:39:TYR:HA	2.09	0.53
1:AA:180:U:H2'	1:AA:181:G:H5'	1.89	0.53
12:CL:61:SER:C	12:CL:63:TYR:H	2.12	0.53
23:BA:1798:U:H5''	25:BC:259:THR:O	2.09	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:681:G:H2'	23:DA:682:G:O5'	2.09	0.53
23:DA:1937:A:N7	23:DA:1939:U:H2'	2.23	0.53
1:AA:1037:C:H2'	1:AA:1038:C:H6	1.73	0.53
49:B1:43:GLY:O	49:B1:44:CYS:HB3	2.08	0.53
1:CA:380:G:C2	1:CA:384:G:C6	2.96	0.53
23:DA:2582:G:C2	23:DA:2583:G:C8	2.96	0.53
31:BI:9:LEU:HD23	31:BI:9:LEU:O	2.09	0.53
23:DA:527:C:O4'	23:DA:527:C:O2	2.23	0.53
28:BF:49:ASP:HB3	28:BF:52:ILE:HG12	1.91	0.53
23:BA:860:U:C4	23:BA:2268:A:C8	2.96	0.53
7:CG:113:GLU:O	7:CG:119:ARG:HD3	2.09	0.53
27:DE:74:ARG:O	27:DE:74:ARG:HG2	2.08	0.53
1:AA:1228:C:N4	1:AA:1229:A:N6	2.57	0.53
34:DL:33:ARG:CG	34:DL:34:GLY:H	2.20	0.53
23:BA:114(B):A:O2'	23:BA:1143:A:H3'	2.08	0.53
23:DA:1658:C:H2'	23:DA:1659:U:C6	2.44	0.53
39:DQ:92:ARG:HD2	39:DQ:95:LEU:N	2.24	0.53
28:DF:83:ARG:HG3	28:DF:84:LYS:N	2.24	0.53
39:BQ:102:GLU:N	39:BQ:103:PRO:CD	2.72	0.53
37:DO:12:PHE:HD1	37:DO:12:PHE:C	2.12	0.53
37:DO:28:VAL:HG21	37:DO:87:PHE:CE1	2.44	0.53
35:BM:89:ASN:O	35:BM:92:GLY:N	2.40	0.53
1:CA:1072:G:H2'	1:CA:1073:U:C6	2.44	0.53
1:CA:408:A:H2'	1:CA:409:G:H8	1.74	0.53
6:CF:9:VAL:HA	6:CF:59:TYR:O	2.09	0.53
15:AO:8:LYS:O	15:AO:12:ILE:HG13	2.09	0.53
23:DA:1884:A:C4	23:DA:1885:A:C8	2.97	0.53
23:BA:7:G:N2	23:BA:2897:U:C4	2.77	0.53
32:DJ:59:GLY:O	32:DJ:65:TRP:HE3	1.91	0.53
23:DA:389:G:H1	34:DL:71:VAL:HG23	1.74	0.53
23:DA:2289:G:N3	23:DA:2289:G:H2'	2.23	0.53
23:DA:270(H):C:C4	23:DA:270(I):C:H5	2.25	0.53
23:BA:270(H):C:C4	23:BA:270(I):C:H5	2.26	0.53
1:CA:236:G:OP1	17:CQ:40:LYS:NZ	2.42	0.53
1:CA:1057:G:C2	1:CA:1204:A:C2	2.97	0.53
29:BG:94:TYR:CD1	29:BG:94:TYR:N	2.77	0.53
23:DA:786:C:C2'	23:DA:787:U:H5'	2.39	0.53
34:BL:132:LYS:O	34:BL:136:GLU:HG2	2.09	0.53
1:AA:1446:A:H61	38:BP:118:ARG:HH21	1.54	0.53
35:DM:134:ARG:NH1	35:DM:138:ASP:OD1	2.39	0.53
1:CA:1228:C:N4	1:CA:1229:A:H62	2.07	0.53
1:CA:1378:C:H5	1:CA:1379:G:N9	2.07	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AL:74:HIS:HD2	12:AL:76:LEU:N	2.07	0.53
29:BG:54:ARG:NH2	29:BG:62:LYS:HE2	2.24	0.53
23:BA:2459:A:C2	23:BA:2460:U:H1'	2.44	0.53
45:BW:35:ASN:N	45:BW:35:ASN:HD22	2.07	0.53
23:BA:2709:G:C2'	23:BA:2710:C:H5'	2.39	0.53
27:BE:139:PHE:HB2	27:BE:166:ALA:HB1	1.90	0.53
24:DB:115:G:H5'	37:DO:50:SER:OG	2.09	0.53
23:DA:1904:G:O2'	23:DA:1905:C:H5'	2.08	0.53
11:CK:36:ASP:HB2	11:CK:38:ASN:OD1	2.08	0.53
15:AO:44:LYS:HB2	15:AO:44:LYS:HZ3	1.74	0.53
23:DA:685:A:H1'	23:DA:688:U:O4	2.09	0.53
38:DP:56:GLY:C	38:DP:57:PHE:O	2.43	0.52
38:BP:55:ASN:H	38:BP:59:THR:HB	1.73	0.52
30:BH:81:VAL:HG11	30:BH:90:GLY:HA3	1.90	0.52
42:BT:11:PRO:HG2	42:BT:13:LEU:HD21	1.92	0.52
42:BT:28:PHE:HD1	42:BT:28:PHE:H	1.56	0.52
30:DH:113:ARG:HB2	30:DH:130:TYR:CE1	2.44	0.52
30:DH:88:ILE:HG12	30:DH:123:LEU:N	2.24	0.52
36:DN:103:ARG:NH1	36:DN:110:PRO:HG3	2.24	0.52
25:DC:242:ARG:HD3	25:DC:242:ARG:N	2.24	0.52
34:DL:18:ARG:C	34:DL:19:VAL:HG22	2.29	0.52
23:DA:1312:U:H4'	23:DA:1313:U:O5'	2.09	0.52
46:DX:46:LEU:HD23	46:DX:46:LEU:O	2.07	0.52
4:AD:152:SER:O	4:AD:155:LEU:HB2	2.09	0.52
8:AH:63:LEU:HB2	8:AH:65:TYR:HE1	1.74	0.52
6:AF:62:TRP:CG	18:AR:35:ARG:NH1	2.77	0.52
29:BG:52:VAL:O	29:BG:52:VAL:HG12	2.06	0.52
25:DC:27:THR:CG2	25:DC:27:THR:O	2.51	0.52
30:DH:133:HIS:HD2	30:DH:135:GLU:HG2	1.73	0.52
1:AA:1117:G:N2	1:AA:1180:A:H1'	2.21	0.52
23:DA:2276:G:O2'	23:DA:2277:G:H5'	2.09	0.52
45:DW:36:ILE:HG23	45:DW:58:THR:CG2	2.39	0.52
25:DC:148:GLU:HB2	25:DC:151:LYS:CD	2.39	0.52
25:BC:27:THR:O	25:BC:27:THR:CG2	2.54	0.52
23:DA:2657:A:H5''	23:DA:2658:C:OP2	2.09	0.52
24:BB:21:G:H2'	24:BB:22:U:H6	1.74	0.52
23:BA:2636:U:H2'	23:BA:2637:U:H6	1.74	0.52
33:BK:1:MET:HE2	33:BK:32:TYR:CG	2.44	0.52
1:CA:740:U:O2'	1:CA:741:G:H5'	2.08	0.52
23:DA:912:C:C2	23:DA:913:U:C5	2.97	0.52
35:BM:38:GLU:HB2	35:BM:127:ILE:HG12	1.91	0.52
29:BG:94:TYR:CZ	29:BG:160:LYS:HD3	2.44	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:1387:C:C2	23:DA:1388:G:C8	2.97	0.52
23:DA:2476:A:H2	23:DA:2477:C:C6	2.27	0.52
23:DA:1270:C:H5''	23:DA:1271:G:C5'	2.38	0.52
1:AA:579:G:H2'	1:AA:580:U:C6	2.42	0.52
1:CA:1076:C:C2	1:CA:1082:G:C2	2.97	0.52
1:CA:15:G:H2'	1:CA:16:A:H8	1.74	0.52
1:CA:632:A:H8	1:CA:633:G:C8	2.27	0.52
1:CA:973:G:OP1	10:CJ:57:LYS:NZ	2.41	0.52
23:DA:2213:U:H5''	23:DA:2215:G:OP2	2.08	0.52
1:AA:1378:C:H5	1:AA:1379:G:N9	2.07	0.52
40:BR:72:VAL:O	40:BR:72:VAL:HG23	2.09	0.52
34:BL:105:LEU:N	34:BL:105:LEU:HD12	2.24	0.52
23:DA:975:G:H1'	23:DA:990:A:C2	2.43	0.52
1:AA:1328:C:H5''	13:AM:28:ALA:CB	2.39	0.52
1:AA:775:G:O2'	1:AA:776:G:H5'	2.09	0.52
33:DK:7:TYR:CZ	33:DK:44:LYS:HG3	2.43	0.52
15:AO:44:LYS:NZ	15:AO:44:LYS:HB2	2.23	0.52
23:BA:466:A:O3'	52:B4:33:ARG:NH1	2.43	0.52
12:CL:92:LEU:HB2	12:CL:95:VAL:HG21	1.91	0.52
25:DC:212:SER:O	25:DC:217:ARG:HG3	2.09	0.52
23:DA:841:A:C2	23:DA:938:G:C2	2.96	0.52
42:BT:66:LEU:HD23	42:BT:67:GLY:N	2.24	0.52
11:CK:85:ARG:HA	11:CK:112:THR:OG1	2.09	0.52
14:AN:2:ALA:HB1	14:AN:6:LEU:HD12	1.92	0.52
4:AD:23:GLY:CA	4:AD:112:VAL:HG22	2.39	0.52
12:AL:92:LEU:HB2	12:AL:95:VAL:HG21	1.90	0.52
24:BB:113:C:O2'	37:BO:46:VAL:HG13	2.09	0.52
1:AA:1187:G:H2'	1:AA:1188:A:H8	1.74	0.52
1:AA:977:A:N3	1:AA:977:A:H5''	2.24	0.52
22:CV:6189:G:C6	22:CV:6190:U:C4	2.97	0.52
1:AA:8:A:N7	4:AD:208:SER:OG	2.42	0.52
23:DA:1190:G:H5''	34:DL:35:HIS:HA	1.90	0.52
53:D5:62:LEU:C	53:D5:64:TYR:N	2.61	0.52
30:BH:92:VAL:CG2	30:BH:96:ASP:HB2	2.36	0.52
23:BA:993:G:C4	23:BA:994:C:C5	2.96	0.52
39:BQ:79:PHE:CD1	39:BQ:83:LEU:HD13	2.45	0.52
40:BR:5:VAL:HG12	40:BR:14:VAL:HG21	1.92	0.52
25:DC:68:LYS:O	25:DC:70:TRP:CE3	2.63	0.52
4:CD:49:ARG:CZ	4:CD:50:ARG:H	2.21	0.52
26:DD:137:HIS:HB3	26:DD:138:PRO:HD2	1.90	0.52
4:AD:100:ARG:NH2	4:AD:118:ARG:HH12	2.06	0.52
1:AA:38:G:H22	1:AA:397:A:C5'	2.16	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:68:TYR:CE2	4:CD:97:LEU:HB3	2.43	0.52
4:CD:111:ALA:HB1	4:CD:116:GLN:HG2	1.90	0.52
1:CA:92:G:H2'	1:CA:93:U:H5'	1.91	0.52
26:BD:6:GLY:HA2	26:BD:51:PHE:HE2	1.74	0.52
26:DD:111:ARG:CD	26:DD:160:TYR:CE1	2.92	0.52
42:BT:43:VAL:HG23	42:BT:47:PHE:CD1	2.44	0.52
11:CK:59:TYR:O	11:CK:63:LEU:HG	2.10	0.52
1:AA:1076:C:C2	1:AA:1082:G:C2	2.97	0.52
43:DU:81:LYS:HZ1	43:DU:98:VAL:HG12	1.72	0.52
1:AA:1347:G:H8	9:AI:107:ARG:HB3	1.70	0.52
41:BS:32:ALA:O	41:BS:33:ARG:C	2.46	0.52
29:DG:43:VAL:HG12	29:DG:52:VAL:CG2	2.39	0.52
23:DA:2756:U:H4'	23:DA:2757:A:OP1	2.08	0.52
23:DA:322:A:O4'	23:DA:340:A:H1'	2.09	0.52
23:BA:2723:C:H2'	23:BA:2724:C:O5'	2.09	0.52
23:DA:2598:A:H2'	23:DA:2599:G:O5'	2.09	0.52
6:CF:22:GLU:OE1	6:CF:84:ASN:HB2	2.09	0.52
20:AT:10:LEU:HD12	20:AT:10:LEU:C	2.30	0.52
23:BA:2756:U:H4'	23:BA:2757:A:OP1	2.09	0.52
23:BA:1105:U:C2	23:BA:1106:G:C8	2.97	0.52
1:CA:1148:U:C2	9:CI:16:ARG:NH2	2.77	0.52
1:AA:197:A:C5	1:AA:221:C:H4'	2.43	0.52
23:DA:909:A:C4	23:DA:912:C:C5	2.96	0.52
23:DA:301:G:H4'	23:DA:301:G:OP1	2.09	0.52
3:CC:23:TYR:CG	3:CC:24:ALA:N	2.77	0.52
35:BM:134:ARG:NH1	35:BM:138:ASP:OD1	2.38	0.52
35:DM:43:THR:O	35:DM:46:GLN:HB2	2.10	0.52
34:DL:75:ILE:HD12	34:DL:75:ILE:N	2.25	0.52
23:BA:1429:G:H2'	23:BA:1430:C:C6	2.44	0.52
19:AS:5:LEU:HG	19:AS:10:PHE:HB3	1.91	0.52
7:CG:70:LYS:CG	7:CG:96:GLN:HB3	2.39	0.52
23:BA:1773:A:C2'	23:BA:1774:C:H5'	2.40	0.52
23:BA:1027:A:C6	23:BA:1126:A:C4	2.97	0.52
23:BA:1015:G:H2'	23:BA:1016:G:H5'	1.91	0.52
13:AM:14:ARG:HB3	13:AM:16:ASP:OD2	2.09	0.52
23:BA:238:C:O2'	23:BA:608:A:H1'	2.08	0.52
44:DV:68:PRO:O	44:DV:91:LEU:HB2	2.08	0.52
1:AA:380:G:C2	1:AA:384:G:C6	2.96	0.52
23:BA:2315:G:H2'	23:BA:2316:C:C6	2.43	0.52
23:BA:1235:G:C6	23:BA:1236:G:N1	2.76	0.52
35:DM:10:ARG:HB3	35:DM:11:LYS:HG2	1.90	0.52
26:BD:128:SER:OG	26:BD:129:HIS:N	2.38	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DN:11:ASN:O	36:DN:12:ARG:NH1	2.38	0.52
22:AV:6191:A:H2'	22:AV:6192:G:H8	1.73	0.52
37:BO:28:VAL:O	37:BO:92:TYR:HE1	1.92	0.52
23:BA:568:U:O4	40:BR:78:LYS:NZ	2.42	0.52
23:BA:1615:C:C2	41:BS:87:PRO:HG2	2.44	0.52
34:BL:48:PRO:O	34:BL:49:ARG:O	2.28	0.52
4:AD:3:ARG:H	4:AD:3:ARG:HD2	1.73	0.52
1:AA:1252:A:O2'	1:AA:1253:G:H5'	2.10	0.52
3:CC:134:ILE:HG23	3:CC:151:VAL:CB	2.33	0.52
47:DY:29:LYS:HD3	47:DY:57:ILE:HG21	1.92	0.52
5:AE:11:ILE:HB	5:AE:31:LEU:HD13	1.92	0.52
23:DA:1324:G:N2	23:DA:1331:A:C4	2.78	0.52
48:DZ:26:LEU:HB2	48:DZ:28:LEU:HD13	1.92	0.52
12:AL:49:SER:O	12:AL:50:ALA:HB2	2.07	0.52
46:BX:9:GLY:O	46:BX:13:ILE:CG2	2.57	0.52
2:AB:83:MET:O	2:AB:87:ARG:HB2	2.09	0.52
23:BA:1858:G:H1'	23:BA:1884:A:H61	1.69	0.52
23:DA:2598:A:C2'	23:DA:2599:G:O5'	2.58	0.52
1:AA:1237:C:OP1	1:AA:1238:A:H1'	2.10	0.52
23:BA:1505:C:H2'	23:BA:1506:C:C6	2.44	0.52
25:DC:25:THR:HG21	25:DC:81:ALA:CB	2.38	0.52
23:DA:955:C:H5''	35:DM:85:LYS:HE2	1.92	0.52
35:DM:16:ARG:O	35:DM:17:LEU:HD23	2.09	0.52
1:CA:712:A:C2'	1:CA:713:G:H5'	2.39	0.52
39:DQ:62:ILE:N	39:DQ:62:ILE:HD13	2.24	0.52
29:DG:94:TYR:CD1	29:DG:94:TYR:N	2.76	0.52
23:DA:783:A:H2'	23:DA:785:G:OP1	2.10	0.52
33:BK:115:VAL:O	33:BK:118:ALA:HB3	2.09	0.52
1:CA:741:G:H2'	1:CA:742:G:O4'	2.10	0.52
23:BA:908:C:OP1	35:BM:22:LYS:HD2	2.09	0.52
25:DC:74:GLY:O	25:DC:76:PRO:HD3	2.09	0.52
39:BQ:76:TYR:CZ	39:BQ:80:ILE:HG12	2.44	0.52
1:AA:527:G:O2'	1:AA:528:C:H5'	2.09	0.52
41:BS:25:ARG:HH11	41:BS:25:ARG:HB2	1.75	0.52
1:CA:411:A:N7	1:CA:429:U:C5	2.77	0.52
23:BA:271(C):G:N7	23:BA:421:U:H2'	2.25	0.52
2:CB:31:TYR:O	2:CB:42:ILE:HD12	2.09	0.52
7:AG:86:GLN:HB2	7:AG:148:ASN:ND2	2.23	0.52
1:CA:1408:A:H4'	23:DA:1912:A:N6	2.25	0.52
23:DA:1917:U:C2'	23:DA:1918:A:H5'	2.40	0.52
23:DA:1130:U:O2	26:DD:149:ARG:NH2	2.41	0.52
23:DA:1027:A:C2	23:DA:2488:A:H5'	2.44	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:464:U:H4'	52:D4:5:TRP:CZ3	2.44	0.52
23:BA:151:C:C2	23:BA:176:G:N2	2.77	0.52
3:CC:188:LEU:O	3:CC:189:ALA:HB2	2.09	0.52
8:CH:42:GLU:HG3	8:CH:109:ILE:HD12	1.92	0.52
1:CA:420:U:O2	1:CA:424:G:N1	2.42	0.52
23:BA:2584:U:H5''	23:BA:2585:U:OP2	2.08	0.52
1:CA:1305:G:C8	1:CA:1305:G:OP2	2.62	0.52
1:AA:761:G:H2'	1:AA:762:C:H6	1.75	0.52
5:AE:69:VAL:HG12	5:AE:71:LEU:HG	1.92	0.52
52:B4:11:LYS:HD2	52:B4:15:THR:HG21	1.91	0.52
23:BA:2780:G:OP2	32:BJ:141:LYS:HD3	2.08	0.52
2:AB:182:ILE:O	2:AB:182:ILE:HG22	2.08	0.52
28:BF:83:ARG:HG3	28:BF:84:LYS:N	2.25	0.52
23:DA:861:A:N3	24:DB:79:C:O2'	2.38	0.52
1:AA:674:G:H2'	1:AA:675:A:C8	2.43	0.52
1:CA:376:G:O3'	16:CP:5:ARG:HD2	2.09	0.52
40:BR:38:LEU:C	40:BR:39:LEU:HD13	2.29	0.52
47:BY:6:VAL:CG1	47:BY:10:LEU:HD11	2.30	0.52
25:DC:181:GLU:HA	25:DC:272:ALA:HB3	1.90	0.52
23:BA:1813:G:H1'	25:BC:50:THR:CG2	2.31	0.52
28:DF:8:LYS:HD3	28:DF:9:ARG:CG	2.40	0.52
23:BA:1589:C:C2	23:BA:1590:U:C5	2.97	0.52
3:CC:130:VAL:HA	3:CC:133:ALA:HB3	1.90	0.52
23:BA:363(C):G:O2'	23:BA:363(D):G:H5'	2.10	0.52
23:BA:2886:G:N2	23:BA:2887:U:C2	2.78	0.52
26:DD:5:LEU:CB	26:DD:51:PHE:HD2	2.17	0.52
23:BA:1785:A:O2'	23:BA:1786:A:H2'	2.10	0.52
1:AA:1107:C:C4	1:AA:1108:G:C8	2.97	0.52
1:AA:1346:A:H61	1:AA:1374:A:H3'	1.74	0.52
23:BA:103:A:O5'	23:BA:103:A:H8	1.92	0.52
46:BX:14:VAL:O	46:BX:14:VAL:HG12	2.10	0.52
29:BG:46:GLU:O	29:BG:49:VAL:HG22	2.09	0.52
23:DA:1506:C:H2'	23:DA:1508:A:C8	2.44	0.52
25:BC:58:HIS:HD2	25:BC:59:LYS:O	1.92	0.52
1:CA:620:C:H2'	1:CA:621:A:O4'	2.09	0.52
33:DK:63:VAL:HB	33:DK:102:VAL:HG12	1.89	0.52
23:DA:598:G:H5'	34:DL:15:ARG:HB3	1.91	0.52
23:BA:270(H):C:C5	23:BA:270(I):C:H5	2.28	0.52
1:CA:99:C:C2	1:CA:101:A:C8	2.97	0.52
15:AO:29:VAL:HG12	15:AO:85:LEU:CD1	2.39	0.52
23:DA:1476:C:C6	23:DA:1476:C:H3'	2.42	0.52
23:DA:2100:G:H21	23:DA:2101:G:H1'	1.74	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:277:C:H3'	23:DA:278:A:C5'	2.39	0.52
1:CA:1051:C:N4	1:CA:1207:G:H1	2.06	0.52
23:BA:1184:G:C5	23:BA:1185:C:C5	2.98	0.52
3:CC:86:VAL:O	3:CC:90:GLU:HG2	2.08	0.52
23:BA:1922:G:H2'	23:BA:1923:U:O4'	2.10	0.52
1:CA:1357:A:N7	1:CA:1358:U:C4	2.78	0.52
26:DD:25:VAL:C	26:DD:26:ILE:HD13	2.29	0.52
35:BM:133:ARG:O	35:BM:134:ARG:HB2	2.08	0.52
35:DM:43:THR:HG1	35:DM:45:GLN:HG2	1.74	0.52
23:BA:1709:U:H2'	23:BA:1710:C:C6	2.44	0.52
23:BA:2093:G:H1	23:BA:2196:C:N4	2.08	0.52
23:DA:795:C:H2'	23:DA:796:C:C6	2.43	0.52
41:BS:45:TYR:CG	41:BS:45:TYR:O	2.62	0.52
23:DA:415:A:H2'	23:DA:416:C:C6	2.44	0.52
23:BA:2443:C:C2'	23:BA:2444:G:H5'	2.39	0.52
9:CI:95:LYS:HD3	9:CI:96:LEU:N	2.25	0.52
7:AG:67:GLU:OE1	7:AG:70:LYS:HD2	2.09	0.52
46:DX:67:ILE:HB	46:DX:68:PRO:HD3	1.92	0.52
23:DA:1757:U:H2'	23:DA:1758:G:OP1	2.09	0.52
1:CA:1246:C:H2'	1:CA:1247:U:C6	2.44	0.52
8:AH:109:ILE:HG12	8:AH:110:ALA:N	2.24	0.52
23:DA:459:U:H4'	52:D4:40:TRP:CZ3	2.45	0.52
6:CF:97:PHE:CD2	18:CR:31:LEU:HD21	2.45	0.52
23:DA:2584:U:O5'	23:DA:2584:U:H6	1.92	0.52
23:BA:77:C:O3'	47:BY:7:ARG:NH1	2.43	0.52
50:B2:4:HIS:CB	50:B2:5:PRO:HD3	2.39	0.52
23:BA:1543:A:H5'	23:BA:1544:C:P	2.49	0.52
25:BC:108:PRO:CB	25:BC:143:HIS:HE1	2.23	0.52
40:BR:2:PHE:CE2	40:BR:13:ARG:CD	2.85	0.52
23:DA:2296:U:O2	23:DA:2333:A:N3	2.43	0.52
25:BC:77:ALA:HB1	25:BC:96:HIS:O	2.09	0.52
30:DH:142:VAL:O	30:DH:143:SER:HB2	2.09	0.52
28:BF:25:TYR:OH	28:BF:32:PRO:HD3	2.10	0.52
2:AB:174:VAL:O	2:AB:178:ARG:CB	2.50	0.52
23:BA:2713:A:H3'	23:BA:2714:G:C5'	2.39	0.52
20:AT:53:LEU:HD13	20:AT:102:GLY:HA3	1.91	0.52
37:DO:52:SER:O	37:DO:53:SER:HB2	2.09	0.52
37:DO:65:VAL:O	37:DO:69:VAL:HG12	2.08	0.52
11:AK:59:TYR:O	11:AK:63:LEU:HG	2.09	0.52
13:CM:84:ILE:CG2	19:CS:74:PHE:HE1	2.21	0.52
46:DX:13:ILE:O	46:DX:14:VAL:HB	2.10	0.52
1:AA:1351:U:H4'	7:AG:33:ASP:OD2	2.09	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:2396:G:H4'	46:DX:31:GLY:HA2	1.92	0.52
30:BH:133:HIS:HD2	30:BH:135:GLU:HG2	1.72	0.52
23:BA:1104:C:C4	23:BA:1105:U:H5	2.28	0.52
23:BA:1109:C:N4	23:BA:1110:G:C2	2.78	0.52
25:DC:25:THR:HG21	25:DC:81:ALA:HB1	1.92	0.52
1:AA:617:G:H5'	16:AP:45:THR:HG22	1.92	0.52
29:BG:44:VAL:HG12	29:BG:45:VAL:N	2.20	0.52
30:BH:66:GLU:HB3	30:BH:67:ARG:NH1	2.23	0.52
43:DU:2:ARG:HG2	43:DU:3:VAL:N	2.24	0.52
1:AA:1128:C:O2	1:AA:1130:A:N6	2.43	0.52
6:CF:78:GLU:HA	6:CF:81:ILE:HD11	1.89	0.52
23:BA:389:G:H1	34:BL:71:VAL:HG23	1.75	0.52
11:AK:34:ASP:H	11:AK:40:ILE:HD11	1.74	0.52
1:CA:1313:U:OP1	19:CS:6:LYS:HG3	2.10	0.52
1:AA:712:A:C6	1:AA:713:G:C6	2.98	0.52
23:DA:480:A:H2'	23:DA:480:A:N3	2.24	0.52
23:DA:336:C:O2	23:DA:336:C:C2'	2.57	0.52
50:D2:52:TYR:O	50:D2:52:TYR:CD1	2.62	0.52
23:BA:1952:A:C6	33:BK:22:ILE:CD1	2.93	0.52
23:DA:908:C:OP1	35:DM:22:LYS:HD2	2.08	0.52
2:CB:72:GLY:HA3	2:CB:165:VAL:HG11	1.91	0.52
1:CA:1412:C:H2'	1:CA:1413:A:H8	1.75	0.52
1:AA:1411:C:H2'	1:AA:1412:C:C6	2.44	0.52
23:BA:2460:U:C4	23:BA:2461:C:C5	2.97	0.52
23:DA:991:C:C6	23:DA:1185:C:N3	2.78	0.52
43:DU:90:LEU:HG	43:DU:91:GLU:N	2.23	0.52
1:CA:1387:G:H2'	1:CA:1388:C:H6	1.73	0.52
46:DX:68:PRO:O	46:DX:71:TYR:N	2.42	0.52
9:CI:39:GLY:O	9:CI:40:LEU:HD23	2.09	0.52
37:DO:67:ARG:HG3	37:DO:100:ALA:HB1	1.92	0.52
11:AK:85:ARG:HA	11:AK:112:THR:OG1	2.09	0.52
23:BA:544:C:O5'	23:BA:544:C:H6	1.93	0.52
44:BV:68:PRO:O	44:BV:91:LEU:HB2	2.09	0.52
6:AF:97:PHE:CD2	18:AR:31:LEU:HD21	2.45	0.52
8:AH:54:ASP:O	8:AH:56:LYS:HG3	2.10	0.52
34:DL:59:LEU:HD23	34:DL:59:LEU:C	2.30	0.52
26:BD:201:THR:C	26:BD:202:LYS:HD3	2.29	0.52
1:CA:977:A:N3	1:CA:977:A:H5''	2.24	0.52
53:B5:33:ASN:O	53:B5:34:TRP:HB3	2.09	0.52
37:BO:12:PHE:C	37:BO:12:PHE:HD1	2.12	0.52
2:CB:69:LEU:HD12	2:CB:70:PHE:N	2.23	0.52
32:DJ:95:TYR:HB2	32:DJ:108:ILE:O	2.10	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AL:100:VAL:HG12	12:AL:100:VAL:O	2.09	0.52
1:AA:551:U:H5'	12:AL:118:LYS:HZ2	1.73	0.52
24:DB:103:U:C2'	24:DB:104:A:H5'	2.39	0.52
23:DA:1493:C:H4'	23:DA:1494:A:OP1	2.09	0.52
23:DA:275:G:OP2	23:DA:363(A):G:N2	2.41	0.52
14:CN:24:CYS:HG	14:CN:27:CYS:HG	1.55	0.52
5:CE:11:ILE:HG12	5:CE:33:VAL:HG23	1.91	0.52
23:DA:2886:G:H2'	23:DA:2887:U:H6	1.73	0.52
1:AA:1084:G:C5	1:AA:1085:U:C4	2.98	0.52
2:AB:205:ASP:C	2:AB:207:ALA:H	2.12	0.52
46:DX:11:ARG:HG3	46:DX:11:ARG:NH1	2.24	0.52
29:DG:21:PRO:HB2	29:DG:23:ARG:NH1	2.24	0.52
6:AF:22:GLU:OE1	6:AF:84:ASN:HB2	2.10	0.52
4:CD:105:VAL:CG1	4:CD:105:VAL:O	2.57	0.52
23:DA:932:G:H4'	23:DA:933:A:O5'	2.10	0.52
1:AA:658:G:C5	1:AA:659:U:C5	2.98	0.52
23:BA:966:G:C5	23:BA:967:C:C5	2.98	0.52
23:BA:1324:G:C5	23:BA:1328:G:O6	2.63	0.52
53:B5:57:ARG:CZ	53:B5:57:ARG:CB	2.87	0.52
23:DA:379:G:N1	46:DX:20:ARG:NH2	2.56	0.52
32:DJ:70:ALA:HB2	32:DJ:135:LEU:HD11	1.90	0.52
2:AB:8:LYS:HG2	2:AB:217:ARG:NH1	2.24	0.52
25:BC:174:ILE:CD1	25:BC:174:ILE:N	2.72	0.52
43:BU:19:LYS:HB3	43:BU:20:TYR:CD1	2.44	0.52
34:BL:10:PRO:CD	34:BL:11:GLY:N	2.69	0.52
23:BA:598:G:H5'	34:BL:15:ARG:HB3	1.91	0.52
23:BA:773:U:H4'	25:BC:47:GLY:CA	2.39	0.52
23:DA:481:G:H4'	23:DA:481:G:OP1	2.09	0.52
23:BA:1467:C:H42	23:BA:1525:G:H1	1.58	0.52
25:DC:30:GLU:CG	25:DC:63:ARG:NH2	2.73	0.52
29:BG:88:LEU:O	29:BG:162:ILE:HA	2.09	0.52
1:CA:1055:A:N7	1:CA:1200:C:N4	2.53	0.52
1:CA:1056:U:H5	1:CA:1200:C:N4	2.08	0.52
23:BA:2865:U:C5	23:BA:2866:U:C4	2.98	0.52
23:DA:1590:U:O2	23:DA:1591:G:C8	2.63	0.52
23:DA:2352:A:H2'	23:DA:2353:G:H5'	1.90	0.52
1:CA:942:G:H21	9:CI:124:GLN:NE2	2.07	0.52
1:CA:1411:C:H2'	1:CA:1412:C:C6	2.43	0.52
23:BA:988:A:H2'	23:BA:989:G:O5'	2.10	0.52
1:CA:632:A:N7	1:CA:633:G:C4	2.77	0.52
1:AA:1112:C:C4	3:AC:178:LEU:HD23	2.45	0.52
7:AG:47:CYS:O	7:AG:58:PRO:HG3	2.10	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1494:G:N2	23:DA:1912:A:C2	2.78	0.52
44:DV:9:TYR:CG	44:DV:35:ARG:NH1	2.78	0.52
13:CM:14:ARG:HB3	13:CM:16:ASP:OD2	2.09	0.52
46:BX:48:LYS:NZ	46:BX:50:ARG:CZ	2.72	0.52
30:DH:12:LEU:HD22	30:DH:12:LEU:H	1.75	0.52
7:CG:79:ARG:HA	7:CG:83:ALA:O	2.10	0.52
23:BA:370:G:H4'	23:BA:371:A:OP2	2.09	0.52
23:BA:811:U:OP2	34:BL:24:GLY:HA2	2.10	0.52
23:DA:270(S):G:H2'	23:DA:270(T):G:C8	2.45	0.52
23:BA:491:G:O6	41:BS:49:LYS:HD3	2.10	0.52
4:CD:199:ASN:ND2	4:CD:202:LEU:HG	2.24	0.52
31:BI:14:LYS:HE2	31:BI:14:LYS:HA	1.91	0.52
50:B2:3:LYS:O	50:B2:4:HIS:C	2.48	0.52
7:CG:115:ARG:HB2	7:CG:118:VAL:HG11	1.90	0.52
1:CA:1346:A:C2	1:CA:1348:U:O4	2.63	0.52
1:CA:1352:C:H2'	1:CA:1353:G:C8	2.45	0.52
23:DA:806:C:H6	23:DA:806:C:O5'	1.93	0.52
1:CA:1226:C:H42	13:CM:104:ARG:HD2	1.73	0.52
23:BA:114(B):A:C4'	32:BJ:48:ARG:HH22	2.21	0.52
32:BJ:95:TYR:HB2	32:BJ:108:ILE:O	2.10	0.52
1:CA:376:G:H1	1:CA:387:U:H3	1.57	0.52
4:AD:51:PRO:HB3	4:AD:55:ALA:CB	2.40	0.52
28:DF:19:LEU:HD11	28:DF:172:LEU:HD13	1.92	0.52
4:CD:21:LEU:HD12	4:CD:22:LYS:H	1.73	0.52
23:DA:72:U:O4	23:DA:112:U:H4'	2.09	0.52
1:CA:1107:C:C4	1:CA:1108:G:C8	2.98	0.52
45:BW:66:VAL:HG12	45:BW:67:VAL:N	2.25	0.52
23:BA:1439:A:C8	23:BA:1440:G:C8	2.98	0.52
6:AF:88:VAL:HG12	6:AF:89:MET:N	2.25	0.52
1:AA:332:G:O2'	1:AA:333:G:H5'	2.10	0.52
52:D4:12:ARG:HH11	52:D4:12:ARG:CG	2.15	0.52
11:CK:34:ASP:HB2	11:CK:35:PRO:CD	2.40	0.52
1:CA:819:A:N6	1:CA:1529:G:C5	2.78	0.52
10:CJ:13:HIS:CE1	10:CJ:14:LYS:HG3	2.44	0.52
1:CA:1237:C:OP1	1:CA:1238:A:H1'	2.10	0.52
1:AA:353:A:C2'	1:AA:354:G:OP2	2.57	0.52
23:DA:81:G:H21	43:DU:2:ARG:NH2	2.07	0.52
33:DK:28:SER:O	33:DK:29:ASN:HB3	2.10	0.52
32:BJ:69:VAL:O	32:BJ:70:ALA:HB3	2.10	0.52
1:AA:1052:U:H2'	1:AA:1055:A:OP1	2.09	0.52
1:CA:512:U:O2'	1:CA:513:C:H5'	2.10	0.52
34:BL:86:LYS:HB3	34:BL:118:GLY:HA3	1.91	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1233:G:OP2	9:AI:124:GLN:HB2	2.09	0.52
23:DA:1414:G:C6	23:DA:1415:U:C4	2.97	0.52
23:DA:2352:A:C2'	23:DA:2353:G:H5'	2.39	0.52
1:AA:522:C:H2'	1:AA:523:A:H5'	1.90	0.52
7:CG:47:CYS:O	7:CG:58:PRO:HG3	2.09	0.52
1:AA:334:C:O2'	1:AA:335:C:H5'	2.10	0.52
43:BU:59:GLY:C	43:BU:61:ILE:H	2.12	0.52
45:BW:14:ARG:CZ	45:BW:14:ARG:CB	2.86	0.52
1:AA:224:C:C2	1:AA:225:C:C5	2.98	0.52
23:BA:2058:A:C6	23:BA:2059:A:N6	2.78	0.52
38:BP:81:PRO:C	38:BP:82:LEU:HD23	2.29	0.52
1:AA:356:A:H2'	1:AA:357:G:H8	1.73	0.52
1:CA:294:U:C2	1:CA:295:C:C5	2.98	0.52
7:AG:80:VAL:CG2	7:AG:83:ALA:HB3	2.40	0.52
46:DX:48:LYS:NZ	46:DX:50:ARG:NH1	2.57	0.52
1:CA:156:G:C2	1:CA:166:G:C2	2.98	0.52
26:DD:173:VAL:HG12	26:DD:174:ASP:H	1.74	0.52
23:BA:527:C:O2	23:BA:527:C:O4'	2.28	0.52
49:D1:43:GLY:O	49:D1:44:CYS:HB3	2.08	0.52
23:BA:948:G:N2	23:BA:970:C:O2	2.42	0.52
30:BH:29:TYR:C	30:BH:32:PRO:HD2	2.30	0.52
1:AA:1246:C:H2'	1:AA:1247:U:C6	2.45	0.52
23:DA:2415:G:H1'	34:DL:67:MET:CE	2.37	0.52
22:AV:6189:G:C6	22:AV:6190:U:C4	2.98	0.52
34:BL:47:ASP:OD1	34:BL:49:ARG:N	2.42	0.52
23:DA:568:U:O4	40:DR:78:LYS:CE	2.58	0.52
2:AB:102:LEU:N	2:AB:102:LEU:HD12	2.24	0.52
46:BX:73:LEU:HG	46:BX:73:LEU:O	2.08	0.52
36:DN:66:VAL:HG13	36:DN:70:LEU:HD12	1.92	0.52
36:BN:10:LEU:CB	36:BN:17:ARG:NE	2.70	0.52
1:CA:878:G:C5'	8:CH:89:PRO:HG2	2.40	0.52
23:BA:1344:G:H5'	23:BA:1384:A:C6	2.44	0.52
46:BX:19:GLN:O	46:BX:20:ARG:HG3	2.10	0.52
40:DR:64:HIS:HD2	40:DR:92:THR:CG2	2.21	0.52
25:DC:25:THR:HG22	25:DC:82:ILE:N	2.25	0.52
23:DA:1047:G:H1'	23:DA:1110:G:N2	2.24	0.52
23:BA:780:G:H21	23:BA:783:A:N6	2.03	0.52
1:AA:68:G:C6	1:AA:69:G:N7	2.78	0.52
23:BA:389:G:C6	34:BL:71:VAL:HG23	2.44	0.52
23:DA:284:U:H2'	23:DA:285:C:C6	2.45	0.52
38:BP:88:ILE:HG13	38:BP:89:VAL:N	2.24	0.52
27:DE:36:VAL:HG11	27:DE:183:VAL:HG11	1.90	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:527:G:O2'	1:CA:528:C:H5'	2.10	0.52
32:BJ:59:GLY:O	32:BJ:65:TRP:CE3	2.63	0.52
45:DW:50:ASN:O	45:DW:62:LEU:HB2	2.10	0.52
45:DW:31:VAL:HG11	45:DW:67:VAL:HG23	1.92	0.52
48:DZ:11:SER:OG	48:DZ:13:ILE:HG13	2.10	0.52
28:DF:10:LYS:O	28:DF:14:GLU:HB3	2.09	0.52
1:AA:862:C:H2'	1:AA:863:U:C5'	2.40	0.52
23:BA:277:C:H3'	23:BA:278:A:C5'	2.40	0.52
1:AA:109:A:N7	1:AA:326:G:C4	2.78	0.52
23:DA:2461:C:O2	23:DA:2461:C:C2'	2.55	0.52
26:BD:179:GLU:HB3	26:BD:181:LEU:HD22	1.92	0.52
45:BW:14:ARG:CZ	45:BW:14:ARG:HB2	2.40	0.52
23:DA:2317:C:C2'	23:DA:2318:G:H5'	2.40	0.52
23:BA:2317:C:C2'	23:BA:2318:G:H5'	2.40	0.52
43:DU:59:GLY:C	43:DU:61:ILE:H	2.12	0.52
23:DA:1028:A:N3	23:DA:2486:G:O2'	2.29	0.52
1:AA:137:C:O2'	1:AA:138:G:H5'	2.10	0.52
3:AC:121:ALA:HB1	3:AC:188:LEU:O	2.10	0.52
23:BA:2028:U:O4	23:BA:2033:A:OP1	2.27	0.52
23:DA:1235:G:C6	23:DA:1236:G:N1	2.78	0.52
30:DH:29:TYR:C	30:DH:32:PRO:HD2	2.29	0.52
23:DA:1301:A:N3	23:DA:1301:A:H2'	2.24	0.52
23:DA:900:A:C4	23:DA:901:A:C8	2.97	0.52
23:DA:1636:C:H2'	23:DA:1637:A:C8	2.43	0.52
28:BF:18:GLU:HG2	28:BF:175:LEU:HD22	1.91	0.52
17:AQ:11:VAL:O	17:AQ:11:VAL:HG13	2.10	0.52
23:DA:2342:C:O2'	23:DA:2374:C:H5''	2.08	0.52
26:DD:201:THR:C	26:DD:202:LYS:HD3	2.27	0.52
1:CA:1369:C:H2'	1:CA:1370:G:O4'	2.10	0.52
10:CJ:63:PHE:HB3	14:CN:57:ARG:O	2.10	0.52
38:BP:75:ILE:O	38:BP:75:ILE:HG22	2.10	0.52
23:BA:568:U:O4	40:BR:78:LYS:HE2	2.09	0.52
26:BD:137:HIS:HB3	26:BD:138:PRO:HD2	1.90	0.52
34:DL:47:ASP:OD1	34:DL:49:ARG:N	2.43	0.52
6:AF:86:ARG:O	6:AF:87:ARG:CB	2.50	0.52
1:AA:673:G:H5''	6:AF:87:ARG:NH1	2.24	0.52
47:BY:16:LEU:HB2	47:BY:20:GLU:HG3	1.92	0.52
23:DA:1210:A:H5'	23:DA:1210:A:H8	1.73	0.52
4:CD:30:LYS:C	4:CD:32:ALA:H	2.13	0.52
4:CD:9:CYS:SG	4:CD:32:ALA:HB2	2.50	0.52
5:CE:41:VAL:HG12	5:CE:112:LEU:O	2.09	0.52
23:DA:2723:C:OP2	26:DD:109:LYS:NZ	2.42	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BS:19:LEU:HB3	50:B2:25:LEU:HD11	1.90	0.52
30:BH:113:ARG:HB2	30:BH:130:TYR:CE1	2.42	0.52
23:BA:84:A:C2	23:BA:98:G:N3	2.78	0.52
2:CB:25:ASN:HB3	2:CB:26:PRO:HD2	1.91	0.52
6:CF:22:GLU:O	6:CF:26:ILE:HG13	2.10	0.52
1:AA:318:G:O2'	1:AA:319:G:H5'	2.09	0.52
33:DK:97:ARG:H	33:DK:117:LEU:CD2	2.23	0.52
35:BM:8:LYS:HG3	35:BM:9:TYR:N	2.24	0.52
16:CP:39:TYR:CD2	16:CP:40:ASP:N	2.78	0.52
9:AI:103:THR:HG22	9:AI:105:ASP:H	1.75	0.52
25:DC:120:GLY:HA2	25:DC:190:TYR:OH	2.10	0.52
23:DA:1478:G:N2	23:DA:1479:G:C4	2.77	0.52
23:BA:1952:A:C5	33:BK:22:ILE:CD1	2.93	0.52
20:CT:13:LEU:N	20:CT:13:LEU:HD12	2.22	0.52
23:BA:2287:A:C6	23:BA:2289:G:C4	2.98	0.52
44:DV:58:VAL:HG11	44:DV:66:SER:HB2	1.92	0.52
1:AA:1022:G:H2'	1:AA:1023:G:C8	2.43	0.52
12:AL:6:ILE:HD12	12:AL:6:ILE:N	2.25	0.52
6:CF:18:GLN:O	6:CF:21:LEU:HB2	2.09	0.52
23:DA:2862:G:C6	23:DA:2863:C:C4	2.98	0.52
24:DB:55:U:O2'	24:DB:56:G:H5'	2.10	0.52
44:DV:68:PRO:HG2	44:DV:91:LEU:O	2.09	0.52
23:BA:1993:U:H4'	26:BD:128:SER:CB	2.40	0.52
23:BA:1636:C:H2'	23:BA:1637:A:C8	2.45	0.52
35:DM:84:GLY:HA3	45:DW:10:THR:CG2	2.39	0.52
1:CA:1381:U:O2'	1:CA:1382:C:H5'	2.10	0.52
23:DA:2020:A:OP1	39:DQ:27:LEU:HB2	2.09	0.52
25:DC:168:ARG:O	25:DC:169:GLU:HB2	2.10	0.52
4:CD:23:GLY:CA	4:CD:112:VAL:HG22	2.40	0.52
1:AA:1508:G:H2'	1:AA:1509:C:O4'	2.09	0.52
27:DE:179:GLU:CD	27:DE:179:GLU:H	2.12	0.52
46:BX:52:ARG:O	46:BX:56:GLN:O	2.27	0.52
34:DL:86:LYS:HB3	34:DL:118:GLY:HA3	1.91	0.52
34:BL:128:HIS:CA	34:BL:147:LEU:HB3	2.10	0.52
28:BF:92:VAL:O	28:BF:92:VAL:HG13	2.09	0.52
53:D5:60:LEU:HD23	53:D5:60:LEU:N	2.25	0.52
23:DA:253:C:H2'	23:DA:254:G:O4'	2.10	0.52
39:BQ:90:VAL:O	39:BQ:92:ARG:N	2.43	0.52
23:DA:2731:G:C6	23:DA:2732:G:C6	2.98	0.52
23:DA:2335:A:N7	23:DA:2337:G:C5	2.78	0.52
25:DC:127:VAL:HA	25:DC:193:VAL:HG12	1.92	0.52
23:DA:1799:G:H8	25:DC:181:GLU:CD	2.14	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:414:A:H2'	1:AA:415:A:H8	1.75	0.52
1:AA:689:C:OP1	11:AK:27:ASN:ND2	2.43	0.52
28:BF:161:THR:C	28:BF:163:ALA:H	2.11	0.52
23:BA:322:A:OP1	27:BE:168:ARG:HD3	2.10	0.52
5:CE:10:MET:HA	5:CE:32:VAL:HA	1.91	0.52
24:BB:73:A:C4	24:BB:74:U:C6	2.98	0.52
1:AA:1068:G:H8	1:AA:1068:G:OP2	1.92	0.52
5:AE:18:ARG:HH21	5:AE:25:ARG:CB	2.23	0.52
1:CA:406:G:H2'	1:CA:407:G:H8	1.75	0.52
46:BX:86:SER:HB3	46:BX:89:GLU:HB2	1.92	0.52
1:AA:1151:A:HO2'	1:AA:1152:A:H8	1.51	0.52
1:AA:11:G:C6	1:AA:12:U:C4	2.98	0.52
36:BN:63:ARG:HA	36:BN:80:PHE:CE2	2.45	0.52
23:DA:1105:U:C2	23:DA:1106:G:C8	2.98	0.52
40:DR:98:GLU:HG2	40:DR:100:ARG:CD	2.39	0.52
32:DJ:62:ARG:NH2	32:DJ:64:ASP:OD2	2.38	0.52
1:AA:600:C:H2'	1:AA:601:C:H6	1.73	0.52
1:AA:105:G:C4	1:AA:106:C:C5	2.98	0.52
23:BA:1680:U:C2'	23:BA:1681:G:O5'	2.58	0.52
35:BM:20:ALA:HB2	35:BM:99:PRO:HB2	1.91	0.52
50:B2:52:TYR:O	50:B2:52:TYR:CD1	2.63	0.52
24:DB:75:G:H21	44:DV:85:HIS:CE1	2.27	0.52
1:AA:939:G:H2'	1:AA:940:C:C6	2.44	0.52
23:DA:2721:A:H1'	23:DA:2873:A:O2'	2.08	0.52
1:AA:754:C:O5'	15:AO:72:ARG:NH2	2.43	0.52
23:DA:1922:G:H2'	23:DA:1923:U:O4'	2.10	0.52
23:BA:2215:G:OP2	23:BA:2215:G:H8	1.93	0.52
1:CA:563:A:C8	1:CA:567:G:H1'	2.44	0.52
23:DA:779:U:P	25:DC:49:ILE:HD12	2.50	0.52
23:BA:2506:U:C5	23:BA:2507:C:H5	2.27	0.52
1:CA:577:G:C5	1:CA:578:C:C5	2.99	0.52
12:AL:61:SER:C	12:AL:63:TYR:H	2.12	0.52
1:CA:1389:C:H2'	1:CA:1390:U:O4'	2.09	0.52
23:DA:1850:G:C5	23:DA:1851:U:C5	2.98	0.52
51:D3:11:LEU:O	51:D3:24:GLU:HB2	2.10	0.52
1:CA:1325:C:O3'	21:CU:17:THR:HG21	2.10	0.52
23:BA:2046:G:O5'	50:B2:19:ARG:HA	2.09	0.52
23:DA:36:G:C5	23:DA:37:C:C5	2.98	0.52
44:DV:152:ALA:C	44:DV:154:ASP:H	2.13	0.52
23:DA:466:A:H5''	23:DA:467:G:OP2	2.10	0.52
10:CJ:30:SER:HB2	10:CJ:80:LYS:CG	2.40	0.52
30:BH:1:MET:HG3	30:BH:23:PRO:HG3	1.92	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:801:U:H2'	1:AA:802:A:C8	2.45	0.52
43:BU:8:LYS:NZ	43:BU:8:LYS:H	2.02	0.51
43:BU:8:LYS:HD2	43:BU:13:VAL:CG2	2.40	0.51
1:CA:790:A:H5'	22:CV:6192:G:H4'	1.91	0.51
23:DA:943:U:OP2	34:DL:38:GLN:CD	2.48	0.51
34:BL:114:ILE:H	34:BL:114:ILE:CD1	2.01	0.51
39:DQ:102:GLU:N	39:DQ:103:PRO:CD	2.74	0.51
39:DQ:92:ARG:HH22	40:DR:11:GLN:H	1.55	0.51
23:DA:593:G:H4'	53:D5:62:LEU:CD1	2.40	0.51
28:DF:86:MET:N	28:DF:87:PRO:HD3	2.25	0.51
32:DJ:93:LYS:HE3	32:DJ:95:TYR:CE1	2.35	0.51
1:AA:407:G:H4'	4:AD:116:GLN:HA	1.92	0.51
4:CD:64:LEU:HD12	4:CD:64:LEU:O	2.10	0.51
25:BC:31:LYS:O	25:BC:36:PRO:HD3	2.11	0.51
52:D4:19:ARG:NH1	52:D4:19:ARG:CB	2.73	0.51
30:DH:97:ILE:O	30:DH:101:LEU:HB2	2.11	0.51
4:AD:21:LEU:HD12	4:AD:22:LYS:H	1.75	0.51
24:DB:45:A:H1'	28:DF:95:ARG:CZ	2.40	0.51
49:D1:51:TYR:O	49:D1:52:SER:HB2	2.09	0.51
28:BF:69:ALA:O	28:BF:90:LEU:HD13	2.10	0.51
5:CE:41:VAL:CG1	5:CE:113:ALA:HA	2.39	0.51
23:DA:2688:U:O2	23:DA:2688:U:C3'	2.57	0.51
1:AA:1353:G:OP2	1:AA:1353:G:H8	1.92	0.51
9:AI:10:ARG:CD	9:AI:11:LYS:HG3	2.39	0.51
36:DN:47:PHE:CE2	36:DN:51:LEU:HD11	2.45	0.51
36:DN:48:VAL:O	36:DN:51:LEU:N	2.43	0.51
6:CF:63:TYR:O	6:CF:65:VAL:HG12	2.09	0.51
18:AR:76:LEU:HD22	18:AR:76:LEU:N	2.24	0.51
43:BU:95:LYS:HE2	43:BU:100:ALA:HB2	1.91	0.51
10:CJ:13:HIS:HB3	10:CJ:68:HIS:NE2	2.25	0.51
23:DA:379:G:C2	46:DX:20:ARG:NH2	2.77	0.51
23:DA:389:G:C6	34:DL:71:VAL:HG23	2.45	0.51
1:CA:782:A:C2	1:CA:801:U:O2	2.63	0.51
25:BC:265:PRO:C	25:BC:267:SER:N	2.62	0.51
38:DP:88:ILE:HG13	38:DP:89:VAL:N	2.25	0.51
23:BA:2480:C:N4	23:BA:2481:G:C6	2.78	0.51
43:BU:63:LYS:HG3	43:BU:64:GLU:N	2.23	0.51
9:CI:114:TYR:HD2	9:CI:114:TYR:N	2.08	0.51
23:BA:286:C:H2'	23:BA:287:C:C6	2.39	0.51
23:BA:909:A:C2	23:BA:912:C:C6	2.98	0.51
23:DA:774:A:H2	23:DA:787:U:O2'	1.92	0.51
23:BA:2432:A:H5"	23:BA:2433:A:OP2	2.09	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:23:TYR:HB2	10:AJ:93:GLY:O	2.10	0.51
3:CC:175:LEU:HD11	3:CC:201:TYR:HE2	1.75	0.51
3:AC:76:VAL:HG23	3:AC:77:ILE:HG13	1.92	0.51
19:CS:31:ILE:CG2	19:CS:49:ILE:HA	2.39	0.51
1:AA:1112:C:H42	3:AC:177:THR:HA	1.75	0.51
23:BA:480:A:OP2	43:BU:46:LYS:HE2	2.09	0.51
1:CA:1112:C:O2	3:CC:179:ARG:HD3	2.11	0.51
1:CA:780:A:C2	1:CA:803:G:N1	2.78	0.51
23:BA:1893:C:C6	23:BA:1894:C:C5	2.99	0.51
1:CA:1502:A:C8	1:CA:1505:G:N2	2.77	0.51
41:DS:45:TYR:CD2	41:DS:45:TYR:C	2.84	0.51
9:AI:86:VAL:HG23	9:AI:93:ARG:HB2	1.90	0.51
28:BF:18:GLU:HG2	28:BF:175:LEU:CD2	2.40	0.51
23:BA:699:A:H2'	23:BA:700:G:O4'	2.09	0.51
1:AA:575:G:OP1	1:AA:575:G:H4'	2.11	0.51
23:DA:449:A:C2'	23:DA:450:G:H5'	2.40	0.51
1:CA:1037:C:H2'	1:CA:1038:C:H6	1.75	0.51
44:DV:165:VAL:HG23	44:DV:166:SER:O	2.10	0.51
7:CG:38:LEU:O	7:CG:42:ILE:HG13	2.09	0.51
26:DD:24:THR:HG22	26:DD:186:GLY:H	1.74	0.51
1:AA:1061:G:O4'	10:AJ:56:HIS:CE1	2.63	0.51
38:DP:54:ARG:CG	38:DP:54:ARG:NH1	2.60	0.51
38:BP:64:ARG:HD2	38:BP:73:GLU:CG	2.40	0.51
26:BD:132:HIS:CD2	26:BD:135:HIS:CE1	2.97	0.51
28:BF:76:SER:HB2	28:BF:83:ARG:CA	2.40	0.51
25:BC:127:VAL:HA	25:BC:193:VAL:CG1	2.40	0.51
24:DB:81:G:C6	24:DB:82:G:N7	2.78	0.51
1:AA:376:G:O2'	1:AA:377:G:C5'	2.59	0.51
3:AC:182:ILE:HD11	3:AC:203:PHE:CD1	2.45	0.51
4:AD:109:GLY:C	4:AD:111:ALA:H	2.13	0.51
4:AD:144:ASP:O	4:AD:146:ILE:HG13	2.10	0.51
12:AL:31:PHE:CB	12:AL:83:LEU:HD11	2.40	0.51
3:CC:172:ARG:HE	3:CC:174:PRO:HG2	1.75	0.51
24:DB:40:U:O2	24:DB:43:C:C6	2.63	0.51
29:BG:35:VAL:HG21	29:BG:75:ALA:CB	2.41	0.51
23:DA:141(A):A:N6	23:DA:1596:A:H5'	2.26	0.51
5:CE:11:ILE:CB	5:CE:31:LEU:HD13	2.39	0.51
20:AT:57:ARG:HH12	20:AT:102:GLY:HA2	1.71	0.51
1:AA:1101:A:N3	1:AA:1102:A:H1'	2.25	0.51
1:CA:408:A:C4	1:CA:409:G:C8	2.98	0.51
23:BA:2352:A:C2'	23:BA:2353:G:H5'	2.40	0.51
23:DA:2090:G:H21	46:DX:45:ASN:HD21	1.59	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DX:62:VAL:CG2	46:DX:63:ALA:N	2.73	0.51
23:BA:95:G:N2	23:BA:96:G:H1'	2.25	0.51
10:AJ:13:HIS:HB3	10:AJ:68:HIS:NE2	2.24	0.51
8:AH:20:TYR:HD1	8:AH:65:TYR:CE2	2.28	0.51
12:AL:52:ARG:HH11	12:AL:52:ARG:HG2	1.71	0.51
23:DA:2305:A:H3'	23:DA:2306:C:H5''	1.92	0.51
5:CE:48:ALA:O	5:CE:50:GLU:N	2.43	0.51
19:AS:25:LYS:HB3	19:AS:27:GLU:OE1	2.10	0.51
23:BA:1567:A:H5''	25:BC:58:HIS:CD2	2.45	0.51
23:BA:1487:G:O2'	23:BA:1488:G:H5'	2.10	0.51
25:BC:25:THR:HG21	25:BC:82:ILE:N	2.26	0.51
1:CA:1068:G:N7	1:CA:1094:G:C8	2.78	0.51
23:BA:2482:G:H2'	23:BA:2483:C:O4'	2.11	0.51
50:D2:40:LYS:HZ1	50:D2:49:CYS:CB	2.22	0.51
4:CD:13:ARG:CD	4:CD:38:TYR:O	2.59	0.51
23:BA:1390:U:O2'	23:BA:1391:U:H5'	2.10	0.51
23:BA:1568:G:H5''	25:BC:61:LEU:HD22	1.92	0.51
4:CD:79:PHE:CE1	4:CD:204:ILE:HA	2.45	0.51
10:CJ:10:GLY:HA3	10:CJ:16:LEU:HD21	1.92	0.51
23:DA:1680:U:O2	23:DA:1763:G:H3'	2.10	0.51
23:BA:975:G:H1'	23:BA:990:A:C2	2.45	0.51
23:BA:1862:G:H2'	23:BA:1863:G:C8	2.43	0.51
1:CA:433:C:H2'	1:CA:434:U:C6	2.41	0.51
23:BA:480:A:N3	23:BA:480:A:H2'	2.25	0.51
23:BA:17:G:H4'	39:BQ:25:TRP:CZ3	2.45	0.51
1:AA:1298:C:N4	7:AG:114:ARG:HD3	2.25	0.51
23:DA:1894:C:H2'	23:DA:1895:C:H6	1.75	0.51
27:BE:110:LEU:HD11	27:BE:181:LEU:HD13	1.92	0.51
1:CA:191(D):U:H2'	1:CA:191(E):G:C8	2.44	0.51
23:BA:2345:G:OP2	51:B3:39:TYR:HA	2.09	0.51
23:DA:2718:G:H2'	23:DA:2719:G:C8	2.45	0.51
23:BA:1232:G:C5	23:BA:1233:C:C5	2.98	0.51
23:BA:2689:U:P	23:BA:2719:G:H22	2.34	0.51
7:AG:70:LYS:CG	7:AG:96:GLN:HB3	2.39	0.51
23:DA:1993:U:H4'	26:DD:128:SER:HB3	1.92	0.51
1:CA:128:G:O2'	17:CQ:3:LYS:HE2	2.09	0.51
23:DA:769:G:C2'	23:DA:770:G:H5'	2.40	0.51
23:DA:771:G:H2'	23:DA:772:C:H6	1.75	0.51
2:AB:17:PHE:CB	2:AB:44:LEU:HD21	2.39	0.51
23:BA:2027:G:H2'	23:BA:2028:U:O4'	2.10	0.51
43:BU:11:ASP:OD1	43:BU:12:THR:N	2.43	0.51
23:DA:2473:U:C4	23:DA:2474:C:C4	2.98	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:537:C:H2'	23:DA:539:G:H8	1.75	0.51
23:BA:1932:A:H2'	23:BA:1933:G:O4'	2.11	0.51
23:BA:851:U:O2	23:BA:928:G:C2	2.63	0.51
23:BA:771:G:H2'	23:BA:772:C:H6	1.76	0.51
23:BA:2734:A:H2'	23:BA:2735:G:H5'	1.93	0.51
53:D5:57:ARG:CB	53:D5:57:ARG:CZ	2.87	0.51
23:BA:2330:G:O2'	45:BW:41:ARG:HB2	2.09	0.51
43:DU:9:LYS:O	43:DU:27:VAL:HG21	2.09	0.51
34:DL:32:THR:HG21	34:DL:37:GLY:N	2.25	0.51
23:DA:197:A:H8	23:DA:197:A:C5'	2.14	0.51
28:DF:82:LEU:HD22	28:DF:87:PRO:HG3	1.92	0.51
16:CP:19:ILE:HG22	16:CP:19:ILE:O	2.08	0.51
39:BQ:106:PHE:O	39:BQ:110:VAL:HG23	2.11	0.51
16:AP:18:ARG:HD3	16:AP:35:LYS:HE3	1.91	0.51
3:CC:18:TRP:HD1	14:CN:54:PRO:HA	1.72	0.51
12:AL:26:LEU:O	12:AL:28:GLY:N	2.43	0.51
4:CD:104:VAL:C	4:CD:106:TYR:H	2.14	0.51
25:DC:44:ASN:CG	25:DC:45:ASN:H	2.12	0.51
2:AB:175:ARG:O	2:AB:178:ARG:HB3	2.10	0.51
1:CA:37:U:OP2	12:CL:122:LYS:HE3	2.09	0.51
3:CC:14:ILE:HG23	3:CC:15:THR:N	2.14	0.51
34:DL:16:ARG:NH2	34:DL:18:ARG:N	2.57	0.51
5:AE:111:GLU:C	5:AE:113:ALA:H	2.13	0.51
5:AE:14:ARG:NH1	5:AE:129:ILE:HD11	2.25	0.51
23:BA:142:G:H2'	23:BA:143:C:C6	2.46	0.51
8:AH:91:ARG:HG3	8:AH:91:ARG:NH1	2.24	0.51
12:CL:69:ILE:HG23	12:CL:99:ILE:CG2	2.35	0.51
23:BA:1439:A:H2'	23:BA:1440:G:H5'	1.92	0.51
1:AA:1349:A:C2	1:AA:1350:A:H1'	2.46	0.51
25:BC:185:VAL:HG12	25:BC:186:HIS:N	2.25	0.51
1:AA:9:G:H2'	1:AA:10:A:H8	1.75	0.51
44:DV:102:LEU:HD21	44:DV:124:ILE:HD11	1.93	0.51
41:DS:29:LEU:CG	41:DS:33:ARG:HE	2.22	0.51
43:BU:9:LYS:O	43:BU:27:VAL:HG21	2.10	0.51
40:BR:28:GLU:HB2	40:BR:31:ALA:CB	2.40	0.51
25:BC:168:ARG:O	25:BC:169:GLU:HB2	2.10	0.51
20:AT:10:LEU:O	20:AT:12:ALA:N	2.37	0.51
47:BY:9:GLN:HA	47:BY:12:GLU:HB3	1.92	0.51
23:DA:1104:C:C4	23:DA:1105:U:H5	2.28	0.51
23:BA:2745:C:C4	23:BA:2746:U:C4	2.98	0.51
37:DO:34:HIS:ND1	37:DO:54:LEU:HB3	2.26	0.51
1:AA:1270:C:O2'	1:AA:1314:C:H5'	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1128:C:O2	1:CA:1130:A:N6	2.43	0.51
27:BE:31:HIS:O	27:BE:34:TRP:HB3	2.10	0.51
1:CA:175:C:H2'	1:CA:176:C:C6	2.39	0.51
24:DB:60:C:C2	24:DB:61:G:C8	2.98	0.51
35:DM:20:ALA:O	35:DM:21:THR:O	2.28	0.51
1:CA:518:C:O2	1:CA:529:G:C6	2.63	0.51
23:BA:2850:A:C4	23:BA:2851:A:C8	2.99	0.51
23:BA:2862:G:C5	23:BA:2863:C:C5	2.98	0.51
35:DM:111:GLU:O	35:DM:115:MET:HB2	2.10	0.51
1:CA:444:C:H2'	1:CA:445:G:H8	1.75	0.51
2:CB:22:LYS:HZ3	2:CB:22:LYS:N	2.09	0.51
2:CB:32:ILE:HG12	2:CB:40:HIS:HD2	1.74	0.51
23:BA:1131:G:N2	23:BA:1132:A:C4	2.79	0.51
23:BA:2065:C:H2'	23:BA:2066:C:C6	2.44	0.51
12:CL:37:THR:OG1	12:CL:38:VAL:N	2.42	0.51
23:DA:1241:A:N6	23:DA:1242:A:C6	2.79	0.51
39:DQ:20:LEU:HB2	39:DQ:39:LEU:HD11	1.90	0.51
1:CA:1038:C:H2'	1:CA:1039:C:C6	2.46	0.51
3:CC:81:GLY:O	3:CC:85:ARG:HD3	2.10	0.51
23:BA:270(S):G:H2'	23:BA:270(T):G:C8	2.45	0.51
1:CA:1171:G:H2'	1:CA:1172:C:C6	2.45	0.51
23:BA:643:A:C2	23:BA:644:A:C4	2.98	0.51
1:CA:1464:G:O2'	1:CA:1465:C:H5'	2.11	0.51
2:AB:75:LYS:C	2:AB:75:LYS:HD3	2.31	0.51
1:AA:19:C:H5''	5:AE:86:ALA:HB1	1.91	0.51
23:BA:616:A:C4	27:BE:180:GLY:HA2	2.45	0.51
35:BM:84:GLY:HA3	45:BW:10:THR:CG2	2.41	0.51
34:DL:113:LYS:HA	34:DL:129:ALA:O	2.10	0.51
23:DA:747:U:O2	23:DA:2014:A:H1'	2.10	0.51
1:CA:1375:A:C2	1:CA:1376:U:C2	2.99	0.51
27:DE:64:ILE:HG23	27:DE:65:TRP:NE1	2.25	0.51
2:CB:184:VAL:O	2:CB:198:ASP:HB2	2.11	0.51
23:BA:2727:G:C4	23:BA:2728:U:H5	2.29	0.51
1:AA:402:G:O5'	1:AA:402:G:H8	1.93	0.51
4:CD:61:LYS:HA	4:CD:203:VAL:HG22	1.92	0.51
3:CC:137:ALA:O	3:CC:141:VAL:HG23	2.11	0.51
26:BD:1:MET:O	26:BD:2:LYS:O	2.28	0.51
23:DA:548:A:H2'	23:DA:549:G:H5'	1.91	0.51
23:BA:1414:G:C6	23:BA:1415:U:C4	2.98	0.51
26:DD:49:LEU:CD2	26:DD:49:LEU:H	2.16	0.51
1:CA:1435:G:H2'	1:CA:1436:U:C5	2.45	0.51
5:AE:139:LEU:O	5:AE:141:GLN:N	2.43	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BW:51:VAL:HG21	45:BW:80:HIS:HA	1.91	0.51
3:AC:14:ILE:HG12	3:AC:15:THR:N	2.26	0.51
3:AC:14:ILE:HG23	3:AC:15:THR:N	2.17	0.51
36:DN:73:VAL:O	36:DN:76:VAL:HG22	2.11	0.51
6:CF:35:ALA:O	6:CF:37:VAL:N	2.43	0.51
23:DA:95:G:HO2'	47:DY:48:HIS:CE1	2.24	0.51
47:DY:48:HIS:O	47:DY:49:LYS:C	2.46	0.51
23:BA:1047:G:H1'	23:BA:1110:G:N2	2.25	0.51
23:DA:2776:A:H4'	23:DA:2777:G:H5''	1.92	0.51
23:DA:2277:G:C5'	35:DM:85:LYS:HB2	2.40	0.51
15:AO:50:HIS:O	15:AO:53:HIS:HB3	2.11	0.51
1:AA:197:A:N7	1:AA:221:C:H4'	2.25	0.51
19:CS:6:LYS:N	19:CS:6:LYS:HD2	2.24	0.51
1:CA:750:G:C6	1:CA:751:U:C5	2.99	0.51
1:CA:1052:U:H2'	1:CA:1055:A:OP1	2.10	0.51
12:AL:21:SER:O	12:AL:23:VAL:N	2.43	0.51
23:BA:335:C:C2	23:BA:336:C:C5	2.98	0.51
44:BV:38:TYR:O	44:BV:38:TYR:CG	2.63	0.51
32:DJ:80:ALA:O	32:DJ:83:ILE:HG13	2.09	0.51
1:CA:640:A:N3	8:CH:115:SER:CB	2.74	0.51
2:AB:32:ILE:HG12	2:AB:40:HIS:HD2	1.75	0.51
1:CA:836:G:OP1	18:CR:61:LYS:HE2	2.10	0.51
23:BA:2065:C:H2'	23:BA:2066:C:H6	1.74	0.51
1:AA:512:U:O2'	1:AA:513:C:H5'	2.10	0.51
46:BX:67:ILE:N	46:BX:68:PRO:HD2	2.25	0.51
18:AR:84:LYS:NZ	18:AR:84:LYS:HB3	2.25	0.51
46:DX:51:VAL:HG13	46:DX:53:VAL:HG23	1.92	0.51
5:CE:36:ASP:OD2	5:CE:38:GLN:HB3	2.10	0.51
1:AA:797:C:OP1	11:AK:124:LYS:HE2	2.09	0.51
9:CI:26:VAL:O	9:CI:26:VAL:HG12	2.09	0.51
1:AA:1525:G:OP1	11:AK:120:ARG:NH2	2.43	0.51
23:BA:2026:C:C4	23:BA:2027:G:N7	2.79	0.51
23:BA:273(B):G:C2	23:BA:364:C:N3	2.78	0.51
23:BA:1376:C:N4	23:BA:1377:G:C6	2.79	0.51
23:BA:1839:G:C8	23:BA:1927:A:H1'	2.46	0.51
5:AE:28:PHE:CD1	5:AE:28:PHE:N	2.78	0.51
23:BA:1759:A:C8	23:BA:2696:U:H1'	2.45	0.51
1:AA:966:G:H2'	1:AA:967:C:C6	2.45	0.51
23:BA:1017:G:C2	23:BA:1146:C:O2	2.63	0.51
15:CO:48:LYS:HA	15:CO:48:LYS:HE2	1.92	0.51
49:D1:47:VAL:HG12	49:D1:49:GLU:OE1	2.11	0.51
1:CA:261:U:OP2	20:CT:79:ARG:NH2	2.42	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1176:A:H2'	1:AA:1177:G:C8	2.46	0.51
23:BA:2822:G:H2'	23:BA:2823:A:H5''	1.92	0.51
28:DF:171:ALA:O	28:DF:175:LEU:HG	2.11	0.51
47:DY:16:LEU:HB2	47:DY:20:GLU:HG3	1.91	0.51
43:DU:14:LEU:HD23	43:DU:14:LEU:C	2.31	0.51
1:AA:1224:G:H4'	13:AM:102:ARG:HH22	1.76	0.51
1:CA:503:C:H2'	1:CA:504:C:H6	1.75	0.51
32:BJ:90:LEU:HA	32:BJ:110:LEU:HD13	1.92	0.51
39:DQ:90:VAL:HG13	39:DQ:91:ASP:N	2.24	0.51
39:DQ:92:ARG:HD2	39:DQ:95:LEU:H	1.74	0.51
40:DR:5:VAL:HG12	40:DR:14:VAL:HG21	1.93	0.51
23:DA:242:G:P	53:D5:3:LYS:HZ1	2.33	0.51
28:DF:83:ARG:HG3	28:DF:84:LYS:H	1.75	0.51
25:DC:150:LYS:HE3	25:DC:150:LYS:HA	1.92	0.51
1:AA:552:U:C2'	1:AA:553:A:H5'	2.41	0.51
4:AD:21:LEU:CD1	4:AD:21:LEU:H	2.22	0.51
23:BA:137(B):G:H2'	23:BA:139:G:N7	2.25	0.51
23:DA:1404:C:C2'	23:DA:1404:C:O2	2.55	0.51
23:DA:2605:U:H2'	23:DA:2606:C:C6	2.45	0.51
1:AA:199:G:H1	1:AA:218:C:N4	1.98	0.51
27:BE:124:LEU:HD12	27:BE:125:LEU:O	2.11	0.51
46:DX:11:ARG:O	46:DX:12:PRO:C	2.48	0.51
1:CA:59:A:H3'	1:CA:331:G:H22	1.75	0.51
45:DW:42:GLY:CA	45:DW:57:PHE:CD2	2.90	0.51
46:DX:27:GLU:OE2	46:DX:33:LYS:HE3	2.10	0.51
23:BA:1495:A:H2'	23:BA:1496:A:N3	2.26	0.51
6:CF:26:ILE:C	6:CF:30:LEU:HD12	2.31	0.51
23:BA:2776:A:H4'	23:BA:2777:G:H5''	1.91	0.51
29:BG:20:ALA:HB3	29:BG:23:ARG:O	2.10	0.51
35:BM:16:ARG:C	35:BM:17:LEU:HD23	2.31	0.51
34:BL:16:ARG:NH2	34:BL:18:ARG:N	2.57	0.51
8:AH:9:MET:O	8:AH:12:ARG:HB2	2.11	0.51
27:DE:88:VAL:HG13	27:DE:89:VAL:O	2.11	0.51
31:DI:4:LYS:O	31:DI:4:LYS:HG2	2.11	0.51
23:DA:998:C:H2'	23:DA:999:U:O5'	2.11	0.51
1:AA:1147:C:H6	1:AA:1147:C:O5'	1.93	0.51
1:CA:197:A:N6	1:CA:221:C:C5'	2.74	0.51
23:BA:2287:A:O2'	23:BA:2288:A:P	2.69	0.51
23:BA:2289:G:H2'	23:BA:2289:G:N3	2.25	0.51
23:DA:2101:G:H2'	23:DA:2102:U:C5'	2.40	0.51
23:DA:2477:C:O2'	23:DA:2478:A:P	2.69	0.51
1:CA:509:A:H5'	4:CD:54:TYR:CD2	2.45	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:938:A:C6	1:CA:939:G:C5	2.98	0.51
23:DA:1348:G:C2'	23:DA:1349:A:H5''	2.39	0.51
23:BA:2364:C:H2'	23:BA:2365:G:O4'	2.09	0.51
12:CL:74:HIS:HB2	12:CL:76:LEU:CD2	2.41	0.51
1:CA:1379:G:O2'	1:CA:1380:U:H5'	2.10	0.51
36:BN:84:ALA:O	36:BN:85:PRO:C	2.47	0.51
23:BA:2459:A:C4	23:BA:2460:U:C6	2.99	0.51
23:DA:270(J):G:O2'	23:DA:270(K):G:H8	1.92	0.51
41:BS:45:TYR:CD2	41:BS:45:TYR:O	2.63	0.51
5:AE:36:ASP:OD2	5:AE:38:GLN:HB3	2.10	0.51
1:CA:927:G:C2	1:CA:1391:U:C2	2.98	0.51
2:CB:17:PHE:CB	2:CB:44:LEU:HD21	2.40	0.51
23:BA:270(Q):C:O2'	23:BA:270(R):C:C6	2.64	0.51
23:BA:270(Q):C:O2'	23:BA:270(R):C:H6	1.93	0.51
37:BO:79:ALA:O	37:BO:80:LEU:HD23	2.11	0.51
44:BV:152:ALA:C	44:BV:154:ASP:H	2.14	0.51
23:DA:443:A:H1'	23:DA:1201:C:O4'	2.09	0.51
47:DY:7:ARG:NE	47:DY:11:GLU:OE2	2.44	0.51
23:DA:1796:U:H4'	25:DC:256:GLY:HA2	1.92	0.51
23:BA:1127:A:H2'	23:BA:1128:A:H5''	1.91	0.51
36:DN:18:LEU:HD11	36:DN:22:ARG:NE	2.26	0.51
1:CA:1270:C:O2'	1:CA:1314:C:H5'	2.11	0.51
1:CA:874:G:C5	1:CA:875:C:C5	2.99	0.51
34:DL:136:GLU:O	34:DL:138:LEU:N	2.44	0.51
23:BA:1173:G:H3'	23:BA:1174:A:C5'	2.41	0.51
32:BJ:119:GLU:CD	32:BJ:119:GLU:H	2.08	0.51
2:AB:163:PHE:HA	2:AB:185:ILE:O	2.11	0.51
38:BP:98:LYS:HB3	38:BP:100:TYR:CE1	2.46	0.51
12:CL:116:ARG:O	12:CL:117:SER:C	2.49	0.51
23:BA:577:G:OP1	23:BA:2502:G:H2'	2.11	0.51
28:BF:85:GLY:C	28:BF:86:MET:HG3	2.30	0.51
40:DR:47:VAL:HG11	40:DR:50:PRO:O	2.11	0.51
23:DA:1141:U:P	32:DJ:86:THR:HG21	2.50	0.51
53:B5:6:THR:HG21	53:B5:64:TYR:HD1	1.75	0.51
23:DA:94:G:N2	47:DY:47:ASN:HD22	1.98	0.51
23:BA:2219:G:C2'	23:BA:2224:G:C5'	2.77	0.51
3:CC:33:LEU:O	3:CC:36:ASP:HB3	2.11	0.51
3:AC:29:TYR:O	3:AC:29:TYR:HD1	1.93	0.51
1:CA:735:C:H1'	18:CR:75:ILE:HD11	1.93	0.51
5:AE:34:VAL:O	5:AE:41:VAL:HA	2.11	0.51
23:BA:142:G:C1'	42:BT:37:THR:HG21	2.40	0.51
36:DN:60:LEU:HA	36:DN:63:ARG:HB3	1.93	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:2744:G:H1'	23:DA:2761:G:H22	1.75	0.51
29:DG:67:LEU:HG	29:DG:71:LEU:HD23	1.92	0.51
23:DA:1496:A:N7	23:DA:1498:C:N3	2.59	0.51
23:DA:1859:A:C6	23:DA:1884:A:C8	2.98	0.51
23:BA:954:G:H5''	35:BM:13:GLN:HG3	1.91	0.51
1:CA:830:G:C2	1:CA:831:U:C2	2.99	0.51
28:DF:120:LEU:HD13	28:DF:133:LEU:HD13	1.93	0.51
27:BE:53:THR:HG23	27:BE:56:GLU:CD	2.30	0.51
32:DJ:66:THR:O	32:DJ:69:VAL:HG12	2.11	0.51
1:AA:599:C:H2'	1:AA:600:C:H6	1.76	0.51
1:AA:1054:C:H3'	1:AA:1054:C:O2	2.10	0.51
1:AA:592:G:N1	1:AA:648:A:C6	2.79	0.51
1:CA:16:A:C2	1:CA:17:U:C6	2.99	0.51
1:CA:373:A:C8	1:CA:482:A:C8	2.98	0.51
1:CA:445:G:H2'	1:CA:446:G:H8	1.75	0.51
23:DA:2773:C:P	26:DD:166:THR:HG1	2.34	0.51
1:AA:444:C:H2'	1:AA:445:G:H8	1.76	0.51
46:BX:51:VAL:HG13	46:BX:53:VAL:HG23	1.93	0.51
1:CA:180:U:H2'	1:CA:181:G:H5'	1.91	0.51
1:AA:562:C:C4	1:AA:884:U:C5	2.98	0.51
47:BY:38:GLN:HB3	47:BY:44:LEU:HB3	1.92	0.51
23:BA:2648:C:H2'	23:BA:2649:U:C6	2.45	0.51
23:DA:699:A:H2'	23:DA:700:G:O4'	2.11	0.51
25:BC:198:ASN:HD22	25:BC:198:ASN:C	2.13	0.51
23:DA:107:C:C2'	23:DA:108:U:H5'	2.41	0.51
1:CA:1176:A:H2'	1:CA:1177:G:C8	2.46	0.51
23:DA:2197:U:O3'	23:DA:2198:A:H8	1.93	0.51
23:BA:1677:A:H2'	23:BA:1678:G:O4'	2.10	0.51
1:CA:767:A:H2'	1:CA:768:A:O4'	2.10	0.51
13:CM:49:THR:O	13:CM:53:VAL:HG23	2.11	0.51
23:DA:1173:G:H3'	23:DA:1174:A:C5'	2.40	0.51
34:BL:126:VAL:CA	34:BL:145:PRO:HG2	2.41	0.51
1:CA:1349:A:C2	1:CA:1350:A:H1'	2.45	0.51
26:BD:24:THR:HG21	26:BD:188:VAL:CG1	2.41	0.51
39:DQ:113:ALA:HA	39:DQ:116:ALA:HB3	1.91	0.51
6:CF:86:ARG:O	6:CF:87:ARG:CB	2.49	0.51
12:AL:82:VAL:HG13	12:AL:83:LEU:N	2.24	0.51
25:BC:76:PRO:HA	25:BC:118:VAL:HG23	1.92	0.51
1:CA:394:G:C2	1:CA:395:C:C5	2.99	0.51
3:CC:172:ARG:HE	3:CC:174:PRO:CG	2.24	0.51
23:BA:330:A:O2'	23:BA:331:A:C8	2.55	0.51
24:BB:40:U:O2	24:BB:43:C:C6	2.63	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:91:LEU:CD1	3:AC:101:LEU:HD21	2.41	0.51
47:DY:53:LEU:O	47:DY:57:ILE:HG13	2.11	0.51
24:BB:103:U:C2'	24:BB:104:A:H5'	2.41	0.51
25:DC:223:GLY:O	25:DC:224:ALA:C	2.49	0.51
46:DX:11:ARG:CG	46:DX:61:ARG:O	2.59	0.51
4:AD:155:LEU:HD23	4:AD:156:GLU:OE2	2.11	0.51
4:AD:127:THR:OG1	4:AD:128:VAL:N	2.43	0.51
46:DX:73:LEU:HG	46:DX:73:LEU:O	2.10	0.51
8:CH:63:LEU:HB2	8:CH:65:TYR:HE1	1.75	0.51
1:AA:1014:A:H4'	19:AS:14:HIS:CE1	2.46	0.51
8:CH:11:THR:O	8:CH:12:ARG:C	2.49	0.51
17:AQ:54:GLY:HA3	17:AQ:82:MET:SD	2.51	0.51
23:BA:955:C:OP1	35:BM:85:LYS:HE2	2.10	0.51
40:BR:98:GLU:HG2	40:BR:100:ARG:CD	2.38	0.51
3:AC:68:VAL:HG12	3:AC:70:VAL:HG23	1.93	0.51
23:DA:379:G:C5	23:DA:380:U:C5	2.99	0.51
23:BA:1478:G:O2'	23:BA:1558:A:C2	2.64	0.51
6:CF:50:TYR:CE1	18:CR:74:ARG:O	2.64	0.51
50:B2:52:TYR:CD1	50:B2:52:TYR:C	2.82	0.51
4:CD:82:ALA:HB1	4:CD:89:THR:HG23	1.92	0.51
27:BE:199:TRP:CZ2	27:BE:203:GLN:NE2	2.79	0.51
23:BA:2225:A:H1'	23:BA:2226:C:OP2	2.11	0.51
23:DA:1025:G:C4	23:DA:1135:C:H1'	2.46	0.51
23:DA:198:C:H5'	23:DA:2244:U:OP1	2.10	0.51
10:CJ:40:LEU:HB2	10:CJ:69:ASN:CB	2.41	0.51
3:AC:76:VAL:CG2	3:AC:77:ILE:HG13	2.40	0.51
1:AA:754:C:C6	15:AO:69:TYR:CE2	2.99	0.51
10:CJ:50:ILE:CG2	14:CN:41:ARG:HH21	2.24	0.51
23:DA:2190:G:H2'	23:DA:2191:G:C8	2.44	0.51
25:BC:94:LEU:HD22	25:BC:94:LEU:C	2.31	0.51
36:DN:79:LEU:CD2	36:DN:83:ILE:HB	2.41	0.51
1:CA:684:A:H2'	1:CA:685:G:C8	2.45	0.51
1:CA:685:G:N2	1:CA:686:U:C4	2.79	0.51
41:DS:45:TYR:O	41:DS:45:TYR:CG	2.63	0.51
26:DD:149:ARG:CG	26:DD:150:VAL:N	2.72	0.51
1:AA:294:U:C2	1:AA:295:C:C5	2.98	0.51
23:BA:2302:G:C2'	23:BA:2303:G:H5'	2.41	0.51
1:AA:1504:G:OP1	1:AA:1507:A:H4'	2.11	0.51
47:DY:42:GLY:O	47:DY:44:LEU:N	2.36	0.51
1:CA:1296:C:C6	1:CA:1297:C:H5	2.28	0.51
23:BA:2078:C:O2'	23:BA:2079:U:H5'	2.10	0.51
23:BA:510:C:H2'	23:BA:511:U:O4'	2.11	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:900:A:C4	23:BA:901:A:C8	2.98	0.51
28:BF:121:ASN:ND2	28:BF:122:PRO:HD2	2.26	0.51
40:BR:75:PHE:C	40:BR:75:PHE:CD1	2.84	0.51
1:CA:575:G:C5	1:CA:881:G:N2	2.78	0.51
53:D5:33:ASN:O	53:D5:34:TRP:HB3	2.10	0.51
53:D5:22:VAL:CG2	53:D5:54:GLU:HG3	2.40	0.51
34:DL:85:LEU:HD22	34:DL:85:LEU:H	1.74	0.51
23:BA:2415:G:H1'	34:BL:67:MET:CE	2.41	0.51
26:DD:170:LEU:HB3	26:DD:185:LYS:HB2	1.93	0.51
23:BA:861:A:N3	24:BB:79:C:O2'	2.38	0.51
1:CA:1226:C:H6	13:CM:103:THR:OG1	1.93	0.51
37:BO:11:LYS:CG	37:BO:12:PHE:N	2.65	0.51
23:BA:1971:A:N3	25:BC:240:ALA:HA	2.25	0.51
1:AA:671:G:H2'	1:AA:672:U:C6	2.46	0.51
23:DA:2728:U:H2'	23:DA:2728:U:O2	2.10	0.51
23:BA:243:U:C2'	23:BA:244:A:H5'	2.41	0.51
23:DA:2335:A:C8	23:DA:2337:G:N7	2.79	0.51
1:CA:392:G:N3	1:CA:393:A:C8	2.78	0.51
44:DV:94:GLU:CD	44:DV:94:GLU:N	2.63	0.51
1:AA:95:G:H2'	1:AA:96:G:O4'	2.11	0.51
23:BA:2886:G:H2'	23:BA:2887:U:H6	1.75	0.51
5:AE:10:MET:HA	5:AE:32:VAL:HA	1.92	0.51
44:BV:137:ILE:HD12	44:BV:137:ILE:N	2.26	0.51
1:CA:401:C:H3'	1:CA:401:C:C6	2.46	0.51
1:AA:487:A:H2'	1:AA:488:C:O4'	2.10	0.51
40:DR:66:ARG:HD2	40:DR:88:ARG:NE	2.26	0.51
36:BN:59:ASP:OD1	36:BN:61:HIS:HB3	2.11	0.51
1:CA:321:A:C2	1:CA:333:G:C2	2.99	0.51
4:CD:126:ILE:CG2	4:CD:127:THR:H	2.19	0.51
23:DA:1486:A:H2'	23:DA:1487:G:H8	1.75	0.51
23:BA:1046:A:O5'	23:BA:1046:A:H8	1.93	0.51
24:BB:50:G:OP2	37:BO:62:LYS:HD3	2.10	0.51
30:DH:135:GLU:O	30:DH:135:GLU:HG3	2.11	0.51
23:DA:1109:C:N4	23:DA:1110:G:N2	2.59	0.51
1:CA:302:G:N3	1:CA:556:C:H4'	2.25	0.51
25:BC:25:THR:HG22	25:BC:82:ILE:N	2.26	0.51
9:CI:103:THR:HG22	9:CI:105:ASP:H	1.75	0.51
23:DA:2287:A:C2	23:DA:2289:G:C8	2.99	0.51
1:CA:801:U:H2'	1:CA:802:A:H8	1.76	0.51
1:CA:68:G:N1	1:CA:69:G:C5	2.79	0.51
23:DA:282:A:N6	23:DA:284:U:C2	2.78	0.51
29:DG:85:LYS:O	29:DG:132:ARG:HA	2.11	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:1952:A:C6	23:BA:1953:A:C6	2.98	0.51
23:BA:2287:A:C5	23:BA:2289:G:N7	2.79	0.51
23:DA:1568:G:OP2	25:DC:63:ARG:NH2	2.35	0.51
11:AK:29:ILE:HB	11:AK:44:SER:HB3	1.93	0.51
23:DA:1389:G:C2	23:DA:1390:U:C2	2.99	0.51
33:DK:19:ILE:HG22	33:DK:43:VAL:HA	1.92	0.51
24:DB:75:G:H1	24:DB:102:G:N2	2.09	0.51
44:DV:24:LEU:HB2	44:DV:41:LEU:HG	1.93	0.51
33:BK:100:GLY:O	33:BK:101:PRO:O	2.29	0.51
1:CA:579:G:H2'	1:CA:580:U:C6	2.43	0.51
1:AA:513:C:C2	1:AA:539:A:C2	2.98	0.51
41:BS:45:TYR:CD2	41:BS:46:PHE:CD1	2.99	0.51
23:DA:2837:G:C5	23:DA:2838:G:N7	2.78	0.51
23:BA:1451:C:H42	23:BA:1459:G:H1	1.57	0.51
23:DA:510:C:H2'	23:DA:511:U:O4'	2.10	0.51
23:DA:962:G:H2'	23:DA:963:U:O4'	2.11	0.51
23:BA:2744:G:N2	23:BA:2761:G:C4	2.79	0.51
32:BJ:32:VAL:HG12	32:BJ:33:GLU:N	2.26	0.51
29:DG:38:SER:HB3	29:DG:41:MET:HG2	1.92	0.51
23:DA:844:C:C2'	23:DA:845:G:H5'	2.40	0.51
1:AA:238:G:P	17:AQ:25:ARG:HH22	2.33	0.51
23:BA:298:G:OP2	43:BU:85:VAL:HG22	2.11	0.51
34:BL:64:LYS:HB2	53:B5:25:MET:HG3	1.93	0.51
23:BA:2361:A:OP1	53:B5:27:THR:OG1	2.25	0.51
23:BA:1173:G:H1'	23:BA:1177:A:H61	1.75	0.51
32:BJ:53:ILE:HD12	32:BJ:122:LEU:HD11	1.93	0.51
28:DF:92:VAL:O	28:DF:92:VAL:HG13	2.10	0.51
23:DA:1005:C:O2'	32:DJ:51:THR:HG21	2.11	0.51
26:BD:106:GLY:HA3	26:BD:189:PRO:HB2	1.91	0.51
22:AV:6191:A:O2'	22:AV:6192:G:H5'	2.10	0.51
40:DR:6:LYS:CG	40:DR:11:GLN:HG2	2.41	0.51
16:CP:18:ARG:HD3	16:CP:35:LYS:HE3	1.93	0.51
30:BH:101:LEU:O	30:BH:107:ILE:HG22	2.11	0.51
1:AA:692:U:H5	11:AK:26:ASN:ND2	2.09	0.51
20:CT:32:ALA:O	20:CT:36:LEU:HD23	2.10	0.51
20:CT:72:LEU:HD21	20:CT:76:ALA:C	2.30	0.51
1:AA:92:G:H2'	1:AA:93:U:H5'	1.92	0.51
5:CE:11:ILE:HB	5:CE:31:LEU:HD13	1.93	0.51
23:DA:2688:U:C5	23:DA:2720:U:OP2	2.64	0.51
5:AE:61:TYR:HA	5:AE:64:ARG:HB3	1.93	0.51
1:AA:1103:C:C2	1:AA:1104:G:C8	2.98	0.51
41:DS:29:LEU:HD21	41:DS:33:ARG:HH21	1.76	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:2305:A:C4	28:BF:154:GLY:HA3	2.46	0.51
29:DG:46:GLU:HG3	29:DG:51:ARG:CZ	2.41	0.51
46:BX:11:ARG:CB	46:BX:12:PRO:CD	2.86	0.51
23:BA:1343:G:O2'	23:BA:1344:G:H5'	2.11	0.51
47:BY:9:GLN:CA	47:BY:12:GLU:HB3	2.41	0.51
1:AA:353:A:H2'	1:AA:354:G:OP2	2.11	0.51
1:CA:600:C:H2'	1:CA:601:C:H6	1.74	0.51
1:AA:629:G:C2	1:AA:630:G:O6	2.64	0.51
23:DA:910:A:C4	35:DM:13:GLN:OE1	2.63	0.51
23:DA:1045:A:H4'	23:DA:1046:A:H5''	1.93	0.51
2:AB:98:LEU:HB2	2:AB:101:MET:CG	2.40	0.51
1:AA:171:A:H2'	1:AA:172:A:C8	2.45	0.51
23:DA:947:G:N2	23:DA:971:C:C2	2.79	0.51
30:DH:8:PRO:HB3	30:DH:14:ASP:OD1	2.11	0.51
36:BN:99:LYS:N	36:BN:99:LYS:HD2	2.26	0.51
23:BA:2638:G:P	26:BD:82:ARG:HH22	2.34	0.51
44:DV:179:ASP:CG	44:DV:180:VAL:H	2.13	0.51
17:AQ:29:HIS:CE1	17:AQ:32:TYR:CD1	2.99	0.51
35:DM:20:ALA:HB2	35:DM:99:PRO:HB2	1.91	0.51
35:BM:22:LYS:C	35:BM:22:LYS:HD3	2.32	0.51
8:CH:87:SER:HB2	8:CH:93:VAL:HB	1.91	0.51
23:BA:1568:G:P	25:BC:63:ARG:HH22	2.34	0.51
1:CA:765:G:H5''	1:CA:766:A:OP1	2.11	0.51
6:AF:33:TYR:HE1	6:AF:75:LEU:HA	1.75	0.51
1:CA:1254:C:OP1	10:CJ:45:ARG:HD3	2.11	0.51
35:BM:111:GLU:O	35:BM:115:MET:HB2	2.10	0.51
23:DA:825:C:O2	34:DL:55:ARG:NH2	2.41	0.51
23:DA:1705:G:O2'	23:DA:1706:U:H5'	2.10	0.51
7:CG:61:VAL:O	7:CG:65:ALA:HB2	2.11	0.51
23:BA:226:G:H21	23:BA:228:A:H62	1.56	0.51
15:AO:7:GLU:HG3	15:AO:10:LYS:HD3	1.93	0.51
23:DA:2689:U:P	23:DA:2719:G:H22	2.34	0.51
1:AA:539:A:C6	1:AA:540:G:C6	2.99	0.51
20:AT:39:LYS:O	20:AT:43:LEU:HG	2.11	0.51
23:DA:1526:G:O2'	23:DA:1527:G:H5'	2.10	0.51
23:BA:1471:A:C2	23:BA:1472:A:C8	2.99	0.51
23:BA:1717:G:C5	23:BA:1743:G:C2	2.99	0.51
37:BO:98:VAL:O	37:BO:101:LEU:HB3	2.11	0.51
1:AA:1038:C:H2'	1:AA:1039:C:C6	2.46	0.51
28:BF:121:ASN:HD22	28:BF:122:PRO:HD2	1.75	0.51
16:CP:50:LYS:O	16:CP:51:VAL:HG23	2.11	0.51
26:BD:146:THR:HA	26:BD:147:PRO:C	2.31	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:374:A:H3'	23:BA:375:C:H6	1.75	0.51
20:AT:84:LEU:HD13	20:AT:85:MET:N	2.26	0.51
38:DP:78:LEU:HD13	38:DP:78:LEU:O	2.10	0.51
1:CA:131:C:H2'	1:CA:132:C:C6	2.46	0.51
23:BA:13:A:N3	23:BA:15:G:C6	2.79	0.51
23:BA:433:C:C4	23:BA:434:U:O4	2.64	0.51
23:DA:2250:G:OP2	23:DA:2275:C:H2'	2.11	0.51
23:BA:860:U:O4'	23:BA:860:U:O2	2.28	0.51
43:DU:8:LYS:N	43:DU:8:LYS:NZ	2.57	0.51
22:AV:6194:C:C2'	22:AV:6195:G:H8	2.05	0.51
22:CV:6191:A:O2'	22:CV:6192:G:H5'	2.11	0.51
23:BA:2320:A:C8	23:BA:2333:A:N6	2.79	0.51
2:CB:70:PHE:O	2:CB:71:VAL:HG13	2.10	0.51
23:BA:1657:C:H2'	23:BA:1658:C:C6	2.46	0.51
27:DE:164:ARG:CG	27:DE:164:ARG:HH11	2.08	0.51
47:DY:17:SER:O	47:DY:21:LEU:N	2.22	0.51
39:DQ:106:PHE:O	39:DQ:110:VAL:HG23	2.11	0.51
41:DS:86:LEU:HD12	41:DS:87:PRO:HD2	1.92	0.51
30:BH:129:THR:HA	30:BH:138:ILE:O	2.10	0.51
39:BQ:92:ARG:HD2	39:BQ:95:LEU:N	2.25	0.51
40:BR:47:VAL:O	40:BR:48:GLY:C	2.50	0.51
34:BL:47:ASP:CB	34:BL:51:PHE:HB2	2.40	0.51
25:DC:127:VAL:HA	25:DC:193:VAL:CG1	2.41	0.51
20:AT:72:LEU:HD21	20:AT:76:ALA:C	2.31	0.51
23:DA:137(B):G:H2'	23:DA:139:G:N7	2.26	0.51
2:CB:173:ALA:O	2:CB:176:GLU:N	2.44	0.51
23:BA:848:G:C4	23:BA:933:A:C8	2.99	0.51
30:BH:135:GLU:HG3	30:BH:135:GLU:O	2.09	0.51
23:DA:2328:A:C2	23:DA:2329:G:C4	2.99	0.51
23:DA:1884:A:N3	23:DA:1885:A:C8	2.79	0.51
37:BO:58:LEU:N	37:BO:58:LEU:HD12	2.26	0.51
1:CA:1150:U:H5''	1:CA:1151:A:OP2	2.12	0.51
1:AA:632:A:H8	1:AA:633:G:C8	2.29	0.51
1:CA:782:A:O3'	1:CA:1515:C:H4'	2.11	0.51
11:CK:84:VAL:HG23	11:CK:110:ASP:OD1	2.10	0.51
43:DU:44:ILE:HG22	43:DU:45:VAL:N	2.24	0.51
38:BP:27:THR:O	38:BP:89:VAL:HG13	2.11	0.51
38:BP:27:THR:HG23	38:BP:90:GLN:HB3	1.93	0.51
23:BA:2101:G:H2'	23:BA:2102:U:C5'	2.39	0.51
1:CA:657:G:O2'	1:CA:658:G:H5'	2.10	0.51
29:DG:91:GLY:O	29:DG:92:ILE:O	2.29	0.51
35:BM:21:THR:O	35:BM:22:LYS:C	2.48	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:1728:G:O5'	23:DA:1728:G:C8	2.62	0.51
29:DG:102:ALA:CB	29:DG:116:GLU:HA	2.41	0.51
1:CA:1228:C:N4	1:CA:1229:A:N6	2.59	0.51
23:DA:2051:A:H4'	26:DD:141:ILE:CG2	2.41	0.51
19:AS:31:ILE:CG2	19:AS:49:ILE:HA	2.40	0.51
1:CA:639:G:H2'	1:CA:640:A:H8	1.75	0.51
41:BS:36:LEU:HD12	41:BS:48:ALA:CA	2.41	0.51
19:CS:5:LEU:HG	19:CS:10:PHE:HB3	1.93	0.51
23:DA:1442:G:C2	23:DA:1550:C:O2	2.64	0.51
23:DA:2837:G:C6	23:DA:2838:G:C5	2.99	0.51
23:BA:1851:U:C4	23:BA:1852:C:C4	2.99	0.51
23:BA:1471:A:C2	23:BA:1472:A:N9	2.79	0.51
39:DQ:47:TYR:C	39:DQ:47:TYR:CD2	2.84	0.51
1:CA:419:C:O2	1:CA:425:G:C2	2.63	0.51
28:DF:18:GLU:HG2	28:DF:175:LEU:HD22	1.93	0.51
23:BA:718:A:H8	23:BA:718:A:O5'	1.93	0.51
23:BA:762:U:H4'	23:BA:763:G:O5'	2.10	0.51
51:B3:11:LEU:O	51:B3:24:GLU:HB2	2.11	0.51
9:AI:27:THR:O	9:AI:62:TYR:HA	2.11	0.51
1:CA:966:G:H2'	1:CA:967:C:C6	2.46	0.51
23:BA:245:G:H2'	23:BA:246:C:H6	1.75	0.51
34:DL:61:ARG:CA	34:DL:62:LEU:HD13	2.41	0.50
38:DP:50:ILE:HA	38:DP:99:LEU:CD1	2.41	0.50
22:AV:6188:G:N2	22:AV:6216:U:N3	2.59	0.50
22:AV:6191:A:N1	22:AV:6213:A:C6	2.80	0.50
22:CV:6191:A:H2'	22:CV:6192:G:H8	1.76	0.50
23:BA:2342:C:O2'	23:BA:2374:C:H5"	2.11	0.50
23:DA:587:C:O2	34:DL:33:ARG:HD3	2.10	0.50
23:DA:1159:U:H2'	23:DA:1160:G:C8	2.45	0.50
1:CA:376:G:P	16:CP:67:THR:HG21	2.51	0.50
30:BH:82:ARG:HB3	30:BH:89:TYR:HB2	1.94	0.50
1:CA:671:G:H2'	1:CA:672:U:C6	2.46	0.50
37:DO:27:SER:HA	37:DO:88:ASP:HB3	1.93	0.50
30:DH:81:VAL:HG11	30:DH:90:GLY:HA3	1.94	0.50
2:CB:187:LEU:HD22	2:CB:188:ALA:N	2.26	0.50
3:CC:151:VAL:O	3:CC:152:ILE:HG13	2.10	0.50
5:CE:11:ILE:HG22	5:CE:12:LEU:N	2.26	0.50
5:AE:33:VAL:HG13	5:AE:109:ILE:HD13	1.93	0.50
48:DZ:40:THR:OG1	48:DZ:41:PRO:HD2	2.10	0.50
1:AA:1149:C:O2'	1:AA:1280:A:N1	2.43	0.50
35:DM:55:VAL:CG2	35:DM:56:ARG:N	2.74	0.50
8:CH:28:ALA:HA	8:CH:59:LEU:HD21	1.93	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BC:24:ILE:HD11	25:BC:84:TYR:HB2	1.93	0.50
23:BA:1105:U:H2'	23:BA:1106:G:H8	1.75	0.50
27:BE:68:LYS:C	27:BE:70:THR:H	2.14	0.50
1:AA:874:G:C5	1:AA:875:C:C5	3.00	0.50
1:AA:632:A:N7	1:AA:633:G:C4	2.79	0.50
1:CA:457:C:N4	1:CA:475:G:H1	2.09	0.50
32:DJ:69:VAL:O	32:DJ:70:ALA:HB3	2.11	0.50
23:DA:2531:A:H4'	29:DG:157:TYR:CE2	2.46	0.50
27:DE:199:TRP:CZ2	27:DE:203:GLN:NE2	2.79	0.50
36:BN:73:VAL:O	36:BN:76:VAL:HG22	2.11	0.50
23:DA:966:G:C5	23:DA:967:C:H5	2.29	0.50
1:CA:278:G:OP2	17:CQ:41:LYS:NZ	2.43	0.50
47:BY:46:GLN:HB2	47:BY:49:LYS:HZ1	1.73	0.50
23:BA:2287:A:C5	23:BA:2289:G:C5	2.99	0.50
35:BM:20:ALA:HA	35:BM:98:LYS:HB3	1.92	0.50
35:BM:19:GLY:O	35:BM:98:LYS:HD3	2.11	0.50
33:DK:19:ILE:HB	33:DK:41:ALA:HB1	1.93	0.50
44:BV:23:LYS:HB3	44:BV:38:TYR:CD1	2.40	0.50
41:BS:59:VAL:HG12	41:BS:60:ASN:N	2.25	0.50
23:BA:1909:C:N3	23:BA:1922:G:C2	2.79	0.50
13:CM:99:ARG:HB2	13:CM:101:GLN:HE21	1.76	0.50
24:BB:30:C:H1'	24:BB:58:A:N1	2.27	0.50
12:AL:74:HIS:CD2	12:AL:76:LEU:H	2.26	0.50
14:CN:43:CYS:SG	14:CN:44:LEU:N	2.84	0.50
12:CL:54:VAL:HG12	12:CL:55:ALA:N	2.26	0.50
46:DX:67:ILE:N	46:DX:68:PRO:HD2	2.25	0.50
47:BY:36:ARG:HA	47:BY:39:ALA:HB3	1.93	0.50
48:DZ:23:LEU:N	48:DZ:23:LEU:CD1	2.73	0.50
1:AA:1501:C:C5	1:AA:1504:G:C5	2.98	0.50
1:CA:1217:C:H5''	14:CN:9:LYS:NZ	2.26	0.50
23:BA:1403:C:H5''	23:BA:1471:A:C1'	2.41	0.50
23:DA:449:A:H2'	23:DA:450:G:H5'	1.92	0.50
1:CA:575:G:C5	1:CA:881:G:C2	3.00	0.50
25:DC:124:PRO:HG2	25:DC:129:ASN:ND2	2.26	0.50
23:BA:36:G:C5	23:BA:37:C:C5	2.99	0.50
27:BE:93:LYS:HB3	27:BE:94:PRO:HD2	1.92	0.50
49:B1:47:VAL:HG12	49:B1:49:GLU:OE1	2.11	0.50
1:CA:292:G:C5	1:CA:293:G:H1'	2.46	0.50
15:AO:3:ILE:HA	15:AO:38:ARG:NH2	2.27	0.50
1:AA:785:G:N2	1:AA:798:G:C4	2.79	0.50
10:AJ:65:LEU:HD13	14:AN:56:VAL:HG22	1.93	0.50
35:DM:83:MET:HG3	35:DM:83:MET:O	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:CR:76:LEU:HD22	18:CR:76:LEU:N	2.26	0.50
1:AA:156:G:C2	1:AA:166:G:C2	2.99	0.50
23:DA:57:C:H2'	23:DA:58:G:O4'	2.11	0.50
47:BY:1:MET:CE	47:BY:4:SER:HB2	2.40	0.50
33:DK:71:ARG:NH2	33:DK:77:ILE:HG21	2.26	0.50
26:BD:11:MET:CE	26:BD:186:GLY:HA2	2.41	0.50
40:DR:2:PHE:HE2	40:DR:13:ARG:CD	2.23	0.50
47:BY:17:SER:HB3	47:BY:18:PRO:CD	2.37	0.50
25:BC:72:LYS:HE2	25:BC:101:GLU:HG2	1.93	0.50
1:CA:76:G:O2'	1:CA:77:C:H5'	2.10	0.50
1:AA:878:G:H1'	8:AH:3:THR:HG21	1.92	0.50
1:CA:402:G:C6	1:CA:403:C:C5	2.99	0.50
45:BW:31:VAL:HG11	45:BW:67:VAL:HG23	1.93	0.50
1:AA:488:C:H6	1:AA:488:C:O5'	1.94	0.50
36:DN:57:ARG:CD	36:DN:59:ASP:OD2	2.59	0.50
1:AA:1149:C:OP1	9:AI:14:VAL:HG21	2.12	0.50
36:DN:67:LEU:O	36:DN:70:LEU:O	2.28	0.50
41:BS:29:LEU:CG	41:BS:33:ARG:HE	2.24	0.50
46:BX:13:ILE:HA	46:BX:66:HIS:ND1	2.26	0.50
5:CE:53:LEU:HD23	5:CE:53:LEU:N	2.25	0.50
23:DA:1105:U:H2'	23:DA:1106:G:H8	1.75	0.50
23:BA:1508:A:N6	23:BA:1509:A:C6	2.79	0.50
23:BA:1045:A:H4'	23:BA:1046:A:H5''	1.93	0.50
41:DS:42:ARG:HG2	41:DS:42:ARG:HH11	1.76	0.50
1:CA:677:U:H2'	1:CA:678:U:C6	2.46	0.50
23:BA:761:A:H8	23:BA:761:A:O5'	1.94	0.50
53:B5:57:ARG:CZ	53:B5:57:ARG:HB2	2.41	0.50
4:AD:79:PHE:O	4:AD:82:ALA:HB3	2.12	0.50
1:AA:1009:G:O2'	1:AA:1010:G:H5'	2.11	0.50
23:BA:2687:U:H2'	23:BA:2688:U:O4'	2.12	0.50
1:CA:73:G:O5'	1:CA:73:G:H8	1.94	0.50
26:DD:117:MET:HE3	26:DD:136:ARG:HA	1.93	0.50
36:BN:99:LYS:N	36:BN:99:LYS:CD	2.74	0.50
2:CB:73:THR:HG22	2:CB:94:ASN:O	2.10	0.50
23:DA:301:G:HO2'	23:DA:302:C:H6	1.58	0.50
23:DA:1680:U:C2'	23:DA:1681:G:O5'	2.59	0.50
1:AA:934:C:C2	1:AA:1344:C:C5	3.00	0.50
23:BA:1290:C:H2'	23:BA:1291:C:C6	2.42	0.50
1:CA:1022:G:H2'	1:CA:1023:G:C8	2.43	0.50
35:BM:54:MET:O	35:BM:57:HIS:HB3	2.10	0.50
43:DU:90:LEU:HD12	43:DU:91:GLU:HG3	1.93	0.50
24:BB:45:A:H1'	28:BF:95:ARG:CZ	2.41	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1504:G:H4'	1:CA:1505:G:C4	2.45	0.50
23:BA:2572:A:H62	26:BD:145:LYS:HG3	1.76	0.50
33:BK:49:ARG:HA	33:BK:53:LYS:HZ2	1.76	0.50
2:CB:53:ARG:HA	2:CB:56:ARG:HD2	1.93	0.50
33:DK:7:TYR:CE1	33:DK:20:MET:HB3	2.46	0.50
44:DV:63:ASP:HB3	44:DV:65:GLN:HG3	1.93	0.50
30:BH:57:ARG:HG2	30:BH:57:ARG:O	2.11	0.50
28:DF:49:ASP:HB3	28:DF:52:ILE:HG12	1.92	0.50
23:BA:1641:A:H2'	23:BA:1642:G:O4'	2.11	0.50
30:BH:76:THR:HG22	30:BH:141:LYS:HB2	1.92	0.50
23:DA:30:G:H2'	23:DA:31:C:C6	2.46	0.50
1:AA:1318:A:O2'	19:AS:37:ARG:HB2	2.10	0.50
29:DG:78:GLY:O	29:DG:136:ILE:HG22	2.11	0.50
36:DN:25:ALA:O	36:DN:26:LYS:C	2.47	0.50
1:CA:1508:G:H2'	1:CA:1509:C:O4'	2.11	0.50
43:BU:14:LEU:C	43:BU:14:LEU:HD23	2.31	0.50
32:BJ:49:LEU:O	32:BJ:49:LEU:HD12	2.11	0.50
23:DA:1173:G:H1'	23:DA:1177:A:H61	1.75	0.50
32:DJ:119:GLU:H	32:DJ:119:GLU:CD	2.11	0.50
22:AV:6181:C:C2	22:AV:6182:A:C8	3.00	0.50
1:AA:363:A:C6	1:AA:364:A:C6	2.99	0.50
13:CM:96:LEU:HD22	13:CM:103:THR:HG21	1.92	0.50
38:BP:56:GLY:O	38:BP:59:THR:CG2	2.55	0.50
23:DA:2017:U:O2	50:D2:10:LYS:HB2	2.11	0.50
39:DQ:72:HIS:CE1	39:DQ:107:ALA:HA	2.47	0.50
28:DF:72:ARG:HB3	28:DF:87:PRO:HD2	1.92	0.50
23:DA:1019:U:H2'	23:DA:1020:A:C8	2.40	0.50
34:BL:50:ARG:HB2	53:B5:60:LEU:HD21	1.93	0.50
34:BL:50:ARG:HB3	34:BL:50:ARG:HH11	1.76	0.50
1:AA:501:C:H2'	1:AA:502:G:C8	2.47	0.50
35:BM:88:GLY:C	35:BM:89:ASN:CG	2.67	0.50
3:CC:31:HIS:O	3:CC:35:GLU:HG2	2.11	0.50
4:CD:3:ARG:HG2	4:CD:5:ILE:HD13	1.92	0.50
1:AA:1347:G:C6	9:AI:107:ARG:NH2	2.75	0.50
1:CA:353:A:C2'	1:CA:354:G:OP2	2.59	0.50
6:CF:61:LEU:HB3	6:CF:63:TYR:HE2	1.76	0.50
23:DA:1344:G:H5'	23:DA:1384:A:C6	2.46	0.50
1:CA:879:C:O2'	1:CA:880:C:H5'	2.11	0.50
33:BK:34:THR:HG23	33:BK:35:VAL:N	2.27	0.50
23:DA:1502:C:H2'	23:DA:1503:U:C6	2.47	0.50
23:DA:2324:C:H42	23:DA:2331:G:H1	1.59	0.50
8:AH:87:SER:HB2	8:AH:93:VAL:HB	1.92	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:1324:G:N2	23:BA:1331:A:C4	2.79	0.50
6:AF:90:VAL:O	6:AF:91:VAL:HG23	2.10	0.50
23:DA:954:G:H5''	35:DM:13:GLN:HG2	1.93	0.50
23:DA:1109:C:N4	23:DA:1110:G:C2	2.78	0.50
18:CR:26:LEU:CD1	18:CR:42:ARG:HD2	2.39	0.50
23:DA:2563:U:O2	23:DA:2565:A:H8	1.94	0.50
24:DB:78:A:N3	24:DB:99:A:C5	2.80	0.50
1:CA:68:G:C6	1:CA:69:G:N7	2.79	0.50
23:BA:598:G:H5'	34:BL:15:ARG:HG2	1.93	0.50
24:BB:60:C:C2	24:BB:61:G:C8	2.99	0.50
43:DU:46:LYS:O	43:DU:48:ALA:N	2.44	0.50
1:CA:853:G:C2'	1:CA:854:G:H5'	2.42	0.50
8:CH:86:ILE:HG22	8:CH:93:VAL:HG21	1.92	0.50
50:B2:35:GLU:HB2	50:B2:49:CYS:SG	2.51	0.50
23:DA:2468:G:O2'	23:DA:2476:A:N7	2.41	0.50
29:BG:86:GLU:N	29:BG:86:GLU:OE2	2.42	0.50
43:BU:76:CYS:SG	43:BU:77:PRO:CD	2.99	0.50
33:DK:19:ILE:N	33:DK:19:ILE:HD13	2.22	0.50
1:AA:1055:A:N7	1:AA:1200:C:N4	2.57	0.50
23:DA:2638:G:OP2	26:DD:82:ARG:NH2	2.44	0.50
23:BA:1856:G:C2	23:BA:1887:C:N3	2.79	0.50
1:CA:109:A:N6	1:CA:326:G:C6	2.79	0.50
4:AD:13:ARG:HD2	4:AD:38:TYR:O	2.12	0.50
7:AG:61:VAL:O	7:AG:65:ALA:HB2	2.11	0.50
23:DA:1709:U:H2'	23:DA:1710:C:C6	2.45	0.50
53:D5:39:LYS:HA	53:D5:42:ARG:NH1	2.27	0.50
40:BR:72:VAL:HG23	40:BR:85:LYS:HB3	1.92	0.50
1:CA:799:G:C2'	1:CA:800:G:O5'	2.59	0.50
3:AC:191:THR:HB	3:AC:193:TYR:CD2	2.46	0.50
23:BA:1354:A:C8	23:BA:1355:G:C8	3.00	0.50
23:BA:1516:U:H2'	23:BA:1517:G:H8	1.75	0.50
23:DA:1833:U:O2'	23:DA:1834:U:H5'	2.11	0.50
23:BA:414:C:H2'	23:BA:415:A:H8	1.75	0.50
1:AA:1167:A:H62	1:AA:1169:A:N6	2.09	0.50
23:BA:1204:A:N6	23:BA:1240:U:O2'	2.44	0.50
23:DA:2302:G:C2'	23:DA:2303:G:H5'	2.42	0.50
1:CA:191(F):U:H2'	1:CA:191(G):G:H8	1.76	0.50
23:BA:1118:C:H5''	44:BV:80:ARG:NH2	2.26	0.50
1:AA:826:C:H2'	8:AH:15:ASN:HD22	1.76	0.50
23:BA:1050:A:C2	23:BA:2751:G:C5	2.99	0.50
39:DQ:36:ARG:HD3	39:DQ:40:PHE:CZ	2.46	0.50
23:BA:2703:C:O2'	23:BA:2704:C:H5'	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BH:25:TYR:CD1	30:BH:30:LEU:HD11	2.47	0.50
23:DA:2420:C:OP1	53:D5:34:TRP:HA	2.11	0.50
34:DL:140:ALA:O	34:DL:141:ALA:CB	2.59	0.50
52:B4:10:ARG:NE	52:B4:14:LYS:HD2	2.26	0.50
1:AA:1226:C:O2'	13:AM:111:LYS:NZ	2.45	0.50
26:BD:11:MET:CE	26:BD:186:GLY:CA	2.90	0.50
23:DA:810:U:H6	23:DA:810:U:O5'	1.94	0.50
32:BJ:37:VAL:HG12	32:BJ:38:LEU:N	2.26	0.50
23:BA:1022:G:C6	23:BA:1140:C:C4	2.99	0.50
23:BA:2579:C:O2'	26:BD:131:ALA:HB3	2.12	0.50
39:DQ:79:PHE:CE2	39:DQ:106:PHE:CE1	3.00	0.50
1:CA:376:G:C5	1:CA:389:A:N1	2.80	0.50
25:DC:265:PRO:C	25:DC:267:SER:N	2.65	0.50
25:DC:270:ILE:C	25:DC:271:ILE:HG12	2.32	0.50
1:CA:391:G:C6	1:CA:392:G:N7	2.79	0.50
2:CB:211:ILE:HG22	2:CB:215:LEU:HD23	1.93	0.50
28:BF:88:ILE:HD12	28:BF:89:GLY:N	2.26	0.50
44:BV:163:LEU:CD2	44:BV:163:LEU:H	2.25	0.50
1:CA:1074:G:C2	1:CA:1075:C:C2	3.00	0.50
1:AA:1352:C:H2'	1:AA:1353:G:C8	2.46	0.50
46:BX:10:LYS:O	46:BX:11:ARG:HB2	2.10	0.50
8:CH:20:TYR:HD1	8:CH:65:TYR:CE2	2.30	0.50
1:AA:817:C:H4'	1:AA:818:G:OP1	2.10	0.50
23:BA:2750:A:C2	23:BA:2753:A:H2	2.28	0.50
23:BA:1502:C:H2'	23:BA:1503:U:C6	2.46	0.50
23:BA:1502:C:H3'	23:BA:1502:C:H6	1.76	0.50
1:CA:456:C:H42	1:CA:476:G:H1	1.57	0.50
36:DN:101:ALA:HB2	50:D2:44:THR:HB	1.94	0.50
24:BB:49:C:H6	24:BB:49:C:O5'	1.95	0.50
23:BA:1476:C:C6	23:BA:1476:C:H3'	2.45	0.50
4:AD:82:ALA:HB1	4:AD:89:THR:HG23	1.93	0.50
29:DG:88:LEU:O	29:DG:162:ILE:HA	2.11	0.50
23:DA:270(H):C:C4	23:DA:270(I):C:C5	3.00	0.50
29:DG:86:GLU:OE2	29:DG:86:GLU:N	2.42	0.50
2:AB:73:THR:HG22	2:AB:94:ASN:O	2.11	0.50
17:CQ:60:ILE:O	17:CQ:71:PHE:HA	2.12	0.50
17:CQ:85:VAL:O	17:CQ:89:LEU:HG	2.11	0.50
1:AA:1053:G:H3'	1:AA:1054:C:C5'	2.41	0.50
23:BA:786:C:C2'	23:BA:787:U:H5'	2.42	0.50
13:CM:79:LYS:HA	13:CM:82:MET:HB3	1.93	0.50
3:AC:23:TYR:CG	3:AC:24:ALA:N	2.80	0.50
16:CP:43:LYS:HG2	16:CP:48:TRP:CG	2.46	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1378:C:H3'	1:AA:1379:G:H5''	1.93	0.50
25:DC:260:ARG:O	25:DC:260:ARG:HG2	2.11	0.50
28:DF:55:LYS:HD2	28:DF:58:GLN:NE2	2.27	0.50
51:B3:38:LYS:HG2	51:B3:39:TYR:N	2.27	0.50
26:DD:112:GLY:O	26:DD:159:HIS:HA	2.12	0.50
1:CA:779:C:H2'	1:CA:780:A:O4'	2.11	0.50
12:CL:77:GLN:O	12:CL:79:HIS:N	2.43	0.50
23:DA:644:A:C2	23:DA:646:A:C4	3.00	0.50
24:BB:55:U:O2'	24:BB:56:G:H5'	2.11	0.50
23:BA:189:G:H2'	23:BA:205:G:N2	2.27	0.50
23:BA:2506:U:C5	23:BA:2507:C:C5	3.00	0.50
1:AA:562:C:H1'	12:AL:14:ARG:HB3	1.93	0.50
23:DA:1126:A:H8	23:DA:1126:A:O5'	1.95	0.50
23:BA:2078:C:C2'	23:BA:2079:U:H5'	2.41	0.50
42:DT:3:THR:HA	42:DT:6:ASP:OD2	2.12	0.50
7:AG:79:ARG:HA	7:AG:83:ALA:O	2.12	0.50
23:BA:1678:G:H2'	23:BA:1678:G:N3	2.27	0.50
16:CP:45:THR:HB	16:CP:46:PRO:HD2	1.93	0.50
10:AJ:30:SER:HB2	10:AJ:80:LYS:CG	2.42	0.50
23:BA:2726:U:O2	23:BA:2726:U:H5'	2.11	0.50
1:AA:619:U:N3	4:AD:135:LEU:HD11	2.26	0.50
1:AA:1171:G:H2'	1:AA:1172:C:C6	2.47	0.50
3:CC:72:LYS:HG2	3:CC:74:GLY:H	1.75	0.50
53:D5:22:VAL:CB	53:D5:54:GLU:HG3	2.41	0.50
35:BM:81:VAL:C	35:BM:82:ARG:HG2	2.25	0.50
2:AB:91:PRO:HG3	2:AB:154:LEU:HD21	1.92	0.50
2:AB:68:ILE:CG2	2:AB:70:PHE:CE1	2.94	0.50
34:BL:97:PRO:HA	34:BL:112:LEU:HD12	1.92	0.50
9:AI:114:TYR:N	9:AI:114:TYR:CD2	2.80	0.50
22:AV:6189:G:H2'	22:AV:6190:U:C6	2.46	0.50
22:CV:6191:A:N1	22:CV:6213:A:C6	2.79	0.50
1:CA:363:A:C6	1:CA:364:A:C6	3.00	0.50
23:BA:1899:G:N2	23:BA:1902:C:C4	2.80	0.50
32:DJ:39:ILE:O	32:DJ:78:VAL:HG22	2.11	0.50
28:BF:82:LEU:HD22	28:BF:87:PRO:HG3	1.92	0.50
28:DF:73:ALA:HB3	28:DF:76:SER:OG	2.12	0.50
16:AP:58:TYR:O	16:AP:61:SER:HB3	2.12	0.50
1:AA:408:A:C4	1:AA:409:G:C8	3.00	0.50
23:DA:142:G:C1'	42:DT:37:THR:HG21	2.41	0.50
25:DC:158:ALA:C	25:DC:161:THR:HG23	2.31	0.50
23:DA:2713:A:H3'	23:DA:2714:G:C5'	2.40	0.50
20:CT:71:THR:CG2	20:CT:72:LEU:H	2.19	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:1771:C:O2'	23:DA:1786:A:H8	1.79	0.50
26:DD:49:LEU:HD22	26:DD:49:LEU:N	2.17	0.50
5:CE:34:VAL:O	5:CE:41:VAL:HA	2.11	0.50
23:DA:2886:G:H2'	23:DA:2887:U:C6	2.46	0.50
1:AA:191(G):G:C4	1:AA:192:U:C5	2.99	0.50
1:AA:1366:C:H2'	1:AA:1367:C:H6	1.75	0.50
1:CA:353:A:H2'	1:CA:354:G:OP2	2.12	0.50
1:CA:9:G:H2'	1:CA:10:A:C8	2.46	0.50
6:CF:8:ILE:HD12	6:CF:26:ILE:HD13	1.93	0.50
23:BA:1487:G:H2'	23:BA:1488:G:C8	2.36	0.50
11:CK:40:ILE:HD13	11:CK:40:ILE:N	2.26	0.50
37:BO:62:LYS:O	37:BO:65:VAL:HB	2.11	0.50
16:CP:39:TYR:CE1	16:CP:73:LEU:HD13	2.47	0.50
1:AA:799:G:C2'	1:AA:800:G:O5'	2.59	0.50
1:CA:600:C:OP1	8:CH:97:VAL:HG12	2.12	0.50
53:B5:14:VAL:HG13	53:B5:22:VAL:HG13	1.93	0.50
1:AA:173:U:C2	1:AA:197:A:C2	2.99	0.50
23:BA:1478:G:N2	23:BA:1479:G:C4	2.79	0.50
25:BC:25:THR:HG21	25:BC:82:ILE:H	1.74	0.50
23:DA:2346:A:C2	23:DA:2383:G:C2	2.98	0.50
30:DH:5:LEU:HD23	30:DH:17:GLN:O	2.11	0.50
23:DA:783:A:H3'	23:DA:783:A:C8	2.47	0.50
25:BC:181:GLU:HA	25:BC:272:ALA:HB3	1.92	0.50
38:BP:28:VAL:HA	38:BP:89:VAL:CG1	2.41	0.50
43:DU:76:CYS:SG	43:DU:77:PRO:CD	2.99	0.50
44:BV:39:VAL:CG2	44:BV:44:PHE:HB2	2.39	0.50
11:AK:21:ILE:HG13	11:AK:30:VAL:HG12	1.94	0.50
23:BA:282:A:C4	23:BA:359:A:C2	2.99	0.50
23:BA:636:G:OP1	34:BL:132:LYS:HD3	2.11	0.50
1:CA:592:G:N1	1:CA:648:A:C6	2.79	0.50
23:DA:1290:C:H2'	23:DA:1291:C:C6	2.41	0.50
1:AA:938:A:N6	1:AA:939:G:C6	2.79	0.50
23:DA:825:C:C2'	23:DA:826:U:H5'	2.41	0.50
1:CA:953:G:C6	1:CA:1229:A:C6	3.00	0.50
6:AF:18:GLN:O	6:AF:21:LEU:HB2	2.11	0.50
23:DA:795:C:H6	23:DA:795:C:O5'	1.95	0.50
32:BJ:80:ALA:O	32:BJ:83:ILE:HG13	2.11	0.50
44:BV:5:LEU:CG	44:BV:47:VAL:HG21	2.42	0.50
1:AA:44:G:C2	1:AA:399:G:C2	2.99	0.50
23:BA:2001:A:H2'	23:BA:2002:G:O4'	2.12	0.50
23:DA:1773:A:C5	23:DA:1829:A:H1'	2.46	0.50
23:DA:1204:A:N6	23:DA:1240:U:O2'	2.45	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:2078:C:C2'	23:DA:2079:U:H5'	2.42	0.50
23:BA:2836:U:H2'	23:BA:2837:G:C8	2.47	0.50
32:BJ:51:THR:O	32:BJ:54:ALA:HB3	2.11	0.50
2:AB:53:ARG:HA	2:AB:56:ARG:HD2	1.92	0.50
11:AK:120:ARG:NH1	11:AK:126:ARG:HE	2.08	0.50
47:BY:7:ARG:NE	47:BY:11:GLU:OE2	2.44	0.50
26:DD:3:GLY:C	26:DD:81:ILE:HD13	2.32	0.50
23:DA:1232:G:H2'	23:DA:1233:C:H6	1.76	0.50
23:BA:1382:G:O2'	23:BA:1383:C:H5'	2.12	0.50
32:DJ:32:VAL:HG12	32:DJ:33:GLU:N	2.26	0.50
30:DH:76:THR:HG22	30:DH:141:LYS:HB2	1.93	0.50
1:CA:1290:G:N3	1:CA:1290:G:H2'	2.26	0.50
1:CA:697:U:H2'	1:CA:698:G:H5'	1.93	0.50
23:DA:1317:A:C6	23:DA:1318:C:C4	2.99	0.50
53:D5:14:VAL:HG13	53:D5:22:VAL:HG13	1.93	0.50
2:AB:61:LEU:HG	2:AB:68:ILE:HD11	1.94	0.50
9:CI:14:VAL:O	9:CI:65:VAL:HG23	2.10	0.50
22:CV:6189:G:C5	22:CV:6190:U:C5	2.99	0.50
1:CA:362:G:O3'	12:CL:32:ARG:NH2	2.44	0.50
2:CB:61:LEU:HG	2:CB:68:ILE:HD11	1.94	0.50
32:BJ:156:GLN:O	32:BJ:157:ARG:HB2	2.12	0.50
40:DR:2:PHE:O	40:DR:41:GLY:HA2	2.12	0.50
30:BH:142:VAL:O	30:BH:143:SER:HB2	2.12	0.50
23:BA:994:C:OP1	39:BQ:53:ARG:NH2	2.45	0.50
24:DB:7:G:H4'	37:DO:29:PHE:CG	2.46	0.50
1:AA:376:G:H1	1:AA:387:U:H3	1.59	0.50
3:CC:19:GLU:HG3	3:CC:54:ARG:HD2	1.93	0.50
3:AC:113:ALA:HB2	3:AC:202:ILE:HG13	1.93	0.50
30:DH:128:LEU:O	30:DH:139:GLN:HA	2.11	0.50
20:AT:26:ASN:ND2	20:AT:26:ASN:N	2.49	0.50
1:AA:76:G:O2'	1:AA:77:C:H5'	2.11	0.50
1:AA:79:G:H2'	1:AA:80:G:C8	2.46	0.50
23:DA:2687:U:H2'	23:DA:2688:U:O4'	2.12	0.50
5:AE:9:LYS:HB3	5:AE:112:LEU:HD11	1.94	0.50
5:AE:48:ALA:C	5:AE:50:GLU:H	2.14	0.50
49:B1:50:THR:HG22	49:B1:51:TYR:N	2.26	0.50
1:AA:1071:C:H5''	5:AE:49:PRO:HG2	1.92	0.50
1:AA:1072:G:C6	1:AA:1104:G:C2	2.99	0.50
40:DR:28:GLU:O	40:DR:61:VAL:HG21	2.12	0.50
18:CR:56:THR:HB	18:CR:58:LEU:HD12	1.93	0.50
23:BA:2305:A:H3'	23:BA:2306:C:H5''	1.93	0.50
6:AF:22:GLU:O	6:AF:26:ILE:HG13	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:488:C:O5'	1:CA:488:C:H6	1.95	0.50
23:BA:2785:C:O2'	26:BD:66:HIS:CD2	2.64	0.50
8:CH:19:VAL:HG23	8:CH:21:LYS:HG2	1.93	0.50
1:AA:735:C:H1'	18:AR:75:ILE:HD11	1.93	0.50
1:AA:457:C:O2	1:AA:457:C:C2'	2.58	0.50
23:BA:1511:A:H2'	23:BA:1512:G:C8	2.45	0.50
1:CA:619:U:H2'	4:CD:135:LEU:CD2	2.41	0.50
23:DA:1858:G:H1'	23:DA:1884:A:H62	1.71	0.50
1:CA:599:C:H2'	1:CA:600:C:H6	1.75	0.50
1:CA:642:A:O2'	8:CH:31:PHE:HE1	1.95	0.50
23:DA:1952:A:C5	33:DK:22:ILE:CD1	2.91	0.50
53:B5:57:ARG:NE	53:B5:57:ARG:CA	2.71	0.50
15:AO:39:LEU:HD13	15:AO:56:LEU:HB2	1.92	0.50
15:AO:53:HIS:CE1	23:BA:715:G:O6	2.62	0.50
1:AA:173:U:N1	1:AA:197:A:C2	2.79	0.50
23:DA:2658:C:H4'	29:DG:158:HIS:NE2	2.27	0.50
1:CA:105:G:C6	1:CA:106:C:C4	3.00	0.50
34:BL:13:ASN:O	34:BL:14:LYS:C	2.50	0.50
44:BV:4:ARG:HD3	44:BV:60:GLU:HG3	1.94	0.50
1:AA:1357:A:N7	1:AA:1358:U:C4	2.79	0.50
23:DA:864:G:O2'	23:DA:865:C:H5'	2.12	0.50
35:DM:20:ALA:HA	35:DM:98:LYS:HB3	1.92	0.50
32:BJ:62:ARG:NH2	32:BJ:64:ASP:OD2	2.40	0.50
23:BA:2862:G:C4	23:BA:2863:C:C5	2.99	0.50
1:CA:1443:G:H22	38:DP:119:LYS:HB2	1.76	0.50
23:BA:1775:U:H2'	23:BA:1776:G:O5'	2.12	0.50
23:BA:794:G:H2'	23:BA:795:C:C6	2.47	0.50
1:CA:760:G:H2'	1:CA:761:G:H5'	1.93	0.50
23:DA:816:C:O2'	23:DA:817:C:H5'	2.12	0.50
1:CA:109:A:C6	1:CA:326:G:C6	2.99	0.50
1:AA:522:C:N4	1:AA:528:C:H42	2.09	0.50
28:BF:17:PRO:HA	28:BF:20:ILE:HG12	1.92	0.50
17:AQ:45:HIS:O	17:AQ:73:VAL:HG23	2.12	0.50
17:AQ:45:HIS:HB3	17:AQ:72:ARG:HG2	1.93	0.50
26:DD:16:ARG:O	26:DD:17:ASP:C	2.47	0.50
23:BA:1831:G:C5	23:BA:1832:C:C5	3.00	0.50
23:DA:990:A:H5''	23:DA:991:C:OP2	2.10	0.50
1:CA:137:C:O2'	1:CA:138:G:H5'	2.12	0.50
8:AH:50:ARG:CD	8:AH:50:ARG:H	2.24	0.50
35:DM:40:ALA:CB	35:DM:127:ILE:HD12	2.40	0.50
13:CM:14:ARG:NH1	13:CM:42:ALA:HA	2.26	0.50
25:DC:198:ASN:ND2	25:DC:198:ASN:C	2.64	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:765:G:H5''	1:AA:766:A:OP1	2.11	0.50
23:DA:2482:G:H2'	23:DA:2483:C:O4'	2.11	0.50
23:DA:455:C:N3	23:DA:472:A:H2'	2.27	0.50
16:AP:25:ARG:O	16:AP:26:ARG:C	2.50	0.50
28:BF:28:VAL:O	28:BF:31:VAL:HG12	2.11	0.50
34:DL:100:LEU:HD22	34:DL:100:LEU:H	1.77	0.50
44:BV:63:ASP:HB3	44:BV:65:GLN:HG3	1.94	0.50
1:AA:933:G:N7	7:AG:3:ARG:NH2	2.60	0.50
34:DL:101:VAL:CB	34:DL:106:LEU:HB3	2.42	0.50
23:BA:310:A:P	43:BU:18:GLY:HA2	2.52	0.50
23:DA:2250:G:H5''	23:DA:2250:G:N3	2.27	0.50
23:DA:1542:G:OP2	23:DA:1543:A:OP1	2.29	0.50
1:CA:1368:G:OP2	9:CI:112:LYS:HD3	2.11	0.50
9:CI:10:ARG:CD	9:CI:11:LYS:HG3	2.40	0.50
23:DA:806:C:OP1	34:DL:39:LYS:HB3	2.12	0.50
1:CA:1324:A:O4'	1:CA:136(A):C:H4'	2.11	0.50
1:CA:46:G:H8	1:CA:46:G:O5'	1.94	0.50
1:CA:503:C:OP1	12:CL:118:LYS:HE3	2.11	0.50
23:BA:518:G:H4'	41:BS:18:ARG:NH1	2.27	0.50
28:BF:72:ARG:HB3	28:BF:87:PRO:HD2	1.94	0.50
23:DA:252:G:O2'	23:DA:253:C:H5'	2.12	0.50
30:BH:77:LEU:HD21	30:BH:104:GLN:HB2	1.93	0.50
39:BQ:79:PHE:HE2	39:BQ:106:PHE:CZ	2.30	0.50
1:AA:376:G:C5	1:AA:389:A:N1	2.79	0.50
4:AD:141:ARG:O	4:AD:144:ASP:OD2	2.29	0.50
42:DT:27:THR:HB	42:DT:80:ILE:HB	1.93	0.50
23:BA:1408:C:C2	23:BA:1595:G:N2	2.80	0.50
28:BF:88:ILE:HD12	28:BF:89:GLY:H	1.77	0.50
23:DA:1209:G:N2	23:DA:1210:A:N6	2.58	0.50
1:CA:670:G:N2	1:CA:736:C:O2	2.42	0.50
1:CA:738:C:C2	1:CA:739:C:C5	3.00	0.50
5:AE:41:VAL:HG12	5:AE:112:LEU:O	2.11	0.50
2:CB:98:LEU:HB2	2:CB:101:MET:CG	2.42	0.50
23:BA:1439:A:C2	23:BA:1553:A:C4	2.99	0.50
10:AJ:33:GLN:O	10:AJ:75:ILE:HG12	2.11	0.50
1:AA:1371:G:OP1	9:AI:11:LYS:HB3	2.10	0.50
9:AI:14:VAL:O	9:AI:65:VAL:HG23	2.11	0.50
42:DT:57:LEU:N	42:DT:57:LEU:HD12	2.26	0.50
36:BN:4:LEU:C	36:BN:6:SER:H	2.15	0.50
2:CB:27:LYS:CG	2:CB:194:PRO:HD2	2.41	0.50
23:DA:1567:A:C8	25:DC:84:TYR:CE2	3.00	0.50
23:BA:1104:C:C4	23:BA:1105:U:C5	3.00	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:AR:56:THR:HB	18:AR:58:LEU:HD12	1.93	0.50
1:CA:1009:G:O2'	1:CA:1010:G:H5'	2.12	0.50
36:BN:99:LYS:H	36:BN:99:LYS:HD2	1.75	0.50
30:BH:2:LYS:HB3	30:BH:20:ASP:OD1	2.12	0.50
1:CA:832:C:N4	1:CA:855:G:O6	2.45	0.50
23:DA:1476:C:C6	23:DA:1476:C:C3'	2.94	0.50
17:CQ:83:ASP:O	17:CQ:86:GLU:HB2	2.12	0.50
3:CC:23:TYR:HB2	10:CJ:93:GLY:O	2.11	0.50
3:CC:73:PRO:HA	3:CC:76:VAL:HG13	1.93	0.50
1:AA:1254:C:OP1	10:AJ:45:ARG:HD3	2.12	0.50
10:CJ:9:ARG:HG2	10:CJ:69:ASN:OD1	2.12	0.50
1:CA:973:G:P	10:CJ:57:LYS:HZ3	2.34	0.50
12:CL:6:ILE:N	12:CL:6:ILE:HD12	2.25	0.50
23:DA:184:C:C2	23:DA:185:U:C5	3.00	0.50
23:DA:1164:G:H5'	23:DA:1165:U:OP2	2.12	0.50
2:AB:200:ILE:HG22	2:AB:202:PRO:HD3	1.92	0.50
39:BQ:17:ILE:HG23	39:BQ:39:LEU:HD12	1.93	0.50
23:DA:188:G:C2'	23:DA:189:G:H5'	2.42	0.50
23:DA:188:G:H1	23:DA:208:C:H42	1.60	0.50
1:CA:1501:C:C5	1:CA:1504:G:C4	2.99	0.50
1:CA:683:G:C6	1:CA:684:A:C5	3.00	0.50
1:CA:685:G:O2'	1:CA:686:U:H5'	2.11	0.50
24:BB:5:C:O2	24:BB:116:G:N2	2.44	0.50
1:CA:247:G:C5	1:CA:248:C:C5	3.00	0.50
46:DX:58:ILE:HD11	46:DX:60:PHE:CE1	2.47	0.50
23:DA:25:U:H2'	23:DA:26:G:C8	2.47	0.50
41:DS:45:TYR:CD2	41:DS:45:TYR:O	2.65	0.50
1:AA:1386:G:C2	1:AA:1387:G:C8	2.99	0.50
23:BA:915:C:O2'	24:BB:100:G:H5'	2.12	0.50
23:DA:1850:G:C4	23:DA:1851:U:C5	3.00	0.50
23:BA:2302:G:O2'	23:BA:2303:G:H5'	2.11	0.50
23:BA:1241:A:N7	23:BA:1242:A:C4	2.80	0.50
8:CH:127:LEU:HD13	8:CH:127:LEU:O	2.12	0.50
32:DJ:133:GLY:O	32:DJ:137:ARG:HG2	2.11	0.50
1:CA:934:C:C2	1:CA:1344:C:C5	2.99	0.50
23:DA:618(B):C:O2	23:DA:618(B):C:H2'	2.12	0.50
1:CA:33:A:H2'	1:CA:34:C:C6	2.46	0.50
1:AA:1004:A:N3	1:AA:1004:A:H3'	2.26	0.50
49:B1:45:GLY:O	49:B1:46:ASN:HB2	2.11	0.50
46:DX:77:ALA:HA	46:DX:80:LEU:HB2	1.92	0.50
23:DA:1398:C:O3'	42:DT:25:LYS:NZ	2.40	0.50
4:CD:72:GLU:O	4:CD:72:GLU:OE1	2.30	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BS:42:ARG:HG2	41:BS:42:ARG:HH11	1.76	0.50
23:BA:1897:G:H2'	23:BA:1898:U:O4'	2.11	0.50
23:BA:673:C:H5''	27:BE:81:PRO:HD2	1.94	0.50
23:BA:806:C:OP1	34:BL:39:LYS:HB3	2.11	0.50
1:CA:982:U:H5''	14:CN:6:LEU:HD13	1.93	0.50
24:BB:7:G:H1'	37:BO:38:GLN:HE21	1.75	0.50
23:BA:1658:C:H2'	23:BA:1659:U:C6	2.47	0.50
23:BA:1188:U:H2'	23:BA:1189:A:C5'	2.42	0.50
34:BL:49:ARG:O	34:BL:50:ARG:C	2.50	0.50
4:AD:110:PHE:N	4:AD:110:PHE:CD2	2.75	0.50
23:DA:94:G:N3	47:DY:47:ASN:ND2	2.60	0.50
1:CA:36:C:H4'	12:CL:121:THR:O	2.11	0.50
1:AA:392:G:N3	1:AA:393:A:C8	2.80	0.50
26:DD:36:ARG:HH11	26:DD:85:ASN:ND2	2.09	0.50
1:AA:191(G):G:H2'	1:AA:192:U:C6	2.46	0.50
26:DD:51:PHE:C	26:DD:51:PHE:CD1	2.85	0.50
23:BA:849:A:O2'	48:BZ:17:LYS:HE3	2.12	0.50
46:DX:11:ARG:HG3	46:DX:61:ARG:O	2.12	0.50
12:CL:70:PRO:O	12:CL:101:ARG:NH1	2.44	0.50
46:DX:27:GLU:HB3	46:DX:33:LYS:HG3	1.93	0.50
6:AF:8:ILE:HD12	6:AF:26:ILE:HD13	1.94	0.50
46:BX:11:ARG:HG3	46:BX:11:ARG:NH1	2.23	0.50
19:AS:21:GLU:HG3	19:AS:22:LEU:HD23	1.93	0.50
23:DA:932:G:H3'	23:DA:932:G:OP1	2.12	0.50
47:DY:9:GLN:CA	47:DY:12:GLU:HB3	2.41	0.50
1:AA:457:C:N4	1:AA:475:G:H1	2.09	0.50
16:AP:39:TYR:CE1	16:AP:73:LEU:HD13	2.47	0.50
23:BA:8:A:H2'	23:BA:9:U:C6	2.47	0.50
9:AI:104:ARG:O	9:AI:105:ASP:HB3	2.11	0.50
23:DA:2208:U:O4'	25:DC:151:LYS:HE3	2.12	0.50
23:DA:7:G:H2'	23:DA:8:A:O4'	2.12	0.50
36:DN:100:LEU:N	36:DN:100:LEU:HD23	2.27	0.50
11:AK:34:ASP:HB2	11:AK:35:PRO:HD2	1.92	0.50
34:BL:10:PRO:HD2	34:BL:11:GLY:N	2.26	0.50
23:BA:909:A:C4	23:BA:912:C:C5	2.99	0.50
2:CB:74:LYS:CB	2:CB:74:LYS:HZ2	2.24	0.50
17:AQ:60:ILE:O	17:AQ:71:PHE:HA	2.12	0.50
13:AM:99:ARG:HB2	13:AM:101:GLN:HE21	1.77	0.50
23:DA:2352:A:C4	23:DA:2366:A:C2	3.00	0.50
1:CA:1233:G:OP2	9:CI:124:GLN:HB2	2.11	0.50
1:CA:629:G:C2	1:CA:630:G:O6	2.65	0.50
2:AB:31:TYR:O	2:AB:42:ILE:HD12	2.12	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BT:64:LYS:HG2	42:BT:65:ARG:HH21	1.77	0.50
1:AA:1424:C:H2'	1:AA:1425:U:O4'	2.12	0.50
23:DA:26:G:H1'	23:DA:514:A:N6	2.27	0.50
23:BA:270(O):G:C6	23:BA:270(Q):C:N4	2.80	0.50
18:AR:53:ARG:HH21	18:AR:60:ALA:N	2.09	0.50
1:AA:503:C:C2	1:AA:504:C:C5	3.00	0.50
47:DY:38:GLN:HB3	47:DY:44:LEU:HB3	1.93	0.50
1:CA:744:C:C3'	1:CA:744:C:C6	2.95	0.50
23:DA:1015:G:O2'	23:DA:1016:G:H5'	2.12	0.50
35:BM:55:VAL:CG2	35:BM:56:ARG:N	2.74	0.50
17:CQ:11:VAL:N	17:CQ:20:THR:O	2.45	0.50
28:DF:28:VAL:O	28:DF:31:VAL:HG12	2.11	0.50
23:DA:1932:A:H2'	23:DA:1933:G:O4'	2.11	0.50
23:BA:1815:A:P	25:BC:54:ARG:HH22	2.35	0.50
35:DM:110:THR:OG1	35:DM:113:GLN:HB2	2.12	0.50
23:BA:1040:C:H2'	23:BA:1041:C:C6	2.46	0.50
10:CJ:31:GLY:HA3	10:CJ:81:THR:CG2	2.42	0.50
1:AA:767:A:H2'	1:AA:768:A:O4'	2.11	0.50
1:CA:1147:C:O5'	1:CA:1147:C:H6	1.95	0.50
38:BP:78:LEU:O	38:BP:78:LEU:HD13	2.11	0.50
25:BC:69:ARG:NH2	25:BC:128:GLY:O	2.44	0.50
25:DC:52:ARG:HB3	25:DC:53:PHE:CD2	2.47	0.50
10:AJ:17:ASP:O	10:AJ:21:GLN:HB2	2.11	0.50
23:BA:1345:C:O2'	23:BA:1346:G:H5'	2.11	0.50
23:DA:1040:C:H2'	23:DA:1041:C:C6	2.47	0.50
53:D5:53:PRO:O	53:D5:57:ARG:NH1	2.44	0.50
23:BA:2393:A:H5''	34:BL:62:LEU:HB3	1.93	0.50
47:DY:3:LEU:O	47:DY:4:SER:C	2.51	0.50
23:DA:960:A:H61	35:DM:82:ARG:HH21	1.59	0.50
23:BA:1540:G:H3'	23:BA:1541:U:H6	1.75	0.50
43:DU:27:VAL:CG2	43:DU:27:VAL:O	2.56	0.50
32:DJ:122:LEU:O	32:DJ:126:VAL:HG22	2.11	0.50
10:AJ:58:ASP:O	10:AJ:60:ARG:N	2.45	0.50
22:CV:6189:G:H2'	22:CV:6190:U:C6	2.45	0.50
22:CV:6192:G:C5	22:CV:6193:U:C4	3.00	0.50
27:DE:65:TRP:HZ3	27:DE:73:ALA:O	1.94	0.50
24:BB:7:G:H2'	24:BB:8:U:O4'	2.12	0.50
32:BJ:39:ILE:O	32:BJ:78:VAL:HG22	2.11	0.50
23:BA:1971:A:C4	25:BC:241:PRO:HG3	2.47	0.50
40:BR:13:ARG:HG3	40:BR:13:ARG:HH11	1.77	0.50
40:BR:38:LEU:HD12	40:BR:57:VAL:HG12	1.94	0.50
34:BL:52:GLU:CA	34:BL:52:GLU:OE1	2.60	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DO:28:VAL:O	37:DO:92:TYR:HE1	1.94	0.50
16:AP:32:TYR:O	16:AP:32:TYR:HD2	1.95	0.50
25:DC:105:ILE:HD13	25:DC:106:ILE:H	1.77	0.50
4:CD:75:PHE:CZ	4:CD:93:PHE:HZ	2.29	0.50
1:AA:414:A:H2'	1:AA:415:A:C8	2.47	0.50
26:BD:4:ILE:HD11	26:BD:28:ALA:O	2.11	0.50
23:DA:1487:G:O2'	23:DA:1488:G:H5'	2.12	0.50
23:DA:1511:A:O2'	23:DA:1512:G:H5'	2.10	0.50
23:DA:848:G:C4	23:DA:933:A:C8	3.00	0.50
23:DA:929:G:H8	23:DA:929:G:O5'	1.95	0.50
23:DA:848:G:N9	23:DA:933:A:H8	2.09	0.50
23:DA:2328:A:H2'	23:DA:2329:G:O4'	2.12	0.50
17:AQ:54:GLY:HA3	17:AQ:82:MET:HE1	1.94	0.50
23:BA:2276:G:O2'	23:BA:2277:G:H5'	2.11	0.50
41:DS:47:VAL:HA	41:DS:50:VAL:HG12	1.94	0.50
45:DW:53:MET:HA	45:DW:58:THR:O	2.12	0.50
40:DR:100:ARG:O	40:DR:100:ARG:CG	2.57	0.50
32:DJ:65:TRP:HA	32:DJ:71:MET:HE1	1.93	0.50
23:DA:9:U:N3	23:DA:2629:A:C6	2.79	0.50
23:DA:8:A:C5	23:DA:9:U:C4	3.00	0.50
23:BA:270(H):C:C2	23:BA:270(I):C:C5	3.00	0.50
23:BA:270(H):C:C4	23:BA:270(I):C:C5	3.00	0.50
11:AK:40:ILE:N	11:AK:40:ILE:HD13	2.27	0.50
25:BC:182:LEU:O	25:BC:271:ILE:HG13	2.12	0.50
23:BA:2480:C:H2'	23:BA:2481:G:H5'	1.92	0.50
23:BA:1396:U:O2	23:BA:1396:U:C2'	2.52	0.50
25:DC:76:PRO:HA	25:DC:118:VAL:HG23	1.93	0.50
23:DA:2477:C:HO2'	23:DA:2478:A:P	2.35	0.50
1:CA:922:G:H5''	1:CA:923:A:OP2	2.12	0.50
23:BA:681:G:H2'	23:BA:682:G:O5'	2.12	0.50
23:DA:1593:G:C6	23:DA:1594:G:C6	3.00	0.50
45:DW:51:VAL:N	45:DW:62:LEU:HD12	2.26	0.50
36:BN:93:GLY:C	36:BN:95:THR:H	2.15	0.50
1:AA:498:A:H4'	1:AA:500:G:H5'	1.93	0.50
5:AE:96:PRO:HA	5:AE:117:ASP:OD2	2.11	0.50
3:CC:175:LEU:CD1	3:CC:201:TYR:CE2	2.95	0.50
23:DA:828:U:H4'	23:DA:831:G:N1	2.27	0.50
23:DA:1909:C:N3	23:DA:1922:G:C2	2.79	0.50
36:DN:84:ALA:O	36:DN:85:PRO:C	2.50	0.50
23:DA:2215:G:H8	23:DA:2215:G:OP2	1.94	0.50
25:DC:40:THR:CG2	25:DC:41:GLY:N	2.75	0.50
1:AA:538:G:N2	1:AA:539:A:H1'	2.27	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:1444:G:N2	23:DA:1548:C:C2	2.80	0.50
23:DA:270(Q):C:O2'	23:DA:270(R):C:C6	2.62	0.50
53:D5:26:LYS:HA	53:D5:48:PHE:CE2	2.46	0.50
27:DE:150:GLY:HA2	27:DE:172:TRP:CE3	2.47	0.50
7:CG:86:GLN:HB2	7:CG:148:ASN:ND2	2.27	0.50
10:AJ:31:GLY:HA3	10:AJ:81:THR:CG2	2.42	0.50
1:CA:243:A:C2	1:CA:246:A:C8	3.00	0.50
1:AA:983:A:H5'	1:AA:984:C:OP2	2.12	0.50
23:BA:351:G:H5''	23:BA:352:G:OP1	2.11	0.50
30:BH:45:LYS:HA	30:BH:48:GLU:HG2	1.93	0.50
23:DA:1523:U:H2'	23:DA:1524:G:H8	1.75	0.50
23:DA:1570:A:H2'	23:DA:1571:A:C8	2.47	0.50
23:BA:962:G:H2'	23:BA:963:U:O4'	2.12	0.50
23:BA:1292:U:H2'	23:BA:1293:C:C6	2.47	0.50
23:BA:409:C:O2'	23:BA:410:G:H5'	2.11	0.50
36:BN:25:ALA:O	36:BN:26:LYS:C	2.49	0.50
44:DV:155:LEU:O	44:DV:157:LEU:HD12	2.12	0.50
3:AC:72:LYS:HG2	3:AC:74:GLY:H	1.76	0.50
23:DA:2408:U:O5'	23:DA:2408:U:H6	1.95	0.50
3:CC:111:LEU:HD23	3:CC:146:ALA:HB2	1.94	0.50
49:D1:45:GLY:O	49:D1:46:ASN:HB2	2.11	0.50
53:D5:57:ARG:CZ	53:D5:57:ARG:HA	2.42	0.49
34:DL:132:LYS:CD	34:DL:132:LYS:N	2.75	0.49
23:BA:2577:A:H5''	23:BA:2578:G:C5'	2.36	0.49
26:DD:103:ASP:OD1	26:DD:201:THR:HG23	2.12	0.49
26:DD:104:VAL:HG22	26:DD:198:VAL:HG13	1.94	0.49
23:DA:674:G:C1'	27:DE:74:ARG:HD3	2.36	0.49
28:DF:76:SER:HB2	28:DF:83:ARG:CA	2.43	0.49
4:AD:49:ARG:CZ	4:AD:50:ARG:H	2.24	0.49
23:BA:1813:G:O2'	25:BC:50:THR:CG2	2.60	0.49
30:DH:113:ARG:O	30:DH:131:LYS:N	2.45	0.49
35:DM:141:GLN:NE2	44:DV:89:PHE:HD1	2.10	0.49
26:DD:36:ARG:NH1	26:DD:86:PRO:HD2	2.27	0.49
1:CA:1260:C:H4'	1:CA:1284:C:H5'	1.93	0.49
26:DD:61:ARG:HB3	26:DD:62:PRO:HD2	1.94	0.49
23:DA:1324:G:C5	23:DA:1328:G:O6	2.66	0.49
42:BT:35:THR:HG22	42:BT:36:LYS:H	1.77	0.49
1:AA:1083:U:C5	1:AA:1084:G:C6	3.00	0.49
1:CA:402:G:H8	1:CA:402:G:O5'	1.94	0.49
23:BA:2366:A:H2'	23:BA:2367:G:O4'	2.11	0.49
12:CL:52:ARG:NH1	12:CL:52:ARG:CG	2.59	0.49
35:DM:47:ILE:HD11	35:DM:68:ILE:HD12	1.93	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:CT:10:LEU:O	20:CT:12:ALA:N	2.38	0.49
23:DA:322:A:P	27:DE:169:ASN:HB2	2.52	0.49
23:DA:2305:A:C4	28:DF:154:GLY:HA3	2.47	0.49
23:BA:85:G:N3	23:BA:103:A:C2	2.80	0.49
23:BA:2563:U:H4'	33:BK:28:SER:HA	1.94	0.49
23:BA:2893:G:H5''	23:BA:2894:G:O4'	2.12	0.49
30:BH:133:HIS:NE2	30:BH:135:GLU:HG2	2.27	0.49
23:DA:1509:A:O2'	23:DA:1510:A:OP1	2.24	0.49
23:DA:1567:A:H5''	25:DC:58:HIS:CD2	2.47	0.49
1:AA:657:G:C2	1:AA:658:G:C8	3.01	0.49
1:AA:750:G:C6	1:AA:751:U:C5	3.00	0.49
23:BA:1109:C:N4	23:BA:1110:G:N2	2.59	0.49
33:BK:43:VAL:HG23	33:BK:56:ASP:O	2.12	0.49
8:AH:25:ASP:C	8:AH:26:VAL:HG12	2.32	0.49
1:AA:1118:C:H5''	9:AI:104:ARG:CG	2.42	0.49
18:CR:22:VAL:O	18:CR:22:VAL:HG12	2.12	0.49
23:BA:2657:A:H5''	23:BA:2658:C:OP2	2.12	0.49
50:D2:52:TYR:O	50:D2:52:TYR:HD1	1.96	0.49
6:CF:50:TYR:HE1	18:CR:74:ARG:O	1.95	0.49
1:CA:522:C:N4	1:CA:528:C:N4	2.60	0.49
50:B2:52:TYR:O	50:B2:52:TYR:HD1	1.95	0.49
28:DF:7:LEU:HD22	28:DF:176:LEU:HD22	1.94	0.49
1:AA:1446:A:O2'	1:AA:1447:G:H8	1.95	0.49
23:BA:1152:C:H5''	39:BQ:80:ILE:CG2	2.41	0.49
35:BM:134:ARG:HE	35:BM:134:ARG:HA	1.77	0.49
1:CA:434:U:H2'	1:CA:435:C:C6	2.47	0.49
1:AA:927:G:C2	1:AA:1391:U:C2	3.00	0.49
25:BC:94:LEU:HD22	25:BC:95:LEU:N	2.27	0.49
36:DN:93:GLY:C	36:DN:95:THR:H	2.16	0.49
23:DA:1169:G:H1	23:DA:1180:C:N4	2.08	0.49
48:BZ:23:LEU:CD1	48:BZ:50:VAL:HG11	2.42	0.49
46:DX:49:VAL:HG11	46:DX:70:VAL:HG11	1.93	0.49
23:BA:1796:U:H4'	25:BC:256:GLY:HA2	1.94	0.49
48:DZ:23:LEU:CD1	48:DZ:50:VAL:HG11	2.42	0.49
1:CA:1089:G:C6	1:CA:1090:U:C4	3.00	0.49
1:CA:380:G:C2	1:CA:384:G:N1	2.80	0.49
12:CL:92:LEU:HB2	12:CL:95:VAL:CG2	2.41	0.49
44:BV:68:PRO:HG2	44:BV:91:LEU:O	2.12	0.49
28:BF:171:ALA:O	28:BF:175:LEU:HG	2.11	0.49
23:BA:27:G:C4	23:BA:512:G:N2	2.80	0.49
1:CA:1508:G:H2'	1:CA:1509:C:C6	2.47	0.49
23:DA:1689:A:H62	23:DA:1698:A:H2	1.60	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:2567:G:H2'	23:BA:2568:C:C6	2.47	0.49
23:BA:46:C:H42	23:BA:179:G:H1	1.60	0.49
23:DA:265:A:H1'	23:DA:266:G:O4'	2.12	0.49
23:BA:1753:G:N1	23:BA:1756:G:C2	2.80	0.49
23:DA:2750:A:C2	23:DA:2753:A:H2	2.30	0.49
1:CA:1004:A:N3	1:CA:1004:A:H3'	2.27	0.49
1:CA:958:A:C6	1:CA:959:A:C6	3.00	0.49
24:BB:63:G:H2'	24:BB:64:C:C6	2.46	0.49
1:AA:1290:G:N3	1:AA:1290:G:H2'	2.27	0.49
5:AE:103:GLY:O	5:AE:104:ALA:C	2.50	0.49
22:AV:6185:U:C5	22:AV:6186:U:C5	3.00	0.49
36:BN:65:LEU:O	36:BN:68:ARG:HB2	2.12	0.49
1:AA:450:G:H4'	16:AP:41:PRO:HB2	1.94	0.49
1:AA:946:A:H2'	1:AA:947:G:C8	2.47	0.49
26:BD:171:GLU:HG2	26:BD:185:LYS:HG2	1.94	0.49
28:BF:60:LEU:O	28:BF:64:THR:HG22	2.11	0.49
32:DJ:110:LEU:O	32:DJ:113:MET:HB2	2.11	0.49
23:DA:2579:C:H2'	23:DA:2580:U:O4'	2.12	0.49
4:CD:144:ASP:O	4:CD:146:ILE:HG13	2.12	0.49
42:DT:30:VAL:HG21	42:DT:79:ALA:HB3	1.94	0.49
26:BD:36:ARG:HH11	26:BD:85:ASN:ND2	2.10	0.49
3:CC:173:VAL:H	3:CC:174:PRO:HD3	1.75	0.49
36:DN:107:ASP:OD2	36:DN:108:GLY:N	2.45	0.49
23:DA:1828:G:OP2	25:DC:239:ARG:CZ	2.60	0.49
3:AC:33:LEU:O	3:AC:36:ASP:HB3	2.13	0.49
26:DD:1:MET:O	26:DD:2:LYS:O	2.30	0.49
3:AC:130:VAL:HA	3:AC:133:ALA:HB3	1.94	0.49
23:DA:2517:C:C6	23:DA:2542:A:C2	3.00	0.49
1:CA:1104:G:C2	1:CA:1105:A:C5	3.01	0.49
41:BS:8:ARG:HA	41:BS:102:HIS:HA	1.94	0.49
23:BA:1771:C:O2'	23:BA:1786:A:H8	1.76	0.49
2:AB:187:LEU:HD22	2:AB:188:ALA:N	2.27	0.49
40:DR:28:GLU:HB2	40:DR:31:ALA:CB	2.42	0.49
23:DA:2893:G:H3'	23:DA:2894:G:H5'	1.95	0.49
23:BA:955:C:H5''	35:BM:85:LYS:HE2	1.94	0.49
23:BA:7:G:H2'	23:BA:8:A:O4'	2.11	0.49
1:CA:712:A:C6	1:CA:713:G:C6	3.01	0.49
1:AA:556:C:O2	1:AA:556:C:C2'	2.55	0.49
1:CA:557:G:H2'	1:CA:558:G:O4'	2.12	0.49
23:BA:2531:A:H4'	29:BG:157:TYR:CE2	2.47	0.49
39:DQ:62:ILE:HD11	39:DQ:93:LYS:HG2	1.94	0.49
18:AR:56:THR:O	18:AR:58:LEU:HD12	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:801:U:H2'	1:CA:802:A:C8	2.47	0.49
30:DH:15:VAL:C	30:DH:17:GLN:H	2.16	0.49
1:AA:216:G:H2'	1:AA:217:C:H6	1.76	0.49
1:CA:593:G:C2	1:CA:594:G:C4	2.99	0.49
1:CA:761:G:H2'	1:CA:762:C:H6	1.77	0.49
12:AL:10:VAL:HG11	17:AQ:36:ILE:HG21	1.94	0.49
3:AC:73:PRO:HA	3:AC:76:VAL:HG13	1.94	0.49
1:CA:972:C:H4'	10:CJ:57:LYS:CG	2.42	0.49
23:DA:826:U:H2'	23:DA:828:U:O4'	2.12	0.49
19:CS:30:LEU:HD23	19:CS:31:ILE:N	2.27	0.49
17:CQ:27:PHE:O	17:CQ:36:ILE:N	2.43	0.49
23:BA:1833:U:C2'	23:BA:1834:U:H5'	2.41	0.49
23:DA:2372:G:O2'	51:D3:46:HIS:CE1	2.65	0.49
23:DA:245:G:N3	23:DA:246:C:C6	2.80	0.49
23:DA:2459:A:C2	23:DA:2460:U:H1'	2.47	0.49
5:AE:36:ASP:O	5:AE:37:ARG:CB	2.60	0.49
1:AA:356:A:H2'	1:AA:357:G:O5'	2.12	0.49
23:BA:2584:U:O5'	23:BA:2584:U:H6	1.94	0.49
23:BA:2297:C:H2'	23:BA:2298:A:H8	1.77	0.49
24:DB:86:G:H2'	24:DB:87:G:C8	2.47	0.49
1:CA:450:G:H4'	16:CP:41:PRO:HB2	1.94	0.49
45:BW:82:ARG:O	45:BW:84:LEU:HD23	2.12	0.49
41:DS:5:ALA:HB2	41:DS:54:ALA:HA	1.93	0.49
23:BA:2721:A:H1'	23:BA:2873:A:O2'	2.12	0.49
23:DA:2105:C:H2'	23:DA:2106:G:C8	2.47	0.49
23:DA:1360:A:H5'	23:DA:1361:G:OP2	2.12	0.49
1:AA:794:A:H4'	1:AA:1521:G:O2'	2.12	0.49
1:AA:1438:G:C5	1:AA:1439:C:C5	3.00	0.49
23:DA:1855:G:N1	23:DA:1888:G:C8	2.80	0.49
23:DA:2416:C:N3	23:DA:2417:C:C5	2.79	0.49
34:DL:107:LYS:O	34:DL:109:GLY:N	2.44	0.49
23:DA:747:U:N3	50:D2:2:ALA:N	2.61	0.49
23:DA:1543:A:C8	23:DA:1545:A:H5''	2.46	0.49
23:DA:1542:G:P	23:DA:1543:A:OP1	2.70	0.49
25:BC:145:VAL:HG12	25:BC:146:GLU:N	2.28	0.49
43:DU:14:LEU:HD23	43:DU:15:VAL:CA	2.42	0.49
2:AB:70:PHE:CD2	2:AB:163:PHE:HB3	2.48	0.49
22:AV:6189:G:C5	22:AV:6190:U:C5	3.00	0.49
25:BC:142:VAL:HG22	25:BC:143:HIS:N	2.27	0.49
25:BC:67:PHE:HB3	25:BC:153:ALA:H	1.77	0.49
23:DA:1122:G:H2'	23:DA:1122:G:N3	2.26	0.49
4:AD:49:ARG:O	4:AD:51:PRO:HD3	2.13	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:2729:G:C5	23:BA:2730:C:C5	2.99	0.49
47:BY:6:VAL:C	47:BY:10:LEU:HG	2.33	0.49
25:DC:182:LEU:O	25:DC:271:ILE:HG13	2.12	0.49
4:AD:28:SER:HB3	4:AD:29:PRO:CD	2.41	0.49
3:CC:116:VAL:HG21	3:CC:202:ILE:HD11	1.92	0.49
23:DA:2711:A:OP1	23:DA:712(B):A:OP1	2.30	0.49
23:BA:1493:C:H4'	23:BA:1494:A:OP1	2.11	0.49
23:BA:548:A:H2'	23:BA:549:G:H5'	1.94	0.49
28:BF:41:GLN:HB2	28:BF:90:LEU:HB2	1.94	0.49
23:DA:363(C):G:O2'	23:DA:363(D):G:H5'	2.12	0.49
23:DA:2543:G:O4'	23:DA:2766:G:H5'	2.13	0.49
2:CB:97:TRP:HZ2	2:CB:102:LEU:CD1	2.20	0.49
23:BA:2605:U:H2'	23:BA:2606:C:C6	2.47	0.49
1:AA:16:A:O2'	5:AE:16:THR:HB	2.12	0.49
1:CA:408:A:H2'	1:CA:409:G:C8	2.48	0.49
23:DA:2378:A:H4'	37:DO:84:GLN:NE2	2.27	0.49
50:B2:25:LEU:N	50:B2:25:LEU:HD12	2.18	0.49
10:CJ:33:GLN:O	10:CJ:75:ILE:HG12	2.11	0.49
43:DU:81:LYS:HD2	43:DU:96:ILE:HD12	1.94	0.49
12:CL:44:PRO:HD2	12:CL:49:SER:HA	1.94	0.49
6:CF:5:GLU:OE1	6:CF:62:TRP:HZ2	1.95	0.49
23:DA:2683:C:OP1	38:DP:53:ARG:NH2	2.45	0.49
23:DA:1502:C:H6	23:DA:1502:C:H3'	1.77	0.49
19:CS:21:GLU:HG3	19:CS:22:LEU:HD23	1.94	0.49
31:BI:4:LYS:HG2	31:BI:4:LYS:O	2.11	0.49
1:AA:782:A:O3'	1:AA:1515:C:H4'	2.12	0.49
8:AH:10:LEU:HB3	8:AH:83:ILE:HD13	1.93	0.49
1:AA:68:G:N1	1:AA:69:G:C5	2.80	0.49
30:BH:15:VAL:HG12	30:BH:16:GLY:N	2.27	0.49
30:BH:5:LEU:HD22	30:BH:19:VAL:HG12	1.94	0.49
1:CA:1014:A:C2	1:CA:1219:U:H1'	2.48	0.49
1:CA:1118:C:P	9:CI:104:ARG:HG3	2.53	0.49
23:DA:243:U:H2'	23:DA:244:A:H5'	1.93	0.49
1:CA:171:A:H2'	1:CA:172:A:C8	2.48	0.49
1:CA:197:A:N7	1:CA:221:C:H4'	2.26	0.49
36:DN:99:LYS:CD	36:DN:99:LYS:N	2.74	0.49
25:BC:270:ILE:C	25:BC:271:ILE:HG12	2.33	0.49
23:DA:335:C:C2	23:DA:336:C:C5	3.00	0.49
23:BA:334:C:O2'	23:BA:335:C:P	2.70	0.49
23:BA:334:C:HO2'	23:BA:335:C:P	2.34	0.49
23:DA:1728:G:H3'	23:DA:1728:G:C8	2.47	0.49
29:DG:40:GLU:O	29:DG:55:PRO:HG3	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DK:49:ARG:HA	33:DK:53:LYS:HZ2	1.76	0.49
1:CA:1232:U:H5''	9:CI:124:GLN:O	2.12	0.49
33:BK:2:ILE:CD1	33:BK:82:ASN:HD22	2.26	0.49
23:BA:479:A:H4'	23:BA:480:A:O5'	2.11	0.49
8:CH:36:LEU:HA	8:CH:39:LEU:HB2	1.94	0.49
12:AL:5:THR:O	12:AL:8:GLN:HB2	2.12	0.49
34:BL:75:ILE:CD1	34:BL:75:ILE:H	2.21	0.49
53:B5:26:LYS:HG2	53:B5:48:PHE:CD2	2.47	0.49
23:BA:1131:G:C2	23:BA:1132:A:C5	3.00	0.49
15:CO:7:GLU:HG3	15:CO:10:LYS:HD3	1.93	0.49
23:BA:2065:C:O2'	23:BA:2066:C:H5'	2.11	0.49
1:AA:1058:G:C6	1:AA:1059:C:N3	2.81	0.49
24:BB:28:C:H2'	24:BB:29:A:O4'	2.12	0.49
3:CC:191:THR:C	3:CC:193:TYR:H	2.15	0.49
23:DA:2836:U:C5	23:DA:2883:A:N6	2.81	0.49
1:AA:685:G:N2	1:AA:686:U:C4	2.81	0.49
1:AA:836:G:OP1	18:AR:61:LYS:HE2	2.12	0.49
7:CG:70:LYS:HG3	7:CG:96:GLN:HB3	1.93	0.49
1:CA:1169:A:N6	1:CA:1170:A:N1	2.60	0.49
1:CA:1090:U:H2'	1:CA:1091:U:C6	2.47	0.49
23:BA:553:U:C2'	23:BA:554:U:H5'	2.42	0.49
23:BA:466:A:H5''	23:BA:467:G:OP2	2.12	0.49
1:AA:595:G:H1'	1:AA:596:C:H5	1.77	0.49
23:BA:772:C:H2'	23:BA:772:C:O2	2.11	0.49
35:BM:137:TYR:HB3	44:BV:76:LEU:HD21	1.93	0.49
23:DA:1881:C:H2'	23:DA:1882:C:H6	1.78	0.49
1:AA:830:G:C2	1:AA:831:U:C2	3.01	0.49
23:DA:2343:C:O2'	23:DA:2373:G:O2'	2.24	0.49
1:AA:958:A:C6	1:AA:959:A:C6	3.00	0.49
23:DA:2315:G:H2'	23:DA:2316:C:C6	2.47	0.49
1:AA:243:A:C2	1:AA:246:A:C8	3.00	0.49
1:AA:1321:C:C5	1:AA:1322:C:C2	3.01	0.49
1:AA:1320:C:N3	19:AS:72:GLY:HA3	2.26	0.49
10:CJ:48:THR:CG2	10:CJ:62:HIS:ND1	2.73	0.49
1:AA:46:G:H8	1:AA:46:G:O5'	1.95	0.49
38:BP:61:PHE:CE2	38:BP:76:PHE:HB2	2.47	0.49
23:BA:2295:C:N3	23:BA:2296:U:H5	2.10	0.49
23:DA:727:A:H2	25:DC:9:TYR:CD2	2.30	0.49
42:DT:44:GLU:HG2	42:DT:49:VAL:O	2.13	0.49
39:BQ:53:ARG:O	39:BQ:56:ASP:HB2	2.12	0.49
40:BR:4:ILE:HD13	40:BR:13:ARG:HA	1.93	0.49
16:AP:21:VAL:O	16:AP:21:VAL:HG23	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:437:U:C4	1:AA:438:G:C6	3.00	0.49
4:AD:31:CYS:O	4:AD:31:CYS:SG	2.71	0.49
42:DT:30:VAL:HG21	42:DT:79:ALA:CB	2.42	0.49
42:BT:30:VAL:HG11	42:BT:39:ILE:HD13	1.94	0.49
8:AH:88:LYS:HB3	8:AH:89:PRO:HD2	1.93	0.49
1:CA:1329:A:C2	1:CA:1330:U:C2	3.00	0.49
44:DV:54:HIS:CG	44:DV:101:PRO:HG3	2.47	0.49
29:DG:138:LYS:O	29:DG:139:GLN:C	2.51	0.49
29:DG:46:GLU:HG3	29:DG:51:ARG:HE	1.73	0.49
23:BA:1512:G:C2	23:BA:1513:C:C2	3.01	0.49
33:BK:97:ARG:H	33:BK:117:LEU:CD2	2.25	0.49
16:AP:71:ARG:C	16:AP:73:LEU:H	2.15	0.49
8:AH:25:ASP:HA	8:AH:59:LEU:O	2.11	0.49
23:BA:1359:A:C8	23:BA:1372:U:O4	2.65	0.49
28:DF:131:TYR:CD2	28:DF:133:LEU:HD22	2.48	0.49
23:DA:998:C:C2'	23:DA:999:U:O5'	2.60	0.49
29:BG:95:ARG:NH1	29:BG:97:ARG:HE	2.11	0.49
25:BC:25:THR:HG21	25:BC:81:ALA:CB	2.43	0.49
23:DA:2287:A:C6	23:DA:2289:G:C4	3.01	0.49
1:AA:105:G:C6	1:AA:106:C:C4	3.00	0.49
23:BA:257:A:C2'	23:BA:258:G:O5'	2.60	0.49
39:DQ:98:LEU:O	39:DQ:99:ALA:C	2.51	0.49
25:BC:182:LEU:N	25:BC:272:ALA:HB3	2.22	0.49
40:DR:19:LYS:HA	40:DR:94:LEU:O	2.12	0.49
23:BA:2479:G:H5''	23:BA:2537:U:O4'	2.13	0.49
23:BA:1953:A:C2	23:BA:2549:G:N3	2.80	0.49
44:BV:179:ASP:CG	44:BV:180:VAL:N	2.65	0.49
39:DQ:111:GLU:HA	39:DQ:114:LYS:HB2	1.95	0.49
33:DK:43:VAL:HG23	33:DK:56:ASP:O	2.12	0.49
33:BK:121:VAL:O	38:BP:43:GLN:NE2	2.44	0.49
34:BL:115:LEU:HA	34:BL:134:ALA:CB	2.42	0.49
23:DA:2865:U:C5	23:DA:2866:U:C4	3.01	0.49
8:AH:17:THR:HG21	8:AH:80:ILE:HD13	1.94	0.49
23:BA:1746:G:N3	23:BA:1747:G:C8	2.80	0.49
1:CA:775:G:O2'	1:CA:776:G:H5'	2.12	0.49
23:DA:2065:C:O2'	23:DA:2066:C:H5'	2.12	0.49
23:DA:298:G:P	43:DU:85:VAL:HG22	2.52	0.49
39:BQ:46:ALA:O	39:BQ:47:TYR:C	2.50	0.49
1:AA:932:C:OP1	7:AG:4:ARG:HG2	2.12	0.49
1:CA:983:A:H5'	1:CA:984:C:OP2	2.12	0.49
1:AA:1432:G:OP1	38:BP:107:ASP:HB2	2.12	0.49
2:CB:157:ARG:O	2:CB:159:PRO:HD3	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:1570:A:H2'	23:BA:1571:A:C8	2.47	0.49
1:CA:1402:C:C5	1:CA:1403:C:C4	3.00	0.49
23:BA:337:C:H2'	23:BA:338:G:O5'	2.13	0.49
23:DA:1815:A:P	25:DC:54:ARG:HH22	2.35	0.49
23:BA:2328:A:H2'	23:BA:2329:G:O4'	2.12	0.49
23:BA:1268:A:C2	23:BA:2013:A:C4	3.01	0.49
1:AA:1234:C:C2'	1:AA:1235:U:H5'	2.42	0.49
7:AG:113:GLU:O	7:AG:119:ARG:HD3	2.12	0.49
23:BA:587:C:C4	34:BL:33:ARG:HB2	2.48	0.49
22:CV:6181:C:C2	22:CV:6182:A:C8	3.01	0.49
23:DA:805:G:H4'	23:DA:806:C:OP2	2.13	0.49
23:BA:2338:G:C2	23:BA:2339:G:C8	3.00	0.49
25:DC:36:PRO:O	25:DC:37:LEU:HB2	2.12	0.49
42:BT:50:LYS:N	42:BT:87:GLN:HE22	1.91	0.49
1:AA:408:A:H2'	1:AA:409:G:C8	2.48	0.49
47:BY:57:ILE:HA	47:BY:60:LEU:HB2	1.93	0.49
4:AD:21:LEU:HD12	4:AD:21:LEU:N	2.26	0.49
4:AD:75:PHE:CZ	4:AD:93:PHE:HZ	2.29	0.49
35:BM:141:GLN:NE2	44:BV:89:PHE:HD1	2.10	0.49
41:DS:75:TYR:CE2	41:DS:104:THR:CB	2.91	0.49
1:CA:404:U:C2	1:CA:405:U:C5	3.01	0.49
45:BW:64:ASP:OD1	45:BW:64:ASP:N	2.46	0.49
8:CH:91:ARG:NH1	8:CH:91:ARG:HG3	2.22	0.49
1:AA:1148:U:C2	9:AI:16:ARG:NH2	2.81	0.49
30:BH:130:TYR:C	30:BH:132:PRO:HD3	2.33	0.49
29:DG:12:PRO:HB2	29:DG:49:VAL:HA	1.93	0.49
1:AA:1329:A:C2	1:AA:1330:U:C2	3.00	0.49
23:DA:1512:G:C6	23:DA:1513:C:N3	2.81	0.49
35:DM:8:LYS:HG3	35:DM:9:TYR:N	2.25	0.49
28:BF:133:LEU:H	28:BF:133:LEU:HD23	1.78	0.49
1:CA:1068:G:OP2	1:CA:1068:G:H8	1.96	0.49
25:BC:166:GLN:HB2	25:BC:174:ILE:HG22	1.94	0.49
29:DG:95:ARG:NH1	29:DG:97:ARG:HE	2.10	0.49
38:DP:28:VAL:HA	38:DP:89:VAL:HG12	1.94	0.49
24:DB:21:G:H2'	24:DB:22:U:H6	1.77	0.49
23:DA:2478:A:H2'	23:DA:2479:G:O4'	2.12	0.49
12:CL:21:SER:C	12:CL:23:VAL:H	2.15	0.49
44:DV:85:HIS:C	44:DV:85:HIS:HD1	2.16	0.49
23:DA:1717:G:C6	23:DA:1743:G:C6	3.00	0.49
3:CC:76:VAL:HG23	3:CC:77:ILE:HG13	1.94	0.49
3:CC:175:LEU:CD1	3:CC:201:TYR:HE2	2.25	0.49
23:DA:117:G:H5"	23:DA:118:A:OP2	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:978:G:C2	23:DA:986:C:C2	3.01	0.49
25:BC:40:THR:CG2	25:BC:41:GLY:N	2.75	0.49
23:BA:2738:A:C2	23:BA:2739:U:N1	2.80	0.49
23:DA:851:U:O2'	48:DZ:45:GLY:HA3	2.12	0.49
23:BA:1442:G:C2	23:BA:1550:C:O2	2.65	0.49
38:BP:41:ARG:HB3	38:BP:41:ARG:HH11	1.78	0.49
12:AL:46:LYS:CB	12:AL:47:PRO:HD3	2.43	0.49
1:CA:635:G:C5	1:CA:636:U:C5	3.01	0.49
23:BA:25:U:H2'	23:BA:26:G:C8	2.47	0.49
23:BA:1818:U:H2'	25:BC:157:ARG:HG3	1.94	0.49
48:BZ:3:ARG:NH1	48:BZ:59:VAL:HG11	2.27	0.49
29:BG:78:GLY:O	29:BG:136:ILE:HG22	2.13	0.49
23:BA:107:C:C2'	23:BA:108:U:H5'	2.42	0.49
23:DA:447:A:C4	23:DA:473:G:N7	2.80	0.49
40:DR:75:PHE:C	40:DR:75:PHE:CD1	2.84	0.49
23:BA:601:C:H4'	27:BE:104:LYS:HE2	1.95	0.49
24:DB:63:G:H2'	24:DB:64:C:C6	2.47	0.49
23:DA:2703:C:O2'	23:DA:2704:C:H5'	2.12	0.49
53:D5:21:LYS:HA	53:D5:54:GLU:OE2	2.12	0.49
53:D5:57:ARG:HB2	53:D5:57:ARG:CZ	2.42	0.49
43:BU:71:LYS:NZ	43:BU:71:LYS:HB2	2.27	0.49
23:DA:2439:A:H8	23:DA:2439:A:H5''	1.76	0.49
34:BL:80:TYR:CE1	34:BL:111:ARG:HG2	2.48	0.49
1:CA:1366:C:H2'	1:CA:1367:C:H6	1.78	0.49
38:BP:54:ARG:NH1	38:BP:54:ARG:CG	2.61	0.49
12:CL:26:LEU:HB3	12:CL:29:ALA:CB	2.42	0.49
2:CB:91:PRO:HB3	2:CB:154:LEU:HD11	1.94	0.49
23:BA:1899:G:N2	23:BA:1902:C:H5	2.09	0.49
23:DA:114(B):A:O2'	23:DA:1143:A:H3'	2.13	0.49
30:BH:128:LEU:O	30:BH:139:GLN:HA	2.12	0.49
40:BR:44:LYS:HB3	40:BR:46:VAL:HG13	1.95	0.49
53:B5:7:HIS:HB2	53:B5:60:LEU:HB3	1.95	0.49
25:DC:267:SER:C	25:DC:269:PHE:H	2.14	0.49
3:CC:113:ALA:HB2	3:CC:202:ILE:HG13	1.94	0.49
20:AT:69:GLY:O	20:AT:73:HIS:ND1	2.45	0.49
28:DF:88:ILE:HD12	28:DF:89:GLY:N	2.27	0.49
20:CT:69:GLY:O	20:CT:73:HIS:CE1	2.66	0.49
4:AD:105:VAL:O	4:AD:105:VAL:CG1	2.59	0.49
3:AC:66:VAL:HB	3:AC:101:LEU:CD2	2.39	0.49
5:CE:9:LYS:HB3	5:CE:112:LEU:HD11	1.94	0.49
5:CE:32:VAL:O	5:CE:43:LEU:HA	2.12	0.49
5:CE:76:ILE:HG12	5:CE:142:LEU:HD22	1.94	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:2723:C:O5'	23:DA:2723:C:H6	1.96	0.49
12:AL:70:PRO:O	12:AL:101:ARG:NH1	2.44	0.49
44:BV:102:LEU:HD23	44:BV:137:ILE:HB	1.95	0.49
13:CM:84:ILE:HG23	19:CS:74:PHE:HE1	1.77	0.49
23:BA:932:G:H3'	23:BA:932:G:OP1	2.12	0.49
25:DC:185:VAL:HG12	25:DC:186:HIS:N	2.28	0.49
13:AM:84:ILE:HG23	19:AS:74:PHE:HE1	1.77	0.49
23:DA:318:C:O2'	23:DA:319:C:H5'	2.13	0.49
18:CR:56:THR:O	18:CR:58:LEU:N	2.45	0.49
23:DA:1577:C:H5''	23:DA:1578:U:OP2	2.12	0.49
47:DY:49:LYS:HD2	47:DY:49:LYS:H	1.77	0.49
23:BA:380:U:O2	23:BA:380:U:H2'	2.12	0.49
37:BO:56:LEU:HG	37:BO:57:LYS:HB3	1.94	0.49
16:AP:39:TYR:CD2	16:AP:40:ASP:N	2.81	0.49
1:AA:611:A:H61	1:AA:629:G:H1	1.61	0.49
1:AA:832:C:N4	1:AA:855:G:O6	2.46	0.49
39:DQ:61:TRP:O	39:DQ:62:ILE:C	2.51	0.49
1:AA:173:U:C2	1:AA:197:A:N1	2.81	0.49
1:AA:197:A:N6	1:AA:221:C:C5'	2.76	0.49
23:BA:1434:A:H2'	23:BA:1435:G:C8	2.48	0.49
1:AA:1128:C:O2'	1:AA:1130:A:C4	2.65	0.49
23:BA:1682:G:H2'	23:BA:1683:C:C6	2.47	0.49
23:DA:773:U:H4'	25:DC:47:GLY:CA	2.41	0.49
27:BE:153:SER:OG	27:BE:190:GLU:HG3	2.13	0.49
18:CR:44:LEU:HD11	18:CR:70:ILE:HG21	1.95	0.49
23:DA:2102:U:C4	23:DA:2103:C:N4	2.81	0.49
35:BM:40:ALA:CB	35:BM:127:ILE:HD12	2.41	0.49
4:CD:79:PHE:CD1	4:CD:207:TYR:HD1	2.31	0.49
1:CA:1446:A:O2'	1:CA:1447:G:H8	1.95	0.49
1:AA:236:G:H5''	17:AQ:42:TYR:OH	2.11	0.49
1:CA:1423:G:H2'	1:CA:1424:C:C6	2.47	0.49
1:CA:373:A:C4	1:CA:482:A:N7	2.81	0.49
1:AA:754:C:C2'	1:AA:755:G:OP1	2.61	0.49
32:BJ:68:ASN:HD22	32:BJ:68:ASN:H	1.59	0.49
6:AF:44:GLY:HA2	6:AF:59:TYR:CE2	2.48	0.49
23:BA:571:A:C8	23:BA:2030:A:N6	2.80	0.49
51:D3:38:LYS:HG2	51:D3:39:TYR:N	2.26	0.49
1:AA:1311:G:N2	1:AA:1327:C:C2	2.81	0.49
37:BO:20:ARG:HH12	45:BW:48:GLY:H	1.60	0.49
1:CA:525:C:O2'	1:CA:526:C:H5'	2.12	0.49
26:BD:72:VAL:O	26:BD:73:GLU:C	2.50	0.49
23:DA:1798:U:H5''	25:DC:259:THR:O	2.13	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:DZ:23:LEU:HD12	48:DZ:50:VAL:HG11	1.92	0.49
23:BA:2831:G:O4'	23:BA:2883:A:C2	2.65	0.49
23:BA:57:C:H6	23:BA:57:C:O5'	1.95	0.49
23:DA:1465:G:H21	23:DA:1466:G:H1'	1.78	0.49
8:AH:42:GLU:HG3	8:AH:109:ILE:HD12	1.92	0.49
23:BA:963:U:H2'	23:BA:964:C:C6	2.47	0.49
23:BA:963:U:H2'	23:BA:964:C:H6	1.77	0.49
23:BA:2473:U:C4	23:BA:2474:C:C4	3.00	0.49
23:DA:1322:A:O3'	41:DS:84:ARG:NH2	2.41	0.49
23:BA:2105:C:H2'	23:BA:2106:G:C8	2.47	0.49
23:BA:1368:G:C2	23:BA:1369:G:C8	3.00	0.49
32:DJ:151:HIS:CD2	32:DJ:151:HIS:C	2.86	0.49
23:DA:2734:A:H2'	23:DA:2735:G:H5'	1.95	0.49
19:CS:33:THR:HG23	19:CS:51:VAL:HA	1.94	0.49
28:DF:106:LEU:HD12	28:DF:110:ALA:HB3	1.95	0.49
30:DH:45:LYS:HA	30:DH:48:GLU:HG2	1.94	0.49
42:BT:3:THR:HA	42:BT:6:ASP:OD2	2.13	0.49
23:BA:127:A:H5''	23:BA:128:C:C6	2.47	0.49
16:AP:47:ASP:O	16:AP:49:LEU:N	2.45	0.49
3:AC:79:ARG:O	3:AC:82:GLU:HG3	2.13	0.49
23:BA:2495:G:C2'	23:BA:2496:C:O5'	2.60	0.49
34:BL:57:THR:CG2	34:BL:59:LEU:CD2	2.75	0.49
1:AA:1123:A:H1'	10:AJ:37:PRO:O	2.12	0.49
2:AB:184:VAL:O	2:AB:198:ASP:HB2	2.13	0.49
32:DJ:143:LEU:CD1	32:DJ:143:LEU:C	2.81	0.49
1:AA:947:G:O3'	13:AM:109:THR:OG1	2.28	0.49
22:AV:6192:G:C5	22:AV:6193:U:C4	3.00	0.49
33:BK:71:ARG:NH2	33:BK:77:ILE:HG21	2.27	0.49
38:BP:58:ASN:HD22	38:BP:58:ASN:C	2.16	0.49
1:CA:551:U:HO2'	12:CL:85:ARG:HD2	1.78	0.49
23:BA:1902:C:H2'	23:BA:1903:G:O5'	2.13	0.49
23:BA:1187:G:O5'	23:BA:1187:G:H8	1.96	0.49
28:BF:83:ARG:HG3	28:BF:84:LYS:H	1.77	0.49
16:CP:3:LYS:O	16:CP:21:VAL:HA	2.13	0.49
3:AC:182:ILE:HD11	3:AC:203:PHE:HD1	1.77	0.49
1:CA:76:G:C6	1:CA:77:C:N4	2.81	0.49
44:DV:163:LEU:H	44:DV:163:LEU:CD2	2.25	0.49
23:BA:2681:C:O2	23:BA:2681:C:O5'	2.31	0.49
1:AA:256:U:C2	1:AA:257:G:C8	3.00	0.49
43:DU:81:LYS:HD3	43:DU:96:ILE:HG13	1.93	0.49
23:DA:1343:G:O2'	23:DA:1344:G:H5'	2.13	0.49
20:CT:12:ALA:O	20:CT:15:ARG:HB2	2.13	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:195:VAL:CG1	3:AC:196:LEU:N	2.65	0.49
1:CA:586:C:H1'	1:CA:878:G:O2'	2.12	0.49
4:CD:162:LEU:HD11	4:CD:181:MET:HG2	1.94	0.49
25:BC:120:GLY:HA2	25:BC:190:TYR:OH	2.13	0.49
1:AA:321:A:O2'	1:AA:322:C:H5'	2.11	0.49
1:AA:987:G:H2'	1:AA:988:G:H8	1.78	0.49
1:CA:1531:A:H8	1:CA:1531:A:O5'	1.95	0.49
23:BA:661:C:O3'	34:BL:18:ARG:HG2	2.13	0.49
23:DA:1952:A:C6	33:DK:22:ILE:HD11	2.48	0.49
30:BH:5:LEU:CD2	30:BH:5:LEU:N	2.76	0.49
23:DA:2287:A:O2'	23:DA:2288:A:P	2.70	0.49
23:DA:226:G:N2	23:DA:227:A:C2	2.81	0.49
11:AK:32:ILE:O	11:AK:40:ILE:HG12	2.13	0.49
43:BU:42:VAL:CG1	43:BU:65:ALA:HB3	2.41	0.49
28:DF:77:ILE:CG2	28:DF:80:PHE:H	2.23	0.49
33:BK:88:ASN:ND2	33:BK:90:GLN:HB3	2.28	0.49
23:BA:105:C:C2	23:BA:106:C:C5	3.00	0.49
23:BA:2593:U:C2	23:BA:2594:C:C5	3.01	0.49
23:DA:1476:C:C5	23:DA:1477:A:N7	2.80	0.49
9:CI:114:TYR:N	9:CI:114:TYR:CD2	2.77	0.49
1:CA:522:C:H2'	1:CA:523:A:H5'	1.94	0.49
1:CA:20:U:H2'	1:CA:21:G:H5'	1.94	0.49
25:BC:30:GLU:HG3	25:BC:63:ARG:NE	2.27	0.49
25:BC:61:LEU:HB3	25:BC:63:ARG:NH1	2.28	0.49
12:CL:23:VAL:O	12:CL:23:VAL:HG12	2.10	0.49
1:AA:127:G:C2	1:AA:128:G:C8	3.00	0.49
23:DA:2225:A:H1'	23:DA:2226:C:OP2	2.13	0.49
23:DA:1746:G:N2	23:DA:1747:G:C4	2.80	0.49
3:CC:76:VAL:CG2	3:CC:77:ILE:HG13	2.43	0.49
3:CC:77:ILE:O	3:CC:83:ARG:HB3	2.12	0.49
23:DA:304:G:N2	23:DA:314:A:C4	2.80	0.49
40:BR:12:TYR:CD2	40:BR:12:TYR:N	2.81	0.49
1:AA:1089:G:C6	1:AA:1090:U:C4	3.01	0.49
39:BQ:50:ARG:HH12	40:BR:72:VAL:HG12	1.77	0.49
23:BA:1726:G:H2'	23:BA:1727:U:H6	1.73	0.49
36:DN:79:LEU:HA	36:DN:83:ILE:HG13	1.95	0.49
1:AA:639:G:H2'	1:AA:640:A:H8	1.77	0.49
16:CP:13:HIS:C	16:CP:15:PRO:HD3	2.33	0.49
7:AG:70:LYS:HG3	7:AG:96:GLN:HB3	1.94	0.49
1:CA:562:C:N4	1:CA:884:U:C6	2.80	0.49
33:DK:9:GLU:O	33:DK:83:ALA:HA	2.13	0.49
1:CA:380:G:N1	1:CA:384:G:C6	2.80	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DV:91:LEU:CD2	44:DV:96:VAL:HG11	2.43	0.49
21:CU:12:LYS:HB3	21:CU:17:THR:O	2.13	0.49
1:AA:801:U:H2'	1:AA:802:A:H8	1.77	0.49
23:DA:57:C:O5'	23:DA:57:C:H6	1.95	0.49
32:DJ:32:VAL:HG12	32:DJ:33:GLU:O	2.12	0.49
1:CA:32:A:H2'	1:CA:33:A:C8	2.47	0.49
38:BP:50:ILE:HA	38:BP:99:LEU:CD1	2.43	0.49
6:AF:82:ARG:HB2	6:AF:85:VAL:CG2	2.43	0.49
20:AT:32:ALA:O	20:AT:36:LEU:HD23	2.13	0.49
28:DF:74:LYS:HA	28:DF:74:LYS:HE3	1.94	0.49
23:DA:762:U:H4'	23:DA:763:G:O5'	2.12	0.49
23:DA:636:G:OP1	34:DL:132:LYS:HD3	2.13	0.49
9:CI:118:LYS:O	9:CI:119:ALA:HB3	2.12	0.49
22:AV:6190:U:C4	22:AV:6191:A:N7	2.81	0.49
22:AV:6190:U:O4	22:AV:6191:A:N6	2.45	0.49
34:BL:50:ARG:HB2	53:B5:60:LEU:CD2	2.42	0.49
24:DB:7:G:H2'	24:DB:8:U:O4'	2.12	0.49
1:AA:1260:C:H4'	1:AA:1284:C:H5'	1.94	0.49
28:DF:41:GLN:HB2	28:DF:90:LEU:HB2	1.94	0.49
1:CA:79:G:H2'	1:CA:80:G:C8	2.48	0.49
1:CA:95:G:H2'	1:CA:96:G:O4'	2.12	0.49
23:BA:137(B):G:C4	23:BA:139:G:N7	2.81	0.49
24:DB:71:C:C4	24:DB:72:G:N7	2.81	0.49
1:CA:397:A:N6	1:CA:548:G:N7	2.61	0.49
26:DD:84:PHE:CD2	26:DD:84:PHE:C	2.86	0.49
23:DA:2886:G:N2	23:DA:2887:U:C2	2.81	0.49
1:AA:1064:G:C1'	1:AA:1065:U:OP2	2.61	0.49
23:BA:929:G:H8	23:BA:929:G:O5'	1.96	0.49
4:CD:3:ARG:HD2	4:CD:3:ARG:H	1.76	0.49
37:DO:84:GLN:C	37:DO:86:ALA:H	2.16	0.49
46:DX:10:LYS:O	46:DX:11:ARG:HB2	2.11	0.49
12:CL:44:PRO:CG	12:CL:52:ARG:HE	2.24	0.49
23:BA:2875:C:C4'	38:BP:5:ALA:HB2	2.36	0.49
29:DG:20:ALA:HB1	29:DG:21:PRO:HD2	1.94	0.49
23:DA:319:C:N4	23:DA:320:A:C6	2.81	0.49
23:BA:2307:G:O5'	23:BA:2307:G:C8	2.66	0.49
43:BU:27:VAL:O	43:BU:27:VAL:CG2	2.58	0.49
23:BA:2784:C:H2'	23:BA:2785:C:C6	2.47	0.49
23:DA:1401:G:C2'	23:DA:1402:C:H6	2.22	0.49
23:BA:1496:A:C8	23:BA:1577:C:O2'	2.65	0.49
23:BA:1511:A:O2'	23:BA:1512:G:H5'	2.12	0.49
1:CA:618:C:N4	1:CA:621:A:N7	2.60	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:73:G:H8	1:AA:73:G:O5'	1.95	0.49
23:DA:286:C:C2	23:DA:287:C:C5	3.01	0.49
33:BK:88:ASN:N	33:BK:92:GLU:O	2.39	0.49
38:DP:27:THR:O	38:DP:89:VAL:HG13	2.12	0.49
18:AR:44:LEU:HD11	18:AR:70:ILE:HG21	1.95	0.49
4:AD:13:ARG:CD	4:AD:38:TYR:O	2.61	0.49
1:AA:1090:U:H2'	1:AA:1091:U:C6	2.48	0.49
1:CA:1311:G:N2	1:CA:1327:C:C2	2.81	0.49
1:AA:1327:C:O2'	1:AA:1328:C:H5'	2.12	0.49
23:DA:245:G:C4	23:DA:246:C:C5	3.00	0.49
23:BA:852:G:H2'	23:BA:853:G:C8	2.48	0.49
6:AF:12:PRO:HD3	6:AF:58:GLY:HA2	1.95	0.49
3:CC:191:THR:HB	3:CC:193:TYR:CD2	2.47	0.49
23:DA:270(O):G:C6	23:DA:270(Q):C:N4	2.81	0.49
1:AA:44:G:N2	1:AA:399:G:C4	2.80	0.49
23:DA:2435:A:H2'	23:DA:2436:G:O5'	2.11	0.49
2:CB:15:VAL:H	2:CB:16:HIS:CE1	2.31	0.49
23:BA:1444:G:N2	23:BA:1548:C:C2	2.81	0.49
39:DQ:65:ILE:O	39:DQ:66:ASN:C	2.51	0.49
1:CA:294:U:H2'	1:CA:295:C:C6	2.47	0.49
23:DA:1394:U:C5	23:DA:1395:A:C4	3.00	0.49
23:BA:1241:A:N6	23:BA:1242:A:N1	2.60	0.49
1:AA:1480:G:C4	1:AA:1481:U:C6	3.00	0.49
1:CA:743:U:O2'	1:CA:744:C:H5'	2.13	0.49
8:CH:120:THR:H	8:CH:123:GLU:HB2	1.78	0.49
23:DA:2648:C:H2'	23:DA:2649:U:C6	2.48	0.49
36:DN:30:THR:HG22	36:DN:31:HIS:CE1	2.48	0.49
23:BA:851:U:O2'	48:BZ:45:GLY:HA3	2.13	0.49
23:BA:1678:G:N3	23:BA:1678:G:C2'	2.74	0.49
17:CQ:11:VAL:O	17:CQ:11:VAL:HG13	2.12	0.49
16:AP:49:LEU:HG	16:AP:50:LYS:N	2.28	0.49
6:AF:82:ARG:HB2	6:AF:85:VAL:HG23	1.94	0.49
23:DA:1930:G:N2	23:DA:1968:G:H2'	2.28	0.49
1:CA:945:G:C6	1:CA:1337:G:C6	3.01	0.49
1:CA:1061:G:OP2	3:CC:3:ASN:ND2	2.42	0.49
9:CI:27:THR:O	9:CI:62:TYR:HA	2.12	0.49
30:DH:1:MET:HG3	30:DH:23:PRO:HG3	1.95	0.49
23:DA:702:G:C2	23:DA:731:C:C2	3.01	0.49
8:CH:54:ASP:O	8:CH:56:LYS:HG3	2.12	0.49
23:DA:2024:G:H2'	23:DA:2025:C:H6	1.77	0.49
24:BB:86:G:H2'	24:BB:87:G:C8	2.48	0.49
23:BA:1665:A:H4'	33:BK:67:LYS:HB2	1.95	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CG:49:ILE:O	7:CG:49:ILE:HG22	2.11	0.49
23:BA:2261:C:O2'	23:BA:2262:U:H5'	2.12	0.49
47:DY:1:MET:CE	47:DY:4:SER:HB2	2.42	0.49
23:DA:1542:G:H3'	23:DA:1542:G:P	2.53	0.49
10:AJ:50:ILE:CG2	14:AN:41:ARG:HH21	2.26	0.49
7:AG:113:GLU:HB3	7:AG:118:VAL:CG2	2.42	0.49
23:BA:2846:G:P	38:BP:54:ARG:HB2	2.52	0.49
40:DR:13:ARG:NH1	40:DR:13:ARG:HG3	2.28	0.49
25:DC:83:GLU:OE1	25:DC:104:TYR:OH	2.19	0.49
23:DA:860:U:O2'	23:DA:861:A:C5'	2.52	0.49
28:DF:85:GLY:C	28:DF:86:MET:HG3	2.32	0.49
17:CQ:45:HIS:O	17:CQ:73:VAL:HG23	2.12	0.49
23:BA:556:G:H2'	23:BA:557:U:H6	1.77	0.49
23:BA:2563:U:O2	23:BA:2565:A:H8	1.96	0.49
23:BA:379:G:C2	46:BX:20:ARG:NH2	2.81	0.49
23:BA:1567:A:C8	25:BC:84:TYR:CE2	3.01	0.49
37:BO:53:SER:O	37:BO:56:LEU:HB3	2.13	0.49
9:CI:28:VAL:HG13	9:CI:63:ILE:HG22	1.95	0.49
25:DC:134:ARG:HD3	25:DC:135:PHE:HE1	1.74	0.49
1:CA:987:G:H2'	1:CA:988:G:H8	1.78	0.49
11:CK:21:ILE:HG13	11:CK:30:VAL:HG12	1.95	0.49
1:CA:1053:G:H3'	1:CA:1054:C:C5'	2.41	0.49
50:B2:40:LYS:CD	50:B2:46:CYS:HB3	2.43	0.49
23:DA:2636:U:H2'	23:DA:2637:U:H6	1.77	0.49
1:CA:938:A:N6	1:CA:939:G:C6	2.81	0.49
1:AA:754:C:P	15:AO:72:ARG:HH22	2.36	0.49
23:DA:2190:G:C4	23:DA:2191:G:C8	3.00	0.49
26:BD:112:GLY:O	26:BD:159:HIS:HA	2.13	0.49
43:DU:30:VAL:CG2	43:DU:37:VAL:HG12	2.42	0.49
23:DA:1749:A:H2'	23:DA:1750:G:O4'	2.12	0.49
23:DA:2828:C:C2'	23:DA:2829:C:H5'	2.41	0.49
1:CA:1511:G:C6	1:CA:1512:U:C4	3.01	0.49
36:BN:103:ARG:HH12	36:BN:110:PRO:HG3	1.78	0.49
23:DA:2836:U:H2'	23:DA:2837:G:C8	2.47	0.49
1:AA:1465:C:H2'	1:AA:1466:C:O4'	2.13	0.49
1:CA:525:C:H5"	12:CL:90:LYS:CE	2.43	0.49
1:AA:1315:U:H2'	1:AA:1316:G:O4'	2.12	0.49
1:AA:1047:G:O2'	1:AA:1048:G:H5'	2.13	0.49
20:CT:39:LYS:O	20:CT:43:LEU:HG	2.12	0.49
23:DA:1465:G:N2	23:DA:1466:G:H1'	2.28	0.49
13:AM:14:ARG:NH1	13:AM:42:ALA:HA	2.27	0.49
1:AA:420:U:O2	1:AA:424:G:N1	2.46	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:2026:C:N3	23:BA:2027:G:C8	2.81	0.49
12:AL:92:LEU:HB2	12:AL:95:VAL:CG2	2.43	0.49
41:DS:54:ALA:HB1	41:DS:107:LEU:HD22	1.95	0.49
1:CA:149:A:H2'	1:CA:150:C:C6	2.48	0.49
45:DW:47:PRO:HB2	45:DW:48:GLY:H	1.47	0.49
30:BH:51:ILE:HG22	30:BH:52:ARG:N	2.28	0.49
23:BA:1465:G:C2	23:BA:1466:G:C8	3.01	0.49
23:DA:343:C:O2'	23:DA:344:G:H5'	2.12	0.49
23:DA:1168:G:C2	23:DA:1182:A:C2	3.01	0.49
45:DW:82:ARG:O	45:DW:84:LEU:HD23	2.13	0.49
13:AM:49:THR:O	13:AM:53:VAL:HG23	2.12	0.49
33:BK:9:GLU:O	33:BK:83:ALA:HA	2.13	0.49
23:DA:2679:A:H4'	26:DD:165:VAL:HG11	1.94	0.49
41:BS:78:GLU:OE2	41:BS:99:ARG:HD3	2.13	0.49
23:BA:231:C:N4	23:BA:232:G:N1	2.61	0.49
52:B4:36:GLN:HG2	52:B4:36:GLN:O	2.09	0.49
1:CA:385:C:H3'	1:CA:385:C:H6	1.77	0.49
1:AA:525:C:OP1	12:AL:90:LYS:HG2	2.12	0.49
25:BC:212:SER:O	25:BC:217:ARG:HG3	2.13	0.49
23:DA:1678:G:H22	23:DA:1989:G:H22	1.60	0.49
23:DA:1314:C:C2'	23:DA:1315:C:H5'	2.43	0.49
23:DA:2361:A:OP1	53:D5:27:THR:OG1	2.30	0.49
23:BA:1542:G:OP2	23:BA:1543:A:OP1	2.30	0.49
7:CG:113:GLU:HB3	7:CG:118:VAL:CG2	2.43	0.49
23:DA:103:A:O5'	23:DA:103:A:H8	1.96	0.49
9:AI:114:TYR:N	9:AI:114:TYR:HD2	2.10	0.49
13:AM:91:ARG:NH1	19:AS:81:ARG:NH2	2.61	0.49
28:BF:56:ALA:O	28:BF:60:LEU:HB2	2.12	0.49
23:BA:727:A:H2	25:BC:9:TYR:CD2	2.30	0.49
24:BB:7:G:H5''	37:BO:29:PHE:CD2	2.47	0.49
1:AA:672:U:O2'	1:AA:673:G:H5'	2.13	0.49
37:DO:87:PHE:CD1	37:DO:102:ALA:HB2	2.48	0.49
25:DC:105:ILE:HD13	25:DC:106:ILE:N	2.28	0.49
1:AA:413:G:H22	1:AA:429:U:P	2.36	0.49
1:AA:689:C:H2'	1:AA:690:G:O4'	2.11	0.49
3:AC:172:ARG:HE	3:AC:174:PRO:CG	2.26	0.49
14:AN:37:PHE:CE1	14:AN:53:LEU:HD13	2.48	0.49
5:CE:78:HIS:HE1	5:CE:142:LEU:HA	1.77	0.49
5:CE:79:GLU:HB3	5:CE:92:LYS:HA	1.93	0.49
35:BM:141:GLN:OE1	44:BV:97:GLU:O	2.31	0.49
3:AC:134:ILE:HG23	3:AC:151:VAL:CB	2.35	0.49
23:DA:1608:A:HO2'	23:DA:1610:A:P	2.36	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:2681:C:O2	23:DA:2681:C:O5'	2.30	0.49
4:AD:162:LEU:HD11	4:AD:181:MET:HG2	1.95	0.49
1:AA:1369:C:OP1	9:AI:111:ARG:HG3	2.12	0.49
36:DN:72:ASP:O	36:DN:76:VAL:HG13	2.12	0.49
4:CD:127:THR:OG1	4:CD:128:VAL:N	2.46	0.49
23:DA:2746:U:C2'	23:DA:2747:G:O5'	2.61	0.49
46:BX:45:ASN:ND2	46:BX:47:GLN:HE21	2.11	0.49
23:DA:1503:U:N3	23:DA:1504:C:N4	2.61	0.49
29:BG:43:VAL:HG12	29:BG:52:VAL:CG2	2.43	0.49
11:CK:32:ILE:HD11	11:CK:68:ALA:HB1	1.95	0.49
1:AA:632:A:C2'	1:AA:633:G:H5'	2.42	0.49
1:CA:327:A:C6	1:CA:329:A:C5	3.01	0.49
1:CA:102:G:C4	1:CA:103:C:C5	3.01	0.49
29:DG:86:GLU:O	29:DG:86:GLU:CG	2.61	0.49
28:BF:111:LEU:HA	28:BF:114:ILE:HD11	1.95	0.49
38:DP:28:VAL:HA	38:DP:89:VAL:CG1	2.42	0.49
38:DP:27:THR:HG23	38:DP:90:GLN:HB3	1.94	0.49
35:DM:21:THR:O	35:DM:23:GLY:N	2.45	0.49
39:DQ:117:GLN:HA	39:DQ:117:GLN:OE1	2.13	0.49
23:DA:1389:G:N2	23:DA:1390:U:C2	2.80	0.49
20:AT:13:LEU:O	20:AT:16:HIS:N	2.46	0.49
23:DA:1289:C:H2'	23:DA:1290:C:C6	2.47	0.49
16:CP:8:ARG:O	16:CP:9:PHE:HD2	1.95	0.49
1:AA:941:G:C6	1:AA:1343:G:C6	3.00	0.49
13:AM:79:LYS:HA	13:AM:82:MET:HB3	1.95	0.49
1:CA:1412:C:H2'	1:CA:1413:A:C8	2.47	0.49
1:CA:632:A:C2'	1:CA:633:G:H5'	2.42	0.49
8:AH:38:ILE:HD11	8:AH:118:VAL:O	2.13	0.49
23:BA:1842:G:H1'	25:BC:255:LYS:HZ3	1.78	0.49
23:BA:569:U:C4	23:BA:570:G:C6	3.00	0.49
3:CC:179:ARG:O	3:CC:179:ARG:HG3	2.13	0.49
1:AA:506:G:C4	1:AA:507:C:C5	3.00	0.49
36:DN:78:LYS:O	36:DN:83:ILE:HG12	2.12	0.49
1:CA:1493:A:H4'	1:CA:1494:G:OP2	2.13	0.49
46:BX:49:VAL:HG11	46:BX:70:VAL:HG11	1.94	0.49
23:DA:26:G:C6	23:DA:27:G:N1	2.80	0.49
23:DA:915:C:O2'	24:DB:100:G:H5'	2.13	0.49
35:DM:29:PHE:N	35:DM:105:GLU:OE2	2.45	0.49
1:AA:926:G:C6	1:AA:1505:G:C6	3.01	0.49
1:CA:1525:G:OP1	11:CK:120:ARG:NH2	2.46	0.49
23:BA:2025:C:H2'	23:BA:2026:C:C6	2.48	0.49
1:AA:958:A:N6	1:AA:959:A:N6	2.61	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:AS:33:THR:HG23	19:AS:51:VAL:HA	1.94	0.49
1:AA:6:G:O2'	1:AA:7:G:H5'	2.13	0.49
23:DA:2849:U:H4'	23:DA:2868:A:C2	2.47	0.49
19:CS:52:TYR:CE1	19:CS:56:GLN:HA	2.48	0.49
52:B4:18:PHE:CE2	52:B4:22:MET:HG3	2.48	0.49
23:DA:1926:U:O2	23:DA:1929:G:C2	2.66	0.49
3:AC:179:ARG:HG3	3:AC:179:ARG:O	2.13	0.49
28:DF:56:ALA:O	28:DF:60:LEU:HB2	2.13	0.48
28:BF:64:THR:HG23	28:BF:66:GLN:N	2.28	0.48
14:CN:2:ALA:HB1	14:CN:6:LEU:HD12	1.95	0.48
5:AE:101:ILE:HG12	5:AE:118:ILE:O	2.13	0.48
23:DA:1971:A:C2	25:DC:241:PRO:HD3	2.47	0.48
23:BA:114(B):A:C4	23:BA:1144:G:N7	2.81	0.48
30:BH:98:ALA:O	30:BH:109:ILE:HD11	2.13	0.48
39:BQ:69:CYS:SG	39:BQ:79:PHE:CD2	3.06	0.48
37:DO:89:ARG:HG2	37:DO:89:ARG:O	2.13	0.48
3:AC:114:PRO:HD3	3:AC:183:ASP:OD1	2.13	0.48
30:DH:82:ARG:HB3	30:DH:89:TYR:HB2	1.95	0.48
24:DB:44:G:N3	24:DB:47:C:N4	2.60	0.48
20:CT:26:ASN:HB2	20:CT:71:THR:CG2	2.33	0.48
1:AA:394:G:C4	1:AA:395:C:C5	3.01	0.48
4:CD:31:CYS:O	4:CD:31:CYS:SG	2.71	0.48
5:CE:139:LEU:O	5:CE:141:GLN:N	2.45	0.48
23:DA:2887:U:C2	23:DA:2888:C:C5	3.00	0.48
1:AA:1190:G:OP1	3:AC:4:LYS:HA	2.13	0.48
23:DA:1788:C:OP1	25:DC:222:ARG:NH2	2.46	0.48
2:AB:211:ILE:HG22	2:AB:215:LEU:HD23	1.94	0.48
1:AA:187:C:H2'	1:AA:188:U:O4'	2.13	0.48
1:CA:1292:U:N3	1:CA:1293:G:N7	2.61	0.48
41:DS:69:LEU:HA	41:DS:108:GLY:O	2.13	0.48
36:BN:38:VAL:CB	36:BN:39:PRO:HD3	2.36	0.48
12:AL:44:PRO:HG3	12:AL:52:ARG:HD3	1.95	0.48
12:AL:52:ARG:NH1	12:AL:52:ARG:HG3	2.24	0.48
6:AF:46:ARG:HH12	18:AR:37:VAL:HG21	1.78	0.48
2:AB:141:GLU:O	2:AB:145:LEU:HD23	2.13	0.48
29:BG:67:LEU:HG	29:BG:71:LEU:HD23	1.95	0.48
23:BA:966:G:C4	23:BA:967:C:H5	2.30	0.48
16:AP:45:THR:HB	16:AP:46:PRO:HD2	1.94	0.48
33:DK:12:ASP:HA	33:DK:98:VAL:HA	1.94	0.48
23:BA:1401:G:C5	23:BA:1402:C:C5	3.01	0.48
23:BA:2100:G:H21	23:BA:2101:G:H1'	1.76	0.48
23:DA:301:G:C6	23:DA:302:C:N4	2.81	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:2863:C:O2'	23:BA:2864:G:H5'	2.12	0.48
24:DB:75:G:HO2'	44:DV:85:HIS:CD2	2.31	0.48
45:DW:64:ASP:OD1	45:DW:64:ASP:N	2.45	0.48
1:AA:862:C:O2'	1:AA:863:U:H5'	2.12	0.48
33:BK:2:ILE:CD1	33:BK:82:ASN:ND2	2.76	0.48
23:BA:493:G:H2'	23:BA:494:G:O4'	2.13	0.48
34:DL:55:ARG:HG3	34:DL:56:SER:N	2.28	0.48
23:BA:444:C:OP2	39:BQ:2:PRO:HD3	2.12	0.48
43:BU:68:HIS:C	43:BU:70:SER:H	2.16	0.48
8:CH:39:LEU:C	8:CH:45:ILE:HG12	2.34	0.48
27:DE:127:GLU:OE2	27:DE:127:GLU:O	2.31	0.48
38:BP:84:GLN:HG3	38:BP:85:LYS:HG3	1.95	0.48
23:DA:2862:G:C4	23:DA:2863:C:C5	3.01	0.48
45:BW:11:LYS:O	45:BW:14:ARG:NH2	2.40	0.48
23:DA:2738:A:C2	23:DA:2739:U:N1	2.81	0.48
33:DK:14:THR:HG22	33:DK:14:THR:O	2.11	0.48
15:CO:5:LYS:HD3	15:CO:5:LYS:N	2.27	0.48
1:CA:827:U:H2'	1:CA:870:U:O4	2.13	0.48
23:DA:46:C:N4	23:DA:179:G:H1	2.11	0.48
23:DA:1241:A:N6	23:DA:1242:A:N1	2.61	0.48
34:BL:135:LEU:O	34:BL:139:LYS:HB2	2.13	0.48
1:AA:928:G:C2	1:AA:1390:U:O2	2.66	0.48
30:DH:28:ASN:C	30:DH:32:PRO:HG2	2.34	0.48
23:DA:443:A:N7	27:DE:45:ARG:HG2	2.28	0.48
38:BP:50:ILE:HA	38:BP:99:LEU:HD11	1.94	0.48
1:AA:780:A:C2	1:AA:803:G:N1	2.81	0.48
23:DA:2620:C:C4'	26:DD:156:MET:HG3	2.43	0.48
26:BD:102:VAL:HA	26:BD:199:ARG:O	2.13	0.48
23:DA:811:U:OP2	34:DL:24:GLY:HA2	2.13	0.48
23:DA:569:U:O2'	23:DA:983:A:N1	2.45	0.48
4:CD:190:ASP:O	4:CD:194:LEU:HD23	2.13	0.48
1:CA:1400:C:H6	1:CA:1400:C:O5'	1.96	0.48
36:DN:104:ARG:CB	36:DN:104:ARG:HH11	2.25	0.48
27:DE:122:LYS:N	27:DE:122:LYS:HD2	2.28	0.48
4:AD:143:GLY:H	4:AD:185:PHE:HB3	1.78	0.48
1:AA:149:A:H2'	1:AA:150:C:C6	2.47	0.48
23:DA:2416:C:H6	23:DA:2416:C:O5'	1.96	0.48
23:BA:2250:G:H5"	23:BA:2250:G:N3	2.28	0.48
23:DA:306:U:H2'	23:DA:307:G:O4'	2.13	0.48
1:CA:1368:G:OP1	9:CI:111:ARG:NH2	2.44	0.48
26:BD:170:LEU:HB3	26:BD:185:LYS:HB2	1.95	0.48
22:AV:6189:G:N2	22:AV:6215:C:C2	2.81	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BB:7:G:H4'	37:BO:29:PHE:CG	2.48	0.48
23:BA:2334:G:C4	37:BO:12:PHE:HZ	2.32	0.48
32:DJ:157:ARG:O	32:DJ:158:PRO:C	2.49	0.48
34:DL:40:SER:C	34:DL:41:ARG:HD3	2.32	0.48
16:CP:28:ARG:CG	16:CP:28:ARG:NH1	2.74	0.48
3:AC:19:GLU:HG3	3:AC:54:ARG:HD2	1.93	0.48
39:BQ:92:ARG:O	39:BQ:94:ASN:N	2.46	0.48
23:DA:2320:A:C8	23:DA:2333:A:N6	2.80	0.48
1:AA:32:A:H2'	1:AA:33:A:C8	2.48	0.48
12:AL:116:ARG:HH21	12:AL:123:LYS:HB2	1.77	0.48
1:AA:552:U:H4'	12:AL:85:ARG:HG2	1.95	0.48
20:AT:69:GLY:O	20:AT:73:HIS:CE1	2.67	0.48
23:DA:1827:C:O2'	23:DA:1828:G:H5'	2.13	0.48
41:BS:75:TYR:CD2	41:BS:104:THR:HB	2.46	0.48
23:BA:2712:U:O2'	23:BA:2713:A:H5'	2.13	0.48
23:DA:1331:A:O2'	23:DA:1332:G:C8	2.63	0.48
1:CA:1072:G:C6	1:CA:1104:G:C2	3.01	0.48
1:CA:1106:G:C2	1:CA:1107:C:C5	3.01	0.48
1:AA:1074:G:C2	1:AA:1075:C:C2	3.01	0.48
23:DA:1788:C:H2'	23:DA:1789:A:O4'	2.12	0.48
25:DC:222:ARG:NH1	25:DC:224:ALA:HB3	2.27	0.48
48:DZ:26:LEU:HD13	48:DZ:47:VAL:HG22	1.94	0.48
6:CF:46:ARG:HH12	18:CR:37:VAL:HG21	1.78	0.48
12:AL:51:LEU:HD12	12:AL:51:LEU:N	2.28	0.48
1:CA:1321:C:C5	1:CA:1322:C:C2	3.01	0.48
25:DC:235:GLY:O	25:DC:237:GLU:N	2.46	0.48
1:AA:1014:A:C2	1:AA:1219:U:H1'	2.48	0.48
23:BA:2746:U:H4'	29:BG:138:LYS:HD3	1.95	0.48
23:BA:1323:U:H2'	23:BA:1324:G:H5'	1.95	0.48
27:DE:89:VAL:O	27:DE:91:GLY:N	2.44	0.48
24:DB:12:C:O2'	45:DW:74:ARG:HG2	2.13	0.48
28:BF:131:TYR:CD2	28:BF:133:LEU:HD22	2.48	0.48
44:BV:150:LEU:HD23	44:BV:171:ILE:HB	1.94	0.48
29:BG:44:VAL:O	29:BG:50:VAL:HG13	2.12	0.48
23:DA:1152:C:HO2'	39:DQ:76:TYR:HE2	1.58	0.48
1:CA:627:G:O2'	1:CA:628:G:H5'	2.13	0.48
1:CA:1083:U:C5	1:CA:1084:G:C6	3.01	0.48
23:BA:2477:C:O2'	23:BA:2478:A:P	2.70	0.48
35:DM:60:ARG:HA	44:DV:179:ASP:HB2	1.95	0.48
23:BA:2102:U:C4	23:BA:2103:C:N4	2.81	0.48
1:CA:657:G:C2	1:CA:658:G:C8	3.01	0.48
23:DA:2100:G:N2	23:DA:2101:G:N3	2.61	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:76:GLN:NE2	2:CB:76:GLN:H	2.11	0.48
23:BA:588:U:C2	23:BA:589:C:C5	3.01	0.48
34:BL:132:LYS:CD	34:BL:132:LYS:N	2.76	0.48
23:BA:814:C:C5	34:BL:27:HIS:NE2	2.81	0.48
23:BA:1164:G:H5'	23:BA:1165:U:OP2	2.12	0.48
1:CA:941:G:C6	1:CA:1343:G:C6	3.01	0.48
1:CA:560:U:O5'	1:CA:566:G:N2	2.46	0.48
34:DL:105:LEU:N	34:DL:105:LEU:HD12	2.27	0.48
23:DA:2228:G:P	25:DC:263:ARG:HH21	2.36	0.48
1:CA:356:A:H2'	1:CA:357:G:O5'	2.13	0.48
23:DA:2862:G:C5	23:DA:2863:C:C5	3.00	0.48
23:DA:2738:A:C6	23:DA:2739:U:C5	3.01	0.48
23:BA:2718:G:H2'	23:BA:2719:G:C8	2.48	0.48
13:AM:32:GLU:CD	13:AM:64:TRP:CH2	2.86	0.48
8:CH:13:ILE:O	8:CH:17:THR:HG23	2.13	0.48
27:BE:78:ILE:H	27:BE:78:ILE:HG13	1.27	0.48
9:AI:26:VAL:O	9:AI:26:VAL:HG12	2.12	0.48
1:AA:1296:C:C6	1:AA:1297:C:H5	2.30	0.48
1:AA:1038:C:C2	1:AA:1039:C:C5	3.01	0.48
23:BA:2032:G:H21	26:BD:146:THR:HG23	1.77	0.48
1:AA:134:A:N6	16:AP:25:ARG:HH12	2.09	0.48
39:BQ:36:ARG:HD3	39:BQ:40:PHE:CZ	2.49	0.48
23:DA:2813:A:H2'	23:DA:2814:C:O4'	2.13	0.48
23:BA:270(Z):G:C2	23:BA:271(A):U:O4	2.66	0.48
23:DA:1118:C:H5''	44:DV:80:ARG:NH2	2.27	0.48
23:BA:1937:A:N7	23:BA:1939:U:H2'	2.28	0.48
23:DA:516:C:P	50:D2:13:LYS:HZ1	2.35	0.48
12:CL:51:LEU:N	12:CL:51:LEU:HD12	2.28	0.48
32:BJ:133:GLY:O	32:BJ:137:ARG:HG2	2.12	0.48
23:BA:611:C:C2	23:BA:612:G:C8	3.02	0.48
34:DL:80:TYR:CE1	34:DL:111:ARG:CG	2.96	0.48
23:BA:2388:A:C8	23:BA:2389:G:C5	3.02	0.48
43:BU:8:LYS:NZ	43:BU:8:LYS:CA	2.76	0.48
52:B4:8:ASN:ND2	52:B4:9:ARG:N	2.56	0.48
25:BC:155:LEU:HD12	25:BC:155:LEU:N	2.28	0.48
23:BA:2272:U:C5'	23:BA:2272:U:C6	2.88	0.48
1:CA:1315:U:H2'	1:CA:1316:G:O4'	2.13	0.48
2:CB:91:PRO:CB	2:CB:154:LEU:HD11	2.44	0.48
23:BA:1188:U:C2'	23:BA:1189:A:C5'	2.91	0.48
40:BR:77:ALA:O	40:BR:79:VAL:N	2.46	0.48
42:DT:49:VAL:HG21	42:DT:83:VAL:CG1	2.42	0.48
48:DZ:52:HIS:HD2	48:DZ:52:HIS:H	1.58	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DB:7:G:H1'	37:DO:38:GLN:HE21	1.78	0.48
1:AA:406:G:H2'	1:AA:407:G:H8	1.78	0.48
23:DA:973:A:O4'	23:DA:1188:U:C6	2.66	0.48
28:BF:128:ARG:HH21	28:BF:129:GLY:C	2.16	0.48
26:BD:61:ARG:HB3	26:BD:62:PRO:HD2	1.95	0.48
3:CC:91:LEU:CD1	3:CC:101:LEU:HD21	2.43	0.48
14:CN:37:PHE:CE1	14:CN:53:LEU:HD13	2.49	0.48
36:DN:10:LEU:HB3	36:DN:17:ARG:CZ	2.42	0.48
23:DA:1327:C:H2'	23:DA:1328:G:O4'	2.14	0.48
6:CF:90:VAL:O	6:CF:91:VAL:HG23	2.12	0.48
48:BZ:26:LEU:HB2	48:BZ:28:LEU:CD1	2.43	0.48
36:DN:55:ALA:O	36:DN:57:ARG:O	2.32	0.48
30:BH:132:PRO:O	30:BH:134:PRO:HD3	2.12	0.48
26:BD:111:ARG:CD	26:BD:160:TYR:CE1	2.92	0.48
23:BA:2893:G:H3'	23:BA:2894:G:H5'	1.95	0.48
23:BA:2396:G:N3	23:BA:2421:G:C2	2.81	0.48
23:DA:1505:C:H2'	23:DA:1506:C:C6	2.49	0.48
11:CK:34:ASP:HB2	11:CK:35:PRO:HD2	1.95	0.48
44:BV:151:HIS:O	44:BV:171:ILE:HG12	2.14	0.48
18:AR:56:THR:O	18:AR:58:LEU:N	2.46	0.48
23:DA:105:C:C2	23:DA:106:C:C5	3.02	0.48
10:AJ:34:VAL:CG1	10:AJ:74:ILE:HG22	2.43	0.48
25:BC:267:SER:C	25:BC:269:PHE:H	2.17	0.48
17:CQ:69:LYS:C	17:CQ:70:ARG:HD2	2.32	0.48
24:BB:78:A:N3	24:BB:99:A:C5	2.81	0.48
1:AA:976:G:H5''	1:AA:1358:U:O2'	2.14	0.48
23:BA:1386:C:H2'	23:BA:1387:C:C6	2.43	0.48
44:DV:4:ARG:HD3	44:DV:60:GLU:HG3	1.94	0.48
23:BA:814:C:O2'	23:BA:815:C:H5'	2.13	0.48
23:DA:2638:G:P	26:DD:82:ARG:HH22	2.36	0.48
23:BA:637:A:OP1	34:BL:133:SER:HB3	2.13	0.48
23:DA:2663:G:C5	23:DA:2664:G:C5	3.01	0.48
26:DD:4:ILE:HD11	26:DD:28:ALA:O	2.13	0.48
53:B5:39:LYS:HA	53:B5:42:ARG:NH1	2.27	0.48
39:BQ:62:ILE:O	39:BQ:63:VAL:C	2.49	0.48
23:DA:814:C:H2'	23:DA:815:C:H6	1.78	0.48
3:AC:175:LEU:CD1	3:AC:201:TYR:CE2	2.96	0.48
23:BA:2853:C:O2'	23:BA:2854:G:H5'	2.13	0.48
23:BA:2190:G:H2'	23:BA:2191:G:C8	2.45	0.48
23:BA:2465:C:O2	23:BA:2486:G:C2	2.66	0.48
1:AA:152:A:H62	1:AA:169:C:H42	1.61	0.48
37:DO:93:LYS:O	37:DO:93:LYS:HG3	2.13	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BB:56:G:H4'	24:BB:57:A:H8	1.79	0.48
1:CA:112:G:C2	1:CA:113:G:C8	3.01	0.48
8:CH:50:ARG:H	8:CH:50:ARG:CD	2.27	0.48
23:BA:1015:G:O2'	23:BA:1016:G:H5'	2.13	0.48
1:AA:1502:A:C8	1:AA:1505:G:N2	2.82	0.48
1:CA:1048:G:OP1	14:CN:4:LYS:HB2	2.13	0.48
23:BA:2557:G:H2'	23:BA:2558:C:H6	1.78	0.48
35:BM:130:LYS:HZ2	44:BV:80:ARG:HE	1.60	0.48
23:DA:2734:A:C8	23:DA:2735:G:C8	3.01	0.48
35:BM:131:ILE:HG22	35:BM:132:VAL:N	2.28	0.48
1:CA:1244:C:H2'	1:CA:1245:A:C8	2.49	0.48
43:DU:75:ILE:HG13	43:DU:79:CYS:HA	1.94	0.48
23:BA:725:G:C6	23:BA:726:G:N1	2.82	0.48
23:BA:1929:G:H5''	23:BA:1929:G:N3	2.28	0.48
23:BA:649:G:H2'	23:BA:650:C:C6	2.48	0.48
23:BA:1881:C:H2'	23:BA:1882:C:H6	1.78	0.48
32:DJ:58:ARG:O	32:DJ:60:LYS:N	2.46	0.48
23:BA:2062:A:O2'	23:BA:2063:C:H5'	2.13	0.48
27:BE:118:ALA:HB2	27:BE:123:LEU:HD23	1.96	0.48
23:BA:1309:G:H3'	52:B4:9:ARG:HH12	1.78	0.48
2:AB:68:ILE:HG22	2:AB:70:PHE:CE1	2.48	0.48
13:AM:108:ARG:HA	13:AM:111:LYS:HB2	1.93	0.48
23:DA:2261:C:H1'	23:DA:2388:A:N3	2.28	0.48
1:CA:1234:C:C2'	1:CA:1235:U:H5'	2.43	0.48
38:BP:54:ARG:HA	38:BP:59:THR:OG1	2.14	0.48
12:CL:82:VAL:CG1	12:CL:83:LEU:N	2.76	0.48
23:DA:1900:A:C2	23:DA:1970:A:C5	3.00	0.48
23:BA:1122:G:N3	23:BA:1122:G:H2'	2.29	0.48
23:BA:1141:U:OP2	32:BJ:86:THR:HG21	2.14	0.48
32:DJ:156:GLN:O	32:DJ:157:ARG:HB2	2.13	0.48
23:DA:1264:G:H5'	50:D2:11:THR:HG23	1.94	0.48
41:BS:18:ARG:HG2	41:BS:18:ARG:HH11	1.78	0.48
40:BR:3:ALA:HB1	40:BR:38:LEU:HD21	1.95	0.48
25:BC:33:LEU:H	25:BC:33:LEU:HD23	1.78	0.48
1:AA:691:G:H2'	1:AA:692:U:C6	2.49	0.48
25:DC:141:VAL:O	25:DC:141:VAL:HG22	2.14	0.48
44:BV:102:LEU:HD21	44:BV:124:ILE:HD11	1.96	0.48
44:BV:128:VAL:CG2	44:BV:132:ASN:HB2	2.43	0.48
1:CA:687:A:H1'	1:CA:688:G:OP2	2.13	0.48
23:DA:2305:A:O2'	28:DF:136:ARG:NE	2.46	0.48
43:BU:9:LYS:O	43:BU:27:VAL:CG2	2.61	0.48
20:AT:12:ALA:O	20:AT:15:ARG:HB2	2.13	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:556:C:C2'	1:CA:556:C:O2	2.55	0.48
32:DJ:59:GLY:O	32:DJ:65:TRP:CE3	2.65	0.48
25:DC:17:THR:H	25:DC:205:VAL:HG12	1.77	0.48
23:DA:2784:C:H2'	23:DA:2785:C:C6	2.49	0.48
17:AQ:69:LYS:C	17:AQ:70:ARG:HD2	2.34	0.48
24:DB:75:G:O2'	44:DV:85:HIS:CD2	2.66	0.48
1:AA:1051:C:C4	1:AA:1052:U:C4	3.02	0.48
1:CA:564:C:C4	17:CQ:31:LEU:HD11	2.49	0.48
23:BA:442:G:C4'	27:BE:46:ARG:HD3	2.44	0.48
1:CA:256:U:H2'	1:CA:257:G:C8	2.48	0.48
29:BG:102:ALA:CB	29:BG:116:GLU:HA	2.41	0.48
1:CA:373:A:C2	1:CA:374:A:C8	3.01	0.48
12:AL:6:ILE:O	12:AL:10:VAL:CG2	2.59	0.48
43:DU:63:LYS:HG3	43:DU:64:GLU:N	2.28	0.48
23:BA:226:G:N2	23:BA:227:A:C2	2.82	0.48
1:CA:1328:C:H5''	13:CM:28:ALA:CB	2.42	0.48
23:DA:904:C:H2'	23:DA:905:U:C6	2.48	0.48
23:BA:2461:C:O2	23:BA:2461:C:C2'	2.52	0.48
1:CA:464:G:O6	1:CA:466:G:H5'	2.12	0.48
35:DM:38:GLU:HB2	35:DM:127:ILE:CG1	2.43	0.48
23:DA:2079:U:H2'	23:DA:2080:G:O4'	2.14	0.48
1:AA:1504:G:H4'	1:AA:1505:G:C4	2.48	0.48
1:CA:1296:C:C5	1:CA:1297:C:C5	3.02	0.48
28:DF:18:GLU:HG2	28:DF:175:LEU:CD2	2.43	0.48
1:CA:575:G:H4'	1:CA:575:G:OP1	2.13	0.48
23:BA:1301:A:N3	23:BA:1301:A:H2'	2.28	0.48
48:BZ:8:LEU:HD13	48:BZ:31:LEU:HD12	1.94	0.48
23:BA:30:G:H2'	23:BA:31:C:C6	2.49	0.48
23:BA:447:A:C4	23:BA:473:G:N7	2.82	0.48
44:BV:155:LEU:O	44:BV:157:LEU:HD12	2.13	0.48
1:AA:772:U:C2'	1:AA:773:G:H5'	2.44	0.48
41:DS:95:ILE:O	41:DS:95:ILE:HG13	2.13	0.48
1:CA:238:G:P	17:CQ:25:ARG:HH22	2.36	0.48
24:DB:76:G:OP1	44:DV:15:PRO:HG3	2.13	0.48
23:DA:122(A):C:H2'	23:DA:1222:C:H6	1.78	0.48
23:DA:2392:A:OP2	53:D5:31:HIS:HE1	1.95	0.48
47:BY:1:MET:SD	47:BY:1:MET:O	2.71	0.48
23:BA:857:C:C2	23:BA:858:U:C5	3.02	0.48
23:DA:328:U:H4'	43:DU:68:HIS:CE1	2.48	0.48
26:BD:24:THR:HG21	26:BD:188:VAL:HG12	1.95	0.48
22:AV:6192:G:C6	22:AV:6193:U:C4	3.01	0.48
1:CA:971:G:H1'	1:CA:1365:G:HO2'	1.78	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:501:C:H2'	1:CA:502:G:C8	2.49	0.48
41:BS:14:PRO:O	41:BS:16:LYS:N	2.46	0.48
30:BH:86:THR:O	30:BH:86:THR:HG22	2.14	0.48
4:AD:109:GLY:O	4:AD:111:ALA:N	2.46	0.48
1:CA:394:G:C2	1:CA:395:C:C6	3.01	0.48
3:CC:148:GLY:HA3	3:CC:203:PHE:HB3	1.94	0.48
30:DH:101:LEU:O	30:DH:107:ILE:HG22	2.13	0.48
23:BA:2210:G:C3'	23:BA:2210:G:N3	2.75	0.48
23:DA:1826:G:P	25:DC:233:HIS:HD2	2.36	0.48
5:AE:139:LEU:C	5:AE:141:GLN:H	2.17	0.48
42:BT:35:THR:HG22	42:BT:36:LYS:N	2.28	0.48
1:AA:878:G:C1'	8:AH:3:THR:HG21	2.43	0.48
1:CA:42:G:N2	1:CA:401:C:O2	2.47	0.48
1:CA:408:A:C2	1:CA:409:G:C4	3.02	0.48
1:CA:409:G:C2'	1:CA:410:G:O5'	2.61	0.48
29:DG:23:ARG:H	29:DG:23:ARG:HD3	1.78	0.48
23:DA:2307:G:O5'	23:DA:2307:G:C8	2.67	0.48
1:CA:487:A:H2'	1:CA:488:C:O4'	2.13	0.48
1:CA:706:A:O4'	11:CK:29:ILE:HD11	2.14	0.48
15:CO:29:VAL:HG12	15:CO:85:LEU:CD1	2.42	0.48
1:AA:66:G:H5'	1:AA:173:U:O4	2.13	0.48
25:DC:15:PHE:O	25:DC:205:VAL:CG1	2.62	0.48
34:DL:13:ASN:O	34:DL:14:LYS:C	2.51	0.48
23:DA:260:G:C6	23:DA:261:G:C8	3.02	0.48
29:DG:87:LEU:CD2	29:DG:164:TYR:HD1	2.25	0.48
1:CA:832:C:N4	1:CA:854:G:H1	2.05	0.48
44:BV:58:VAL:HG11	44:BV:66:SER:HB2	1.95	0.48
1:AA:401:C:C6	1:AA:401:C:H3'	2.48	0.48
44:DV:179:ASP:CG	44:DV:180:VAL:N	2.66	0.48
25:DC:79:VAL:HG11	25:DC:111:LEU:CD1	2.43	0.48
50:B2:35:GLU:OE2	50:B2:51:TYR:HA	2.12	0.48
1:AA:236:G:H1'	17:AQ:4:LYS:HE3	1.95	0.48
23:DA:2636:U:H4'	26:DD:80:GLU:OE1	2.14	0.48
1:CA:1423:G:H5''	33:DK:49:ARG:NH2	2.27	0.48
23:DA:2094:G:C2	23:DA:2196:C:C2	3.02	0.48
1:AA:1298:C:C5	7:AG:114:ARG:NH1	2.80	0.48
1:AA:1088:G:C5	1:AA:1089:G:N7	2.82	0.48
44:DV:5:LEU:CG	44:DV:47:VAL:HG21	2.42	0.48
23:BA:566:U:H2'	23:BA:567:A:O4'	2.14	0.48
1:AA:444:C:H2'	1:AA:445:G:C8	2.49	0.48
23:DA:693:C:H2'	23:DA:694:U:H6	1.77	0.48
7:AG:30:ILE:HD13	7:AG:105:VAL:HG13	1.94	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:AP:12:LYS:O	16:AP:13:HIS:HB2	2.11	0.48
23:DA:1773:A:N7	23:DA:1829:A:H1'	2.28	0.48
23:DA:914:C:C5	23:DA:915:C:C6	3.02	0.48
38:BP:80:SER:C	38:BP:82:LEU:N	2.67	0.48
1:AA:356:A:H2'	1:AA:357:G:C8	2.48	0.48
23:BA:176:G:O2'	23:BA:177:G:H5'	2.14	0.48
11:CK:120:ARG:NH1	11:CK:126:ARG:HE	2.11	0.48
1:AA:515:G:N2	1:AA:537:G:C4	2.82	0.48
1:AA:760:G:H2'	1:AA:761:G:H5'	1.96	0.48
26:DD:3:GLY:HA3	26:DD:81:ILE:HD13	1.95	0.48
1:CA:698:G:C6	1:CA:699:C:C4	3.02	0.48
23:DA:2025:C:H2'	23:DA:2026:C:C6	2.48	0.48
23:DA:1929:G:H5''	23:DA:1929:G:N3	2.29	0.48
1:AA:779:C:H2'	1:AA:780:A:O4'	2.13	0.48
7:CG:77:SER:HA	7:CG:85:TYR:O	2.14	0.48
3:AC:6:HIS:HD2	3:AC:7:PRO:HD2	1.78	0.48
1:AA:597:G:C8	1:AA:598:U:C5	3.02	0.48
39:DQ:53:ARG:O	39:DQ:56:ASP:HB2	2.14	0.48
36:DN:96:ARG:HD3	36:DN:98:LEU:HD21	1.95	0.48
28:BF:74:LYS:HA	28:BF:74:LYS:HE3	1.95	0.48
23:BA:1582:C:O5'	23:BA:1582:C:H6	1.97	0.48
23:BA:247:G:H4'	23:BA:386:G:C5	2.49	0.48
23:BA:343:C:O2'	23:BA:344:G:H5'	2.14	0.48
1:CA:1351:U:H4'	7:CG:33:ASP:OD2	2.13	0.48
12:CL:31:PHE:CB	12:CL:83:LEU:HD11	2.43	0.48
23:BA:1188:U:H2'	23:BA:1189:A:O5'	2.13	0.48
32:DJ:38:LEU:C	32:DJ:39:ILE:HG12	2.33	0.48
32:DJ:116:THR:OG1	32:DJ:117:HIS:N	2.46	0.48
1:CA:386:C:H2'	1:CA:387:U:O4'	2.14	0.48
1:CA:672:U:O2'	1:CA:673:G:H5'	2.14	0.48
34:BL:50:ARG:HD2	34:BL:51:PHE:CA	2.44	0.48
23:DA:2334:G:C4	37:DO:12:PHE:HZ	2.32	0.48
8:AH:120:THR:H	8:AH:123:GLU:HB2	1.78	0.48
1:AA:76:G:C6	1:AA:95:G:N1	2.82	0.48
44:BV:30:ASN:HA	44:BV:89:PHE:HE2	1.78	0.48
5:AE:91:LEU:HD22	5:AE:110:LEU:HD11	1.95	0.48
23:DA:1313:U:H4'	23:DA:1332:G:H4'	1.94	0.48
23:BA:71:A:OP2	23:BA:113:G:H5'	2.14	0.48
23:BA:2516:G:C6	23:BA:2517:C:N4	2.81	0.48
1:CA:403:C:O2'	1:CA:404:U:H5'	2.13	0.48
1:CA:438:G:H4'	4:CD:123:HIS:ND1	2.28	0.48
46:BX:10:LYS:O	46:BX:11:ARG:CG	2.61	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BG:46:GLU:HG3	29:BG:51:ARG:CZ	2.43	0.48
23:BA:1503:U:H2'	23:BA:1504:C:C6	2.49	0.48
23:BA:2277:G:C5'	35:BM:85:LYS:HB2	2.43	0.48
1:AA:175:C:H4'	20:AT:25:ARG:NH1	2.29	0.48
3:CC:68:VAL:HG12	3:CC:70:VAL:HG23	1.95	0.48
36:BN:72:ASP:O	36:BN:76:VAL:HG13	2.13	0.48
25:BC:30:GLU:CG	25:BC:63:ARG:NH2	2.77	0.48
23:BA:2631:G:N3	23:BA:2810:A:C2	2.77	0.48
23:BA:795:C:H6	23:BA:795:C:O5'	1.97	0.48
23:DA:1412:A:H2'	23:DA:1413:G:O4'	2.14	0.48
8:AH:97:VAL:CG1	8:AH:98:LYS:H	2.24	0.48
33:DK:32:TYR:N	33:DK:32:TYR:CD1	2.80	0.48
43:DU:6:HIS:CD2	43:DU:35:TYR:CE1	2.97	0.48
23:BA:1152:C:O2'	23:BA:1153:C:H5'	2.14	0.48
18:AR:45:SER:H	18:AR:51:LEU:CD1	2.26	0.48
18:AR:66:LEU:CG	18:AR:70:ILE:HD11	2.44	0.48
35:DM:134:ARG:HA	35:DM:134:ARG:HE	1.78	0.48
23:BA:739:G:H4'	23:BA:740:U:OP1	2.14	0.48
23:BA:2190:G:C4	23:BA:2191:G:C8	3.02	0.48
23:BA:2739:U:C2'	23:BA:2739:U:O2	2.54	0.48
1:CA:1160:G:C6	1:CA:1181:G:O6	2.66	0.48
25:BC:122:ASP:CG	25:BC:123:ALA:N	2.67	0.48
17:CQ:99:SER:O	17:CQ:100:LYS:HD3	2.14	0.48
1:AA:294:U:H2'	1:AA:295:C:C6	2.49	0.48
23:DA:618(A):G:H2'	23:DA:618(B):C:H6	1.77	0.48
1:CA:451:A:N7	1:CA:481:G:C6	2.82	0.48
38:DP:34:VAL:HG21	38:DP:43:GLN:HB2	1.96	0.48
1:CA:1452:C:H1'	1:CA:1453:G:N2	2.29	0.48
1:AA:142:G:N2	1:AA:143:A:C4	2.81	0.48
23:DA:312:G:H2'	23:DA:312:G:N3	2.29	0.48
23:BA:861:A:C2	23:BA:917:A:C4	3.01	0.48
21:AU:14:TRP:HE3	21:AU:15:ARG:HG2	1.78	0.48
22:AV:6182:A:C2	22:AV:6195:G:N2	2.82	0.48
22:CV:6189:G:N2	22:CV:6215:C:C2	2.81	0.48
22:CV:6213:A:C4	22:CV:6214:C:C5	3.01	0.48
13:CM:105:THR:O	13:CM:106:ASN:O	2.30	0.48
42:BT:12:VAL:HG12	42:BT:28:PHE:HA	1.95	0.48
23:BA:2728:U:H2'	23:BA:2728:U:O2	2.13	0.48
23:BA:2729:G:H1'	26:BD:187:ALA:CB	2.31	0.48
23:BA:194:G:H2'	23:BA:195:A:O4'	2.13	0.48
26:BD:36:ARG:NH1	26:BD:86:PRO:HD2	2.28	0.48
23:DA:1188:U:H2'	23:DA:1189:A:C5'	2.44	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:D1:50:THR:HG22	49:D1:51:TYR:N	2.26	0.48
23:BA:1407:C:H2'	23:BA:1408:C:H6	1.77	0.48
23:BA:141(A):A:N6	23:BA:1596:A:H5'	2.29	0.48
23:DA:1826:G:OP1	25:DC:233:HIS:CD2	2.59	0.48
23:DA:1827:C:C2'	23:DA:1828:G:H5'	2.44	0.48
1:AA:76:G:C6	1:AA:77:C:N4	2.82	0.48
26:BD:51:PHE:CD1	26:BD:51:PHE:C	2.86	0.48
28:BF:8:LYS:HD3	28:BF:9:ARG:CG	2.44	0.48
36:BN:17:ARG:O	36:BN:20:LEU:HB3	2.14	0.48
1:AA:9:G:H5''	5:AE:122:GLU:OE1	2.13	0.48
12:CL:44:PRO:HG3	12:CL:52:ARG:HD3	1.93	0.48
1:AA:1294:G:H2'	1:AA:1295:G:H8	1.74	0.48
41:BS:29:LEU:HD22	41:BS:69:LEU:HD11	1.96	0.48
46:BX:46:LEU:HD23	46:BX:46:LEU:C	2.34	0.48
23:DA:1104:C:C4	23:DA:1105:U:C5	3.01	0.48
53:B5:21:LYS:HA	53:B5:54:GLU:OE2	2.14	0.48
6:CF:78:GLU:HA	6:CF:81:ILE:CD1	2.44	0.48
30:DH:4:ILE:HA	30:DH:17:GLN:O	2.13	0.48
29:BG:29:PRO:HD2	29:BG:79:VAL:O	2.13	0.48
25:BC:182:LEU:HA	25:BC:182:LEU:HD23	1.55	0.48
15:CO:39:LEU:CD1	15:CO:56:LEU:HB2	2.44	0.48
50:D2:40:LYS:HD3	50:D2:46:CYS:HB3	1.95	0.48
1:CA:1058:G:C6	1:CA:1059:C:N3	2.81	0.48
35:DM:21:THR:C	35:DM:23:GLY:N	2.67	0.48
1:CA:1056:U:O2	1:CA:1056:U:H2'	2.13	0.48
1:CA:1443:G:N2	38:DP:119:LYS:CA	2.74	0.48
45:BW:37:LEU:HG	45:BW:60:PHE:HA	1.96	0.48
23:DA:118:A:C8	23:DA:119:A:C8	3.02	0.48
8:AH:36:LEU:HA	8:AH:39:LEU:HD23	1.95	0.48
36:BN:85:PRO:HA	36:BN:88:ARG:HH11	1.78	0.48
24:DB:30:C:H1'	24:DB:58:A:N1	2.28	0.48
1:CA:754:C:C2'	1:CA:755:G:OP1	2.62	0.48
25:DC:94:LEU:HD22	25:DC:94:LEU:C	2.34	0.48
23:DA:641:C:O2'	23:DA:2350:C:OP1	2.28	0.48
1:CA:1327:C:O2'	1:CA:1328:C:H5'	2.14	0.48
1:AA:1379:G:O2'	1:AA:1380:U:H5'	2.13	0.48
7:CG:69:VAL:HG22	7:CG:135:VAL:HG22	1.95	0.48
35:BM:70:PRO:HA	35:BM:94:VAL:O	2.14	0.48
26:BD:176:ILE:N	26:BD:176:ILE:CD1	2.76	0.48
1:CA:806:C:O2	1:CA:807:A:C8	2.67	0.48
23:BA:1917:U:O2'	23:BA:1918:A:H5'	2.13	0.48
1:AA:178:C:C2'	1:AA:179:A:H5'	2.44	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:114:U:H2'	1:CA:115:G:H8	1.79	0.48
23:DA:1336:A:H2'	23:DA:1337:G:C8	2.49	0.48
1:CA:1047:G:O2'	1:CA:1048:G:H5'	2.14	0.48
23:DA:531:C:H4'	23:DA:532:A:H5''	1.94	0.48
37:DO:20:ARG:HH12	45:DW:48:GLY:H	1.61	0.48
1:CA:1415:G:O2'	1:CA:1416:G:H5'	2.14	0.48
23:DA:220:G:N1	23:DA:428:A:OP2	2.32	0.48
31:BI:57:THR:HG23	31:BI:60:ARG:HH12	1.77	0.48
3:CC:6:HIS:HD2	3:CC:7:PRO:HD2	1.79	0.48
23:DA:1839:G:C8	23:DA:1927:A:H1'	2.48	0.48
23:BA:1523:U:H2'	23:BA:1524:G:H8	1.77	0.48
34:BL:61:ARG:HD3	53:B5:13:ARG:HD2	1.96	0.48
23:DA:1174:A:H3'	23:DA:1175:U:C5'	2.17	0.48
1:AA:977:A:HO2'	1:AA:978:A:H5''	1.78	0.48
1:AA:972:C:H4'	10:AJ:57:LYS:HG3	1.96	0.48
34:BL:32:THR:HG21	34:BL:37:GLY:HA2	1.94	0.48
22:CV:6182:A:C6	22:CV:6195:G:N1	2.82	0.48
38:DP:58:ASN:C	38:DP:58:ASN:HD22	2.17	0.48
1:AA:954:G:H2'	1:AA:955:U:C6	2.48	0.48
32:BJ:157:ARG:O	32:BJ:158:PRO:C	2.51	0.48
39:DQ:72:HIS:HE1	39:DQ:107:ALA:HA	1.77	0.48
39:DQ:106:PHE:O	39:DQ:109:LEU:N	2.47	0.48
34:DL:41:ARG:HA	34:DL:41:ARG:HD2	1.56	0.48
42:BT:44:GLU:HG2	42:BT:49:VAL:O	2.14	0.48
41:DS:14:PRO:C	41:DS:16:LYS:H	2.16	0.48
39:BQ:106:PHE:O	39:BQ:109:LEU:N	2.46	0.48
28:DF:161:THR:C	28:DF:163:ALA:N	2.67	0.48
23:DA:1812:A:H2'	23:DA:1813:G:H5'	1.95	0.48
47:BY:24:LEU:HD22	47:BY:60:LEU:CD1	2.43	0.48
25:BC:45:ASN:OD1	25:BC:45:ASN:C	2.50	0.48
30:DH:130:TYR:C	30:DH:132:PRO:HD3	2.34	0.48
1:AA:391:G:C6	1:AA:392:G:N7	2.81	0.48
23:BA:1639:U:H4'	23:BA:2699:C:H4'	1.94	0.48
44:BV:126:VAL:HG12	44:BV:163:LEU:HA	1.96	0.48
26:DD:5:LEU:C	26:DD:51:PHE:HE2	2.17	0.48
2:AB:167:PRO:HG3	2:AB:188:ALA:HB2	1.94	0.48
23:BA:2352:A:C4	23:BA:2366:A:C2	3.02	0.48
1:AA:1152:A:C4	1:AA:1153:C:C5	3.02	0.48
25:DC:172:TYR:CE1	25:DC:186:HIS:HA	2.49	0.48
6:AF:35:ALA:O	6:AF:37:VAL:N	2.47	0.48
18:AR:38:GLU:HA	18:AR:38:GLU:OE2	2.13	0.48
23:DA:1486:A:C6	23:DA:1504:C:N4	2.80	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:528:A:N1	23:DA:2043:C:O5'	2.47	0.48
34:BL:18:ARG:C	34:BL:19:VAL:HG22	2.33	0.48
1:CA:324:G:OP1	20:CT:70:SER:CB	2.61	0.48
1:AA:29:G:C2	1:AA:555:C:N3	2.82	0.48
39:DQ:62:ILE:HD12	39:DQ:76:TYR:CE1	2.49	0.48
1:CA:173:U:N1	1:CA:197:A:C2	2.82	0.48
23:BA:1799:G:H8	25:BC:181:GLU:CD	2.16	0.48
1:CA:235:C:H2'	1:CA:236:G:H8	1.77	0.48
24:BB:78:A:H61	24:BB:98:G:H1'	1.79	0.48
24:BB:75:G:HO2'	44:BV:85:HIS:CD2	2.31	0.48
44:BV:82:ARG:HG2	44:BV:83:PRO:HD2	1.96	0.48
23:BA:2470:G:C6	23:BA:2471:C:C5	3.02	0.48
39:DQ:25:TRP:C	39:DQ:25:TRP:CD1	2.87	0.48
18:CR:66:LEU:CG	18:CR:70:ILE:HD11	2.43	0.48
23:BA:2549:G:C2'	23:BA:2550:G:H5'	2.43	0.48
23:BA:1467:C:C2'	23:BA:1468:C:H5'	2.43	0.48
1:AA:1195:C:H5''	1:AA:1196:U:OP2	2.14	0.48
23:BA:1909:C:C2	23:BA:1922:G:C2	3.01	0.48
34:DL:27:HIS:CD2	34:DL:27:HIS:C	2.86	0.48
23:DA:1862:G:C2	23:DA:1863:G:C5	3.01	0.48
1:AA:109:A:C6	1:AA:326:G:C6	3.02	0.48
1:CA:300:A:H2'	1:CA:301:G:H5'	1.96	0.48
7:CG:46:ALA:O	7:CG:50:ILE:HG12	2.14	0.48
36:BN:84:ALA:HB3	36:BN:85:PRO:HD3	1.94	0.48
8:CH:36:LEU:HA	8:CH:39:LEU:HD23	1.96	0.48
20:CT:84:LEU:HD13	20:CT:85:MET:N	2.28	0.48
23:DA:151:C:C2	23:DA:176:G:N2	2.81	0.48
1:CA:1182:G:H4'	1:CA:1183:A:C5'	2.44	0.48
23:BA:2717:G:C6	23:BA:2718:G:C5	3.02	0.48
10:CJ:98:ILE:O	10:CJ:99:LYS:HD3	2.13	0.48
23:DA:2297:C:H2'	23:DA:2298:A:H8	1.78	0.48
28:DF:62:LEU:HB3	28:DF:143:GLU:HG3	1.96	0.48
1:CA:826:C:C2'	8:CH:15:ASN:HD22	2.25	0.48
23:BA:415:A:H2'	23:BA:416:C:C6	2.48	0.48
25:BC:52:ARG:CB	25:BC:53:PHE:CD2	2.97	0.48
23:DA:533:G:N3	39:DQ:45:TYR:HE1	2.11	0.48
2:AB:76:GLN:H	2:AB:76:GLN:NE2	2.12	0.48
17:AQ:11:VAL:N	17:AQ:20:THR:O	2.45	0.48
44:DV:63:ASP:C	44:DV:65:GLN:H	2.16	0.48
23:BA:516:C:P	50:B2:13:LYS:HZ1	2.37	0.48
5:AE:20:GLN:O	5:AE:23:GLY:O	2.31	0.48
1:CA:35:G:C2	1:CA:550:G:C2	3.01	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:2410:G:H2'	23:BA:2411:A:O4'	2.14	0.48
4:AD:199:ASN:ND2	4:AD:202:LEU:HG	2.28	0.48
23:DA:1583:A:O5'	23:DA:1583:A:H8	1.97	0.48
34:DL:59:LEU:N	34:DL:61:ARG:HE	2.11	0.48
34:DL:64:LYS:HB2	53:D5:25:MET:HG3	1.95	0.48
26:BD:104:VAL:HG11	26:BD:188:VAL:HG21	1.96	0.48
23:BA:2292:C:N4	23:BA:2293:C:N4	2.62	0.48
34:DL:32:THR:CG2	34:DL:37:GLY:H	2.27	0.48
35:DM:75:THR:C	35:DM:88:GLY:HA2	2.34	0.48
32:DJ:95:TYR:CD2	32:DJ:113:MET:HG3	2.48	0.48
3:AC:19:GLU:HG2	3:AC:40:ARG:NH2	2.28	0.48
23:DA:2730:C:C2'	23:DA:2731:G:H5'	2.43	0.48
25:DC:108:PRO:CB	25:DC:143:HIS:HE1	2.26	0.48
23:BA:1593:G:C6	23:BA:1594:G:C6	3.02	0.48
23:DA:1786:A:H2	23:DA:2606:C:H1'	1.78	0.48
5:CE:61:TYR:HA	5:CE:64:ARG:HB3	1.95	0.48
23:DA:2687:U:N3	23:DA:2688:U:C6	2.82	0.48
1:CA:669:U:C2	1:CA:670:G:C8	3.02	0.48
23:DA:2516:G:C6	23:DA:2517:C:N4	2.82	0.48
1:AA:15:G:H4'	5:AE:24:ARG:NH1	2.27	0.48
23:BA:849:A:H5''	23:BA:850:C:OP2	2.13	0.48
1:AA:1366:C:C4	1:AA:1367:C:N4	2.82	0.48
36:DN:48:VAL:HA	36:DN:51:LEU:HD12	1.94	0.48
23:BA:528:A:O2'	23:BA:529:A:H5'	2.13	0.48
18:AR:37:VAL:HG12	18:AR:78:LEU:HB3	1.95	0.48
23:DA:1496:A:C8	23:DA:1577:C:O2'	2.67	0.48
1:AA:1529:G:H4'	1:AA:1530:G:OP2	2.12	0.48
23:DA:2893:G:H5''	23:DA:2894:G:O4'	2.13	0.48
8:CH:119:LEU:HD12	8:CH:124:ALA:HA	1.94	0.48
30:BH:15:VAL:C	30:BH:17:GLN:H	2.17	0.48
4:AD:79:PHE:CE1	4:AD:204:ILE:HA	2.48	0.48
1:CA:1128:C:O2'	1:CA:1130:A:C4	2.65	0.48
1:CA:1064:G:C1'	1:CA:1065:U:OP2	2.59	0.48
11:AK:34:ASP:CB	11:AK:35:PRO:CD	2.92	0.48
34:BL:27:HIS:C	34:BL:27:HIS:CD2	2.87	0.48
21:CU:14:TRP:HE3	21:CU:15:ARG:HG2	1.78	0.48
1:AA:1056:U:H2'	1:AA:1056:U:O2	2.14	0.48
1:AA:934:C:C5	1:AA:1345:U:C6	3.02	0.48
1:AA:939:G:N1	1:AA:940:C:N4	2.62	0.48
23:DA:1871:A:O2'	23:DA:1872:A:H5'	2.14	0.48
36:BN:52:ILE:CG2	36:BN:94:TYR:CG	2.97	0.48
1:AA:730:G:C5	1:AA:731:G:H1'	2.49	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AM:24:GLY:O	13:AM:25:ILE:HD13	2.13	0.48
6:CF:12:PRO:HD3	6:CF:58:GLY:HA2	1.95	0.48
23:DA:1909:C:C2	23:DA:1922:G:C2	3.02	0.48
1:CA:300:A:C3'	1:CA:300:A:C8	2.96	0.48
23:DA:442:G:C4'	27:DE:46:ARG:HD3	2.43	0.48
7:AG:17:VAL:HG21	7:AG:44:TYR:CE2	2.48	0.48
23:BA:2394:C:P	34:BL:63:PRO:HD2	2.54	0.48
44:BV:9:TYR:CG	44:BV:35:ARG:NH1	2.82	0.48
7:AG:69:VAL:HG22	7:AG:135:VAL:HG22	1.96	0.48
23:DA:2853:C:O2'	23:DA:2854:G:H5'	2.14	0.48
1:CA:464:G:C6	1:CA:466:G:H5'	2.49	0.48
38:DP:80:SER:C	38:DP:82:LEU:N	2.66	0.48
42:DT:40:LYS:C	42:DT:42:ALA:N	2.67	0.48
1:AA:357:G:C2	1:AA:358:U:C5	3.02	0.48
19:CS:40:ILE:HG13	19:CS:69:HIS:O	2.14	0.48
23:DA:2506:U:OP2	23:DA:2576:G:N1	2.31	0.48
1:AA:380:G:N1	1:AA:384:G:C6	2.82	0.48
6:CF:97:PHE:HD2	18:CR:31:LEU:HD21	1.79	0.48
8:AH:54:ASP:C	8:AH:56:LYS:H	2.17	0.48
39:DQ:27:LEU:HD23	39:DQ:27:LEU:O	2.14	0.48
23:DA:30:G:C5	23:DA:31:C:C4	3.00	0.48
1:CA:958:A:N6	1:CA:959:A:N6	2.62	0.48
38:BP:105:LEU:O	38:BP:107:ASP:CG	2.52	0.48
1:AA:525:C:O2'	1:AA:526:C:H5'	2.14	0.48
23:DA:1678:G:N3	23:DA:1678:G:H2'	2.29	0.48
27:BE:126:VAL:O	27:BE:196:LEU:HG	2.13	0.48
14:AN:45:ARG:O	14:AN:49:HIS:CD2	2.67	0.48
44:BV:165:VAL:HG23	44:BV:166:SER:O	2.13	0.48
1:AA:1401:G:C2	1:AA:1402:C:H1'	2.49	0.48
23:BA:685:A:H1'	23:BA:688:U:O4	2.14	0.48
36:BN:28:LEU:HA	36:BN:28:LEU:HD23	1.69	0.48
26:BD:3:GLY:HA3	26:BD:81:ILE:HD13	1.96	0.48
15:CO:3:ILE:HA	15:CO:38:ARG:NH2	2.29	0.48
1:AA:1244:C:H2'	1:AA:1245:A:C8	2.49	0.48
23:DA:2416:C:C4	23:DA:2417:C:C5	3.02	0.48
23:BA:631:A:OP1	34:BL:64:LYS:HE3	2.13	0.48
38:DP:75:ILE:HG22	38:DP:75:ILE:O	2.13	0.48
32:DJ:51:THR:HG22	32:DJ:52:LYS:N	2.29	0.48
1:AA:986:A:C6	1:AA:1220:G:N1	2.82	0.48
1:CA:969:A:C2'	1:CA:970:C:H5'	2.44	0.48
23:BA:2846:G:C5	23:BA:2847:U:C4	3.02	0.48
23:BA:1022:G:N2	23:BA:114(B):A:H2	2.12	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BJ:95:TYR:CD2	32:BJ:113:MET:HG3	2.49	0.48
32:BJ:116:THR:OG1	32:BJ:117:HIS:N	2.46	0.48
23:BA:1012:U:O4	32:BJ:48:ARG:HA	2.13	0.48
40:DR:45:THR:O	40:DR:46:VAL:HG22	2.13	0.48
25:BC:143:HIS:HD2	25:BC:144:ALA:HB2	1.79	0.48
34:DL:50:ARG:HB2	53:D5:60:LEU:HD21	1.95	0.48
23:DA:114(B):A:C4	23:DA:1144:G:N7	2.82	0.48
25:DC:155:LEU:HG	25:DC:177:LEU:HD22	1.95	0.48
4:AD:106:TYR:O	4:AD:109:GLY:N	2.44	0.48
1:AA:33:A:H2'	1:AA:34:C:C6	2.49	0.48
47:BY:60:LEU:O	47:BY:62:THR:N	2.47	0.48
1:CA:76:G:C6	1:CA:95:G:N1	2.81	0.48
36:DN:4:LEU:C	36:DN:6:SER:N	2.66	0.48
44:BV:53:ILE:CG2	44:BV:71:VAL:O	2.62	0.48
1:CA:198:G:O2'	1:CA:199:G:H5'	2.14	0.48
23:BA:96:G:O5'	47:BY:48:HIS:HE1	1.96	0.48
1:CA:57:G:N2	1:CA:388:G:C6	2.82	0.48
23:BA:1264:G:H5'	50:B2:11:THR:HG23	1.92	0.48
18:CR:38:GLU:OE2	18:CR:38:GLU:HA	2.12	0.48
18:CR:37:VAL:HG23	18:CR:38:GLU:N	2.29	0.48
23:DA:2746:U:O3'	29:DG:138:LYS:HD3	2.14	0.48
1:CA:878:G:C1'	8:CH:3:THR:HG21	2.44	0.48
23:DA:1487:G:H2'	23:DA:1488:G:C8	2.35	0.48
1:AA:669:U:C2	1:AA:670:G:C8	3.02	0.48
1:CA:624:C:H4'	16:CP:10:GLY:HA2	1.95	0.48
33:BK:97:ARG:H	33:BK:117:LEU:HD22	1.79	0.48
1:CA:1280:A:C8	10:CJ:41:PRO:HD3	2.49	0.48
41:DS:42:ARG:HG2	41:DS:42:ARG:NH1	2.29	0.48
8:CH:97:VAL:CG1	8:CH:98:LYS:H	2.26	0.48
23:BA:732:C:H2'	23:BA:733:G:H5'	1.96	0.48
1:CA:104:G:C2	1:CA:105:G:N7	2.82	0.48
43:BU:36:ALA:HA	43:BU:67:LEU:O	2.13	0.48
24:BB:21:G:N2	24:BB:62:C:N3	2.58	0.48
24:BB:75:G:N1	24:BB:102:G:N2	2.62	0.48
23:DA:333:G:C4	23:DA:334:C:C5	3.01	0.48
4:AD:121:VAL:O	4:AD:134:ASP:HA	2.14	0.48
23:BA:1387:C:C2	23:BA:1388:G:C8	3.02	0.48
35:BM:60:ARG:HA	44:BV:179:ASP:HB2	1.96	0.48
44:BV:13:GLU:CD	44:BV:13:GLU:H	2.18	0.48
34:BL:85:LEU:HD23	34:BL:117:GLU:O	2.14	0.48
1:CA:862:C:O2'	1:CA:863:U:H5'	2.14	0.48
1:AA:545:C:OP2	4:AD:62:GLN:NE2	2.47	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:CE:96:PRO:HA	5:CE:117:ASP:OD2	2.13	0.48
23:DA:304:G:H2'	23:DA:305:U:O4'	2.14	0.48
1:AA:1412:C:H2'	1:AA:1413:A:H8	1.79	0.48
12:CL:6:ILE:O	12:CL:10:VAL:CG2	2.62	0.48
1:CA:428:G:C8	1:CA:430:A:C4	3.01	0.48
19:AS:30:LEU:HD23	19:AS:31:ILE:N	2.28	0.48
1:CA:754:C:H3'	1:CA:754:C:O2	2.14	0.48
1:AA:382:A:C2	1:AA:383:A:C4	3.02	0.48
23:DA:903:C:O2'	23:DA:904:C:H5'	2.14	0.48
26:BD:117:MET:CE	26:BD:136:ARG:HA	2.44	0.48
27:DE:12:LEU:HD11	27:DE:17:ARG:HG2	1.96	0.48
1:CA:1409:C:OP1	23:DA:1916:A:H2	1.97	0.48
23:BA:2039:C:C2	23:BA:2040:C:C5	3.02	0.48
1:AA:1360:A:C6	1:AA:1361:G:C2	3.01	0.48
5:AE:53:LEU:HD23	5:AE:53:LEU:N	2.28	0.48
2:CB:17:PHE:CG	2:CB:44:LEU:HD21	2.49	0.48
35:DM:26:TYR:HD1	35:DM:26:TYR:O	1.94	0.48
1:CA:1167:A:H62	1:CA:1169:A:N6	2.12	0.48
34:BL:135:LEU:HD22	34:BL:135:LEU:HA	1.53	0.48
26:DD:173:VAL:O	26:DD:174:ASP:C	2.51	0.48
23:BA:2744:G:C2	23:BA:2761:G:C6	3.01	0.48
16:CP:47:ASP:O	16:CP:49:LEU:N	2.47	0.48
3:CC:111:LEU:HD11	3:CC:144:SER:OG	2.13	0.48
42:BT:4:ALA:C	42:BT:6:ASP:H	2.16	0.48
33:BK:9:GLU:OE1	33:BK:18:LYS:HE2	2.14	0.48
1:CA:608:A:C4	1:CA:609:A:C8	3.01	0.48
23:DA:476:G:O4'	23:DA:505:A:C2	2.66	0.48
44:DV:144:LEU:HB3	44:DV:174:VAL:HG21	1.96	0.48
37:DO:64:GLU:O	37:DO:68:GLN:HG3	2.13	0.48
12:AL:54:VAL:HG12	12:AL:55:ALA:H	1.77	0.48
36:BN:14:SER:O	36:BN:15:SER:C	2.52	0.48
33:BK:3:GLN:HG3	33:BK:4:PRO:HD2	1.96	0.48
1:CA:118:U:O4	1:CA:288:A:H2'	2.14	0.48
23:DA:1292:U:H2'	23:DA:1293:C:C6	2.49	0.48
1:AA:850:U:H6	1:AA:850:U:O5'	1.97	0.48
39:BQ:34:LYS:HE3	39:BQ:34:LYS:HA	1.96	0.48
23:BA:2393:A:C5'	34:BL:62:LEU:HD12	2.42	0.47
23:BA:1175:U:H2'	23:BA:1176:G:C8	2.49	0.47
25:BC:15:PHE:O	25:BC:205:VAL:CG1	2.61	0.47
23:DA:2846:G:H2'	23:DA:2847:U:O4'	2.14	0.47
23:BA:2683:C:OP1	38:BP:55:ASN:ND2	2.41	0.47
40:DR:44:LYS:HB3	40:DR:46:VAL:HG13	1.95	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DR:47:VAL:O	40:DR:48:GLY:C	2.51	0.47
39:BQ:113:ALA:HA	39:BQ:116:ALA:HB3	1.96	0.47
34:BL:41:ARG:HD2	34:BL:41:ARG:HA	1.50	0.47
1:CA:393:A:N3	1:CA:394:G:C8	2.82	0.47
1:CA:394:G:C4	1:CA:395:C:C5	3.01	0.47
30:DH:69:LYS:HD3	30:DH:138:ILE:HG12	1.95	0.47
28:DF:88:ILE:HD12	28:DF:89:GLY:H	1.79	0.47
28:BF:161:THR:C	28:BF:163:ALA:N	2.68	0.47
8:AH:127:LEU:O	8:AH:127:LEU:HD13	2.14	0.47
3:AC:173:VAL:H	3:AC:174:PRO:HD3	1.77	0.47
3:CC:15:THR:HG21	3:CC:181:ASN:CA	2.44	0.47
23:BA:2886:G:H2'	23:BA:2887:U:C6	2.48	0.47
5:CE:129:ILE:O	5:CE:132:ALA:HB3	2.13	0.47
23:DA:1999:C:OP1	23:DA:2723:C:O2'	2.32	0.47
1:CA:737:A:C4	1:CA:738:C:C5	3.01	0.47
1:AA:16:A:C2	1:AA:17:U:C6	3.02	0.47
5:CE:126:ARG:NH1	5:CE:126:ARG:CG	2.59	0.47
1:AA:1346:A:C2	1:AA:1348:U:O4	2.67	0.47
23:DA:2621:A:OP1	26:DD:119:ARG:NH2	2.46	0.47
1:AA:9:G:O2'	1:AA:10:A:H5'	2.13	0.47
1:AA:9:G:H2'	1:AA:10:A:C8	2.49	0.47
12:AL:44:PRO:HD2	12:AL:49:SER:HA	1.96	0.47
27:DE:173:VAL:HG12	27:DE:174:VAL:N	2.28	0.47
23:BA:1578:U:H2'	23:BA:1578:U:O2	2.14	0.47
23:DA:1508:A:N6	23:DA:1509:A:C6	2.82	0.47
1:CA:619:U:N3	4:CD:135:LEU:HD11	2.28	0.47
40:DR:24:LYS:HA	40:DR:92:THR:CG2	2.39	0.47
23:BA:954:G:C6	23:BA:955:C:C5	3.02	0.47
1:CA:1152:A:C4	1:CA:1153:C:C5	3.02	0.47
23:DA:588:U:C2	27:DE:90:PHE:CE1	3.02	0.47
1:AA:1180:A:OP1	9:AI:103:THR:OG1	2.27	0.47
9:CI:104:ARG:O	9:CI:105:ASP:HB3	2.13	0.47
36:BN:67:LEU:O	36:BN:70:LEU:O	2.31	0.47
28:DF:112:PRO:HB3	49:D1:62:CYS:O	2.14	0.47
43:DU:76:CYS:O	43:DU:77:PRO:C	2.52	0.47
24:BB:21:G:H2'	24:BB:22:U:C6	2.48	0.47
23:BA:2550:G:C6	23:BA:2551:C:C4	3.01	0.47
1:CA:841:U:H4'	1:CA:842:C:C5	2.49	0.47
50:B2:33:CYS:HB2	50:B2:34:PRO:HD2	1.95	0.47
23:BA:828:U:H2'	23:BA:828:U:O2	2.14	0.47
23:DA:1591:G:H2'	23:DA:1592:C:C6	2.49	0.47
23:DA:1592:C:H2'	23:DA:1593:G:C8	2.46	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:BF:11:TYR:HB2	28:BF:176:LEU:HD21	1.96	0.47
8:AH:36:LEU:HA	8:AH:39:LEU:HB2	1.95	0.47
1:AA:559:A:H4'	1:AA:560:U:H3'	1.96	0.47
12:AL:37:THR:OG1	12:AL:38:VAL:N	2.47	0.47
1:CA:381:C:H2'	1:CA:382:A:C8	2.49	0.47
36:DN:88:ARG:C	36:DN:90:ARG:H	2.17	0.47
6:AF:47:ARG:HH12	6:AF:56:PRO:HB2	1.79	0.47
1:CA:1183:A:H5''	1:CA:1184:G:OP2	2.14	0.47
41:DS:59:VAL:HG12	41:DS:60:ASN:N	2.29	0.47
34:BL:140:ALA:O	34:BL:141:ALA:CB	2.62	0.47
1:AA:1182:G:H4'	1:AA:1183:A:H5''	1.96	0.47
1:AA:380:G:C2	1:AA:384:G:N1	2.82	0.47
49:D1:41:ILE:HD13	49:D1:47:VAL:HG13	1.96	0.47
23:BA:1424:G:H2'	23:BA:1425:G:O4'	2.14	0.47
30:DH:73:GLU:C	30:DH:75:LEU:H	2.18	0.47
23:DA:1677:A:H2'	23:DA:1678:G:O4'	2.14	0.47
21:AU:12:LYS:HB3	21:AU:17:THR:O	2.14	0.47
1:CA:614:A:OP1	4:CD:85:LYS:HE2	2.14	0.47
30:BH:12:LEU:N	30:BH:12:LEU:HD22	2.28	0.47
23:DA:337:C:H2'	23:DA:338:G:O5'	2.14	0.47
23:DA:616:A:C4	27:DE:180:GLY:HA2	2.49	0.47
1:AA:892:A:C2	1:AA:907:A:C4	3.02	0.47
1:CA:1407:C:O5'	1:CA:1407:C:H6	1.97	0.47
1:AA:1339:A:H2'	1:AA:1340:A:O4'	2.13	0.47
23:DA:653:C:H6	23:DA:653:C:O5'	1.97	0.47
34:DL:115:LEU:HB3	34:DL:131:SER:HB2	1.96	0.47
23:BA:630:G:N2	23:BA:633:A:OP2	2.33	0.47
34:BL:57:THR:OG1	34:BL:58:THR:N	2.46	0.47
23:BA:1542:G:P	23:BA:1543:A:OP1	2.72	0.47
23:BA:1545:A:O2'	23:BA:1546:A:H5'	2.13	0.47
23:DA:1175:U:H2'	23:DA:1176:G:C8	2.48	0.47
34:BL:111:ARG:HD2	34:BL:128:HIS:CD2	2.49	0.47
1:AA:1060:C:H5''	10:AJ:51:ARG:HG2	1.97	0.47
5:CE:81:GLU:HG2	5:CE:90:VAL:HG22	1.97	0.47
13:CM:91:ARG:NH1	19:CS:81:ARG:NH2	2.61	0.47
12:CL:116:ARG:NH2	12:CL:123:LYS:HB2	2.29	0.47
27:DE:65:TRP:HB3	27:DE:66:PRO:HD2	1.96	0.47
37:BO:12:PHE:O	37:BO:12:PHE:HD1	1.97	0.47
30:BH:88:ILE:CG2	30:BH:89:TYR:N	2.77	0.47
53:B5:60:LEU:N	53:B5:60:LEU:HD23	2.29	0.47
34:BL:51:PHE:HB3	34:BL:52:GLU:H	1.37	0.47
47:BY:13:ALA:O	47:BY:17:SER:OG	2.22	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:386:C:H2'	1:AA:387:U:O4'	2.13	0.47
42:DT:38:GLU:O	42:DT:39:ILE:C	2.48	0.47
30:DH:69:LYS:HD2	30:DH:138:ILE:HG23	1.95	0.47
4:AD:68:TYR:CE2	4:AD:97:LEU:HB3	2.49	0.47
26:BD:52:LEU:CB	26:BD:76:ARG:HB2	2.44	0.47
27:DE:124:LEU:CD1	27:DE:125:LEU:O	2.62	0.47
4:AD:64:LEU:HB2	4:AD:198:VAL:HG11	1.95	0.47
4:AD:61:LYS:HA	4:AD:203:VAL:HG22	1.96	0.47
23:DA:1328:G:H2'	23:DA:1330:C:C5	2.49	0.47
1:CA:1103:C:C2	1:CA:1104:G:C8	3.03	0.47
6:CF:90:VAL:CG1	6:CF:91:VAL:H	2.26	0.47
48:BZ:43:ILE:HD13	48:BZ:43:ILE:H	1.76	0.47
45:BW:51:VAL:N	45:BW:62:LEU:HD12	2.29	0.47
1:AA:1372:U:C5	1:AA:1373:G:C4	3.02	0.47
9:AI:111:ARG:HG3	14:AN:61:TRP:HE1	1.79	0.47
20:CT:10:LEU:C	20:CT:10:LEU:HD12	2.34	0.47
27:DE:174:VAL:HG21	27:DE:189:THR:HG21	1.97	0.47
1:CA:595:G:H1'	1:CA:596:C:H5	1.79	0.47
23:DA:2308:G:HO2'	23:DA:2310:A:P	2.37	0.47
46:BX:10:LYS:O	46:BX:13:ILE:CG2	2.62	0.47
1:AA:818:G:N3	1:AA:820:U:C6	2.82	0.47
23:DA:557:U:C2	23:DA:558:G:C8	3.02	0.47
23:BA:1512:G:C2	23:BA:1513:C:O2	2.67	0.47
24:DB:10:C:N3	24:DB:11:C:C5	2.82	0.47
28:BF:131:TYR:CE2	28:BF:133:LEU:HB3	2.48	0.47
23:DA:270(H):C:C2	23:DA:270(I):C:C5	3.03	0.47
3:CC:59:ARG:HH21	3:CC:97:LYS:HE2	1.80	0.47
23:DA:967:C:O2'	23:DA:968:G:H5'	2.14	0.47
23:DA:2591:C:H2'	23:DA:2592:G:C8	2.49	0.47
26:DD:117:MET:CE	26:DD:136:ARG:HA	2.44	0.47
23:DA:1478:G:O2'	23:DA:1558:A:C2	2.67	0.47
1:AA:564:C:C4	17:AQ:31:LEU:HD11	2.48	0.47
1:CA:1051:C:C4	1:CA:1052:U:C4	3.02	0.47
23:BA:2862:G:H2'	23:BA:2863:C:H6	1.78	0.47
17:AQ:59:ILE:CG2	17:AQ:71:PHE:CD1	2.97	0.47
1:CA:539:A:C6	1:CA:540:G:C6	3.02	0.47
1:CA:540:G:C6	1:CA:541:G:C5	3.02	0.47
1:CA:921:U:H5"	1:CA:922:G:OP2	2.14	0.47
1:CA:728:A:C6	15:CO:54:ARG:HD2	2.48	0.47
36:BN:101:ALA:HB2	50:B2:44:THR:HB	1.96	0.47
23:BA:1923:U:H2'	23:BA:1924:C:C6	2.49	0.47
23:DA:1923:U:H2'	23:DA:1924:C:C6	2.49	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:444:C:H2'	1:CA:445:G:C8	2.48	0.47
8:CH:36:LEU:O	8:CH:39:LEU:N	2.47	0.47
7:AG:46:ALA:O	7:AG:50:ILE:HG12	2.14	0.47
1:AA:445:G:H2'	1:AA:446:G:H8	1.79	0.47
36:DN:84:ALA:N	36:DN:85:PRO:HD2	2.29	0.47
23:BA:1832:C:H2'	23:BA:1833:U:O4'	2.14	0.47
15:CO:67:LEU:HD23	15:CO:78:TYR:HE1	1.78	0.47
2:CB:106:LYS:HE2	2:CB:110:GLN:HE21	1.77	0.47
26:BD:16:ARG:O	26:BD:17:ASP:C	2.52	0.47
7:AG:70:LYS:HE2	7:AG:96:GLN:CD	2.34	0.47
16:CP:25:ARG:O	16:CP:26:ARG:C	2.50	0.47
23:BA:414:C:H2'	23:BA:415:A:C8	2.48	0.47
1:AA:635:G:C5	1:AA:636:U:C5	3.02	0.47
1:AA:1399:C:C4	1:AA:1502:A:C2	3.03	0.47
1:AA:288:A:O2'	1:AA:289:G:H5'	2.14	0.47
23:DA:1465:G:C2	23:DA:1466:G:N9	2.82	0.47
23:BA:2770:G:H5''	23:BA:2771:C:OP2	2.14	0.47
11:CK:111:ASP:O	11:CK:112:THR:C	2.52	0.47
1:CA:1465:C:H2'	1:CA:1466:C:O4'	2.13	0.47
23:BA:2744:G:H1'	23:BA:2761:G:H22	1.79	0.47
32:BJ:33:GLU:HA	32:BJ:34:PRO:HD3	1.75	0.47
23:BA:374:A:C2	23:BA:401:A:C4	3.02	0.47
23:BA:1381:G:H2'	23:BA:1382:G:H5'	1.95	0.47
23:BA:1368:G:O2'	23:BA:1369:G:H5'	2.15	0.47
23:BA:2019:A:O4'	39:BQ:34:LYS:HD2	2.14	0.47
25:DC:210:GLY:HA2	25:DC:213:ARG:HG3	1.95	0.47
23:DA:2694:G:C6	23:DA:2695:C:C4	3.02	0.47
23:BA:1281:G:C5	23:BA:1282:U:C5	3.01	0.47
27:BE:11:VAL:O	27:BE:12:LEU:HD12	2.14	0.47
23:DA:1456:G:C2'	23:DA:1457:A:H5'	2.45	0.47
23:DA:1641:A:H2'	23:DA:1642:G:O4'	2.14	0.47
23:BA:2359:C:H2'	23:BA:2360:A:C8	2.49	0.47
15:AO:48:LYS:HA	15:AO:48:LYS:HE2	1.96	0.47
1:AA:531:U:O3'	1:AA:532:A:H4'	2.14	0.47
23:DA:2523:G:H2'	23:DA:2524:G:H5'	1.96	0.47
23:BA:2495:G:H2'	23:BA:2496:C:O5'	2.14	0.47
34:BL:59:LEU:C	34:BL:59:LEU:HD23	2.35	0.47
38:DP:63:VAL:O	38:DP:73:GLU:HA	2.13	0.47
23:BA:674:G:C1'	27:BE:74:ARG:HD3	2.35	0.47
1:AA:960:U:C6	1:AA:1225:A:C8	3.01	0.47
22:AV:6213:A:C4	22:AV:6214:C:C5	3.02	0.47
23:BA:664:C:H4'	23:BA:941:A:OP1	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:977:A:H2'	1:CA:978:A:C5'	2.44	0.47
38:BP:61:PHE:CD2	38:BP:61:PHE:N	2.81	0.47
1:CA:552:U:C2'	1:CA:553:A:H5'	2.45	0.47
23:BA:2419:U:OP2	53:B5:41:ILE:CD1	2.62	0.47
23:DA:1899:G:HO2'	23:DA:1900:A:P	2.37	0.47
30:BH:69:LYS:HD2	30:BH:138:ILE:HG23	1.95	0.47
23:DA:2334:G:H4'	23:DA:2335:A:OP2	2.15	0.47
1:AA:402:G:C6	1:AA:403:C:C5	3.02	0.47
1:AA:687:A:N3	1:AA:688:G:H1'	2.30	0.47
30:DH:101:LEU:HD23	30:DH:109:ILE:HG13	1.96	0.47
26:DD:6:GLY:CA	26:DD:51:PHE:HE2	2.27	0.47
52:B4:19:ARG:CB	52:B4:19:ARG:HH11	2.27	0.47
1:AA:1105:A:C2	1:AA:1106:G:C8	3.01	0.47
2:AB:80:ILE:HD11	2:AB:208:ILE:HG22	1.95	0.47
29:DG:19:VAL:HG13	29:DG:43:VAL:CG2	2.44	0.47
4:CD:155:LEU:HD23	4:CD:156:GLU:OE2	2.14	0.47
25:BC:131:LEU:HD11	25:BC:136:ILE:HG13	1.97	0.47
8:AH:112:LEU:HA	8:AH:134:ILE:H	1.79	0.47
23:BA:1486:A:C6	23:BA:1504:C:N4	2.75	0.47
16:CP:10:GLY:O	16:CP:11:SER:O	2.33	0.47
37:BO:49:VAL:HG11	37:BO:76:LYS:HB2	1.95	0.47
23:BA:910:A:C4	35:BM:13:GLN:OE1	2.66	0.47
1:CA:328:C:H4'	1:CA:329:A:C5'	2.43	0.47
11:CK:29:ILE:HB	11:CK:44:SER:HB3	1.95	0.47
23:DA:1359:A:C8	23:DA:1372:U:O4	2.67	0.47
23:DA:2785:C:O2'	26:DD:66:HIS:CD2	2.67	0.47
2:AB:72:GLY:HA3	2:AB:165:VAL:HG11	1.95	0.47
23:BA:582:G:OP1	39:BQ:14:HIS:CD2	2.67	0.47
10:CJ:55:LYS:O	10:CJ:56:HIS:CG	2.67	0.47
23:BA:1820:U:O2	25:BC:201:HIS:HB3	2.14	0.47
8:AH:49:GLU:HG3	8:AH:51:VAL:HG23	1.96	0.47
40:BR:19:LYS:HA	40:BR:94:LEU:O	2.13	0.47
1:CA:922:G:C6	1:CA:923:A:N6	2.82	0.47
10:AJ:9:ARG:HG2	10:AJ:69:ASN:OD1	2.14	0.47
32:DJ:80:ALA:C	32:DJ:82:LYS:H	2.17	0.47
36:BN:88:ARG:C	36:BN:90:ARG:H	2.17	0.47
5:AE:140:ARG:CG	5:AE:140:ARG:O	2.62	0.47
1:AA:381:C:H2'	1:AA:382:A:C8	2.49	0.47
23:DA:2001:A:H2'	23:DA:2002:G:O4'	2.14	0.47
23:DA:1550:C:H2'	23:DA:1551:C:H6	1.79	0.47
1:CA:1505:G:H4'	1:CA:1506:U:H5''	1.94	0.47
23:DA:1526:G:H2'	23:DA:1527:G:C8	2.49	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:55:A:C5	1:CA:56:U:C5	3.02	0.47
23:BA:1997:G:O2'	23:BA:1998:G:H5'	2.14	0.47
35:DM:38:GLU:C	35:DM:127:ILE:HD11	2.34	0.47
35:BM:24:GLY:HA2	35:BM:101:ARG:HA	1.96	0.47
1:AA:577:G:H1'	1:AA:816:A:C4	2.49	0.47
1:CA:112:G:OP1	16:CP:27:LYS:HE2	2.14	0.47
1:AA:574:A:H1'	1:AA:883:C:O4'	2.15	0.47
23:BA:1796:U:H2'	23:BA:1797:C:C6	2.49	0.47
2:AB:17:PHE:HB2	2:AB:44:LEU:HD21	1.96	0.47
1:AA:575:G:C5	1:AA:881:G:C2	3.02	0.47
23:BA:1127:A:C2'	23:BA:1128:A:H5''	2.43	0.47
30:BH:26:ALA:HA	30:BH:30:LEU:HB2	1.95	0.47
1:AA:451:A:N7	1:AA:481:G:C6	2.82	0.47
23:BA:1265:A:H5'	23:BA:1267:U:H1'	1.95	0.47
7:AG:77:SER:HA	7:AG:85:TYR:O	2.14	0.47
1:CA:1438:G:O2'	1:CA:1439:C:H5'	2.14	0.47
23:DA:1345:C:O2'	23:DA:1346:G:H5'	2.15	0.47
1:AA:879:C:O2'	1:AA:880:C:H5'	2.15	0.47
1:CA:572:A:H5''	1:CA:917:G:H4'	1.95	0.47
44:DV:140:ASP:N	44:DV:140:ASP:OD2	2.47	0.47
27:BE:28:ILE:O	27:BE:28:ILE:HG13	2.14	0.47
26:DD:14:ILE:C	26:DD:14:ILE:HD12	2.34	0.47
15:CO:32:LEU:O	15:CO:35:ARG:N	2.46	0.47
34:BL:62:LEU:HD21	53:B5:25:MET:HB2	1.96	0.47
34:BL:62:LEU:CD1	53:B5:27:THR:HG22	2.45	0.47
43:BU:14:LEU:HD23	43:BU:15:VAL:CA	2.43	0.47
43:BU:17:SER:CB	43:BU:71:LYS:HD2	2.43	0.47
32:BJ:123:GLU:C	32:BJ:125:ALA:H	2.16	0.47
34:BL:97:PRO:O	34:BL:101:VAL:HG12	2.15	0.47
1:CA:1368:G:H5''	14:CN:61:TRP:HZ2	1.78	0.47
26:BD:11:MET:HE3	26:BD:186:GLY:CA	2.41	0.47
23:DA:673:C:C2'	23:DA:674:G:H5'	2.45	0.47
1:CA:981:U:OP1	14:CN:6:LEU:HD21	2.15	0.47
23:DA:1971:A:C5	25:DC:241:PRO:HG3	2.50	0.47
23:BA:1970:A:H4'	23:BA:1971:A:OP1	2.14	0.47
25:DC:9:TYR:C	25:DC:10:THR:HG22	2.34	0.47
40:DR:3:ALA:HB1	40:DR:38:LEU:HD21	1.97	0.47
30:BH:143:SER:O	30:BH:145:VAL:N	2.46	0.47
40:BR:6:LYS:CG	40:BR:11:GLN:HG2	2.43	0.47
28:DF:25:TYR:CZ	28:DF:32:PRO:HD3	2.49	0.47
25:DC:143:HIS:C	25:DC:143:HIS:CD2	2.87	0.47
1:AA:407:G:C2	1:AA:436:C:C2	3.02	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:AK:27:ASN:HA	11:AK:55:LYS:O	2.15	0.47
28:BF:129:GLY:HA3	28:BF:163:ALA:CB	2.44	0.47
1:AA:88:C:H2'	1:AA:89:U:O4'	2.15	0.47
27:BE:174:VAL:HG21	27:BE:189:THR:HG21	1.95	0.47
36:DN:2:ARG:O	36:DN:3:HIS:CG	2.68	0.47
5:AE:76:ILE:HG12	5:AE:142:LEU:HD22	1.96	0.47
26:DD:52:LEU:CB	26:DD:76:ARG:HB2	2.45	0.47
24:BB:106:G:C6	24:BB:107:U:C4	3.03	0.47
9:AI:28:VAL:HG13	9:AI:63:ILE:HG22	1.96	0.47
1:AA:1291:G:C6	1:AA:1292:U:C4	3.02	0.47
23:DA:2746:U:H4'	29:DG:138:LYS:HD3	1.96	0.47
23:BA:2305:A:O2'	28:BF:136:ARG:NE	2.48	0.47
4:CD:110:PHE:CD2	4:CD:110:PHE:N	2.82	0.47
2:CB:83:MET:CE	2:CB:234:PRO:HG2	2.44	0.47
29:BG:151:ILE:HD13	29:BG:151:ILE:H	1.79	0.47
1:AA:783:C:H2'	1:AA:784:C:H6	1.80	0.47
1:AA:54:C:N4	1:AA:353:A:OP2	2.45	0.47
1:AA:627:G:O2'	1:AA:628:G:H5'	2.15	0.47
23:DA:588:U:H2'	23:DA:589:C:H6	1.79	0.47
23:DA:1109:C:H42	23:DA:1110:G:N2	2.12	0.47
23:DA:1952:A:C6	23:DA:1953:A:C6	3.03	0.47
23:DA:1516:U:H2'	23:DA:1517:G:H8	1.77	0.47
18:AR:22:VAL:HG12	18:AR:22:VAL:O	2.14	0.47
25:DC:176:ARG:HG2	25:DC:176:ARG:NH1	2.27	0.47
4:CD:13:ARG:HD2	4:CD:38:TYR:O	2.14	0.47
4:CD:13:ARG:O	4:CD:39:PRO:HA	2.14	0.47
10:CJ:34:VAL:HG22	10:CJ:74:ILE:HG22	1.97	0.47
23:DA:1030:G:OP2	35:DM:128:LYS:HG2	2.15	0.47
32:BJ:135:LEU:O	32:BJ:139:LEU:HG	2.14	0.47
1:CA:652:U:O4	1:CA:752:G:O2'	2.20	0.47
23:BA:627:A:H4'	23:BA:628:G:OP1	2.14	0.47
45:DW:50:ASN:HD22	45:DW:83:PRO:HD3	1.78	0.47
8:AH:97:VAL:CG1	8:AH:98:LYS:N	2.76	0.47
23:DA:2850:A:C4	23:DA:2851:A:C8	3.03	0.47
28:DF:178:PHE:O	28:DF:180:PHE:CD1	2.67	0.47
10:AJ:40:LEU:HB2	10:AJ:69:ASN:CB	2.42	0.47
23:DA:815:C:C2	23:DA:816:C:C5	3.03	0.47
35:BM:32:PHE:CZ	35:BM:111:GLU:HG2	2.45	0.47
28:BF:7:LEU:HD22	28:BF:176:LEU:HD22	1.96	0.47
23:BA:2094:G:C2	23:BA:2196:C:C2	3.02	0.47
23:DA:1184:G:C6	23:DA:1185:C:C4	3.03	0.47
23:BA:904:C:H2'	23:BA:905:U:C6	2.49	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:189:G:H2'	23:DA:205:G:N2	2.29	0.47
23:DA:1443:G:H1	23:DA:1548:C:H42	1.63	0.47
28:BF:62:LEU:HB3	28:BF:143:GLU:HG3	1.97	0.47
23:BA:1919:A:H5''	23:BA:1920:C:OP2	2.14	0.47
1:AA:814:A:C8	1:AA:816:A:C8	3.03	0.47
5:AE:53:LEU:CD2	5:AE:53:LEU:H	2.27	0.47
35:BM:26:TYR:HD1	35:BM:26:TYR:O	1.97	0.47
27:BE:150:GLY:HA2	27:BE:172:TRP:CE3	2.49	0.47
1:CA:932:C:OP1	7:CG:4:ARG:HG2	2.14	0.47
23:BA:270(G):U:H3	23:BA:270(U):G:H1	1.63	0.47
35:DM:125:LEU:HB3	35:DM:126:PRO:HD2	1.97	0.47
23:DA:2193:G:O2'	23:DA:2194:G:H5'	2.14	0.47
25:DC:89:SER:HB2	25:DC:159:ALA:HB2	1.97	0.47
42:BT:27:THR:HB	42:BT:80:ILE:HB	1.94	0.47
36:BN:104:ARG:HH11	36:BN:104:ARG:CB	2.28	0.47
48:DZ:38:GLU:OE1	48:DZ:38:GLU:N	2.45	0.47
39:BQ:97:ASP:CG	39:BQ:97:ASP:O	2.52	0.47
5:AE:72:GLN:O	5:AE:73:ASN:CB	2.61	0.47
28:DF:17:PRO:HA	28:DF:20:ILE:HG12	1.96	0.47
23:DA:1665:A:H4'	33:DK:67:LYS:HB2	1.95	0.47
10:CJ:65:LEU:HD13	14:CN:56:VAL:HG22	1.95	0.47
23:DA:2251:G:C6	23:DA:2252:G:C6	3.03	0.47
4:CD:201:GLN:O	4:CD:205:GLU:HG3	2.13	0.47
23:DA:627:A:C2	23:DA:636:G:N3	2.83	0.47
1:CA:1347:G:H22	1:CA:1373:G:C2'	2.28	0.47
23:BA:2439:A:O2'	23:BA:2440:C:OP2	2.25	0.47
22:CV:6192:G:C6	22:CV:6193:U:C4	3.02	0.47
1:CA:950:U:H4'	1:CA:971:G:H22	1.78	0.47
38:BP:64:ARG:HD2	38:BP:73:GLU:OE2	2.14	0.47
28:BF:73:ALA:HB3	28:BF:76:SER:OG	2.14	0.47
39:DQ:92:ARG:HD2	39:DQ:95:LEU:CG	2.44	0.47
30:BH:101:LEU:HD23	30:BH:109:ILE:HG13	1.97	0.47
41:DS:17:VAL:O	41:DS:18:ARG:C	2.50	0.47
23:BA:1159:U:H2'	23:BA:1160:G:C8	2.47	0.47
39:BQ:98:LEU:O	39:BQ:101:ARG:N	2.47	0.47
1:AA:376:G:C2'	1:AA:377:G:O5'	2.62	0.47
4:CD:51:PRO:HB3	4:CD:55:ALA:CB	2.43	0.47
4:AD:109:GLY:C	4:AD:111:ALA:N	2.67	0.47
23:BA:1412:A:H2'	23:BA:1413:G:O4'	2.14	0.47
2:CB:80:ILE:HD11	2:CB:208:ILE:HG22	1.95	0.47
1:AA:90:C:N3	1:AA:91:C:C4	2.82	0.47
23:DA:137(B):G:O6	23:DA:139:G:O2'	2.29	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:2887:U:C2	23:BA:2888:C:C5	3.02	0.47
5:CE:139:LEU:C	5:CE:141:GLN:H	2.16	0.47
37:DO:53:SER:O	37:DO:56:LEU:HB3	2.14	0.47
1:AA:878:G:C5'	8:AH:89:PRO:HG2	2.44	0.47
23:BA:850:C:O2'	48:BZ:46:ASN:ND2	2.47	0.47
45:BW:62:LEU:O	45:BW:63:VAL:HG13	2.15	0.47
12:CL:49:SER:O	12:CL:50:ALA:HB2	2.15	0.47
18:CR:37:VAL:HG12	18:CR:78:LEU:HB3	1.97	0.47
4:CD:126:ILE:CG2	4:CD:127:THR:N	2.78	0.47
6:AF:26:ILE:C	6:AF:30:LEU:HD12	2.35	0.47
6:AF:5:GLU:OE1	6:AF:62:TRP:HZ2	1.96	0.47
23:DA:528:A:OP2	32:DJ:134:PRO:HB3	2.14	0.47
9:CI:28:VAL:HG22	9:CI:63:ILE:H	1.78	0.47
23:DA:2791:C:H4'	23:DA:2792:G:OP1	2.14	0.47
23:DA:2406:U:O4	34:DL:70:GLN:HB3	2.13	0.47
23:DA:2287:A:C5	23:DA:2289:G:N7	2.83	0.47
1:CA:1084:G:C6	1:CA:1085:U:O4	2.68	0.47
23:DA:2629:A:N3	23:DA:2629:A:H2'	2.29	0.47
30:DH:15:VAL:HG12	30:DH:16:GLY:N	2.29	0.47
28:DF:111:LEU:HA	28:DF:114:ILE:HD11	1.96	0.47
23:DA:1131:G:N2	23:DA:1132:A:C4	2.83	0.47
1:CA:832:C:O2'	1:CA:833:U:P	2.72	0.47
25:BC:176:ARG:HH11	25:BC:176:ARG:CG	2.26	0.47
12:CL:46:LYS:CB	12:CL:47:PRO:HD3	2.45	0.47
12:CL:45:LYS:HB3	12:CL:46:LYS:H	1.39	0.47
35:BM:60:ARG:H	44:BV:179:ASP:CB	2.26	0.47
1:CA:1054:C:O2	1:CA:1054:C:H3'	2.14	0.47
23:BA:118:A:C8	23:BA:119:A:C8	3.02	0.47
33:DK:1:MET:HE2	33:DK:32:TYR:CG	2.50	0.47
3:AC:23:TYR:CD1	10:AJ:10:GLY:HA2	2.49	0.47
23:BA:540:G:C5	23:BA:541:C:C5	3.02	0.47
23:BA:540:G:C4	23:BA:541:C:C6	3.02	0.47
40:BR:12:TYR:CZ	40:BR:22:VAL:HG22	2.49	0.47
29:BG:40:GLU:O	29:BG:55:PRO:HG3	2.13	0.47
1:AA:565:U:C6	1:AA:566:G:C8	3.03	0.47
23:BA:1832:C:N4	23:BA:1833:U:C4	2.82	0.47
23:BA:1833:U:N3	23:BA:1834:U:C5	2.83	0.47
26:DD:179:GLU:HB3	26:DD:181:LEU:HD22	1.97	0.47
23:DA:2299:G:C6	23:DA:2318:G:N2	2.83	0.47
23:BA:1850:G:C5	23:BA:1851:U:C5	3.02	0.47
19:CS:11:VAL:HG23	19:CS:38:SER:HB2	1.96	0.47
1:CA:1289:A:OP1	21:CU:10:ARG:HD3	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CG:70:LYS:HE2	7:CG:96:GLN:CD	2.35	0.47
25:BC:141:VAL:O	25:BC:141:VAL:HG22	2.14	0.47
2:CB:17:PHE:HB2	2:CB:44:LEU:HD21	1.96	0.47
23:DA:2428:G:H5''	23:DA:2429:G:O5'	2.14	0.47
1:CA:993:G:H2'	1:CA:993:G:N3	2.29	0.47
23:DA:1851:U:C4	23:DA:1852:C:C4	3.02	0.47
33:DK:60:ALA:CB	33:DK:86:ILE:HA	2.43	0.47
23:DA:2302:G:O2'	23:DA:2303:G:H5'	2.15	0.47
14:CN:4:LYS:O	14:CN:7:ILE:HG13	2.15	0.47
18:AR:36:ASN:HB2	18:AR:39:VAL:CG2	2.45	0.47
1:AA:240:C:H2'	1:AA:241:C:C6	2.49	0.47
23:BA:2025:C:C2	23:BA:2026:C:C5	3.02	0.47
4:AD:23:GLY:HA3	4:AD:112:VAL:CG2	2.45	0.47
30:BH:28:ASN:C	30:BH:32:PRO:HG2	2.34	0.47
23:BA:433:C:H2'	23:BA:434:U:C6	2.49	0.47
44:BV:63:ASP:C	44:BV:65:GLN:H	2.17	0.47
23:DA:2104:G:H2'	23:DA:2105:C:C6	2.49	0.47
23:DA:136:G:C5	23:DA:137(A):C:C5	3.02	0.47
1:AA:743:U:O2'	1:AA:744:C:H5'	2.13	0.47
23:DA:13:A:N1	23:DA:525:U:C2	2.83	0.47
1:CA:1272:G:H2'	1:CA:1273:G:C8	2.49	0.47
23:DA:273(B):G:C2	23:DA:364:C:N3	2.82	0.47
1:CA:1461:G:O5'	1:CA:1461:G:H8	1.98	0.47
4:CD:8:VAL:HG11	4:CD:115:ARG:NH1	2.29	0.47
43:DU:68:HIS:ND1	43:DU:70:SER:HB3	2.29	0.47
1:CA:1372:U:C5	1:CA:1373:G:C4	3.03	0.47
1:AA:977:A:H2'	1:AA:978:A:C5'	2.45	0.47
1:AA:1223:C:P	19:AS:78:ARG:HH21	2.37	0.47
25:BC:6:PHE:HD1	25:BC:16:MET:O	1.97	0.47
23:DA:2846:G:C5	23:DA:2847:U:C4	3.02	0.47
1:CA:1224:G:H4'	13:CM:102:ARG:NH2	2.30	0.47
41:BS:17:VAL:O	41:BS:18:ARG:C	2.51	0.47
53:D5:7:HIS:CB	53:D5:60:LEU:HB3	2.45	0.47
28:DF:72:ARG:HG2	28:DF:86:MET:O	2.14	0.47
1:CA:673:G:H5''	6:CF:87:ARG:NH1	2.29	0.47
23:DA:2293:C:H5''	37:DO:89:ARG:NH1	2.30	0.47
37:DO:14:VAL:O	37:DO:18:ILE:HG12	2.15	0.47
47:BY:20:GLU:O	47:BY:21:LEU:C	2.52	0.47
26:BD:92:THR:O	26:BD:95:ILE:HG12	2.14	0.47
23:BA:197:A:C8	23:BA:197:A:C4'	2.98	0.47
20:CT:69:GLY:O	20:CT:73:HIS:ND1	2.47	0.47
2:AB:193:ASP:O	2:AB:196:LEU:HG	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DV:126:VAL:HG12	44:DV:163:LEU:HA	1.96	0.47
44:DV:56:VAL:HG12	44:DV:57:ILE:N	2.30	0.47
23:BA:2697:G:C2	23:BA:2711:A:C2	3.03	0.47
4:CD:9:CYS:SG	4:CD:31:CYS:O	2.72	0.47
43:DU:29:GLU:O	43:DU:38:ILE:N	2.44	0.47
1:AA:130:A:C8	17:AQ:63:ARG:HG3	2.50	0.47
1:AA:448:A:H2'	1:AA:449:C:H6	1.78	0.47
36:DN:59:ASP:OD1	36:DN:61:HIS:HB3	2.14	0.47
43:DU:96:ILE:HD11	43:DU:99:CYS:SG	2.54	0.47
5:CE:126:ARG:HH11	5:CE:126:ARG:HG3	1.75	0.47
36:BN:10:LEU:HB3	36:BN:17:ARG:CZ	2.44	0.47
25:BC:185:VAL:HG12	25:BC:186:HIS:H	1.80	0.47
30:BH:113:ARG:O	30:BH:131:LYS:N	2.47	0.47
23:BA:2790:A:H2'	23:BA:2791:C:C5'	2.39	0.47
1:AA:1531:A:H8	1:AA:1531:A:O5'	1.96	0.47
37:BO:39:ILE:O	37:BO:39:ILE:HG22	2.14	0.47
23:BA:967:C:O2'	23:BA:968:G:H5'	2.14	0.47
4:AD:166:LYS:HD2	4:AD:166:LYS:O	2.14	0.47
33:DK:90:GLN:O	33:DK:90:GLN:HG3	2.15	0.47
1:AA:618:C:N4	1:AA:621:A:N7	2.63	0.47
23:DA:783:A:C3'	23:DA:783:A:C8	2.98	0.47
15:AO:29:VAL:O	15:AO:30:ALA:C	2.51	0.47
44:BV:24:LEU:HD12	44:BV:85:HIS:HA	1.94	0.47
24:DB:49:C:O5'	24:DB:49:C:H6	1.98	0.47
23:BA:2189:U:O2	23:BA:2189:U:H2'	2.15	0.47
38:DP:105:LEU:O	38:DP:106:SER:C	2.52	0.47
23:DA:1467:C:C2'	23:DA:1468:C:H5'	2.44	0.47
12:AL:21:SER:C	12:AL:23:VAL:H	2.16	0.47
1:CA:515:G:N2	1:CA:537:G:C4	2.83	0.47
23:BA:319:C:H2'	23:BA:320:A:C8	2.49	0.47
23:BA:826:U:H2'	23:BA:828:U:O4'	2.14	0.47
23:DA:1248:G:C8	39:DQ:3:ARG:HB2	2.49	0.47
38:BP:1:MET:O	38:BP:3:ARG:N	2.48	0.47
25:DC:257:LEU:C	25:DC:257:LEU:CD2	2.83	0.47
23:DA:2433:A:H5''	23:DA:2434:A:OP1	2.15	0.47
23:BA:1945:G:H2'	23:BA:1946:U:C6	2.50	0.47
8:AH:118:VAL:HG12	8:AH:118:VAL:O	2.14	0.47
1:CA:1126:U:H2'	1:CA:1127:G:H8	1.76	0.47
35:BM:10:ARG:HD3	35:BM:10:ARG:HA	1.71	0.47
4:CD:4:TYR:CE1	4:CD:11:LEU:HD11	2.49	0.47
23:DA:2460:U:C4	23:DA:2461:C:C5	3.02	0.47
24:DB:56:G:H4'	24:DB:57:A:H8	1.80	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CL:38:VAL:HG12	12:CL:39:VAL:N	2.29	0.47
8:AH:50:ARG:CD	8:AH:50:ARG:N	2.77	0.47
23:DA:779:U:OP1	25:DC:49:ILE:HD12	2.15	0.47
23:BA:1992:G:OP1	23:BA:1992:G:H8	1.96	0.47
1:AA:464:G:O6	1:AA:466:G:H5'	2.14	0.47
1:AA:1169:A:N6	1:AA:1170:A:N1	2.62	0.47
23:BA:2837:G:C6	23:BA:2838:G:C5	3.03	0.47
1:CA:127:G:HO2'	17:CQ:2:PRO:N	2.13	0.47
7:AG:31:MET:CG	7:AG:35:LYS:H	2.27	0.47
23:BA:2734:A:C8	23:BA:2735:G:C8	3.02	0.47
12:AL:54:VAL:HG12	12:AL:55:ALA:N	2.29	0.47
23:DA:338:G:N2	23:DA:339:U:H1'	2.29	0.47
1:AA:757:U:O2'	1:AA:879:C:H1'	2.15	0.47
23:DA:13:A:N3	23:DA:15:G:C6	2.83	0.47
23:DA:1017:G:C2	23:DA:1146:C:O2	2.68	0.47
28:BF:33:ARG:HD3	28:BF:162:THR:HG21	1.96	0.47
7:CG:106:GLN:O	7:CG:110:GLN:HG3	2.15	0.47
23:BA:1196:C:H1'	23:BA:1226:A:N3	2.29	0.47
23:DA:1050:A:C2	23:DA:2751:G:C5	3.02	0.47
37:DO:79:ALA:O	37:DO:80:LEU:HD23	2.15	0.47
48:DZ:5:LYS:HE2	48:DZ:34:GLU:OE1	2.14	0.47
40:BR:87:HIS:CD2	40:BR:87:HIS:O	2.67	0.47
23:BA:2813:A:H2'	23:BA:2814:C:O4'	2.14	0.47
4:AD:88:VAL:HG13	5:AE:97:GLY:CA	2.44	0.47
23:DA:671:C:H2'	23:DA:672:C:H6	1.79	0.47
23:DA:2393:A:H5''	34:DL:62:LEU:HB3	1.96	0.47
34:BL:61:ARG:HD2	53:B5:13:ARG:HD2	1.96	0.47
23:BA:306:U:H2'	23:BA:307:G:O4'	2.14	0.47
47:DY:2:LYS:O	47:DY:5:GLU:HG3	2.15	0.47
48:BZ:19:GLN:HE22	48:BZ:52:HIS:CE1	2.32	0.47
23:DA:85:G:N3	23:DA:103:A:C2	2.83	0.47
32:DJ:119:GLU:O	32:DJ:123:GLU:HG3	2.14	0.47
1:CA:1346:A:C2	1:CA:1348:U:C4	3.03	0.47
26:BD:167:VAL:CG1	26:BD:189:PRO:HD3	2.44	0.47
23:BA:1190:G:H2'	23:BA:1191:G:H8	1.79	0.47
1:AA:365:U:O4'	1:AA:365:U:O2	2.30	0.47
38:DP:57:PHE:CD2	38:DP:58:ASN:N	2.82	0.47
1:AA:953:G:C6	1:AA:1229:A:C6	3.02	0.47
23:DA:1902:C:H2'	23:DA:1903:G:O4'	2.14	0.47
32:DJ:37:VAL:HG12	32:DJ:38:LEU:H	1.80	0.47
36:DN:39:PRO:O	36:DN:40:LYS:C	2.53	0.47
27:DE:164:ARG:CG	27:DE:164:ARG:NH1	2.71	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BD:137:HIS:CB	26:BD:138:PRO:HD2	2.44	0.47
39:DQ:92:ARG:HG2	40:DR:11:GLN:HE21	1.74	0.47
35:DM:75:THR:CA	35:DM:88:GLY:CA	2.78	0.47
23:DA:1021:A:H8	23:DA:1022:G:H5''	1.79	0.47
16:CP:20:VAL:CG2	16:CP:21:VAL:N	2.78	0.47
16:CP:32:TYR:HD2	16:CP:32:TYR:O	1.97	0.47
39:BQ:54:LYS:O	39:BQ:55:ARG:C	2.51	0.47
34:BL:40:SER:C	34:BL:41:ARG:HD3	2.32	0.47
47:BY:17:SER:O	47:BY:21:LEU:N	2.23	0.47
1:AA:376:G:C2	1:AA:377:G:C8	3.03	0.47
1:AA:376:G:P	16:AP:67:THR:HG21	2.54	0.47
25:DC:143:HIS:CD2	25:DC:144:ALA:N	2.83	0.47
3:CC:19:GLU:HG2	3:CC:40:ARG:NH2	2.30	0.47
3:AC:148:GLY:HA3	3:AC:203:PHE:HB3	1.97	0.47
1:AA:409:G:C2'	1:AA:410:G:O5'	2.62	0.47
4:CD:61:LYS:HA	4:CD:203:VAL:CG2	2.45	0.47
1:AA:428:G:C8	1:AA:430:A:C4	3.02	0.47
3:CC:182:ILE:HD11	3:CC:203:PHE:CD1	2.50	0.47
23:DA:72:U:C4	23:DA:112:U:H4'	2.49	0.47
30:DH:123:LEU:HD11	30:DH:145:VAL:OXT	2.14	0.47
30:DH:88:ILE:CG2	30:DH:89:TYR:N	2.78	0.47
23:DA:1639:U:O2'	23:DA:1640:C:H5''	2.15	0.47
24:BB:44:G:N3	24:BB:47:C:N4	2.62	0.47
44:DV:30:ASN:O	44:DV:33:LEU:N	2.48	0.47
1:AA:78:G:N1	1:AA:92:G:C6	2.83	0.47
25:BC:158:ALA:C	25:BC:161:THR:HG23	2.35	0.47
44:BV:30:ASN:HB3	44:BV:90:VAL:HB	1.97	0.47
37:DO:49:VAL:HG11	37:DO:76:LYS:HB2	1.97	0.47
37:DO:56:LEU:HG	37:DO:57:LYS:HB3	1.95	0.47
41:BS:8:ARG:O	41:BS:9:TYR:HB2	2.15	0.47
1:AA:1107:C:N3	1:AA:1108:G:C8	2.83	0.47
3:AC:15:THR:HG21	3:AC:181:ASN:CA	2.44	0.47
14:AN:27:CYS:SG	14:AN:29:ARG:HB2	2.54	0.47
12:CL:53:LYS:N	12:CL:53:LYS:HD2	2.30	0.47
26:BD:120:TRP:NE1	26:BD:155:LYS:HB3	2.28	0.47
44:DV:128:VAL:CG2	44:DV:132:ASN:HB2	2.44	0.47
12:CL:44:PRO:CD	12:CL:50:ALA:H	2.28	0.47
41:DS:35:ILE:O	41:DS:36:LEU:C	2.52	0.47
1:CA:54:C:N4	1:CA:353:A:OP2	2.48	0.47
43:BU:81:LYS:HD2	43:BU:96:ILE:CD1	2.43	0.47
36:BN:4:LEU:C	36:BN:6:SER:N	2.68	0.47
1:CA:448:A:H2'	1:CA:449:C:H6	1.80	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:2791:C:H4'	23:BA:2792:G:OP1	2.14	0.47
23:DA:1503:U:H2'	23:DA:1504:C:C6	2.50	0.47
6:CF:44:GLY:HA2	6:CF:59:TYR:CE2	2.50	0.47
23:DA:1056:G:N2	23:DA:1104:C:N3	2.63	0.47
23:BA:1109:C:H42	23:BA:1110:G:N2	2.12	0.47
27:BE:65:TRP:HB3	27:BE:66:PRO:HD2	1.96	0.47
1:AA:722:A:H2'	1:AA:724:G:C8	2.49	0.47
33:DK:34:THR:HG23	33:DK:35:VAL:N	2.29	0.47
37:BO:34:HIS:ND1	37:BO:54:LEU:HB3	2.28	0.47
23:BA:1327:C:H2'	23:BA:1328:G:O4'	2.15	0.47
1:CA:1149:C:O2'	1:CA:1280:A:N1	2.44	0.47
23:DA:1000:A:H62	23:DA:1154:G:H2'	1.80	0.47
23:BA:1476:C:C2'	23:BA:1477:A:H5'	2.45	0.47
1:CA:1116:C:N3	1:CA:1117:G:C8	2.83	0.47
1:CA:1190:G:OP1	3:CC:4:LYS:HA	2.14	0.47
30:DH:5:LEU:CD2	30:DH:5:LEU:N	2.77	0.47
30:DH:6:LEU:N	30:DH:6:LEU:HD23	2.29	0.47
45:BW:36:ILE:HG23	45:BW:58:THR:CG2	2.44	0.47
28:BF:106:LEU:HD12	28:BF:110:ALA:HB3	1.95	0.47
29:BG:92:ILE:HD12	29:BG:92:ILE:N	2.29	0.47
36:BN:113:LEU:HA	36:BN:113:LEU:HD12	1.49	0.47
35:DM:60:ARG:H	44:DV:179:ASP:CB	2.27	0.47
33:BK:12:ASP:HA	33:BK:98:VAL:HA	1.95	0.47
1:AA:841:U:H4'	1:AA:842:C:C5	2.49	0.47
1:CA:1053:G:C3'	1:CA:1054:C:C5'	2.92	0.47
43:BU:76:CYS:O	43:BU:77:PRO:C	2.51	0.47
1:AA:1194:U:H4'	5:AE:22:GLY:O	2.13	0.47
1:AA:236:G:OP1	17:AQ:40:LYS:NZ	2.48	0.47
1:CA:513:C:C2	1:CA:539:A:C2	3.02	0.47
23:BA:333:G:C4	23:BA:334:C:C5	3.02	0.47
23:BA:115:C:O2'	23:BA:116:C:H5'	2.15	0.47
32:DJ:160:LYS:HD2	32:DJ:160:LYS:HA	1.53	0.47
23:BA:198:C:H6	23:BA:198:C:O5'	1.98	0.47
23:BA:1788:C:H2'	23:BA:1789:A:O4'	2.14	0.47
25:DC:257:LEU:HD23	25:DC:258:LYS:N	2.29	0.47
4:AD:38:TYR:CZ	4:AD:45:GLN:NE2	2.80	0.47
13:CM:24:GLY:O	13:CM:25:ILE:HD13	2.15	0.47
1:AA:560:U:C5'	1:AA:566:G:N2	2.77	0.47
1:AA:1126:U:H2'	1:AA:1127:G:H8	1.74	0.47
7:AG:50:ILE:HB	7:AG:58:PRO:HG3	1.96	0.47
8:AH:119:LEU:HD12	8:AH:124:ALA:HA	1.96	0.47
23:DA:635:C:O2'	23:DA:639:U:OP1	2.33	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:640:A:N3	8:CH:115:SER:HB2	2.30	0.47
23:BA:2372:G:O2'	51:B3:46:HIS:CE1	2.67	0.47
1:CA:1261:A:N7	1:CA:1262:C:C5	2.83	0.47
23:DA:956:G:OP1	35:DM:86:GLY:N	2.47	0.47
36:DN:94:TYR:C	36:DN:117:VAL:HG12	2.35	0.47
30:DH:86:THR:O	30:DH:86:THR:HG22	2.14	0.47
23:DA:49:A:H5''	23:DA:51:G:O4'	2.14	0.47
23:DA:1901:A:N3	23:DA:1901:A:C2'	2.78	0.47
23:DA:1832:C:H2'	23:DA:1833:U:O4'	2.15	0.47
1:CA:247:G:C4	1:CA:248:C:C5	3.03	0.47
1:AA:993:G:N3	1:AA:993:G:H2'	2.30	0.47
11:CK:101:SER:OG	11:CK:102:GLY:N	2.48	0.47
8:CH:17:THR:HG21	8:CH:80:ILE:HD13	1.97	0.47
9:CI:48:GLU:N	9:CI:49:PRO:CD	2.77	0.47
8:CH:50:ARG:CD	8:CH:50:ARG:N	2.77	0.47
1:CA:562:C:C4	1:CA:884:U:C5	3.03	0.47
23:DA:2039:C:H2'	23:DA:2040:C:H6	1.78	0.47
36:BN:96:ARG:HD2	36:BN:115:GLU:OE1	2.15	0.47
23:DA:1356:G:C6	23:DA:1357:U:C4	3.03	0.47
23:DA:2506:U:C5	23:DA:2507:C:C5	3.03	0.47
1:AA:575:G:C5	1:AA:881:G:N2	2.83	0.47
1:AA:165:C:H2'	1:AA:166:G:O4'	2.14	0.47
30:BH:75:LEU:HG	30:BH:76:THR:O	2.15	0.47
23:DA:1231:G:O2'	23:DA:1232:G:H5'	2.15	0.47
1:CA:934:C:C5	1:CA:1345:U:C6	3.03	0.47
41:DS:107:LEU:N	41:DS:107:LEU:HD13	2.29	0.47
1:AA:1438:G:O2'	1:AA:1439:C:H5'	2.14	0.47
23:BA:1905:C:O2'	23:BA:1929:G:H1'	2.15	0.47
1:AA:1403:C:H6	1:AA:1403:C:O5'	1.98	0.47
36:BN:13:HIS:CE1	36:BN:15:SER:HB3	2.50	0.47
23:DA:1685:C:O2'	23:DA:1686:C:H5'	2.14	0.47
9:AI:8:GLY:HA3	9:AI:76:ALA:O	2.13	0.47
4:AD:176:LEU:HG	4:AD:178:VAL:HG22	1.96	0.47
23:BA:1769:G:C5	23:BA:1984:G:C6	3.03	0.47
41:BS:79:GLY:C	41:BS:100:THR:HG22	2.35	0.47
1:AA:385:C:H6	1:AA:385:C:H3'	1.78	0.47
29:BG:34:GLU:O	29:BG:36:PRO:HD3	2.15	0.47
1:AA:1272:G:H2'	1:AA:1273:G:C8	2.50	0.47
1:CA:1241:G:C2	1:CA:1242:C:C4	3.03	0.47
3:CC:79:ARG:O	3:CC:82:GLU:HG3	2.15	0.47
4:CD:76:ARG:NH2	4:CD:80:GLU:OE1	2.48	0.47
13:CM:81:LEU:HD22	13:CM:86:CYS:SG	2.54	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:1364:G:OP2	46:DX:8:SER:HB2	2.14	0.47
1:AA:945:G:C6	1:AA:1337:G:C6	3.03	0.47
23:BA:500:G:N2	23:BA:502:A:H3'	2.29	0.47
32:BJ:58:ARG:O	32:BJ:60:LYS:N	2.48	0.47
49:B1:39:ARG:O	49:B1:57:ILE:HB	2.15	0.47
5:CE:60:TYR:C	5:CE:60:TYR:CD1	2.87	0.47
23:DA:2760:C:H2'	23:DA:2760:C:O2	2.13	0.47
23:DA:409:C:O2'	23:DA:410:G:H5'	2.15	0.47
23:BA:2330:G:C2'	23:BA:2331:G:H5'	2.44	0.47
26:DD:104:VAL:HG11	26:DD:188:VAL:HG21	1.95	0.47
23:BA:861:A:H2'	23:BA:862:G:O4'	2.14	0.47
24:BB:83:G:C6	24:BB:84:C:C5	3.03	0.47
1:AA:1308:U:OP1	13:AM:97:PRO:HA	2.15	0.47
1:AA:979:C:C5	1:AA:980:C:C6	3.03	0.47
27:DE:65:TRP:CH2	27:DE:75:HIS:HD2	2.33	0.47
32:DJ:37:VAL:HG12	32:DJ:38:LEU:N	2.29	0.47
39:DQ:92:ARG:O	39:DQ:94:ASN:N	2.48	0.47
40:DR:47:VAL:CG1	40:DR:50:PRO:O	2.63	0.47
30:BH:69:LYS:HD3	30:BH:138:ILE:HG12	1.96	0.47
23:DA:1799:G:C8	25:DC:181:GLU:CD	2.88	0.47
1:AA:403:C:O2'	1:AA:404:U:H5'	2.14	0.47
1:AA:408:A:C2	1:AA:409:G:C4	3.03	0.47
1:AA:35:G:O2'	12:AL:117:SER:O	2.28	0.47
30:DH:110:ASP:HB3	30:DH:111:PRO:HD2	1.95	0.47
23:DA:2697:G:C2	23:DA:2711:A:C2	3.02	0.47
23:BA:94:G:N3	47:BY:47:ASN:ND2	2.62	0.47
1:CA:187:C:H2'	1:CA:188:U:O4'	2.14	0.47
39:DQ:60:LEU:HD22	39:DQ:60:LEU:O	2.15	0.47
49:B1:40:ILE:HG23	49:B1:59:VAL:CG2	2.45	0.47
23:DA:2723:C:H4'	36:DN:2:ARG:HH21	1.78	0.47
4:AD:63:LYS:HD2	4:AD:198:VAL:CG2	2.44	0.47
25:BC:248:SER:HB2	25:BC:250:TRP:CE3	2.49	0.47
37:DO:58:LEU:HD12	37:DO:58:LEU:N	2.30	0.47
26:DD:57:LYS:CG	26:DD:58:ARG:N	2.78	0.47
29:DG:72:ILE:O	29:DG:75:ALA:N	2.47	0.47
48:BZ:28:LEU:CD1	48:BZ:28:LEU:N	2.76	0.47
1:CA:437:U:C4	1:CA:438:G:C6	3.03	0.47
25:DC:223:GLY:HA3	25:DC:231:HIS:ND1	2.30	0.47
46:DX:11:ARG:HB3	46:DX:12:PRO:HD3	1.91	0.47
7:AG:9:VAL:HG12	7:AG:10:ARG:H	1.79	0.47
36:DN:47:PHE:O	36:DN:51:LEU:HD12	2.14	0.47
41:DS:36:LEU:HD12	41:DS:48:ALA:CA	2.45	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BH:110:ASP:OD2	30:BH:113:ARG:HG3	2.14	0.47
4:CD:128:VAL:HA	4:CD:145:GLU:O	2.15	0.47
46:BX:46:LEU:HD21	46:BX:61:ARG:HG3	1.96	0.47
1:AA:749:C:O2	1:AA:749:C:H2'	2.14	0.47
23:BA:1056:G:N2	23:BA:1104:C:N3	2.63	0.47
1:CA:1530:G:H2'	1:CA:1531:A:C8	2.50	0.47
23:BA:1314:C:OP1	23:BA:1332:G:H5''	2.15	0.47
23:BA:2629:A:N3	23:BA:2629:A:H2'	2.29	0.47
23:DA:955:C:OP1	35:DM:85:LYS:HE2	2.14	0.47
28:DF:131:TYR:CE2	28:DF:133:LEU:HB3	2.49	0.47
1:AA:101:A:C6	1:AA:102:G:C5	3.02	0.47
23:DA:282:A:C4	23:DA:359:A:C2	3.03	0.47
33:BK:90:GLN:HG3	33:BK:90:GLN:O	2.14	0.47
38:BP:88:ILE:CD1	38:BP:89:VAL:H	2.27	0.47
17:CQ:59:ILE:HG23	17:CQ:71:PHE:HD1	1.79	0.47
29:BG:92:ILE:O	29:BG:93:GLY:C	2.53	0.47
44:BV:85:HIS:ND1	44:BV:85:HIS:C	2.68	0.47
24:DB:19:G:N2	24:DB:65:C:C2	2.83	0.47
6:CF:50:TYR:CE1	18:CR:77:GLY:HA2	2.50	0.47
24:DB:59:A:H2'	24:DB:60:C:O4'	2.15	0.47
23:DA:2189:U:H2'	23:DA:2189:U:O2	2.14	0.47
27:DE:36:VAL:HG11	27:DE:183:VAL:CG1	2.45	0.47
8:AH:51:VAL:HG21	8:AH:60:ARG:HG2	1.94	0.47
44:DV:13:GLU:CD	44:DV:13:GLU:H	2.18	0.47
1:CA:1443:G:H22	38:DP:119:LYS:CB	2.28	0.47
44:DV:82:ARG:HG2	44:DV:83:PRO:HD2	1.97	0.47
1:CA:650:G:C2	1:CA:651:C:C6	3.03	0.47
1:AA:1056:U:H5	1:AA:1200:C:N4	2.13	0.47
23:DA:2401:U:O2'	23:DA:2402:C:H5''	2.14	0.47
1:CA:730:G:C5	1:CA:731:G:H1'	2.50	0.47
1:CA:976:G:H5''	1:CA:1358:U:O2'	2.14	0.47
32:DJ:101:TYR:N	32:DJ:101:TYR:CD1	2.83	0.47
3:AC:175:LEU:CD1	3:AC:201:TYR:HE2	2.27	0.47
1:CA:1429:C:H2'	1:CA:1430:C:C6	2.50	0.47
1:CA:1298:C:H4'	1:CA:1299:A:C4	2.49	0.47
23:BA:2663:G:C5	23:BA:2664:G:C5	3.02	0.47
23:BA:1894:C:H2'	23:BA:1895:C:H6	1.80	0.47
25:BC:260:ARG:HG2	25:BC:260:ARG:O	2.15	0.47
23:BA:1920:C:H2'	23:BA:1920:C:O2	2.14	0.47
23:DA:27:G:C4	23:DA:512:G:N2	2.82	0.47
1:AA:562:C:N3	1:AA:884:U:C5	2.83	0.47
1:AA:479:C:C2	1:AA:480:U:C6	3.03	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:165:U:H2'	23:DA:171:G:O4'	2.14	0.47
48:DZ:50:VAL:O	48:DZ:50:VAL:HG23	2.14	0.47
12:AL:19:LYS:HD3	12:AL:19:LYS:N	2.30	0.47
23:DA:948:G:N2	23:DA:970:C:O2	2.48	0.47
1:CA:191(G):G:C4	1:CA:192:U:C5	3.02	0.47
1:CA:191(G):G:H2'	1:CA:192:U:C6	2.50	0.47
1:CA:1038:C:C2	1:CA:1039:C:C5	3.03	0.47
1:CA:897:C:H42	1:CA:902:G:H1	1.63	0.47
23:BA:1678:G:H22	23:BA:1989:G:H22	1.63	0.47
23:BA:2298:A:H2'	23:BA:2299:G:O4'	2.15	0.47
1:CA:1438:G:C5	1:CA:1439:C:C5	3.02	0.47
1:AA:744:C:C6	1:AA:744:C:H3'	2.49	0.47
23:DA:896:A:H1'	44:DV:176:PRO:HG3	1.96	0.47
41:DS:10:VAL:HG23	41:DS:101:SER:O	2.15	0.47
23:BA:1668:A:N7	23:BA:1674:G:C6	2.83	0.47
42:DT:18:TYR:CD1	42:DT:18:TYR:N	2.79	0.47
8:CH:74:PRO:O	8:CH:76:PRO:HD3	2.13	0.47
29:BG:105:LEU:HD23	29:BG:105:LEU:N	2.30	0.47
23:BA:1790:C:H2'	23:BA:1791:A:C5	2.49	0.47
1:AA:1400:C:H6	1:AA:1400:C:O5'	1.98	0.47
32:BJ:151:HIS:CD2	32:BJ:151:HIS:C	2.87	0.47
27:BE:156:LEU:HD12	27:BE:193:VAL:HG12	1.97	0.47
23:BA:2193:G:O2'	23:BA:2194:G:H5'	2.14	0.47
34:DL:66:GLY:O	34:DL:67:MET:HB2	2.15	0.47
23:DA:2439:A:O2'	23:DA:2440:C:OP2	2.25	0.47
23:BA:747:U:N3	50:B2:2:ALA:N	2.63	0.47
26:DD:101:ARG:HB3	26:DD:169:ASN:HD22	1.80	0.47
26:DD:167:VAL:CG1	26:DD:189:PRO:HD3	2.44	0.47
43:DU:17:SER:CB	43:DU:71:LYS:HD2	2.45	0.47
38:DP:51:ARG:CD	38:DP:62:THR:HG23	2.43	0.47
1:CA:1367:C:C2	1:CA:1368:G:C8	3.03	0.47
1:CA:954:G:H2'	1:CA:955:U:C6	2.50	0.47
23:BA:1021:A:H8	23:BA:1022:G:H5''	1.80	0.47
34:DL:51:PHE:HB3	34:DL:52:GLU:H	1.39	0.47
40:BR:47:VAL:HG11	40:BR:50:PRO:O	2.15	0.47
1:AA:373:A:C2	1:AA:482:A:N6	2.82	0.47
1:CA:392:G:C4	1:CA:393:A:N7	2.83	0.47
30:DH:68:LEU:O	30:DH:72:LEU:HB2	2.15	0.47
26:BD:57:LYS:CG	26:BD:58:ARG:N	2.78	0.47
1:CA:37:U:H2'	1:CA:38:G:C8	2.50	0.47
27:BE:173:VAL:HG12	27:BE:174:VAL:N	2.29	0.47
37:DO:62:LYS:O	37:DO:65:VAL:HB	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1075:C:OP1	2:CB:103:THR:HG21	2.15	0.47
2:AB:100:GLY:O	2:AB:104:ASN:N	2.47	0.47
1:CA:404:U:H2'	1:CA:405:U:C6	2.46	0.47
46:DX:9:GLY:O	46:DX:13:ILE:CG2	2.63	0.47
10:AJ:33:GLN:HB2	10:AJ:75:ILE:CD1	2.45	0.47
1:CA:1301:U:H3'	1:CA:1302:U:C5'	2.45	0.47
1:CA:692:U:H2'	1:CA:694:A:OP2	2.15	0.47
1:AA:1292:U:N3	1:AA:1293:G:N7	2.63	0.47
41:DS:48:ALA:O	41:DS:51:LEU:N	2.48	0.47
1:CA:59:A:H5''	1:CA:60:A:C5'	2.44	0.47
36:BN:60:LEU:HA	36:BN:63:ARG:HB3	1.95	0.47
2:AB:27:LYS:CG	2:AB:194:PRO:HD2	2.41	0.47
23:DA:2744:G:N3	23:DA:2761:G:C2	2.83	0.47
23:BA:84:A:H4'	23:BA:85:G:O5'	2.15	0.47
1:AA:1530:G:H2'	1:AA:1531:A:C8	2.50	0.47
15:AO:18:PHE:O	15:AO:19:PRO:O	2.32	0.47
27:BE:66:PRO:HB3	27:BE:68:LYS:NZ	2.30	0.47
29:DG:29:PRO:HD2	29:DG:79:VAL:O	2.15	0.47
23:DA:2562:U:C2'	23:DA:2563:U:H5'	2.45	0.47
28:DF:111:LEU:HA	28:DF:114:ILE:CD1	2.45	0.47
6:CF:98:LEU:CD1	6:CF:101:ALA:HB2	2.41	0.47
9:CI:58:ARG:HG2	9:CI:58:ARG:O	2.14	0.47
23:BA:2476:A:N3	23:BA:2476:A:C2'	2.77	0.47
4:CD:38:TYR:CZ	4:CD:45:GLN:NE2	2.81	0.47
1:CA:592:G:H2'	1:CA:593:G:H8	1.79	0.47
17:CQ:29:HIS:CE1	17:CQ:32:TYR:HD1	2.32	0.47
30:DH:2:LYS:HB3	30:DH:20:ASP:OD1	2.15	0.47
23:BA:302:C:H2'	23:BA:303:U:H6	1.76	0.47
1:CA:576:G:N2	1:CA:759:A:OP1	2.48	0.47
1:CA:17:U:H2'	1:CA:18:C:C6	2.49	0.47
6:AF:50:TYR:CE1	18:AR:74:ARG:O	2.68	0.47
6:CF:47:ARG:HH12	6:CF:56:PRO:HB2	1.80	0.47
35:DM:32:PHE:CZ	35:DM:111:GLU:HG2	2.46	0.47
38:DP:41:ARG:CB	38:DP:41:ARG:NH1	2.78	0.47
36:BN:84:ALA:N	36:BN:85:PRO:HD2	2.30	0.47
23:DA:1218:C:OP2	39:DQ:15:LYS:NZ	2.39	0.47
1:AA:1261:A:N7	1:AA:1262:C:C5	2.83	0.47
7:CG:30:ILE:HD13	7:CG:105:VAL:HG13	1.97	0.47
23:DA:2298:A:H2'	23:DA:2299:G:O4'	2.15	0.47
1:CA:1386:G:N3	1:CA:1387:G:C8	2.83	0.47
23:BA:1027:A:C6	23:BA:1126:A:C5	3.03	0.47
23:DA:2617:C:O2'	23:DA:2618:G:H5'	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:247:G:C5	1:AA:248:C:C5	3.03	0.47
3:AC:125:GLU:OE2	3:AC:189:ALA:HA	2.14	0.47
1:CA:1480:G:C4	1:CA:1481:U:C6	3.03	0.47
23:BA:2079:U:H2'	23:BA:2080:G:O4'	2.15	0.47
23:DA:1015:G:H2'	23:DA:1016:G:H5'	1.96	0.47
11:CK:86:GLY:C	11:CK:88:GLY:H	2.18	0.47
1:CA:165:C:H2'	1:CA:166:G:O4'	2.14	0.47
23:BA:26:G:C6	23:BA:27:G:N1	2.83	0.47
23:BA:1570:A:H4'	25:BC:38:LYS:HE2	1.96	0.47
1:AA:837:G:H1	1:AA:849:C:H42	1.63	0.47
24:BB:87:G:N2	24:BB:89(A):G:C8	2.83	0.47
23:BA:270(F):G:H2'	23:BA:270(G):U:O4'	2.14	0.47
23:DA:1897:G:H2'	23:DA:1898:U:O4'	2.15	0.47
23:BA:1751:C:H2'	23:BA:1752:C:C6	2.50	0.47
23:DA:2011:U:H2'	23:DA:2012:G:O4'	2.14	0.47
23:DA:487:C:H1'	41:DS:53:SER:HB2	1.97	0.47
11:CK:115:PRO:C	11:CK:117:ASN:H	2.17	0.47
23:DA:2405:G:O2'	23:DA:2411:A:N6	2.46	0.47
23:DA:2409:G:C6	23:DA:2410:G:C5	3.03	0.47
16:AP:1:MET:HG2	16:AP:2:VAL:O	2.14	0.47
43:BU:17:SER:HB2	43:BU:71:LYS:HD2	1.98	0.47
32:BJ:143:LEU:CD1	32:BJ:143:LEU:C	2.82	0.47
24:BB:81:G:C6	24:BB:82:G:N7	2.83	0.47
28:DF:64:THR:HG23	28:DF:66:GLN:N	2.29	0.47
1:AA:84:U:H5''	1:AA:85:U:OP2	2.15	0.47
10:AJ:55:LYS:O	10:AJ:56:HIS:CG	2.68	0.47
1:CA:1226:C:H2'	13:CM:103:THR:CB	2.42	0.47
23:BA:2291:U:O2'	23:BA:2374:C:O2	2.32	0.47
23:BA:1826:G:OP1	25:BC:233:HIS:CD2	2.63	0.47
23:DA:2731:G:H2'	23:DA:2732:G:C8	2.50	0.47
53:B5:11:LYS:N	53:B5:61:LEU:HD21	2.30	0.47
1:AA:376:G:C4	1:AA:389:A:N1	2.83	0.47
1:CA:391:G:C5	1:CA:392:G:C8	3.03	0.47
3:CC:114:PRO:HD3	3:CC:183:ASP:OD1	2.15	0.47
4:CD:21:LEU:HD12	4:CD:21:LEU:N	2.28	0.47
23:BA:1812:A:C2	23:BA:1813:G:C4	3.03	0.47
30:DH:79:ILE:HG22	30:DH:81:VAL:CG2	2.43	0.47
40:DR:76:LYS:O	40:DR:79:VAL:HG12	2.14	0.47
44:DV:92:SER:O	44:DV:93:ASP:HB3	2.14	0.47
1:AA:1076:C:C2'	1:AA:1077:G:H5'	2.45	0.47
1:AA:1080:A:C5'	1:AA:1081:G:OP2	2.63	0.47
1:AA:1192:C:OP2	3:AC:4:LYS:NZ	2.36	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:1586:A:H2'	23:DA:1587:A:H5'	1.97	0.47
6:AF:30:LEU:HD11	6:AF:63:TYR:CE1	2.50	0.47
25:BC:134:ARG:HG3	25:BC:135:PHE:HD1	1.79	0.47
23:BA:2745:C:C4	23:BA:2746:U:C5	3.03	0.47
15:CO:81:LEU:HD12	15:CO:81:LEU:O	2.15	0.47
53:B5:22:VAL:CB	53:B5:54:GLU:HG3	2.41	0.47
1:CA:101:A:C6	1:CA:102:G:C5	3.03	0.47
34:BL:10:PRO:CD	34:BL:11:GLY:H	2.26	0.47
36:BN:48:VAL:O	36:BN:51:LEU:N	2.48	0.47
8:CH:49:GLU:HG3	8:CH:51:VAL:HG23	1.96	0.47
23:DA:2477:C:O2'	23:DA:2478:A:OP2	2.30	0.47
23:BA:781:A:H2'	23:BA:1777:U:O2'	2.15	0.47
23:BA:627:A:C5	23:BA:637:A:N7	2.83	0.47
34:BL:85:LEU:HD22	34:BL:85:LEU:H	1.79	0.47
23:DA:1024:G:OP2	23:DA:1025:G:H3'	2.16	0.47
23:BA:987:G:H2'	23:BA:988:A:C5'	2.45	0.47
6:AF:50:TYR:HE1	18:AR:74:ARG:O	1.97	0.47
23:DA:1894:C:C2	23:DA:1895:C:C5	3.02	0.47
23:BA:60:G:C6	23:BA:74:A:N6	2.83	0.47
53:D5:29:LYS:O	53:D5:29:LYS:HG2	2.15	0.47
23:BA:164:U:C4	23:BA:165:U:C4	3.03	0.47
18:CR:45:SER:H	18:CR:51:LEU:CD1	2.28	0.47
48:DZ:19:GLN:O	48:DZ:23:LEU:HD13	2.14	0.47
9:AI:48:GLU:N	9:AI:49:PRO:CD	2.78	0.47
1:CA:1305:G:H5''	21:CU:4:GLY:C	2.35	0.47
23:DA:2584:U:O5'	23:DA:2584:U:C6	2.68	0.47
11:AK:111:ASP:O	11:AK:112:THR:C	2.53	0.47
37:DO:20:ARG:HH12	45:DW:47:PRO:HB2	1.79	0.47
23:BA:1301:A:H2	23:BA:1626:G:N3	2.12	0.47
50:D2:6:VAL:HG13	50:D2:7:PRO:HD2	1.97	0.47
23:BA:735:A:C8	23:BA:736:C:C5	3.03	0.47
1:AA:1493:A:H4'	1:AA:1494:G:OP2	2.15	0.47
23:BA:769:G:C2'	23:BA:770:G:H5'	2.45	0.47
23:DA:153:C:OP1	46:DX:92:LYS:HE2	2.15	0.47
23:BA:1421:G:C2	23:BA:1422:G:C8	3.02	0.47
44:DV:46:LYS:O	44:DV:50:GLN:OE1	2.33	0.47
34:DL:62:LEU:HD21	53:D5:25:MET:HB2	1.97	0.46
23:BA:2416:C:H6	23:BA:2416:C:O5'	1.97	0.46
23:BA:2416:C:C4	23:BA:2417:C:C5	3.03	0.46
10:AJ:48:THR:CG2	10:AJ:62:HIS:ND1	2.75	0.46
43:DU:68:HIS:C	43:DU:70:SER:H	2.19	0.46
38:DP:64:ARG:HD2	38:DP:73:GLU:CG	2.45	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1353:G:H1	1:CA:1369:C:N4	2.12	0.46
1:CA:84:U:H5''	1:CA:85:U:OP2	2.14	0.46
34:DL:38:GLN:CG	34:DL:39:LYS:N	2.71	0.46
23:DA:1657:C:O2'	23:DA:1658:C:H5'	2.16	0.46
39:DQ:83:LEU:HD12	39:DQ:83:LEU:N	2.30	0.46
41:DS:86:LEU:C	41:DS:86:LEU:HD12	2.35	0.46
1:CA:376:G:O2'	1:CA:377:G:C5'	2.63	0.46
16:CP:28:ARG:NH1	16:CP:28:ARG:HG2	2.14	0.46
30:BH:82:ARG:HB3	30:BH:89:TYR:CB	2.45	0.46
26:DD:137:HIS:CB	26:DD:138:PRO:HD2	2.44	0.46
13:CM:56:LEU:O	13:CM:59:TYR:HB3	2.14	0.46
26:BD:86:PRO:HB2	26:BD:87:GLU:H	1.38	0.46
1:CA:78:G:N1	1:CA:92:G:C6	2.84	0.46
2:CB:167:PRO:HG3	2:CB:188:ALA:HB2	1.96	0.46
26:DD:35:GLN:HG2	26:DD:36:ARG:N	2.30	0.46
1:CA:1104:G:N1	1:CA:1105:A:C5	2.82	0.46
1:AA:1072:G:O6	1:AA:1104:G:C6	2.68	0.46
46:DX:9:GLY:O	46:DX:13:ILE:HG21	2.15	0.46
10:CJ:33:GLN:HB2	10:CJ:75:ILE:CD1	2.46	0.46
12:CL:52:ARG:HG2	12:CL:52:ARG:HH11	1.73	0.46
4:CD:129:ASN:OD1	4:CD:129:ASN:N	2.48	0.46
18:AR:37:VAL:HG23	18:AR:38:GLU:N	2.30	0.46
1:CA:11:G:C5	1:CA:12:U:C5	3.03	0.46
43:BU:81:LYS:CD	43:BU:96:ILE:HG13	2.45	0.46
23:BA:1884:A:C2	23:BA:1885:A:C8	3.03	0.46
25:BC:79:VAL:HG11	25:BC:111:LEU:CD1	2.45	0.46
23:BA:1486:A:N1	23:BA:1504:C:C4	2.83	0.46
29:BG:20:ALA:HB1	29:BG:21:PRO:HD2	1.95	0.46
23:BA:1313:U:H4'	23:BA:1332:G:H4'	1.98	0.46
23:DA:1418:G:O5'	23:DA:1418:G:C8	2.54	0.46
25:DC:134:ARG:HG3	25:DC:135:PHE:HD1	1.75	0.46
8:AH:11:THR:O	8:AH:12:ARG:C	2.52	0.46
1:AA:1116:C:N3	1:AA:1117:G:C8	2.83	0.46
23:DA:2274:A:C5	23:DA:2276:G:C8	3.03	0.46
23:DA:2550:G:C6	23:DA:2551:C:C4	3.03	0.46
1:AA:855:G:C6	1:AA:856:C:C4	3.03	0.46
27:BE:52:LYS:HB3	27:BE:56:GLU:HB2	1.96	0.46
34:DL:70:GLN:O	34:DL:73:GLY:N	2.48	0.46
23:DA:8:A:C5	23:DA:9:U:O4	2.68	0.46
1:CA:173:U:C2	1:CA:197:A:C2	3.04	0.46
23:BA:2590:A:O2'	23:BA:2591:C:H5'	2.14	0.46
4:AD:102:ASP:OD2	4:AD:136:PRO:HB3	2.15	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CJ:58:ASP:C	10:CJ:60:ARG:N	2.69	0.46
24:DB:21:G:H2'	24:DB:22:U:O4'	2.15	0.46
29:DG:92:ILE:HD12	29:DG:92:ILE:N	2.30	0.46
17:CQ:54:GLY:HA3	17:CQ:82:MET:CE	2.45	0.46
32:BJ:69:VAL:CG1	32:BJ:71:MET:HG3	2.42	0.46
1:AA:236:G:C6	1:AA:237:C:C4	3.03	0.46
4:CD:52:SER:C	4:CD:54:TYR:N	2.67	0.46
23:BA:1728:G:H3'	23:BA:1728:G:C8	2.50	0.46
1:CA:762:C:C2	1:CA:763:G:C8	3.03	0.46
27:BE:46:ARG:CZ	27:BE:46:ARG:HB3	2.45	0.46
1:CA:976:G:C8	1:CA:1358:U:C2'	2.96	0.46
23:DA:229:A:H5'	23:DA:230:U:O5'	2.15	0.46
13:CM:70:LEU:C	13:CM:70:LEU:HD23	2.35	0.46
1:CA:560:U:C5'	1:CA:566:G:N2	2.78	0.46
7:CG:17:VAL:HG21	7:CG:44:TYR:CE2	2.50	0.46
8:CH:118:VAL:O	8:CH:118:VAL:HG12	2.15	0.46
43:BU:6:HIS:CD2	43:BU:35:TYR:CE1	3.00	0.46
1:AA:1090:U:H2'	1:AA:1091:U:H6	1.80	0.46
23:DA:442:G:H4'	27:DE:46:ARG:HD3	1.96	0.46
14:AN:26:ARG:HD2	14:AN:47:LEU:HD11	1.96	0.46
23:BA:2228:G:P	25:BC:263:ARG:HH21	2.38	0.46
1:AA:114:U:H2'	1:AA:115:G:H8	1.76	0.46
1:AA:1059:C:O2	10:AJ:53:PRO:HG2	2.15	0.46
35:BM:116:GLU:O	35:BM:117:ALA:C	2.54	0.46
1:CA:152:A:H62	1:CA:169:C:H42	1.63	0.46
1:AA:464:G:C6	1:AA:466:G:H5'	2.50	0.46
41:DS:45:TYR:CD2	41:DS:46:PHE:CD1	3.01	0.46
23:DA:164:U:C4	23:DA:165:U:C4	3.03	0.46
23:BA:2837:G:C5	23:BA:2838:G:N7	2.84	0.46
23:BA:1471:A:N7	23:BA:1522:G:C6	2.83	0.46
23:DA:2823:A:C5	23:DA:2824:C:C5	3.04	0.46
7:CG:80:VAL:C	7:CG:82:GLY:H	2.19	0.46
35:BM:77:LYS:NZ	35:BM:84:GLY:O	2.42	0.46
25:BC:198:ASN:C	25:BC:198:ASN:ND2	2.69	0.46
23:BA:298:G:P	43:BU:85:VAL:HG22	2.55	0.46
48:BZ:3:ARG:HH11	48:BZ:59:VAL:HG11	1.79	0.46
23:DA:2027:G:H2'	23:DA:2028:U:O4'	2.15	0.46
1:CA:1244:C:H2'	1:CA:1245:A:H8	1.79	0.46
23:DA:2410:G:H2'	23:DA:2411:A:O4'	2.15	0.46
23:BA:769:G:O2'	23:BA:770:G:H5'	2.15	0.46
1:AA:654:G:H1'	1:AA:753:A:N1	2.31	0.46
42:BT:40:LYS:O	42:BT:42:ALA:N	2.47	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:CP:75:ARG:C	16:CP:77:ALA:H	2.18	0.46
43:BU:31:LEU:HA	43:BU:32:PRO:HD3	1.74	0.46
1:CA:6:G:O2'	1:CA:7:G:H5'	2.14	0.46
8:AH:107:LEU:HD23	8:AH:107:LEU:N	2.30	0.46
20:AT:24:LEU:H	20:AT:24:LEU:HD22	1.80	0.46
1:AA:398:C:H6	1:AA:398:C:O5'	1.98	0.46
1:CA:850:U:O5'	1:CA:850:U:H6	1.98	0.46
35:BM:125:LEU:N	35:BM:125:LEU:HD23	2.30	0.46
26:BD:103:ASP:OD2	26:BD:201:THR:HA	2.15	0.46
23:BA:2014:A:H2'	23:BA:2015:A:C8	2.50	0.46
23:BA:1169:G:H1	23:BA:1180:C:N4	2.12	0.46
43:DU:9:LYS:O	43:DU:27:VAL:CG2	2.63	0.46
1:CA:1366:C:C4	1:CA:1367:C:N4	2.83	0.46
22:CV:6190:U:C4	22:CV:6191:A:N7	2.83	0.46
12:CL:26:LEU:O	12:CL:28:GLY:N	2.49	0.46
2:CB:183:PRO:HA	2:CB:198:ASP:OD1	2.14	0.46
41:BS:14:PRO:C	41:BS:16:LYS:N	2.66	0.46
24:DB:83:G:C6	24:DB:84:C:C5	3.03	0.46
23:DA:593:G:H4'	53:D5:62:LEU:HD11	1.96	0.46
32:DJ:110:LEU:HD22	32:DJ:110:LEU:O	2.15	0.46
39:BQ:83:LEU:CG	39:BQ:88:ILE:HD11	2.34	0.46
23:DA:2295:C:N3	23:DA:2296:U:H5	2.12	0.46
25:DC:182:LEU:N	25:DC:272:ALA:HB3	2.28	0.46
3:AC:182:ILE:CG1	3:AC:203:PHE:HD1	2.27	0.46
25:BC:31:LYS:HE2	25:BC:102:LYS:NZ	2.29	0.46
28:DF:70:VAL:HG12	28:DF:90:LEU:CD2	2.44	0.46
24:DB:73:A:N6	24:DB:104:A:H1'	2.29	0.46
44:DV:30:ASN:HA	44:DV:89:PHE:HE2	1.81	0.46
23:DA:661:C:O3'	34:DL:18:ARG:HD2	2.15	0.46
1:AA:394:G:C2	1:AA:395:C:C5	3.03	0.46
1:CA:130:A:C8	17:CQ:63:ARG:HG3	2.49	0.46
1:AA:1070:U:O2	1:AA:1106:G:C2	2.68	0.46
44:DV:134:PRO:C	44:DV:136:PHE:N	2.68	0.46
23:DA:2327:A:H2'	23:DA:2328:A:H8	1.75	0.46
23:BA:1503:U:C2	23:BA:1504:C:H5	2.33	0.46
44:DV:151:HIS:O	44:DV:171:ILE:HG12	2.15	0.46
23:BA:9:U:N3	23:BA:2629:A:C6	2.83	0.46
40:BR:66:ARG:HD2	40:BR:88:ARG:NE	2.29	0.46
24:DB:10:C:C4	24:DB:11:C:C5	3.04	0.46
1:AA:556:C:H2'	1:AA:557:G:C5'	2.44	0.46
1:AA:102:G:C4	1:AA:103:C:C5	3.02	0.46
23:BA:1476:C:C6	23:BA:1476:C:C3'	2.98	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1143:G:O5'	1:AA:1143:G:H8	1.99	0.46
1:CA:1143:G:O5'	1:CA:1143:G:H8	1.98	0.46
43:BU:50:ARG:CD	43:BU:51:VAL:H	2.25	0.46
25:BC:235:GLY:C	25:BC:237:GLU:H	2.17	0.46
30:DH:14:ASP:H	30:DH:17:GLN:NE2	2.13	0.46
30:DH:5:LEU:HD22	30:DH:19:VAL:HG12	1.96	0.46
1:AA:624:C:H4'	16:AP:10:GLY:HA2	1.97	0.46
23:DA:359:A:C8	23:DA:360:G:C8	3.03	0.46
24:BB:21:G:H2'	24:BB:22:U:O4'	2.14	0.46
23:BA:2477:C:O2'	23:BA:2478:A:OP2	2.33	0.46
50:D2:32:PRO:HA	50:D2:38:ALA:O	2.16	0.46
33:BK:21:CYS:SG	33:BK:22:ILE:N	2.88	0.46
9:AI:58:ARG:HG2	9:AI:58:ARG:O	2.15	0.46
23:BA:2287:A:H62	23:BA:2344:U:H3	1.63	0.46
44:DV:58:VAL:CG1	44:DV:66:SER:HB2	2.45	0.46
1:AA:1288:A:C6	1:AA:1289:A:C5	3.03	0.46
25:BC:176:ARG:NH1	25:BC:176:ARG:HG2	2.27	0.46
23:BA:1349:A:N6	23:BA:1598:C:N4	2.62	0.46
23:BA:2850:A:H2'	23:BA:2851:A:O4'	2.16	0.46
1:CA:1441:G:H8	1:CA:1441:G:O5'	1.97	0.46
23:BA:2226:C:O5'	23:BA:2226:C:H6	1.98	0.46
1:CA:511:C:C5	1:CA:541:G:N2	2.83	0.46
1:CA:1424:C:H2'	1:CA:1425:U:O4'	2.15	0.46
23:DA:987:G:H2'	23:DA:988:A:C5'	2.45	0.46
20:CT:93:GLU:O	20:CT:93:GLU:HG2	2.15	0.46
1:CA:565:U:C5	1:CA:566:G:C5	3.03	0.46
23:DA:1682:G:H2'	23:DA:1683:C:C6	2.50	0.46
39:DQ:29:SER:OG	39:DQ:30:LYS:HE3	2.16	0.46
23:DA:1734:C:H2'	23:DA:1735:U:O4'	2.16	0.46
36:DN:84:ALA:HB3	36:DN:85:PRO:HD3	1.98	0.46
1:CA:1511:G:H2'	1:CA:1512:U:O4'	2.15	0.46
23:BA:1734:C:H2'	23:BA:1735:U:O4'	2.16	0.46
2:AB:106:LYS:HE2	2:AB:110:GLN:HE21	1.76	0.46
23:DA:189:G:H1	23:DA:205:G:HO2'	1.62	0.46
3:AC:30:ARG:O	3:AC:34:LEU:HB2	2.15	0.46
1:CA:1182:G:H4'	1:CA:1183:A:H5"	1.96	0.46
10:AJ:98:ILE:O	10:AJ:99:LYS:HD3	2.15	0.46
23:DA:2837:G:C6	23:DA:2838:G:N7	2.83	0.46
1:AA:1160:G:C6	1:AA:1181:G:O6	2.68	0.46
23:BA:2038:G:C5	23:BA:2039:C:C5	3.03	0.46
41:DS:45:TYR:CZ	41:DS:49:LYS:HE3	2.49	0.46
2:AB:15:VAL:H	2:AB:16:HIS:CE1	2.33	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:B5:29:LYS:O	53:B5:29:LYS:HG2	2.15	0.46
1:CA:636:U:O2'	1:CA:637:G:H5'	2.15	0.46
3:AC:108:ASN:HB3	3:AC:111:LEU:HD12	1.97	0.46
1:AA:419:C:C2'	1:AA:420:U:H5'	2.45	0.46
23:DA:532:A:C8	23:DA:2021:C:C4	3.03	0.46
23:BA:2435:A:H2'	23:BA:2436:G:O5'	2.15	0.46
27:BE:139:PHE:CB	27:BE:166:ALA:HB1	2.44	0.46
23:BA:771:G:C4	23:BA:772:C:C5	3.03	0.46
23:BA:1678:G:H22	23:BA:1989:G:N2	2.13	0.46
23:BA:1381:G:C2'	23:BA:1382:G:H5'	2.46	0.46
38:BP:105:LEU:HA	38:BP:105:LEU:HD23	1.70	0.46
23:DA:1678:G:H22	23:DA:1989:G:N2	2.12	0.46
23:DA:476:G:H4'	23:DA:502:A:N1	2.31	0.46
1:AA:645:C:H2'	1:AA:646:U:O4'	2.14	0.46
16:CP:1:MET:HG2	16:CP:2:VAL:O	2.15	0.46
28:DF:121:ASN:ND2	28:DF:122:PRO:HD2	2.30	0.46
6:AF:28:ARG:O	6:AF:32:ASN:N	2.48	0.46
4:CD:176:LEU:HG	4:CD:178:VAL:HG22	1.97	0.46
1:CA:857:C:H2'	1:CA:858:G:O4'	2.15	0.46
48:BZ:38:GLU:OE1	48:BZ:38:GLU:N	2.49	0.46
6:CF:42:GLU:HG2	6:CF:42:GLU:O	2.15	0.46
44:DV:131:ARG:HD2	44:DV:131:ARG:H	1.79	0.46
29:DG:103:LEU:HG	29:DG:103:LEU:O	2.15	0.46
23:DA:637:A:OP1	34:DL:133:SER:HB3	2.15	0.46
34:DL:122:PRO:HB3	34:DL:141:ALA:O	2.15	0.46
23:BA:2331:G:H8	23:BA:2331:G:O5'	1.98	0.46
26:BD:103:ASP:OD1	26:BD:201:THR:HG23	2.16	0.46
23:BA:1542:G:H3'	23:BA:1542:G:P	2.55	0.46
25:BC:155:LEU:HD13	25:BC:155:LEU:H	1.80	0.46
1:CA:1367:C:N3	1:CA:1368:G:N7	2.63	0.46
22:AV:6182:A:C6	22:AV:6195:G:N1	2.84	0.46
1:CA:960:U:C6	1:CA:1225:A:C8	3.04	0.46
23:BA:2846:G:H2'	23:BA:2847:U:O4'	2.14	0.46
23:DA:861:A:O2'	35:DM:18:LYS:NZ	2.46	0.46
1:CA:390:C:O3'	16:CP:28:ARG:NH2	2.46	0.46
16:CP:68:ASP:C	16:CP:70:ALA:H	2.19	0.46
1:AA:37:U:H2'	1:AA:38:G:C8	2.49	0.46
1:AA:692:U:O4	11:AK:52:GLY:C	2.54	0.46
1:AA:1252:A:H61	1:AA:1285:A:N6	2.11	0.46
1:CA:90:C:N3	1:CA:91:C:C4	2.83	0.46
28:BF:25:TYR:CZ	28:BF:32:PRO:HD3	2.51	0.46
35:DM:141:GLN:OE1	44:DV:97:GLU:O	2.32	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1105:A:C2	1:CA:1106:G:C8	3.03	0.46
23:BA:2543:G:O4'	23:BA:2766:G:H5'	2.15	0.46
48:DZ:43:ILE:O	48:DZ:47:VAL:HG23	2.15	0.46
23:BA:1438:U:O2'	23:BA:1439:A:H5'	2.15	0.46
1:AA:1353:G:H1	1:AA:1369:C:N4	2.13	0.46
36:BN:9:LYS:C	36:BN:10:LEU:CG	2.82	0.46
25:DC:172:TYR:CD1	25:DC:186:HIS:CA	2.92	0.46
23:DA:2745:C:C4	23:DA:2746:U:C4	3.02	0.46
23:DA:1495:A:C4	23:DA:1496:A:C2	3.04	0.46
43:BU:96:ILE:HD11	43:BU:99:CYS:HB2	1.97	0.46
2:AB:83:MET:CE	2:AB:234:PRO:HG2	2.45	0.46
1:CA:1221:G:OP1	1:CA:1321:C:N3	2.47	0.46
23:BA:1496:A:C8	23:BA:1498:C:N3	2.84	0.46
4:CD:110:PHE:HE1	4:CD:148:VAL:HG23	1.80	0.46
1:AA:557:G:H2'	1:AA:558:G:O4'	2.14	0.46
53:B5:51:ALA:H	53:B5:54:GLU:CB	2.24	0.46
30:BH:8:PRO:HA	30:BH:14:ASP:HA	1.98	0.46
44:BV:74:VAL:CG2	44:BV:86:VAL:HG13	2.45	0.46
50:D2:52:TYR:C	50:D2:52:TYR:HD1	2.18	0.46
23:DA:534:U:C2'	39:DQ:49:HIS:HD2	2.28	0.46
50:B2:52:TYR:C	50:B2:52:TYR:HD1	2.18	0.46
29:DG:62:LYS:O	29:DG:63:SER:C	2.54	0.46
28:DF:11:TYR:HB2	28:DF:176:LEU:HD21	1.96	0.46
25:DC:257:LEU:HD23	25:DC:258:LYS:O	2.16	0.46
1:CA:631:G:N2	1:CA:632:A:C2	2.83	0.46
23:DA:775:G:C4	23:DA:794:G:C8	3.04	0.46
7:AG:15:ASP:OD1	7:AG:18:TYR:HD1	1.98	0.46
23:BA:575:A:OP2	23:BA:2499:C:O2'	2.31	0.46
2:AB:158:LEU:N	2:AB:158:LEU:HD12	2.30	0.46
40:DR:22:VAL:O	40:DR:23:GLU:C	2.54	0.46
26:BD:117:MET:HE1	26:BD:136:ARG:HA	1.97	0.46
23:DA:189:G:C8	23:DA:189:G:H3'	2.51	0.46
23:BA:2738:A:C2	23:BA:2739:U:H1'	2.50	0.46
23:BA:1894:C:C2	23:BA:1895:C:C5	3.04	0.46
23:DA:414:C:H2'	23:DA:415:A:C8	2.51	0.46
23:DA:1471:A:C2	23:DA:1472:A:C8	3.03	0.46
35:BM:36:ALA:O	35:BM:100:GLY:N	2.40	0.46
24:DB:5:C:O2'	24:DB:27:C:H1'	2.15	0.46
23:DA:1027:A:N6	23:DA:1126:A:C4	2.84	0.46
5:CE:38:GLN:HG2	5:CE:38:GLN:O	2.15	0.46
1:CA:574:A:H1'	1:CA:883:C:O4'	2.15	0.46
23:BA:1761:C:H5"	23:BA:1762:A:OP2	2.16	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:1717:G:O6	23:BA:1743:G:C6	2.69	0.46
37:BO:35:ILE:CG1	37:BO:101:LEU:HD23	2.46	0.46
23:DA:1232:G:C5	23:DA:1233:C:C5	3.04	0.46
23:BA:723:G:H2'	23:BA:724:U:O4'	2.15	0.46
23:BA:476:G:O4'	23:BA:505:A:C2	2.68	0.46
35:BM:125:LEU:HB3	35:BM:126:PRO:HD2	1.97	0.46
5:CE:69:VAL:HG12	5:CE:71:LEU:HG	1.98	0.46
8:AH:68:ARG:HG2	8:AH:69:ARG:H	1.81	0.46
4:CD:88:VAL:HG13	5:CE:97:GLY:CA	2.45	0.46
23:BA:270(W):G:C4	23:BA:270(X):G:C8	3.03	0.46
23:BA:38:A:H2'	23:BA:39:C:C6	2.50	0.46
23:BA:896:A:H1'	44:BV:176:PRO:HG3	1.98	0.46
41:DS:31:GLU:O	41:DS:34:ASN:HB2	2.16	0.46
1:CA:654:G:H1'	1:CA:753:A:N1	2.29	0.46
44:BV:131:ARG:HD2	44:BV:131:ARG:H	1.80	0.46
4:CD:166:LYS:O	4:CD:166:LYS:HD2	2.15	0.46
1:AA:789:U:H6	1:AA:789:U:O5'	1.97	0.46
23:DA:1206:G:C6	23:DA:1207:C:C4	3.03	0.46
23:DA:60:G:C6	23:DA:74:A:N6	2.82	0.46
12:CL:125:LYS:HE2	12:CL:127:ALA:H	1.79	0.46
23:DA:627:A:C5	23:DA:637:A:N7	2.83	0.46
23:BA:2330:G:H1'	45:BW:41:ARG:HB3	1.96	0.46
45:DW:26:TYR:HB2	45:DW:29:GLN:NE2	2.30	0.46
27:DE:68:LYS:C	27:DE:70:THR:H	2.19	0.46
39:DQ:79:PHE:CE2	39:DQ:106:PHE:CZ	3.04	0.46
40:DR:2:PHE:CE2	40:DR:13:ARG:CD	2.88	0.46
23:DA:1022:G:H8	32:DJ:92:GLN:NE2	2.12	0.46
28:DF:33:ARG:HD3	28:DF:162:THR:HG21	1.98	0.46
1:AA:373:A:C8	1:AA:482:A:C8	3.03	0.46
12:AL:25:ALA:O	12:AL:26:LEU:HB2	2.15	0.46
4:CD:64:LEU:HB2	4:CD:198:VAL:HG11	1.98	0.46
42:DT:43:VAL:HG11	42:DT:81:VAL:HG11	1.97	0.46
13:AM:56:LEU:O	13:AM:59:TYR:HB3	2.16	0.46
23:BA:1590:U:O2	23:BA:1591:G:C8	2.68	0.46
44:DV:125:LEU:HD23	44:DV:126:VAL:N	2.31	0.46
35:BM:47:ILE:HG22	35:BM:48:GLU:H	1.73	0.46
27:DE:118:ALA:HB2	27:DE:123:LEU:HD23	1.97	0.46
23:DA:1404:C:C2'	23:DA:1405:U:H5'	2.46	0.46
5:CE:76:ILE:CG1	5:CE:77:PRO:HD2	2.40	0.46
35:BM:141:GLN:OE1	44:BV:72:ARG:CZ	2.63	0.46
23:DA:1324:G:C4	23:DA:1328:G:O6	2.69	0.46
1:CA:1104:G:N3	1:CA:1105:A:C8	2.84	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CS:60:VAL:HG21	19:CS:74:PHE:HB3	1.97	0.46
12:CL:52:ARG:NH1	12:CL:52:ARG:HG3	2.20	0.46
6:CF:5:GLU:OE1	6:CF:62:TRP:CZ2	2.68	0.46
13:AM:10:PRO:CG	13:AM:22:ILE:HD11	2.45	0.46
29:DG:151:ILE:H	29:DG:151:ILE:HD13	1.78	0.46
46:BX:13:ILE:O	46:BX:14:VAL:HB	2.16	0.46
35:DM:6:ARG:HE	35:DM:6:ARG:HB2	1.56	0.46
1:AA:819:A:N6	1:AA:1529:G:C5	2.83	0.46
8:CH:25:ASP:C	8:CH:26:VAL:HG12	2.34	0.46
23:DA:2809:A:C2	23:DA:2892:A:C4	3.03	0.46
1:CA:1279:A:O2'	1:CA:1282:C:N4	2.48	0.46
8:CH:113:SER:O	8:CH:114:THR:HG23	2.15	0.46
53:B5:57:ARG:HA	53:B5:57:ARG:CZ	2.45	0.46
23:DA:380:U:O2	23:DA:380:U:H2'	2.13	0.46
13:AM:71:ARG:O	13:AM:74:VAL:HB	2.15	0.46
11:AK:13:GLN:HG3	11:AK:75:TYR:O	2.16	0.46
47:BY:49:LYS:H	47:BY:49:LYS:HD2	1.80	0.46
44:BV:24:LEU:HD11	44:BV:85:HIS:HA	1.96	0.46
23:DA:1557:C:OP2	23:DA:1558:A:O2'	2.25	0.46
33:DK:2:ILE:CD1	33:DK:82:ASN:HD22	2.28	0.46
23:BA:816:C:O2'	23:BA:817:C:H5'	2.16	0.46
36:BN:52:ILE:HG21	36:BN:94:TYR:CB	2.44	0.46
38:DP:96:ARG:CZ	38:DP:96:ARG:HB2	2.45	0.46
26:DD:9:VAL:HG22	26:DD:25:VAL:HB	1.98	0.46
1:CA:1379:G:C6	1:CA:1380:U:O4	2.69	0.46
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.51	0.46
23:BA:444:C:H4'	27:BE:49:ALA:HB2	1.96	0.46
23:DA:794:G:H2'	23:DA:795:C:C6	2.49	0.46
44:DV:108:PRO:HG3	44:DV:141:VAL:HG22	1.96	0.46
23:DA:2436:G:C4	23:DA:2437:U:C6	3.03	0.46
1:CA:1504:G:OP1	1:CA:1507:A:H4'	2.15	0.46
28:BF:55:LYS:HD2	28:BF:58:GLN:NE2	2.29	0.46
35:DM:38:GLU:HB2	35:DM:127:ILE:HG12	1.97	0.46
1:CA:1286:A:C8	1:CA:1288:A:OP1	2.69	0.46
23:DA:2572:A:C8	26:DD:144:ARG:HB3	2.50	0.46
47:BY:36:ARG:HA	47:BY:39:ALA:HB2	1.98	0.46
23:BA:533:G:N3	39:BQ:45:TYR:HE1	2.11	0.46
23:BA:2078:C:H2'	23:BA:2079:U:C6	2.51	0.46
1:CA:634:C:H2'	1:CA:635:G:H8	1.78	0.46
6:AF:97:PHE:HD2	18:AR:31:LEU:HD21	1.80	0.46
23:BA:948:G:C2	23:BA:970:C:O2	2.68	0.46
23:BA:245:G:C5	23:BA:246:C:C5	3.04	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:1523:U:H2'	23:DA:1524:G:C8	2.51	0.46
1:AA:142:G:C2	1:AA:143:A:C5	3.03	0.46
23:BA:353:G:H2'	23:BA:354:G:H8	1.80	0.46
23:DA:238:C:O2'	23:DA:608:A:H1'	2.15	0.46
23:DA:2557:G:H2'	23:DA:2558:C:C6	2.50	0.46
11:CK:18:ARG:HD2	11:CK:83:ILE:HD11	1.96	0.46
23:BA:653:C:H6	23:BA:653:C:O5'	1.96	0.46
1:CA:1114:C:O5'	1:CA:1114:C:H6	1.98	0.46
53:D5:32:LEU:N	53:D5:32:LEU:HD23	2.30	0.46
23:DA:2361:A:H5'	53:D5:27:THR:OG1	2.15	0.46
23:DA:1309:G:P	52:D4:9:ARG:HD2	2.56	0.46
1:AA:946:A:H61	1:AA:1235:U:H3	1.63	0.46
22:CV:6190:U:O4	22:CV:6191:A:N6	2.48	0.46
1:CA:946:A:H2'	1:CA:947:G:C8	2.50	0.46
23:DA:809:G:O2'	23:DA:810:U:H5'	2.15	0.46
40:BR:45:THR:O	40:BR:46:VAL:HG22	2.16	0.46
53:B5:7:HIS:CB	53:B5:60:LEU:HB3	2.46	0.46
16:AP:5:ARG:CB	16:AP:67:THR:OG1	2.63	0.46
4:CD:75:PHE:CZ	4:CD:93:PHE:CZ	3.04	0.46
3:CC:112:SER:O	3:CC:116:VAL:HG23	2.15	0.46
44:DV:3:TYR:O	44:DV:57:ILE:HA	2.16	0.46
23:BA:363(B):A:C2	23:BA:363(C):G:C5	3.04	0.46
36:DN:9:LYS:HG2	36:DN:43:GLU:OE2	2.15	0.46
1:CA:1107:C:N3	1:CA:1108:G:C8	2.84	0.46
25:BC:175:LEU:HD23	25:BC:175:LEU:HA	1.76	0.46
18:CR:56:THR:O	18:CR:58:LEU:HD12	2.16	0.46
43:BU:81:LYS:HD3	43:BU:97:ARG:CB	2.42	0.46
33:BK:28:SER:O	33:BK:29:ASN:HB3	2.15	0.46
23:BA:2807:G:N1	23:BA:2893:G:O6	2.48	0.46
5:CE:48:ALA:C	5:CE:50:GLU:H	2.19	0.46
1:AA:1238:A:N3	1:AA:1238:A:H2'	2.30	0.46
9:CI:28:VAL:CG2	9:CI:63:ILE:HB	2.44	0.46
1:CA:599:C:H4'	8:CH:130:GLY:C	2.35	0.46
1:CA:642:A:C2'	8:CH:113:SER:OG	2.64	0.46
28:DF:131:TYR:HD2	28:DF:133:LEU:HD22	1.81	0.46
53:B5:22:VAL:HB	53:B5:54:GLU:CG	2.43	0.46
1:CA:1117:G:N2	1:CA:1180:A:H1'	2.23	0.46
1:CA:1145:C:H4'	1:CA:1146:A:C8	2.49	0.46
45:BW:36:ILE:HD12	45:BW:58:THR:CG2	2.42	0.46
34:BL:10:PRO:HD2	34:BL:11:GLY:H	1.81	0.46
36:BN:54:LEU:CD2	36:BN:62:ALA:HB1	2.45	0.46
23:DA:2784:C:H2'	23:DA:2785:C:H6	1.81	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:2591:C:H2'	23:DA:2592:G:H8	1.79	0.46
1:CA:278:G:OP2	17:CQ:41:LYS:CE	2.64	0.46
17:CQ:59:ILE:CG2	17:CQ:71:PHE:CD1	2.99	0.46
23:BA:580:C:O2'	23:BA:581:C:H5'	2.15	0.46
23:DA:737:C:H2'	23:DA:738:G:C5'	2.42	0.46
9:AI:58:ARG:NH2	9:AI:59:PHE:HE1	2.14	0.46
23:BA:2287:A:C2	23:BA:2289:G:C8	3.04	0.46
8:CH:51:VAL:HG21	8:CH:60:ARG:HG2	1.98	0.46
38:DP:3:ARG:HD2	38:DP:6:LEU:HD23	1.97	0.46
1:CA:515:G:C2	1:CA:537:G:N3	2.83	0.46
29:DG:16:SER:HB2	29:DG:27:LYS:HB2	1.98	0.46
23:DA:1414:G:N2	23:DA:1589:C:C2	2.84	0.46
23:DA:2226:C:H6	23:DA:2226:C:O5'	1.99	0.46
23:BA:997:G:H2'	23:BA:998:C:H5'	1.97	0.46
29:DG:98:LEU:HB2	29:DG:125:VAL:CG2	2.46	0.46
19:CS:29:ARG:HD2	19:CS:30:LEU:N	2.30	0.46
7:CG:50:ILE:HB	7:CG:58:PRO:HG3	1.98	0.46
34:BL:75:ILE:N	34:BL:75:ILE:HD12	2.30	0.46
1:CA:382:A:C2	1:CA:383:A:C4	3.04	0.46
1:AA:186(D):G:N1	1:AA:186(E):C:C4	2.84	0.46
23:DA:991:C:C5	23:DA:1185:C:N3	2.84	0.46
23:BA:1024:G:OP2	23:BA:1025:G:H3'	2.15	0.46
37:BO:14:VAL:O	37:BO:18:ILE:HG12	2.16	0.46
23:DA:1127:A:H2'	23:DA:1128:A:H5''	1.97	0.46
26:BD:181:LEU:HA	26:BD:181:LEU:HD12	1.73	0.46
23:BA:188:G:C2'	23:BA:189:G:H5'	2.45	0.46
23:DA:491:G:O6	41:DS:49:LYS:HD3	2.15	0.46
23:BA:1203:G:H3'	23:BA:1204:A:C5'	2.45	0.46
23:DA:2038:G:C5	23:DA:2039:C:C4	3.03	0.46
1:AA:117:G:H2'	1:AA:118:U:O4'	2.16	0.46
25:BC:159:ALA:HB1	25:BC:198:ASN:O	2.16	0.46
4:AD:135:LEU:HD13	4:AD:135:LEU:N	2.30	0.46
1:CA:1401:G:C2	1:CA:1402:C:H1'	2.50	0.46
8:CH:54:ASP:C	8:CH:56:LYS:H	2.19	0.46
1:AA:1244:C:H2'	1:AA:1245:A:H8	1.80	0.46
1:AA:757:U:H2'	1:AA:758:G:O4'	2.15	0.46
5:AE:72:GLN:O	5:AE:73:ASN:HB3	2.16	0.46
1:AA:645:C:C2'	1:AA:646:U:H5'	2.45	0.46
28:DF:121:ASN:HD22	28:DF:122:PRO:HD2	1.80	0.46
11:CK:87:THR:HA	11:CK:91:ARG:HH21	1.79	0.46
48:BZ:5:LYS:HE2	48:BZ:34:GLU:OE1	2.16	0.46
2:CB:47:THR:HA	2:CB:202:PRO:HG2	1.97	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AF:41:GLU:O	6:AF:43:LEU:N	2.49	0.46
1:CA:789:U:H6	1:CA:789:U:O5'	1.99	0.46
35:BM:73:PRO:HB3	35:BM:93:TYR:CE2	2.50	0.46
34:DL:115:LEU:HA	34:DL:134:ALA:HB2	1.96	0.46
23:BA:2416:C:C2	23:BA:2417:C:C5	3.03	0.46
47:BY:1:MET:SD	47:BY:5:GLU:OE2	2.73	0.46
2:AB:91:PRO:CB	2:AB:154:LEU:HD11	2.46	0.46
2:AB:91:PRO:HB3	2:AB:154:LEU:HD11	1.98	0.46
1:CA:1371:G:O3'	9:CI:69:GLY:HA3	2.15	0.46
26:BD:169:ASN:HD22	26:BD:169:ASN:C	2.19	0.46
28:BF:60:LEU:HA	28:BF:63:ILE:HD11	1.97	0.46
1:CA:551:U:H5'	12:CL:118:LYS:HZ3	1.80	0.46
2:CB:71:VAL:CG2	2:CB:164:VAL:HG13	2.38	0.46
32:BJ:36:TRP:N	32:BJ:36:TRP:CD1	2.81	0.46
40:DR:38:LEU:HD12	40:DR:57:VAL:HG12	1.98	0.46
25:BC:105:ILE:HD13	25:BC:106:ILE:N	2.30	0.46
23:BA:1828:G:OP2	25:BC:239:ARG:CZ	2.64	0.46
40:BR:5:VAL:HG11	40:BR:14:VAL:HG21	1.98	0.46
23:DA:1639:U:H4'	23:DA:2699:C:H4'	1.98	0.46
1:CA:262:A:H5'	20:CT:74:LYS:HG3	1.98	0.46
20:CT:73:HIS:CD2	20:CT:74:LYS:H	2.33	0.46
28:BF:126:ASP:O	28:BF:128:ARG:N	2.42	0.46
1:AA:198:G:O2'	1:AA:199:G:H5'	2.16	0.46
23:DA:1323:U:H2'	23:DA:1324:G:H5'	1.97	0.46
1:CA:1074:G:N3	1:CA:1102:A:C2	2.84	0.46
25:DC:231:HIS:HD2	25:DC:249:PRO:CA	2.18	0.46
1:AA:1279:A:O2'	1:AA:1282:C:N4	2.48	0.46
19:AS:60:VAL:HG21	19:AS:74:PHE:HB3	1.97	0.46
1:CA:321:A:O2'	1:CA:322:C:H5'	2.16	0.46
1:CA:722:A:H2'	1:CA:724:G:C8	2.50	0.46
23:DA:1401:G:C5	23:DA:1402:C:C5	3.03	0.46
23:BA:380:U:H4'	46:BX:21:ARG:O	2.15	0.46
1:AA:670:G:N2	1:AA:736:C:O2	2.47	0.46
40:BR:24:LYS:HA	40:BR:92:THR:CG2	2.41	0.46
33:DK:96:THR:O	33:DK:97:ARG:C	2.54	0.46
23:BA:2276:G:C2'	23:BA:2277:G:H5'	2.45	0.46
8:AH:137:VAL:HG12	8:AH:138:TRP:N	2.31	0.46
40:BR:100:ARG:O	40:BR:100:ARG:CG	2.56	0.46
23:BA:732:C:C2'	23:BA:733:G:H5'	2.45	0.46
33:DK:88:ASN:HB3	33:DK:92:GLU:H	1.80	0.46
15:AO:53:HIS:HE1	23:BA:715:G:C6	2.34	0.46
28:BF:77:ILE:CG2	28:BF:80:PHE:H	2.23	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:2406:U:O4	34:BL:70:GLN:HB3	2.16	0.46
10:AJ:34:VAL:HG22	10:AJ:74:ILE:HG22	1.97	0.46
23:BA:497:A:C6	23:BA:498:G:C5	3.04	0.46
28:BF:111:LEU:HA	28:BF:114:ILE:CD1	2.45	0.46
1:AA:41:G:O6	1:AA:401:C:N3	2.49	0.46
30:DH:66:GLU:HB3	30:DH:67:ARG:NH1	2.31	0.46
23:BA:2100:G:N2	23:BA:2101:G:N3	2.63	0.46
1:AA:976:G:C8	1:AA:1358:U:C2'	2.97	0.46
1:AA:1286:A:C8	1:AA:1288:A:OP1	2.69	0.46
1:CA:527:G:H2'	1:CA:528:C:H5'	1.97	0.46
25:DC:61:LEU:HB3	25:DC:63:ARG:NH1	2.30	0.46
27:BE:89:VAL:O	27:BE:91:GLY:N	2.44	0.46
23:DA:1349:A:N6	23:DA:1598:C:N4	2.64	0.46
23:BA:1289:C:H2'	23:BA:1290:C:C6	2.51	0.46
1:AA:300:A:C8	1:AA:300:A:C3'	2.98	0.46
36:BN:85:PRO:HA	36:BN:88:ARG:NH1	2.30	0.46
23:BA:1844:C:O3'	25:BC:258:LYS:NZ	2.45	0.46
20:CT:84:LEU:HD13	20:CT:84:LEU:C	2.36	0.46
23:DA:493:G:H2'	23:DA:494:G:O4'	2.16	0.46
40:DR:12:TYR:CZ	40:DR:22:VAL:HG22	2.50	0.46
1:AA:160:A:N7	1:AA:161:A:C5	2.84	0.46
23:DA:2718:G:C2'	23:DA:2719:G:O5'	2.64	0.46
23:BA:923:C:O2'	23:BA:924:C:H5'	2.16	0.46
3:CC:30:ARG:O	3:CC:34:LEU:HB2	2.15	0.46
12:CL:38:VAL:HG12	12:CL:39:VAL:H	1.81	0.46
1:CA:1399:C:C4	1:CA:1502:A:N1	2.83	0.46
28:BF:58:GLN:O	28:BF:61:ALA:HB3	2.15	0.46
1:CA:1386:G:C2	1:CA:1387:G:N7	2.83	0.46
38:BP:41:ARG:CB	38:BP:41:ARG:HH11	2.29	0.46
19:CS:61:TYR:CG	19:CS:62:ILE:N	2.84	0.46
23:DA:1904:G:C2'	23:DA:1905:C:H5'	2.46	0.46
1:AA:1508:G:H2'	1:AA:1509:C:C6	2.51	0.46
7:CG:31:MET:CG	7:CG:35:LYS:H	2.28	0.46
1:CA:575:G:C8	1:CA:881:G:N2	2.83	0.46
39:DQ:36:ARG:HD3	39:DQ:40:PHE:CE1	2.50	0.46
1:CA:451:A:C8	1:CA:481:G:C6	3.04	0.46
12:AL:88:ARG:NH1	12:AL:90:LYS:HD3	2.31	0.46
35:DM:34:LEU:HD11	35:DM:129:THR:HB	1.98	0.46
35:DM:34:LEU:HD12	35:DM:130:LYS:O	2.16	0.46
25:DC:69:ARG:NH2	25:DC:128:GLY:O	2.49	0.46
42:BT:18:TYR:CD1	42:BT:18:TYR:N	2.83	0.46
44:BV:144:LEU:HB3	44:BV:174:VAL:HG21	1.97	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:AS:52:TYR:CE1	19:AS:56:GLN:HA	2.51	0.46
23:DA:1354:A:C8	23:DA:1355:G:C8	3.03	0.46
1:CA:645:C:H2'	1:CA:646:U:O4'	2.16	0.46
23:DA:448:U:H1'	27:DE:84:VAL:HG21	1.96	0.46
23:DA:2495:G:H2'	23:DA:2496:C:O5'	2.15	0.46
27:DE:144:LYS:O	27:DE:146:ALA:N	2.43	0.46
23:DA:1001:A:H2'	23:DA:1002:G:O4'	2.16	0.46
23:DA:1582:C:O5'	23:DA:1582:C:H6	1.98	0.46
14:CN:42:ILE:H	14:CN:42:ILE:HG12	1.60	0.46
43:BU:71:LYS:HB2	43:BU:71:LYS:HZ3	1.81	0.46
23:DA:1540:G:C4	23:DA:1541:U:C6	3.03	0.46
34:BL:101:VAL:CB	34:BL:106:LEU:HB3	2.43	0.46
1:CA:1366:C:OP1	9:CI:117:HIS:CE1	2.69	0.46
1:AA:974:A:OP2	14:AN:41:ARG:NH1	2.49	0.46
10:AJ:56:HIS:O	10:AJ:58:ASP:N	2.46	0.46
10:AJ:58:ASP:C	10:AJ:60:ARG:N	2.68	0.46
1:CA:950:U:O2'	1:CA:951:G:H5'	2.15	0.46
42:DT:63:LYS:CE	42:DT:72:LYS:HB3	2.45	0.46
23:BA:2335:A:N7	23:BA:2337:G:C5	2.84	0.46
37:BO:87:PHE:CD1	37:BO:102:ALA:HB2	2.50	0.46
23:DA:1903:G:OP2	25:DC:241:PRO:HB3	2.16	0.46
25:BC:105:ILE:HD11	25:BC:192:THR:HG21	1.98	0.46
23:BA:1826:G:C4'	25:BC:242:ARG:HE	2.13	0.46
1:AA:671:G:C4	1:AA:672:U:C6	3.03	0.46
1:CA:375:U:C2'	1:CA:376:G:H5'	2.46	0.46
25:DC:143:HIS:HD2	25:DC:144:ALA:HB2	1.78	0.46
25:DC:182:LEU:HA	25:DC:182:LEU:HD23	1.50	0.46
25:BC:44:ASN:CG	25:BC:45:ASN:H	2.17	0.46
30:DH:82:ARG:HB3	30:DH:89:TYR:CB	2.46	0.46
20:AT:73:HIS:CD2	20:AT:74:LYS:H	2.34	0.46
24:DB:73:A:C4	24:DB:104:A:C2	3.04	0.46
35:DM:141:GLN:OE1	44:DV:72:ARG:CZ	2.64	0.46
26:BD:5:LEU:C	26:BD:51:PHE:HE2	2.18	0.46
26:BD:59:VAL:C	26:BD:61:ARG:H	2.19	0.46
47:DY:57:ILE:O	47:DY:61:LEU:HB2	2.15	0.46
24:BB:10:C:N3	24:BB:11:C:C5	2.83	0.46
12:AL:53:LYS:N	12:AL:53:LYS:HD2	2.31	0.46
44:BV:134:PRO:C	44:BV:136:PHE:N	2.69	0.46
11:AK:59:TYR:O	11:AK:62:GLN:HB3	2.16	0.46
1:AA:1372:U:C5	1:AA:1373:G:C5	3.03	0.46
19:AS:40:ILE:CD1	19:AS:62:ILE:HD11	2.46	0.46
1:CA:321:A:C2	1:CA:333:G:N2	2.84	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:CR:88:LYS:OXT	18:CR:88:LYS:HG3	2.15	0.46
23:BA:2784:C:H2'	23:BA:2785:C:H6	1.81	0.46
1:AA:1330:U:O4	1:AA:1331:G:C2	2.69	0.46
1:CA:825:G:N2	8:CH:11:THR:HG21	2.30	0.46
42:BT:23:GLU:HG3	42:BT:24:GLY:H	1.80	0.46
23:DA:2276:G:C2'	23:DA:2277:G:H5'	2.45	0.46
24:DB:13:A:O4'	45:DW:74:ARG:NH2	2.49	0.46
23:DA:1670:C:OP2	23:DA:2550:G:OP1	2.34	0.46
23:DA:8:A:C6	23:DA:9:U:O4	2.69	0.46
1:AA:104:G:C2	1:AA:105:G:N7	2.84	0.46
29:BG:28:GLY:HA3	29:BG:79:VAL:HB	1.96	0.46
33:BK:31:LYS:HB3	33:BK:32:TYR:CD1	2.50	0.46
50:D2:33:CYS:HB2	50:D2:34:PRO:HD2	1.97	0.46
23:DA:908:C:O2'	23:DA:909:A:H5'	2.16	0.46
25:DC:77:ALA:HB2	25:DC:97:TYR:CG	2.51	0.46
27:BE:205:ARG:C	27:BE:206:ILE:HG13	2.36	0.46
21:CU:14:TRP:CE3	21:CU:15:ARG:HG2	2.51	0.46
1:AA:1054:C:O2'	1:AA:1055:A:H5''	2.15	0.46
1:AA:1054:C:H6	1:AA:1196:U:O2	1.99	0.46
33:BK:63:VAL:HG23	33:BK:64:ARG:HG3	1.97	0.46
4:AD:8:VAL:O	4:AD:10:ARG:N	2.48	0.46
10:CJ:49:VAL:HG23	14:CN:34:TYR:OH	2.15	0.46
7:CG:44:TYR:O	7:CG:47:CYS:HB2	2.16	0.46
25:BC:257:LEU:HD23	25:BC:258:LYS:O	2.15	0.46
1:AA:1298:C:H4'	1:AA:1299:A:C4	2.50	0.46
1:CA:413:G:H22	1:CA:429:U:P	2.39	0.46
1:AA:643:C:H5'	8:AH:31:PHE:CD1	2.51	0.46
41:BS:24:ILE:CG2	41:BS:36:LEU:HD21	2.46	0.46
1:CA:1161:C:H2'	1:CA:1162:C:C6	2.50	0.46
33:BK:86:ILE:HD12	33:BK:86:ILE:N	2.30	0.46
1:AA:1501:C:C5	1:AA:1504:G:C4	3.04	0.46
1:AA:697:U:H2'	1:AA:698:G:H5'	1.98	0.46
23:DA:2584:U:H5''	23:DA:2585:U:OP2	2.15	0.46
23:DA:270(S):G:H2'	23:DA:270(T):G:H8	1.81	0.46
23:DA:1301:A:H2	23:DA:1626:G:N3	2.14	0.46
23:BA:26:G:H1'	23:BA:514:A:N6	2.31	0.46
23:DA:844:C:O2'	23:DA:845:G:H5'	2.16	0.46
1:AA:450:G:C8	1:AA:481:G:C6	3.04	0.46
23:BA:79:G:H1	23:BA:107:C:H42	1.62	0.46
1:CA:794:A:H4'	1:CA:1521:G:O2'	2.15	0.46
28:DF:44:GLY:O	28:DF:47:LYS:HB2	2.16	0.46
23:DA:2462:U:H2'	23:DA:2463:C:O4'	2.16	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:844:C:C2'	23:BA:845:G:H5'	2.46	0.46
23:DA:723:G:H2'	23:DA:724:U:O4'	2.16	0.46
23:DA:374:A:C2	23:DA:401:A:C4	3.04	0.46
35:BM:97:VAL:O	35:BM:97:VAL:HG12	2.14	0.46
27:BE:33:LEU:HD12	27:BE:33:LEU:HA	1.68	0.46
23:DA:2075:U:H2'	23:DA:2238:G:N2	2.31	0.46
43:DU:11:ASP:H	43:DU:27:VAL:HG22	1.81	0.46
27:BE:74:ARG:O	27:BE:74:ARG:HG2	2.14	0.46
1:CA:1226:C:C2'	13:CM:103:THR:HB	2.43	0.46
1:CA:47:C:O2	1:CA:49:U:C5	2.69	0.46
23:DA:1902:C:H2'	23:DA:1903:G:O5'	2.15	0.46
23:BA:1657:C:O2'	23:BA:1658:C:H5'	2.16	0.46
23:BA:1144:G:C4	23:BA:1145:C:C5	3.03	0.46
1:CA:376:G:N3	1:CA:377:G:C8	2.83	0.46
16:CP:6:LEU:HB3	16:CP:17:TYR:HB3	1.97	0.46
23:BA:1614:A:C6	41:BS:87:PRO:HB3	2.50	0.46
16:AP:5:ARG:HB2	16:AP:67:THR:HG1	1.80	0.46
4:AD:3:ARG:O	4:AD:5:ILE:N	2.49	0.46
25:BC:36:PRO:HA	25:BC:62:TYR:O	2.16	0.46
25:BC:74:GLY:O	25:BC:76:PRO:HD3	2.16	0.46
30:DH:110:ASP:OD2	30:DH:113:ARG:HG3	2.16	0.46
30:DH:98:ALA:HB1	30:DH:109:ILE:HG12	1.98	0.46
24:DB:104:A:O4'	44:DV:29:TYR:CE1	2.66	0.46
23:DA:363(B):A:C2	23:DA:363(C):G:C5	3.03	0.46
1:AA:392:G:C4	1:AA:393:A:N7	2.84	0.46
1:CA:130:A:OP2	1:CA:189:U:C2	2.69	0.46
5:CE:110:LEU:O	5:CE:115:VAL:HG23	2.16	0.46
4:CD:119:GLN:O	4:CD:123:HIS:CD2	2.68	0.46
36:BN:9:LYS:HG2	36:BN:43:GLU:OE2	2.16	0.46
44:DV:102:LEU:HD23	44:DV:137:ILE:HB	1.96	0.46
23:DA:1577:C:H2'	23:DA:1578:U:C1'	2.46	0.46
23:BA:2562:U:C2'	23:BA:2563:U:H5'	2.45	0.46
23:DA:2892:A:C2'	23:DA:2893:G:H5'	2.45	0.46
18:CR:54:ARG:CD	18:CR:54:ARG:H	2.24	0.46
28:BF:133:LEU:HD21	28:BF:157:ILE:HG13	1.98	0.46
23:DA:2550:G:C5	23:DA:2551:C:C5	3.04	0.46
33:DK:22:ILE:HA	33:DK:22:ILE:HD13	1.42	0.46
15:AO:60:VAL:HG11	23:BA:715:G:O4'	2.16	0.46
23:BA:1519:G:O2'	23:BA:1520:U:H5'	2.16	0.46
36:BN:47:PHE:O	36:BN:51:LEU:HD12	2.16	0.46
33:BK:88:ASN:HB3	33:BK:92:GLU:H	1.80	0.46
29:BG:92:ILE:CG2	29:BG:93:GLY:N	2.74	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1060:C:O2	1:CA:1198:G:C2	2.68	0.46
9:AI:58:ARG:NH2	9:AI:59:PHE:CE1	2.83	0.46
23:BA:912:C:C2'	23:BA:912:C:O2	2.63	0.46
4:CD:79:PHE:O	4:CD:82:ALA:HB3	2.16	0.46
1:CA:1446:A:N1	38:DP:118:ARG:CZ	2.78	0.46
23:BA:2092:U:C4	23:BA:2226:C:OP2	2.68	0.46
1:CA:590:C:OP1	8:CH:29:SER:HA	2.16	0.46
1:AA:593:G:C2	1:AA:594:G:C4	3.03	0.46
13:AM:70:LEU:HD23	13:AM:70:LEU:C	2.36	0.46
1:AA:109:A:N6	1:AA:326:G:C6	2.83	0.46
20:AT:86:ARG:O	20:AT:90:GLN:HG3	2.16	0.46
23:DA:2050:C:C2'	23:DA:2051:A:O5'	2.64	0.46
27:DE:53:THR:C	27:DE:55:GLY:H	2.18	0.46
51:B3:44:ARG:O	51:B3:45:LYS:HG2	2.15	0.46
38:DP:84:GLN:HG3	38:DP:85:LYS:HG3	1.98	0.46
23:DA:1127:A:C2'	23:DA:1128:A:H5''	2.46	0.46
12:CL:78:GLU:CD	12:CL:78:GLU:O	2.54	0.46
23:DA:646:A:H2'	23:DA:647:G:O5'	2.16	0.46
19:AS:11:VAL:HG23	19:AS:38:SER:HB2	1.97	0.46
35:BM:24:GLY:HA2	35:BM:100:GLY:O	2.16	0.46
7:CG:148:ASN:C	7:CG:150:ALA:H	2.19	0.46
23:DA:1775:U:H2'	23:DA:1776:G:O5'	2.15	0.46
1:CA:927:G:N1	1:CA:1391:U:C2	2.84	0.46
13:CM:32:GLU:CD	13:CM:64:TRP:CH2	2.89	0.46
14:AN:4:LYS:O	14:AN:7:ILE:HG13	2.16	0.46
23:BA:2836:U:C5	23:BA:2883:A:N6	2.84	0.46
4:CD:23:GLY:HA3	4:CD:112:VAL:CG2	2.46	0.46
23:DA:2026:C:C4	23:DA:2027:G:N7	2.84	0.46
4:AD:88:VAL:HG13	5:AE:97:GLY:HA3	1.96	0.46
23:BA:1687:G:H2'	23:BA:1688:U:H6	1.81	0.46
1:AA:195:A:C5	1:AA:196:A:N1	2.84	0.46
4:AD:190:ASP:O	4:AD:194:LEU:HD23	2.15	0.46
50:B2:32:PRO:HA	50:B2:38:ALA:O	2.15	0.46
38:BP:13:ARG:C	38:BP:15:VAL:H	2.19	0.46
23:BA:2084:C:O2'	23:BA:2085:C:H5'	2.16	0.46
24:BB:76:G:OP1	44:BV:15:PRO:HG3	2.15	0.46
52:B4:31:LEU:HA	52:B4:31:LEU:HD12	1.68	0.46
5:AE:60:TYR:CD1	5:AE:60:TYR:C	2.88	0.46
1:AA:1461:G:O5'	1:AA:1461:G:H8	1.98	0.46
23:BA:2408:U:O5'	23:BA:2408:U:H6	1.99	0.46
13:CM:94:ARG:NH2	19:CS:80:TYR:HE2	2.14	0.46
15:AO:17:ARG:NH1	15:AO:77:ARG:HH12	2.13	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:629:G:H2'	23:DA:630:G:C8	2.51	0.46
28:DF:60:LEU:HA	28:DF:63:ILE:HG12	1.97	0.46
1:CA:1369:C:H2'	1:CA:1370:G:C8	2.51	0.46
22:CV:6193:U:C5	22:CV:6194:C:C5	3.04	0.46
27:DE:68:LYS:H	27:DE:70:THR:HG22	1.80	0.46
2:CB:70:PHE:CD2	2:CB:163:PHE:HB3	2.51	0.46
32:BJ:38:LEU:C	32:BJ:39:ILE:HG12	2.36	0.46
32:BJ:109:PRO:HG2	32:BJ:112:LYS:HB2	1.98	0.46
32:BJ:110:LEU:O	32:BJ:113:MET:HB2	2.15	0.46
36:DN:40:LYS:HE3	36:DN:40:LYS:HB2	1.77	0.46
24:DB:82:G:C2'	24:DB:83:G:H5'	2.45	0.46
53:D5:7:HIS:CD2	53:D5:60:LEU:HD13	2.51	0.46
30:BH:88:ILE:CG1	30:BH:123:LEU:HA	2.45	0.46
39:BQ:79:PHE:O	39:BQ:79:PHE:CD1	2.69	0.46
42:BT:14:SER:OG	42:BT:17:ALA:HB2	2.16	0.46
23:DA:2729:G:C5	23:DA:2730:C:C5	3.04	0.46
16:AP:3:LYS:O	16:AP:21:VAL:HA	2.16	0.46
42:DT:35:THR:HB	42:DT:38:GLU:H	1.81	0.46
20:AT:22:ARG:O	20:AT:26:ASN:ND2	2.49	0.46
1:CA:88:C:H2'	1:CA:89:U:O4'	2.16	0.46
20:CT:30:LYS:O	20:CT:33:ILE:HB	2.16	0.46
35:DM:141:GLN:OXT	44:DV:53:ILE:O	2.34	0.46
36:DN:4:LEU:C	36:DN:6:SER:H	2.19	0.46
5:AE:13:ILE:HA	5:AE:29:GLY:O	2.15	0.46
1:AA:194:C:O2'	20:AT:68:LYS:HD3	2.15	0.46
1:CA:1102:A:C5	1:CA:1103:C:C5	3.04	0.46
23:BA:95:G:HO2'	47:BY:48:HIS:CE1	2.28	0.46
1:AA:1150:U:H5''	1:AA:1151:A:OP2	2.15	0.46
1:AA:1347:G:C2	1:AA:1373:G:C5	3.04	0.46
19:AS:61:TYR:CG	19:AS:62:ILE:N	2.82	0.46
19:AS:66:MET:HB3	19:AS:74:PHE:CZ	2.51	0.46
36:BN:39:PRO:O	36:BN:40:LYS:C	2.54	0.46
1:CA:757:U:H2'	1:CA:758:G:O4'	2.16	0.46
23:BA:1577:C:H5''	23:BA:1578:U:OP2	2.16	0.46
4:CD:152:SER:O	4:CD:153:ARG:C	2.54	0.46
23:DA:2630:G:H1'	23:DA:2894:G:H1'	1.97	0.46
29:BG:138:LYS:O	29:BG:139:GLN:C	2.54	0.46
23:BA:1503:U:N3	23:BA:1504:C:N4	2.64	0.46
23:BA:8:A:C5	23:BA:9:U:C4	3.04	0.46
8:CH:97:VAL:CG1	8:CH:98:LYS:N	2.79	0.46
15:AO:39:LEU:HA	15:AO:39:LEU:HD23	1.80	0.46
1:CA:556:C:O2	1:CA:557:G:O4'	2.34	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1118:C:O4'	1:CA:1179:A:C4	2.69	0.46
1:CA:783:C:H2'	1:CA:784:C:H6	1.79	0.46
1:CA:66:G:H5'	1:CA:173:U:O4	2.15	0.46
38:BP:88:ILE:CG1	38:BP:89:VAL:N	2.78	0.46
20:CT:13:LEU:O	20:CT:16:HIS:N	2.48	0.46
13:AM:3:ARG:HA	13:AM:9:ILE:HG12	1.97	0.46
10:CJ:34:VAL:CG1	10:CJ:74:ILE:HG22	2.45	0.46
1:CA:522:C:O2'	1:CA:523:A:H5'	2.16	0.46
24:BB:19:G:N2	24:BB:65:C:C2	2.83	0.46
1:CA:1054:C:H6	1:CA:1196:U:O2	1.99	0.46
33:DK:2:ILE:CD1	33:DK:82:ASN:ND2	2.79	0.46
17:CQ:31:LEU:O	17:CQ:31:LEU:HG	2.16	0.46
29:BG:98:LEU:HB2	29:BG:125:VAL:CG2	2.46	0.46
1:AA:1441:G:O5'	1:AA:1441:G:H8	1.99	0.46
3:CC:73:PRO:O	3:CC:76:VAL:HG22	2.16	0.46
39:BQ:62:ILE:HD13	39:BQ:62:ILE:N	2.30	0.46
4:AD:4:TYR:OH	4:AD:66:ARG:HG2	2.15	0.46
1:CA:611:A:H61	1:CA:629:G:H1	1.64	0.46
1:CA:937:A:C2	1:CA:1379:G:C6	3.04	0.46
1:AA:434:U:H2'	1:AA:435:C:C6	2.50	0.46
19:AS:29:ARG:HD2	19:AS:30:LEU:N	2.30	0.46
39:BQ:111:GLU:HA	39:BQ:114:LYS:HB2	1.98	0.46
1:AA:1311:G:H1	1:AA:1326:C:N4	2.13	0.46
1:AA:638:G:C6	1:AA:639:G:N7	2.83	0.46
16:CP:12:LYS:O	16:CP:13:HIS:HB2	2.16	0.46
44:DV:178:GLU:HG3	44:DV:178:GLU:O	2.16	0.46
40:DR:1:MET:N	40:DR:16:PRO:HD3	2.30	0.46
20:CT:82:SER:O	20:CT:86:ARG:CB	2.64	0.46
23:BA:1239:G:C6	23:BA:1240:U:C4	3.04	0.46
18:AR:53:ARG:O	18:AR:55:ARG:N	2.49	0.46
23:DA:948:G:OP1	23:DA:962:G:OP1	2.34	0.46
23:BA:1465:G:N2	23:BA:1466:G:H1'	2.30	0.46
13:CM:86:CYS:HA	19:CS:73:GLU:O	2.16	0.46
23:DA:2495:G:C2'	23:DA:2496:C:O5'	2.63	0.46
37:DO:98:VAL:O	37:DO:101:LEU:HB3	2.15	0.46
23:BA:1360:A:C5'	23:BA:1361:G:OP2	2.64	0.46
4:AD:76:ARG:NH2	4:AD:80:GLU:OE1	2.49	0.46
30:DH:51:ILE:HG22	30:DH:52:ARG:N	2.30	0.46
23:DA:270(Z):G:C2	23:DA:271(A):U:O4	2.69	0.46
15:AO:25:THR:OG1	15:AO:26:GLU:N	2.49	0.46
23:BA:2257:U:O2'	23:BA:2258:C:H5'	2.15	0.46
45:BW:55:ARG:NH1	45:BW:55:ARG:HB3	2.31	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DN:116:LEU:HA	36:DN:116:LEU:HD23	1.61	0.46
33:DK:3:GLN:HG3	33:DK:4:PRO:HD2	1.97	0.46
7:AG:106:GLN:O	7:AG:110:GLN:HG3	2.16	0.46
23:DA:2393:A:H4'	34:DL:61:ARG:O	2.16	0.46
32:BJ:119:GLU:O	32:BJ:123:GLU:HG3	2.16	0.46
23:BA:806:C:O5'	23:BA:806:C:H6	1.99	0.46
1:CA:1347:G:C2	1:CA:1373:G:C5	3.03	0.46
9:CI:111:ARG:HG3	14:CN:61:TRP:HE1	1.81	0.46
1:AA:950:U:O2'	1:AA:951:G:H5'	2.15	0.46
21:AU:14:TRP:CE3	21:AU:15:ARG:HG2	2.50	0.46
22:AV:6191:A:C2	22:AV:6192:G:C4	3.04	0.46
7:AG:115:ARG:O	7:AG:119:ARG:HG3	2.16	0.46
22:CV:6182:A:C2	22:CV:6195:G:N2	2.83	0.46
23:DA:2846:G:P	38:DP:54:ARG:HB2	2.56	0.46
42:DT:62:LYS:H	42:DT:62:LYS:HG2	1.58	0.46
25:DC:32:SER:O	25:DC:33:LEU:O	2.34	0.46
23:DA:242:G:N7	53:D5:5:LYS:HG2	2.31	0.46
34:DL:50:ARG:HB2	53:D5:60:LEU:CD2	2.46	0.46
30:BH:88:ILE:HG13	30:BH:144:VAL:CG1	2.46	0.46
39:BQ:72:HIS:CE1	39:BQ:107:ALA:HA	2.51	0.46
40:BR:2:PHE:HE2	40:BR:13:ARG:CG	2.29	0.46
23:DA:2728:U:O2	23:DA:2729:G:C8	2.68	0.46
37:DO:12:PHE:O	37:DO:12:PHE:HD1	1.98	0.46
4:AD:119:GLN:O	4:AD:123:HIS:CD2	2.69	0.46
4:AD:108:LEU:HB3	4:AD:110:PHE:CD2	2.49	0.46
23:BA:323:G:H5'	27:BE:169:ASN:ND2	2.21	0.46
46:DX:10:LYS:O	46:DX:13:ILE:CG2	2.64	0.46
1:CA:1291:G:C6	1:CA:1292:U:C4	3.04	0.46
44:DV:101:PRO:O	44:DV:102:LEU:HD23	2.16	0.46
19:AS:40:ILE:HG13	19:AS:69:HIS:O	2.16	0.46
18:AR:35:ARG:O	18:AR:37:VAL:N	2.45	0.46
1:AA:1309:G:N2	1:AA:1329:A:H1'	2.30	0.46
1:CA:624:C:H4'	16:CP:11:SER:N	2.20	0.46
27:BE:68:LYS:H	27:BE:70:THR:HG22	1.81	0.46
34:BL:16:ARG:C	34:BL:16:ARG:NE	2.61	0.46
23:BA:733:G:H8	23:BA:733:G:O5'	1.99	0.46
1:CA:1219:U:OP1	14:CN:19:ARG:NH2	2.35	0.46
23:DA:2287:A:C5	23:DA:2289:G:C5	3.04	0.46
2:AB:63:MET:C	2:AB:65:GLY:H	2.19	0.46
11:AK:32:ILE:HD11	11:AK:68:ALA:HB1	1.97	0.46
23:BA:2636:U:C2	23:BA:2637:U:C5	3.04	0.46
23:BA:2467:C:H4'	35:BM:123:HIS:ND1	2.31	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:D2:35:GLU:OE2	50:D2:51:TYR:HA	2.16	0.46
24:DB:21:G:N2	24:DB:62:C:N3	2.59	0.46
35:DM:21:THR:O	35:DM:22:LYS:C	2.54	0.46
23:DA:2661:G:C6	23:DA:2662:A:C2	3.03	0.46
23:BA:1728:G:C8	23:BA:1728:G:O5'	2.63	0.46
1:AA:649:G:N3	1:AA:650:G:C8	2.83	0.46
23:DA:1820:U:H4'	23:DA:1821:A:OP2	2.16	0.46
1:AA:1511:G:H2'	1:AA:1512:U:O4'	2.16	0.46
20:AT:93:GLU:O	20:AT:93:GLU:HG2	2.15	0.46
28:BF:16:ARG:O	28:BF:20:ILE:HG12	2.16	0.46
23:BA:979:G:H3'	23:BA:980:A:C5'	2.46	0.46
23:BA:2661:G:H2'	23:BA:2662:A:O4'	2.16	0.46
1:AA:433:C:C6	1:AA:434:U:H5	2.34	0.46
23:DA:775:G:O5'	23:DA:777:A:H1'	2.15	0.46
19:AS:18:LYS:HG2	19:AS:31:ILE:HD13	1.98	0.46
1:CA:638:G:C6	1:CA:639:G:N7	2.84	0.46
41:BS:47:VAL:HA	41:BS:50:VAL:HG12	1.98	0.46
5:AE:38:GLN:HG2	5:AE:38:GLN:O	2.15	0.46
1:CA:178:C:C2'	1:CA:179:A:H5'	2.46	0.46
11:CK:103:LEU:HA	11:CK:103:LEU:HD12	1.83	0.46
1:CA:1288:A:C6	1:CA:1289:A:C5	3.03	0.46
1:CA:141:A:C5	1:CA:142:G:N7	2.84	0.46
40:BR:1:MET:N	40:BR:16:PRO:HD3	2.31	0.46
23:BA:1717:G:C5	23:BA:1743:G:N1	2.84	0.46
11:CK:86:GLY:N	11:CK:112:THR:OG1	2.43	0.46
23:BA:2582:G:C2	23:BA:2583:G:C8	3.04	0.46
3:CC:108:ASN:HB3	3:CC:111:LEU:HD12	1.98	0.46
12:AL:89:VAL:O	12:AL:90:LYS:C	2.52	0.46
1:CA:892:A:C6	1:CA:893:C:C4	3.04	0.46
23:BA:1984:G:H2'	23:BA:1985:G:O5'	2.15	0.46
23:BA:696:G:H2'	23:BA:697:C:H6	1.81	0.46
23:BA:1455:G:C2	23:BA:1456:G:C8	3.03	0.46
5:CE:72:GLN:O	5:CE:73:ASN:CB	2.63	0.46
23:BA:2620:C:C4'	26:BD:156:MET:HG3	2.46	0.46
35:DM:131:ILE:HG22	35:DM:132:VAL:N	2.31	0.46
48:DZ:56:VAL:O	48:DZ:57:GLU:HG2	2.16	0.46
15:AO:42:HIS:CD2	15:AO:43:LEU:HD23	2.51	0.46
23:DA:2726:U:H5'	23:DA:2726:U:O2	2.15	0.46
23:BA:1603:A:OP1	23:BA:1604:C:OP2	2.34	0.46
1:AA:360:A:H2'	1:AA:361:G:C8	2.51	0.46
34:BL:62:LEU:O	34:BL:62:LEU:CD2	2.62	0.45
23:BA:857:C:N3	23:BA:858:U:C4	2.84	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:860:U:C5	23:BA:2268:A:C8	3.05	0.45
23:BA:918:A:H5''	23:BA:919:G:OP2	2.16	0.45
48:BZ:15:TYR:HB3	48:BZ:19:GLN:NE2	2.31	0.45
7:CG:115:ARG:O	7:CG:119:ARG:HG3	2.15	0.45
1:CA:1369:C:P	9:CI:111:ARG:HG3	2.56	0.45
1:AA:1221:G:OP1	1:AA:1321:C:N3	2.49	0.45
25:BC:208:LYS:HG3	25:BC:211:ARG:H	1.80	0.45
22:CV:6194:C:C2	22:CV:6195:G:C8	3.04	0.45
13:CM:108:ARG:HA	13:CM:111:LYS:HB2	1.99	0.45
23:BA:2392:A:H2	23:BA:2424:C:N4	2.08	0.45
23:DA:664:C:H4'	23:DA:941:A:OP1	2.16	0.45
23:DA:1899:G:N2	23:DA:1902:C:H5	2.10	0.45
23:BA:1971:A:H5''	23:BA:1971:A:H8	1.80	0.45
41:DS:86:LEU:HD12	41:DS:87:PRO:CD	2.46	0.45
53:D5:2:PRO:O	53:D5:3:LYS:HB2	2.16	0.45
34:DL:46:LYS:HB3	34:DL:52:GLU:HG2	1.98	0.45
39:BQ:83:LEU:N	39:BQ:83:LEU:HD12	2.31	0.45
25:BC:97:TYR:HB2	25:BC:101:GLU:O	2.16	0.45
30:DH:98:ALA:O	30:DH:109:ILE:HD11	2.15	0.45
1:AA:390:C:O3'	16:AP:28:ARG:NH2	2.47	0.45
25:DC:233:HIS:HE1	25:DC:247:ALA:N	2.11	0.45
4:AD:110:PHE:HE1	4:AD:148:VAL:HG23	1.81	0.45
3:AC:91:LEU:HD12	3:AC:101:LEU:HD21	1.99	0.45
36:DN:9:LYS:O	36:DN:10:LEU:HD23	2.17	0.45
44:BV:92:SER:O	44:BV:93:ASP:HB3	2.16	0.45
37:DO:57:LYS:HB3	37:DO:58:LEU:HD12	1.98	0.45
12:AL:68:TYR:HB3	12:AL:98:HIS:CD2	2.52	0.45
13:CM:10:PRO:CG	13:CM:22:ILE:HD11	2.43	0.45
4:CD:100:ARG:NH2	4:CD:118:ARG:NH1	2.60	0.45
1:AA:130:A:OP2	1:AA:189:U:C2	2.69	0.45
46:DX:11:ARG:NH1	46:DX:61:ARG:N	2.63	0.45
12:CL:68:TYR:HB3	12:CL:98:HIS:CD2	2.51	0.45
1:CA:1292:U:C2	1:CA:1293:G:N7	2.84	0.45
36:BN:40:LYS:HB2	36:BN:40:LYS:HE3	1.73	0.45
1:CA:319:G:H2'	1:CA:320:C:O4'	2.17	0.45
1:CA:758:G:H4'	1:CA:880:C:H4'	1.98	0.45
46:BX:11:ARG:C	46:BX:13:ILE:N	2.64	0.45
26:BD:25:VAL:C	26:BD:26:ILE:HD13	2.37	0.45
23:BA:2809:A:C2	23:BA:2892:A:C4	3.04	0.45
1:AA:319:G:H2'	1:AA:320:C:O4'	2.16	0.45
37:DO:104:GLY:HA2	37:DO:107:GLU:CG	2.41	0.45
24:BB:50:G:OP1	37:BO:63:THR:OG1	2.34	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BE:65:TRP:HZ3	27:BE:73:ALA:O	1.99	0.45
23:BA:662:G:OP1	34:BL:18:ARG:NH1	2.49	0.45
1:AA:175:C:H4'	20:AT:25:ARG:HH11	1.81	0.45
1:CA:642:A:H1'	8:CH:113:SER:OG	2.16	0.45
45:DW:73:GLY:O	45:DW:74:ARG:C	2.54	0.45
30:BH:5:LEU:HD23	30:BH:17:GLN:O	2.16	0.45
25:BC:26:LYS:HE3	25:BC:26:LYS:HB2	1.69	0.45
1:CA:236:G:H5''	17:CQ:42:TYR:OH	2.15	0.45
13:CM:3:ARG:HA	13:CM:9:ILE:HG12	1.98	0.45
9:CI:58:ARG:NH2	9:CI:59:PHE:CE1	2.84	0.45
23:DA:1477:A:C4	23:DA:1478:G:C8	3.04	0.45
10:CJ:56:HIS:O	10:CJ:58:ASP:N	2.41	0.45
23:BA:359:A:C8	23:BA:360:G:C8	3.05	0.45
12:CL:46:LYS:HD3	12:CL:47:PRO:HG3	1.97	0.45
1:AA:707:C:O2'	1:AA:708:C:H5'	2.16	0.45
23:BA:534:U:C2'	39:BQ:49:HIS:HD2	2.29	0.45
1:CA:531:U:O3'	1:CA:532:A:H4'	2.16	0.45
32:BJ:160:LYS:HD2	32:BJ:160:LYS:HA	1.58	0.45
4:CD:79:PHE:CD1	4:CD:207:TYR:CD1	3.04	0.45
10:CJ:16:LEU:O	10:CJ:70:ARG:HD2	2.15	0.45
45:DW:31:VAL:HG13	45:DW:65:GLY:O	2.16	0.45
33:BK:38:VAL:O	33:BK:38:VAL:HG23	2.15	0.45
18:AR:44:LEU:HA	18:AR:49:LYS:O	2.15	0.45
15:CO:27:VAL:O	15:CO:28:GLN:C	2.54	0.45
23:BA:1749:A:H2'	23:BA:1750:G:O4'	2.15	0.45
24:DB:31:C:C2'	24:DB:31:C:O2	2.64	0.45
23:DA:189:G:C3'	23:DA:189:G:C8	2.99	0.45
23:DA:643:A:C2	23:DA:644:A:N9	2.84	0.45
23:BA:2738:A:C6	23:BA:2739:U:C5	3.04	0.45
23:DA:887:A:N3	23:DA:889:C:C5	2.84	0.45
23:BA:886:C:C2'	23:BA:887:A:H4'	2.46	0.45
23:DA:414:C:H2'	23:DA:415:A:H8	1.80	0.45
1:AA:1183:A:H5''	1:AA:1184:G:OP2	2.15	0.45
23:DA:1471:A:C2	23:DA:1472:A:N9	2.84	0.45
23:BA:164:U:C4	23:BA:165:U:O4	2.69	0.45
27:BE:29:ASN:N	27:BE:112:MET:HE1	2.32	0.45
9:AI:45:ALA:O	9:AI:48:GLU:HB2	2.16	0.45
23:BA:1204:A:C2	23:BA:1241:A:N1	2.84	0.45
1:CA:1090:U:H2'	1:CA:1091:U:H6	1.80	0.45
1:CA:744:C:H3'	1:CA:744:C:H6	1.81	0.45
1:AA:1296:C:C5	1:AA:1297:C:C5	3.04	0.45
23:DA:770:G:H2'	23:DA:771:G:O5'	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:1993:U:H4'	26:BD:128:SER:HB3	1.97	0.45
23:BA:2584:U:C6	23:BA:2584:U:O5'	2.68	0.45
40:BR:75:PHE:O	40:BR:75:PHE:HD1	1.98	0.45
1:AA:826:C:C5'	1:AA:827:U:OP2	2.65	0.45
1:AA:932:C:H2'	1:AA:933:G:H8	1.81	0.45
1:CA:1004:A:H2	1:CA:1024:G:N3	2.14	0.45
1:AA:451:A:C8	1:AA:481:G:C6	3.04	0.45
23:BA:2104:G:H2'	23:BA:2105:C:C6	2.52	0.45
23:BA:31:C:C4	23:BA:32:C:C5	3.05	0.45
23:DA:2359:C:H2'	23:DA:2360:A:C8	2.51	0.45
27:BE:135:LYS:O	27:BE:136:THR:C	2.54	0.45
23:BA:2490:G:H4'	23:BA:2491:U:OP1	2.15	0.45
1:AA:1489:G:C6	1:AA:1490:C:N4	2.85	0.45
1:AA:1031:G:H2'	1:AA:103(A):A:O4'	2.16	0.45
2:CB:100:GLY:O	2:CB:104:ASN:N	2.49	0.45
23:BA:1975:G:H2'	23:BA:1976:U:H6	1.81	0.45
24:BB:95:U:H2'	24:BB:96:G:C8	2.51	0.45
1:CA:582:U:OP1	15:CO:68:ARG:NH2	2.49	0.45
23:BA:2330:G:H1'	45:BW:41:ARG:CB	2.46	0.45
43:DU:8:LYS:HD2	43:DU:13:VAL:CG2	2.42	0.45
32:DJ:126:VAL:O	32:DJ:127:LYS:C	2.55	0.45
1:AA:81:G:C5	1:AA:82:U:C4	3.05	0.45
26:BD:188:VAL:HA	26:BD:189:PRO:HD3	1.67	0.45
13:AM:94:ARG:NH2	19:AS:80:TYR:HE2	2.15	0.45
12:CL:25:ALA:O	12:CL:26:LEU:HB2	2.15	0.45
37:BO:29:PHE:CD2	37:BO:92:TYR:OH	2.69	0.45
32:BJ:157:ARG:O	32:BJ:159:GLU:N	2.49	0.45
1:CA:389:A:C5	1:CA:390:C:H1'	2.51	0.45
16:CP:58:TYR:O	16:CP:61:SER:HB3	2.16	0.45
23:BA:2730:C:C2'	23:BA:2731:G:H5'	2.46	0.45
23:DA:2727:G:C4	23:DA:2728:U:H5	2.30	0.45
23:DA:2291:U:H2'	23:DA:2292:C:C6	2.51	0.45
1:AA:492:G:C4	1:AA:493:G:C8	3.05	0.45
42:DT:31:HIS:HA	42:DT:32:PRO:HD3	1.85	0.45
23:DA:2712:U:HO2'	23:DA:712(B):A:H5''	1.80	0.45
49:D1:40:ILE:HG23	49:D1:59:VAL:CG2	2.46	0.45
26:BD:55:ASN:O	26:BD:59:VAL:HG23	2.16	0.45
3:AC:172:ARG:HE	3:AC:174:PRO:HG2	1.81	0.45
23:DA:1329:U:H5''	23:DA:1330:C:C5	2.43	0.45
42:BT:39:ILE:HG12	42:BT:39:ILE:H	1.55	0.45
41:DS:75:TYR:CD2	41:DS:75:TYR:C	2.90	0.45
3:AC:181:ASN:HB3	3:AC:205:GLY:HA3	1.98	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BS:20:VAL:O	41:BS:23:LEU:HB2	2.15	0.45
43:DU:95:LYS:HE2	43:DU:100:ALA:HB2	1.98	0.45
4:AD:152:SER:O	4:AD:153:ARG:C	2.54	0.45
29:DG:67:LEU:O	29:DG:71:LEU:HB2	2.16	0.45
23:BA:85:G:N3	23:BA:103:A:H2	2.14	0.45
23:BA:2892:A:C2'	23:BA:2893:G:H5'	2.46	0.45
11:CK:13:GLN:HG3	11:CK:75:TYR:O	2.16	0.45
11:CK:32:ILE:O	11:CK:40:ILE:HG12	2.16	0.45
1:CA:1148:U:H2'	1:CA:1149:C:O4'	2.16	0.45
1:AA:783:C:N4	1:AA:799:G:H1	2.14	0.45
1:AA:875:C:O2'	8:AH:14:ARG:NH1	2.45	0.45
33:DK:63:VAL:HG23	33:DK:64:ARG:HG3	1.98	0.45
1:AA:302:G:N3	1:AA:556:C:H4'	2.32	0.45
25:DC:148:GLU:HB2	25:DC:151:LYS:HD3	1.97	0.45
34:DL:70:GLN:O	34:DL:71:VAL:C	2.53	0.45
43:BU:50:ARG:HD3	43:BU:51:VAL:N	2.25	0.45
43:BU:42:VAL:CG2	43:BU:67:LEU:HD11	2.46	0.45
16:AP:10:GLY:O	16:AP:11:SER:O	2.35	0.45
36:BN:99:LYS:HA	36:BN:112:ALA:HB2	1.98	0.45
43:DU:46:LYS:O	43:DU:47:LYS:C	2.55	0.45
23:DA:1388:G:N3	23:DA:1389:G:C8	2.84	0.45
23:DA:1389:G:H2'	23:DA:1390:U:H6	1.80	0.45
29:BG:87:LEU:CD2	29:BG:164:TYR:HD1	2.30	0.45
3:CC:23:TYR:CD1	10:CJ:10:GLY:HA2	2.50	0.45
45:DW:81:VAL:O	45:DW:83:PRO:HD3	2.16	0.45
45:DW:31:VAL:HG21	45:DW:61:ALA:HB2	1.98	0.45
1:CA:1410:G:H2'	1:CA:1411:C:H6	1.81	0.45
23:BA:635:C:O2'	23:BA:639:U:OP1	2.32	0.45
1:AA:543:C:C2	1:AA:544:G:C8	3.05	0.45
4:AD:4:TYR:CE1	4:AD:11:LEU:HD11	2.50	0.45
1:CA:560:U:H5'	1:CA:566:G:N2	2.31	0.45
23:BA:978:G:C2	23:BA:986:C:C2	3.05	0.45
17:AQ:51:TYR:CD1	17:AQ:73:VAL:HG11	2.51	0.45
1:CA:638:G:C2	1:CA:639:G:C8	3.04	0.45
44:DV:121:HIS:CE1	44:DV:169:GLU:OE2	2.69	0.45
23:BA:1230:C:H2'	23:BA:1231:G:H8	1.81	0.45
1:CA:357:G:C2	1:CA:358:U:C5	3.04	0.45
27:BE:84:VAL:C	27:BE:86:GLY:H	2.20	0.45
23:DA:644:A:N1	23:DA:646:A:C4	2.84	0.45
10:AJ:6:ILE:HG22	10:AJ:98:ILE:HG12	1.98	0.45
1:AA:1182:G:H4'	1:AA:1183:A:C5'	2.45	0.45
23:DA:1833:U:H2'	23:DA:1834:U:H6	1.80	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:969:U:H2'	23:BA:970:C:C6	2.51	0.45
4:CD:23:GLY:HA3	4:CD:112:VAL:HG22	1.98	0.45
16:CP:50:LYS:HD3	16:CP:51:VAL:N	2.31	0.45
23:BA:374:A:H3'	23:BA:375:C:C6	2.51	0.45
20:AT:84:LEU:HD13	20:AT:84:LEU:C	2.36	0.45
23:BA:13:A:N1	23:BA:525:U:C2	2.84	0.45
35:BM:34:LEU:HD12	35:BM:130:LYS:O	2.16	0.45
19:CS:33:THR:CG2	19:CS:51:VAL:HA	2.46	0.45
16:AP:47:ASP:C	16:AP:49:LEU:H	2.19	0.45
16:AP:50:LYS:HD3	16:AP:51:VAL:N	2.32	0.45
1:AA:646:U:C4	1:AA:647:C:N4	2.84	0.45
23:BA:1360:A:H5'	23:BA:1361:G:OP2	2.16	0.45
1:AA:292:G:C5	1:AA:293:G:H1'	2.52	0.45
22:CV:6185:U:C5	22:CV:6186:U:C5	3.04	0.45
23:BA:153:C:OP1	46:BX:92:LYS:HE2	2.16	0.45
1:CA:245:C:O2	1:CA:283:C:N3	2.50	0.45
23:BA:1417:C:H42	23:BA:1581:G:H1	1.64	0.45
38:DP:14:TYR:H	38:DP:14:TYR:HD1	1.62	0.45
38:BP:101:PHE:CD2	38:BP:101:PHE:C	2.89	0.45
48:DZ:18:ASP:N	48:DZ:18:ASP:OD1	2.48	0.45
26:BD:14:ILE:C	26:BD:14:ILE:HD12	2.36	0.45
8:CH:107:LEU:HD23	8:CH:107:LEU:N	2.31	0.45
40:DR:95:LEU:HD23	40:DR:96:ILE:N	2.31	0.45
53:B5:23:VAL:HG12	53:B5:47:LYS:HB3	1.97	0.45
34:BL:62:LEU:CD1	34:BL:62:LEU:N	2.79	0.45
26:DD:169:ASN:HD22	26:DD:169:ASN:C	2.19	0.45
1:AA:961:U:OP2	1:AA:1223:C:C1'	2.64	0.45
13:CM:87:TYR:O	13:CM:91:ARG:HG2	2.16	0.45
32:BJ:112:LYS:O	32:BJ:116:THR:CG2	2.65	0.45
47:DY:18:PRO:O	47:DY:22:GLU:HG3	2.17	0.45
28:DF:32:PRO:HA	28:DF:162:THR:OG1	2.17	0.45
1:AA:376:G:C2	1:AA:389:A:C2	3.03	0.45
1:AA:35:G:C6	1:AA:36:C:N4	2.84	0.45
25:DC:45:ASN:C	25:DC:45:ASN:OD1	2.54	0.45
3:CC:66:VAL:HB	3:CC:101:LEU:CD2	2.40	0.45
5:CE:91:LEU:HD22	5:CE:110:LEU:HD11	1.98	0.45
5:CE:79:GLU:OE2	8:CH:104:ARG:HA	2.16	0.45
15:CO:45:VAL:HG22	15:CO:46:HIS:ND1	2.32	0.45
5:AE:80:ILE:HD12	5:AE:138:ALA:HB1	1.99	0.45
4:AD:61:LYS:HA	4:AD:203:VAL:CG2	2.46	0.45
8:AH:92:ARG:CB	8:AH:94:TYR:HE2	2.21	0.45
23:DA:1439:A:H2'	23:DA:1440:G:H5'	1.99	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:B4:19:ARG:HG3	52:B4:19:ARG:NH1	2.16	0.45
1:AA:15:G:H2'	1:AA:16:A:C8	2.51	0.45
1:CA:57:G:C6	1:CA:58:C:C4	3.04	0.45
1:CA:57:G:H2'	1:CA:58:C:O4'	2.16	0.45
46:BX:91:LYS:HA	46:BX:94:LEU:HD23	1.99	0.45
1:AA:1347:G:H22	1:AA:1373:G:C2'	2.27	0.45
1:AA:1376:U:O2'	1:AA:1377:A:H5'	2.16	0.45
2:CB:141:GLU:O	2:CB:145:LEU:HD23	2.16	0.45
23:BA:2308:G:HO2'	23:BA:2310:A:P	2.39	0.45
1:CA:725:G:H2'	1:CA:726:C:H6	1.81	0.45
25:BC:132:PRO:CG	25:BC:190:TYR:CE1	2.97	0.45
23:BA:2009:G:O2'	23:BA:2010:G:H5'	2.16	0.45
23:BA:2753:A:H2'	23:BA:2754:U:H5'	1.98	0.45
29:BG:19:VAL:HG13	29:BG:43:VAL:CG2	2.47	0.45
1:CA:818:G:HO2'	1:CA:820:U:H6	1.61	0.45
23:BA:1332:G:H22	23:BA:1610:A:H8	1.63	0.45
8:AH:25:ASP:OD1	8:AH:25:ASP:N	2.49	0.45
27:BE:53:THR:C	27:BE:55:GLY:H	2.19	0.45
39:DQ:61:TRP:O	39:DQ:64:ARG:HB2	2.16	0.45
9:CI:58:ARG:NH2	9:CI:59:PHE:HE1	2.14	0.45
44:DV:180:VAL:C	44:DV:182:LYS:N	2.69	0.45
24:DB:21:G:H2'	24:DB:22:U:C6	2.50	0.45
23:BA:908:C:O2'	23:BA:909:A:H5'	2.16	0.45
23:DA:540:G:H2'	23:DA:541:C:C6	2.43	0.45
23:DA:247:G:H4'	23:DA:386:G:C5	2.52	0.45
45:DW:62:LEU:O	45:DW:63:VAL:HG13	2.16	0.45
1:AA:922:G:H5''	1:AA:923:A:OP2	2.16	0.45
23:DA:300:A:P	43:DU:84:ARG:NH2	2.89	0.45
1:CA:952:U:O2'	1:CA:953:G:H5'	2.17	0.45
1:CA:433:C:C6	1:CA:434:U:H5	2.34	0.45
23:BA:2661:G:C6	23:BA:2662:A:C2	3.04	0.45
27:DE:46:ARG:HB3	27:DE:46:ARG:NH1	2.32	0.45
7:AG:50:ILE:O	7:AG:54:THR:O	2.34	0.45
23:DA:634:C:H2'	23:DA:635:C:H6	1.81	0.45
1:AA:1378:C:H5	1:AA:1379:G:C8	2.35	0.45
23:DA:1164:G:C5	23:DA:1165:U:C4	3.03	0.45
15:CO:67:LEU:HD23	15:CO:78:TYR:CE1	2.51	0.45
1:CA:804:U:H5''	1:CA:805:C:OP2	2.16	0.45
14:CN:43:CYS:O	14:CN:46:GLU:N	2.49	0.45
34:BL:122:PRO:HB3	34:BL:141:ALA:O	2.16	0.45
1:CA:1360:A:C6	1:CA:1361:G:C2	3.04	0.45
27:BE:160:ASN:OD1	27:BE:163:VAL:HG23	2.15	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:CR:84:LYS:H	18:CR:84:LYS:HG2	1.35	0.45
1:AA:123:C:H5''	1:AA:311:C:O2'	2.16	0.45
23:DA:1239:G:C6	23:DA:1240:U:C4	3.04	0.45
23:DA:164:U:C4	23:DA:165:U:O4	2.69	0.45
1:AA:247:G:C4	1:AA:248:C:C5	3.04	0.45
26:DD:146:THR:HA	26:DD:147:PRO:C	2.37	0.45
23:DA:1382:G:H4'	23:DA:1573:G:C2	2.52	0.45
3:AC:111:LEU:HD11	3:AC:144:SER:OG	2.15	0.45
23:DA:768:G:C4	23:DA:769:G:C8	3.04	0.45
1:AA:662:G:C2	1:AA:744:C:O2	2.70	0.45
23:BA:476:G:H4'	23:BA:502:A:N1	2.32	0.45
23:BA:537:C:H2'	23:BA:539:G:O4'	2.17	0.45
27:BE:144:LYS:C	27:BE:146:ALA:H	2.20	0.45
4:CD:143:GLY:H	4:CD:185:PHE:HB3	1.82	0.45
23:DA:1274:A:N3	23:DA:1297:C:H1'	2.31	0.45
1:AA:608:A:C4	1:AA:609:A:C8	3.03	0.45
28:BF:44:GLY:O	28:BF:47:LYS:HB2	2.17	0.45
23:BA:220:G:N1	23:BA:428:A:OP2	2.35	0.45
53:D5:23:VAL:HG12	53:D5:47:LYS:HB3	1.99	0.45
23:BA:309:G:O3'	43:BU:18:GLY:HA2	2.16	0.45
43:BU:8:LYS:HE2	43:BU:8:LYS:HB2	1.55	0.45
23:DA:2014:A:H2'	23:DA:2015:A:C8	2.51	0.45
2:AB:157:ARG:O	2:AB:159:PRO:HD3	2.15	0.45
23:BA:804:A:C5'	23:BA:805:G:OP1	2.54	0.45
1:AA:969:A:C2'	1:AA:970:C:H5'	2.46	0.45
37:BO:11:LYS:O	37:BO:12:PHE:CB	2.64	0.45
23:DA:2502:G:C5'	23:DA:2503:A:C5'	2.89	0.45
39:DQ:88:ILE:HB	39:DQ:90:VAL:CG1	2.29	0.45
39:DQ:91:ASP:OD2	39:DQ:96:ALA:CB	2.61	0.45
25:BC:105:ILE:HD13	25:BC:106:ILE:H	1.80	0.45
28:DF:86:MET:O	28:DF:87:PRO:O	2.34	0.45
32:DJ:110:LEU:CD2	32:DJ:110:LEU:O	2.65	0.45
1:CA:376:G:C2'	1:CA:377:G:O5'	2.65	0.45
1:CA:376:G:C4	1:CA:389:A:N1	2.85	0.45
30:BH:88:ILE:HG13	30:BH:144:VAL:HG11	1.99	0.45
16:AP:4:ILE:HA	16:AP:20:VAL:O	2.17	0.45
1:AA:404:U:C2	1:AA:405:U:C5	3.05	0.45
4:AD:111:ALA:HB1	4:AD:116:GLN:CG	2.47	0.45
42:DT:12:VAL:HG22	42:DT:17:ALA:HB2	1.99	0.45
30:DH:88:ILE:CG1	30:DH:123:LEU:HA	2.44	0.45
1:CA:233:C:C2'	1:CA:234:C:H5'	2.47	0.45
23:DA:139:G:N3	23:DA:141(A):A:N1	2.64	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:29:PRO:O	4:CD:30:LYS:CB	2.65	0.45
44:BV:56:VAL:HG12	44:BV:57:ILE:N	2.31	0.45
24:BB:13:A:O4'	45:BW:74:ARG:NH2	2.49	0.45
37:DO:69:VAL:HA	37:DO:72:ALA:HB2	1.98	0.45
26:DD:52:LEU:O	26:DD:75:VAL:HA	2.16	0.45
1:AA:1067:A:N3	1:AA:1068:G:H1'	2.31	0.45
1:CA:407:G:C2	1:CA:436:C:C2	3.04	0.45
36:DN:57:ARG:HG2	36:DN:58:GLY:N	2.28	0.45
4:AD:158:ILE:HG22	4:AD:159:ARG:N	2.29	0.45
1:AA:1367:C:C2	1:AA:1368:G:C8	3.04	0.45
1:AA:1374:A:C4	1:AA:1375:A:C8	3.05	0.45
23:DA:2745:C:C4	23:DA:2746:U:C5	3.04	0.45
23:BA:2308:G:O2'	23:BA:2310:A:P	2.74	0.45
6:AF:5:GLU:OE1	6:AF:62:TRP:CZ2	2.70	0.45
41:DS:8:ARG:O	41:DS:9:TYR:HB2	2.16	0.45
23:DA:1503:U:C2	23:DA:1504:C:H5	2.34	0.45
23:DA:1104:C:C2'	23:DA:1105:U:H5'	2.46	0.45
1:AA:1237:C:C5	1:AA:1336:C:N3	2.85	0.45
1:CA:1529:G:H4'	1:CA:1530:G:OP2	2.16	0.45
23:BA:910:A:H2'	23:BA:2264:C:O2'	2.15	0.45
18:AR:88:LYS:OXT	18:AR:88:LYS:HG3	2.15	0.45
27:BE:157:VAL:HG21	27:BE:194:MET:HE3	1.97	0.45
16:AP:8:ARG:O	16:AP:9:PHE:HD2	1.95	0.45
1:AA:1118:C:O4'	1:AA:1179:A:C4	2.69	0.45
23:DA:601:C:H4'	27:DE:104:LYS:HE2	1.98	0.45
1:CA:556:C:H2'	1:CA:557:G:C5'	2.44	0.45
39:DQ:76:TYR:CZ	39:DQ:80:ILE:HG12	2.52	0.45
1:CA:170:U:HO2'	1:CA:171:A:H5'	1.81	0.45
43:BU:20:TYR:N	43:BU:20:TYR:CD1	2.84	0.45
39:DQ:98:LEU:O	39:DQ:101:ARG:N	2.50	0.45
23:BA:2476:A:C2	23:BA:2477:C:C5	3.04	0.45
17:AQ:29:HIS:HA	17:AQ:30:PRO:HD2	1.64	0.45
23:DA:2100:G:C2	23:DA:2101:G:C4	3.04	0.45
23:BA:1030:G:OP2	35:BM:128:LYS:HG2	2.16	0.45
35:BM:38:GLU:C	35:BM:127:ILE:HD11	2.37	0.45
23:DA:540:G:C4	23:DA:541:C:C6	3.04	0.45
44:BV:180:VAL:C	44:BV:182:LYS:N	2.65	0.45
1:CA:1056:U:C5	1:CA:1200:C:C4	3.05	0.45
1:CA:216:G:H2'	1:CA:217:C:H6	1.77	0.45
1:CA:913:A:O2'	1:CA:914:A:OP2	2.32	0.45
23:BA:814:C:H2'	23:BA:815:C:H6	1.81	0.45
46:DX:23:LYS:HB3	46:DX:37:ILE:CG1	2.47	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:543:C:C2	1:CA:544:G:C8	3.04	0.45
1:AA:939:G:C2	1:AA:940:C:C4	3.04	0.45
23:DA:2366:A:H2'	23:DA:2367:G:O4'	2.16	0.45
1:CA:255:G:C5	1:CA:256:U:C5	3.05	0.45
1:CA:17:U:O4'	1:CA:1080:A:H1'	2.16	0.45
33:BK:2:ILE:HD11	33:BK:82:ASN:ND2	2.32	0.45
23:DA:1006:C:C2	23:DA:1138:G:N2	2.85	0.45
19:CS:18:LYS:HG2	19:CS:31:ILE:HD13	1.99	0.45
23:BA:327:G:O2'	23:BA:328:U:H5'	2.17	0.45
8:CH:36:LEU:C	8:CH:38:ILE:N	2.69	0.45
7:CG:95:ARG:CZ	7:CG:99:LEU:HD11	2.47	0.45
23:BA:1930:G:O2'	23:BA:1931:U:P	2.75	0.45
23:BA:2347:C:H4'	51:B3:39:TYR:CE1	2.52	0.45
23:DA:245:G:C4	23:DA:246:C:C6	3.04	0.45
1:CA:716:A:N3	11:CK:118:GLY:HA2	2.31	0.45
33:BK:26:LYS:HB3	33:BK:27:GLY:H	1.68	0.45
11:AK:101:SER:OG	11:AK:102:GLY:N	2.48	0.45
1:AA:1038:C:H2'	1:AA:1039:C:H6	1.81	0.45
23:BA:245:G:C4	23:BA:246:C:C5	3.04	0.45
48:BZ:3:ARG:NH1	48:BZ:59:VAL:CG1	2.79	0.45
23:DA:569:U:C4	23:DA:570:G:C6	3.03	0.45
48:BZ:8:LEU:HA	48:BZ:8:LEU:HD23	1.74	0.45
23:BA:735:A:H3'	23:BA:736:C:H6	1.81	0.45
20:CT:94:ALA:O	20:CT:95:ALA:HB3	2.16	0.45
52:D4:35:ARG:HG3	52:D4:42:LEU:HD11	1.98	0.45
1:CA:1340:A:C5	1:CA:1341:U:C6	3.04	0.45
30:DH:26:ALA:HA	30:DH:30:LEU:HB2	1.98	0.45
33:BK:7:TYR:HE1	33:BK:20:MET:HE3	1.81	0.45
10:AJ:26:ALA:HB1	10:AJ:84:GLN:HG2	1.99	0.45
51:D3:36:LEU:N	51:D3:36:LEU:HD23	2.31	0.45
44:BV:140:ASP:N	44:BV:140:ASP:OD2	2.50	0.45
1:AA:1407:C:H6	1:AA:1407:C:O5'	1.99	0.45
2:AB:221:LEU:HA	2:AB:221:LEU:HD22	1.86	0.45
6:AF:42:GLU:HG2	6:AF:42:GLU:O	2.16	0.45
1:AA:1455:G:H2'	1:AA:1459:C:C6	2.50	0.45
23:DA:627:A:H4'	23:DA:628:G:OP1	2.17	0.45
26:DD:170:LEU:N	26:DD:170:LEU:CD2	2.79	0.45
23:DA:1530:G:C6	23:DA:1531:C:C4	3.04	0.45
23:DA:99:U:C6	23:DA:102:G:N1	2.84	0.45
1:CA:1346:A:H5''	9:CI:120:ARG:HH12	1.81	0.45
14:AN:32:SER:HB3	14:AN:41:ARG:HG2	1.99	0.45
10:AJ:49:VAL:HG23	14:AN:34:TYR:OH	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:946:A:H61	1:CA:1235:U:H3	1.63	0.45
2:CB:68:ILE:CG2	2:CB:70:PHE:CE1	2.99	0.45
23:BA:1021:A:N6	23:BA:1141:U:N3	2.54	0.45
23:BA:1827:C:O2'	23:BA:1828:G:H5'	2.17	0.45
34:DL:52:GLU:CA	34:DL:52:GLU:OE1	2.63	0.45
53:B5:11:LYS:HD2	53:B5:64:TYR:CE2	2.50	0.45
23:BA:243:U:H2'	23:BA:244:A:H5'	1.97	0.45
1:AA:376:G:O3'	16:AP:5:ARG:HD2	2.16	0.45
1:AA:404:U:H2'	1:AA:405:U:C6	2.48	0.45
4:AD:106:TYR:C	4:AD:109:GLY:H	2.20	0.45
1:AA:36:C:N4	1:AA:37:U:C4	2.85	0.45
1:AA:327:A:C6	1:AA:329:A:C5	3.04	0.45
1:AA:328:C:H4'	1:AA:329:A:C5'	2.46	0.45
28:DF:69:ALA:O	28:DF:90:LEU:HD13	2.15	0.45
24:BB:46:A:C5	24:BB:47:C:C4	3.05	0.45
26:BD:59:VAL:O	26:BD:61:ARG:N	2.50	0.45
23:DA:2210:G:C3'	23:DA:2210:G:N3	2.77	0.45
17:CQ:51:TYR:CD1	17:CQ:73:VAL:HG11	2.51	0.45
1:CA:1435:G:H2'	1:CA:1436:U:H6	1.70	0.45
5:AE:65:ASN:O	5:AE:66:MET:HG3	2.17	0.45
1:AA:191(G):G:C5	1:AA:192:U:C5	3.04	0.45
1:AA:15:G:N3	1:AA:16:A:C8	2.85	0.45
4:CD:119:GLN:O	4:CD:123:HIS:HD2	1.99	0.45
1:CA:1330:U:O4	1:CA:1331:G:C2	2.69	0.45
9:AI:16:ARG:HB2	9:AI:64:THR:HB	1.99	0.45
38:BP:24:PRO:O	38:BP:94:ALA:HB2	2.16	0.45
41:DS:24:ILE:CG2	41:DS:36:LEU:HD21	2.46	0.45
29:DG:143:GLN:O	29:DG:144:VAL:C	2.54	0.45
1:CA:583:A:N6	1:CA:758:G:H1'	2.32	0.45
8:CH:88:LYS:HB3	8:CH:89:PRO:HD2	1.97	0.45
23:DA:2311:A:O2'	23:DA:2312:U:O4'	2.34	0.45
46:BX:9:GLY:O	46:BX:10:LYS:O	2.35	0.45
1:AA:321:A:C2	1:AA:333:G:C2	3.05	0.45
8:AH:86:ILE:HG22	8:AH:93:VAL:HG21	1.98	0.45
1:AA:657:G:O2'	1:AA:658:G:H5'	2.16	0.45
37:BO:57:LYS:HB3	37:BO:58:LEU:HD12	1.98	0.45
25:DC:25:THR:CG2	25:DC:81:ALA:HB1	2.45	0.45
44:DV:150:LEU:HD23	44:DV:171:ILE:HB	1.97	0.45
1:CA:711:G:N2	1:CA:712:A:N3	2.64	0.45
1:CA:1014:A:H5'	19:CS:14:HIS:CG	2.50	0.45
34:DL:10:PRO:CD	34:DL:11:GLY:N	2.80	0.45
10:CJ:27:ALA:HB1	10:CJ:34:VAL:HG21	1.98	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DC:61:LEU:HB2	25:DC:63:ARG:HH12	1.82	0.45
32:BJ:66:THR:HB	32:BJ:71:MET:HE3	1.98	0.45
23:BA:1871:A:O2'	23:BA:1872:A:H5'	2.16	0.45
1:CA:913:A:C2'	1:CA:914:A:OP2	2.64	0.45
23:DA:2476:A:C2'	23:DA:2476:A:N3	2.80	0.45
34:BL:55:ARG:HG3	34:BL:56:SER:N	2.31	0.45
36:BN:94:TYR:C	36:BN:117:VAL:HG12	2.37	0.45
23:DA:1717:G:C5	23:DA:1743:G:C2	3.04	0.45
23:DA:2850:A:H2'	23:DA:2851:A:O4'	2.16	0.45
1:AA:527:G:H2'	1:AA:528:C:H5'	1.99	0.45
8:AH:64:LYS:CG	8:AH:79:VAL:HG21	2.45	0.45
35:DM:115:MET:HE2	35:DM:115:MET:HA	1.98	0.45
35:DM:135:ASP:N	35:DM:135:ASP:OD1	2.49	0.45
35:DM:43:THR:HG1	35:DM:46:GLN:HG3	1.82	0.45
1:AA:1413:A:C6	1:AA:1414:U:C4	3.04	0.45
1:CA:492:G:C4	1:CA:493:G:C8	3.05	0.45
7:AG:16:LEU:O	7:AG:17:VAL:HG23	2.17	0.45
7:AG:54:THR:C	7:AG:56:GLN:H	2.20	0.45
1:CA:639:G:O2'	1:CA:640:A:H5'	2.17	0.45
23:DA:1870:C:C2'	23:DA:1870:C:O2	2.65	0.45
7:CG:103:TRP:O	7:CG:104:LEU:C	2.55	0.45
41:BS:36:LEU:HD11	41:BS:47:VAL:HB	1.97	0.45
23:DA:205:G:O2'	23:DA:206:U:P	2.75	0.45
23:DA:2863:C:O2'	23:DA:2864:G:H5'	2.16	0.45
16:AP:13:HIS:C	16:AP:15:PRO:HD3	2.37	0.45
26:DD:96:PHE:HA	26:DD:100:GLU:OE1	2.16	0.45
46:BX:68:PRO:O	46:BX:70:VAL:N	2.50	0.45
23:DA:1204:A:C2	23:DA:1241:A:N1	2.85	0.45
44:BV:14:LYS:HB2	44:BV:17:ALA:HB3	1.98	0.45
23:DA:2037:G:C6	23:DA:2038:G:C6	3.05	0.45
1:CA:1088:G:C5	1:CA:1089:G:N7	2.85	0.45
23:BA:503:A:C4	23:BA:506:G:N7	2.85	0.45
7:AG:35:LYS:O	7:AG:38:LEU:N	2.49	0.45
7:AG:80:VAL:C	7:AG:82:GLY:H	2.19	0.45
23:DA:537:C:H2'	23:DA:539:G:C8	2.51	0.45
49:B1:41:ILE:HD13	49:B1:47:VAL:HG13	1.97	0.45
23:BA:1345:C:C2'	23:BA:1346:G:H5'	2.46	0.45
36:DN:96:ARG:HD2	36:DN:115:GLU:OE1	2.17	0.45
23:BA:2410:G:C2	23:BA:2411:A:H1'	2.52	0.45
4:CD:8:VAL:O	4:CD:10:ARG:N	2.49	0.45
32:BJ:151:HIS:NE2	32:BJ:153:HIS:HA	2.32	0.45
28:DF:45:GLU:C	28:DF:47:LYS:H	2.19	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DH:3:VAL:HG12	30:DH:37:VAL:O	2.17	0.45
5:CE:80:ILE:HD12	5:CE:138:ALA:HB1	1.98	0.45
6:CF:82:ARG:HB2	6:CF:85:VAL:CG2	2.46	0.45
13:AM:81:LEU:HD22	13:AM:86:CYS:SG	2.56	0.45
23:DA:1484:G:H2'	23:DA:1485:G:H8	1.81	0.45
4:AD:201:GLN:O	4:AD:205:GLU:HG3	2.16	0.45
34:DL:126:VAL:HG23	34:DL:145:PRO:HG2	1.99	0.45
34:BL:57:THR:HG21	34:BL:59:LEU:HD22	1.89	0.45
1:AA:946:A:OP2	13:AM:114:ARG:NH2	2.49	0.45
1:AA:978:A:H5''	1:AA:979:C:OP2	2.17	0.45
13:AM:105:THR:O	13:AM:106:ASN:O	2.35	0.45
13:AM:91:ARG:NH1	19:AS:81:ARG:HH22	2.06	0.45
23:DA:1971:A:H5''	23:DA:1971:A:H8	1.82	0.45
32:DJ:157:ARG:O	32:DJ:159:GLU:N	2.50	0.45
41:BS:14:PRO:O	41:BS:15:ARG:C	2.54	0.45
39:DQ:107:ALA:O	39:DQ:110:VAL:HB	2.17	0.45
35:DM:74:TYR:O	35:DM:89:ASN:N	2.44	0.45
25:BC:127:VAL:HA	25:BC:193:VAL:HG12	1.96	0.45
16:CP:18:ARG:O	16:CP:19:ILE:O	2.34	0.45
30:BH:107:ILE:HD12	30:BH:108:THR:H	1.82	0.45
42:BT:12:VAL:HG22	42:BT:17:ALA:HB2	1.99	0.45
23:BA:1614:A:C6	41:BS:87:PRO:HA	2.50	0.45
23:DA:2338:G:C2	23:DA:2339:G:C8	3.04	0.45
1:AA:373:A:C2	1:AA:374:A:C8	3.04	0.45
1:AA:687:A:H1'	1:AA:688:G:OP2	2.15	0.45
30:DH:126:TYR:HB2	30:DH:142:VAL:HG21	1.98	0.45
30:DH:143:SER:O	30:DH:145:VAL:N	2.47	0.45
23:BA:1404:C:C2'	23:BA:1405:U:H5'	2.46	0.45
49:D1:40:ILE:N	49:D1:40:ILE:HD12	2.31	0.45
24:DB:16:G:O6	24:DB:69:G:C2	2.69	0.45
3:CC:35:GLU:O	3:CC:39:ILE:HG13	2.17	0.45
27:BE:155:LEU:HD12	27:BE:174:VAL:O	2.17	0.45
23:BA:2712:U:O2	23:BA:2712:U:H5''	2.15	0.45
26:DD:84:PHE:CE2	26:DD:86:PRO:HG3	2.52	0.45
24:BB:12:C:O2'	45:BW:74:ARG:HG2	2.16	0.45
5:AE:78:HIS:HE1	5:AE:142:LEU:HA	1.80	0.45
1:AA:1074:G:N3	1:AA:1102:A:C2	2.84	0.45
26:DD:119:ARG:HD3	26:DD:120:TRP:NE1	2.31	0.45
24:DB:106:G:C6	24:DB:107:U:C4	3.04	0.45
46:BX:11:ARG:NH1	46:BX:11:ARG:CG	2.79	0.45
46:BX:13:ILE:HG23	46:BX:14:VAL:N	2.29	0.45
23:BA:2630:G:H1'	23:BA:2894:G:H1'	1.99	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:96:G:O5'	47:DY:48:HIS:HE1	1.99	0.45
23:DA:2807:G:N1	23:DA:2893:G:O6	2.49	0.45
4:CD:135:LEU:HD13	4:CD:135:LEU:N	2.32	0.45
16:AP:72:ARG:HD3	16:AP:73:LEU:HD21	1.99	0.45
1:CA:1237:C:C5	1:CA:1336:C:N3	2.85	0.45
3:CC:70:VAL:CG1	3:CC:71:ALA:N	2.80	0.45
24:BB:48:A:H2'	24:BB:49:C:C6	2.51	0.45
29:DG:73:ALA:O	29:DG:76:VAL:HB	2.17	0.45
1:CA:1064:G:O4'	1:CA:1066:C:C6	2.70	0.45
23:DA:1478:G:C2	23:DA:1479:G:C5	3.05	0.45
8:CH:51:VAL:CG1	8:CH:52:ASP:N	2.79	0.45
32:BJ:70:ALA:HB2	32:BJ:135:LEU:HD11	1.99	0.45
8:CH:86:ILE:HG22	8:CH:87:SER:N	2.31	0.45
27:BE:46:ARG:NH1	27:BE:46:ARG:CG	2.79	0.45
28:DF:178:PHE:HA	28:DF:179:PRO:HD3	1.69	0.45
23:BA:1010:A:H5'	39:BQ:62:ILE:HG21	1.98	0.45
4:AD:72:GLU:O	4:AD:72:GLU:OE1	2.34	0.45
1:AA:719:C:O2'	18:AR:49:LYS:HB3	2.17	0.45
32:DJ:80:ALA:C	32:DJ:82:LYS:N	2.70	0.45
7:AG:27:ILE:HD12	7:AG:40:ALA:HA	1.99	0.45
1:AA:1379:G:C6	1:AA:1380:U:O4	2.69	0.45
2:AB:47:THR:HA	2:AB:202:PRO:HG2	1.99	0.45
1:AA:505:G:O2'	1:AA:506:G:H5'	2.17	0.45
23:BA:1230:C:O2'	23:BA:1231:G:H5'	2.17	0.45
23:DA:2862:G:H2'	23:DA:2863:C:H6	1.82	0.45
27:BE:179:GLU:CD	27:BE:179:GLU:N	2.69	0.45
26:BD:67:PHE:CD1	26:BD:74:PRO:HB3	2.50	0.45
23:DA:2572:A:OP2	26:DD:144:ARG:HB2	2.17	0.45
33:DK:86:ILE:N	33:DK:86:ILE:HD12	2.30	0.45
1:CA:883:C:C2'	1:CA:884:U:H5'	2.47	0.45
1:CA:744:C:O5'	1:CA:744:C:H6	2.00	0.45
23:DA:1465:G:C2	23:DA:1466:G:C4	3.05	0.45
1:CA:425:G:C6	1:CA:426:G:C5	3.05	0.45
23:BA:511:U:C5	23:BA:512:G:C5	3.05	0.45
23:BA:2744:G:N3	23:BA:2761:G:C2	2.85	0.45
28:DF:16:ARG:O	28:DF:20:ILE:HG12	2.16	0.45
23:BA:1685:C:O2'	23:BA:1686:C:H5'	2.16	0.45
34:BL:21:ARG:H	34:BL:21:ARG:HG2	1.57	0.45
23:DA:270(F):G:H2'	23:DA:270(G):U:O4'	2.16	0.45
23:BA:586:A:N1	23:BA:809:G:O2'	2.37	0.45
11:AK:81:ASP:OD1	11:AK:106:LYS:HB3	2.16	0.45
23:BA:2380:C:H6	23:BA:2380:C:O5'	1.99	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:891:U:O2	1:CA:891:U:H2'	2.17	0.45
2:AB:9:GLU:CD	2:AB:9:GLU:C	2.75	0.45
39:BQ:84:LYS:HA	39:BQ:84:LYS:HD3	1.89	0.45
34:DL:114:ILE:H	34:DL:114:ILE:CD1	1.98	0.45
23:BA:2415:G:O2'	23:BA:2416:C:H5'	2.16	0.45
23:BA:1309:G:H3'	52:B4:9:ARG:HH11	1.80	0.45
23:BA:1180:C:O2'	23:BA:1181:C:H5'	2.17	0.45
1:CA:1350:A:C6	1:CA:1351:U:N3	2.85	0.45
1:AA:946:A:C6	1:AA:1236:A:C2	3.04	0.45
10:AJ:49:VAL:CG2	14:AN:41:ARG:HB3	2.46	0.45
25:BC:17:THR:H	25:BC:205:VAL:HG12	1.80	0.45
2:CB:154:LEU:C	2:CB:154:LEU:HD22	2.37	0.45
23:DA:1900:A:N1	23:DA:1970:A:C5	2.85	0.45
25:DC:35:LYS:HA	25:DC:35:LYS:HD3	1.70	0.45
23:DA:1022:G:N2	23:DA:114(B):A:H2	2.13	0.45
23:DA:1021:A:N6	23:DA:1141:U:N3	2.53	0.45
34:BL:40:SER:O	34:BL:41:ARG:CD	2.52	0.45
1:AA:375:U:C2'	1:AA:376:G:H5'	2.47	0.45
12:AL:100:VAL:CG1	12:AL:103:VAL:HG23	2.46	0.45
1:AA:37:U:P	12:AL:122:LYS:HG3	2.57	0.45
28:BF:70:VAL:HG12	28:BF:90:LEU:CD2	2.44	0.45
35:DM:140:ALA:HB3	44:DV:53:ILE:CG1	2.47	0.45
41:BS:75:TYR:C	41:BS:75:TYR:CD2	2.89	0.45
1:CA:36:C:N4	1:CA:37:U:C4	2.85	0.45
1:AA:393:A:N3	1:AA:394:G:C8	2.85	0.45
41:BS:4:LYS:CD	41:BS:6:ILE:HD11	2.47	0.45
36:DN:2:ARG:O	36:DN:3:HIS:CD2	2.69	0.45
24:BB:10:C:C2	24:BB:11:C:C5	3.05	0.45
26:DD:55:ASN:O	26:DD:59:VAL:HG23	2.17	0.45
25:DC:86:PRO:HD2	25:DC:87:ASN:HD21	1.81	0.45
1:AA:586:C:O2'	1:AA:878:G:H4'	2.17	0.45
19:CS:66:MET:HB3	19:CS:74:PHE:CZ	2.52	0.45
3:AC:205:GLY:O	3:AC:206:GLU:HB2	2.17	0.45
37:BO:84:GLN:C	37:BO:86:ALA:H	2.20	0.45
1:AA:1148:U:H2'	1:AA:1149:C:O4'	2.17	0.45
9:AI:118:LYS:C	9:AI:120:ARG:H	2.20	0.45
36:DN:50:HIS:CD2	36:DN:50:HIS:C	2.89	0.45
23:DA:2744:G:N2	23:DA:2761:G:C4	2.85	0.45
1:CA:644:G:H5'	8:CH:92:ARG:HH21	1.81	0.45
23:BA:2311:A:O2'	23:BA:2312:U:O4'	2.34	0.45
1:CA:986:A:C6	1:CA:1220:G:N1	2.84	0.45
1:AA:737:A:C4	1:AA:738:C:C5	3.05	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:2747:G:C6	23:BA:2754:U:C6	3.05	0.45
29:BG:74:ASN:ND2	29:BG:138:LYS:HD2	2.31	0.45
11:CK:34:ASP:CB	11:CK:35:PRO:CD	2.94	0.45
1:AA:631:G:N2	1:AA:632:A:C2	2.84	0.45
45:DW:73:GLY:O	45:DW:75:LEU:N	2.50	0.45
23:DA:379:G:N2	46:DX:20:ARG:NH2	2.64	0.45
30:BH:4:ILE:HA	30:BH:17:GLN:O	2.16	0.45
23:BA:1478:G:C2	23:BA:1479:G:C5	3.05	0.45
4:AD:52:SER:C	4:AD:54:TYR:N	2.70	0.45
43:BU:44:ILE:HG22	43:BU:45:VAL:N	2.25	0.45
4:CD:102:ASP:OD2	4:CD:136:PRO:HB3	2.17	0.45
1:CA:277:C:OP1	17:CQ:41:LYS:HE3	2.16	0.45
23:DA:483:A:H1'	43:DU:47:LYS:O	2.17	0.45
23:BA:2468:G:C2	23:BA:2481:G:N3	2.85	0.45
29:DG:92:ILE:O	29:DG:93:GLY:C	2.55	0.45
8:AH:51:VAL:CG1	8:AH:52:ASP:N	2.79	0.45
1:AA:706:A:H2'	1:AA:707:C:H5'	1.99	0.45
2:CB:72:GLY:HA2	2:CB:165:VAL:HG22	1.98	0.45
25:DC:97:TYR:HB2	25:DC:101:GLU:O	2.16	0.45
17:CQ:32:TYR:O	17:CQ:34:LYS:N	2.49	0.45
23:DA:1411:C:O2'	23:DA:1412:A:H5'	2.17	0.45
38:BP:3:ARG:HD2	38:BP:6:LEU:HD23	1.97	0.45
39:BQ:61:TRP:O	39:BQ:62:ILE:C	2.55	0.45
18:AR:43:PHE:C	18:AR:44:LEU:HD12	2.37	0.45
2:CB:122:PHE:HD1	2:CB:139:LYS:HZ2	1.65	0.45
23:BA:2869:G:C6	23:BA:2870:C:C4	3.04	0.45
15:AO:27:VAL:O	15:AO:28:GLN:C	2.53	0.45
7:CG:54:THR:C	7:CG:56:GLN:H	2.20	0.45
23:DA:651:G:OP1	53:D5:19:SER:CB	2.63	0.45
23:BA:738:G:H2'	23:BA:739:G:C8	2.52	0.45
25:BC:244:ARG:HB2	25:BC:245:PRO:HD3	1.99	0.45
1:CA:381:C:C2	1:CA:382:A:C8	3.05	0.45
41:DS:57:ASN:O	41:DS:58:ALA:C	2.54	0.45
27:DE:53:THR:C	27:DE:55:GLY:N	2.69	0.45
7:CG:68:ASN:O	7:CG:135:VAL:HG13	2.17	0.45
15:AO:5:LYS:N	15:AO:5:LYS:HD3	2.30	0.45
51:B3:18:ARG:HB3	51:B3:19:ARG:H	1.52	0.45
1:AA:927:G:N1	1:AA:1391:U:C2	2.85	0.45
39:BQ:17:ILE:HA	39:BQ:20:LEU:HD23	1.98	0.45
7:AG:68:ASN:O	7:AG:135:VAL:HG13	2.17	0.45
1:AA:639:G:O2'	1:AA:640:A:H5'	2.16	0.45
36:BN:31:HIS:C	36:BN:33:ARG:H	2.19	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:136:G:C4	23:BA:137(A):C:C5	3.05	0.45
1:AA:1161:C:H2'	1:AA:1162:C:C6	2.52	0.45
1:CA:525:C:OP1	12:CL:90:LYS:HE2	2.16	0.45
46:DX:51:VAL:HG12	46:DX:58:ILE:HG12	1.99	0.45
46:DX:68:PRO:O	46:DX:70:VAL:N	2.49	0.45
9:CI:45:ALA:O	9:CI:48:GLU:HB2	2.17	0.45
23:BA:1612:C:H4'	52:B4:5:TRP:O	2.17	0.45
23:BA:234:C:H2'	23:BA:235:U:C6	2.52	0.45
23:DA:2511:U:O4	23:DA:2575:C:N3	2.49	0.45
39:DQ:24:TYR:HE1	39:DQ:39:LEU:HD23	1.81	0.45
1:CA:897:C:N4	1:CA:902:G:H1	2.15	0.45
23:BA:644:A:C2	23:BA:646:A:C4	3.04	0.45
33:BK:3:GLN:CB	33:BK:4:PRO:HD2	2.47	0.45
23:BA:260:G:N2	23:BA:261:G:H1'	2.32	0.45
1:AA:857:C:H2'	1:AA:858:G:O4'	2.17	0.45
8:AH:29:SER:OG	8:AH:32:LYS:HG3	2.17	0.45
10:AJ:22:LYS:NZ	10:AJ:88:LEU:HG	2.32	0.45
1:AA:1452:C:H1'	1:AA:1453:G:N2	2.31	0.45
23:DA:629:G:H2'	23:DA:630:G:H8	1.81	0.45
34:DL:85:LEU:HD23	34:DL:117:GLU:O	2.16	0.45
34:DL:62:LEU:CD2	34:DL:62:LEU:O	2.62	0.45
26:DD:11:MET:CE	26:DD:186:GLY:CA	2.94	0.45
23:DA:83:G:N2	23:DA:84:A:N6	2.65	0.45
43:DU:15:VAL:O	43:DU:15:VAL:HG12	2.17	0.45
43:DU:8:LYS:HB2	43:DU:8:LYS:HE2	1.51	0.45
32:DJ:123:GLU:C	32:DJ:125:ALA:H	2.19	0.45
1:AA:948:C:OP1	13:AM:107:ALA:HA	2.17	0.45
22:CV:6195:G:N2	22:CV:6196:A:N3	2.65	0.45
23:DA:2388:A:C8	23:DA:2389:G:C5	3.05	0.45
5:AE:81:GLU:HG2	5:AE:90:VAL:HG22	1.98	0.45
27:DE:67:GLN:O	27:DE:68:LYS:HB3	2.17	0.45
23:DA:587:C:C4	34:DL:33:ARG:HB2	2.52	0.45
32:BJ:36:TRP:CZ2	32:BJ:74:PHE:CD2	3.05	0.45
23:BA:819:A:OP2	23:BA:1187:G:N2	2.30	0.45
23:BA:2579:C:O2'	26:BD:131:ALA:CB	2.64	0.45
23:DA:993:G:C6	23:DA:994:C:C5	3.05	0.45
25:DC:36:PRO:HA	25:DC:62:TYR:O	2.17	0.45
23:BA:1826:G:H2'	23:BA:1827:C:H6	1.82	0.45
28:DF:128:ARG:HH21	28:DF:129:GLY:C	2.20	0.45
4:AD:119:GLN:O	4:AD:123:HIS:HD2	2.00	0.45
4:AD:29:PRO:O	4:AD:30:LYS:CB	2.64	0.45
3:CC:182:ILE:HD11	3:CC:203:PHE:HD1	1.81	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DC:50:THR:HG23	25:DC:51:VAL:N	2.32	0.45
1:CA:186(G):C:H2'	1:CA:187:C:O4'	2.17	0.45
14:CN:24:CYS:SG	14:CN:27:CYS:SG	3.08	0.45
23:DA:1786:A:C2	23:DA:2606:C:H1'	2.52	0.45
47:DY:60:LEU:HD23	47:DY:60:LEU:HA	1.38	0.45
49:B1:40:ILE:HD12	49:B1:40:ILE:N	2.32	0.45
1:CA:1072:G:C5	1:CA:1073:U:C4	3.04	0.45
41:BS:23:LEU:HD22	50:B2:25:LEU:HD13	1.99	0.45
23:BA:1439:A:C2'	23:BA:1440:G:H5'	2.47	0.45
1:CA:687:A:N3	1:CA:688:G:H1'	2.32	0.45
1:CA:688:G:C4	1:CA:689:C:C5	3.04	0.45
1:AA:1149:C:H2'	1:AA:1150:U:C6	2.52	0.45
9:AI:9:ARG:O	9:AI:10:ARG:HB2	2.17	0.45
35:DM:55:VAL:O	35:DM:56:ARG:C	2.54	0.45
1:AA:9:G:OP2	5:AE:121:LYS:HG3	2.17	0.45
41:DS:32:ALA:O	41:DS:33:ARG:C	2.55	0.45
32:DJ:142:ARG:CG	32:DJ:142:ARG:HH11	2.20	0.45
46:DX:86:SER:HB3	46:DX:89:GLU:HB2	1.99	0.45
33:BK:35:VAL:HG11	33:BK:103:ALA:CB	2.46	0.45
41:DS:8:ARG:HA	41:DS:102:HIS:HA	1.98	0.45
1:AA:750:G:O2'	15:AO:21:ASP:HA	2.16	0.45
23:BA:1104:C:C2'	23:BA:1105:U:H5'	2.47	0.45
23:BA:1314:C:C2'	23:BA:1315:C:H5'	2.47	0.45
25:DC:25:THR:O	25:DC:27:THR:CB	2.64	0.45
23:BA:733:G:C5	23:BA:761:A:C6	3.05	0.45
27:DE:203:GLN:OE1	27:DE:207:GLY:CA	2.64	0.45
43:BU:19:LYS:HB3	43:BU:20:TYR:CE1	2.52	0.45
23:BA:295:G:H4'	43:BU:2:ARG:NH1	2.32	0.45
1:CA:236:G:H2'	1:CA:237:C:O4'	2.17	0.45
44:DV:60:GLU:OE1	44:DV:66:SER:HB3	2.17	0.45
23:DA:2470:G:C6	23:DA:2471:C:C5	3.05	0.45
1:AA:1135:U:H4'	1:AA:1136:U:C5	2.52	0.45
33:BK:104:ARG:HG2	33:BK:121:VAL:HG12	1.99	0.45
1:AA:236:G:C5	1:AA:237:C:C5	3.04	0.45
23:BA:318:C:O2'	23:BA:319:C:H5'	2.16	0.45
23:DA:988:A:C8	48:DZ:13:ILE:HD12	2.52	0.45
1:CA:1076:C:C2'	1:CA:1077:G:H5'	2.47	0.45
1:CA:1327:C:H2'	1:CA:1328:C:C6	2.52	0.45
38:BP:84:GLN:HG3	38:BP:85:LYS:CG	2.47	0.45
23:DA:1051:G:C5	23:DA:1052:C:N3	2.84	0.45
23:DA:2852:G:H2'	23:DA:2853:C:C6	2.51	0.45
23:BA:887:A:N3	23:BA:889:C:C5	2.84	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CL:88:ARG:NH1	12:CL:90:LYS:HD3	2.32	0.45
48:BZ:23:LEU:HD12	48:BZ:50:VAL:HG11	1.99	0.45
1:AA:1316:G:H2'	1:AA:1317:C:H5''	1.99	0.45
23:BA:165:U:H2'	23:BA:171:G:O4'	2.16	0.45
38:BP:41:ARG:NH1	38:BP:41:ARG:CB	2.80	0.45
23:DA:231:C:C5	23:DA:232:G:C6	3.05	0.45
4:AD:23:GLY:HA3	4:AD:112:VAL:HG22	1.98	0.45
1:AA:932:C:H2'	1:AA:933:G:C8	2.52	0.45
24:DB:87:G:N2	24:DB:89(A):G:C8	2.85	0.45
23:DA:1759:A:C8	23:DA:2696:U:H1'	2.52	0.45
23:BA:1751:C:H2'	23:BA:1752:C:H6	1.82	0.45
23:DA:2410:G:C2	23:DA:2411:A:H1'	2.52	0.45
27:DE:144:LYS:C	27:DE:146:ALA:H	2.19	0.45
23:DA:270(G):U:H3	23:DA:270(U):G:H1	1.64	0.45
18:CR:23:LYS:C	18:CR:25:THR:H	2.19	0.45
23:BA:2679:A:H4'	26:BD:165:VAL:HG11	1.99	0.45
1:AA:1186:G:H4'	9:AI:110:GLU:OE2	2.16	0.45
1:CA:474:G:H5'	16:CP:81:ARG:HG3	1.98	0.45
23:DA:735:A:H3'	23:DA:736:C:H6	1.81	0.45
15:AO:32:LEU:O	15:AO:35:ARG:N	2.50	0.45
39:BQ:59:ARG:HE	39:BQ:59:ARG:HB2	1.53	0.45
48:DZ:49:LYS:HD3	48:DZ:49:LYS:HA	1.44	0.45
26:BD:125:GLY:HA2	26:BD:126:PRO:HD3	1.74	0.45
26:DD:12:THR:O	26:DD:23:VAL:O	2.35	0.45
36:DN:12:ARG:CG	36:DN:16:HIS:CD2	2.78	0.45
22:AV:6214:C:H2'	22:AV:6215:C:C6	2.52	0.45
28:BF:60:LEU:HA	28:BF:63:ILE:HG12	1.99	0.45
23:BA:1275:A:C5	36:BN:16:HIS:ND1	2.85	0.45
1:AA:8:A:H5'	5:AE:120:THR:O	2.17	0.45
25:BC:142:VAL:CG2	25:BC:192:THR:O	2.65	0.45
30:BH:143:SER:O	30:BH:145:VAL:HG23	2.17	0.45
1:AA:436:C:H2'	1:AA:437:U:H6	1.81	0.45
1:AA:413:G:H4'	1:AA:414:A:H5''	1.98	0.45
25:DC:158:ALA:HB3	25:DC:161:THR:CG2	2.33	0.45
4:AD:75:PHE:CZ	4:AD:93:PHE:CZ	3.05	0.45
49:D1:60:GLU:N	49:D1:60:GLU:CD	2.70	0.45
1:CA:36:C:O3'	12:CL:122:LYS:HA	2.17	0.45
1:AA:391:G:C5	1:AA:392:G:C8	3.05	0.45
47:DY:28:LYS:HG3	47:DY:60:LEU:HD12	1.99	0.45
36:DN:2:ARG:HA	36:DN:2:ARG:HD2	1.42	0.45
44:BV:125:LEU:HD23	44:BV:126:VAL:N	2.32	0.45
1:CA:1252:A:H61	1:CA:1285:A:N6	2.12	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:BV:101:PRO:O	44:BV:102:LEU:HD23	2.16	0.45
44:BV:137:ILE:HG22	44:BV:138:GLU:N	2.31	0.45
42:BT:51:VAL:HG11	42:BT:81:VAL:CG1	2.45	0.45
29:DG:35:VAL:HG21	29:DG:75:ALA:HB2	1.98	0.45
1:AA:1074:G:H1'	2:AB:104:ASN:HD22	1.82	0.45
1:CA:401:C:C3'	1:CA:401:C:C6	3.00	0.45
43:DU:81:LYS:HD3	43:DU:97:ARG:CB	2.43	0.45
9:AI:28:VAL:HG22	9:AI:63:ILE:H	1.82	0.45
4:AD:126:ILE:CG2	4:AD:127:THR:H	2.22	0.45
23:DA:1586:A:C2'	23:DA:1587:A:H5'	2.46	0.45
5:AE:126:ARG:NH1	5:AE:126:ARG:HG2	2.24	0.45
6:AF:63:TYR:H	6:AF:63:TYR:HD2	1.59	0.45
36:BN:2:ARG:HA	36:BN:2:ARG:HD2	1.44	0.45
1:CA:724:G:N3	1:CA:725:G:C8	2.85	0.45
40:BR:30:GLY:HA2	40:BR:61:VAL:O	2.16	0.45
23:DA:528:A:O2'	23:DA:529:A:H5'	2.17	0.45
23:BA:1502:C:C6	23:BA:1502:C:H3'	2.52	0.45
1:CA:601:C:H2'	1:CA:602:A:H8	1.73	0.45
30:DH:133:HIS:NE2	30:DH:135:GLU:HG2	2.32	0.45
1:AA:625:G:O2'	1:AA:626:U:H5'	2.17	0.45
3:AC:59:ARG:HG2	3:AC:63:ASN:O	2.17	0.45
1:CA:236:G:H1'	17:CQ:4:LYS:NZ	2.32	0.45
24:BB:61:G:C6	24:BB:62:C:C4	3.05	0.45
10:CJ:58:ASP:O	10:CJ:60:ARG:N	2.50	0.45
1:AA:976:G:H8	1:AA:1358:U:C2'	2.30	0.45
23:DA:2468:G:C2	23:DA:2481:G:N3	2.84	0.45
2:CB:63:MET:C	2:CB:65:GLY:H	2.19	0.45
44:BV:18:LEU:O	44:BV:21:ALA:HB3	2.17	0.45
38:BP:34:VAL:O	38:BP:40:THR:HA	2.17	0.45
41:BS:60:ASN:N	41:BS:60:ASN:OD1	2.50	0.45
1:CA:1080:A:C5'	1:CA:1081:G:OP2	2.65	0.45
1:CA:1418:A:N3	23:DA:1959:G:H1'	2.32	0.45
10:CJ:45:ARG:HB3	10:CJ:47:PHE:CE1	2.52	0.45
40:BR:7:THR:CG2	40:BR:22:VAL:HG11	2.44	0.45
8:AH:114:THR:OG1	8:AH:119:LEU:HG	2.17	0.45
40:DR:7:THR:CG2	40:DR:22:VAL:HG11	2.47	0.45
1:AA:806:C:O2	1:AA:807:A:C8	2.69	0.45
1:AA:1327:C:H2'	1:AA:1328:C:C6	2.51	0.45
46:BX:70:VAL:O	46:BX:74:VAL:HG23	2.17	0.45
1:AA:356:A:H1'	1:AA:368:U:O2'	2.17	0.45
23:BA:2300:G:C6	23:BA:2301:C:C4	3.05	0.45
1:CA:191(G):G:C5	1:CA:192:U:C5	3.05	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:166:G:O2'	1:AA:167:G:H5'	2.17	0.45
23:DA:30:G:C6	23:DA:31:C:C4	3.05	0.45
41:BS:42:ARG:HG2	41:BS:42:ARG:NH1	2.32	0.45
25:DC:52:ARG:CZ	25:DC:53:PHE:CE2	3.00	0.45
25:DC:52:ARG:NH1	25:DC:53:PHE:HE2	2.15	0.45
19:AS:33:THR:CG2	19:AS:51:VAL:HA	2.47	0.45
1:CA:614:A:P	4:CD:85:LYS:HE2	2.57	0.45
23:DA:2360:A:O5'	23:DA:2360:A:H8	1.99	0.45
23:BA:1260:G:H2'	23:BA:1261:C:O4'	2.17	0.45
1:AA:642:A:N3	8:AH:113:SER:OG	2.32	0.45
9:AI:5:TYR:CG	9:AI:6:GLY:N	2.85	0.45
24:DB:95:U:H2'	24:DB:96:G:C8	2.51	0.45
23:DA:1983:C:O2'	23:DA:1984:G:H5'	2.16	0.45
36:DN:65:LEU:O	36:DN:68:ARG:HB2	2.17	0.45
1:CA:452:A:C4	1:CA:453:A:C8	3.05	0.45
23:BA:1394:U:C5	23:BA:1395:A:C5	3.04	0.45
23:DA:2672:G:H2'	23:DA:2673:G:O5'	2.17	0.45
23:BA:1214:A:H2'	23:BA:1215:G:O4'	2.17	0.45
7:AG:41:ARG:O	7:AG:45:ASP:N	2.40	0.45
23:BA:2082:A:H2'	23:BA:2083:G:O4'	2.15	0.45
5:CE:28:PHE:CD1	5:CE:28:PHE:N	2.85	0.45
7:CG:36:LYS:HB2	7:CG:36:LYS:NZ	2.31	0.45
5:AE:26:PHE:CD1	5:AE:26:PHE:N	2.84	0.45
23:DA:2587:A:O5'	23:DA:2587:A:H8	1.99	0.45
23:DA:2795:G:H3'	23:DA:2797:U:C5'	2.47	0.45
23:DA:1417:C:H42	23:DA:1581:G:H1	1.64	0.45
1:AA:1241:G:C2	1:AA:1242:C:C4	3.04	0.45
34:DL:61:ARG:HD2	53:D5:13:ARG:HD2	1.99	0.45
34:DL:97:PRO:O	34:DL:101:VAL:HG12	2.17	0.45
34:DL:57:THR:OG1	34:DL:58:THR:N	2.49	0.45
23:BA:2416:C:N3	23:BA:2417:C:C5	2.85	0.45
1:CA:1372:U:C5	1:CA:1373:G:C5	3.04	0.45
1:AA:973:G:OP1	10:AJ:57:LYS:NZ	2.50	0.45
34:BL:33:ARG:NE	34:BL:36:LYS:HD3	2.10	0.45
23:BA:2846:G:C6	23:BA:2847:U:C4	3.04	0.45
1:CA:362:G:O2'	12:CL:32:ARG:NH2	2.49	0.45
53:B5:32:LEU:HD23	53:B5:32:LEU:N	2.32	0.45
25:BC:233:HIS:HE1	25:BC:247:ALA:N	2.06	0.45
34:DL:49:ARG:O	34:DL:51:PHE:N	2.50	0.45
28:DF:73:ALA:H	28:DF:87:PRO:HD2	1.82	0.45
50:D2:17:ASP:O	50:D2:20:ARG:HB2	2.16	0.45
1:CA:671:G:C4	1:CA:672:U:C6	3.05	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DO:88:ASP:O	37:DO:90:GLY:N	2.45	0.45
4:AD:31:CYS:O	4:AD:32:ALA:HB3	2.17	0.45
42:DT:28:PHE:HE1	42:DT:81:VAL:CG2	2.30	0.45
13:AM:37:THR:OG1	13:AM:56:LEU:HD23	2.17	0.45
24:DB:68:C:H2'	24:DB:69:G:O4'	2.17	0.45
44:DV:97:GLU:O	44:DV:98:MET:HB3	2.17	0.45
23:DA:661:C:O3'	34:DL:18:ARG:CG	2.65	0.45
47:DY:60:LEU:C	47:DY:62:THR:N	2.70	0.45
5:CE:13:ILE:HA	5:CE:29:GLY:O	2.17	0.45
5:AE:136:MET:O	5:AE:139:LEU:N	2.50	0.45
23:BA:2766:G:H5''	23:BA:2767:C:OP2	2.16	0.45
23:DA:1438:U:O2'	23:DA:1439:A:H5'	2.16	0.45
14:AN:24:CYS:SG	14:AN:27:CYS:SG	3.15	0.45
25:BC:175:LEU:HD12	25:BC:185:VAL:HG21	1.99	0.45
1:AA:1301:U:H3'	1:AA:1302:U:C5'	2.46	0.45
42:DT:29:TRP:CZ3	42:DT:78:LYS:CG	3.00	0.45
23:DA:1578:U:O2	23:DA:1578:U:H2'	2.17	0.45
4:AD:92:VAL:O	4:AD:96:LEU:HB2	2.17	0.45
17:AQ:85:VAL:O	17:AQ:89:LEU:HG	2.17	0.45
1:CA:1149:C:H2'	1:CA:1150:U:C6	2.52	0.45
8:CH:112:LEU:HD12	8:CH:114:THR:HG23	1.98	0.45
27:DE:89:VAL:CG1	27:DE:90:PHE:H	2.19	0.45
1:CA:324:G:C2	1:CA:327:A:C8	3.05	0.45
1:CA:710:G:C4	1:CA:711:G:C8	3.05	0.45
23:DA:2286:A:C8	23:DA:2287:A:C6	3.05	0.45
23:BA:497:A:C5	23:BA:498:G:C8	3.05	0.45
23:BA:581:C:H2'	23:BA:582:G:H8	1.81	0.45
44:BV:25:PRO:O	44:BV:85:HIS:HB2	2.17	0.45
1:AA:913:A:C2'	1:AA:914:A:OP2	2.64	0.45
18:CR:44:LEU:HG	18:CR:50:ILE:HD13	1.99	0.45
38:BP:34:VAL:HG21	38:BP:43:GLN:HB2	1.99	0.45
23:DA:247:G:N7	23:DA:249:C:C2	2.85	0.45
23:DA:1413:G:C2'	23:DA:1414:G:H5'	2.47	0.45
1:CA:949:A:C2	1:CA:1233:G:N3	2.85	0.45
1:CA:256:U:OP1	17:CQ:17:LYS:NZ	2.39	0.45
23:BA:1789:A:OP1	25:BC:222:ARG:HG3	2.16	0.45
35:BM:111:GLU:OE2	35:BM:133:ARG:CZ	2.65	0.45
35:DM:116:GLU:O	35:DM:117:ALA:C	2.55	0.45
38:DP:41:ARG:HH11	38:DP:41:ARG:CB	2.28	0.45
12:CL:7:ASN:HA	12:CL:10:VAL:HG23	1.99	0.45
23:BA:17:G:H2'	23:BA:18:C:C6	2.52	0.45
23:DA:2347:C:H4'	51:D3:39:TYR:CE1	2.52	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1269:A:H5''	21:CU:24:ARG:NH1	2.32	0.45
25:DC:221:VAL:HG22	25:DC:226:MET:CE	2.47	0.45
1:CA:1181:G:N2	1:CA:1182:G:N2	2.65	0.45
23:DA:496:G:C1'	41:DS:61:ASN:HD21	2.30	0.45
33:BK:59:LYS:O	33:BK:86:ILE:HG23	2.16	0.45
1:AA:224:C:H2'	1:AA:225:C:H6	1.81	0.45
12:AL:58:ARG:HA	12:AL:64:GLU:HG2	1.99	0.45
1:AA:577:G:H1'	1:AA:816:A:N3	2.32	0.45
1:CA:123:C:H5''	1:CA:311:C:O2'	2.17	0.45
24:DB:27:C:N4	24:DB:28:C:N4	2.65	0.45
23:BA:1126:A:H8	23:BA:1126:A:O5'	2.00	0.45
23:DA:1241:A:N7	23:DA:1242:A:C4	2.85	0.45
1:AA:497:U:C2'	1:AA:497:U:O2	2.65	0.45
23:DA:1425:G:N2	23:DA:1573:G:N7	2.64	0.45
23:BA:2079:U:C2'	23:BA:2080:G:O5'	2.64	0.45
23:DA:771:G:C4	23:DA:772:C:C5	3.05	0.45
30:DH:75:LEU:HG	30:DH:76:THR:O	2.16	0.45
8:AH:68:ARG:HG2	8:AH:69:ARG:N	2.32	0.45
1:CA:645:C:C2'	1:CA:646:U:H5'	2.46	0.45
5:CE:72:GLN:O	5:CE:73:ASN:HB3	2.17	0.45
1:CA:1339:A:H2'	1:CA:1340:A:O4'	2.17	0.45
6:CF:82:ARG:HD2	6:CF:82:ARG:HA	1.79	0.45
6:CF:82:ARG:HB2	6:CF:85:VAL:HG23	1.98	0.45
24:DB:95:U:C2	24:DB:96:G:N7	2.85	0.45
23:DA:1790:C:H2'	23:DA:1791:A:C5	2.51	0.45
23:DA:2046:G:O5'	50:D2:19:ARG:HA	2.16	0.45
23:BA:1632:A:C6	23:BA:1633:G:C6	3.05	0.45
23:BA:1632:A:H8	23:BA:1632:A:O5'	2.00	0.45
38:BP:114:LEU:HD23	38:BP:114:LEU:HA	1.56	0.45
23:BA:838:C:C4	23:BA:839:U:C5	3.05	0.45
23:BA:1564:C:O2'	23:BA:1565:C:H5'	2.17	0.45
23:BA:606:U:H4'	23:BA:658:C:H4'	1.99	0.45
38:DP:108:ARG:O	38:DP:111:ARG:HB2	2.17	0.45
23:DA:575:A:H2'	23:DA:575:A:N3	2.32	0.45
9:CI:8:GLY:HA3	9:CI:76:ALA:O	2.17	0.45
23:DA:1835:G:C4	23:DA:1836:C:C5	3.05	0.45
23:BA:1889:A:H2'	23:BA:1890:A:O4'	2.17	0.45
10:CJ:89:ASP:C	10:CJ:91:PRO:HD3	2.37	0.45
40:DR:82:ARG:C	40:DR:83:ARG:HG2	2.37	0.45
41:DS:78:GLU:OE2	41:DS:99:ARG:HD3	2.17	0.45
23:DA:1540:G:C2	23:DA:1541:U:C2	3.05	0.44
23:DA:1541:U:O3'	23:DA:1542:G:H3'	2.16	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DE:64:ILE:HG23	27:DE:65:TRP:CD1	2.52	0.44
42:BT:63:LYS:HE3	42:BT:72:LYS:HG2	1.98	0.44
23:BA:603:A:C2	23:BA:655:A:C2	3.06	0.44
25:BC:142:VAL:HG23	25:BC:192:THR:O	2.17	0.44
34:DL:47:ASP:HB2	34:DL:51:PHE:HB2	1.98	0.44
23:DA:1022:G:C6	23:DA:1140:C:C4	3.05	0.44
39:BQ:79:PHE:O	39:BQ:79:PHE:HD1	1.98	0.44
39:BQ:92:ARG:HD2	39:BQ:95:LEU:CG	2.46	0.44
1:AA:378:G:C6	1:AA:379:C:N4	2.84	0.44
1:AA:501:C:H3'	1:AA:501:C:H6	1.82	0.44
12:AL:82:VAL:CG1	12:AL:83:LEU:N	2.80	0.44
25:BC:77:ALA:HB2	25:BC:97:TYR:CG	2.53	0.44
4:CD:106:TYR:C	4:CD:109:GLY:H	2.19	0.44
16:AP:28:ARG:NH1	16:AP:28:ARG:CG	2.71	0.44
3:CC:172:ARG:O	3:CC:173:VAL:CG2	2.52	0.44
2:CB:204:ASN:CG	2:CB:205:ASP:H	2.20	0.44
25:DC:242:ARG:H	25:DC:242:ARG:HH11	1.64	0.44
23:DA:662:G:H5'	34:DL:18:ARG:HA	1.97	0.44
26:DD:2:LYS:HD3	26:DD:95:ILE:O	2.16	0.44
47:DY:25:VAL:HG21	47:DY:61:LEU:HD13	1.98	0.44
23:DA:2722:G:C5	23:DA:2723:C:C4	3.05	0.44
36:DN:17:ARG:O	36:DN:20:LEU:HB3	2.17	0.44
42:BT:43:VAL:HG11	42:BT:81:VAL:HG11	1.99	0.44
28:BF:5:LEU:HD22	28:BF:6:ALA:H	1.81	0.44
1:AA:1104:G:C2	1:AA:1105:A:C5	3.05	0.44
45:BW:49:LYS:HB2	45:BW:80:HIS:CB	2.46	0.44
1:AA:1369:C:C2'	1:AA:1370:G:O4'	2.66	0.44
36:DN:54:LEU:CD2	36:DN:62:ALA:HB1	2.45	0.44
1:CA:506:G:C6	1:CA:507:C:N4	2.84	0.44
19:AS:39:THR:HG22	19:AS:40:ILE:N	2.32	0.44
36:BN:57:ARG:CD	36:BN:59:ASP:OD2	2.64	0.44
23:DA:2305:A:C5'	28:DF:134:GLY:HA3	2.46	0.44
43:BU:81:LYS:HZ3	43:BU:97:ARG:HD3	1.80	0.44
46:BX:13:ILE:O	46:BX:13:ILE:HD12	2.17	0.44
25:BC:131:LEU:HG	25:BC:136:ILE:HD11	1.99	0.44
25:DC:25:THR:O	25:DC:26:LYS:C	2.55	0.44
1:AA:556:C:O2'	1:AA:557:G:H5'	2.17	0.44
28:DF:133:LEU:H	28:DF:133:LEU:HD23	1.81	0.44
3:AC:59:ARG:HH21	3:AC:97:LYS:HE2	1.81	0.44
1:AA:66:G:C4'	1:AA:173:U:C5	2.99	0.44
23:BA:1475:G:C2	23:BA:1476:C:O2	2.70	0.44
27:BE:117:ARG:HH21	27:BE:187:VAL:HA	1.82	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:833:U:C2	1:CA:834:C:C5	3.05	0.44
43:BU:63:LYS:CG	43:BU:64:GLU:N	2.80	0.44
23:BA:2550:G:C5	23:BA:2551:C:C5	3.05	0.44
17:CQ:89:LEU:O	17:CQ:93:GLN:HG3	2.16	0.44
23:DA:540:G:C5	23:DA:541:C:C5	3.05	0.44
27:DE:50:SER:OG	27:DE:51:THR:N	2.46	0.44
29:BG:90:LYS:O	29:BG:94:TYR:HB2	2.17	0.44
23:DA:2009:G:O2'	23:DA:2010:G:H5'	2.17	0.44
4:CD:82:ALA:CB	4:CD:89:THR:HG23	2.47	0.44
1:AA:236:G:H2'	1:AA:237:C:O4'	2.17	0.44
1:CA:1135:U:H4'	1:CA:1136:U:C5	2.53	0.44
1:CA:511:C:H1'	4:CD:43:HIS:HE2	1.81	0.44
23:DA:2664:G:H2'	23:DA:2665:A:OP2	2.17	0.44
23:BA:795:C:H2'	23:BA:796:C:C6	2.47	0.44
23:BA:1184:G:C6	23:BA:1185:C:C4	3.04	0.44
23:BA:1922:G:C6	23:BA:1923:U:N3	2.84	0.44
1:CA:976:G:H8	1:CA:1358:U:C2'	2.29	0.44
7:CG:15:ASP:OD1	7:CG:18:TYR:HD1	1.99	0.44
8:AH:36:LEU:C	8:AH:38:ILE:N	2.69	0.44
1:CA:492:G:C6	1:CA:493:G:C5	3.05	0.44
38:BP:96:ARG:CZ	38:BP:96:ARG:HB2	2.47	0.44
1:CA:413:G:H4'	1:CA:414:A:H5''	1.98	0.44
12:AL:5:THR:O	12:AL:9:LEU:HD12	2.18	0.44
23:DA:494:G:N2	41:DS:57:ASN:HD21	2.15	0.44
45:BW:14:ARG:O	45:BW:15:ASP:HB2	2.17	0.44
1:CA:334:C:O2'	1:CA:335:C:H5'	2.17	0.44
36:BN:27:SER:O	36:BN:31:HIS:N	2.50	0.44
3:AC:191:THR:C	3:AC:193:TYR:H	2.21	0.44
46:BX:68:PRO:O	46:BX:71:TYR:N	2.49	0.44
1:AA:994:A:O5'	1:AA:994:A:H8	2.00	0.44
1:AA:563:A:C8	1:AA:567:G:H1'	2.51	0.44
1:CA:119:A:C4	1:CA:240:C:C4	3.05	0.44
26:DD:72:VAL:O	26:DD:73:GLU:C	2.54	0.44
19:CS:39:THR:HG22	19:CS:40:ILE:N	2.32	0.44
23:DA:1647:G:H3'	23:DA:1647:G:P	2.57	0.44
20:CT:78:ALA:O	20:CT:79:ARG:C	2.55	0.44
23:BA:900:A:H2'	23:BA:901:A:O4'	2.17	0.44
38:BP:107:ASP:H	38:BP:110:ILE:HG13	1.82	0.44
23:DA:2026:C:C2	23:DA:2027:G:C8	3.05	0.44
30:BH:12:LEU:H	30:BH:12:LEU:HD22	1.81	0.44
37:BO:64:GLU:O	37:BO:68:GLN:HG3	2.17	0.44
15:CO:17:ARG:NH1	15:CO:77:ARG:HH12	2.16	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BD:8:LYS:HG2	26:BD:192:ASN:HD22	1.81	0.44
2:AB:228:GLY:O	2:AB:230:VAL:N	2.50	0.44
7:AG:36:LYS:HB2	7:AG:36:LYS:NZ	2.32	0.44
52:B4:3:ARG:HA	52:B4:3:ARG:HD3	1.74	0.44
2:AB:189:ASP:N	2:AB:189:ASP:OD1	2.50	0.44
23:DA:2231:C:H2'	23:DA:2232:U:O4'	2.17	0.44
15:CO:25:THR:OG1	15:CO:26:GLU:N	2.49	0.44
34:DL:85:LEU:CA	34:DL:88:LEU:HB2	2.46	0.44
34:BL:66:GLY:O	34:BL:67:MET:HB2	2.17	0.44
47:BY:3:LEU:O	47:BY:5:GLU:N	2.50	0.44
23:BA:312:G:H2'	23:BA:312:G:N3	2.32	0.44
43:DU:14:LEU:CD2	43:DU:15:VAL:N	2.69	0.44
2:AB:164:VAL:O	2:AB:186:ALA:HB1	2.17	0.44
1:AA:1226:C:H42	13:AM:104:ARG:HD2	1.82	0.44
1:CA:81:G:C5	1:CA:82:U:C4	3.05	0.44
34:BL:33:ARG:O	34:BL:34:GLY:C	2.55	0.44
1:CA:1225:A:C5'	1:CA:1226:C:OP2	2.66	0.44
1:CA:1316:G:H2'	1:CA:1317:C:H5''	1.99	0.44
27:DE:64:ILE:O	27:DE:65:TRP:CD1	2.70	0.44
23:BA:1902:C:H2'	23:BA:1903:G:O4'	2.17	0.44
28:BF:73:ALA:H	28:BF:87:PRO:HD2	1.82	0.44
23:DA:748:G:OP2	41:DS:88:ARG:HG3	2.17	0.44
23:DA:194:G:H2'	23:DA:195:A:O4'	2.17	0.44
23:DA:197:A:C5'	23:DA:197:A:C8	2.95	0.44
25:DC:70:TRP:O	25:DC:70:TRP:HD1	2.01	0.44
24:DB:16:G:C6	24:DB:69:G:N2	2.85	0.44
44:DV:57:ILE:HG22	44:DV:59:LEU:HG	1.99	0.44
26:DD:87:GLU:O	26:DD:88:GLY:C	2.53	0.44
5:CE:75:THR:HG23	5:CE:76:ILE:H	1.81	0.44
1:CA:668:G:H2'	1:CA:669:U:H6	1.81	0.44
1:AA:1067:A:N3	1:AA:1068:G:C1'	2.80	0.44
1:AA:1076:C:H2'	1:AA:1077:G:H5'	1.99	0.44
1:AA:1064:G:N2	1:AA:1190:G:H2'	2.22	0.44
41:DS:4:LYS:CD	41:DS:6:ILE:HD11	2.45	0.44
1:AA:186(G):C:H2'	1:AA:187:C:O4'	2.16	0.44
23:DA:1454:U:C5	23:DA:2702:U:O4	2.71	0.44
23:DA:1454:U:O4'	36:DN:63:ARG:HD3	2.17	0.44
25:BC:164:GLN:O	25:BC:175:LEU:HD23	2.17	0.44
23:DA:2747:G:O2'	23:DA:2748:A:O4'	2.27	0.44
8:CH:25:ASP:N	8:CH:25:ASP:OD1	2.50	0.44
8:AH:10:LEU:N	8:AH:10:LEU:HD23	2.32	0.44
24:DB:10:C:C2	24:DB:11:C:C5	3.06	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:832:C:O2'	1:AA:833:U:P	2.74	0.44
3:AC:59:ARG:CG	3:AC:64:VAL:HG22	2.43	0.44
44:BV:74:VAL:HG22	44:BV:86:VAL:CG1	2.47	0.44
23:DA:498:G:O2'	43:DU:47:LYS:HD3	2.17	0.44
23:BA:2476:A:N1	23:BA:2477:C:C5	2.85	0.44
23:BA:1389:G:C2	23:BA:1390:U:C2	3.05	0.44
17:CQ:53:LEU:HD12	17:CQ:54:GLY:H	1.82	0.44
7:CG:131:LYS:HE3	7:CG:136:LYS:HZ1	1.81	0.44
38:DP:3:ARG:HB3	38:DP:6:LEU:HB3	1.98	0.44
23:DA:1649:G:C6	23:DA:2009:G:C6	3.05	0.44
23:DA:2467:C:C2'	23:DA:2468:G:H5'	2.47	0.44
1:AA:128:G:O2'	17:AQ:3:LYS:HE2	2.18	0.44
23:BA:56:A:C2	23:BA:115:C:O2	2.70	0.44
1:AA:649:G:C4	1:AA:650:G:C8	3.05	0.44
33:DK:31:LYS:HB3	33:DK:32:TYR:CD1	2.53	0.44
38:BP:3:ARG:HB3	38:BP:6:LEU:HB3	1.99	0.44
23:DA:814:C:C5	34:DL:27:HIS:NE2	2.85	0.44
23:DA:1945:G:H2'	23:DA:1946:U:C6	2.52	0.44
23:DA:1684:C:C2	23:DA:1705:G:N2	2.86	0.44
7:CG:27:ILE:HD12	7:CG:40:ALA:HA	1.99	0.44
23:BA:571:A:H4'	23:BA:572:A:OP1	2.17	0.44
26:DD:176:ILE:CD1	26:DD:176:ILE:N	2.80	0.44
44:BV:108:PRO:HG3	44:BV:141:VAL:HG22	1.99	0.44
36:DN:79:LEU:HD23	36:DN:83:ILE:CB	2.47	0.44
1:CA:356:A:C2'	1:CA:357:G:O5'	2.65	0.44
1:AA:512:U:H3	1:AA:539:A:H61	1.65	0.44
25:DC:221:VAL:HG22	25:DC:226:MET:HE3	1.99	0.44
8:AH:50:ARG:H	8:AH:50:ARG:HD3	1.81	0.44
1:AA:1160:G:O2'	1:AA:1161:C:H5'	2.16	0.44
38:DP:80:SER:O	38:DP:82:LEU:N	2.50	0.44
11:CK:109:VAL:HG11	18:CR:84:LYS:HB2	1.99	0.44
51:D3:18:ARG:HH22	51:D3:44:ARG:HB2	1.82	0.44
23:DA:1203:G:H3'	23:DA:1204:A:C5'	2.47	0.44
23:DA:1027:A:C6	23:DA:1126:A:C4	3.04	0.44
15:AO:67:LEU:HD23	15:AO:78:TYR:HE1	1.83	0.44
5:CE:36:ASP:O	5:CE:37:ARG:CB	2.65	0.44
23:BA:1203:G:H3'	23:BA:1204:A:H5''	1.99	0.44
23:BA:262:A:O2'	23:BA:263:C:H5'	2.17	0.44
1:CA:662:G:C2	1:CA:744:C:O2	2.71	0.44
23:DA:1464:C:C2	23:DA:1465:G:C8	3.05	0.44
16:CP:49:LEU:HG	16:CP:50:LYS:N	2.32	0.44
15:AO:3:ILE:HG21	15:AO:34:LEU:HD23	1.99	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DE:135:LYS:O	27:DE:136:THR:C	2.56	0.44
23:BA:2795:G:H3'	23:BA:2797:U:C5'	2.47	0.44
51:B3:13:CYS:O	51:B3:21:TYR:HA	2.17	0.44
1:CA:930:C:C4	1:CA:931:C:C5	3.05	0.44
53:B5:15:LYS:CG	53:B5:16:ILE:N	2.80	0.44
48:BZ:18:ASP:N	48:BZ:18:ASP:OD1	2.49	0.44
20:AT:94:ALA:O	20:AT:95:ALA:HB3	2.17	0.44
34:DL:126:VAL:CA	34:DL:145:PRO:HG2	2.46	0.44
34:DL:62:LEU:CD1	53:D5:27:THR:HG22	2.48	0.44
23:BA:1540:G:C2	23:BA:1541:U:C2	3.05	0.44
23:BA:1540:G:C4	23:BA:1541:U:C6	3.04	0.44
1:CA:948:C:OP1	13:CM:107:ALA:HA	2.17	0.44
23:BA:2295:C:C4	23:BA:2296:U:H5	2.36	0.44
25:DC:10:THR:CG2	25:DC:13:ARG:CB	2.92	0.44
32:BJ:110:LEU:O	32:BJ:110:LEU:HD22	2.17	0.44
34:DL:50:ARG:HD2	34:DL:51:PHE:CB	2.47	0.44
16:CP:6:LEU:HB3	16:CP:17:TYR:HD2	1.82	0.44
39:BQ:72:HIS:HE1	39:BQ:107:ALA:HA	1.82	0.44
39:BQ:79:PHE:HE1	39:BQ:83:LEU:CD2	2.29	0.44
43:BU:29:GLU:O	43:BU:38:ILE:N	2.40	0.44
1:AA:407:G:N2	1:AA:436:C:C2	2.86	0.44
1:CA:393:A:C4	1:CA:394:G:C8	3.05	0.44
2:CB:205:ASP:O	2:CB:207:ALA:N	2.49	0.44
35:BM:140:ALA:HB3	44:BV:53:ILE:CG1	2.46	0.44
23:BA:142:G:H2'	23:BA:143:C:H6	1.81	0.44
1:AA:1072:G:C6	1:AA:1104:G:N1	2.85	0.44
1:AA:1251:A:H1'	1:AA:1369:C:O2'	2.17	0.44
4:AD:128:VAL:HA	4:AD:145:GLU:O	2.17	0.44
25:DC:164:GLN:O	25:DC:175:LEU:HD23	2.18	0.44
44:DV:137:ILE:HG22	44:DV:138:GLU:N	2.31	0.44
35:DM:47:ILE:HG22	35:DM:48:GLU:H	1.78	0.44
23:DA:1576:U:N3	23:DA:1577:C:C5	2.85	0.44
1:AA:1238:A:C5	1:AA:1303:C:H1'	2.53	0.44
23:DA:2330:G:H1'	45:DW:41:ARG:HB3	1.98	0.44
23:BA:1284:A:H2'	23:BA:1285:G:O4'	2.17	0.44
41:DS:41:LYS:C	41:DS:43:GLY:N	2.69	0.44
23:DA:953:A:O2'	23:DA:954:G:H5'	2.17	0.44
4:CD:92:VAL:O	4:CD:96:LEU:HB2	2.17	0.44
11:CK:21:ILE:HG13	11:CK:30:VAL:CG1	2.47	0.44
1:CA:173:U:C2	1:CA:197:A:N1	2.85	0.44
1:CA:69:G:H1	1:CA:99:C:H42	1.65	0.44
27:BE:37:VAL:HG23	27:BE:183:VAL:HG22	1.99	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:79:PHE:HZ	4:CD:204:ILE:HA	1.81	0.44
23:DA:2471:C:H2'	23:DA:2472:G:O4'	2.17	0.44
44:DV:39:VAL:HG21	44:DV:44:PHE:CD2	2.52	0.44
23:BA:1777:U:O2'	23:BA:1778:U:H5'	2.17	0.44
23:BA:2427:C:H5''	23:BA:2428:G:OP1	2.17	0.44
1:AA:949:A:C2	1:AA:1233:G:N3	2.85	0.44
23:BA:2401:U:O2'	23:BA:2402:C:H5''	2.16	0.44
25:BC:221:VAL:HG22	25:BC:226:MET:HE3	1.98	0.44
1:CA:445:G:H2'	1:CA:446:G:C8	2.52	0.44
43:BU:91:GLU:HB3	43:BU:92:ASN:H	1.65	0.44
5:CE:137:GLU:HG2	5:CE:140:ARG:NH1	2.31	0.44
23:BA:1217:C:OP1	39:BQ:15:LYS:HE2	2.17	0.44
23:DA:693:C:C2'	23:DA:694:U:O5'	2.66	0.44
41:BS:45:TYR:HD2	41:BS:46:PHE:CE1	2.34	0.44
23:DA:2280:G:C2'	23:DA:2281:C:H5'	2.47	0.44
23:DA:958:U:C2'	23:DA:959:A:OP2	2.65	0.44
24:BB:26:A:N7	24:BB:27:C:C4	2.85	0.44
23:BA:2572:A:C8	26:BD:144:ARG:HB3	2.52	0.44
48:BZ:50:VAL:O	48:BZ:54:VAL:HG22	2.17	0.44
12:AL:46:LYS:HD3	12:AL:47:PRO:HG3	1.99	0.44
23:DA:1381:G:H2'	23:DA:1382:G:H5'	1.97	0.44
23:BA:1471:A:C2	23:BA:1472:A:C4	3.05	0.44
1:CA:932:C:H2'	1:CA:933:G:C8	2.52	0.44
1:AA:575:G:C8	1:AA:881:G:N2	2.86	0.44
23:BA:273(B):G:C2	23:BA:364:C:C2	3.05	0.44
28:DF:52:ILE:HG23	28:DF:153:ARG:HH22	1.83	0.44
23:DA:447:A:C4	23:DA:473:G:C8	3.05	0.44
23:BA:724:U:H2'	23:BA:725:G:O4'	2.18	0.44
42:BT:18:TYR:O	42:BT:19:ALA:C	2.56	0.44
13:AM:86:CYS:HA	19:AS:73:GLU:O	2.17	0.44
9:AI:5:TYR:O	9:AI:84:ALA:HA	2.18	0.44
23:BA:443:A:H1'	23:BA:1201:C:O4'	2.18	0.44
23:BA:2794:C:N4	23:BA:2802:G:H1	2.15	0.44
23:BA:1655:A:C8	23:BA:1656:C:C5	3.05	0.44
23:BA:487:C:H1'	41:BS:53:SER:HB2	1.98	0.44
39:BQ:78:THR:O	39:BQ:81:HIS:HB3	2.17	0.44
23:DA:2666:C:C6	23:DA:2667:C:C6	3.05	0.44
1:CA:1417:G:N2	1:CA:1482:G:H2'	2.33	0.44
50:D2:14:ALA:O	50:D2:15:ARG:C	2.55	0.44
23:DA:836:G:C5	23:DA:837:C:C4	3.05	0.44
48:BZ:11:SER:OG	48:BZ:13:ILE:HG13	2.17	0.44
6:AF:64:GLN:HE21	6:AF:64:GLN:HB2	1.60	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:BZ:32:GLN:OE1	48:BZ:32:GLN:HA	2.17	0.44
4:CD:14:ARG:HA	4:CD:14:ARG:HD3	1.84	0.44
2:CB:9:GLU:C	2:CB:9:GLU:CD	2.75	0.44
23:BA:1987:G:H2'	23:BA:1988:C:H6	1.83	0.44
34:DL:107:LYS:C	34:DL:109:GLY:H	2.20	0.44
25:BC:155:LEU:CD1	25:BC:155:LEU:H	2.29	0.44
1:CA:1369:C:O2'	1:CA:1370:G:O4'	2.34	0.44
1:CA:1374:A:C4	1:CA:1375:A:C8	3.05	0.44
1:AA:978:A:O2'	1:AA:1322:C:N3	2.48	0.44
26:BD:24:THR:HG22	26:BD:186:GLY:H	1.82	0.44
27:DE:67:GLN:O	27:DE:68:LYS:CB	2.65	0.44
23:DA:577:G:OP1	23:DA:2502:G:H2'	2.16	0.44
32:BJ:95:TYR:N	32:BJ:108:ILE:O	2.40	0.44
41:DS:14:PRO:O	41:DS:15:ARG:C	2.55	0.44
4:AD:104:VAL:C	4:AD:106:TYR:N	2.70	0.44
1:AA:430:A:OP1	4:AD:9:CYS:N	2.44	0.44
4:AD:19:LEU:O	4:AD:31:CYS:SG	2.75	0.44
23:DA:2712:U:O2'	23:DA:712(B):A:C5'	2.64	0.44
23:BA:2210:G:N2	23:BA:2211:G:C5'	2.60	0.44
44:DV:163:LEU:HD23	44:DV:163:LEU:H	1.83	0.44
23:BA:1299:G:H3'	23:BA:1639:U:O4	2.16	0.44
24:BB:10:C:C4	24:BB:11:C:C5	3.06	0.44
24:BB:68:C:H2'	24:BB:69:G:O4'	2.16	0.44
10:CJ:76:ASN:HA	10:CJ:77:PRO:HD3	1.87	0.44
1:AA:1346:A:C2	1:AA:1348:U:C4	3.06	0.44
41:DS:19:LEU:HB3	50:D2:25:LEU:HD11	1.99	0.44
1:AA:1292:U:C2	1:AA:1293:G:N7	2.86	0.44
29:DG:44:VAL:O	29:DG:50:VAL:HG13	2.18	0.44
23:BA:2723:C:H6	23:BA:2723:C:O5'	2.00	0.44
1:AA:1331:G:OP1	1:AA:1331:G:H4'	2.17	0.44
40:BR:28:GLU:HB2	40:BR:31:ALA:HB2	1.99	0.44
25:DC:166:GLN:NE2	25:DC:166:GLN:CA	2.62	0.44
25:DC:166:GLN:HB2	25:DC:174:ILE:HG22	1.99	0.44
1:CA:349:A:C2'	1:CA:350:G:H5'	2.47	0.44
17:AQ:85:VAL:O	17:AQ:86:GLU:C	2.54	0.44
33:BK:96:THR:O	33:BK:97:ARG:C	2.56	0.44
33:DK:35:VAL:HG11	33:DK:103:ALA:CB	2.47	0.44
23:BA:956:G:OP1	35:BM:86:GLY:N	2.49	0.44
9:CI:16:ARG:HB2	9:CI:64:THR:HB	1.99	0.44
1:CA:828:A:C5'	1:CA:859:A:C2	2.96	0.44
37:DO:34:HIS:HB3	37:DO:36:TYR:CE1	2.53	0.44
23:DA:1010:A:H5'	39:DQ:62:ILE:HG21	1.99	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:295:G:H4'	43:DU:2:ARG:NH1	2.32	0.44
23:DA:1518:C:H2'	23:DA:1519:G:H8	1.82	0.44
45:BW:53:MET:HA	45:BW:58:THR:O	2.17	0.44
1:CA:67:C:O2'	1:CA:171:A:H1'	2.17	0.44
23:BA:483:A:H2'	23:BA:483:A:N3	2.33	0.44
29:BG:91:GLY:O	29:BG:92:ILE:O	2.35	0.44
23:BA:1401:G:C5	23:BA:1402:C:C4	3.06	0.44
1:AA:401:C:C6	1:AA:401:C:C3'	3.00	0.44
23:BA:2467:C:C2'	23:BA:2468:G:H5'	2.47	0.44
23:BA:2467:C:C5'	35:BM:123:HIS:CE1	3.00	0.44
23:BA:909:A:H2'	23:BA:912:C:H5	1.83	0.44
1:CA:521:G:C2	1:CA:522:C:C6	3.05	0.44
2:CB:165:VAL:HG23	2:CB:166:ASP:N	2.33	0.44
33:DK:2:ILE:HD12	33:DK:2:ILE:HA	1.76	0.44
44:DV:74:VAL:CG2	44:DV:86:VAL:HG13	2.47	0.44
1:AA:1053:G:C3'	1:AA:1054:C:C5'	2.92	0.44
36:BN:79:LEU:CD2	36:BN:83:ILE:HB	2.46	0.44
8:AH:13:ILE:O	8:AH:17:THR:HG23	2.17	0.44
23:BA:997:G:OP1	39:BQ:93:LYS:HD2	2.17	0.44
1:CA:559:A:H4'	1:CA:560:U:H3'	2.00	0.44
8:AH:36:LEU:O	8:AH:39:LEU:N	2.50	0.44
1:CA:411:A:N6	1:CA:413:G:N3	2.66	0.44
32:BJ:80:ALA:C	32:BJ:82:LYS:H	2.21	0.44
44:BV:121:HIS:CE1	44:BV:169:GLU:OE2	2.71	0.44
2:CB:28:PHE:CD1	2:CB:190:THR:HG22	2.53	0.44
23:DA:2705:A:H3'	23:DA:2706:G:H8	1.83	0.44
26:DD:172:VAL:HG13	26:DD:182:LEU:HD11	1.98	0.44
1:AA:1181:G:N2	1:AA:1182:G:N2	2.65	0.44
23:DA:2604:U:O2	23:DA:2604:U:C2'	2.65	0.44
1:AA:577:G:C5	1:AA:578:C:C5	3.05	0.44
23:BA:1773:A:C5	23:BA:1829:A:H1'	2.52	0.44
3:AC:186:PHE:CD1	3:AC:187:ALA:N	2.85	0.44
3:CC:186:PHE:CD1	3:CC:187:ALA:N	2.86	0.44
33:DK:7:TYR:HE1	33:DK:20:MET:CE	2.29	0.44
1:AA:515:G:C2	1:AA:537:G:N3	2.86	0.44
23:DA:772:C:C2'	23:DA:772:C:O2	2.64	0.44
1:AA:762:C:C2	1:AA:763:G:C8	3.06	0.44
1:CA:1038:C:H2'	1:CA:1039:C:H6	1.82	0.44
28:DF:153:ARG:HB3	28:DF:153:ARG:NH1	2.32	0.44
26:DD:3:GLY:HA3	26:DD:81:ILE:HG21	1.99	0.44
23:BA:1425:G:N2	23:BA:1573:G:N7	2.65	0.44
36:BN:13:HIS:HE1	36:BN:15:SER:HB3	1.82	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:608:A:C4	23:DA:621:A:C6	3.06	0.44
28:BF:45:GLU:C	28:BF:47:LYS:H	2.20	0.44
5:CE:84:PHE:O	5:CE:86:ALA:N	2.45	0.44
38:DP:114:LEU:HA	38:DP:114:LEU:HD23	1.54	0.44
10:AJ:89:ASP:C	10:AJ:91:PRO:HD3	2.38	0.44
1:AA:131:C:H2'	1:AA:132:C:C6	2.53	0.44
23:DA:2490:G:H4'	23:DA:2491:U:OP1	2.17	0.44
23:BA:2248:C:C2'	23:BA:2249:U:H5'	2.47	0.44
40:BR:95:LEU:HD23	40:BR:96:ILE:N	2.33	0.44
5:AE:137:GLU:OE2	5:AE:137:GLU:O	2.35	0.44
10:CJ:22:LYS:NZ	10:CJ:88:LEU:HG	2.33	0.44
23:BA:2230:G:C6	23:BA:2231:C:C4	3.05	0.44
23:DA:679:C:H2'	23:DA:680:G:H8	1.83	0.44
42:BT:89:ILE:HG22	42:BT:91:ALA:HB3	1.99	0.44
52:B4:10:ARG:HE	52:B4:14:LYS:HD2	1.82	0.44
32:DJ:121:VAL:HG23	32:DJ:122:LEU:N	2.33	0.44
1:CA:1349:A:P	9:CI:118:LYS:NZ	2.91	0.44
1:CA:1369:C:C2'	1:CA:1370:G:O4'	2.65	0.44
1:CA:977:A:C2'	1:CA:978:A:H5''	2.47	0.44
38:BP:63:VAL:O	38:BP:73:GLU:HA	2.17	0.44
1:AA:952:U:O2'	1:AA:953:G:H5'	2.18	0.44
1:CA:501:C:OP2	12:CL:123:LYS:HD2	2.18	0.44
27:BE:63:LYS:CE	27:BE:67:GLN:HB3	2.48	0.44
23:BA:1902:C:C2'	23:BA:1903:G:O5'	2.65	0.44
39:DQ:79:PHE:HE1	39:DQ:83:LEU:CD2	2.31	0.44
40:DR:2:PHE:HE2	40:DR:13:ARG:CG	2.31	0.44
34:BL:46:LYS:HG2	34:BL:52:GLU:CD	2.38	0.44
30:DH:143:SER:O	30:DH:145:VAL:HG23	2.18	0.44
35:BM:141:GLN:N	44:BV:53:ILE:HB	2.29	0.44
26:DD:59:VAL:O	26:DD:61:ARG:N	2.51	0.44
52:B4:19:ARG:CG	52:B4:19:ARG:NH1	2.65	0.44
1:CA:436:C:H2'	1:CA:437:U:H6	1.81	0.44
4:CD:137:SER:O	4:CD:138:TYR:C	2.55	0.44
23:BA:2376:A:H2'	23:BA:2377:A:O4'	2.18	0.44
11:CK:52:GLY:H	11:CK:55:LYS:HE2	1.83	0.44
1:AA:1367:C:N3	1:AA:1368:G:N7	2.66	0.44
25:DC:175:LEU:HD23	25:DC:175:LEU:HA	1.84	0.44
1:CA:505:G:N3	1:CA:506:G:C8	2.85	0.44
6:CF:62:TRP:CG	18:CR:35:ARG:NH1	2.86	0.44
6:CF:60:PHE:CE2	18:CR:78:LEU:HD21	2.53	0.44
40:DR:28:GLU:HB2	40:DR:31:ALA:HB2	1.99	0.44
41:DS:9:TYR:N	41:DS:102:HIS:CD2	2.83	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:2757:A:H2'	23:BA:2758:A:H5'	2.00	0.44
29:BG:23:ARG:H	29:BG:23:ARG:HD3	1.83	0.44
1:AA:340:U:H2'	1:AA:341:C:C6	2.52	0.44
23:BA:8:A:C5	23:BA:9:U:O4	2.71	0.44
33:DK:115:VAL:O	33:DK:118:ALA:HB3	2.17	0.44
4:CD:92:VAL:HG12	4:CD:96:LEU:CD2	2.41	0.44
28:DF:133:LEU:HD21	28:DF:157:ILE:HG13	1.99	0.44
3:AC:58:GLU:O	3:AC:64:VAL:HA	2.17	0.44
30:BH:6:LEU:HD23	30:BH:6:LEU:N	2.32	0.44
20:AT:91:LEU:HD23	20:AT:91:LEU:HA	1.67	0.44
23:BA:1434:A:C2	23:BA:1435:G:C4	3.05	0.44
1:CA:1180:A:H5'	9:CI:103:THR:HG23	2.00	0.44
29:DG:28:GLY:HA3	29:DG:79:VAL:HB	1.99	0.44
1:CA:616:G:N3	1:CA:625:G:C2	2.85	0.44
23:BA:2596:U:C2'	23:BA:2597:G:H5'	2.47	0.44
25:BC:182:LEU:N	25:BC:272:ALA:CB	2.80	0.44
1:CA:236:G:H1'	17:CQ:4:LYS:CE	2.47	0.44
44:BV:24:LEU:HB2	44:BV:41:LEU:HG	1.97	0.44
30:BH:2:LYS:HG3	30:BH:39:ALA:CB	2.44	0.44
23:DA:333:G:C6	23:DA:334:C:C4	3.06	0.44
23:BA:2469:A:C2	23:BA:2470:G:C5	3.05	0.44
25:DC:176:ARG:HH11	25:DC:176:ARG:CG	2.25	0.44
1:AA:939:G:H1	1:AA:1344:C:H42	1.66	0.44
1:CA:760:G:H2'	1:CA:761:G:C5'	2.48	0.44
27:BE:46:ARG:NH1	27:BE:46:ARG:HB3	2.32	0.44
1:CA:909:A:H3'	1:CA:910:C:H6	1.82	0.44
1:AA:921:U:H5''	1:AA:922:G:OP2	2.18	0.44
1:CA:1483:A:H1'	23:DA:1948:G:H1'	2.00	0.44
1:CA:1483:A:C2	23:DA:1959:G:N3	2.84	0.44
7:CG:17:VAL:HG12	7:CG:18:TYR:CD1	2.52	0.44
23:BA:1746:G:N2	23:BA:1747:G:C4	2.85	0.44
43:BU:46:LYS:O	43:BU:48:ALA:N	2.50	0.44
8:CH:36:LEU:C	8:CH:38:ILE:H	2.21	0.44
1:AA:381:C:C2	1:AA:382:A:C8	3.05	0.44
35:BM:43:THR:HG1	35:BM:46:GLN:HG3	1.81	0.44
1:AA:538:G:OP2	12:AL:114:LYS:HB2	2.17	0.44
23:DA:2738:A:C2	23:DA:2739:U:C6	3.06	0.44
23:DA:646:A:H2'	23:DA:647:G:O4'	2.18	0.44
23:BA:2001:A:H4'	23:BA:2689:U:O2'	2.16	0.44
23:BA:2051:A:H4'	26:BD:141:ILE:CG2	2.48	0.44
33:DK:26:LYS:HB3	33:DK:27:GLY:H	1.65	0.44
23:BA:2572:A:P	26:BD:144:ARG:HB2	2.57	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:313:A:H2'	1:CA:314:C:C6	2.52	0.44
48:DZ:8:LEU:HD23	48:DZ:8:LEU:HA	1.75	0.44
42:DT:75:ASP:C	42:DT:76:ARG:HG3	2.38	0.44
2:CB:96:ARG:N	2:CB:96:ARG:HD2	2.32	0.44
1:AA:380:G:N2	1:AA:384:G:C5	2.86	0.44
23:BA:77:C:OP1	47:BY:59:ARG:HD3	2.16	0.44
23:DA:466:A:O3'	52:D4:33:ARG:NH1	2.50	0.44
23:BA:646:A:H2'	23:BA:647:G:O5'	2.17	0.44
23:BA:2823:A:C5	23:BA:2824:C:C5	3.05	0.44
32:BJ:32:VAL:HG12	32:BJ:33:GLU:O	2.17	0.44
1:AA:1004:A:H2	1:AA:1024:G:N3	2.15	0.44
1:CA:837:G:H1	1:CA:849:C:H42	1.65	0.44
1:AA:744:C:C6	1:AA:744:C:C3'	3.01	0.44
1:CA:1272:G:H2'	1:CA:1273:G:H8	1.82	0.44
23:BA:1422:G:C6	23:BA:1423:G:C5	3.06	0.44
8:AH:69:ARG:HA	8:AH:69:ARG:HD3	1.79	0.44
30:DH:25:TYR:CD1	30:DH:30:LEU:HD11	2.52	0.44
13:AM:116:THR:O	13:AM:117:VAL:O	2.36	0.44
23:DA:2082:A:H2'	23:DA:2083:G:O4'	2.17	0.44
26:BD:153:GLY:O	26:BD:154:LYS:C	2.55	0.44
23:BA:1001:A:H2'	23:BA:1002:G:O4'	2.16	0.44
23:DA:270(W):G:C4	23:DA:270(X):G:C8	3.06	0.44
23:DA:38:A:H2'	23:DA:39:C:C6	2.52	0.44
3:AC:61:ALA:O	3:AC:62:ASP:HB2	2.18	0.44
32:DJ:41:ALA:HB3	32:DJ:79:ASN:O	2.18	0.44
27:DE:140:LEU:HD12	27:DE:140:LEU:HA	1.80	0.44
34:BL:100:LEU:HD22	34:BL:100:LEU:H	1.82	0.44
38:BP:14:TYR:H	38:BP:14:TYR:HD1	1.64	0.44
11:CK:81:ASP:OD1	11:CK:106:LYS:HB3	2.18	0.44
23:BA:307:G:N1	23:BA:310:A:OP2	2.50	0.44
43:DU:71:LYS:NZ	43:DU:71:LYS:HB2	2.32	0.44
1:CA:961:U:OP2	1:CA:1223:C:C1'	2.66	0.44
1:CA:977:A:H2'	1:CA:978:A:H5''	2.00	0.44
1:CA:979:C:C5	1:CA:980:C:C6	3.05	0.44
5:AE:101:ILE:HD11	5:AE:119:LEU:CD2	2.23	0.44
27:DE:164:ARG:HA	27:DE:175:THR:OG1	2.17	0.44
53:D5:11:LYS:HD2	53:D5:64:TYR:CE2	2.52	0.44
23:DA:195:A:N7	23:DA:197:A:OP1	2.51	0.44
30:BH:68:LEU:O	30:BH:72:LEU:HB2	2.17	0.44
34:BL:50:ARG:CD	34:BL:51:PHE:N	2.79	0.44
25:DC:155:LEU:CD1	25:DC:155:LEU:N	2.80	0.44
1:AA:411:A:N6	1:AA:413:G:N3	2.66	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:141:ARG:O	4:CD:144:ASP:OD2	2.36	0.44
1:AA:689:C:H2'	1:AA:689:C:O2	2.16	0.44
30:DH:100:ALA:O	30:DH:104:GLN:HG3	2.17	0.44
1:CA:91:C:C2	1:CA:92:G:N7	2.86	0.44
1:CA:93:U:C2'	1:CA:95:G:C8	2.98	0.44
26:DD:77:ILE:HD13	26:DD:195:LEU:CD1	2.42	0.44
42:BT:35:THR:HB	42:BT:38:GLU:H	1.83	0.44
1:CA:41:G:O6	1:CA:401:C:N3	2.51	0.44
1:AA:266:G:C5'	1:AA:267:C:C5	2.94	0.44
36:BN:2:ARG:O	36:BN:3:HIS:CG	2.71	0.44
46:BX:27:GLU:HB3	46:BX:33:LYS:HG3	1.97	0.44
38:DP:53:ARG:CG	38:DP:53:ARG:HH11	2.16	0.44
23:BA:379:G:C5	23:BA:380:U:C5	3.05	0.44
23:BA:1587:A:C5	23:BA:1588:C:C4	3.06	0.44
27:BE:68:LYS:O	27:BE:70:THR:N	2.49	0.44
42:DT:21:PHE:O	42:DT:23:GLU:O	2.36	0.44
10:CJ:13:HIS:CB	10:CJ:68:HIS:NE2	2.80	0.44
23:BA:661:C:H5''	34:BL:18:ARG:HD3	2.00	0.44
28:BF:131:TYR:HD2	28:BF:133:LEU:HD22	1.82	0.44
1:CA:370:C:C2'	1:CA:371:G:H5'	2.48	0.44
1:AA:68:G:C6	1:AA:69:G:C5	3.06	0.44
23:BA:1477:A:C4	23:BA:1478:G:C8	3.06	0.44
25:BC:25:THR:HG21	25:BC:81:ALA:HB1	2.00	0.44
26:DD:37:ARG:NH1	26:DD:42:ASP:OD1	2.51	0.44
11:AK:21:ILE:HG13	11:AK:30:VAL:CG1	2.46	0.44
44:DV:179:ASP:O	44:DV:182:LYS:HB2	2.18	0.44
1:CA:658:G:N1	1:CA:749:C:C4	2.85	0.44
23:BA:947:G:N3	23:BA:984:A:H2	2.16	0.44
25:DC:30:GLU:HG3	25:DC:63:ARG:NE	2.32	0.44
23:DA:2467:C:H4'	35:DM:123:HIS:ND1	2.32	0.44
1:CA:512:U:H3	1:CA:539:A:H61	1.65	0.44
34:BL:84:ASN:HB3	34:BL:86:LYS:HG2	2.00	0.44
10:CJ:49:VAL:CG2	14:CN:41:ARG:HB3	2.47	0.44
23:BA:2705:A:H2'	23:BA:2706:G:O4'	2.18	0.44
7:CG:16:LEU:O	7:CG:17:VAL:HG23	2.17	0.44
8:CH:40:ALA:HB2	8:CH:45:ILE:HD11	1.99	0.44
23:BA:2889:C:H2'	23:BA:2891:G:H8	1.83	0.44
23:BA:2853:C:H2'	23:BA:2854:G:C8	2.51	0.44
29:BG:62:LYS:O	29:BG:63:SER:C	2.56	0.44
47:BY:50:ILE:O	47:BY:51:ARG:C	2.55	0.44
40:DR:12:TYR:N	40:DR:12:TYR:CD2	2.85	0.44
1:CA:186(D):G:N1	1:CA:186(E):C:C4	2.86	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:20:GLU:OE1	2:AB:20:GLU:HA	2.17	0.44
2:AB:35:GLU:HG3	2:AB:40:HIS:HA	2.00	0.44
23:BA:903:C:O2'	23:BA:904:C:H5'	2.17	0.44
1:CA:358:U:H2'	1:CA:358:U:O2	2.16	0.44
23:DA:886:C:C2'	23:DA:887:A:H4'	2.47	0.44
1:CA:926:G:C6	1:CA:1505:G:C6	3.05	0.44
23:BA:2039:C:H2'	23:BA:2040:C:C6	2.50	0.44
23:DA:926:A:H2'	23:DA:928:G:H8	1.83	0.44
1:CA:479:C:C2	1:CA:480:U:C6	3.05	0.44
51:D3:44:ARG:O	51:D3:45:LYS:HG2	2.18	0.44
23:BA:1027:A:N6	23:BA:1126:A:N9	2.66	0.44
23:DA:463:G:H5''	23:DA:464:U:OP2	2.17	0.44
27:BE:112:MET:HA	27:BE:115:ALA:HB3	1.99	0.44
23:BA:192:C:H5''	23:BA:193:U:OP2	2.17	0.44
23:DA:1368:G:N3	23:DA:1369:G:C8	2.85	0.44
1:AA:740:U:O2'	1:AA:741:G:H5'	2.18	0.44
23:DA:2506:U:C5	23:DA:2507:C:H5	2.35	0.44
23:BA:621:A:H5'	23:BA:622:G:OP2	2.17	0.44
10:CJ:30:SER:HB2	10:CJ:80:LYS:HG3	1.99	0.44
1:CA:1037:C:H2'	1:CA:1038:C:C6	2.53	0.44
23:BA:298:G:H5''	23:BA:299:A:OP1	2.18	0.44
1:AA:744:C:H6	1:AA:744:C:O5'	2.01	0.44
44:BV:146:ILE:HG23	44:BV:174:VAL:HG12	1.99	0.44
15:AO:35:ARG:C	15:AO:59:MET:HE1	2.38	0.44
10:CJ:78:ASN:O	10:CJ:82:ILE:HG12	2.18	0.44
23:DA:1803:A:H2	23:DA:1822:G:N3	2.15	0.44
23:DA:649:G:H2'	23:DA:650:C:C6	2.52	0.44
41:BS:63:ASP:C	41:BS:63:ASP:OD2	2.56	0.44
23:DA:2248:C:H2'	23:DA:2249:U:O4'	2.16	0.44
23:DA:1956:U:H1'	23:DA:2552:U:OP1	2.17	0.44
53:D5:15:LYS:HG3	53:D5:16:ILE:N	2.32	0.44
38:DP:13:ARG:C	38:DP:15:VAL:H	2.20	0.44
34:DL:114:ILE:CD1	34:DL:130:PHE:CE1	2.97	0.44
52:B4:9:ARG:O	52:B4:10:ARG:C	2.52	0.44
24:BB:82:G:C4	24:BB:83:G:C8	3.06	0.44
25:BC:145:VAL:HB	25:BC:155:LEU:HB2	1.99	0.44
23:DA:1177:A:H5''	23:DA:1178:C:OP2	2.18	0.44
28:DF:60:LEU:HA	28:DF:63:ILE:HD11	1.99	0.44
1:CA:1347:G:C8	9:CI:107:ARG:O	2.71	0.44
1:AA:961:U:OP2	1:AA:1223:C:H1'	2.17	0.44
26:BD:24:THR:HG23	26:BD:184:VAL:HG23	1.99	0.44
1:CA:961:U:OP2	1:CA:1223:C:H1'	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:2293:C:H5''	37:BO:89:ARG:NH1	2.33	0.44
23:DA:861:A:C2	23:DA:917:A:C4	3.05	0.44
25:BC:238:GLY:C	25:BC:239:ARG:O	2.53	0.44
28:DF:72:ARG:HD3	28:DF:86:MET:HA	2.00	0.44
1:CA:673:G:C4	1:CA:734:G:C2	3.06	0.44
25:DC:105:ILE:HD11	25:DC:192:THR:HG21	1.99	0.44
1:AA:397:A:N6	1:AA:548:G:N7	2.66	0.44
1:AA:429:U:OP1	4:AD:9:CYS:O	2.35	0.44
1:CA:76:G:C6	1:CA:77:C:C4	3.05	0.44
24:BB:41:U:OP1	24:BB:42:C:H5	1.99	0.44
3:CC:29:TYR:HE1	3:CC:33:LEU:HD22	1.83	0.44
1:AA:367:U:C6	1:AA:394:G:C2	3.06	0.44
47:DY:57:ILE:HA	47:DY:60:LEU:HB2	2.00	0.44
49:B1:60:GLU:CD	49:B1:60:GLU:N	2.71	0.44
24:BB:71:C:N3	24:BB:72:G:C8	2.86	0.44
24:BB:9:G:C6	24:BB:10:C:C4	3.06	0.44
19:CS:63:THR:HG23	19:CS:65:ASN:N	2.33	0.44
45:BW:31:VAL:HG13	45:BW:65:GLY:O	2.17	0.44
20:CT:57:ARG:C	20:CT:59:ALA:N	2.70	0.44
24:DB:106:G:C2'	24:DB:107:U:H5'	2.48	0.44
23:DA:2746:U:H2'	23:DA:2747:G:C5'	2.47	0.44
12:AL:44:PRO:CD	12:AL:50:ALA:H	2.31	0.44
23:BA:99:U:C6	23:BA:102:G:N1	2.85	0.44
40:BR:88:ARG:H	40:BR:88:ARG:HG3	1.59	0.44
23:DA:998:C:H2'	23:DA:999:U:O4'	2.18	0.44
23:DA:2287:A:N1	23:DA:2346:A:H2	2.15	0.44
23:DA:1132:A:C2'	23:DA:1133:U:H5'	2.48	0.44
23:DA:479:A:H4'	23:DA:480:A:O5'	2.17	0.44
9:CI:114:TYR:HE1	10:CJ:60:ARG:O	2.00	0.44
1:CA:659:U:C2'	1:CA:660:G:H5'	2.48	0.44
46:BX:23:LYS:CG	46:BX:23:LYS:O	2.65	0.44
1:AA:708:C:O2'	1:AA:709:G:H5'	2.17	0.44
1:AA:235:C:H2'	1:AA:236:G:H8	1.83	0.44
29:DG:54:ARG:HA	29:DG:55:PRO:HD2	1.70	0.44
1:AA:942:G:H21	9:AI:124:GLN:NE2	2.16	0.44
1:AA:650:G:C2	1:AA:651:C:C6	3.06	0.44
36:BN:79:LEU:HD23	36:BN:79:LEU:HA	1.71	0.44
23:DA:1746:G:C2	23:DA:1747:G:C5	3.06	0.44
1:CA:255:G:H5'	17:CQ:16:GLN:O	2.17	0.44
1:CA:1077:G:C2	1:CA:1081:G:C5	3.05	0.44
18:AR:74:ARG:H	18:AR:74:ARG:HG3	1.49	0.44
8:CH:64:LYS:CG	8:CH:79:VAL:HG21	2.45	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BU:68:HIS:C	43:BU:70:SER:N	2.71	0.44
1:CA:1428:A:H2'	1:CA:1429:C:C6	2.53	0.44
7:AG:17:VAL:HG12	7:AG:18:TYR:CD1	2.52	0.44
1:AA:186(E):C:H2'	1:AA:186(F):C:C6	2.53	0.44
1:AA:936:C:H2'	1:AA:937:A:O4'	2.18	0.44
1:CA:1112:C:C5	3:CC:178:LEU:HD23	2.53	0.44
28:DF:58:GLN:O	28:DF:61:ALA:HB3	2.18	0.44
23:BA:853:G:H1	23:BA:924:C:H42	1.65	0.44
2:CB:158:LEU:HD12	2:CB:158:LEU:N	2.32	0.44
1:CA:1408:A:O2'	1:CA:1409:C:H5'	2.17	0.44
23:DA:2867:G:O6	38:DP:23:ARG:HD3	2.17	0.44
23:BA:189:G:H3'	23:BA:189:G:C8	2.53	0.44
23:BA:2572:A:H2'	26:BD:144:ARG:HG3	2.00	0.44
44:DV:14:LYS:HB2	44:DV:17:ALA:HB3	1.99	0.44
1:AA:634:C:H2'	1:AA:635:G:H8	1.82	0.44
23:BA:914:C:C5	23:BA:915:C:C6	3.05	0.44
33:DK:59:LYS:O	33:DK:86:ILE:HG23	2.17	0.44
1:CA:439:A:C8	1:CA:440:A:C8	3.06	0.44
7:AG:78:ARG:HG2	7:AG:79:ARG:N	2.33	0.44
2:AB:17:PHE:CG	2:AB:44:LEU:HD21	2.52	0.44
23:DA:841:A:C2	23:DA:938:G:N3	2.86	0.44
23:DA:2342:C:O2	23:DA:2374:C:H4'	2.18	0.44
23:BA:36:G:H4'	23:BA:451:C:C2	2.53	0.44
1:AA:451:A:C5	1:AA:481:G:C5	3.05	0.44
23:BA:1523:U:H2'	23:BA:1524:G:C8	2.53	0.44
4:CD:88:VAL:HG13	5:CE:97:GLY:HA3	1.99	0.44
30:DH:31:LEU:HA	30:DH:31:LEU:HD13	1.73	0.44
7:AG:111:ARG:CZ	7:AG:122:HIS:HB3	2.48	0.44
23:DA:2692:C:H2'	23:DA:2693:A:O4'	2.18	0.44
26:DD:116:VAL:HG13	26:DD:122:PHE:CD2	2.53	0.44
32:BJ:41:ALA:O	32:BJ:44:LYS:HG2	2.17	0.44
20:CT:41:VAL:O	20:CT:44:ALA:HB3	2.18	0.44
12:CL:36:CYS:SG	12:CL:80:SER:HB2	2.58	0.44
1:AA:1141:C:H2'	1:AA:1142:G:H8	1.83	0.44
34:DL:21:ARG:H	34:DL:21:ARG:HG2	1.60	0.44
39:DQ:84:LYS:HA	39:DQ:84:LYS:HD3	1.89	0.44
22:AV:6212:U:H2'	22:AV:6212:U:O2	2.17	0.44
18:AR:23:LYS:C	18:AR:25:THR:H	2.20	0.44
23:BA:2462:U:H2'	23:BA:2463:C:O4'	2.18	0.44
23:BA:960:A:H61	35:BM:82:ARG:NH2	2.15	0.44
23:BA:1530:G:C6	23:BA:1531:C:C4	3.06	0.44
32:DJ:114:LEU:HA	32:DJ:118:PRO:CB	2.46	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:960:U:C5	1:AA:1225:A:C8	3.06	0.44
1:AA:977:A:C2'	1:AA:978:A:H5''	2.48	0.44
13:AM:91:ARG:NH2	13:AM:96:LEU:HB3	2.33	0.44
22:AV:6193:U:C5	22:AV:6194:C:C5	3.06	0.44
36:BN:11:ASN:O	36:BN:12:ARG:CB	2.64	0.44
25:BC:10:THR:CG2	25:BC:13:ARG:CB	2.90	0.44
23:DA:2846:G:C6	23:DA:2847:U:C4	3.05	0.44
1:CA:47:C:H5''	1:CA:365:U:C6	2.53	0.44
32:DJ:36:TRP:HB2	32:DJ:156:GLN:CB	2.48	0.44
23:DA:242:G:H5'	53:D5:63:PRO:CB	2.48	0.44
39:BQ:105:VAL:CG1	40:BR:40:LEU:HD13	2.47	0.44
39:BQ:104:GLN:HB3	40:BR:44:LYS:CE	2.48	0.44
23:BA:242:G:C8	53:B5:5:LYS:HG2	2.53	0.44
34:BL:49:ARG:O	34:BL:51:PHE:N	2.50	0.44
28:DF:161:THR:CG2	28:DF:172:LEU:HD23	2.47	0.44
16:AP:34:GLU:OE1	16:AP:55:ARG:NH1	2.51	0.44
1:AA:406:G:OP1	4:AD:5:ILE:HG21	2.18	0.44
3:CC:182:ILE:CG1	3:CC:203:PHE:HD1	2.30	0.44
4:CD:106:TYR:O	4:CD:109:GLY:N	2.46	0.44
26:BD:84:PHE:C	26:BD:84:PHE:CD2	2.91	0.44
23:DA:1188:U:H2'	23:DA:1189:A:H5'	2.00	0.44
24:DB:43:C:H2'	24:DB:44:G:H5''	1.99	0.44
5:CE:33:VAL:HG12	5:CE:34:VAL:N	2.32	0.44
44:BV:92:SER:HB2	44:BV:94:GLU:CD	2.38	0.44
5:AE:129:ILE:O	5:AE:132:ALA:HB3	2.18	0.44
12:AL:69:ILE:HA	12:AL:70:PRO:HD3	1.69	0.44
1:AA:1064:G:O4'	1:AA:1066:C:C6	2.70	0.44
1:AA:130:A:H5''	1:AA:190:G:O2'	2.18	0.44
46:DX:45:ASN:HD22	46:DX:46:LEU:H	1.63	0.44
1:AA:1201:A:C2'	1:AA:1202:G:OP2	2.66	0.44
10:CJ:32:ALA:HB3	10:CJ:76:ASN:CB	2.37	0.44
1:CA:53:A:C2	1:CA:54:C:C1'	3.00	0.44
30:BH:110:ASP:HB3	30:BH:111:PRO:HD2	1.99	0.44
29:DG:74:ASN:ND2	29:DG:138:LYS:HD2	2.32	0.44
12:AL:43:THR:HA	12:AL:44:PRO:HD3	1.72	0.44
23:DA:2304:G:H5'	23:DA:2305:A:OP2	2.18	0.44
23:BA:1497:U:H5'	23:BA:1498:C:H5	1.83	0.44
23:BA:1884:A:C4	23:BA:1885:A:C8	3.06	0.44
4:CD:158:ILE:HG22	4:CD:159:ARG:N	2.32	0.44
23:DA:589:C:O3'	27:DE:95:ARG:NH1	2.51	0.44
45:DW:36:ILE:HD12	45:DW:58:THR:CG2	2.41	0.44
1:AA:67:C:O2'	1:AA:171:A:H1'	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:385:C:HO2'	23:BA:390:A:H2	1.65	0.44
23:BA:256:A:H2'	23:BA:257:A:H5'	1.97	0.44
10:AJ:27:ALA:HB1	10:AJ:34:VAL:HG21	2.00	0.44
23:DA:259:G:C2	23:DA:260:G:C8	3.06	0.44
1:CA:236:G:C6	1:CA:237:C:C4	3.06	0.44
23:BA:2469:A:C8	23:BA:2482:G:C4	3.06	0.44
44:DV:182:LYS:O	44:DV:186:GLU:HB2	2.18	0.44
13:CM:71:ARG:O	13:CM:74:VAL:HB	2.17	0.44
23:BA:1389:G:C2	23:BA:1399:C:O2	2.71	0.44
23:DA:2479:G:H5''	23:DA:2537:U:O4'	2.17	0.44
28:BF:178:PHE:O	28:BF:180:PHE:CD1	2.71	0.44
33:BK:25:LEU:HD23	33:BK:25:LEU:HA	1.69	0.44
36:BN:78:LYS:O	36:BN:83:ILE:HG12	2.18	0.44
23:DA:1138:G:O2'	32:DJ:128:GLY:HA3	2.17	0.44
23:BA:2275:C:C5'	23:BA:2275:C:H6	2.29	0.44
1:CA:193:C:O4'	20:CT:60:GLU:OE2	2.36	0.44
23:DA:150:C:H2'	23:DA:151:C:C6	2.53	0.44
23:BA:1930:G:O2'	23:BA:1931:U:OP2	2.31	0.44
23:BA:136:G:H2'	23:BA:137(A):C:H6	1.83	0.44
10:CJ:6:ILE:HG12	10:CJ:72:VAL:O	2.17	0.44
15:CO:61:GLY:O	15:CO:64:ARG:N	2.51	0.44
7:CG:148:ASN:C	7:CG:150:ALA:N	2.70	0.44
1:AA:356:A:C2'	1:AA:357:G:O5'	2.65	0.44
2:CB:17:PHE:CE1	2:CB:44:LEU:HD11	2.53	0.44
23:DA:718:A:H2'	23:DA:719:C:H5'	1.99	0.44
23:DA:2065:C:H2'	23:DA:2066:C:C6	2.52	0.44
35:DM:24:GLY:HA2	35:DM:101:ARG:HA	1.99	0.44
41:DS:62:HIS:O	41:DS:64:MET:N	2.47	0.44
23:BA:532:A:C8	23:BA:2021:C:C5	3.06	0.44
2:AB:17:PHE:CE1	2:AB:44:LEU:HD11	2.52	0.44
11:CK:38:ASN:HA	11:CK:39:PRO:HD2	1.74	0.44
23:DA:900:A:H2'	23:DA:901:A:O4'	2.17	0.44
23:BA:772:C:C2'	23:BA:772:C:O2	2.65	0.44
23:BA:1382:G:H4'	23:BA:1573:G:C2	2.53	0.44
1:AA:452:A:C4	1:AA:453:A:C8	3.05	0.44
23:BA:1665:A:H2'	23:BA:1666:G:O4'	2.18	0.44
23:DA:2849:U:OP2	38:DP:95:ARG:NH1	2.44	0.44
1:AA:803:G:H2'	1:AA:804:U:O4'	2.17	0.44
23:BA:270(F):G:C6	23:BA:270(G):U:C4	3.05	0.44
1:CA:581:G:O2'	1:CA:582:U:H5'	2.16	0.44
25:DC:214:TRP:C	25:DC:216:GLY:H	2.21	0.44
25:DC:122:ASP:CG	25:DC:123:ALA:N	2.71	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:2672:G:H2'	23:BA:2673:G:O5'	2.17	0.44
23:BA:2676:C:C2'	23:BA:2677:G:H5'	2.47	0.44
10:CJ:26:ALA:HB1	10:CJ:84:GLN:HG2	2.00	0.44
46:BX:35:THR:HB	46:BX:36:GLY:H	1.49	0.44
1:CA:1001:G:H2'	1:CA:1002:G:O4'	2.18	0.44
23:DA:606:U:H4'	23:DA:658:C:H4'	2.00	0.44
27:DE:33:LEU:HD12	27:DE:33:LEU:HA	1.66	0.44
51:B3:36:LEU:N	51:B3:36:LEU:HD23	2.32	0.44
23:BA:1693:U:H4'	23:BA:1694:C:OP2	2.18	0.44
49:D1:53:THR:C	49:D1:54:LYS:HD2	2.38	0.44
44:BV:75:ASN:O	44:BV:84:GLU:HB2	2.18	0.44
48:BZ:1:MET:HB3	48:BZ:39:ASP:HB3	2.00	0.44
23:DA:630:G:H22	23:DA:632:A:H3'	1.81	0.44
23:DA:1173:G:O5'	23:DA:1173:G:H8	2.01	0.44
2:AB:61:LEU:HG	2:AB:68:ILE:CG1	2.47	0.44
22:CV:6188:G:O2'	22:CV:6189:G:H5'	2.17	0.44
23:DA:2282:G:H4'	23:DA:2389:G:O2'	2.18	0.44
1:CA:946:A:C6	1:CA:1236:A:C2	3.06	0.44
1:CA:503:C:OP1	12:CL:118:LYS:CE	2.65	0.44
12:CL:30:PRO:HD2	12:CL:31:PHE:H	1.83	0.44
23:DA:587:C:C2	34:DL:33:ARG:HD3	2.53	0.44
47:DY:17:SER:HB3	47:DY:18:PRO:CD	2.37	0.44
28:BF:72:ARG:HD3	28:BF:86:MET:HA	2.00	0.44
50:D2:16:ARG:HG2	50:D2:17:ASP:N	2.31	0.44
30:BH:81:VAL:HG12	30:BH:90:GLY:N	2.33	0.44
34:BL:47:ASP:HB3	34:BL:51:PHE:CB	2.47	0.44
13:CM:37:THR:OG1	13:CM:56:LEU:HD23	2.18	0.44
23:BA:1414:G:H2'	23:BA:1415:U:C6	2.51	0.44
26:BD:50:GLY:HA3	26:BD:75:VAL:HG11	2.00	0.44
26:DD:92:THR:O	26:DD:95:ILE:HG12	2.18	0.44
23:DA:2687:U:C4	23:DA:2688:U:H5	2.31	0.44
45:BW:73:GLY:O	45:BW:74:ARG:C	2.56	0.44
24:DB:50:G:OP1	37:DO:63:THR:OG1	2.36	0.44
23:DA:2767:C:C2'	23:DA:2768:C:H5'	2.48	0.44
23:DA:850:C:O2'	48:DZ:46:ASN:ND2	2.51	0.44
41:BS:23:LEU:HD12	41:BS:23:LEU:HA	1.79	0.44
1:CA:1293:G:O2'	1:CA:1294:G:H5'	2.18	0.44
1:CA:693:G:H2'	1:CA:694:A:C8	2.53	0.44
12:AL:44:PRO:CG	12:AL:52:ARG:HE	2.29	0.44
23:DA:2305:A:H1'	28:DF:135:LEU:O	2.18	0.44
23:BA:2722:G:C5	23:BA:2723:C:C4	3.06	0.44
23:BA:2563:U:O2	23:BA:2565:A:C8	2.71	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:CE:53:LEU:CD2	5:CE:53:LEU:H	2.24	0.44
23:DA:849:A:O2'	48:DZ:17:LYS:HE3	2.17	0.44
8:CH:25:ASP:HA	8:CH:59:LEU:O	2.18	0.44
37:BO:104:GLY:HA2	37:BO:107:GLU:CG	2.40	0.44
23:BA:966:G:C5	23:BA:967:C:H5	2.35	0.44
18:AR:54:ARG:H	18:AR:54:ARG:CD	2.24	0.44
23:DA:997:G:OP1	39:DQ:93:LYS:HD2	2.18	0.44
32:DJ:64:ASP:O	32:DJ:71:MET:HE1	2.17	0.44
4:AD:79:PHE:C	4:AD:79:PHE:CD2	2.91	0.44
23:DA:2287:A:HO2'	23:DA:2288:A:C5'	2.30	0.44
23:BA:2074:U:O2'	23:BA:2597:G:H1'	2.18	0.44
1:AA:104:G:N3	1:AA:105:G:C8	2.86	0.44
44:BV:58:VAL:CG1	44:BV:66:SER:HB2	2.48	0.44
23:BA:1820:U:H4'	23:BA:1821:A:OP2	2.18	0.44
27:DE:117:ARG:HH21	27:DE:187:VAL:HA	1.82	0.44
32:BJ:66:THR:HB	32:BJ:69:VAL:HG11	2.00	0.44
1:CA:1441:G:H5''	1:CA:1442:G:O5'	2.17	0.44
23:DA:1800:C:OP2	25:DC:183:ARG:NH2	2.47	0.44
1:CA:865:A:H2	1:CA:918:A:H4'	1.82	0.44
23:DA:1592:C:O2'	23:DA:1593:G:H5'	2.18	0.44
23:BA:118:A:N3	23:BA:178:G:H1'	2.33	0.44
1:AA:592:G:H2'	1:AA:593:G:H8	1.82	0.44
1:CA:565:U:C4	1:CA:566:G:C5	3.06	0.44
23:DA:245:G:C5	23:DA:246:C:C5	3.06	0.44
44:DV:121:HIS:C	44:DV:123:ASP:H	2.22	0.44
23:DA:2861:G:C2	23:DA:2862:G:C8	3.05	0.44
27:DE:110:LEU:HD12	27:DE:110:LEU:HA	1.70	0.44
1:CA:1160:G:O2'	1:CA:1161:C:H5'	2.17	0.44
23:DA:2837:G:C4	23:DA:2838:G:C8	3.06	0.44
10:CJ:6:ILE:HG22	10:CJ:98:ILE:HG12	1.99	0.44
1:CA:826:C:H5''	1:CA:827:U:OP2	2.18	0.44
51:D3:18:ARG:HB3	51:D3:19:ARG:H	1.51	0.44
24:DB:5:C:O2	24:DB:116:G:N2	2.50	0.44
24:DB:26:A:N7	24:DB:27:C:C4	2.86	0.44
23:BA:2464:C:C2	23:BA:2487:G:C2	3.06	0.44
1:CA:1089:G:C6	1:CA:1090:U:C5	3.06	0.44
7:CG:35:LYS:O	7:CG:38:LEU:N	2.49	0.44
32:DJ:137:ARG:HG2	32:DJ:137:ARG:H	1.55	0.44
1:AA:450:G:H2'	1:AA:451:A:OP1	2.17	0.44
1:CA:451:A:C5	1:CA:481:G:C5	3.05	0.44
1:CA:450:G:C8	1:CA:481:G:C6	3.06	0.44
35:DM:130:LYS:HZ2	44:DV:80:ARG:HE	1.65	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DF:20:ILE:O	28:DF:24:GLY:HA2	2.18	0.44
35:BM:73:PRO:HA	35:BM:93:TYR:CD2	2.53	0.44
23:DA:725:G:C6	23:DA:726:G:N1	2.86	0.44
33:BK:20:MET:HG3	33:BK:20:MET:O	2.16	0.44
38:DP:113:LYS:O	38:DP:114:LEU:HD23	2.18	0.44
32:BJ:41:ALA:HB3	32:BJ:79:ASN:O	2.17	0.44
1:CA:1062:U:H2'	1:CA:1063:C:C6	2.53	0.44
34:DL:77:ARG:HA	34:DL:78:PRO:HD3	1.87	0.44
23:BA:1855:G:N1	23:BA:1888:G:C8	2.86	0.44
1:CA:296:U:H2'	1:CA:297:G:C8	2.52	0.44
9:CI:125:TYR:CD1	9:CI:126:SER:N	2.86	0.44
35:BM:135:ASP:OD1	35:BM:135:ASP:N	2.50	0.44
34:BL:94:GLU:O	34:BL:96:THR:HG23	2.18	0.44
34:DL:107:LYS:C	34:DL:108:LYS:HG2	2.38	0.43
52:D4:9:ARG:O	52:D4:10:ARG:C	2.53	0.43
23:DA:1309:G:O5'	23:DA:1309:G:H8	2.00	0.43
36:DN:11:ASN:O	36:DN:12:ARG:CB	2.64	0.43
32:BJ:122:LEU:O	32:BJ:126:VAL:HG22	2.18	0.43
38:DP:50:ILE:HD11	38:DP:102:ILE:HG12	2.00	0.43
1:AA:1060:C:O2	1:AA:1198:G:C2	2.71	0.43
13:AM:87:TYR:O	13:AM:91:ARG:HG2	2.18	0.43
14:AN:31:ARG:O	14:AN:32:SER:HB2	2.18	0.43
25:BC:9:TYR:CZ	25:BC:13:ARG:HD3	2.52	0.43
33:BK:77:ILE:HD12	38:BP:73:GLU:O	2.18	0.43
1:CA:502:G:H2'	1:CA:503:C:O4'	2.18	0.43
12:CL:118:LYS:C	12:CL:119:TYR:CD1	2.91	0.43
1:CA:363:A:H8	12:CL:32:ARG:HH21	1.66	0.43
34:BL:83:VAL:O	34:BL:114:ILE:HA	2.18	0.43
23:BA:2335:A:C8	23:BA:2337:G:N7	2.86	0.43
23:BA:1266:G:O6	41:BS:16:LYS:HD2	2.18	0.43
24:DB:80:U:C2	24:DB:81:G:N2	2.86	0.43
24:DB:84:C:O2	24:DB:84:C:C2'	2.67	0.43
16:CP:21:VAL:HG23	16:CP:33:ILE:HB	2.00	0.43
30:BH:114:LEU:HD21	30:BH:128:LEU:HD13	1.99	0.43
1:CA:674:G:H2'	1:CA:675:A:C8	2.47	0.43
37:DO:11:LYS:O	37:DO:12:PHE:CB	2.64	0.43
16:AP:20:VAL:CG2	16:AP:21:VAL:N	2.81	0.43
3:CC:18:TRP:O	3:CC:19:GLU:C	2.57	0.43
3:CC:182:ILE:HA	3:CC:202:ILE:O	2.18	0.43
49:D1:42:CYS:HB3	49:D1:59:VAL:HB	1.99	0.43
3:CC:181:ASN:HB3	3:CC:205:GLY:HA3	2.00	0.43
26:DD:59:VAL:C	26:DD:61:ARG:H	2.21	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:2768:C:C5	23:DA:2769:C:C5	3.05	0.43
29:DG:35:VAL:HG21	29:DG:75:ALA:CB	2.48	0.43
11:CK:59:TYR:O	11:CK:62:GLN:HB3	2.18	0.43
1:CA:691:G:H2'	1:CA:692:U:C6	2.53	0.43
46:DX:26:ARG:O	46:DX:27:GLU:HB3	2.18	0.43
23:BA:2396:G:H4'	46:BX:31:GLY:HA2	2.00	0.43
4:CD:156:GLU:O	4:CD:160:GLN:HG3	2.17	0.43
23:DA:1502:C:C6	23:DA:1502:C:H3'	2.52	0.43
42:BT:9:LEU:O	42:BT:10:ALA:HB2	2.18	0.43
25:DC:174:ILE:N	25:DC:174:ILE:CD1	2.81	0.43
1:AA:1145:C:H4'	1:AA:1146:A:C8	2.51	0.43
1:CA:104:G:N1	1:CA:105:G:C5	2.86	0.43
1:CA:104:G:N3	1:CA:105:G:C8	2.86	0.43
2:AB:72:GLY:HA2	2:AB:165:VAL:HG22	2.00	0.43
9:CI:58:ARG:HH21	9:CI:59:PHE:HE1	1.62	0.43
23:DA:480:A:H5'	43:DU:46:LYS:HG3	2.00	0.43
23:DA:737:C:O2'	23:DA:738:G:H5'	2.18	0.43
23:DA:1478:G:H2'	23:DA:1479:G:H8	1.83	0.43
23:BA:2209:C:C2	23:BA:2216:G:N1	2.86	0.43
23:BA:2100:G:C2	23:BA:2101:G:C4	3.05	0.43
23:BA:1387:C:N4	23:BA:1400:G:H1	2.16	0.43
23:DA:2476:A:C2	23:DA:2477:C:C5	3.06	0.43
1:CA:336:C:H2'	1:CA:337:C:C6	2.52	0.43
1:CA:1233:G:P	9:CI:124:GLN:H	2.41	0.43
1:CA:939:G:H2'	1:CA:940:C:H6	1.83	0.43
3:CC:86:VAL:O	3:CC:89:GLU:HB3	2.18	0.43
1:CA:17:U:N3	1:CA:18:C:C4	2.86	0.43
39:BQ:62:ILE:CD1	39:BQ:93:LYS:HG2	2.48	0.43
28:BF:16:ARG:HB3	28:BF:17:PRO:HD3	1.99	0.43
27:DE:46:ARG:HB3	27:DE:46:ARG:CZ	2.48	0.43
43:BU:90:LEU:HD12	43:BU:91:GLU:HG3	2.00	0.43
39:BQ:29:SER:C	39:BQ:30:LYS:HG2	2.37	0.43
6:CF:77:ARG:HB3	6:CF:77:ARG:CZ	2.48	0.43
1:AA:925:G:C2	1:AA:1392:G:C2	3.06	0.43
1:CA:774:G:N2	1:CA:806:C:C6	2.86	0.43
20:AT:42:GLN:HG3	20:AT:43:LEU:N	2.33	0.43
1:CA:577:G:C6	1:CA:578:C:C5	3.06	0.43
23:BA:2511:U:O4	23:BA:2575:C:N3	2.50	0.43
1:AA:1386:G:C2	1:AA:1387:G:N7	2.86	0.43
23:DA:1991:U:H2'	23:DA:1992:G:C5'	2.48	0.43
24:DB:116:G:H8	24:DB:116:G:O5'	2.01	0.43
1:AA:636:U:O2'	1:AA:637:G:H5'	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DM:30:GLY:CA	35:DM:107:ALA:HB2	2.48	0.43
1:CA:1391:U:H2'	1:CA:1392:G:C8	2.53	0.43
20:CT:42:GLN:HG3	20:CT:43:LEU:N	2.33	0.43
1:CA:932:C:H2'	1:CA:933:G:H8	1.81	0.43
26:BD:173:VAL:O	26:BD:174:ASP:C	2.56	0.43
23:BA:646:A:H2'	23:BA:647:G:O4'	2.17	0.43
5:AE:104:ALA:O	5:AE:107:ARG:HB3	2.17	0.43
23:DA:1678:G:N3	23:DA:1678:G:C2'	2.75	0.43
32:BJ:137:ARG:HG2	32:BJ:137:ARG:H	1.50	0.43
1:AA:1340:A:C5	1:AA:1341:U:C6	3.06	0.43
23:BA:270(F):G:C5	23:BA:270(G):U:C5	3.06	0.43
1:CA:5:U:O2'	1:CA:6:G:C4	2.71	0.43
23:BA:2313:C:H4'	28:BF:91:ARG:HG3	2.00	0.43
9:CI:41:VAL:O	9:CI:44:VAL:HG22	2.17	0.43
1:CA:195:A:C5	1:CA:196:A:N1	2.86	0.43
23:DA:2515:C:O2	23:DA:2570:G:C2	2.71	0.43
23:DA:32:C:O2'	23:DA:33:U:H5'	2.18	0.43
23:BA:671:C:H2'	23:BA:672:C:H6	1.83	0.43
7:CG:60:LYS:HD2	7:CG:60:LYS:HA	1.76	0.43
34:DL:138:LEU:O	34:DL:141:ALA:N	2.51	0.43
34:DL:85:LEU:CD2	34:DL:85:LEU:N	2.79	0.43
23:DA:1309:G:H3'	52:D4:9:ARG:HH12	1.79	0.43
43:DU:68:HIS:C	43:DU:70:SER:N	2.72	0.43
12:CL:100:VAL:O	12:CL:100:VAL:HG12	2.17	0.43
2:CB:61:LEU:HG	2:CB:68:ILE:CG1	2.48	0.43
32:BJ:107:LYS:O	32:BJ:108:ILE:HD13	2.18	0.43
23:BA:603:A:H2	23:BA:655:A:N3	2.14	0.43
39:BQ:79:PHE:CE1	39:BQ:83:LEU:CD1	3.02	0.43
40:BR:49:THR:O	40:BR:50:PRO:C	2.56	0.43
23:BA:242:G:H5'	53:B5:63:PRO:CB	2.48	0.43
1:AA:551:U:O2'	12:AL:85:ARG:HD2	2.17	0.43
30:DH:88:ILE:HG13	30:DH:144:VAL:CG1	2.48	0.43
1:AA:324:G:C2	1:AA:327:A:C8	3.07	0.43
1:CA:78:G:H2'	1:CA:79:G:C8	2.54	0.43
1:CA:323:U:H4'	20:CT:22:ARG:HB3	1.99	0.43
23:DA:1842:G:H1'	25:DC:255:LYS:HZ3	1.83	0.43
1:CA:397:A:C6	1:CA:548:G:N7	2.86	0.43
49:B1:42:CYS:HB3	49:B1:59:VAL:HB	2.00	0.43
44:BV:3:TYR:O	44:BV:57:ILE:HA	2.18	0.43
44:BV:94:GLU:CD	44:BV:94:GLU:N	2.66	0.43
1:AA:1064:G:H21	1:AA:1190:G:C2'	2.24	0.43
1:AA:448:A:H2'	1:AA:449:C:C6	2.53	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:3:LYS:N	10:AJ:75:ILE:HA	2.33	0.43
1:CA:1294:G:H2'	1:CA:1295:G:H8	1.74	0.43
1:AA:1369:C:H2'	1:AA:1370:G:C8	2.53	0.43
1:AA:1347:G:N7	9:AI:107:ARG:HB3	2.31	0.43
25:BC:172:TYR:CE1	25:BC:186:HIS:HA	2.50	0.43
23:DA:1496:A:C8	23:DA:1498:C:N3	2.86	0.43
4:CD:108:LEU:O	4:CD:110:PHE:CD2	2.71	0.43
23:DA:1502:C:C6	23:DA:1502:C:C3'	3.01	0.43
25:BC:134:ARG:HD3	25:BC:135:PHE:HE1	1.82	0.43
25:DC:24:ILE:HD13	25:DC:84:TYR:HB2	2.00	0.43
1:CA:1238:A:N3	1:CA:1238:A:H2'	2.33	0.43
1:AA:625:G:C6	1:AA:626:U:C4	3.06	0.43
1:CA:708:C:O2'	1:CA:709:G:H5'	2.18	0.43
44:BV:151:HIS:HA	44:BV:170:THR:HA	2.00	0.43
25:DC:148:GLU:HB2	25:DC:151:LYS:HD2	1.99	0.43
3:AC:70:VAL:CG1	3:AC:71:ALA:N	2.81	0.43
23:DA:1358:G:H1'	23:DA:1373:A:H61	1.83	0.43
1:CA:29:G:C2	1:CA:555:C:N3	2.86	0.43
27:BE:53:THR:C	27:BE:55:GLY:N	2.70	0.43
1:AA:69:G:H1	1:AA:99:C:H42	1.66	0.43
25:BC:25:THR:O	25:BC:26:LYS:C	2.57	0.43
1:AA:233:C:C2'	1:AA:234:C:H5'	2.48	0.43
23:DA:2590:A:O2'	23:DA:2591:C:H5'	2.17	0.43
1:AA:39:G:N1	1:AA:40:C:C5	2.86	0.43
23:BA:2549:G:H2'	23:BA:2550:G:H5'	2.00	0.43
15:CO:12:ILE:HG21	15:CO:22:THR:HG22	1.99	0.43
35:DM:54:MET:O	35:DM:57:HIS:HB3	2.17	0.43
23:BA:285:C:H2'	23:BA:286:C:C6	2.54	0.43
6:AF:78:GLU:HA	6:AF:81:ILE:HD11	2.00	0.43
25:BC:61:LEU:HD13	25:BC:61:LEU:HA	1.51	0.43
1:CA:510:A:H5''	1:CA:511:C:OP2	2.17	0.43
23:BA:825:C:H4'	23:BA:2428:G:N7	2.33	0.43
23:DA:2663:G:C6	23:DA:2664:G:C5	3.06	0.43
23:BA:442:G:H4'	27:BE:46:ARG:HD3	1.99	0.43
1:CA:256:U:P	17:CQ:17:LYS:HZ3	2.40	0.43
23:DA:1248:G:OP1	39:DQ:2:PRO:CD	2.64	0.43
23:BA:1789:A:OP1	25:BC:221:VAL:HA	2.18	0.43
25:BC:222:ARG:NH1	25:BC:224:ALA:HB3	2.33	0.43
3:AC:73:PRO:O	3:AC:76:VAL:HG22	2.18	0.43
14:CN:32:SER:HB3	14:CN:41:ARG:HG2	2.00	0.43
43:DU:43:ASN:OD1	43:DU:64:GLU:HA	2.18	0.43
12:AL:78:GLU:O	12:AL:78:GLU:CD	2.57	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:566:U:H3	23:BA:575:A:H61	1.66	0.43
36:DN:85:PRO:HA	36:DN:88:ARG:HH11	1.82	0.43
44:BV:120:ILE:HG12	44:BV:172:ALA:HA	1.99	0.43
1:AA:160:A:H4'	1:AA:344:A:N1	2.33	0.43
29:DG:169:VAL:O	29:DG:170:ARG:HB2	2.18	0.43
23:BA:853:G:H1	23:BA:924:C:N4	2.17	0.43
1:AA:639:G:H2'	1:AA:640:A:C8	2.53	0.43
23:DA:1443:G:O2'	23:DA:1444:G:H5'	2.17	0.43
23:DA:1980:G:H4'	23:DA:1981:A:OP2	2.17	0.43
23:DA:2435:A:C2'	23:DA:2436:G:O5'	2.66	0.43
27:DE:160:ASN:OD1	27:DE:163:VAL:HG23	2.18	0.43
23:DA:1833:U:H2'	23:DA:1834:U:H5'	1.98	0.43
24:BB:5:C:O2'	24:BB:27:C:H1'	2.18	0.43
12:AL:64:GLU:OE1	12:AL:64:GLU:C	2.57	0.43
23:BA:2828:C:C2'	23:BA:2829:C:H5'	2.48	0.43
1:AA:1386:G:N3	1:AA:1387:G:C8	2.86	0.43
23:DA:914:C:C6	23:DA:914:C:H3'	2.52	0.43
24:DB:27:C:C4	24:DB:28:C:C4	3.06	0.43
3:AC:137:ALA:O	3:AC:141:VAL:HG23	2.18	0.43
1:CA:993:G:H4'	1:CA:994:A:OP2	2.19	0.43
23:BA:150:C:H2'	23:BA:151:C:C6	2.53	0.43
23:DA:1424:G:H2'	23:DA:1425:G:O4'	2.18	0.43
18:CR:53:ARG:O	18:CR:55:ARG:N	2.51	0.43
1:CA:1210:C:H4'	1:CA:1214:C:C5	2.52	0.43
35:DM:24:GLY:HA2	35:DM:100:GLY:O	2.18	0.43
26:DD:68:ALA:C	26:DD:70:ALA:H	2.22	0.43
42:BT:75:ASP:C	42:BT:76:ARG:HG3	2.39	0.43
23:DA:2564:A:C2	23:DA:2647:U:H4'	2.53	0.43
23:DA:1629:U:H2'	23:DA:1630:G:O4'	2.18	0.43
23:BA:2734:A:C2'	23:BA:2735:G:H5'	2.48	0.43
20:CT:78:ALA:O	20:CT:81:LYS:N	2.51	0.43
1:AA:983:A:H3'	1:AA:983:A:N3	2.34	0.43
23:DA:2734:A:C2'	23:DA:2735:G:H5'	2.48	0.43
23:DA:1930:G:O2'	23:DA:1931:U:P	2.76	0.43
2:CB:200:ILE:HG22	2:CB:202:PRO:HD3	2.00	0.43
33:DK:3:GLN:CB	33:DK:4:PRO:HD2	2.48	0.43
5:CE:135:THR:O	5:CE:138:ALA:HB3	2.18	0.43
1:CA:1463:C:OP1	38:DP:111:ARG:HD2	2.19	0.43
38:BP:14:TYR:N	38:BP:14:TYR:CD1	2.85	0.43
16:AP:75:ARG:C	16:AP:77:ALA:H	2.21	0.43
6:AF:99:ALA:HB3	18:AR:29:PHE:CE1	2.53	0.43
23:DA:660:G:O3'	27:DE:38:ARG:NH2	2.51	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DR:62:LEU:HA	40:DR:62:LEU:HD12	1.77	0.43
44:BV:70:LEU:HD23	44:BV:70:LEU:H	1.83	0.43
25:DC:220:HIS:C	25:DC:220:HIS:CD2	2.92	0.43
38:DP:101:PHE:C	38:DP:101:PHE:CD2	2.91	0.43
34:DL:84:ASN:HB3	34:DL:86:LYS:HG2	1.99	0.43
34:DL:91:PHE:CE2	34:DL:95:VAL:HG12	2.53	0.43
23:BA:1177:A:H5''	23:BA:1178:C:OP2	2.17	0.43
23:DA:1541:U:H5''	23:DA:1543:A:OP2	2.17	0.43
1:AA:964:A:N3	1:AA:969:A:O2'	2.48	0.43
1:AA:1060:C:O2'	10:AJ:56:HIS:CD2	2.71	0.43
22:AV:6194:C:C2	22:AV:6195:G:C8	3.07	0.43
5:CE:101:ILE:HD11	5:CE:119:LEU:CD2	2.23	0.43
38:DP:54:ARG:HA	38:DP:59:THR:OG1	2.19	0.43
23:DA:2259:G:C2	23:DA:2282:G:N1	2.87	0.43
12:CL:29:ALA:HA	12:CL:30:PRO:HD3	1.76	0.43
23:BA:1188:U:C2'	23:BA:1189:A:O5'	2.66	0.43
28:BF:86:MET:O	28:BF:87:PRO:O	2.36	0.43
39:DQ:79:PHE:CE1	39:DQ:83:LEU:CD1	3.02	0.43
40:DR:49:THR:O	40:DR:50:PRO:C	2.56	0.43
25:DC:32:SER:O	25:DC:36:PRO:HD2	2.19	0.43
34:DL:46:LYS:HG2	34:DL:52:GLU:CD	2.38	0.43
23:DA:1021:A:N6	23:DA:1141:U:C2	2.87	0.43
23:DA:2292:C:N4	23:DA:2293:C:N4	2.66	0.43
25:DC:147:LEU:HD13	25:DC:155:LEU:CD1	2.48	0.43
30:DH:88:ILE:HG13	30:DH:144:VAL:HG11	2.00	0.43
26:BD:35:GLN:HG2	26:BD:36:ARG:N	2.33	0.43
47:DY:24:LEU:HD22	47:DY:60:LEU:CD1	2.47	0.43
39:DQ:57:PHE:O	39:DQ:60:LEU:N	2.52	0.43
1:CA:1104:G:C2	1:CA:1105:A:C4	3.07	0.43
1:CA:1106:G:C2	1:CA:1107:C:C6	3.06	0.43
23:BA:1786:A:H2	23:BA:2606:C:H1'	1.82	0.43
25:BC:172:TYR:CD1	25:BC:186:HIS:CA	2.93	0.43
1:CA:505:G:H5'	1:CA:534:U:C2	2.53	0.43
23:DA:2744:G:H1'	23:DA:2761:G:N2	2.33	0.43
23:BA:83:G:N2	23:BA:84:A:N6	2.66	0.43
6:CF:28:ARG:O	6:CF:32:ASN:N	2.47	0.43
15:AO:45:VAL:HG22	15:AO:46:HIS:ND1	2.33	0.43
1:AA:349:A:C2'	1:AA:350:G:H5'	2.47	0.43
1:CA:818:G:N3	1:CA:820:U:C6	2.86	0.43
23:BA:2274:A:C5	23:BA:2276:G:C8	3.06	0.43
8:AH:26:VAL:O	8:AH:27:PRO:C	2.55	0.43
23:DA:952:G:C6	23:DA:953:A:N7	2.87	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:1953:A:C2	23:DA:2549:G:N3	2.84	0.43
23:DA:2658:C:H2'	23:DA:2658:C:O2	2.18	0.43
17:CQ:15:MET:CB	17:CQ:18:THR:HB	2.45	0.43
23:DA:1131:G:C2	23:DA:1132:A:C5	3.06	0.43
1:CA:855:G:C6	1:CA:856:C:C4	3.06	0.43
23:BA:588:U:H2'	23:BA:589:C:H6	1.81	0.43
32:BJ:160:LYS:O	32:BJ:161:LEU:HD23	2.18	0.43
23:BA:332:A:C4	23:BA:335:C:C4	3.06	0.43
1:AA:939:G:H2'	1:AA:940:C:H6	1.83	0.43
1:CA:731:G:C6	1:CA:732:C:C4	3.06	0.43
23:DA:273(G):C:H2'	23:DA:274:G:C5'	2.46	0.43
2:AB:22:LYS:HZ3	2:AB:22:LYS:N	2.14	0.43
1:AA:754:C:H3'	1:AA:754:C:O2	2.17	0.43
23:BA:978:G:O2'	23:BA:979:G:H5'	2.18	0.43
8:AH:40:ALA:O	8:AH:41:ARG:C	2.56	0.43
23:BA:737:C:H2'	23:BA:738:G:C5'	2.47	0.43
7:AG:44:TYR:O	7:AG:47:CYS:HB2	2.19	0.43
1:AA:506:G:C6	1:AA:507:C:N4	2.86	0.43
23:BA:1526:G:O2'	23:BA:1527:G:H5'	2.18	0.43
26:BD:172:VAL:HG13	26:BD:182:LEU:HD11	2.00	0.43
23:DA:880:G:N2	23:DA:898:C:C4	2.86	0.43
1:AA:294:U:N3	1:AA:295:C:C5	2.86	0.43
38:BP:23:ARG:CG	38:BP:23:ARG:NH1	2.82	0.43
25:BC:52:ARG:CZ	25:BC:53:PHE:CE2	3.02	0.43
23:BA:2096:U:H2'	23:BA:2097:C:C6	2.53	0.43
23:DA:948:G:C2	23:DA:970:C:O2	2.72	0.43
11:AK:124:LYS:HB2	11:AK:124:LYS:HE3	1.75	0.43
23:BA:1338:G:H2'	23:BA:1339:G:H5'	2.00	0.43
2:AB:96:ARG:N	2:AB:96:ARG:HD2	2.33	0.43
1:AA:1037:C:H2'	1:AA:1038:C:C6	2.51	0.43
23:DA:107:C:H2'	23:DA:108:U:H5'	2.01	0.43
1:AA:167:G:C2'	1:AA:168:G:H5'	2.48	0.43
28:DF:106:LEU:HA	28:DF:110:ALA:HB3	2.00	0.43
23:DA:1221:C:H2'	23:DA:122(A):C:H6	1.83	0.43
1:CA:892:A:C2	1:CA:907:A:C4	3.07	0.43
10:AJ:61:GLU:OE2	14:AN:45:ARG:NH1	2.51	0.43
23:BA:2231:C:H2'	23:BA:2232:U:O4'	2.18	0.43
1:CA:1433:A:N1	1:CA:1434:A:C2	2.86	0.43
17:CQ:77:VAL:O	17:CQ:78:GLU:HB3	2.18	0.43
33:DK:47:ILE:HD12	33:DK:47:ILE:HA	1.66	0.43
2:AB:21:ARG:HG3	2:AB:21:ARG:O	2.18	0.43
52:D4:3:ARG:HA	52:D4:3:ARG:HD3	1.72	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:AT:55:ILE:HA	20:AT:55:ILE:HD12	1.84	0.43
53:B5:37:SER:OG	53:B5:40:GLU:HG2	2.18	0.43
23:DA:1779:U:C6	23:DA:1783:A:N7	2.86	0.43
9:CI:5:TYR:CG	9:CI:6:GLY:N	2.85	0.43
9:AI:41:VAL:O	9:AI:44:VAL:HG22	2.18	0.43
53:D5:23:VAL:HG11	53:D5:47:LYS:HD3	2.01	0.43
34:DL:97:PRO:CD	34:DL:126:VAL:HG12	2.44	0.43
34:DL:79:ARG:O	34:DL:111:ARG:HB2	2.19	0.43
23:BA:747:U:O2	23:BA:2014:A:H1'	2.18	0.43
43:DU:11:ASP:O	43:DU:26:LYS:HA	2.18	0.43
43:DU:8:LYS:CA	43:DU:8:LYS:HZ3	2.30	0.43
28:DF:60:LEU:HA	28:DF:63:ILE:CG1	2.48	0.43
32:DJ:143:LEU:HD13	32:DJ:144:LYS:N	2.34	0.43
26:BD:101:ARG:HB3	26:BD:169:ASN:HD22	1.82	0.43
7:AG:108:ALA:O	7:AG:119:ARG:HD2	2.18	0.43
5:CE:101:ILE:HG12	5:CE:118:ILE:O	2.17	0.43
23:BA:1019:U:C2	23:BA:1020:A:N7	2.86	0.43
23:DA:918:A:H5''	23:DA:919:G:OP2	2.17	0.43
23:DA:593:G:C6	23:DA:594:U:C4	3.07	0.43
1:AA:673:G:C4	1:AA:734:G:C2	3.07	0.43
28:DF:86:MET:H	28:DF:87:PRO:HD2	1.83	0.43
53:B5:59:LYS:O	53:B5:62:LEU:HG	2.19	0.43
3:CC:19:GLU:HA	3:CC:54:ARG:NH2	2.33	0.43
1:AA:409:G:OP1	4:AD:24:GLU:N	2.51	0.43
1:AA:692:U:H2'	1:AA:694:A:OP2	2.17	0.43
23:DA:1825:A:O3'	25:DC:233:HIS:CD2	2.71	0.43
24:BB:46:A:H2'	24:BB:47:C:H6	1.81	0.43
44:BV:31:ARG:CZ	44:BV:94:GLU:HG3	2.49	0.43
23:DA:1285:G:C5	23:DA:1329:U:C4	3.06	0.43
23:DA:1313:U:O2	23:DA:1313:U:C2'	2.64	0.43
23:DA:1332:G:N2	23:DA:1610:A:H8	2.13	0.43
1:CA:1071:C:O2	1:CA:1072:G:C8	2.71	0.43
23:BA:2768:C:C5	23:BA:2769:C:C5	3.06	0.43
1:AA:1368:G:C2	1:AA:1369:C:C6	3.06	0.43
9:AI:118:LYS:O	9:AI:119:ALA:HB3	2.17	0.43
9:AI:29:ASN:ND2	9:AI:65:VAL:O	2.51	0.43
10:AJ:13:HIS:CB	10:AJ:68:HIS:NE2	2.81	0.43
1:CA:59:A:H1'	1:CA:354:G:C2	2.53	0.43
23:BA:1454:U:O4'	36:BN:63:ARG:HD3	2.19	0.43
23:DA:1401:G:C4	23:DA:1402:C:C5	3.06	0.43
23:BA:2790:A:C2	23:BA:2791:C:H2'	2.54	0.43
4:CD:108:LEU:HB3	4:CD:110:PHE:CD2	2.51	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:2809:A:N1	23:DA:2892:A:C4	2.86	0.43
23:BA:951:C:C2'	23:BA:952:G:H5'	2.49	0.43
23:BA:954:G:C4	23:BA:955:C:C6	3.06	0.43
8:CH:114:THR:OG1	8:CH:119:LEU:HG	2.18	0.43
23:BA:874:G:H2'	23:BA:875:G:O4'	2.19	0.43
53:B5:53:PRO:O	53:B5:57:ARG:NH1	2.51	0.43
32:DJ:135:LEU:O	32:DJ:136:GLY:C	2.56	0.43
29:BG:95:ARG:HH12	29:BG:97:ARG:HE	1.67	0.43
23:BA:1478:G:H2'	23:BA:1479:G:H8	1.83	0.43
1:AA:232:G:H2'	1:AA:233:C:O4'	2.18	0.43
1:CA:102:G:C5	1:CA:103:C:C5	3.07	0.43
23:BA:498:G:O2'	43:BU:47:LYS:HD3	2.18	0.43
13:CM:3:ARG:HG2	13:CM:9:ILE:HD13	1.99	0.43
28:BF:112:PRO:HB3	49:B1:62:CYS:O	2.17	0.43
11:AK:21:ILE:HD13	11:AK:84:VAL:HG12	2.00	0.43
36:BN:100:LEU:H	36:BN:112:ALA:HA	1.83	0.43
23:BA:2636:U:H2'	23:BA:2637:U:C6	2.53	0.43
9:CI:114:TYR:H	9:CI:114:TYR:HD2	1.62	0.43
1:CA:749:C:O2	1:CA:749:C:H2'	2.18	0.43
1:CA:1054:C:O2'	1:CA:1055:A:H5''	2.19	0.43
1:CA:1056:U:OP1	3:CC:163:ALA:N	2.49	0.43
1:CA:1442:G:C8	1:CA:1446:A:C2	3.07	0.43
29:BG:86:GLU:O	29:BG:87:LEU:HD23	2.17	0.43
8:CH:29:SER:OG	8:CH:32:LYS:HG3	2.19	0.43
1:CA:864:A:N1	1:CA:865:A:C2	2.86	0.43
23:BA:775:G:C4	23:BA:794:G:C8	3.05	0.43
23:BA:117:G:H5''	23:BA:118:A:OP2	2.18	0.43
1:CA:1232:U:H2'	1:CA:1232:U:O2	2.17	0.43
23:BA:1607:C:N4	23:BA:1622:G:OP2	2.46	0.43
23:DA:1716:U:O2'	23:DA:1717:G:H5'	2.18	0.43
1:AA:570:G:H2'	1:AA:571:U:C6	2.54	0.43
23:BA:997:G:OP1	39:BQ:93:LYS:CD	2.66	0.43
23:DA:814:C:H2'	23:DA:815:C:C6	2.53	0.43
23:BA:2275:C:H5'	23:BA:2275:C:C6	2.48	0.43
1:CA:565:U:OP2	1:CA:566:G:O2'	2.28	0.43
23:BA:753:C:H2'	23:BA:754:C:H6	1.83	0.43
41:DS:65:LEU:HB2	41:DS:68:ARG:NE	2.31	0.43
27:BE:127:GLU:O	27:BE:127:GLU:OE2	2.37	0.43
44:BV:7:ALA:HB3	44:BV:61:LEU:HD23	2.01	0.43
1:AA:382:A:O2'	1:AA:383:A:H5'	2.19	0.43
23:BA:229:A:H5'	23:BA:230:U:O5'	2.16	0.43
1:CA:160:A:H4'	1:CA:344:A:N1	2.33	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CL:77:GLN:C	12:CL:79:HIS:H	2.22	0.43
16:AP:52:ASP:OD1	16:AP:54:GLU:HB2	2.17	0.43
46:DX:53:VAL:O	46:DX:55:GLY:O	2.37	0.43
1:CA:294:U:N3	1:CA:295:C:C5	2.86	0.43
1:AA:1504:G:H4'	1:AA:1505:G:O4'	2.18	0.43
23:DA:298:G:P	43:DU:85:VAL:CG2	3.06	0.43
1:CA:1489:G:C6	1:CA:1490:C:C4	3.06	0.43
28:BF:153:ARG:HB3	28:BF:153:ARG:NH1	2.32	0.43
1:AA:826:C:H5''	1:AA:827:U:OP2	2.18	0.43
1:AA:1384:C:H2'	1:AA:1385:G:H8	1.83	0.43
38:BP:105:LEU:O	38:BP:106:SER:C	2.56	0.43
6:AF:82:ARG:HD2	6:AF:82:ARG:HA	1.80	0.43
23:BA:2409:G:C6	23:BA:2410:G:C5	3.06	0.43
1:AA:1415:G:C6	1:AA:1486:G:C6	3.06	0.43
23:DA:374:A:H3'	23:DA:375:C:H6	1.82	0.43
23:BA:537:C:H6	23:BA:537:C:O5'	2.02	0.43
23:DA:1297:C:H2'	23:DA:1298:C:H6	1.82	0.43
23:DA:270(F):G:C6	23:DA:270(G):U:C4	3.06	0.43
23:BA:1854:A:H62	23:BA:1888:G:H8	1.65	0.43
23:BA:2666:C:C6	23:BA:2667:C:C6	3.07	0.43
23:BA:1462:C:C4	23:BA:1463:C:C4	3.06	0.43
24:BB:38:C:H2'	24:BB:39:A:H8	1.83	0.43
23:BA:836:G:C5	23:BA:837:C:C4	3.05	0.43
23:BA:2075:U:H2'	23:BA:2238:G:N2	2.34	0.43
19:CS:50:ALA:HB1	19:CS:57:HIS:HB3	2.00	0.43
23:DA:2493:U:C4	23:DA:2494:G:C8	3.07	0.43
1:AA:792:A:H4'	1:AA:793:U:O5'	2.17	0.43
1:CA:872:A:N3	1:CA:872:A:H2'	2.33	0.43
25:BC:78:LYS:HG2	25:BC:114:GLY:O	2.18	0.43
23:BA:2650:U:H6	23:BA:2650:U:O5'	2.01	0.43
38:BP:87:ASP:N	38:BP:87:ASP:OD1	2.51	0.43
17:AQ:14:LYS:HD2	17:AQ:14:LYS:H	1.84	0.43
23:DA:1668:A:N7	23:DA:1674:G:C6	2.87	0.43
52:D4:18:PHE:CE2	52:D4:22:MET:HG3	2.53	0.43
1:AA:582:U:OP1	15:AO:68:ARG:NH2	2.51	0.43
49:D1:39:ARG:O	49:D1:57:ILE:HB	2.17	0.43
23:BA:690:G:H2'	23:BA:691:C:O4'	2.19	0.43
23:BA:1173:G:O5'	23:BA:1173:G:H8	2.01	0.43
1:AA:1225:A:C5'	1:AA:1226:C:OP2	2.66	0.43
9:AI:114:TYR:HE1	10:AJ:60:ARG:O	2.00	0.43
22:CV:6191:A:C2	22:CV:6192:G:C4	3.06	0.43
22:CV:6213:A:C2	22:CV:6214:C:C4	3.07	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BO:89:ARG:HG2	37:BO:89:ARG:O	2.18	0.43
9:CI:13:ALA:HB2	9:CI:68:GLY:CA	2.32	0.43
23:DA:1614:A:C6	41:DS:87:PRO:HA	2.54	0.43
48:DZ:52:HIS:CD2	48:DZ:52:HIS:N	2.85	0.43
53:D5:11:LYS:N	53:D5:61:LEU:HD21	2.34	0.43
1:CA:375:U:H2'	1:CA:376:G:H5'	1.99	0.43
23:BA:2727:G:C2	23:BA:2728:U:C5	3.07	0.43
23:BA:2731:G:H2'	23:BA:2732:G:C8	2.54	0.43
23:BA:252:G:O2'	23:BA:253:C:H5'	2.18	0.43
1:AA:375:U:H4'	16:AP:17:TYR:CE2	2.53	0.43
4:AD:30:LYS:C	4:AD:32:ALA:N	2.70	0.43
4:CD:104:VAL:CG1	4:CD:146:ILE:HD13	2.33	0.43
47:BY:53:LEU:O	47:BY:56:GLN:HB2	2.19	0.43
23:DA:1188:U:C2'	23:DA:1189:A:C5'	2.96	0.43
24:DB:69:G:C6	24:DB:70:C:C4	3.07	0.43
23:DA:94:G:C2	47:DY:47:ASN:ND2	2.86	0.43
1:AA:76:G:C6	1:AA:77:C:C4	3.07	0.43
3:CC:57:ILE:HD11	3:CC:66:VAL:HG22	1.99	0.43
1:AA:394:G:C2	1:AA:395:C:C6	3.07	0.43
23:BA:2713:A:H3'	23:BA:2714:G:H5'	1.99	0.43
4:CD:19:LEU:O	4:CD:31:CYS:SG	2.76	0.43
44:BV:30:ASN:O	44:BV:31:ARG:C	2.56	0.43
1:CA:668:G:H1'	15:CO:46:HIS:CD2	2.43	0.43
5:AE:33:VAL:HG12	5:AE:34:VAL:N	2.33	0.43
23:DA:2766:G:H5''	23:DA:2767:C:OP2	2.18	0.43
44:BV:54:HIS:CG	44:BV:101:PRO:HG3	2.53	0.43
1:AA:1084:G:C6	1:AA:1085:U:O4	2.71	0.43
41:DS:74:ALA:HA	41:DS:104:THR:O	2.18	0.43
24:BB:106:G:C2'	24:BB:107:U:H5'	2.49	0.43
19:AS:46:GLY:HA2	19:AS:61:TYR:OH	2.18	0.43
27:DE:167:ALA:O	27:DE:170:LEU:HB2	2.18	0.43
1:CA:597:G:C8	1:CA:598:U:C5	3.07	0.43
1:CA:10:A:O2'	1:CA:11:G:H5'	2.18	0.43
25:BC:132:PRO:HD3	25:BC:190:TYR:CE1	2.52	0.43
23:DA:686:G:O6	52:D4:12:ARG:NH1	2.51	0.43
8:CH:10:LEU:HD23	8:CH:10:LEU:N	2.33	0.43
23:BA:1509:A:O2'	23:BA:1510:A:OP1	2.27	0.43
23:BA:1324:G:C4	23:BA:1328:G:O6	2.71	0.43
16:AP:71:ARG:O	16:AP:73:LEU:N	2.52	0.43
23:BA:661:C:O3'	34:BL:18:ARG:HD2	2.18	0.43
1:CA:829:G:H2'	1:CA:830:G:H8	1.83	0.43
23:DA:2285:C:C4	23:DA:2346:A:N6	2.87	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1067:A:N3	1:CA:1068:G:N9	2.66	0.43
27:DE:203:GLN:O	27:DE:206:ILE:C	2.57	0.43
1:AA:624:C:H4'	16:AP:11:SER:N	2.28	0.43
29:DG:124:GLU:N	29:DG:132:ARG:O	2.49	0.43
24:BB:59:A:H2'	24:BB:60:C:O4'	2.17	0.43
43:DU:46:LYS:C	43:DU:48:ALA:N	2.71	0.43
50:B2:28:PRO:O	50:B2:29:ILE:HD13	2.19	0.43
1:CA:658:G:O2'	1:CA:659:U:H5'	2.18	0.43
43:DU:19:LYS:HB3	43:DU:20:TYR:CE1	2.53	0.43
23:BA:589:C:H2'	23:BA:590:A:C8	2.52	0.43
23:DA:2467:C:H5'	35:DM:123:HIS:CE1	2.53	0.43
29:BG:86:GLU:CG	29:BG:86:GLU:O	2.65	0.43
23:DA:1728:G:C3'	23:DA:1728:G:C8	3.02	0.43
1:AA:939:G:C6	1:AA:940:C:N4	2.86	0.43
23:DA:1591:G:H2'	23:DA:1592:C:H6	1.82	0.43
23:DA:923:C:O2'	23:DA:924:C:H5'	2.18	0.43
1:AA:1442:G:C8	1:AA:1446:A:C2	3.07	0.43
1:AA:922:G:H3'	1:AA:923:A:H8	1.84	0.43
23:DA:198:C:H6	23:DA:198:C:O5'	2.01	0.43
23:BA:494:G:N2	41:BS:57:ASN:HD21	2.16	0.43
14:CN:31:ARG:O	14:CN:32:SER:HB2	2.18	0.43
1:AA:1088:G:C4	1:AA:1089:G:C8	3.06	0.43
23:BA:570:G:O6	23:BA:2499:C:OP1	2.37	0.43
26:DD:181:LEU:HD12	26:DD:181:LEU:HA	1.69	0.43
23:DA:1051:G:C2	23:DA:1052:C:O2	2.71	0.43
27:DE:112:MET:HE3	27:DE:112:MET:HB3	1.76	0.43
4:CD:4:TYR:OH	4:CD:66:ARG:HG2	2.18	0.43
44:BV:178:GLU:O	44:BV:178:GLU:HG3	2.18	0.43
23:DA:1180:C:O2'	23:DA:1181:C:H5'	2.18	0.43
23:BA:1356:G:C4	23:BA:1357:U:C6	3.06	0.43
16:CP:52:ASP:OD1	16:CP:54:GLU:HB2	2.18	0.43
35:DM:38:GLU:O	35:DM:127:ILE:HD11	2.19	0.43
12:CL:63:TYR:HB3	12:CL:64:GLU:H	1.63	0.43
12:CL:58:ARG:HA	12:CL:64:GLU:HG2	1.99	0.43
1:CA:224:C:H2'	1:CA:225:C:H6	1.82	0.43
1:AA:883:C:C2'	1:AA:884:U:H5'	2.48	0.43
23:BA:880:G:H1	23:BA:897:C:H42	1.66	0.43
1:CA:994:A:O5'	1:CA:994:A:H8	2.01	0.43
23:DA:1227:G:OP2	39:DQ:16:LYS:NZ	2.48	0.43
1:AA:269:C:H2'	1:AA:270:A:C8	2.53	0.43
1:CA:240:C:H2'	1:CA:241:C:C6	2.54	0.43
1:CA:1480:G:H2'	1:CA:1481:U:H6	1.83	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DK:6:THR:O	33:DK:20:MET:HA	2.18	0.43
23:BA:270(S):G:H2'	23:BA:270(T):G:H8	1.82	0.43
1:CA:617:G:H5'	16:CP:45:THR:HG22	1.99	0.43
4:AD:53:ASP:OD2	5:AE:107:ARG:HD2	2.18	0.43
16:AP:50:LYS:O	16:AP:51:VAL:HG23	2.18	0.43
44:DV:146:ILE:HG23	44:DV:174:VAL:HG12	2.00	0.43
1:CA:117:G:H2'	1:CA:118:U:O4'	2.18	0.43
53:B5:15:LYS:HG3	53:B5:16:ILE:N	2.33	0.43
34:DL:77:ARG:HG3	34:DL:77:ARG:O	2.18	0.43
20:AT:37:SER:O	20:AT:40:ALA:HB3	2.18	0.43
51:D3:13:CYS:O	51:D3:21:TYR:HA	2.18	0.43
44:DV:75:ASN:O	44:DV:84:GLU:HB2	2.17	0.43
23:DA:458:G:O2'	52:D4:39:ARG:HD3	2.18	0.43
23:DA:394:A:O2'	23:DA:395:U:H5'	2.19	0.43
49:B1:53:THR:C	49:B1:54:LYS:HD2	2.39	0.43
16:AP:82:GLN:HE21	16:AP:82:GLN:HB3	1.57	0.43
17:CQ:43:LEU:HD12	17:CQ:43:LEU:HA	1.57	0.43
44:DV:70:LEU:HD23	44:DV:70:LEU:H	1.82	0.43
2:CB:21:ARG:HG3	2:CB:21:ARG:O	2.18	0.43
51:D3:25:LYS:HD3	53:D5:34:TRP:HZ3	1.83	0.43
23:BA:2261:C:H1'	23:BA:2388:A:N3	2.33	0.43
23:BA:673:C:C2'	23:BA:674:G:H5'	2.49	0.43
1:CA:1376:U:O2'	1:CA:1377:A:H5'	2.18	0.43
22:AV:6195:G:N2	22:AV:6196:A:N3	2.66	0.43
23:DA:2261:C:C2'	23:DA:2262:U:H5'	2.49	0.43
23:BA:2319:G:O6	23:BA:2334:G:OP2	2.37	0.43
2:CB:68:ILE:HG22	2:CB:70:PHE:CE1	2.54	0.43
32:BJ:89:LYS:O	32:BJ:91:GLU:N	2.51	0.43
41:BS:14:PRO:C	41:BS:16:LYS:H	2.22	0.43
40:DR:5:VAL:HG11	40:DR:14:VAL:HG21	1.98	0.43
23:DA:1019:U:O2'	23:DA:1021:A:H2	2.01	0.43
16:CP:32:TYR:C	16:CP:32:TYR:CD2	2.92	0.43
3:AC:19:GLU:HA	3:AC:54:ARG:NH2	2.32	0.43
30:BH:82:ARG:CA	30:BH:89:TYR:HB2	2.48	0.43
47:BY:10:LEU:O	47:BY:13:ALA:HB3	2.18	0.43
1:AA:373:A:C4	1:AA:482:A:N7	2.86	0.43
25:DC:126:GLN:HB3	25:DC:126:GLN:HE21	1.53	0.43
25:DC:145:VAL:O	25:DC:153:ALA:HA	2.18	0.43
4:CD:49:ARG:O	4:CD:51:PRO:HD3	2.19	0.43
1:AA:32:A:C2	1:AA:33:A:C4	3.06	0.43
42:DT:14:SER:OG	42:DT:17:ALA:HB2	2.18	0.43
23:DA:2697:G:H2'	23:DA:2698:U:O4'	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DB:71:C:N3	24:DB:72:G:C8	2.87	0.43
27:DE:9:ILE:HD11	27:DE:125:LEU:CD1	2.49	0.43
3:CC:35:GLU:OE1	3:CC:38:ARG:HD2	2.19	0.43
1:AA:1102:A:C5	1:AA:1103:C:C5	3.07	0.43
1:AA:1105:A:N3	1:AA:1106:G:C8	2.87	0.43
23:DA:1587:A:C5	23:DA:1588:C:C4	3.06	0.43
1:AA:1293:G:O2'	1:AA:1294:G:H5'	2.18	0.43
36:BN:57:ARG:HG2	36:BN:58:GLY:N	2.29	0.43
23:DA:2744:G:N7	23:DA:2755:C:C2	2.87	0.43
1:CA:757:U:O2'	1:CA:879:C:H1'	2.18	0.43
26:BD:111:ARG:CA	36:BN:2:ARG:HH11	2.26	0.43
16:AP:39:TYR:HE1	16:AP:73:LEU:HD22	1.83	0.43
41:DS:40:ASN:O	41:DS:41:LYS:CG	2.61	0.43
8:CH:119:LEU:CD1	8:CH:124:ALA:HA	2.49	0.43
1:CA:711:G:N2	1:CA:712:A:C4	2.86	0.43
23:DA:601:C:O2'	23:DA:605:C:H5''	2.18	0.43
3:CC:59:ARG:HG2	3:CC:63:ASN:O	2.18	0.43
18:AR:26:LEU:CD1	18:AR:42:ARG:HD2	2.44	0.43
43:DU:50:ARG:HD3	43:DU:51:VAL:N	2.28	0.43
23:DA:1476:C:H2'	23:DA:1477:A:H5'	2.00	0.43
13:CM:23:TYR:CE1	13:CM:71:ARG:HD3	2.53	0.43
13:AM:3:ARG:HG2	13:AM:9:ILE:HD13	2.00	0.43
23:BA:2286:A:C8	23:BA:2287:A:C6	3.06	0.43
2:CB:74:LYS:HD3	2:CB:76:GLN:OE1	2.19	0.43
50:B2:40:LYS:HD3	50:B2:46:CYS:HB3	1.99	0.43
23:BA:814:C:H2'	23:BA:815:C:C6	2.53	0.43
1:CA:515:G:H2'	1:CA:516:U:O4'	2.18	0.43
23:DA:2402:C:C3'	23:DA:2403:C:H5'	2.48	0.43
23:BA:301:G:C6	23:BA:302:C:N4	2.86	0.43
1:CA:763:G:H2'	1:CA:764:C:H6	1.83	0.43
23:DA:2092:U:C4	23:DA:2226:C:OP2	2.71	0.43
50:B2:41:PRO:O	50:B2:44:THR:OG1	2.19	0.43
23:BA:198:C:H5'	23:BA:2244:U:OP1	2.18	0.43
10:AJ:45:ARG:HB3	10:AJ:47:PHE:CE1	2.53	0.43
33:BK:2:ILE:HA	33:BK:2:ILE:HD12	1.75	0.43
23:DA:2870:C:C5	23:DA:2871:C:C5	3.07	0.43
1:AA:522:C:N4	1:AA:528:C:N4	2.65	0.43
17:AQ:27:PHE:O	17:AQ:36:ILE:N	2.48	0.43
3:AC:83:ARG:O	3:AC:86:VAL:HG22	2.19	0.43
6:CF:47:ARG:HH11	6:CF:47:ARG:CG	2.31	0.43
10:CJ:52:GLY:O	14:CN:41:ARG:NH2	2.51	0.43
10:CJ:50:ILE:HG22	14:CN:41:ARG:HH21	1.84	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:AT:82:SER:O	20:AT:86:ARG:CB	2.65	0.43
7:CG:50:ILE:O	7:CG:54:THR:O	2.36	0.43
8:AH:40:ALA:HB2	8:AH:45:ILE:HD11	1.99	0.43
8:CH:39:LEU:HB3	8:CH:45:ILE:CG2	2.46	0.43
23:BA:1748:G:C2	23:BA:1749:A:C4	3.07	0.43
12:AL:77:GLN:O	12:AL:79:HIS:N	2.47	0.43
12:AL:5:THR:CG2	12:AL:8:GLN:HG3	2.46	0.43
39:BQ:117:GLN:HA	39:BQ:117:GLN:OE1	2.17	0.43
1:CA:775:G:H2'	1:CA:776:G:H5'	2.00	0.43
23:BA:2458:G:H21	23:BA:2459:A:N6	2.16	0.43
6:AF:77:ARG:CZ	6:AF:77:ARG:HB3	2.48	0.43
7:AG:103:TRP:O	7:AG:104:LEU:C	2.57	0.43
41:DS:60:ASN:OD1	41:DS:60:ASN:N	2.52	0.43
11:AK:48:ILE:N	11:AK:48:ILE:HD13	2.33	0.43
1:CA:179:A:C6	1:CA:180:U:C4	3.07	0.43
39:DQ:24:TYR:CE1	39:DQ:39:LEU:HD23	2.53	0.43
23:DA:173:G:H2'	23:DA:174:C:H6	1.84	0.43
1:AA:1479:C:H2'	1:AA:1480:G:H8	1.83	0.43
26:DD:67:PHE:CD1	26:DD:74:PRO:HB3	2.53	0.43
23:BA:1471:A:C5	23:BA:1522:G:N1	2.86	0.43
7:CG:78:ARG:HG2	7:CG:79:ARG:N	2.33	0.43
23:BA:644:A:N1	23:BA:646:A:C4	2.86	0.43
16:CP:47:ASP:C	16:CP:49:LEU:H	2.21	0.43
1:AA:1403:C:H1'	1:AA:1500:A:N1	2.34	0.43
27:BE:12:LEU:HD11	27:BE:17:ARG:HG2	2.01	0.43
1:AA:758:G:H4'	1:AA:880:C:H4'	2.00	0.43
23:DA:709:U:C2	23:DA:723:G:N2	2.87	0.43
15:AO:17:ARG:NH1	15:AO:77:ARG:NH1	2.67	0.43
37:DO:35:ILE:CG1	37:DO:101:LEU:HD23	2.49	0.43
23:BA:697:C:C2	23:BA:698:C:C5	3.07	0.43
48:DZ:12:PRO:O	48:DZ:14:GLY:N	2.51	0.43
23:BA:1262:A:N3	50:B2:10:LYS:HE3	2.34	0.43
1:AA:604:G:C2'	1:AA:605:U:H5'	2.48	0.43
23:BA:200:U:O4	23:BA:250:G:N2	2.52	0.43
36:BN:18:LEU:HD11	36:BN:22:ARG:NE	2.33	0.43
34:DL:29:LYS:N	34:DL:29:LYS:HD2	2.34	0.43
1:AA:1217:C:H5''	14:AN:9:LYS:HZ1	1.84	0.43
50:B2:6:VAL:HG13	50:B2:7:PRO:HD2	2.00	0.43
7:CG:21:VAL:HG23	7:CG:22:LEU:N	2.34	0.43
23:DA:631:A:OP2	53:D5:47:LYS:NZ	2.34	0.43
34:DL:143:GLY:O	34:DL:145:PRO:HD3	2.19	0.43
23:BA:2250:G:C5	35:BM:82:ARG:HD2	2.53	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BJ:143:LEU:C	32:BJ:144:LYS:HD2	2.39	0.43
10:AJ:48:THR:HG22	10:AJ:62:HIS:CG	2.54	0.43
23:BA:1528:A:N1	23:BA:1529:A:C2	2.87	0.43
38:DP:74:ARG:CD	38:DP:76:PHE:CZ	3.01	0.43
10:AJ:50:ILE:HA	10:AJ:60:ARG:HB3	2.01	0.43
1:CA:1226:C:N4	13:CM:104:ARG:HB2	2.33	0.43
5:AE:102:ALA:HB2	5:AE:120:THR:HG21	1.98	0.43
23:DA:675:A:OP1	27:DE:63:LYS:NZ	2.49	0.43
40:BR:77:ALA:C	40:BR:79:VAL:N	2.72	0.43
28:BF:86:MET:H	28:BF:87:PRO:HD2	1.79	0.43
39:DQ:104:GLN:HB3	40:DR:44:LYS:CE	2.49	0.43
40:DR:47:VAL:HG12	40:DR:49:THR:O	2.18	0.43
16:CP:20:VAL:HG21	16:CP:32:TYR:CB	2.49	0.43
30:BH:126:TYR:HB2	30:BH:142:VAL:HG21	1.99	0.43
23:DA:2295:C:H2'	23:DA:2296:U:O5'	2.19	0.43
1:AA:35:G:C2	1:AA:550:G:C2	3.05	0.43
12:AL:30:PRO:HD2	12:AL:31:PHE:H	1.83	0.43
2:CB:193:ASP:O	2:CB:196:LEU:HG	2.19	0.43
23:DA:549:G:H2'	23:DA:550:G:O4'	2.18	0.43
25:DC:245:PRO:HA	25:DC:246:PRO:HD3	1.84	0.43
24:DB:70:C:C2	24:DB:71:C:C5	3.07	0.43
1:AA:91:C:C2	1:AA:92:G:N7	2.86	0.43
23:DA:1209:G:N2	23:DA:1210:A:H62	2.02	0.43
3:CC:205:GLY:O	3:CC:206:GLU:HB2	2.18	0.43
5:CE:110:LEU:HD23	5:CE:110:LEU:N	2.34	0.43
23:DA:1651:G:H2'	23:DA:1652:A:O4'	2.19	0.43
44:BV:163:LEU:N	44:BV:163:LEU:HD23	2.34	0.43
1:CA:1104:G:C2	1:CA:1105:A:C8	3.07	0.43
1:AA:1106:G:C2	1:AA:1107:C:C5	3.06	0.43
1:CA:41:G:C6	1:CA:42:G:C6	3.06	0.43
45:BW:31:VAL:HG21	45:BW:61:ALA:HB2	2.00	0.43
45:BW:49:LYS:N	45:BW:80:HIS:ND1	2.55	0.43
46:DX:11:ARG:CB	46:DX:12:PRO:CD	2.88	0.43
36:DN:55:ALA:CA	36:DN:80:PHE:CE1	2.93	0.43
4:AD:159:ARG:HA	4:AD:162:LEU:HB2	2.00	0.43
1:AA:1349:A:OP1	9:AI:120:ARG:HB2	2.19	0.43
50:D2:25:LEU:HD12	50:D2:25:LEU:N	2.19	0.43
41:DS:32:ALA:O	41:DS:35:ILE:N	2.52	0.43
23:BA:557:U:C2	23:BA:558:G:C8	3.07	0.43
23:DA:2757:A:H2'	23:DA:2758:A:H5'	2.00	0.43
23:DA:2744:G:C2	23:DA:2761:G:C6	3.07	0.43
26:BD:110:GLY:O	36:BN:5:LYS:NZ	2.48	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BU:100:ALA:O	43:BU:101:LYS:HB3	2.18	0.43
1:CA:1119:C:H2'	1:CA:1120:G:C8	2.54	0.43
23:BA:1502:C:C6	23:BA:1502:C:C3'	3.01	0.43
1:AA:659:U:C2'	1:AA:660:G:H5'	2.49	0.43
23:BA:1313:U:C2'	23:BA:1313:U:O2	2.65	0.43
16:CP:72:ARG:HD3	16:CP:73:LEU:HD21	2.00	0.43
1:AA:59:A:H5''	1:AA:60:A:C5'	2.48	0.43
1:CA:457:C:C2'	1:CA:457:C:O2	2.60	0.43
23:DA:2549:G:C2'	23:DA:2550:G:H5'	2.49	0.43
1:AA:28:G:C6	1:AA:29:G:C5	3.07	0.43
3:AC:68:VAL:HG12	3:AC:70:VAL:CG2	2.49	0.43
1:CA:556:C:O2'	1:CA:557:G:H5'	2.18	0.43
1:CA:1066:C:C2'	1:CA:1066:C:O2	2.65	0.43
50:D2:42:PRO:HB2	50:D2:43:HIS:CD2	2.54	0.43
23:DA:258:G:C4	23:DA:259:G:C8	3.07	0.43
25:BC:181:GLU:HA	25:BC:272:ALA:CB	2.48	0.43
15:CO:39:LEU:HD23	15:CO:39:LEU:HA	1.79	0.43
1:CA:1206:G:C6	1:CA:1207:G:C5	3.07	0.43
23:DA:302:C:H2'	23:DA:303:U:H6	1.82	0.43
33:BK:102:VAL:HB	33:BK:106:LEU:CD1	2.48	0.43
34:BL:88:LEU:HA	34:BL:88:LEU:HD12	1.39	0.43
23:DA:2663:G:C5	23:DA:2664:G:N7	2.86	0.43
1:AA:570:G:C6	1:AA:873:A:C2	3.07	0.43
1:AA:918:A:H2'	1:AA:919:A:C8	2.53	0.43
23:BA:988:A:H8	23:BA:988:A:O5'	2.00	0.43
17:AQ:27:PHE:HB2	17:AQ:28:PRO:CD	2.49	0.43
3:AC:35:GLU:O	3:AC:39:ILE:HG13	2.18	0.43
25:BC:257:LEU:CD2	25:BC:257:LEU:C	2.86	0.43
23:DA:186:G:H2'	23:DA:187:G:H8	1.83	0.43
23:DA:2213:U:H6	23:DA:2213:U:O5'	2.02	0.43
1:CA:186(E):C:H2'	1:CA:186(F):C:C6	2.53	0.43
1:AA:638:G:C2	1:AA:639:G:C8	3.07	0.43
1:CA:803:G:H2'	1:CA:804:U:O4'	2.18	0.43
41:BS:45:TYR:CD2	41:BS:46:PHE:CE1	3.06	0.43
6:AF:16:GLN:HA	6:AF:19:LEU:HB3	2.01	0.43
46:BX:67:ILE:HB	46:BX:68:PRO:CD	2.49	0.43
23:BA:1850:G:C4	23:BA:1851:U:C5	3.07	0.43
46:DX:59:THR:OG1	46:DX:60:PHE:N	2.51	0.43
23:DA:511:U:H5	23:DA:512:G:C5	2.35	0.43
23:BA:880:G:N2	23:BA:898:C:C4	2.86	0.43
33:DK:7:TYR:CD1	33:DK:20:MET:HB3	2.54	0.43
29:DG:105:LEU:N	29:DG:105:LEU:CD2	2.82	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:CR:36:ASN:HB2	18:CR:39:VAL:CG2	2.48	0.43
1:CA:419:C:C2'	1:CA:420:U:H5'	2.49	0.43
1:AA:764:C:H2'	1:AA:765:G:O4'	2.18	0.43
23:BA:298:G:P	43:BU:85:VAL:CG2	3.06	0.43
28:DF:16:ARG:HB3	28:DF:17:PRO:HD3	1.99	0.43
6:AF:29:ALA:HA	6:AF:32:ASN:OD1	2.18	0.43
1:CA:283:C:C2	1:CA:284:G:C8	3.06	0.43
23:DA:1416:G:HO2'	23:DA:1417:C:H6	1.67	0.43
53:D5:15:LYS:CG	53:D5:16:ILE:N	2.82	0.43
23:DA:2794:C:N4	23:DA:2802:G:H1	2.17	0.43
36:BN:36:THR:HG23	36:BN:41:ALA:HB2	2.00	0.43
2:CB:60:ASP:O	2:CB:64:ARG:CG	2.66	0.43
10:AJ:78:ASN:O	10:AJ:82:ILE:HG12	2.18	0.43
23:BA:1206:G:C6	23:BA:1207:C:C4	3.06	0.43
23:DA:2313:C:H4'	28:DF:91:ARG:HG3	1.99	0.43
15:CO:66:LEU:N	15:CO:66:LEU:CD1	2.82	0.43
23:BA:1955:U:O4	23:BA:2554:U:H5	2.01	0.43
34:BL:59:LEU:N	34:BL:61:ARG:HE	2.16	0.43
47:DY:3:LEU:O	47:DY:5:GLU:N	2.52	0.43
23:BA:858:U:O2	23:BA:2268:A:N3	2.51	0.43
34:BL:126:VAL:HG23	34:BL:145:PRO:HG2	2.00	0.43
7:CG:9:VAL:HG12	7:CG:10:ARG:H	1.83	0.43
1:AA:986:A:C4	1:AA:1220:G:N2	2.87	0.43
22:CV:6193:U:C4	22:CV:6194:C:C4	3.07	0.43
23:DA:2845:G:C2	23:DA:2846:G:C5	3.06	0.43
1:CA:946:A:N3	1:CA:1333:A:H2	2.16	0.43
23:BA:1253:A:C3'	23:BA:1254:A:H5'	2.48	0.43
34:DL:32:THR:HB	34:DL:36:LYS:HB2	2.00	0.43
11:AK:114:VAL:HA	11:AK:115:PRO:HD2	1.73	0.43
16:CP:58:TYR:HE2	16:CP:59:TRP:CZ3	2.37	0.43
16:CP:5:ARG:CB	16:CP:67:THR:OG1	2.67	0.43
23:BA:593:G:H4'	53:B5:62:LEU:CD1	2.48	0.43
25:DC:177:LEU:HD23	25:DC:177:LEU:HA	1.85	0.43
25:BC:36:PRO:O	25:BC:37:LEU:HB2	2.18	0.43
4:CD:106:TYR:HE1	4:CD:113:SER:HA	1.84	0.43
25:BC:50:THR:HG23	25:BC:51:VAL:N	2.32	0.43
30:DH:77:LEU:HD23	30:DH:105:HIS:HE1	1.83	0.43
28:DF:41:GLN:HG2	28:DF:155:MET:CB	2.47	0.43
23:BA:2634:G:H5'	26:BD:61:ARG:NH1	2.33	0.43
1:AA:395:C:O2	1:AA:395:C:H2'	2.18	0.43
23:BA:2713:A:C3'	23:BA:2714:G:C5'	2.96	0.43
23:DA:2634:G:O2'	23:DA:2635:C:H5'	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DD:50:GLY:HA3	26:DD:75:VAL:HG21	2.01	0.43
1:CA:1331:G:H4'	1:CA:1331:G:OP1	2.18	0.43
1:AA:57:G:C6	1:AA:58:C:C4	3.06	0.43
6:AF:45:LEU:O	6:AF:46:ARG:HG2	2.19	0.43
1:CA:11:G:C6	1:CA:12:U:C4	3.06	0.43
46:BX:45:ASN:HD22	46:BX:46:LEU:H	1.64	0.43
1:CA:725:G:C4	1:CA:726:C:C5	3.06	0.43
1:AA:1014:A:H5'	19:AS:14:HIS:CG	2.52	0.43
1:AA:987:G:H2'	1:AA:988:G:C8	2.54	0.43
40:DR:34:GLU:O	40:DR:36:PRO:CD	2.59	0.43
1:CA:819:A:N7	1:CA:1529:G:C2	2.87	0.43
1:AA:59:A:H3'	1:AA:331:G:H22	1.83	0.43
1:AA:626:U:O2	1:AA:627:G:C8	2.71	0.43
45:DW:72:ARG:O	45:DW:73:GLY:C	2.56	0.43
28:BF:120:LEU:HD13	28:BF:133:LEU:HD13	2.01	0.43
15:CO:29:VAL:O	15:CO:30:ALA:C	2.56	0.43
32:DJ:66:THR:HB	32:DJ:71:MET:HE3	2.00	0.43
23:DA:384:U:H2'	23:DA:385:C:H6	1.83	0.43
1:CA:66:G:C6	1:CA:67:C:C5	3.07	0.43
3:CC:58:GLU:O	3:CC:64:VAL:HA	2.19	0.43
25:DC:136:ILE:HA	25:DC:137:PRO:HD3	1.81	0.43
23:BA:1401:G:C4	23:BA:1402:C:C5	3.07	0.43
1:AA:913:A:O2'	1:AA:914:A:OP2	2.36	0.43
23:BA:2207:C:H2'	23:BA:2208:U:O4'	2.19	0.43
23:BA:2101:G:C6	23:BA:2102:U:C4	3.06	0.43
23:BA:2864:G:C6	23:BA:2865:U:N3	2.87	0.43
1:CA:21:G:C2	1:CA:22:G:C6	3.06	0.43
3:CC:22:TRP:HZ3	3:CC:24:ALA:HB2	1.83	0.43
1:AA:128:G:H4'	17:AQ:3:LYS:HG2	2.00	0.43
23:BA:319:C:C2	23:BA:333:G:N2	2.87	0.43
1:CA:570:G:C6	1:CA:873:A:C2	3.06	0.43
1:CA:918:A:C2	1:CA:919:A:C4	3.06	0.43
1:CA:918:A:H2'	1:CA:919:A:C8	2.54	0.43
30:DH:2:LYS:HG3	30:DH:39:ALA:CB	2.46	0.43
1:CA:1079:G:C2	1:CA:1080:A:C2	3.07	0.43
10:AJ:10:GLY:HA3	10:AJ:16:LEU:HD21	2.00	0.43
23:DA:2870:C:H2'	23:DA:2871:C:O4'	2.19	0.43
17:AQ:27:PHE:CE2	17:AQ:36:ILE:HG13	2.54	0.43
23:DA:1006:C:C2'	23:DA:1007:C:H5'	2.48	0.43
51:B3:30:THR:CG2	51:B3:31:PRO:HD2	2.48	0.43
35:DM:45:GLN:O	35:DM:49:ALA:HB2	2.17	0.43
23:BA:2460:U:C2	23:BA:2461:C:C6	3.07	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BQ:18:LEU:HD12	39:BQ:18:LEU:HA	1.77	0.43
1:AA:638:G:H2'	1:AA:639:G:H5'	2.01	0.43
23:DA:1917:U:O2'	23:DA:1918:A:H5'	2.18	0.43
7:AG:30:ILE:HD12	7:AG:120:ILE:HD11	2.01	0.43
1:CA:928:G:N2	1:CA:1390:U:O2	2.52	0.43
23:BA:914:C:H3'	23:BA:914:C:C6	2.53	0.43
44:DV:76:LEU:H	44:DV:76:LEU:HD12	1.83	0.43
35:BM:30:GLY:CA	35:BM:107:ALA:HB2	2.48	0.43
23:BA:2744:G:H1'	23:BA:2761:G:N2	2.33	0.43
23:BA:2703:C:C2'	23:BA:2704:C:H5'	2.49	0.43
1:CA:983:A:H3'	1:CA:983:A:N3	2.34	0.43
23:DA:500:G:N2	23:DA:502:A:H3'	2.33	0.43
23:DA:2695:C:H2'	23:DA:2696:U:C6	2.54	0.43
23:DA:2194:G:C6	23:DA:2195:C:C4	3.07	0.43
23:BA:2194:G:C6	23:BA:2195:C:C4	3.06	0.43
1:CA:646:U:C4	1:CA:647:C:N4	2.87	0.43
23:BA:697:C:N3	23:BA:698:C:C5	2.87	0.43
33:BK:7:TYR:CE1	33:BK:20:MET:HB3	2.54	0.43
23:DA:1835:G:H2'	23:DA:1835:G:N3	2.34	0.43
17:CQ:76:LEU:HD12	17:CQ:77:VAL:H	1.83	0.43
9:CI:5:TYR:O	9:CI:84:ALA:HA	2.19	0.43
1:AA:791:G:C6	1:AA:792:A:N7	2.87	0.43
23:BA:1629:U:H2'	23:BA:1630:G:O4'	2.19	0.43
19:AS:50:ALA:HB1	19:AS:57:HIS:HB3	2.00	0.43
23:BA:702:G:C2	23:BA:731:C:C2	3.07	0.43
48:DZ:1:MET:HB3	48:DZ:39:ASP:HB3	2.00	0.43
23:BA:2612:C:H2'	23:BA:2613:U:O5'	2.19	0.43
17:CQ:14:LYS:HD2	17:CQ:14:LYS:H	1.84	0.43
23:DA:2392:A:H2'	23:DA:2393:A:H5'	2.00	0.43
23:BA:2415:G:H4'	34:BL:67:MET:N	2.34	0.43
23:BA:310:A:N1	23:BA:312:G:H1'	2.34	0.43
33:DK:77:ILE:HD11	38:DP:72:VAL:CG1	2.49	0.43
32:DJ:51:THR:O	32:DJ:54:ALA:HB3	2.19	0.43
1:CA:1368:G:C2	1:CA:1369:C:C6	3.07	0.43
9:CI:9:ARG:O	9:CI:10:ARG:HB2	2.19	0.43
25:BC:205:VAL:O	25:BC:206:LEU:C	2.55	0.43
25:BC:16:MET:HE2	25:BC:211:ARG:HD3	2.01	0.43
22:CV:6191:A:C6	22:CV:6192:G:C5	3.07	0.43
23:DA:2846:G:C8	23:DA:2847:U:C5	3.06	0.43
1:CA:977:A:HO2'	1:CA:978:A:H5''	1.84	0.43
1:CA:551:U:H5'	12:CL:118:LYS:HZ2	1.83	0.43
23:BA:2295:C:N3	23:BA:2296:U:C5	2.87	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BB:7:G:H5'	37:BO:29:PHE:CZ	2.53	0.43
2:CB:180:LEU:C	2:CB:181:PHE:CD2	2.92	0.43
23:DA:1902:C:C2'	23:DA:1903:G:O5'	2.67	0.43
39:DQ:69:CYS:HB3	39:DQ:79:PHE:HD2	1.83	0.43
34:DL:50:ARG:CD	34:DL:51:PHE:N	2.78	0.43
16:AP:18:ARG:O	16:AP:19:ILE:O	2.37	0.43
1:AA:492:G:C6	1:AA:493:G:C5	3.06	0.43
1:CA:392:G:C2	1:CA:393:A:C4	3.07	0.43
47:BY:24:LEU:CD2	47:BY:28:LYS:HG2	2.49	0.43
47:BY:60:LEU:HD23	47:BY:60:LEU:HA	1.49	0.43
42:DT:80:ILE:HG12	42:DT:80:ILE:O	2.16	0.43
23:BA:1210:A:H4'	23:BA:1211:U:O5'	2.18	0.43
41:BS:75:TYR:HD2	41:BS:75:TYR:C	2.22	0.43
1:AA:393:A:C4	1:AA:394:G:C8	3.07	0.43
23:BA:1640:C:H6	23:BA:1640:C:H5'	1.84	0.43
20:AT:57:ARG:C	20:AT:59:ALA:N	2.72	0.43
42:BT:30:VAL:HG21	42:BT:79:ALA:HB3	2.00	0.43
46:BX:90:ILE:O	46:BX:94:LEU:HD22	2.18	0.43
43:DU:100:ALA:O	43:DU:101:LYS:HB3	2.19	0.43
43:DU:81:LYS:HG2	43:DU:97:ARG:HB3	2.01	0.43
25:DC:175:LEU:HD12	25:DC:185:VAL:HG21	2.00	0.43
26:DD:120:TRP:NE1	26:DD:155:LYS:HB3	2.34	0.43
23:BA:1263:U:O2'	50:B2:11:THR:HG23	2.19	0.43
23:BA:528:A:C2'	23:BA:529:A:O5'	2.66	0.43
1:CA:598:U:H4'	8:CH:94:TYR:CD1	2.54	0.43
6:AF:60:PHE:CE2	18:AR:78:LEU:HD21	2.54	0.43
46:BX:45:ASN:C	46:BX:45:ASN:HD22	2.22	0.43
26:BD:37:ARG:HA	26:BD:42:ASP:OD2	2.19	0.43
16:AP:71:ARG:C	16:AP:73:LEU:N	2.71	0.43
25:DC:25:THR:O	25:DC:27:THR:HG22	2.18	0.43
33:DK:88:ASN:O	33:DK:91:LEU:HA	2.19	0.43
23:DA:380:U:H4'	46:DX:21:ARG:O	2.18	0.43
23:DA:2563:U:O2	23:DA:2565:A:C8	2.71	0.43
34:BL:70:GLN:O	34:BL:71:VAL:C	2.56	0.43
23:DA:475:U:C4	23:DA:481:G:O6	2.72	0.43
23:DA:1476:C:O2'	23:DA:1477:A:H5'	2.18	0.43
24:DB:61:G:C6	24:DB:62:C:C4	3.07	0.43
23:DA:2636:U:C2	23:DA:2637:U:C5	3.07	0.43
1:CA:865:A:H5'	1:CA:1078:U:O4	2.19	0.43
23:BA:1166:C:H42	23:BA:1183:G:H1	1.67	0.43
25:BC:221:VAL:HG22	25:BC:226:MET:CE	2.49	0.43
41:BS:57:ASN:O	41:BS:58:ALA:C	2.56	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:427:U:O4	1:CA:428:G:N1	2.51	0.43
1:CA:1311:G:H1	1:CA:1326:C:N4	2.11	0.43
36:DN:85:PRO:HA	36:DN:88:ARG:NH1	2.33	0.43
23:BA:1449:G:C4	23:BA:1450:C:C5	3.07	0.43
1:CA:160:A:N7	1:CA:161:A:C5	2.87	0.43
1:AA:1430:C:C2	1:AA:1471:G:C2	3.06	0.43
6:AF:55:ASP:OD1	6:AF:56:PRO:HD2	2.19	0.43
7:CG:26:PHE:O	7:CG:30:ILE:HG12	2.19	0.43
1:CA:806:C:O2'	1:CA:807:A:H5'	2.18	0.43
23:BA:958:U:H5'	35:BM:14:ARG:HH11	1.83	0.43
46:BX:51:VAL:HG12	46:BX:58:ILE:HG12	2.00	0.43
23:DA:1515:C:H2'	23:DA:1515:C:O2	2.19	0.43
23:BA:189:G:C8	23:BA:189:G:C3'	3.02	0.43
1:AA:991:U:O2'	1:AA:993:G:H8	2.01	0.43
2:CB:144:ARG:O	2:CB:147:LYS:HB3	2.18	0.43
23:DA:963:U:H2'	23:DA:964:C:H6	1.84	0.43
33:DK:20:MET:HG3	33:DK:20:MET:O	2.17	0.43
12:CL:19:LYS:N	12:CL:19:LYS:HD3	2.33	0.43
23:BA:2564:A:C2	23:BA:2647:U:H4'	2.54	0.43
7:AG:78:ARG:HH11	7:AG:154:TYR:HB3	1.84	0.43
1:CA:380:G:N2	1:CA:384:G:C5	2.87	0.43
1:CA:164:U:H2'	1:CA:165:C:C6	2.54	0.43
1:CA:167:G:C2'	1:CA:168:G:H5'	2.48	0.43
36:DN:18:LEU:HD13	36:DN:19:ALA:N	2.34	0.43
1:AA:164:U:H2'	1:AA:165:C:C6	2.54	0.43
1:CA:242:C:H2'	1:CA:243:A:H5''	2.01	0.43
1:CA:385:C:H3'	1:CA:385:C:C6	2.54	0.43
23:BA:32:C:O2'	23:BA:33:U:H5'	2.19	0.43
1:CA:288:A:O2'	1:CA:289:G:H5'	2.19	0.43
1:AA:892:A:C6	1:AA:893:C:C4	3.06	0.43
1:AA:583:A:N6	1:AA:758:G:H1'	2.34	0.43
23:BA:844:C:O2'	23:BA:845:G:H5'	2.19	0.43
30:DH:38:LEU:HA	30:DH:38:LEU:HD13	1.87	0.43
23:DA:270(F):G:C5	23:DA:270(G):U:C5	3.06	0.43
23:DA:1603:A:OP1	23:DA:1604:C:OP2	2.37	0.43
27:BE:138:GLU:O	27:BE:141:ALA:HB3	2.18	0.43
23:BA:1370:C:H2'	23:BA:1371:G:C5'	2.49	0.43
23:BA:1964:G:H4'	23:BA:1965:C:OP2	2.19	0.43
27:DE:139:PHE:HB2	27:DE:166:ALA:HB1	2.00	0.43
26:DD:153:GLY:O	26:DD:154:LYS:C	2.55	0.43
29:DG:126:PRO:HG2	29:DG:130:ARG:HB3	2.01	0.43
23:BA:869:G:C4	23:BA:870:A:C8	3.07	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BK:72:PRO:C	33:BK:74:GLY:H	2.21	0.43
23:DA:852:G:H2'	23:DA:853:G:C8	2.54	0.43
23:DA:77:C:OP1	47:DY:59:ARG:HD3	2.19	0.43
34:DL:96:THR:HB	34:DL:97:PRO:HD2	2.01	0.43
23:BA:310:A:OP1	43:BU:17:SER:O	2.37	0.43
23:DA:1275:A:C5	36:DN:16:HIS:ND1	2.87	0.43
33:DK:75:SER:HB2	38:DP:75:ILE:O	2.19	0.43
34:BL:107:LYS:C	34:BL:109:GLY:H	2.22	0.43
34:BL:80:TYR:CE1	34:BL:111:ARG:CG	3.02	0.43
32:DJ:143:LEU:C	32:DJ:144:LYS:HD2	2.39	0.43
1:CA:1348:U:H4'	9:CI:120:ARG:HH11	1.84	0.43
1:AA:1364:U:H5'	21:AU:14:TRP:CZ2	2.54	0.43
23:DA:2258:C:H4'	23:DA:2259:G:OP2	2.19	0.43
23:BA:1899:G:H21	23:BA:1902:C:H5	1.67	0.43
23:BA:2579:C:H2'	23:BA:2580:U:O4'	2.19	0.43
39:DQ:82:GLY:CA	39:DQ:113:ALA:HB1	2.42	0.43
6:AF:52:ILE:CD1	6:AF:87:ARG:HH21	2.31	0.43
23:DA:1144:G:C6	23:DA:1145:C:N4	2.87	0.43
1:AA:438:G:O2'	1:AA:493:G:C2	2.65	0.43
1:AA:409:G:H5'	4:AD:24:GLU:HB3	2.00	0.43
1:AA:36:C:H4'	12:AL:121:THR:O	2.19	0.43
25:BC:32:SER:O	25:BC:36:PRO:HD2	2.18	0.43
1:CA:395:C:H2'	1:CA:395:C:O2	2.17	0.43
23:DA:142:G:H2'	23:DA:143:C:O4'	2.19	0.43
30:DH:107:ILE:HD12	30:DH:108:THR:H	1.84	0.43
13:AM:37:THR:OG1	13:AM:39:ILE:HG12	2.19	0.43
24:DB:45:A:C2	24:DB:46:A:O4'	2.72	0.43
23:DA:1826:G:H2'	23:DA:1827:C:H6	1.83	0.43
1:CA:397:A:N7	1:CA:548:G:H8	2.14	0.43
3:AC:57:ILE:HD11	3:AC:66:VAL:HG22	2.00	0.43
23:DA:1785:A:O2'	23:DA:1786:A:H2'	2.19	0.43
44:BV:48:PHE:CE2	44:BV:71:VAL:HG21	2.54	0.43
44:BV:57:ILE:HG22	44:BV:59:LEU:HG	2.01	0.43
25:BC:231:HIS:CG	25:BC:232:PRO:HD2	2.52	0.43
1:AA:194:C:H5''	20:AT:65:LYS:HG2	2.01	0.43
23:DA:1607:C:N4	23:DA:1621:U:C3'	2.82	0.43
2:CB:97:TRP:CE3	2:CB:98:LEU:O	2.72	0.43
23:BA:2767:C:C2'	23:BA:2768:C:H5'	2.49	0.43
1:AA:448:A:OP2	1:AA:485:G:N2	2.49	0.43
25:BC:172:TYR:CD1	25:BC:185:VAL:O	2.66	0.43
1:CA:506:G:C5	1:CA:507:C:C4	3.07	0.43
1:AA:57:G:N7	1:AA:58:C:C5	2.87	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DE:173:VAL:CG1	27:DE:174:VAL:N	2.81	0.43
1:CA:586:C:O2'	1:CA:878:G:H4'	2.18	0.43
43:BU:81:LYS:HD2	43:BU:96:ILE:HD12	2.00	0.43
23:BA:1344:G:H5'	23:BA:1384:A:N1	2.34	0.43
1:CA:448:A:H2'	1:CA:449:C:C6	2.54	0.43
4:CD:159:ARG:O	4:CD:162:LEU:N	2.52	0.43
23:DA:1105:U:H2'	23:DA:1106:G:C8	2.54	0.43
17:AQ:10:VAL:CG1	17:AQ:53:LEU:HA	2.48	0.43
23:BA:1046:A:C3'	23:BA:1047:G:C5'	2.96	0.43
23:BA:1111:A:N3	23:BA:1112:G:H1'	2.34	0.43
23:BA:954:G:H5''	35:BM:13:GLN:HG2	1.99	0.43
35:DM:16:ARG:CG	35:DM:17:LEU:H	2.32	0.43
23:DA:1046:A:C3'	23:DA:1047:G:C5'	2.96	0.43
1:AA:1119:C:H2'	1:AA:1120:G:C8	2.54	0.43
3:CC:50:ALA:HB1	3:CC:70:VAL:HG11	2.01	0.43
23:DA:241:A:H5'	23:DA:243:U:C1'	2.47	0.43
1:AA:509:A:C6	1:AA:510:A:N1	2.86	0.43
1:CA:99:C:O2'	1:CA:101:A:H8	2.01	0.43
26:DD:37:ARG:HA	26:DD:42:ASP:OD2	2.19	0.43
36:BN:100:LEU:HG	36:BN:112:ALA:HA	2.01	0.43
23:DA:479:A:N3	23:DA:481:G:H5''	2.34	0.43
1:CA:664:G:N2	1:CA:742:G:C2	2.87	0.43
23:BA:1952:A:C6	33:BK:22:ILE:HD11	2.53	0.43
1:AA:1357:A:N6	1:AA:1358:U:H3	2.17	0.43
29:DG:92:ILE:HG22	29:DG:93:GLY:H	1.80	0.43
23:DA:912:C:C2'	23:DA:912:C:O2	2.64	0.43
8:AH:49:GLU:O	8:AH:51:VAL:N	2.45	0.43
23:DA:1399:C:H2'	23:DA:1400:G:H8	1.82	0.43
17:AQ:70:ARG:N	17:AQ:70:ARG:HD2	2.34	0.43
1:CA:651:C:O2'	1:CA:652:U:H5'	2.18	0.43
1:CA:510:A:H1'	1:CA:543:C:O4'	2.19	0.43
23:DA:1414:G:H2'	23:DA:1415:U:C6	2.51	0.43
1:CA:15:G:H2'	1:CA:16:A:C8	2.53	0.43
1:AA:909:A:H3'	1:AA:910:C:H6	1.83	0.43
1:AA:1511:G:C6	1:AA:1512:U:C4	3.07	0.43
23:BA:1748:G:O2'	23:BA:1749:A:H5'	2.19	0.43
1:AA:1089:G:H1	1:AA:1096:C:H42	1.67	0.43
27:DE:46:ARG:CG	27:DE:46:ARG:NH1	2.80	0.43
23:DA:1856:G:C2	23:DA:1887:C:C2	3.06	0.43
23:BA:1832:C:C4	23:BA:1833:U:C5	3.07	0.43
1:CA:639:G:H2'	1:CA:640:A:C8	2.53	0.43
2:AB:144:ARG:O	2:AB:147:LYS:HB3	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:2001:A:H4'	23:DA:2689:U:O2'	2.19	0.43
3:AC:17:ASP:HB3	3:AC:21:ARG:HH22	1.84	0.43
23:BA:1232:G:C4	23:BA:1233:C:C5	3.07	0.43
23:DA:2738:A:H2'	23:DA:2739:U:O5'	2.19	0.43
36:BN:32:GLY:C	36:BN:33:ARG:HD2	2.38	0.43
33:DK:25:LEU:HA	33:DK:25:LEU:HD23	1.56	0.43
1:AA:20:U:H2'	1:AA:21:G:H5'	2.00	0.43
1:AA:1162:C:O2'	1:AA:1163:C:H5'	2.19	0.43
5:AE:79:GLU:CG	5:AE:92:LYS:HG3	2.49	0.43
23:DA:1471:A:C2	23:DA:1472:A:C4	3.07	0.43
23:BA:2604:U:C2'	23:BA:2604:U:O2	2.67	0.43
23:BA:173:G:H2'	23:BA:174:C:H6	1.83	0.43
1:AA:440:A:C8	1:AA:442:C:C5	3.07	0.43
1:CA:1165:C:C2'	1:CA:1166:G:H5'	2.49	0.43
5:CE:107:ARG:HG2	5:CE:108:ALA:N	2.34	0.43
7:AG:49:ILE:CG2	7:AG:49:ILE:O	2.66	0.43
15:AO:3:ILE:HG21	15:AO:34:LEU:CD2	2.49	0.43
30:BH:25:TYR:CE1	30:BH:30:LEU:HD11	2.53	0.43
23:BA:1905:C:O4'	23:BA:1928:A:H2	2.02	0.43
38:DP:14:TYR:N	38:DP:14:TYR:CD1	2.83	0.43
51:D3:13:CYS:HB2	51:D3:22:ALA:HB3	2.01	0.43
23:BA:1718:G:N2	23:BA:1742:C:C2	2.86	0.43
18:AR:65:ILE:O	18:AR:69:THR:HG23	2.19	0.43
11:CK:17:GLY:HA3	11:CK:77:MET:SD	2.59	0.43
23:DA:69:C:O2'	23:DA:70:G:H5'	2.19	0.43
46:BX:59:THR:OG1	46:BX:60:PHE:N	2.51	0.43
13:CM:116:THR:O	13:CM:117:VAL:O	2.37	0.43
49:D1:36:VAL:HB	49:D1:37:PRO:HD2	2.01	0.43
53:D5:30:ARG:HA	53:D5:30:ARG:HD3	1.72	0.42
34:DL:115:LEU:CB	34:DL:131:SER:HB2	2.48	0.42
24:BB:79:C:O5'	24:BB:79:C:H6	2.02	0.42
25:BC:70:TRP:O	25:BC:70:TRP:HD1	2.01	0.42
43:DU:17:SER:HB2	43:DU:71:LYS:HD2	2.00	0.42
38:DP:50:ILE:HG22	38:DP:51:ARG:HB3	2.01	0.42
1:AA:1320:C:N4	19:AS:36:ARG:HG3	2.12	0.42
1:CA:501:C:H3'	1:CA:501:C:H6	1.84	0.42
37:BO:88:ASP:O	37:BO:90:GLY:N	2.50	0.42
23:BA:1903:G:OP2	25:BC:241:PRO:HB3	2.19	0.42
23:DA:705:A:C2	23:DA:727:A:H1'	2.53	0.42
23:DA:195:A:OP1	34:DL:46:LYS:HE2	2.19	0.42
32:BJ:154:GLN:O	32:BJ:155:ALA:HB2	2.19	0.42
32:DJ:109:PRO:HG2	32:DJ:112:LYS:HB2	2.00	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:386:C:H2'	1:CA:387:U:C4'	2.49	0.42
39:BQ:72:HIS:ND1	39:BQ:110:VAL:HG21	2.34	0.42
37:DO:14:VAL:HG21	37:DO:89:ARG:HH21	1.84	0.42
1:CA:394:G:N3	1:CA:395:C:C6	2.87	0.42
30:DH:79:ILE:HB	30:DH:143:SER:O	2.19	0.42
24:DB:46:A:C5	24:DB:47:C:C4	3.07	0.42
25:DC:233:HIS:HE1	25:DC:246:PRO:HA	1.83	0.42
25:DC:246:PRO:HD2	25:DC:255:LYS:HD2	2.01	0.42
44:DV:53:ILE:C	44:DV:53:ILE:HD12	2.40	0.42
1:AA:78:G:H2'	1:AA:79:G:C8	2.54	0.42
23:DA:1210:A:H4'	23:DA:1211:U:O5'	2.19	0.42
23:BA:322:A:P	27:BE:169:ASN:HB2	2.58	0.42
1:CA:1202:G:O2'	14:CN:27:CYS:HB2	2.19	0.42
36:DN:6:SER:OG	36:DN:7:GLY:N	2.51	0.42
24:BB:104:A:O4'	44:BV:29:TYR:CE1	2.68	0.42
1:AA:191(F):U:H2'	1:AA:191(G):G:C8	2.54	0.42
5:CE:126:ARG:NH1	5:CE:126:ARG:HG2	2.22	0.42
23:DA:2748:A:C4	23:DA:2757:A:C6	3.07	0.42
23:BA:1859:A:N6	23:BA:1884:A:C8	2.87	0.42
27:DE:102:PRO:O	27:DE:106:ARG:HG2	2.19	0.42
15:AO:12:ILE:HG21	15:AO:22:THR:HG22	2.00	0.42
23:DA:589:C:H2'	23:DA:590:A:C8	2.54	0.42
23:DA:2790:A:C2	23:DA:2791:C:H2'	2.54	0.42
23:DA:947:G:N3	23:DA:984:A:H2	2.17	0.42
1:AA:1129:C:C1'	1:AA:1130:A:OP2	2.62	0.42
1:CA:197:A:N6	1:CA:221:C:H5'	2.34	0.42
1:CA:68:G:C6	1:CA:69:G:C5	3.07	0.42
36:BN:50:HIS:C	36:BN:50:HIS:CD2	2.92	0.42
23:DA:738:G:H2'	23:DA:739:G:C8	2.54	0.42
1:CA:1060:C:C2	1:CA:1198:G:C2	3.07	0.42
23:BA:2101:G:N2	23:BA:2189:U:C2	2.87	0.42
1:AA:976:G:H8	1:AA:1358:U:H2'	1.83	0.42
23:DA:2188:C:C4	23:DA:2189:U:C6	3.07	0.42
7:CG:126:ASP:HB3	7:CG:131:LYS:O	2.19	0.42
23:BA:1871:A:H2'	23:BA:1872:A:H8	1.80	0.42
44:DV:24:LEU:HB3	44:DV:41:LEU:HG	2.00	0.42
23:BA:333:G:C6	23:BA:334:C:C4	3.07	0.42
34:BL:115:LEU:HA	34:BL:134:ALA:HB2	2.01	0.42
1:CA:570:G:H2'	1:CA:571:U:C6	2.54	0.42
1:CA:861:G:O2'	1:CA:862:C:H5'	2.19	0.42
23:BA:302:C:O2'	23:BA:303:U:H5'	2.19	0.42
1:AA:922:G:C6	1:AA:923:A:N6	2.86	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:542:G:H5'	4:AD:41:GLY:HA3	2.00	0.42
18:AR:44:LEU:HG	18:AR:50:ILE:HD13	2.01	0.42
3:AC:73:PRO:C	3:AC:75:VAL:H	2.22	0.42
23:DA:566:U:H2'	23:DA:567:A:O4'	2.18	0.42
23:BA:570:G:C5	23:BA:2030:A:C2	3.07	0.42
23:BA:758:C:O2	23:BA:1981:A:H2	2.02	0.42
36:DN:52:ILE:HG21	36:DN:94:TYR:CB	2.49	0.42
23:BA:2737:G:C6	23:BA:2738:A:N7	2.86	0.42
10:AJ:6:ILE:HG12	10:AJ:72:VAL:O	2.19	0.42
23:DA:2836:U:H2'	23:DA:2837:G:H8	1.84	0.42
9:AI:95:LYS:HD3	9:AI:95:LYS:C	2.39	0.42
23:DA:958:U:O2'	23:DA:959:A:OP2	2.35	0.42
23:BA:2506:U:H5	23:BA:2507:C:H5	1.60	0.42
23:BA:1991:U:H2'	23:BA:1992:G:C5'	2.48	0.42
23:DA:553:U:O4	23:DA:554:U:O4	2.37	0.42
28:DF:137:GLU:HB3	28:DF:139:LEU:HG	2.01	0.42
23:BA:880:G:H1	23:BA:897:C:N4	2.17	0.42
23:DA:1126:A:O5'	23:DA:1126:A:C8	2.71	0.42
23:BA:2836:U:H2'	23:BA:2837:G:H8	1.84	0.42
28:BF:137:GLU:HB3	28:BF:139:LEU:HG	2.01	0.42
2:AB:17:PHE:CD1	2:AB:44:LEU:HD11	2.54	0.42
23:DA:1625:C:H2'	23:DA:1626:G:O4'	2.19	0.42
40:BR:75:PHE:O	40:BR:75:PHE:CD1	2.72	0.42
10:AJ:30:SER:HB2	10:AJ:80:LYS:HG2	2.01	0.42
32:DJ:32:VAL:CG1	32:DJ:33:GLU:N	2.82	0.42
30:DH:76:THR:HG22	30:DH:141:LYS:CB	2.49	0.42
5:AE:107:ARG:HG2	5:AE:108:ALA:N	2.34	0.42
23:DA:2703:C:C2'	23:DA:2704:C:H5'	2.48	0.42
23:BA:447:A:C4	23:BA:473:G:C8	3.07	0.42
23:DA:1686:C:N4	23:DA:1687:G:C6	2.87	0.42
23:DA:724:U:H2'	23:DA:725:G:O4'	2.18	0.42
23:DA:2552:U:H2'	23:DA:2554:U:OP2	2.19	0.42
44:BV:70:LEU:CD2	44:BV:70:LEU:N	2.82	0.42
1:AA:581:G:O2'	1:AA:582:U:H5'	2.19	0.42
23:DA:876:C:H2'	23:DA:877:U:H5'	2.00	0.42
2:CB:149:LEU:O	2:CB:151:GLY:N	2.51	0.42
23:DA:2450:A:C2	23:DA:2451:A:C4	3.06	0.42
9:CI:30:GLY:O	9:CI:31:GLN:O	2.36	0.42
23:BA:69:C:O2'	23:BA:70:G:H5'	2.19	0.42
1:CA:1383:C:C6	1:CA:1384:C:H5	2.37	0.42
9:CI:127:LYS:O	9:CI:128:ARG:O	2.37	0.42
5:CE:47:LYS:HB2	5:CE:47:LYS:HE3	1.85	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:906:G:O5'	1:AA:906:G:H8	2.01	0.42
7:AG:60:LYS:HD2	7:AG:60:LYS:HA	1.78	0.42
49:B1:48:ILE:H	49:B1:48:ILE:HD12	1.83	0.42
1:AA:347:G:N2	1:AA:348:G:H1'	2.34	0.42
23:DA:2881:C:C2	23:DA:2882:A:C8	3.07	0.42
44:BV:129:SER:OG	44:BV:130:PRO:HD2	2.19	0.42
31:DI:15:GLU:HG3	31:DI:66:LEU:HG	2.00	0.42
34:BL:62:LEU:HD21	53:B5:25:MET:O	2.20	0.42
47:DY:1:MET:O	47:DY:1:MET:SD	2.77	0.42
26:DD:103:ASP:OD2	26:DD:168:MET:HE2	2.18	0.42
34:BL:107:LYS:O	34:BL:109:GLY:N	2.50	0.42
23:BA:805:G:H4'	23:BA:806:C:OP2	2.19	0.42
23:DA:673:C:H4'	27:DE:82:ILE:HD13	2.01	0.42
29:DG:101:ARG:NE	29:DG:101:ARG:N	2.43	0.42
16:CP:20:VAL:HG22	16:CP:21:VAL:N	2.34	0.42
23:DA:2295:C:C4	23:DA:2296:U:H5	2.37	0.42
4:AD:106:TYR:HE1	4:AD:113:SER:HA	1.83	0.42
11:AK:26:ASN:O	11:AK:27:ASN:HB2	2.19	0.42
23:DA:71:A:H4'	23:DA:72:U:H5''	2.00	0.42
13:CM:37:THR:OG1	13:CM:39:ILE:HG12	2.19	0.42
30:DH:114:LEU:HD21	30:DH:128:LEU:HD13	2.00	0.42
36:BN:107:ASP:OD2	36:BN:108:GLY:N	2.52	0.42
23:BA:1591:G:H2'	23:BA:1592:C:C6	2.54	0.42
44:DV:30:ASN:HB3	44:DV:90:VAL:HB	2.00	0.42
17:CQ:51:TYR:CE1	17:CQ:73:VAL:HG11	2.54	0.42
5:CE:139:LEU:O	5:CE:142:LEU:HD12	2.19	0.42
5:CE:65:ASN:O	5:CE:66:MET:HG3	2.20	0.42
23:DA:1284:A:H2'	23:DA:1285:G:O4'	2.18	0.42
48:BZ:40:THR:HG23	48:BZ:43:ILE:CD1	2.49	0.42
46:DX:13:ILE:O	46:DX:13:ILE:HD12	2.19	0.42
4:AD:153:ARG:HD3	4:AD:181:MET:HE3	2.00	0.42
20:CT:57:ARG:HH12	20:CT:102:GLY:HA2	1.75	0.42
35:DM:68:ILE:HG23	35:DM:103:MET:HA	2.01	0.42
18:CR:35:ARG:O	18:CR:37:VAL:N	2.46	0.42
1:CA:583:A:H61	1:CA:758:G:H1'	1.84	0.42
1:AA:1329:A:N7	21:AU:7:ARG:NH2	2.63	0.42
4:CD:159:ARG:HA	4:CD:162:LEU:HB2	2.00	0.42
1:AA:318:G:C2	1:AA:319:G:C5	3.08	0.42
1:AA:1237:C:C5	1:AA:1336:C:C4	3.07	0.42
23:BA:1586:A:H2'	23:BA:1587:A:H5'	2.01	0.42
23:BA:2753:A:C2'	23:BA:2754:U:H5'	2.49	0.42
35:BM:16:ARG:O	35:BM:17:LEU:HD23	2.18	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BT:21:PHE:O	42:BT:23:GLU:O	2.37	0.42
1:CA:1279:A:H62	3:CC:26:LYS:HE2	1.84	0.42
23:BA:8:A:C6	23:BA:9:U:O4	2.72	0.42
30:DH:62:LYS:CB	30:DH:133:HIS:CE1	3.00	0.42
1:AA:616:G:N3	1:AA:625:G:C2	2.88	0.42
28:BF:133:LEU:CD2	28:BF:133:LEU:N	2.83	0.42
42:BT:41:ASN:N	42:BT:41:ASN:HD22	2.17	0.42
23:DA:997:G:H2'	23:DA:998:C:H5'	2.00	0.42
1:AA:197:A:N6	1:AA:221:C:H5'	2.35	0.42
23:BA:1480:G:C2	23:BA:1481:U:C2	3.07	0.42
36:BN:48:VAL:HA	36:BN:51:LEU:HD12	2.02	0.42
23:DA:257:A:C8	23:DA:257:A:H3'	2.54	0.42
25:BC:182:LEU:HB3	25:BC:271:ILE:HG13	2.01	0.42
1:AA:710:G:C4	1:AA:711:G:C8	3.07	0.42
23:BA:2591:C:H2'	23:BA:2592:G:C8	2.54	0.42
23:BA:2471:C:H2'	23:BA:2472:G:O4'	2.18	0.42
50:D2:33:CYS:SG	50:D2:40:LYS:HE3	2.59	0.42
50:D2:40:LYS:HE2	50:D2:46:CYS:HB3	2.01	0.42
23:DA:1434:A:C2	23:DA:1435:G:C4	3.08	0.42
21:AU:22:ARG:HA	21:AU:23:PRO:HD3	1.83	0.42
23:BA:864:G:C6	23:BA:865:C:N4	2.87	0.42
23:DA:2821:A:OP2	36:DN:5:LYS:NZ	2.46	0.42
34:BL:85:LEU:CA	34:BL:88:LEU:HB2	2.45	0.42
23:BA:2640:G:H2'	23:BA:2641:G:O4'	2.19	0.42
36:BN:79:LEU:HA	36:BN:83:ILE:HG13	2.00	0.42
23:BA:2402:C:C3'	23:BA:2403:C:H5'	2.49	0.42
23:BA:1003:G:O2'	23:BA:1010:A:N1	2.45	0.42
12:AL:7:ASN:HA	12:AL:10:VAL:HG23	2.00	0.42
35:DM:45:GLN:H	35:DM:45:GLN:CD	2.21	0.42
1:CA:414:A:C5	1:CA:431:A:C2	3.07	0.42
7:AG:51:GLN:HA	7:AG:54:THR:O	2.18	0.42
51:B3:18:ARG:HH22	51:B3:44:ARG:HB2	1.83	0.42
23:DA:189:G:H1'	23:DA:207:A:H61	1.84	0.42
23:DA:646:A:H5'	23:DA:646:A:N3	2.34	0.42
23:BA:2737:G:C4	23:BA:2738:A:C8	3.07	0.42
23:DA:2019:A:O4'	39:DQ:34:LYS:HD2	2.19	0.42
23:BA:2718:G:C2'	23:BA:2719:G:O5'	2.67	0.42
14:CN:40:CYS:O	14:CN:44:LEU:HB3	2.19	0.42
5:AE:36:ASP:CG	5:AE:37:ARG:N	2.73	0.42
1:CA:1501:C:C6	1:CA:1504:G:N7	2.87	0.42
1:AA:1184:G:C5	1:AA:1185:G:N7	2.87	0.42
1:CA:1360:A:H3'	1:CA:1361:G:C8	2.55	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1464:G:C2'	1:AA:1465:C:H5'	2.48	0.42
23:BA:1443:G:H1	23:BA:1548:C:H42	1.67	0.42
38:BP:82:LEU:N	38:BP:82:LEU:HD23	2.34	0.42
5:CE:36:ASP:CG	5:CE:37:ARG:N	2.72	0.42
23:BA:1005:C:O2'	32:BJ:51:THR:HG21	2.19	0.42
23:BA:2744:G:N2	23:BA:2761:G:C5	2.88	0.42
23:BA:719:C:H6	23:BA:719:C:O5'	2.02	0.42
1:AA:619:U:H2'	4:AD:135:LEU:CD2	2.49	0.42
40:DR:75:PHE:HD1	40:DR:75:PHE:O	2.02	0.42
52:B4:36:GLN:CG	52:B4:36:GLN:O	2.68	0.42
4:CD:190:ASP:O	4:CD:194:LEU:CD2	2.67	0.42
23:BA:2016:U:H1'	50:B2:6:VAL:HG13	2.01	0.42
41:BS:10:VAL:HG23	41:BS:101:SER:O	2.18	0.42
1:CA:102(B):C:N4	1:CA:102(C):C:H41	2.17	0.42
11:AK:99:GLN:OE1	11:AK:99:GLN:HA	2.20	0.42
20:CT:24:LEU:H	20:CT:24:LEU:HD22	1.84	0.42
23:BA:517:C:OP1	50:B2:16:ARG:NH2	2.52	0.42
1:CA:1141:C:H2'	1:CA:1142:G:H8	1.84	0.42
25:BC:147:LEU:HD13	25:BC:155:LEU:CD1	2.50	0.42
1:CA:1366:C:N4	1:CA:1367:C:N4	2.67	0.42
1:CA:1371:G:H5''	9:CI:69:GLY:N	2.33	0.42
2:CB:164:VAL:O	2:CB:186:ALA:HB1	2.19	0.42
23:DA:1971:A:N3	25:DC:241:PRO:HD3	2.35	0.42
23:BA:1019:U:O2'	23:BA:1021:A:C2	2.70	0.42
39:DQ:105:VAL:CG1	40:DR:40:LEU:HD13	2.50	0.42
23:DA:194:G:C2'	23:DA:195:A:H5'	2.49	0.42
32:DJ:112:LYS:O	32:DJ:116:THR:CG2	2.67	0.42
34:BL:49:ARG:HG3	53:B5:60:LEU:CD2	2.47	0.42
25:BC:35:LYS:H	25:BC:36:PRO:HD2	1.84	0.42
47:DY:6:VAL:C	47:DY:10:LEU:HG	2.39	0.42
40:DR:78:LYS:O	40:DR:78:LYS:HG3	2.19	0.42
23:DA:546:C:N4	23:DA:547:A:C6	2.87	0.42
23:BA:1409:C:C2	23:BA:1594:G:N2	2.88	0.42
24:BB:43:C:H2'	24:BB:44:G:H5''	2.01	0.42
29:BG:72:ILE:O	29:BG:75:ALA:N	2.52	0.42
44:BV:48:PHE:CE1	44:BV:52:SER:HA	2.55	0.42
1:AA:191(G):G:O2'	20:AT:102:GLY:O	2.37	0.42
1:AA:1077:G:C2	1:AA:1081:G:C5	3.08	0.42
7:AG:9:VAL:HG12	7:AG:10:ARG:N	2.33	0.42
19:AS:63:THR:HG23	19:AS:65:ASN:N	2.33	0.42
13:AM:4:ILE:HG12	13:AM:10:PRO:HD2	2.00	0.42
1:CA:878:G:C6	1:CA:879:C:N4	2.88	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BN:2:ARG:O	36:BN:3:HIS:CD2	2.72	0.42
33:BK:23:ARG:HG3	33:BK:24:VAL:N	2.33	0.42
23:BA:2809:A:N1	23:BA:2892:A:C4	2.88	0.42
23:DA:1487:G:C2	23:DA:1488:G:C8	3.07	0.42
6:CF:75:LEU:HD21	6:CF:79:LEU:HD11	2.01	0.42
1:AA:668:G:H2'	1:AA:669:U:H6	1.82	0.42
37:BO:51:ALA:HB3	37:BO:73:LEU:HG	2.01	0.42
33:DK:35:VAL:HG23	33:DK:65:THR:CG2	2.42	0.42
23:BA:953:A:C2'	23:BA:954:G:H5'	2.50	0.42
23:BA:1285:G:O6	23:BA:1329:U:C2	2.73	0.42
33:DK:102:VAL:HG21	33:DK:118:ALA:CB	2.49	0.42
1:AA:555:C:C2	1:AA:556:C:C5	3.07	0.42
1:AA:1314:C:H5	19:AS:6:LYS:NZ	2.17	0.42
1:AA:101:A:H2'	1:AA:102:G:H8	1.85	0.42
29:DG:90:LYS:O	29:DG:94:TYR:HB2	2.19	0.42
1:CA:1067:A:N3	1:CA:1068:G:C1'	2.82	0.42
27:DE:205:ARG:C	27:DE:206:ILE:HG13	2.40	0.42
27:BE:34:TRP:CE3	27:BE:35:GLU:HG2	2.53	0.42
23:BA:483:A:H1'	43:BU:47:LYS:O	2.19	0.42
35:DM:66:ILE:HG22	35:DM:104:PHE:HD2	1.79	0.42
44:BV:60:GLU:OE1	44:BV:66:SER:HB3	2.19	0.42
50:D2:35:GLU:HB2	50:D2:49:CYS:SG	2.58	0.42
33:BK:22:ILE:HD13	33:BK:22:ILE:HA	1.46	0.42
23:BA:2208:U:O4'	25:BC:151:LYS:HE3	2.19	0.42
17:AQ:31:LEU:HG	17:AQ:31:LEU:O	2.19	0.42
46:BX:23:LYS:HE2	46:BX:23:LYS:HB3	1.74	0.42
46:BX:23:LYS:HB3	46:BX:37:ILE:CG1	2.49	0.42
27:DE:32:LEU:O	27:DE:36:VAL:HG23	2.19	0.42
23:DA:2467:C:C5'	35:DM:123:HIS:CE1	3.02	0.42
1:CA:564:C:N3	17:CQ:31:LEU:HD11	2.33	0.42
1:AA:1441:G:H5''	1:AA:1442:G:O5'	2.20	0.42
1:CA:1357:A:N6	1:CA:1358:U:H3	2.17	0.42
23:DA:838:C:C4	23:DA:839:U:C5	3.07	0.42
23:DA:564:C:C2'	23:DA:565:C:H5'	2.49	0.42
1:CA:1378:C:C5	1:CA:1379:G:N9	2.87	0.42
2:CB:20:GLU:OE1	2:CB:20:GLU:HA	2.19	0.42
5:CE:140:ARG:CG	5:CE:140:ARG:O	2.66	0.42
23:DA:2861:G:C4	23:DA:2862:G:C8	3.08	0.42
14:CN:26:ARG:HD2	14:CN:47:LEU:HD11	2.00	0.42
23:DA:646:A:C2'	23:DA:647:G:O5'	2.67	0.42
1:AA:21:G:C2	1:AA:22:G:C6	3.07	0.42
23:BA:205:G:O2'	23:BA:206:U:OP2	2.34	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:CR:19:LYS:O	18:CR:20:ALA:CB	2.67	0.42
19:AS:11:VAL:HG22	19:AS:12:ASP:N	2.33	0.42
1:AA:179:A:C5	1:AA:180:U:C4	3.07	0.42
41:DS:45:TYR:HD2	41:DS:46:PHE:CE1	2.37	0.42
23:BA:399:G:H2'	23:BA:400:G:C5'	2.50	0.42
23:DA:2618:G:O2'	26:DD:149:ARG:HG3	2.20	0.42
1:AA:55:A:C5	1:AA:56:U:C5	3.06	0.42
18:CR:53:ARG:HH21	18:CR:60:ALA:N	2.16	0.42
23:DA:1464:C:H2'	23:DA:1465:G:H8	1.84	0.42
7:AG:31:MET:HG3	7:AG:35:LYS:H	1.85	0.42
23:BA:89:G:C5	23:BA:90:U:C5	3.08	0.42
23:BA:1647:G:P	23:BA:1647:G:H3'	2.59	0.42
4:CD:199:ASN:HD22	4:CD:202:LEU:HG	1.83	0.42
23:DA:466:A:C3'	23:DA:467:G:H5'	2.49	0.42
23:DA:450:G:O6	23:DA:453:C:OP1	2.38	0.42
1:AA:134:A:N1	16:AP:25:ARG:NH1	2.67	0.42
1:CA:32:A:C2	1:CA:33:A:C4	3.07	0.42
19:CS:52:TYR:HA	19:CS:56:GLN:O	2.19	0.42
4:CD:189:PRO:CB	4:CD:194:LEU:HD21	2.50	0.42
23:BA:32:C:C2'	23:BA:33:U:H5'	2.49	0.42
39:DQ:53:ARG:HA	39:DQ:56:ASP:HB2	2.02	0.42
23:DA:2523:G:C2'	23:DA:2524:G:H5'	2.49	0.42
23:DA:273(B):G:C2	23:DA:364:C:C2	3.08	0.42
37:DO:78:LEU:C	37:DO:80:LEU:H	2.22	0.42
23:BA:1668:A:C8	23:BA:1674:G:C6	3.07	0.42
23:DA:608:A:C6	23:DA:609(A):A:C6	3.07	0.42
23:BA:443:A:N7	27:BE:45:ARG:HG2	2.34	0.42
23:BA:2666:C:H5''	23:BA:2667:C:OP2	2.18	0.42
1:AA:1217:C:H5''	14:AN:9:LYS:NZ	2.34	0.42
23:DA:1320:C:H4'	23:DA:1321:A:OP1	2.18	0.42
23:BA:1297:C:H2'	23:BA:1298:C:H6	1.83	0.42
1:CA:1213:A:O2'	1:CA:1215:G:N7	2.47	0.42
2:AB:60:ASP:O	2:AB:64:ARG:CG	2.68	0.42
1:AA:135:C:H2'	1:AA:136:C:H5'	2.01	0.42
23:DA:1461:G:C2'	23:DA:1462:C:H5'	2.50	0.42
1:CA:680:C:H2'	1:CA:681:C:C6	2.54	0.42
48:BZ:12:PRO:O	48:BZ:14:GLY:N	2.52	0.42
41:DS:63:ASP:OD2	41:DS:63:ASP:C	2.58	0.42
13:AM:98:VAL:HG12	13:AM:98:VAL:O	2.20	0.42
36:DN:34:ILE:HD13	36:DN:34:ILE:HA	1.83	0.42
7:AG:75:VAL:HG23	7:AG:75:VAL:O	2.19	0.42
29:BG:103:LEU:HG	29:BG:103:LEU:O	2.18	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CF:2:ARG:HG3	6:CF:2:ARG:H	1.69	0.42
8:CH:37:ARG:O	8:CH:37:ARG:HG2	2.18	0.42
35:DM:112:GLU:H	35:DM:112:GLU:CD	2.23	0.42
22:AV:6179:U:H2'	22:AV:6180:U:C6	2.55	0.42
48:DZ:55:ARG:HD3	48:DZ:55:ARG:HA	1.50	0.42
23:DA:2393:A:C5'	34:DL:62:LEU:HD12	2.41	0.42
25:BC:147:LEU:HD12	25:BC:147:LEU:HA	1.77	0.42
32:DJ:54:ALA:O	32:DJ:57:LEU:N	2.52	0.42
1:AA:363:A:N6	1:AA:364:A:C6	2.87	0.42
27:DE:68:LYS:HG3	27:DE:68:LYS:O	2.19	0.42
23:BA:2342:C:O2	23:BA:2374:C:H4'	2.19	0.42
23:DA:1191:G:OP1	34:DL:35:HIS:CE1	2.72	0.42
23:DA:1970:A:H4'	23:DA:1971:A:OP1	2.19	0.42
24:DB:83:G:N2	24:DB:84:C:H1'	2.33	0.42
32:DJ:89:LYS:O	32:DJ:91:GLU:N	2.52	0.42
1:CA:376:G:C2	1:CA:389:A:C2	3.07	0.42
39:BQ:79:PHE:CE2	39:BQ:106:PHE:CE1	3.07	0.42
40:BR:4:ILE:CD1	40:BR:13:ARG:HA	2.49	0.42
23:DA:2727:G:C2	23:DA:2728:U:C5	3.07	0.42
25:DC:181:GLU:HA	25:DC:272:ALA:CB	2.49	0.42
4:CD:104:VAL:CG1	4:CD:146:ILE:HG21	2.50	0.42
30:DH:82:ARG:CA	30:DH:89:TYR:HB2	2.49	0.42
8:CH:125:ARG:O	8:CH:128:GLY:N	2.51	0.42
23:DA:1188:U:H2'	23:DA:1189:A:O5'	2.19	0.42
26:BD:52:LEU:O	26:BD:75:VAL:HA	2.19	0.42
23:DA:1210:A:C8	23:DA:1210:A:H5'	2.52	0.42
4:CD:29:PRO:O	4:CD:30:LYS:HB3	2.18	0.42
47:DY:53:LEU:O	47:DY:56:GLN:HB2	2.19	0.42
44:BV:72:ARG:HD3	44:BV:72:ARG:HA	1.78	0.42
41:BS:8:ARG:NH1	41:BS:9:TYR:HE2	2.16	0.42
1:AA:1085:U:C6	1:AA:1094:G:N1	2.88	0.42
10:AJ:32:ALA:HB3	10:AJ:76:ASN:CB	2.38	0.42
29:DG:44:VAL:CG1	29:DG:45:VAL:H	2.24	0.42
1:CA:585:G:C2'	1:CA:586:C:H5'	2.50	0.42
23:BA:2304:G:H5'	23:BA:2305:A:OP2	2.19	0.42
1:CA:1205:U:H1'	3:CC:195:VAL:CG2	2.50	0.42
1:CA:721:G:O4'	1:CA:722:A:C4	2.73	0.42
23:DA:1504:C:O2'	23:DA:1505:C:H6	2.02	0.42
23:DA:1510:A:C2	23:DA:1511:A:C4	3.08	0.42
25:BC:120:GLY:HA2	25:BC:121:PRO:HD3	1.79	0.42
1:AA:725:G:C4	1:AA:726:C:C5	3.07	0.42
23:DA:2776:A:C2	23:DA:2778:A:C4	3.07	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:1372:U:H2'	23:BA:1373:A:H8	1.85	0.42
19:AS:7:LYS:HB2	19:AS:7:LYS:HE3	1.84	0.42
23:DA:1359:A:N7	23:DA:1372:U:C4	2.87	0.42
1:CA:556:C:O2	1:CA:557:G:C8	2.71	0.42
32:DJ:69:VAL:CG1	32:DJ:71:MET:HG3	2.45	0.42
30:BH:8:PRO:HD3	30:BH:15:VAL:CG2	2.50	0.42
23:BA:1475:G:C2	23:BA:1476:C:C2	3.08	0.42
23:BA:1434:A:C5	23:BA:1560:G:N2	2.87	0.42
23:DA:2285:C:H5	51:D3:27:LYS:HZ2	1.68	0.42
11:CK:21:ILE:HD13	11:CK:84:VAL:HG12	2.02	0.42
23:DA:1517:G:C2	23:DA:1518:C:C2	3.07	0.42
39:DQ:101:ARG:HG3	39:DQ:101:ARG:H	1.70	0.42
23:BA:582:G:H2'	23:BA:583:G:C8	2.54	0.42
1:AA:711:G:N2	1:AA:712:A:C4	2.87	0.42
33:BK:32:TYR:CD1	33:BK:32:TYR:N	2.87	0.42
24:DB:48:A:H2'	24:DB:49:C:C6	2.54	0.42
17:AQ:32:TYR:O	17:AQ:34:LYS:N	2.49	0.42
23:DA:2101:G:C6	23:DA:2102:U:C4	3.06	0.42
44:DV:74:VAL:HG22	44:DV:86:VAL:CG1	2.49	0.42
23:BA:1775:U:C2'	23:BA:1776:G:O5'	2.67	0.42
41:DS:25:ARG:NH1	41:DS:25:ARG:HB2	2.34	0.42
23:BA:828:U:H4'	23:BA:831:G:C2	2.55	0.42
1:AA:1342:C:O3'	9:AI:125:TYR:HB3	2.19	0.42
23:BA:991:C:C6	23:BA:1185:C:N3	2.86	0.42
1:CA:939:G:N1	1:CA:940:C:N4	2.67	0.42
3:CC:83:ARG:O	3:CC:86:VAL:HG22	2.19	0.42
13:CM:79:LYS:HB2	13:CM:79:LYS:HE3	1.78	0.42
23:BA:2433:A:H5''	23:BA:2434:A:OP2	2.18	0.42
13:AM:24:GLY:HA2	13:AM:70:LEU:HD13	2.01	0.42
18:AR:74:ARG:HB2	18:AR:81:PHE:CZ	2.55	0.42
28:BF:20:ILE:O	28:BF:24:GLY:HA2	2.19	0.42
7:CG:27:ILE:CD1	7:CG:43:PHE:CD2	3.01	0.42
23:BA:1754:C:P	38:BP:96:ARG:HH12	2.40	0.42
7:AG:27:ILE:CD1	7:AG:43:PHE:CD2	3.03	0.42
1:AA:1328:C:H5''	13:AM:28:ALA:HB3	2.01	0.42
1:AA:505:G:N3	1:AA:506:G:C8	2.88	0.42
39:BQ:17:ILE:HA	39:BQ:20:LEU:CD2	2.50	0.42
6:AF:12:PRO:HB3	6:AF:58:GLY:N	2.34	0.42
7:AG:148:ASN:C	7:AG:150:ALA:N	2.72	0.42
23:DA:2737:G:C4	23:DA:2738:A:C8	3.08	0.42
1:CA:1182:G:H4'	1:CA:1183:A:O5'	2.19	0.42
25:BC:123:ALA:HB1	25:BC:124:PRO:HD2	2.02	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BB:116:G:O5'	24:BB:116:G:H8	2.02	0.42
19:CS:12:ASP:O	19:CS:16:LEU:HD13	2.20	0.42
1:AA:179:A:C6	1:AA:180:U:C4	3.08	0.42
1:AA:1048:G:OP1	14:AN:4:LYS:HB2	2.19	0.42
41:BS:5:ALA:HB2	41:BS:54:ALA:HA	2.00	0.42
19:CS:40:ILE:CD1	19:CS:62:ILE:HD11	2.50	0.42
9:AI:81:ILE:O	9:AI:85:LEU:HG	2.19	0.42
1:CA:497:U:C2'	1:CA:497:U:O2	2.66	0.42
1:AA:778:G:O2'	11:AK:120:ARG:O	2.30	0.42
23:BA:2024:G:H2'	23:BA:2025:C:H6	1.85	0.42
1:CA:292:G:N7	1:CA:293:G:H1'	2.34	0.42
10:AJ:30:SER:HB2	10:AJ:80:LYS:HG3	2.00	0.42
44:BV:76:LEU:HD12	44:BV:76:LEU:H	1.83	0.42
38:BP:50:ILE:HD12	38:BP:50:ILE:HA	1.83	0.42
1:AA:1402:C:C5	1:AA:1403:C:C4	3.07	0.42
30:BH:9:LEU:HB3	30:BH:12:LEU:HD23	2.01	0.42
1:AA:1272:G:H2'	1:AA:1273:G:H8	1.84	0.42
23:BA:768:G:C4	23:BA:769:G:C8	3.08	0.42
37:DO:30:ARG:HB3	37:DO:35:ILE:HD12	2.02	0.42
30:DH:37:VAL:CG1	30:DH:38:LEU:N	2.83	0.42
23:DA:2248:C:C2'	23:DA:2249:U:H5'	2.49	0.42
1:AA:604:G:N7	1:AA:605:U:C5	2.87	0.42
36:DN:36:THR:HG23	36:DN:41:ALA:HB2	2.01	0.42
1:AA:1001:G:H2'	1:AA:1002:G:O4'	2.18	0.42
17:AQ:76:LEU:HD12	17:AQ:77:VAL:H	1.84	0.42
1:CA:27:G:H2'	1:CA:28:G:O4'	2.19	0.42
11:AK:50:TYR:O	11:AK:51:LYS:HG3	2.19	0.42
23:BA:1225:G:OP1	40:BR:86:GLY:HA3	2.20	0.42
48:DZ:3:ARG:NH1	48:DZ:59:VAL:HG11	2.34	0.42
39:DQ:73:GLY:O	39:DQ:74:LEU:HB3	2.19	0.42
5:CE:26:PHE:N	5:CE:26:PHE:CD1	2.87	0.42
23:DA:2501:C:H6	23:DA:2501:C:H2'	1.68	0.42
2:AB:169:LYS:C	2:AB:169:LYS:HE2	2.39	0.42
16:CP:69:THR:OG1	16:CP:69:THR:O	2.37	0.42
42:BT:8:ILE:N	42:BT:8:ILE:HD12	2.34	0.42
22:CV:6212:U:O2	22:CV:6212:U:H2'	2.18	0.42
23:DA:1049:C:O2	23:DA:1113:U:H4'	2.19	0.42
1:CA:792:A:H4'	1:CA:793:U:O5'	2.19	0.42
16:AP:64:ALA:O	16:AP:65:GLN:C	2.58	0.42
34:DL:112:LEU:HD22	34:DL:127:ALA:CB	2.50	0.42
23:BA:2496:C:OP1	35:BM:81:VAL:HG12	2.19	0.42
35:DM:81:VAL:C	35:DM:82:ARG:HG2	2.32	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DD:11:MET:CE	26:DD:186:GLY:HA2	2.48	0.42
32:BJ:126:VAL:O	32:BJ:127:LYS:C	2.58	0.42
23:BA:2267:A:H5''	23:BA:2268:A:H5''	1.95	0.42
9:CI:112:LYS:HE3	9:CI:116:LYS:O	2.20	0.42
38:BP:51:ARG:CD	38:BP:62:THR:HG23	2.48	0.42
51:B3:25:LYS:HD3	53:B5:34:TRP:HZ3	1.83	0.42
23:BA:2392:A:OP2	53:B5:31:HIS:HE1	2.03	0.42
32:BJ:142:ARG:HH11	32:BJ:142:ARG:CG	2.21	0.42
23:DA:197:A:N6	23:DA:2430:A:H2'	2.34	0.42
3:AC:18:TRP:O	3:AC:19:GLU:C	2.57	0.42
53:B5:60:LEU:O	53:B5:61:LEU:C	2.57	0.42
26:BD:34:VAL:HG11	26:BD:78:LEU:CD1	2.49	0.42
23:DA:1493:C:N4	23:DA:2210:G:O2'	2.53	0.42
23:BA:2712:U:HO2'	23:BA:712(B):A:H5''	1.83	0.42
26:DD:2:LYS:CE	26:DD:95:ILE:O	2.65	0.42
24:BB:73:A:C5	24:BB:104:A:N3	2.88	0.42
24:BB:10:C:N4	24:BB:11:C:N4	2.68	0.42
24:BB:13:A:N6	24:BB:70:C:H5'	2.35	0.42
5:AE:78:HIS:N	5:AE:78:HIS:ND1	2.68	0.42
4:AD:196:LEU:C	4:AD:198:VAL:H	2.22	0.42
25:BC:223:GLY:HA3	25:BC:231:HIS:ND1	2.34	0.42
37:DO:51:ALA:HB3	37:DO:73:LEU:HG	2.02	0.42
26:DD:59:VAL:C	26:DD:61:ARG:N	2.73	0.42
23:BA:2542:A:O2'	23:BA:2543:G:OP2	2.31	0.42
52:B4:19:ARG:CB	52:B4:19:ARG:NH1	2.83	0.42
1:CA:1309:G:N2	1:CA:1329:A:H1'	2.32	0.42
11:CK:26:ASN:O	11:CK:27:ASN:HB2	2.19	0.42
1:AA:57:G:H2'	1:AA:58:C:O4'	2.20	0.42
3:CC:195:VAL:CG1	3:CC:196:LEU:N	2.65	0.42
23:BA:2722:G:H2'	23:BA:2723:C:C6	2.55	0.42
23:BA:1999:C:OP1	23:BA:2723:C:O2'	2.36	0.42
46:BX:46:LEU:HD23	46:BX:46:LEU:O	2.19	0.42
23:BA:2396:G:C2	23:BA:2421:G:C2	3.07	0.42
23:BA:2755:C:O2'	23:BA:2756:U:H6	2.02	0.42
23:BA:1504:C:O2'	23:BA:1505:C:C6	2.72	0.42
11:CK:40:ILE:HG22	11:CK:75:TYR:CD2	2.54	0.42
24:DB:10:C:N4	24:DB:11:C:N4	2.67	0.42
4:AD:79:PHE:CD1	4:AD:207:TYR:HD1	2.38	0.42
1:CA:627:G:H2'	1:CA:628:G:H8	1.84	0.42
34:BL:70:GLN:O	34:BL:73:GLY:N	2.52	0.42
36:BN:51:LEU:HD22	36:BN:70:LEU:HD11	2.00	0.42
23:BA:581:C:H2'	23:BA:582:G:C8	2.53	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:711:G:N2	1:AA:712:A:N3	2.67	0.42
23:DA:497:A:C5	23:DA:498:G:C8	3.07	0.42
43:DU:20:TYR:CD1	43:DU:20:TYR:N	2.87	0.42
32:BJ:135:LEU:O	32:BJ:136:GLY:C	2.56	0.42
23:DA:581:C:H2'	23:DA:582:G:C8	2.55	0.42
1:CA:516:U:C5	1:CA:517:G:O6	2.72	0.42
1:CA:538:G:O2'	1:CA:539:A:H5'	2.20	0.42
9:AI:125:TYR:CD1	9:AI:126:SER:N	2.87	0.42
1:CA:1232:U:N3	1:CA:1233:G:C8	2.87	0.42
1:AA:651:C:O2'	1:AA:652:U:H5'	2.20	0.42
23:BA:442:G:O4'	27:BE:46:ARG:HD3	2.19	0.42
13:AM:24:GLY:CA	13:AM:70:LEU:HD13	2.49	0.42
1:AA:909:A:H3'	1:AA:910:C:C6	2.55	0.42
19:CS:29:ARG:HB2	19:CS:48:THR:H	1.85	0.42
27:DE:112:MET:HA	27:DE:115:ALA:HB3	2.01	0.42
23:DA:957:A:N6	23:DA:2459:A:C8	2.88	0.42
1:AA:538:G:O2'	1:AA:539:A:H5'	2.19	0.42
23:BA:2617:C:O2'	23:BA:2618:G:H5'	2.18	0.42
1:AA:1210:C:H4'	1:AA:1214:C:C5	2.54	0.42
23:DA:1223:G:C6	23:DA:1227:G:C6	3.08	0.42
23:DA:1445:C:C2	23:DA:1446:C:H5	2.37	0.42
7:CG:78:ARG:HH11	7:CG:154:TYR:HB3	1.83	0.42
37:BO:30:ARG:HD2	37:BO:30:ARG:C	2.39	0.42
23:BA:646:A:C2'	23:BA:647:G:O5'	2.68	0.42
32:BJ:32:VAL:CG1	32:BJ:33:GLU:N	2.83	0.42
35:BM:34:LEU:HD11	35:BM:129:THR:HB	2.02	0.42
1:AA:619:U:C2	4:AD:135:LEU:HD21	2.54	0.42
1:CA:149:A:H8	1:CA:149:A:O5'	2.03	0.42
23:BA:1928:A:H5''	23:BA:1929:G:OP2	2.20	0.42
23:BA:1864:U:OP1	23:BA:2410:G:O2'	2.36	0.42
26:BD:3:GLY:HA3	26:BD:81:ILE:HG21	2.02	0.42
23:BA:2690:C:OP2	36:BN:14:SER:HB3	2.19	0.42
23:DA:723:G:C6	23:DA:724:U:C4	3.07	0.42
15:AO:70:LEU:HD11	15:AO:77:ARG:HG3	2.02	0.42
30:DH:30:LEU:O	30:DH:31:LEU:C	2.58	0.42
16:CP:81:ARG:HD3	16:CP:83:GLU:OE1	2.19	0.42
23:DA:2666:C:H5''	23:DA:2667:C:OP2	2.19	0.42
52:B4:30:VAL:O	52:B4:34:ARG:HG2	2.19	0.42
23:DA:2088:G:H2'	23:DA:2089:U:O4'	2.20	0.42
23:DA:11:G:H2'	23:DA:12:U:O4'	2.19	0.42
51:B3:14:THR:HG22	51:B3:51:GLU:O	2.20	0.42
44:DV:10:ARG:HH21	44:DV:26:GLY:H	1.65	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:1958:C:C2'	23:BA:1959:G:H5'	2.50	0.42
10:CJ:61:GLU:OE2	14:CN:45:ARG:NH1	2.51	0.42
11:CK:50:TYR:O	11:CK:51:LYS:HG3	2.20	0.42
3:CC:48:TYR:O	3:CC:51:GLY:N	2.52	0.42
1:CA:1027:C:H2'	1:CA:102(A):C:O4'	2.19	0.42
26:BD:64:LYS:HA	26:BD:64:LYS:HD2	1.85	0.42
2:CB:221:LEU:HD22	2:CB:221:LEU:HA	1.85	0.42
1:AA:1015:A:O5'	1:AA:1015:A:H8	2.03	0.42
42:DT:54:VAL:C	42:DT:55:ASN:HD22	2.21	0.42
23:BA:876:C:H2'	23:BA:877:U:H5'	2.01	0.42
24:DB:109:G:H2'	24:DB:110:G:H8	1.85	0.42
23:BA:631:A:OP2	53:B5:47:LYS:NZ	2.39	0.42
1:AA:969:A:OP1	10:AJ:55:LYS:NZ	2.52	0.42
25:BC:10:THR:CG2	25:BC:13:ARG:HB3	2.23	0.42
27:DE:63:LYS:CE	27:DE:67:GLN:HB3	2.49	0.42
23:BA:2293:C:H2'	23:BA:2294:C:C6	2.54	0.42
23:BA:1021:A:N6	23:BA:1141:U:C2	2.88	0.42
23:DA:1158:C:H2'	23:DA:1159:U:H5'	2.01	0.42
39:DQ:95:LEU:C	39:DQ:97:ASP:H	2.23	0.42
34:DL:47:ASP:CB	34:DL:51:PHE:CB	2.98	0.42
30:BH:123:LEU:HD11	30:BH:145:VAL:OXT	2.19	0.42
23:DA:2293:C:H2'	23:DA:2294:C:C6	2.55	0.42
1:AA:375:U:H2'	1:AA:376:G:H5'	2.01	0.42
25:DC:145:VAL:HB	25:DC:155:LEU:HB2	2.01	0.42
23:DA:676:A:N1	23:DA:802:A:N1	2.67	0.42
4:AD:100:ARG:NH2	4:AD:118:ARG:NH1	2.63	0.42
12:AL:118:LYS:C	12:AL:119:TYR:CD1	2.93	0.42
4:CD:64:LEU:HD11	4:CD:97:LEU:CD1	2.50	0.42
42:DT:28:PHE:HE1	42:DT:81:VAL:HG22	1.84	0.42
16:AP:28:ARG:HG2	16:AP:28:ARG:NH1	2.11	0.42
23:BA:94:G:C2	47:BY:47:ASN:ND2	2.88	0.42
20:CT:22:ARG:O	20:CT:26:ASN:ND2	2.52	0.42
25:DC:244:ARG:HB2	25:DC:245:PRO:HD3	2.02	0.42
24:BB:42:C:O2	28:BF:93:THR:N	2.47	0.42
4:AD:108:LEU:O	4:AD:110:PHE:CD2	2.72	0.42
24:DB:70:C:H2'	24:DB:71:C:C6	2.45	0.42
26:BD:59:VAL:C	26:BD:61:ARG:N	2.71	0.42
23:DA:138:G:O2'	23:DA:139:G:H5'	2.19	0.42
39:DQ:54:LYS:O	39:DQ:55:ARG:C	2.57	0.42
5:CE:76:ILE:HG23	5:CE:78:HIS:H	1.84	0.42
44:BV:92:SER:HB2	44:BV:94:GLU:OE1	2.19	0.42
1:AA:1104:G:N3	1:AA:1105:A:C8	2.87	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:41:G:C6	1:CA:42:G:C5	3.07	0.42
23:BA:2306:C:C4	23:BA:2311:A:N6	2.87	0.42
47:DY:50:ILE:O	47:DY:51:ARG:C	2.57	0.42
23:BA:1495:A:C4	23:BA:1496:A:C2	3.07	0.42
25:BC:24:ILE:HD13	25:BC:84:TYR:HB2	2.00	0.42
1:CA:709:G:O2'	1:CA:710:G:H5'	2.20	0.42
24:DB:9:G:C6	24:DB:10:C:C4	3.07	0.42
23:BA:390:A:N6	34:BL:71:VAL:HG22	2.35	0.42
36:DN:99:LYS:HG2	50:D2:43:HIS:O	2.19	0.42
23:DA:285:C:H2'	23:DA:286:C:C6	2.55	0.42
44:BV:39:VAL:HG21	44:BV:44:PHE:CD2	2.55	0.42
7:AG:126:ASP:HB3	7:AG:131:LYS:O	2.18	0.42
18:CR:70:ILE:HG23	18:CR:79:LEU:CD1	2.49	0.42
9:CI:114:TYR:HD1	10:CJ:60:ARG:HG2	1.84	0.42
38:DP:105:LEU:HD23	38:DP:105:LEU:HA	1.72	0.42
17:CQ:10:VAL:CG1	17:CQ:53:LEU:HA	2.50	0.42
23:BA:912:C:C2	23:BA:913:U:C5	3.08	0.42
1:CA:1206:G:O4'	3:CC:194:GLY:N	2.53	0.42
40:BR:93:GLU:O	40:BR:94:LEU:HD23	2.20	0.42
23:DA:988:A:C5	48:DZ:13:ILE:HD12	2.55	0.42
1:CA:1022:G:C4	1:CA:1023:G:N7	2.88	0.42
41:BS:66:GLU:O	41:BS:68:ARG:N	2.52	0.42
51:D3:30:THR:CG2	51:D3:31:PRO:HD2	2.48	0.42
1:AA:587:G:C2	1:AA:755:G:C5	3.07	0.42
23:BA:17:G:H2'	23:BA:18:C:H6	1.85	0.42
1:AA:565:U:C5	1:AA:566:G:C5	3.08	0.42
1:CA:382:A:H2'	1:CA:383:A:H8	1.84	0.42
23:BA:1833:U:H2'	23:BA:1834:U:H5'	2.01	0.42
44:BV:9:TYR:CE1	44:BV:61:LEU:HD13	2.54	0.42
1:AA:160:A:H1'	1:AA:344:A:N7	2.35	0.42
23:BA:2465:C:C2	23:BA:2486:G:C2	3.07	0.42
23:DA:2436:G:C4	23:DA:2437:U:C5	3.07	0.42
23:BA:1517:G:C2	23:BA:1518:C:C2	3.07	0.42
1:AA:180:U:C2'	1:AA:181:G:H5'	2.49	0.42
1:AA:303:A:H2'	1:AA:304:U:O4'	2.19	0.42
23:BA:496:G:C1'	41:BS:61:ASN:HD21	2.31	0.42
14:AN:7:ILE:HD12	14:AN:8:GLU:N	2.34	0.42
1:AA:439:A:C8	1:AA:440:A:C8	3.08	0.42
23:DA:963:U:H2'	23:DA:964:C:C6	2.54	0.42
4:CD:53:ASP:OD2	5:CE:107:ARG:HD2	2.20	0.42
9:CI:81:ILE:O	9:CI:85:LEU:HG	2.19	0.42
1:AA:761:G:C5	1:AA:762:C:C5	3.08	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CJ:30:SER:HB2	10:CJ:80:LYS:HG2	2.00	0.42
29:DG:38:SER:OG	29:DG:39:PRO:HD2	2.19	0.42
51:B3:11:LEU:HG	51:B3:26:ASN:HB2	2.01	0.42
1:CA:32:A:C6	1:CA:33:A:C6	3.07	0.42
23:BA:1465:G:C2	23:BA:1466:G:N9	2.88	0.42
1:AA:149:A:H2'	1:AA:150:C:H6	1.84	0.42
4:AD:199:ASN:HD22	4:AD:202:LEU:HG	1.83	0.42
23:DA:1665:A:H2'	23:DA:1666:G:O4'	2.20	0.42
8:CH:107:LEU:H	8:CH:107:LEU:HD23	1.84	0.42
36:DN:65:LEU:HD12	36:DN:65:LEU:HA	1.40	0.42
52:D4:18:PHE:CD2	52:D4:18:PHE:C	2.93	0.42
23:BA:2017:U:O2	50:B2:10:LYS:HB2	2.20	0.42
23:DA:876:C:C2'	23:DA:877:U:H5'	2.50	0.42
23:DA:869:G:H2'	23:DA:870:A:H8	1.85	0.42
23:DA:1421:G:C2	23:DA:1422:G:C8	3.08	0.42
23:DA:1480:G:C2	23:DA:1481:U:C2	3.07	0.42
49:B1:36:VAL:HB	49:B1:37:PRO:HD2	2.02	0.42
8:CH:68:ARG:HG2	8:CH:69:ARG:N	2.34	0.42
1:CA:568:G:O6	12:CL:4:PRO:HD3	2.19	0.42
23:BA:1049:C:O2	23:BA:1113:U:H4'	2.19	0.42
23:DA:468:G:H5''	27:DE:60:SER:HB2	2.02	0.42
23:DA:1193:G:O2'	23:DA:1194:A:H5'	2.19	0.42
39:BQ:22:LYS:HA	39:BQ:22:LYS:HD3	1.56	0.42
23:BA:1362:C:C6	23:BA:1362:C:H3'	2.54	0.42
23:DA:1769:G:O2'	23:DA:1958:C:OP1	2.26	0.42
30:BH:37:VAL:CG1	30:BH:38:LEU:N	2.82	0.42
23:BA:11:G:H2'	23:BA:12:U:O4'	2.19	0.42
34:DL:62:LEU:HD21	53:D5:25:MET:O	2.18	0.42
43:BU:71:LYS:NZ	43:BU:71:LYS:CB	2.83	0.42
23:BA:860:U:HO2'	23:BA:861:A:H5'	1.80	0.42
45:BW:25:ARG:HD2	45:BW:29:GLN:OE1	2.19	0.42
23:BA:1542:G:H4'	23:BA:1543:A:O4'	2.19	0.42
9:CI:10:ARG:O	9:CI:11:LYS:HB2	2.20	0.42
28:BF:60:LEU:HA	28:BF:63:ILE:CG1	2.49	0.42
22:CV:6193:U:H2'	22:CV:6194:C:H5'	2.02	0.42
23:DA:1190:G:H2'	23:DA:1191:G:C8	2.55	0.42
34:DL:36:LYS:HB3	34:DL:36:LYS:HE3	1.81	0.42
32:BJ:36:TRP:HB2	32:BJ:156:GLN:HB2	2.01	0.42
26:BD:132:HIS:NE2	26:BD:135:HIS:NE2	2.66	0.42
23:BA:1021:A:H3'	23:BA:1022:G:H5''	2.01	0.42
23:BA:114(B):A:N3	23:BA:1144:G:C8	2.87	0.42
42:DT:50:LYS:N	42:DT:87:GLN:HE22	1.92	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DQ:79:PHE:HE2	39:DQ:106:PHE:CE1	2.36	0.42
25:BC:143:HIS:CD2	25:BC:143:HIS:C	2.92	0.42
23:DA:861:A:H2'	23:DA:862:G:O4'	2.19	0.42
39:BQ:95:LEU:O	39:BQ:98:LEU:HG	2.20	0.42
40:BR:47:VAL:HG12	40:BR:49:THR:O	2.20	0.42
23:DA:2682:U:O4	23:DA:2728:U:H1'	2.20	0.42
37:DO:11:LYS:CG	37:DO:12:PHE:N	2.69	0.42
25:DC:143:HIS:CD2	25:DC:144:ALA:CB	2.99	0.42
4:CD:49:ARG:HD2	4:CD:49:ARG:HA	1.76	0.42
1:AA:407:G:H2'	1:AA:408:A:H8	1.84	0.42
4:AD:29:PRO:O	4:AD:30:LYS:HB3	2.19	0.42
23:DA:2713:A:C3'	23:DA:2714:G:C5'	2.98	0.42
23:BA:549:G:H2'	23:BA:550:G:O4'	2.20	0.42
23:BA:1592:C:H2'	23:BA:1593:G:C8	2.53	0.42
1:CA:189:U:C4	17:CQ:72:ARG:NH2	2.88	0.42
45:BW:70:GLN:HG2	45:BW:72:ARG:HG2	2.01	0.42
5:AE:135:THR:O	5:AE:138:ALA:HB3	2.19	0.42
5:AE:41:VAL:O	5:AE:66:MET:HA	2.20	0.42
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.54	0.42
41:DS:75:TYR:CD2	41:DS:104:THR:HB	2.52	0.42
36:DN:59:ASP:N	36:DN:59:ASP:OD2	2.52	0.42
43:DU:81:LYS:HD2	43:DU:96:ILE:HG13	2.01	0.42
43:BU:96:ILE:HD11	43:BU:99:CYS:SG	2.60	0.42
6:CF:33:TYR:HE1	6:CF:75:LEU:HA	1.78	0.42
23:BA:952:G:C6	23:BA:966:G:C6	3.08	0.42
16:CP:71:ARG:C	16:CP:73:LEU:H	2.23	0.42
40:DR:58:VAL:HB	40:DR:98:GLU:HB2	2.01	0.42
1:CA:625:G:C6	1:CA:626:U:C4	3.08	0.42
23:BA:2687:U:N3	23:BA:2688:U:C6	2.86	0.42
23:DA:270(I):C:C2'	23:DA:270(I):C:O2	2.65	0.42
11:AK:38:ASN:HA	11:AK:39:PRO:HD2	1.77	0.42
23:BA:1799:G:O2'	25:BC:181:GLU:OE2	2.37	0.42
28:BF:106:LEU:O	28:BF:111:LEU:HG	2.20	0.42
17:AQ:29:HIS:CE1	17:AQ:32:TYR:HD1	2.37	0.42
23:BA:1006:C:O2'	23:BA:1007:C:H5'	2.19	0.42
1:CA:1443:G:N2	38:DP:119:LYS:CB	2.83	0.42
1:CA:649:G:N3	1:CA:650:G:C8	2.88	0.42
17:CQ:29:HIS:HA	17:CQ:30:PRO:HD2	1.68	0.42
1:CA:731:G:OP1	1:CA:766:A:H1'	2.19	0.42
1:CA:763:G:C4	1:CA:764:C:C5	3.08	0.42
1:CA:939:G:C2	1:CA:940:C:C4	3.08	0.42
36:BN:79:LEU:HD23	36:BN:83:ILE:HG13	2.01	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AM:79:LYS:HB2	13:AM:79:LYS:HE3	1.79	0.42
23:BA:998:C:H2'	23:BA:999:U:O4'	2.19	0.42
23:BA:987:G:C6	23:BA:988:A:C4	3.08	0.42
1:CA:1378:C:H5	1:CA:1379:G:C8	2.38	0.42
7:CG:27:ILE:CD1	7:CG:43:PHE:HD2	2.30	0.42
23:DA:2035:G:H4'	23:DA:2036:C:OP2	2.19	0.42
12:AL:74:HIS:HB2	12:AL:76:LEU:HD23	2.01	0.42
17:AQ:51:TYR:CE1	17:AQ:73:VAL:HG11	2.55	0.42
23:DA:176:G:H2'	23:DA:177:G:H5'	1.99	0.42
35:BM:43:THR:HA	35:BM:94:VAL:HG12	2.02	0.42
8:AH:31:PHE:CE2	8:AH:35:ILE:HD11	2.55	0.42
23:DA:1431:U:H2'	23:DA:1432:C:C6	2.55	0.42
23:DA:2854:G:C4	23:DA:2864:G:N2	2.88	0.42
23:DA:1919:A:H5''	23:DA:1920:C:OP2	2.20	0.42
1:CA:1504:G:H4'	1:CA:1505:G:O4'	2.19	0.42
1:CA:179:A:C5	1:CA:180:U:C4	3.07	0.42
38:BP:112:ARG:HB2	38:BP:112:ARG:HE	1.42	0.42
23:BA:1442:G:C2	23:BA:1443:G:C4	3.08	0.42
1:CA:928:G:C2	1:CA:1390:U:C2	3.06	0.42
1:AA:1048:G:C2	1:AA:1210:C:N3	2.87	0.42
23:DA:1338:G:H2'	23:DA:1339:G:H5'	2.00	0.42
2:AB:212:GLN:HG3	2:AB:235:SER:HB2	2.01	0.42
2:AB:74:LYS:HD3	2:AB:76:GLN:OE1	2.20	0.42
23:DA:234:C:H2'	23:DA:235:U:C6	2.55	0.42
1:CA:166:G:O2'	1:CA:167:G:H5'	2.20	0.42
23:BA:1127:A:H2'	23:BA:1128:A:C5'	2.49	0.42
23:DA:2752:C:C2'	23:DA:2753:A:H5'	2.49	0.42
23:DA:1360:A:C5'	23:DA:1361:G:OP2	2.68	0.42
23:DA:1854:A:H62	23:DA:1888:G:H8	1.68	0.42
32:DJ:58:ARG:HB2	32:DJ:60:LYS:HB2	2.01	0.42
23:DA:374:A:H3'	23:DA:375:C:C6	2.55	0.42
23:BA:259:G:C2	23:BA:260:G:C8	3.07	0.42
23:DA:1984:G:H2'	23:DA:1985:G:O5'	2.20	0.42
52:D4:21:ARG:HB3	52:D4:31:LEU:HD22	2.02	0.42
23:BA:265:A:H1'	23:BA:266:G:O4'	2.19	0.42
23:BA:35:G:H1'	23:BA:454:A:N3	2.35	0.42
23:BA:1278:A:O3'	36:BN:34:ILE:HD12	2.19	0.42
32:BJ:61:HIS:CE1	32:BJ:73:ASP:OD2	2.73	0.42
35:BM:112:GLU:CD	35:BM:112:GLU:H	2.23	0.42
11:CK:99:GLN:HA	11:CK:99:GLN:OE1	2.20	0.42
23:BA:2587:A:H8	23:BA:2587:A:O5'	2.02	0.42
30:DH:35:LEU:N	30:DH:35:LEU:HD23	2.33	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BC:4:LYS:CB	25:BC:4:LYS:NZ	2.82	0.42
1:CA:398:C:H6	1:CA:398:C:O5'	2.03	0.42
11:CK:121:PRO:O	11:CK:122:LYS:O	2.37	0.42
23:DA:595:C:H2'	23:DA:596:G:O4'	2.19	0.42
44:BV:46:LYS:O	44:BV:50:GLN:OE1	2.38	0.42
35:BM:81:VAL:O	35:BM:81:VAL:HG12	2.19	0.42
23:BA:2361:A:H5'	53:B5:27:THR:OG1	2.20	0.42
23:BA:587:C:O2	34:BL:33:ARG:HD3	2.19	0.42
1:CA:1226:C:O2'	13:CM:111:LYS:NZ	2.53	0.42
23:DA:729:G:H5'	23:DA:730:C:H5''	2.01	0.42
4:AD:104:VAL:CG1	4:AD:146:ILE:HG21	2.50	0.42
12:AL:123:LYS:HA	12:AL:124:PRO:HD3	1.93	0.42
25:BC:33:LEU:CD2	25:BC:33:LEU:N	2.81	0.42
23:DA:1813:G:O2'	25:DC:50:THR:HG21	2.19	0.42
23:BA:547:A:C5	23:BA:548:A:C6	3.08	0.42
23:BA:2885:C:H2'	23:BA:2886:G:O5'	2.19	0.42
3:AC:29:TYR:HE1	3:AC:33:LEU:HD22	1.85	0.42
27:BE:167:ALA:O	27:BE:168:ARG:C	2.58	0.42
26:DD:1:MET:HA	26:DD:1:MET:CE	2.50	0.42
24:BB:73:A:C8	24:BB:74:U:C5	3.08	0.42
44:BV:97:GLU:O	44:BV:98:MET:HB3	2.19	0.42
1:AA:15:G:C5	1:AA:16:A:N7	2.88	0.42
48:BZ:26:LEU:HD13	48:BZ:47:VAL:HG22	2.02	0.42
45:BW:66:VAL:O	45:BW:81:VAL:HA	2.19	0.42
27:BE:9:ILE:O	27:BE:9:ILE:HD13	2.19	0.42
44:DV:136:PHE:O	44:DV:137:ILE:HD12	2.19	0.42
44:DV:137:ILE:CD1	44:DV:137:ILE:N	2.83	0.42
1:CA:505:G:O2'	1:CA:506:G:H5'	2.20	0.42
1:CA:448:A:OP2	1:CA:485:G:N2	2.48	0.42
4:CD:108:LEU:CB	4:CD:110:PHE:HE2	2.29	0.42
29:BG:144:VAL:CA	29:BG:147:ASN:HB2	2.48	0.42
35:BM:8:LYS:CG	35:BM:9:TYR:N	2.78	0.42
23:BA:911:A:C2'	35:BM:9:TYR:OH	2.65	0.42
11:AK:92:GLU:CD	11:AK:93:GLN:N	2.73	0.42
35:DM:8:LYS:CG	35:DM:9:TYR:N	2.81	0.42
23:BA:1359:A:N7	23:BA:1372:U:C4	2.87	0.42
40:DR:99:ILE:HD13	40:DR:99:ILE:N	2.34	0.42
25:DC:14:ARG:HG2	25:DC:15:PHE:CD1	2.55	0.42
23:DA:255:A:O2'	23:DA:384:U:OP1	2.34	0.42
11:CK:110:ASP:HB3	18:CR:85:LEU:HB3	2.02	0.42
27:DE:34:TRP:CE3	27:DE:35:GLU:HG2	2.54	0.42
24:DB:77:U:O2'	24:DB:78:A:H5'	2.20	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:CQ:70:ARG:HD2	17:CQ:70:ARG:N	2.35	0.42
23:DA:498:G:C6	23:DA:499:U:C4	3.08	0.42
23:DA:481:G:C2	23:DA:507:A:C4	3.08	0.42
23:DA:1434:A:C5	23:DA:1560:G:N2	2.87	0.42
38:DP:107:ASP:H	38:DP:110:ILE:HG13	1.83	0.42
23:DA:2101:G:N2	23:DA:2189:U:C2	2.88	0.42
23:DA:2188:C:H2'	23:DA:2189:U:C1'	2.50	0.42
35:BM:21:THR:C	35:BM:23:GLY:H	2.22	0.42
1:CA:518:C:C6	1:CA:530:G:N3	2.88	0.42
23:DA:2476:A:N1	23:DA:2477:C:C5	2.87	0.42
17:AQ:59:ILE:HG23	17:AQ:71:PHE:HD1	1.82	0.42
23:DA:2636:U:H2'	23:DA:2637:U:C6	2.55	0.42
23:DA:2662:A:C5	23:DA:2663:G:H1'	2.55	0.42
23:BA:1856:G:C2	23:BA:1887:C:C2	3.08	0.42
6:CF:3:ARG:CG	6:CF:66:GLU:HG2	2.45	0.42
28:DF:173:LEU:HB2	28:DF:180:PHE:HZ	1.84	0.42
6:AF:50:TYR:O	6:AF:50:TYR:CD2	2.73	0.42
6:CF:12:PRO:HB3	6:CF:58:GLY:N	2.35	0.42
23:BA:1862:G:C2	23:BA:1863:G:C5	3.08	0.42
23:BA:2322:A:H3'	23:BA:2323:G:C8	2.48	0.42
23:DA:1946:U:C2	23:DA:1947:C:C5	3.08	0.42
7:CG:23:VAL:CG1	7:CG:43:PHE:HE2	2.33	0.42
1:AA:433:C:C5	1:AA:434:U:H5	2.38	0.42
1:CA:498:A:C4'	1:CA:500:G:OP1	2.67	0.42
40:BR:22:VAL:CG1	40:BR:23:GLU:H	2.33	0.42
1:AA:565:U:C4	1:AA:566:G:C5	3.08	0.42
1:CA:1262:C:C2	1:CA:1263:C:C5	3.08	0.42
23:BA:692:C:C2'	23:BA:693:C:H5'	2.50	0.42
29:BG:169:VAL:O	29:BG:170:ARG:HB2	2.19	0.42
1:CA:44:G:OP2	16:CP:12:LYS:HE3	2.20	0.42
1:AA:685:G:O2'	1:AA:686:U:H5'	2.20	0.42
23:DA:1638:C:H4'	23:DA:2710:C:O2	2.20	0.42
23:BA:1547:C:H2'	23:BA:1548:C:C6	2.52	0.42
1:CA:1386:G:H2'	1:CA:1387:G:H8	1.85	0.42
1:AA:312:C:H2'	1:AA:313:A:C8	2.55	0.42
1:AA:1386:G:H2'	1:AA:1387:G:H8	1.85	0.42
23:BA:459:U:H4'	52:B4:40:TRP:CH2	2.55	0.42
29:DG:121:ILE:O	29:DG:122:THR:HG23	2.20	0.42
1:AA:504:C:H2'	1:AA:504:C:O2	2.19	0.42
23:BA:262:A:C2'	23:BA:263:C:H5'	2.48	0.42
23:BA:1716:U:O2'	23:BA:1717:G:H5'	2.20	0.42
46:DX:48:LYS:HZ3	46:DX:50:ARG:NH1	2.17	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:2583:G:H3'	23:BA:2584:U:C5	2.55	0.42
1:AA:759:A:H2'	1:AA:760:G:H5'	2.02	0.42
1:AA:1384:C:C2	1:AA:1385:G:C8	3.07	0.42
23:BA:1625:C:H2'	23:BA:1626:G:O4'	2.19	0.42
15:CO:70:LEU:HD11	15:CO:77:ARG:HG3	2.01	0.42
23:BA:869:G:H2'	23:BA:870:A:H8	1.84	0.42
1:AA:245:C:O2	1:AA:283:C:N3	2.53	0.42
16:AP:81:ARG:HD3	16:AP:83:GLU:OE1	2.20	0.42
31:BI:15:GLU:HG3	31:BI:66:LEU:HG	2.02	0.42
23:BA:2692:C:H2'	23:BA:2693:A:O4'	2.20	0.42
49:D1:48:ILE:HD12	49:D1:48:ILE:H	1.85	0.42
48:BZ:49:LYS:HA	48:BZ:49:LYS:HD3	1.43	0.42
30:DH:61:ARG:O	30:DH:61:ARG:HG2	2.19	0.42
23:DA:2419:U:OP2	53:D5:41:ILE:CD1	2.67	0.42
34:DL:112:LEU:C	34:DL:112:LEU:HD23	2.40	0.42
34:DL:86:LYS:HB3	34:DL:117:GLU:O	2.19	0.42
26:DD:188:VAL:HG23	26:DD:189:PRO:HD2	2.00	0.42
34:BL:126:VAL:HG23	34:BL:145:PRO:CG	2.50	0.42
1:CA:1371:G:C2	1:CA:1372:U:C2	3.08	0.42
9:CI:15:ALA:HA	9:CI:65:VAL:HA	2.02	0.42
1:AA:946:A:N1	1:AA:1236:A:C2	2.87	0.42
10:AJ:58:ASP:C	10:AJ:60:ARG:H	2.23	0.42
1:AA:1320:C:O2	19:AS:72:GLY:C	2.57	0.42
26:BD:12:THR:O	26:BD:23:VAL:O	2.38	0.42
22:AV:6192:G:H2'	22:AV:6193:U:H6	1.82	0.42
22:CV:6183:G:C6	22:CV:6184:A:C5	3.08	0.42
1:CA:1324:A:O2'	1:CA:136(A):C:H5''	2.19	0.42
23:BA:2846:G:N7	23:BA:2847:U:C5	2.88	0.42
38:BP:57:PHE:C	38:BP:59:THR:H	2.22	0.42
38:BP:73:GLU:OE2	38:BP:103:ARG:NE	2.51	0.42
1:CA:503:C:N3	1:CA:504:C:C5	2.87	0.42
23:BA:2320:A:C5	23:BA:2333:A:C5	3.08	0.42
32:BJ:77:VAL:HG12	32:BJ:78:VAL:N	2.35	0.42
40:BR:77:ALA:O	40:BR:79:VAL:HB	2.20	0.42
40:BR:13:ARG:HG3	40:BR:13:ARG:NH1	2.35	0.42
3:AC:182:ILE:HA	3:AC:202:ILE:O	2.20	0.42
3:CC:120:VAL:HG21	3:CC:137:ALA:CB	2.50	0.42
24:DB:42:C:O2	28:DF:93:THR:N	2.48	0.42
28:DF:5:LEU:O	28:DF:8:LYS:HB3	2.20	0.42
23:BA:546:C:N4	23:BA:547:A:C6	2.88	0.42
47:DY:28:LYS:HA	47:DY:28:LYS:HD3	1.78	0.42
35:BM:141:GLN:OXT	44:BV:53:ILE:O	2.37	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:BF:5:LEU:O	28:BF:8:LYS:HB3	2.20	0.42
1:AA:1072:G:C5	1:AA:1073:U:C4	3.07	0.42
41:DS:75:TYR:C	41:DS:75:TYR:HD2	2.23	0.42
1:CA:406:G:H5''	4:CD:5:ILE:CG2	2.50	0.42
37:DO:84:GLN:O	37:DO:86:ALA:N	2.53	0.42
35:DM:55:VAL:O	35:DM:58:PHE:N	2.53	0.42
1:AA:10:A:O2'	1:AA:11:G:H5'	2.20	0.42
12:CL:43:THR:HA	12:CL:44:PRO:HD3	1.79	0.42
23:BA:528:A:H2'	23:BA:529:A:O5'	2.20	0.42
1:CA:9:G:H5''	5:CE:122:GLU:OE1	2.20	0.42
1:CA:9:G:O2'	1:CA:10:A:H5'	2.19	0.42
1:CA:986:A:C4	1:CA:1220:G:N2	2.88	0.42
5:CE:50:GLU:HB3	5:CE:53:LEU:HD11	2.01	0.42
41:BS:40:ASN:C	41:BS:41:LYS:HG2	2.40	0.42
23:DA:933:A:H2'	23:DA:934:G:O5'	2.20	0.42
1:AA:821:G:C6	1:AA:822:C:N4	2.88	0.42
23:BA:1512:G:C5	23:BA:1513:C:C4	3.08	0.42
31:BI:4:LYS:HG3	31:BI:7:VAL:HB	2.02	0.42
44:DV:151:HIS:HA	44:DV:170:THR:HA	2.02	0.42
40:BR:58:VAL:HB	40:BR:98:GLU:HB2	2.01	0.42
1:CA:29:G:C4	1:CA:30:U:H5	2.38	0.42
23:BA:1478:G:C2	23:BA:1479:G:N7	2.88	0.42
23:DA:9:U:C2	23:DA:2629:A:N6	2.88	0.42
23:DA:256:A:H2'	23:DA:257:A:H5'	1.96	0.42
23:BA:1799:G:C8	25:BC:181:GLU:CD	2.93	0.42
29:BG:92:ILE:HG22	29:BG:93:GLY:H	1.80	0.42
38:DP:88:ILE:CG1	38:DP:89:VAL:N	2.82	0.42
23:BA:1468:C:H2'	23:BA:1469:A:H8	1.84	0.42
35:BM:39:PRO:O	35:BM:40:ALA:HB2	2.20	0.42
44:DV:24:LEU:HD12	44:DV:85:HIS:HA	2.00	0.42
46:DX:23:LYS:HB3	46:DX:37:ILE:HG12	2.01	0.42
23:BA:2641:G:OP1	32:BJ:97:ARG:CD	2.67	0.42
23:DA:1743:G:H2'	23:DA:1746:G:H8	1.85	0.42
1:CA:255:G:O3'	17:CQ:17:LYS:HD3	2.19	0.42
3:CC:73:PRO:C	3:CC:75:VAL:H	2.23	0.42
23:BA:2433:A:H5''	23:BA:2434:A:OP1	2.20	0.42
23:BA:519:U:H5''	41:BS:25:ARG:HH21	1.85	0.42
2:CB:112:VAL:O	2:CB:115:LEU:HB3	2.20	0.42
23:DA:1709:U:N3	23:DA:1750:G:C2	2.88	0.42
23:DA:2350:C:H5''	53:D5:42:ARG:HD3	2.00	0.42
1:AA:1378:C:C5	1:AA:1379:G:N9	2.87	0.42
1:CA:357:G:H2'	1:CA:358:U:H6	1.84	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DH:86:THR:C	30:DH:87:LYS:HG3	2.39	0.42
11:CK:124:LYS:HB3	11:CK:125:PHE:CD1	2.55	0.42
23:DA:270(Q):C:O2'	23:DA:270(R):C:O5'	2.38	0.42
46:BX:68:PRO:O	46:BX:69:LYS:C	2.57	0.42
23:BA:1901:A:C2'	23:BA:1901:A:N3	2.81	0.42
1:AA:465:A:O2'	1:AA:466:G:H5''	2.20	0.42
23:BA:171:G:N3	23:BA:171:G:H2'	2.34	0.42
1:AA:358:U:O2	1:AA:358:U:H2'	2.20	0.42
8:CH:50:ARG:H	8:CH:50:ARG:HD3	1.85	0.42
9:CI:86:VAL:CG2	9:CI:93:ARG:HB2	2.49	0.42
23:DA:1253:A:C3'	23:DA:1254:A:H5'	2.50	0.42
23:BA:1203:G:O6	23:BA:1204:A:N6	2.53	0.42
3:CC:186:PHE:CG	3:CC:187:ALA:N	2.88	0.42
19:CS:46:GLY:HA2	19:CS:61:TYR:OH	2.20	0.42
9:AI:86:VAL:CG2	9:AI:93:ARG:HB2	2.50	0.42
1:AA:827:U:H2'	1:AA:870:U:O4	2.19	0.42
34:DL:100:LEU:HD22	34:DL:100:LEU:N	2.34	0.42
23:DA:1930:G:HO2'	23:DA:1931:U:P	2.43	0.42
23:BA:231:C:C5	23:BA:232:G:C6	3.08	0.42
1:AA:5:U:O2'	1:AA:6:G:C4	2.73	0.42
23:BA:2405:G:O2'	23:BA:2411:A:N6	2.52	0.42
1:AA:897:C:H5''	1:AA:898:G:OP2	2.20	0.42
19:AS:52:TYR:HA	19:AS:56:GLN:O	2.20	0.42
4:AD:189:PRO:CB	4:AD:194:LEU:HD21	2.50	0.42
37:DO:30:ARG:HD2	37:DO:30:ARG:C	2.40	0.42
46:BX:92:LYS:HD2	46:BX:92:LYS:HA	1.92	0.42
23:BA:1581:G:O5'	23:BA:1581:G:H8	2.03	0.42
24:BB:37:C:C5	24:BB:38:C:C4	3.08	0.42
36:BN:34:ILE:HD13	36:BN:34:ILE:HA	1.84	0.42
23:DA:239:U:O2'	23:DA:240:G:H5'	2.20	0.42
23:BA:1835:G:C4	23:BA:1836:C:C5	3.08	0.42
1:CA:1092:A:C8	1:CA:1093:A:N7	2.88	0.42
23:DA:41:C:H2'	23:DA:43:G:O4'	2.20	0.42
24:DB:38:C:H2'	24:DB:39:A:H8	1.84	0.42
25:BC:215:LEU:HD23	25:BC:215:LEU:HA	1.61	0.42
53:B5:4:MET:HG2	53:B5:4:MET:H	1.61	0.42
23:DA:417:C:O5'	23:DA:417:C:H6	2.03	0.42
34:DL:122:PRO:HA	34:DL:141:ALA:O	2.19	0.42
26:DD:103:ASP:OD1	26:DD:169:ASN:N	2.51	0.42
23:DA:1653:G:O6	36:DN:11:ASN:HB2	2.20	0.42
38:DP:47:GLY:C	38:DP:63:VAL:HG12	2.40	0.42
13:AM:106:ASN:HB2	13:AM:107:ALA:H	1.56	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:AV:6188:G:O2'	22:AV:6189:G:H5'	2.20	0.42
23:BA:2845:G:C2	23:BA:2846:G:C5	3.07	0.42
23:BA:2846:G:C8	23:BA:2847:U:C5	3.08	0.42
32:BJ:36:TRP:HB2	32:BJ:156:GLN:CB	2.50	0.42
23:BA:1022:G:C5	23:BA:1140:C:N4	2.88	0.42
34:DL:47:ASP:HB3	34:DL:51:PHE:CB	2.50	0.42
1:AA:376:G:H2'	1:AA:377:G:O5'	2.19	0.42
25:DC:142:VAL:CG2	25:DC:192:THR:O	2.68	0.42
47:BY:28:LYS:HD3	47:BY:28:LYS:HA	1.84	0.42
20:AT:73:HIS:O	20:AT:74:LYS:C	2.59	0.42
25:DC:161:THR:O	25:DC:162:SER:HB2	2.19	0.42
23:BA:139:G:N3	23:BA:141(A):A:N1	2.68	0.42
23:DA:1208:C:C4	23:DA:1209:G:C8	3.08	0.42
5:CE:14:ARG:CZ	5:CE:129:ILE:HD11	2.49	0.42
23:BA:1787:A:N3	23:BA:1787:A:H2'	2.34	0.42
48:BZ:43:ILE:O	48:BZ:47:VAL:HG23	2.20	0.42
2:AB:204:ASN:CG	2:AB:205:ASP:H	2.23	0.42
1:AA:1369:C:O2'	1:AA:1370:G:O4'	2.36	0.42
1:AA:1371:G:N1	1:AA:1372:U:N3	2.68	0.42
9:AI:117:HIS:C	9:AI:118:LYS:HG3	2.40	0.42
9:AI:16:ARG:O	9:AI:63:ILE:HG23	2.20	0.42
44:DV:103:ARG:HG3	44:DV:136:PHE:CD1	2.55	0.42
41:BS:69:LEU:HA	41:BS:108:GLY:O	2.19	0.42
23:DA:317:G:C6	23:DA:318:C:C4	3.07	0.42
5:AE:126:ARG:HG3	5:AE:126:ARG:HH11	1.75	0.42
43:BU:81:LYS:HD3	43:BU:96:ILE:HG13	2.01	0.42
1:CA:825:G:H21	8:CH:11:THR:HG21	1.84	0.42
1:AA:658:G:H5''	15:AO:31:LEU:HD21	2.00	0.42
8:AH:25:ASP:O	8:AH:26:VAL:HG12	2.20	0.42
16:AP:9:PHE:HB2	16:AP:16:HIS:O	2.20	0.42
53:B5:22:VAL:CG2	53:B5:54:GLU:HG3	2.50	0.42
40:BR:34:GLU:O	40:BR:36:PRO:CD	2.63	0.42
13:AM:23:TYR:CE1	13:AM:71:ARG:HD3	2.53	0.42
23:BA:390:A:C6	34:BL:71:VAL:CG2	3.03	0.42
29:BG:77:LYS:HA	29:BG:80:SER:CB	2.47	0.42
29:DG:95:ARG:HH12	29:DG:97:ARG:HE	1.67	0.42
1:CA:751:U:H2'	1:CA:751:U:O2	2.19	0.42
23:BA:1467:C:O2'	23:BA:1468:C:H5'	2.20	0.42
23:DA:278:A:O2'	23:DA:279:C:C1'	2.68	0.42
3:CC:163:ALA:O	3:CC:164:ARG:HB2	2.19	0.42
32:BJ:160:LYS:C	32:BJ:161:LEU:HD23	2.40	0.42
23:DA:1717:G:C5	23:DA:1743:G:N1	2.88	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1076:C:H2'	1:CA:1077:G:H5'	2.02	0.42
23:BA:2350:C:H5''	53:B5:42:ARG:HD3	2.00	0.42
23:DA:817:C:O2'	23:DA:839:U:H5''	2.20	0.42
18:AR:70:ILE:HG23	18:AR:79:LEU:CD1	2.49	0.42
1:CA:936:C:H2'	1:CA:937:A:O4'	2.19	0.42
8:AH:39:LEU:HD13	8:AH:39:LEU:HA	1.72	0.42
2:CB:142:LEU:HG	2:CB:146:GLN:HG3	2.01	0.42
43:BU:68:HIS:ND1	43:BU:70:SER:HB3	2.35	0.42
8:AH:119:LEU:CD1	8:AH:124:ALA:HA	2.50	0.42
8:AH:119:LEU:H	8:AH:119:LEU:HG	1.55	0.42
23:DA:1268:A:C2	23:DA:2013:A:C4	3.08	0.42
1:AA:445:G:C5	1:AA:446:G:N7	2.88	0.42
24:BB:93:C:C2	24:BB:94:C:C5	3.07	0.42
2:AB:143:GLU:O	2:AB:147:LYS:HB2	2.19	0.42
23:DA:2705:A:H2'	23:DA:2706:G:O4'	2.18	0.42
23:DA:1127:A:O2'	23:DA:1128:A:H5''	2.20	0.42
38:DP:82:LEU:HD23	38:DP:82:LEU:N	2.34	0.42
23:BA:2183:C:C2'	23:BA:2183:C:O2	2.67	0.42
19:CS:11:VAL:HG22	19:CS:12:ASP:N	2.34	0.42
24:DB:111:U:H2'	24:DB:112:G:H8	1.84	0.42
23:DA:1203:G:H3'	23:DA:1204:A:H5''	2.01	0.42
1:CA:1166:G:N2	1:CA:1170:A:OP2	2.52	0.42
23:DA:1336:A:H2'	23:DA:1337:G:H8	1.84	0.42
23:DA:2300:G:C6	23:DA:2301:C:C4	3.08	0.42
23:DA:2770:G:H5''	23:DA:2771:C:OP2	2.19	0.42
2:CB:37:ASN:HA	2:CB:37:ASN:HD22	1.68	0.42
1:AA:763:G:C4	1:AA:764:C:C5	3.07	0.42
35:DM:84:GLY:HA3	45:DW:10:THR:HG23	2.01	0.42
51:D3:11:LEU:HG	51:D3:26:ASN:HB2	2.02	0.42
1:AA:165:C:O2'	1:AA:166:G:H5'	2.20	0.42
1:AA:450:G:N7	1:AA:481:G:C6	2.88	0.42
23:DA:1345:C:C2'	23:DA:1346:G:H5'	2.50	0.42
23:BA:1983:C:O2'	23:BA:1984:G:H5'	2.20	0.42
23:BA:2258:C:H4'	23:BA:2259:G:OP2	2.19	0.42
23:BA:1975:G:H2'	23:BA:1976:U:C6	2.55	0.42
1:CA:1340:A:H2'	1:CA:1341:U:O4'	2.20	0.42
15:CO:17:ARG:HB3	15:CO:17:ARG:CZ	2.48	0.42
26:DD:116:VAL:CG1	26:DD:122:PHE:CD2	3.03	0.42
23:DA:663:G:O3'	34:DL:21:ARG:NH1	2.52	0.42
23:BA:1461:G:C2'	23:BA:1462:C:H5'	2.49	0.42
23:BA:1835:G:N3	23:BA:1835:G:H2'	2.35	0.42
1:CA:1419:G:C6	1:CA:1420:C:C4	3.08	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:BZ:48:GLU:O	48:BZ:51:ALA:HB2	2.19	0.42
23:BA:563:G:C4	23:BA:2018:G:C2	3.08	0.42
51:D3:14:THR:HG22	51:D3:51:GLU:O	2.20	0.42
23:BA:449:A:C2'	23:BA:450:G:H5'	2.50	0.42
33:DK:13:ASN:C	33:DK:15:GLY:N	2.73	0.42
23:BA:132:G:C2'	23:BA:133:C:H5'	2.50	0.42
47:BY:32:LEU:HA	47:BY:32:LEU:HD23	1.71	0.42
25:BC:214:TRP:C	25:BC:216:GLY:H	2.21	0.42
35:BM:110:THR:OG1	35:BM:113:GLN:HB2	2.20	0.42
4:CD:58:LEU:HD13	4:CD:59:ARG:N	2.34	0.42
23:DA:2415:G:H4'	34:DL:66:GLY:HA3	1.99	0.41
23:DA:2415:G:O2'	23:DA:2416:C:H5'	2.20	0.41
34:DL:111:ARG:HG3	34:DL:128:HIS:HB2	2.02	0.41
53:B5:23:VAL:HG11	53:B5:47:LYS:HD3	2.01	0.41
23:BA:2415:G:H2'	23:BA:2416:C:C6	2.54	0.41
52:B4:10:ARG:HG3	52:B4:14:LYS:HD2	2.02	0.41
23:BA:1170:G:N2	23:BA:1180:C:N3	2.68	0.41
23:DA:1545:A:O2'	23:DA:1546:A:H5'	2.20	0.41
43:DU:12:THR:HG22	43:DU:13:VAL:N	2.35	0.41
2:AB:154:LEU:C	2:AB:154:LEU:HD22	2.39	0.41
32:DJ:140:PHE:CD2	32:DJ:140:PHE:O	2.73	0.41
2:CB:111:ARG:NH1	2:CB:111:ARG:HA	2.35	0.41
1:CA:978:A:H5''	1:CA:979:C:OP2	2.20	0.41
1:AA:1229:A:H2'	1:AA:1230:C:H6	1.82	0.41
1:AA:953:G:O6	1:AA:1228:C:N4	2.53	0.41
1:CA:363:A:N6	1:CA:364:A:C6	2.88	0.41
23:BA:577:G:O6	23:BA:578:A:N6	2.53	0.41
23:BA:1188:U:C4'	40:BR:79:VAL:HG22	2.50	0.41
25:BC:242:ARG:H	25:BC:242:ARG:HH11	1.67	0.41
23:DA:1121:C:H2'	23:DA:1122:G:O4'	2.19	0.41
23:DA:2727:G:C6	23:DA:2728:U:C5	3.08	0.41
25:DC:67:PHE:HB3	25:DC:153:ALA:H	1.85	0.41
23:DA:2579:C:O4'	26:DD:134:ILE:HG12	2.19	0.41
47:BY:25:VAL:HG21	47:BY:61:LEU:HD13	2.02	0.41
30:DH:114:LEU:HA	30:DH:130:TYR:CD1	2.55	0.41
30:DH:92:VAL:HG22	30:DH:93:THR:O	2.20	0.41
40:DR:77:ALA:C	40:DR:79:VAL:N	2.72	0.41
28:BF:161:THR:CG2	28:BF:172:LEU:HD23	2.48	0.41
23:BA:2884:U:H2'	23:BA:2885:C:H5'	2.02	0.41
44:BV:163:LEU:HD23	44:BV:163:LEU:H	1.84	0.41
1:CA:1070:U:O2	1:CA:1106:G:C2	2.73	0.41
41:BS:9:TYR:N	41:BS:102:HIS:CD2	2.83	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
4:CD:3:ARG:O	4:CD:5:ILE:N	2.52	0.41
45:BW:32:ARG:HA	45:BW:64:ASP:HB3	2.02	0.41
23:DA:2376:A:H2'	23:DA:2377:A:O4'	2.20	0.41
37:DO:23:ARG:HB3	37:DO:24:LEU:HG	2.02	0.41
26:BD:49:LEU:N	26:BD:49:LEU:HD13	2.35	0.41
9:AI:111:ARG:O	9:AI:113:LYS:HE3	2.20	0.41
1:AA:1151:A:OP1	10:AJ:41:PRO:HA	2.19	0.41
12:CL:44:PRO:HG2	12:CL:50:ALA:N	2.35	0.41
23:BA:2842:G:H2'	23:BA:2843:G:O4'	2.20	0.41
23:BA:526:A:O2'	23:BA:2043:C:O2	2.34	0.41
35:BM:6:ARG:HB2	35:BM:6:ARG:HE	1.60	0.41
23:BA:2305:A:H1'	28:BF:135:LEU:O	2.20	0.41
43:BU:81:LYS:CE	43:BU:97:ARG:HD3	2.50	0.41
1:CA:448:A:C4	1:CA:487:A:C2	3.08	0.41
23:BA:1496:A:C8	23:BA:1498:C:C4	3.08	0.41
25:BC:133:LEU:HG	25:BC:189:CYS:O	2.19	0.41
23:DA:2330:G:H1'	45:DW:41:ARG:CB	2.50	0.41
1:CA:350:G:C2'	1:CA:351:G:H5'	2.49	0.41
27:DE:101:LEU:O	27:DE:106:ARG:HD3	2.19	0.41
23:BA:662:G:H5'	34:BL:18:ARG:HA	2.01	0.41
31:DI:4:LYS:HG3	31:DI:7:VAL:HB	2.01	0.41
1:CA:555:C:C2	1:CA:556:C:C5	3.08	0.41
1:AA:67:C:H2'	1:AA:68:G:C8	2.55	0.41
23:DA:1519:G:O2'	23:DA:1520:U:H5'	2.19	0.41
27:DE:204:ASN:C	27:DE:206:ILE:N	2.73	0.41
1:CA:105:G:C5	1:CA:106:C:C5	3.08	0.41
36:DN:99:LYS:HA	36:DN:112:ALA:HB2	2.00	0.41
43:DU:50:ARG:CD	43:DU:51:VAL:H	2.27	0.41
23:DA:1131:G:N2	23:DA:1132:A:N3	2.68	0.41
50:D2:40:LYS:CE	50:D2:46:CYS:HB3	2.50	0.41
43:BU:43:ASN:OD1	43:BU:64:GLU:HA	2.19	0.41
23:DA:865:C:H4'	23:DA:866:A:OP1	2.19	0.41
23:DA:909:A:H2'	23:DA:912:C:H5	1.85	0.41
17:CQ:85:VAL:O	17:CQ:86:GLU:C	2.55	0.41
23:BA:559:G:H22	39:BQ:49:HIS:CD2	2.38	0.41
1:CA:216:G:C6	1:CA:217:C:N4	2.87	0.41
1:CA:1446:A:O2'	1:CA:1447:G:C8	2.73	0.41
6:AF:3:ARG:CG	6:AF:66:GLU:HG2	2.47	0.41
34:BL:86:LYS:HB3	34:BL:117:GLU:O	2.20	0.41
23:BA:637:A:OP1	34:BL:133:SER:CB	2.68	0.41
1:CA:922:G:H4'	5:CE:20:GLN:HA	2.01	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:CE:20:GLN:O	5:CE:23:GLY:O	2.38	0.41
23:BA:1164:G:C5	23:BA:1165:U:C4	3.08	0.41
1:CA:256:U:C2	1:CA:257:G:C8	3.08	0.41
28:DF:173:LEU:HD22	28:DF:178:PHE:CE1	2.55	0.41
1:AA:542:G:H2'	1:AA:543:C:H6	1.85	0.41
4:AD:8:VAL:HG11	4:AD:115:ARG:NH1	2.34	0.41
12:AL:7:ASN:O	12:AL:11:ARG:HG3	2.20	0.41
23:DA:2631:G:C6	23:DA:2632:A:C5	3.08	0.41
23:BA:540:G:C4	23:BA:541:C:C5	3.08	0.41
7:CG:51:GLN:HA	7:CG:54:THR:O	2.20	0.41
23:DA:797:C:O2'	23:DA:798:G:H5'	2.20	0.41
23:BA:2749:A:H4'	29:BG:62:LYS:HB3	2.01	0.41
23:BA:855:G:C6	23:BA:856:C:C4	3.08	0.41
23:BA:2663:G:C5	23:BA:2664:G:N7	2.88	0.41
3:AC:122:GLU:OE2	3:AC:126:ARG:NH2	2.53	0.41
38:DP:84:GLN:HG3	38:DP:85:LYS:CG	2.50	0.41
2:CB:182:ILE:HG22	2:CB:182:ILE:O	2.18	0.41
1:CA:1262:C:OP2	21:CU:25:LYS:HD3	2.20	0.41
39:BQ:20:LEU:H	39:BQ:20:LEU:HD22	1.85	0.41
23:DA:1128:A:N7	23:DA:2489:G:O2'	2.51	0.41
23:DA:2737:G:C6	23:DA:2738:A:N7	2.88	0.41
23:DA:270(Q):C:O2'	23:DA:270(R):C:P	2.78	0.41
23:BA:1526:G:H2'	23:BA:1527:G:C8	2.55	0.41
23:BA:137(A):C:H2'	23:BA:137(A):C:O2	2.19	0.41
1:CA:1399:C:C4	1:CA:1502:A:C2	3.08	0.41
40:DR:15:GLU:HB3	40:DR:16:PRO:HD2	2.02	0.41
18:AR:84:LYS:HG2	18:AR:84:LYS:H	1.33	0.41
5:AE:79:GLU:N	5:AE:79:GLU:CD	2.73	0.41
26:BD:144:ARG:HB3	26:BD:145:LYS:H	1.50	0.41
42:DT:40:LYS:C	42:DT:42:ALA:H	2.23	0.41
23:BA:1444:G:C2	23:BA:1548:C:C2	3.08	0.41
23:DA:2369:A:H2'	23:DA:2370:G:C8	2.55	0.41
1:AA:313:A:H2'	1:AA:314:C:C6	2.55	0.41
1:CA:312:C:H2'	1:CA:313:A:C8	2.54	0.41
23:BA:1773:A:N7	23:BA:1829:A:H1'	2.35	0.41
15:CO:50:HIS:O	15:CO:51:HIS:C	2.57	0.41
14:AN:4:LYS:HD2	14:AN:7:ILE:HD11	2.03	0.41
39:BQ:27:LEU:O	39:BQ:27:LEU:HD23	2.20	0.41
23:BA:1317:A:C6	23:BA:1318:C:N4	2.88	0.41
23:DA:503:A:C4	23:DA:506:G:N7	2.88	0.41
23:BA:2357:U:OP1	45:BW:20:ARG:HD3	2.20	0.41
1:CA:269:C:H2'	1:CA:270:A:H8	1.85	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:74:LYS:HB2	2:AB:74:LYS:HZ2	1.83	0.41
23:BA:2436:G:C4	23:BA:2437:U:C6	3.08	0.41
23:BA:1635:G:H2'	23:BA:1636:C:C6	2.55	0.41
23:DA:465:G:C2	23:DA:466:A:C2	3.08	0.41
32:BJ:30:LYS:O	32:BJ:32:VAL:HG23	2.20	0.41
20:AT:32:ALA:O	20:AT:33:ILE:C	2.58	0.41
23:BA:2063:C:O2	23:BA:2450:A:N1	2.53	0.41
15:CO:3:ILE:HG21	15:CO:34:LEU:HD23	2.01	0.41
23:BA:1983:C:C2'	23:BA:1984:G:H5'	2.50	0.41
42:BT:40:LYS:C	42:BT:42:ALA:N	2.73	0.41
33:BK:6:THR:O	33:BK:20:MET:HA	2.20	0.41
24:DB:95:U:N3	24:DB:96:G:N7	2.67	0.41
1:CA:1384:C:H2'	1:CA:1385:G:H8	1.84	0.41
8:CH:68:ARG:HG2	8:CH:69:ARG:H	1.84	0.41
8:AH:103:VAL:HB	8:AH:108:GLY:C	2.40	0.41
1:CA:1455:G:H2'	1:CA:1459:C:C6	2.55	0.41
23:DA:623:G:H2'	23:DA:624:C:C6	2.56	0.41
33:BK:122:LEU:HD23	33:BK:122:LEU:HA	1.80	0.41
34:BL:77:ARG:HG3	34:BL:77:ARG:O	2.20	0.41
38:DP:16:ARG:HD3	38:DP:16:ARG:HA	1.91	0.41
32:DJ:130:LEU:HD23	32:DJ:130:LEU:HA	1.85	0.41
28:DF:67:LYS:HG3	28:DF:67:LYS:H	1.70	0.41
23:DA:1377:G:H8	23:DA:1377:G:O5'	2.03	0.41
9:AI:30:GLY:O	9:AI:31:GLN:O	2.37	0.41
36:DN:32:GLY:C	36:DN:33:ARG:HD2	2.39	0.41
52:D4:11:LYS:HD2	52:D4:15:THR:HG23	1.99	0.41
25:BC:70:TRP:O	25:BC:70:TRP:CD1	2.72	0.41
23:DA:1173:G:C8	23:DA:1173:G:OP2	2.74	0.41
23:DA:1173:G:H3'	23:DA:1174:A:H5''	2.02	0.41
32:DJ:139:LEU:O	32:DJ:140:PHE:C	2.58	0.41
38:DP:57:PHE:C	38:DP:59:THR:H	2.22	0.41
12:CL:32:ARG:O	12:CL:84:ILE:CD1	2.64	0.41
1:CA:363:A:H5''	12:CL:33:ARG:HB2	2.02	0.41
28:BF:72:ARG:HG2	28:BF:87:PRO:O	2.20	0.41
1:CA:1250:A:H4'	9:CI:68:GLY:N	2.34	0.41
40:DR:4:ILE:HD13	40:DR:13:ARG:HA	2.02	0.41
30:BH:92:VAL:HG22	30:BH:93:THR:O	2.20	0.41
23:BA:993:G:C6	23:BA:994:C:C5	3.08	0.41
37:DO:13:ARG:HG3	37:DO:14:VAL:H	1.85	0.41
37:DO:25:ARG:NH2	37:DO:42:ASP:OD2	2.53	0.41
23:DA:2293:C:H5''	37:DO:89:ARG:HH12	1.85	0.41
16:AP:58:TYR:HE2	16:AP:59:TRP:CZ3	2.39	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BC:35:LYS:HA	25:BC:64:ILE:HD12	2.01	0.41
30:DH:77:LEU:O	30:DH:79:ILE:HG12	2.20	0.41
23:DA:1408:C:C2	23:DA:1595:G:N2	2.88	0.41
27:BE:173:VAL:CG1	27:BE:174:VAL:N	2.82	0.41
23:BA:2712:U:O2'	23:BA:712(B):A:C5'	2.67	0.41
23:DA:1786:A:C4'	23:DA:1787:A:OP2	2.67	0.41
44:BV:30:ASN:CG	44:BV:90:VAL:HB	2.41	0.41
5:AE:75:THR:HG23	5:AE:76:ILE:H	1.85	0.41
23:DA:2634:G:H5'	26:DD:61:ARG:NH1	2.35	0.41
23:DA:1285:G:O6	23:DA:1329:U:C2	2.73	0.41
1:AA:1107:C:N4	1:AA:1108:G:N7	2.68	0.41
2:AB:203:GLY:O	2:AB:204:ASN:O	2.38	0.41
12:CL:69:ILE:HA	12:CL:70:PRO:HD3	1.69	0.41
1:AA:1350:A:C6	1:AA:1351:U:N3	2.88	0.41
36:BN:21:TYR:OH	36:BN:43:GLU:HG2	2.21	0.41
1:CA:520:A:N1	1:CA:536:C:H1'	2.35	0.41
1:CA:59:A:H2'	1:CA:59:A:N3	2.34	0.41
36:BN:55:ALA:CA	36:BN:80:PHE:CE1	2.94	0.41
41:BS:29:LEU:HG	41:BS:29:LEU:O	2.19	0.41
1:CA:61:G:OP2	20:CT:10:LEU:HD13	2.19	0.41
23:BA:528:A:C2	23:BA:2043:C:O5'	2.73	0.41
12:AL:50:ALA:O	12:AL:51:LEU:C	2.57	0.41
1:CA:1205:U:H3'	1:CA:1205:U:H6	1.84	0.41
6:AF:61:LEU:HD12	6:AF:61:LEU:N	2.35	0.41
23:DA:1496:A:C8	23:DA:1498:C:C4	3.08	0.41
25:BC:137:PRO:O	25:BC:138:VAL:C	2.58	0.41
23:DA:2331:G:H8	23:DA:2331:G:O5'	2.03	0.41
23:DA:529:A:N6	23:DA:2041:U:C2	2.89	0.41
23:BA:2746:U:H2'	23:BA:2747:G:C5'	2.50	0.41
15:AO:18:PHE:O	15:AO:21:ASP:HB3	2.20	0.41
1:CA:618:C:H5''	1:CA:619:U:H5''	2.02	0.41
37:BO:66:ALA:HA	37:BO:69:VAL:HG13	2.01	0.41
37:BO:69:VAL:HA	37:BO:72:ALA:HB2	2.02	0.41
1:AA:956:U:O2'	1:AA:957:U:H5'	2.21	0.41
8:CH:112:LEU:HA	8:CH:134:ILE:H	1.85	0.41
45:DW:70:GLN:HG2	45:DW:72:ARG:CG	2.51	0.41
1:AA:833:U:C2	1:AA:834:C:C5	3.08	0.41
1:AA:99:C:O2'	1:AA:101:A:H8	2.03	0.41
30:BH:14:ASP:H	30:BH:17:GLN:NE2	2.17	0.41
1:CA:987:G:H2'	1:CA:988:G:C8	2.54	0.41
1:AA:1145:C:H1'	1:AA:1147:C:N4	2.35	0.41
1:CA:625:G:O2'	1:CA:626:U:H5'	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BC:28:GLU:HB3	25:BC:29:PRO:CD	2.46	0.41
25:BC:140:THR:O	25:BC:165:ILE:HD12	2.19	0.41
11:AK:38:ASN:O	11:AK:40:ILE:HD13	2.20	0.41
33:BK:88:ASN:O	33:BK:91:LEU:HA	2.20	0.41
18:CR:64:ARG:O	18:CR:66:LEU:N	2.53	0.41
23:BA:2287:A:HO2'	23:BA:2288:A:C5'	2.32	0.41
23:BA:286:C:H6	23:BA:286:C:O5'	2.02	0.41
23:DA:1568:G:H5''	25:DC:61:LEU:HD22	2.01	0.41
32:BJ:62:ARG:HA	32:BJ:63:PRO:HD3	1.89	0.41
1:CA:1195:C:H5''	1:CA:1196:U:OP2	2.20	0.41
23:BA:1348:G:H1	23:BA:1598:C:H42	1.67	0.41
1:CA:20:U:H2'	1:CA:21:G:O4'	2.20	0.41
23:BA:781:A:C2	23:BA:1776:G:N3	2.85	0.41
23:DA:581:C:H2'	23:DA:582:G:H8	1.85	0.41
10:AJ:16:LEU:HD21	10:AJ:94:VAL:HG13	2.02	0.41
18:AR:44:LEU:O	18:AR:45:SER:O	2.38	0.41
6:CF:47:ARG:CZ	6:CF:47:ARG:HB3	2.49	0.41
1:AA:769:G:H4'	1:AA:1513:A:H4'	2.01	0.41
23:DA:2741:A:H2'	23:DA:2742:C:O4'	2.21	0.41
20:CT:60:GLU:OE1	20:CT:85:MET:HE1	2.20	0.41
43:DU:37:VAL:HG13	43:DU:69:ALA:HA	2.01	0.41
7:AG:57:GLU:O	7:AG:61:VAL:HG23	2.20	0.41
2:AB:31:TYR:HE1	2:AB:200:ILE:HG21	1.85	0.41
2:AB:28:PHE:O	2:AB:32:ILE:HD13	2.20	0.41
41:BS:35:ILE:O	41:BS:36:LEU:C	2.58	0.41
43:DU:91:GLU:HB3	43:DU:92:ASN:H	1.67	0.41
24:BB:111:U:H2'	24:BB:112:G:H8	1.84	0.41
19:CS:53:ASN:C	19:CS:55:LYS:H	2.24	0.41
26:BD:96:PHE:O	26:BD:175:VAL:HG11	2.19	0.41
12:AL:61:SER:O	12:AL:63:TYR:N	2.52	0.41
27:BE:107:LYS:O	27:BE:108:LYS:C	2.59	0.41
9:AI:46:ALA:HB2	9:AI:74:ILE:HG22	2.02	0.41
38:BP:41:ARG:NH1	38:BP:41:ARG:HB2	2.35	0.41
14:CN:4:LYS:HD2	14:CN:7:ILE:HD11	2.02	0.41
37:BO:30:ARG:HB3	37:BO:35:ILE:HD12	2.02	0.41
5:AE:27:ARG:C	5:AE:28:PHE:CD1	2.94	0.41
25:DC:52:ARG:CB	25:DC:53:PHE:CD2	3.02	0.41
36:BN:65:LEU:HA	36:BN:65:LEU:HD12	1.38	0.41
1:AA:451:A:H61	1:AA:481:G:C5'	2.33	0.41
23:DA:1686:C:C4	23:DA:1687:G:C5	3.08	0.41
24:BB:95:U:N3	24:BB:96:G:N7	2.68	0.41
24:BB:95:U:C2	24:BB:96:G:N7	2.88	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:CO:17:ARG:HG3	15:CO:17:ARG:HH11	1.85	0.41
1:CA:680:C:H2'	1:CA:681:C:H6	1.85	0.41
30:BH:3:VAL:HG12	30:BH:37:VAL:O	2.20	0.41
1:CA:612:C:OP1	4:CD:84:LYS:HE3	2.19	0.41
23:BA:822:U:O2'	23:BA:823:G:H5'	2.20	0.41
29:BG:142:GLY:O	29:BG:145:ALA:HB3	2.20	0.41
32:DJ:55:THR:O	32:DJ:55:THR:HG22	2.20	0.41
25:DC:215:LEU:HD23	25:DC:215:LEU:HA	1.55	0.41
38:BP:19:LEU:H	38:BP:19:LEU:HG	1.29	0.41
23:BA:1690:A:H5''	23:BA:1691:C:OP2	2.20	0.41
11:AK:87:THR:HA	11:AK:91:ARG:HH21	1.84	0.41
23:DA:2415:G:H2'	23:DA:2416:C:C6	2.56	0.41
23:BA:1309:G:H8	23:BA:1309:G:O5'	2.03	0.41
26:BD:103:ASP:OD2	26:BD:168:MET:HE2	2.21	0.41
32:BJ:143:LEU:HD13	32:BJ:144:LYS:N	2.35	0.41
23:BA:1541:U:O2	23:BA:1541:U:C2'	2.66	0.41
32:DJ:120:ARG:O	32:DJ:121:VAL:C	2.58	0.41
1:CA:1349:A:H2'	1:CA:1350:A:C8	2.55	0.41
9:CI:117:HIS:C	9:CI:118:LYS:HG3	2.40	0.41
26:BD:188:VAL:HG23	26:BD:189:PRO:HD2	2.02	0.41
22:AV:6193:U:C4	22:AV:6194:C:C4	3.07	0.41
1:CA:946:A:N1	1:CA:1236:A:C2	2.88	0.41
27:DE:65:TRP:CZ3	27:DE:73:ALA:O	2.72	0.41
32:BJ:156:GLN:O	32:BJ:157:ARG:CB	2.68	0.41
23:BA:1826:G:P	25:BC:233:HIS:HD2	2.43	0.41
23:DA:1019:U:H5'	23:DA:1121:C:H1'	2.03	0.41
32:DJ:90:LEU:HA	32:DJ:110:LEU:HB3	2.03	0.41
1:CA:375:U:H4'	16:CP:17:TYR:CE2	2.54	0.41
30:BH:86:THR:C	30:BH:87:LYS:HG3	2.40	0.41
28:DF:126:ASP:O	28:DF:128:ARG:N	2.46	0.41
1:AA:376:G:N3	1:AA:377:G:C8	2.88	0.41
16:AP:68:ASP:C	16:AP:70:ALA:H	2.22	0.41
2:CB:86:GLU:C	2:CB:88:ALA:H	2.24	0.41
44:DV:56:VAL:O	44:DV:57:ILE:HD12	2.19	0.41
3:CC:36:ASP:HA	3:CC:39:ILE:HD12	2.02	0.41
23:BA:2711:A:OP1	23:BA:712(B):A:P	2.79	0.41
5:CE:41:VAL:O	5:CE:66:MET:HA	2.19	0.41
23:DA:2768:C:N4	23:DA:2769:C:C4	2.89	0.41
46:DX:13:ILE:HG23	46:DX:14:VAL:N	2.33	0.41
35:DM:47:ILE:HD11	35:DM:68:ILE:CD1	2.51	0.41
1:CA:587:G:H4'	8:CH:3:THR:O	2.21	0.41
36:BN:3:HIS:C	36:BN:5:LYS:N	2.72	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:DY:49:LYS:CD	47:DY:49:LYS:H	2.33	0.41
23:DA:528:A:C2'	23:DA:529:A:O5'	2.69	0.41
23:BA:1510:A:C2	23:BA:1511:A:C4	3.08	0.41
42:DT:41:ASN:N	42:DT:41:ASN:HD22	2.18	0.41
1:CA:475:G:C2	1:CA:476:G:C4	3.09	0.41
23:DA:379:G:C5	23:DA:380:U:C6	3.07	0.41
1:AA:510:A:H5''	1:AA:511:C:OP2	2.21	0.41
23:DA:2287:A:H62	23:DA:2344:U:H3	1.68	0.41
1:CA:101:A:H2'	1:CA:102:G:H8	1.84	0.41
29:BG:73:ALA:O	29:BG:76:VAL:HB	2.20	0.41
43:BU:2:ARG:CG	43:BU:3:VAL:N	2.83	0.41
21:CU:22:ARG:HA	21:CU:23:PRO:HD3	1.82	0.41
23:BA:2477:C:HO2'	23:BA:2478:A:P	2.40	0.41
18:CR:64:ARG:C	18:CR:66:LEU:N	2.73	0.41
44:BV:179:ASP:O	44:BV:182:LYS:HB2	2.20	0.41
23:BA:2864:G:C2	23:BA:2865:U:O2	2.73	0.41
23:BA:815:C:H2'	23:BA:816:C:C6	2.56	0.41
23:BA:814:C:H5	34:BL:27:HIS:CD2	2.39	0.41
1:CA:589:C:H42	1:CA:650:G:H1	1.69	0.41
8:AH:97:VAL:C	8:AH:99:GLU:N	2.73	0.41
1:CA:764:C:C2	1:CA:765:G:C8	3.08	0.41
23:DA:987:G:O6	23:DA:988:A:C2	2.74	0.41
23:BA:278:A:O2'	23:BA:279:C:O4'	2.35	0.41
1:CA:1357:A:C5	1:CA:1358:U:C4	3.09	0.41
1:AA:542:G:P	4:AD:10:ARG:NH2	2.93	0.41
1:AA:1410:G:H2'	1:AA:1411:C:H6	1.84	0.41
5:CE:144:THR:HG23	5:CE:147:ASP:OD1	2.21	0.41
7:AG:46:ALA:HB2	7:AG:117:ALA:O	2.19	0.41
25:BC:245:PRO:HA	25:BC:246:PRO:HD3	1.89	0.41
23:DA:2880:C:O3'	36:DN:90:ARG:NH1	2.53	0.41
1:AA:1428:A:H2'	1:AA:1429:C:C6	2.55	0.41
41:BS:36:LEU:CD1	41:BS:47:VAL:HB	2.49	0.41
23:DA:189:G:H1'	23:DA:207:A:N6	2.35	0.41
1:AA:112:G:C2	1:AA:113:G:C8	3.08	0.41
6:AF:11:ASN:HA	6:AF:12:PRO:HD2	1.94	0.41
7:AG:148:ASN:C	7:AG:150:ALA:H	2.24	0.41
23:BA:693:C:C2'	23:BA:694:U:O5'	2.69	0.41
23:BA:2737:G:C5	23:BA:2738:A:N7	2.88	0.41
23:DA:1997:G:O2'	23:DA:1998:G:H5'	2.21	0.41
23:BA:2717:G:C6	23:BA:2718:G:N7	2.89	0.41
5:AE:36:ASP:OD2	5:AE:38:GLN:N	2.53	0.41
1:CA:180:U:C2'	1:CA:181:G:H5'	2.50	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:1833:U:N3	23:DA:1834:U:C5	2.88	0.41
23:DA:1403:C:H5''	23:DA:1471:A:O4'	2.20	0.41
23:DA:781:A:C2	23:DA:1776:G:H2'	2.56	0.41
23:DA:781:A:C2	23:DA:1776:G:N3	2.86	0.41
38:BP:77:PRO:HB2	38:BP:80:SER:HB2	2.01	0.41
2:CB:212:GLN:HG3	2:CB:235:SER:HB2	2.01	0.41
23:BA:2816:C:O2	23:BA:2883:A:O2'	2.38	0.41
23:DA:1335:U:H2'	23:DA:1336:A:O5'	2.19	0.41
1:CA:1479:C:H2'	1:CA:1480:G:H8	1.86	0.41
1:CA:636:U:H5'	17:CQ:2:PRO:HG3	2.02	0.41
33:DK:18:LYS:HG3	33:DK:45:GLU:OE2	2.20	0.41
11:AK:103:LEU:HA	11:AK:103:LEU:HD12	1.79	0.41
23:BA:2521:C:O2'	23:BA:2564:A:N3	2.47	0.41
1:CA:874:G:C6	1:CA:875:C:C4	3.08	0.41
23:BA:2743:C:H2'	23:BA:2744:G:O4'	2.20	0.41
30:BH:76:THR:HG22	30:BH:141:LYS:CB	2.49	0.41
23:BA:46:C:N4	23:BA:179:G:H1	2.18	0.41
28:DF:110:ALA:O	28:DF:140:ILE:HD12	2.19	0.41
23:BA:30:G:C5	23:BA:31:C:C4	3.08	0.41
26:BD:3:GLY:C	26:BD:81:ILE:HD13	2.40	0.41
23:BA:2358:G:C5	23:BA:2359:C:C5	3.08	0.41
23:BA:1686:C:N4	23:BA:1687:G:C6	2.88	0.41
23:BA:2523:G:H2'	23:BA:2524:G:H5'	2.02	0.41
1:CA:604:G:H2'	1:CA:605:U:H5'	2.02	0.41
23:BA:75:G:H4'	47:BY:55:ARG:NH2	2.35	0.41
23:DA:1889:A:H2'	23:DA:1890:A:O4'	2.20	0.41
23:BA:1824:G:C2'	23:BA:1825:A:H5'	2.51	0.41
53:D5:37:SER:OG	53:D5:40:GLU:HG2	2.20	0.41
6:CF:99:ALA:HB3	18:CR:29:PHE:CE1	2.56	0.41
30:BH:136:VAL:HG12	30:BH:136:VAL:O	2.20	0.41
30:BH:95:LYS:O	30:BH:99:GLU:N	2.46	0.41
23:DA:2676:C:C2'	23:DA:2677:G:H5'	2.50	0.41
7:AG:21:VAL:HG23	7:AG:22:LEU:N	2.35	0.41
23:DA:2684:U:O2'	23:DA:2685:G:H5'	2.20	0.41
23:BA:122(A):C:H2'	23:BA:1222:C:H6	1.85	0.41
17:AQ:16:GLN:HB3	17:AQ:16:GLN:HE21	1.76	0.41
30:DH:95:LYS:O	30:DH:99:GLU:HB2	2.21	0.41
23:BA:468:G:H5''	27:BE:60:SER:HB2	2.00	0.41
27:DE:184:TYR:O	27:DE:188:ARG:HB2	2.19	0.41
1:AA:1122:U:H2'	1:AA:1123:A:C8	2.56	0.41
7:CG:108:ALA:O	7:CG:119:ARG:HD2	2.20	0.41
23:DA:84:A:H4'	23:DA:85:G:O5'	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DJ:49:LEU:O	32:DJ:49:LEU:HD12	2.21	0.41
1:AA:977:A:H2'	1:AA:978:A:H5''	2.02	0.41
1:AA:986:A:C2	1:AA:1220:G:C2	3.08	0.41
10:CJ:48:THR:HG22	10:CJ:62:HIS:CG	2.53	0.41
13:CM:91:ARG:NH2	13:CM:96:LEU:HB3	2.35	0.41
27:DE:64:ILE:C	27:DE:65:TRP:CD1	2.93	0.41
42:DT:62:LYS:C	42:DT:63:LYS:HD3	2.40	0.41
23:DA:1971:A:C4	25:DC:241:PRO:HG3	2.54	0.41
23:BA:1121:C:H2'	23:BA:1122:G:O4'	2.20	0.41
32:BJ:90:LEU:HA	32:BJ:110:LEU:HB3	2.01	0.41
28:BF:84:LYS:O	28:BF:87:PRO:HD3	2.21	0.41
53:D5:62:LEU:HA	53:D5:62:LEU:HD23	1.29	0.41
23:DA:1141:U:H5''	23:DA:114(B):A:O4'	2.21	0.41
16:CP:5:ARG:HB2	16:CP:67:THR:HG1	1.85	0.41
24:DB:7:G:H5''	37:DO:29:PHE:CZ	2.56	0.41
1:AA:374:A:C6	1:AA:375:U:C4	3.08	0.41
1:AA:386:C:H2'	1:AA:387:U:C4'	2.51	0.41
25:DC:143:HIS:NE2	25:DC:192:THR:OG1	2.53	0.41
23:DA:603:A:C2	23:DA:655:A:C2	3.08	0.41
1:CA:367:U:C6	1:CA:394:G:C2	3.08	0.41
4:CD:111:ALA:HB1	4:CD:116:GLN:CG	2.50	0.41
47:BY:61:LEU:HD12	47:BY:61:LEU:HA	1.49	0.41
24:DB:41:U:H5	28:DF:70:VAL:H	1.67	0.41
20:CT:32:ALA:O	20:CT:33:ILE:C	2.58	0.41
4:AD:108:LEU:CB	4:AD:110:PHE:HE2	2.23	0.41
44:DV:31:ARG:CZ	44:DV:94:GLU:HG3	2.51	0.41
26:BD:5:LEU:CB	26:BD:51:PHE:HD2	2.17	0.41
26:BD:55:ASN:C	26:BD:57:LYS:N	2.74	0.41
23:DA:2722:G:H2'	23:DA:2723:C:C6	2.55	0.41
5:AE:76:ILE:CG1	5:AE:77:PRO:HD2	2.41	0.41
37:DO:56:LEU:HG	37:DO:57:LYS:N	2.35	0.41
23:BA:2769:C:O2	23:BA:2769:C:H2'	2.20	0.41
7:AG:107:ALA:CB	7:AG:134:ALA:HB2	2.38	0.41
45:BW:81:VAL:O	45:BW:83:PRO:HD3	2.20	0.41
1:AA:1202:G:H4'	14:AN:29:ARG:HD3	2.03	0.41
9:AI:112:LYS:HE3	9:AI:116:LYS:O	2.21	0.41
9:AI:28:VAL:CG2	9:AI:63:ILE:HB	2.46	0.41
8:AH:21:LYS:O	8:AH:65:TYR:OH	2.29	0.41
1:CA:506:G:H2'	1:CA:507:C:H6	1.86	0.41
23:DA:2747:G:C6	23:DA:2754:U:C6	3.09	0.41
23:BA:83:G:N2	23:BA:84:A:H62	2.19	0.41
23:BA:2562:U:H2'	23:BA:2563:U:C5'	2.50	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:448:A:C2	1:CA:487:A:C2	3.08	0.41
46:BX:31:GLY:O	46:BX:32:LYS:CB	2.63	0.41
23:DA:1486:A:N1	23:DA:1504:C:C4	2.87	0.41
23:DA:2330:G:C2'	23:DA:2331:G:H5'	2.51	0.41
37:BO:34:HIS:HB3	37:BO:36:TYR:CE1	2.55	0.41
1:CA:1238:A:C5	1:CA:1303:C:H1'	2.53	0.41
1:CA:1237:C:C5	1:CA:1336:C:C4	3.08	0.41
8:CH:31:PHE:CE2	8:CH:35:ILE:HD11	2.55	0.41
23:DA:910:A:H2'	23:DA:2264:C:O2'	2.20	0.41
23:BA:686:G:O6	52:B4:12:ARG:NH1	2.51	0.41
43:DU:2:ARG:HG3	43:DU:2:ARG:HH11	1.85	0.41
30:DH:4:ILE:HD12	30:DH:5:LEU:N	2.35	0.41
23:DA:732:C:C2'	23:DA:733:G:H5'	2.50	0.41
19:CS:7:LYS:HE3	19:CS:7:LYS:HB2	1.88	0.41
23:DA:497:A:C6	23:DA:498:G:C5	3.08	0.41
33:BK:114:ILE:O	33:BK:118:ALA:N	2.52	0.41
23:DA:1434:A:H2'	23:DA:1435:G:C8	2.55	0.41
23:BA:947:G:N2	23:BA:971:C:C2	2.89	0.41
17:CQ:54:GLY:HA3	17:CQ:82:MET:HE1	2.01	0.41
1:CA:523:A:N1	12:CL:91:ASP:HB2	2.35	0.41
2:CB:74:LYS:HZ3	2:CB:166:ASP:HB2	1.85	0.41
33:DK:2:ILE:HD11	33:DK:82:ASN:ND2	2.35	0.41
1:CA:914:A:OP2	1:CA:914:A:O4'	2.37	0.41
33:DK:19:ILE:HA	33:DK:42:SER:O	2.20	0.41
46:DX:23:LYS:HE2	46:DX:23:LYS:HB3	1.74	0.41
1:AA:277:C:OP1	17:AQ:41:LYS:HE3	2.20	0.41
1:CA:542:G:C4	1:CA:543:C:C5	3.09	0.41
1:CA:542:G:H2'	1:CA:543:C:H6	1.85	0.41
23:DA:2663:G:C4	23:DA:2664:G:C8	3.08	0.41
32:DJ:160:LYS:C	32:DJ:161:LEU:HD23	2.41	0.41
1:CA:909:A:H3'	1:CA:910:C:C6	2.55	0.41
4:AD:6:GLY:O	4:AD:8:VAL:HG12	2.20	0.41
23:DA:2244:U:H1'	23:DA:2434:A:C4	2.55	0.41
10:AJ:16:LEU:HD22	10:AJ:94:VAL:HG22	2.03	0.41
10:AJ:16:LEU:O	10:AJ:70:ARG:HD2	2.19	0.41
1:AA:1089:G:C6	1:AA:1090:U:C5	3.09	0.41
1:AA:334:C:C2'	1:AA:335:C:H5'	2.51	0.41
23:BA:2663:G:C6	23:BA:2664:G:C5	3.08	0.41
12:CL:5:THR:CG2	12:CL:8:GLN:HG3	2.46	0.41
23:DA:956:G:H2'	23:DA:957:A:H2'	2.01	0.41
23:DA:2738:A:C2	23:DA:2739:U:H1'	2.55	0.41
44:DV:120:ILE:N	44:DV:120:ILE:CD1	2.83	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:1356:G:C6	23:BA:1357:U:C4	3.07	0.41
9:CI:95:LYS:HD3	9:CI:95:LYS:C	2.41	0.41
1:AA:993:G:H4'	1:AA:994:A:OP2	2.19	0.41
13:AM:15:VAL:HG13	13:AM:43:THR:O	2.20	0.41
23:DA:2078:C:H2'	23:DA:2079:U:C6	2.54	0.41
23:BA:1798:U:C5'	25:BC:259:THR:O	2.69	0.41
23:DA:718:A:C8	23:DA:719:C:C6	3.08	0.41
1:AA:269:C:H2'	1:AA:270:A:H8	1.84	0.41
1:AA:1505:G:H4'	1:AA:1506:U:H5''	2.02	0.41
23:DA:1381:G:C2'	23:DA:1382:G:H5'	2.49	0.41
41:BS:71:VAL:HA	41:BS:107:LEU:HD12	2.03	0.41
23:DA:2771:C:O2	23:DA:2771:C:C2'	2.67	0.41
23:BA:2025:C:N3	23:BA:2026:C:C4	2.89	0.41
35:BM:84:GLY:HA3	45:BW:10:THR:HG23	2.02	0.41
23:DA:1230:C:H2'	23:DA:1231:G:H8	1.84	0.41
33:BK:3:GLN:CG	33:BK:4:PRO:HD2	2.50	0.41
42:BT:27:THR:HA	42:BT:80:ILE:HA	2.02	0.41
42:DT:18:TYR:O	42:DT:19:ALA:C	2.58	0.41
23:BA:2194:G:C5	23:BA:2195:C:C5	3.08	0.41
8:AH:107:LEU:HD23	8:AH:107:LEU:H	1.84	0.41
23:DA:2795:G:H3'	23:DA:2797:U:H5''	2.03	0.41
23:DA:575:A:OP2	23:DA:2499:C:O2'	2.34	0.41
44:BV:77:ASP:HB2	44:BV:84:GLU:CG	2.50	0.41
23:BA:1366:A:H2'	23:BA:1367:A:O4'	2.20	0.41
23:BA:394:A:O2'	23:BA:395:U:H5'	2.20	0.41
1:CA:1109:C:H2'	1:CA:1110:A:O4'	2.20	0.41
23:BA:14:A:H8	23:BA:14:A:O5'	2.03	0.41
39:BQ:60:LEU:HD13	39:BQ:60:LEU:C	2.41	0.41
1:AA:1433:A:N1	1:AA:1434:A:C2	2.89	0.41
25:BC:98:VAL:HG23	25:BC:99:ASP:N	2.35	0.41
23:BA:2056:G:C8	23:BA:2577:A:C6	3.08	0.41
32:BJ:122:LEU:HD22	32:BJ:122:LEU:HA	1.88	0.41
1:CA:1371:G:N1	1:CA:1372:U:N3	2.68	0.41
9:CI:117:HIS:O	9:CI:118:LYS:HG3	2.20	0.41
34:BL:32:THR:CA	34:BL:36:LYS:HE2	2.51	0.41
5:CE:102:ALA:HB2	5:CE:120:THR:HG21	2.00	0.41
22:CV:6193:U:C2'	22:CV:6194:C:H5'	2.50	0.41
23:DA:2257:U:O2'	23:DA:2258:C:H5'	2.20	0.41
1:CA:960:U:C5	1:CA:1225:A:C8	3.09	0.41
13:CM:106:ASN:O	13:CM:107:ALA:CB	2.67	0.41
13:CM:106:ASN:HB2	13:CM:107:ALA:H	1.54	0.41
23:BA:2846:G:C4	23:BA:2847:U:C5	3.09	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1227:A:OP1	13:AM:94:ARG:NH2	2.54	0.41
25:DC:35:LYS:HA	25:DC:64:ILE:HD12	2.01	0.41
25:BC:143:HIS:CD2	25:BC:144:ALA:N	2.88	0.41
11:AK:115:PRO:C	11:AK:117:ASN:H	2.22	0.41
30:BH:98:ALA:HA	30:BH:109:ILE:HG13	2.01	0.41
39:BQ:83:LEU:H	39:BQ:83:LEU:HD12	1.86	0.41
40:BR:38:LEU:HD23	40:BR:39:LEU:H	1.84	0.41
40:BR:49:THR:HB	40:BR:50:PRO:CD	2.48	0.41
16:AP:32:TYR:C	16:AP:32:TYR:CD2	2.94	0.41
16:AP:4:ILE:HB	16:AP:66:PRO:CB	2.47	0.41
1:AA:32:A:C6	1:AA:33:A:C6	3.08	0.41
1:AA:688:G:C4	1:AA:689:C:C5	3.09	0.41
42:DT:10:ALA:HB1	42:DT:11:PRO:HD2	2.02	0.41
1:AA:1252:A:H2'	1:AA:1253:G:O4'	2.21	0.41
23:BA:1413:G:C2'	23:BA:1414:G:H5'	2.50	0.41
44:DV:163:LEU:N	44:DV:163:LEU:HD23	2.35	0.41
35:BM:47:ILE:O	35:BM:50:ALA:N	2.52	0.41
26:BD:4:ILE:HG13	26:BD:5:LEU:N	2.36	0.41
23:BA:2697:G:H2'	23:BA:2698:U:O4'	2.20	0.41
24:BB:73:A:N6	24:BB:104:A:H1'	2.35	0.41
5:AE:110:LEU:O	5:AE:115:VAL:HG23	2.20	0.41
1:CA:1098:C:H2'	1:CA:1099:G:O4'	2.20	0.41
1:CA:1105:A:N3	1:CA:1106:G:C8	2.88	0.41
1:CA:1106:G:C4	1:CA:1107:C:C5	3.08	0.41
1:CA:1107:C:N4	1:CA:1108:G:N7	2.69	0.41
44:BV:103:ARG:HG3	44:BV:136:PHE:CD1	2.54	0.41
13:CM:4:ILE:HG12	13:CM:10:PRO:HD2	2.03	0.41
1:AA:1104:G:C2	1:AA:1105:A:C4	3.09	0.41
1:CA:407:G:N2	1:CA:436:C:C2	2.88	0.41
1:CA:408:A:N3	1:CA:409:G:C8	2.88	0.41
46:DX:9:GLY:O	46:DX:10:LYS:O	2.38	0.41
12:CL:68:TYR:HB3	12:CL:98:HIS:HD2	1.86	0.41
1:CA:692:U:O4	11:CK:52:GLY:C	2.59	0.41
1:AA:1366:C:N4	1:AA:1367:C:N4	2.68	0.41
4:AD:126:ILE:CG2	4:AD:127:THR:N	2.79	0.41
1:CA:822:C:H42	1:CA:878:G:H1	1.69	0.41
23:DA:2306:C:N4	23:DA:2311:A:N6	2.68	0.41
6:AF:89:MET:CE	18:AR:76:LEU:HD21	2.51	0.41
23:BA:1497:U:O4'	23:BA:1497:U:O2	2.38	0.41
4:CD:110:PHE:CE1	4:CD:148:VAL:HG23	2.56	0.41
19:AS:22:LEU:HD13	19:AS:27:GLU:CB	2.51	0.41
25:BC:120:GLY:O	25:BC:131:LEU:HB3	2.19	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AH:112:LEU:HB3	8:AH:133:LEU:HA	2.02	0.41
1:AA:725:G:H2'	1:AA:726:C:H6	1.85	0.41
23:BA:1285:G:C5	23:BA:1329:U:C4	3.08	0.41
23:DA:911:A:C5	35:DM:9:TYR:CE1	3.09	0.41
23:DA:910:A:N7	35:DM:12:GLN:HG3	2.36	0.41
1:CA:706:A:H2'	1:CA:707:C:H5'	2.02	0.41
3:CC:68:VAL:HG12	3:CC:70:VAL:CG2	2.50	0.41
1:AA:27:G:H2'	1:AA:28:G:O4'	2.20	0.41
23:DA:2209:C:C2	23:DA:2216:G:N1	2.89	0.41
1:AA:853:G:C4	1:AA:854:G:C8	3.08	0.41
23:DA:1152:C:O2'	23:DA:1153:C:H5'	2.21	0.41
23:DA:104:U:C5	23:DA:105:C:C4	3.09	0.41
43:DU:2:ARG:HG3	43:DU:2:ARG:NH1	2.36	0.41
1:CA:102:G:C6	1:CA:103:C:N4	2.88	0.41
1:CA:170:U:C2'	1:CA:171:A:H5'	2.50	0.41
10:AJ:34:VAL:CG2	10:AJ:74:ILE:HG22	2.50	0.41
43:BU:2:ARG:HG3	43:BU:2:ARG:HH11	1.85	0.41
15:CO:39:LEU:HD13	15:CO:56:LEU:HB2	2.00	0.41
7:AG:131:LYS:HE3	7:AG:136:LYS:HZ1	1.80	0.41
23:BA:2470:G:C2	23:BA:2471:C:C6	3.09	0.41
23:BA:2188:C:H2'	23:BA:2189:U:C1'	2.51	0.41
35:BM:60:ARG:H	44:BV:179:ASP:HB2	1.85	0.41
1:CA:1056:U:H5	1:CA:1200:C:C4	2.38	0.41
4:CD:79:PHE:CD2	4:CD:79:PHE:C	2.93	0.41
1:AA:1206:G:C6	1:AA:1207:G:C5	3.09	0.41
23:BA:998:C:OP2	39:BQ:93:LYS:NZ	2.53	0.41
4:AD:6:GLY:O	4:AD:8:VAL:CG1	2.69	0.41
32:DJ:83:ILE:H	32:DJ:83:ILE:HG13	1.59	0.41
14:AN:40:CYS:O	14:AN:44:LEU:HB3	2.20	0.41
23:BA:571:A:C5	23:BA:575:A:C8	3.08	0.41
36:DN:84:ALA:N	36:DN:85:PRO:CD	2.84	0.41
1:AA:937:A:C2	1:AA:1379:G:C6	3.08	0.41
23:DA:978:G:H2'	23:DA:979:G:H5'	2.02	0.41
5:CE:137:GLU:OE2	5:CE:137:GLU:O	2.37	0.41
1:CA:356:A:H1'	1:CA:368:U:O2'	2.20	0.41
23:BA:693:C:H2'	23:BA:694:U:H6	1.85	0.41
8:AH:50:ARG:CG	8:AH:50:ARG:HH11	2.33	0.41
23:BA:2039:C:C2	23:BA:2040:C:C6	3.09	0.41
1:AA:1466:C:H2'	1:AA:1467:G:O4'	2.21	0.41
23:DA:880:G:H1	23:DA:897:C:N4	2.18	0.41
13:CM:15:VAL:HG13	13:CM:43:THR:O	2.20	0.41
2:CB:143:GLU:O	2:CB:147:LYS:HB2	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:464:U:C4'	52:B4:5:TRP:CZ3	3.03	0.41
23:DA:464:U:C4'	52:D4:5:TRP:CZ3	3.03	0.41
2:CB:17:PHE:CD1	2:CB:44:LEU:HD11	2.56	0.41
23:DA:1761:C:H5''	23:DA:1762:A:OP2	2.21	0.41
1:CA:285:G:C2'	1:CA:286:G:H5'	2.50	0.41
32:BJ:52:LYS:O	32:BJ:55:THR:N	2.54	0.41
1:CA:1088:G:C4	1:CA:1089:G:C8	3.09	0.41
1:AA:515:G:H2'	1:AA:516:U:O4'	2.20	0.41
28:BF:52:ILE:HG23	28:BF:153:ARG:HH22	1.84	0.41
4:AD:23:GLY:HA3	4:AD:112:VAL:CG1	2.50	0.41
1:AA:763:G:H2'	1:AA:764:C:H6	1.84	0.41
27:DE:179:GLU:CD	27:DE:179:GLU:N	2.74	0.41
1:CA:897:C:O2	1:CA:897:C:H2'	2.21	0.41
1:CA:1270:C:H2'	1:CA:1271:G:O4'	2.20	0.41
32:DJ:30:LYS:O	32:DJ:32:VAL:HG23	2.21	0.41
1:CA:1403:C:H6	1:CA:1403:C:O5'	2.04	0.41
23:BA:30:G:C6	23:BA:31:C:C4	3.09	0.41
32:BJ:151:HIS:CD2	32:BJ:152:PRO:C	2.94	0.41
23:BA:2194:G:H2'	23:BA:2195:C:H6	1.86	0.41
1:AA:1186:G:H4'	9:AI:110:GLU:CD	2.41	0.41
23:DA:660:G:H5'	27:DE:99:TYR:CD2	2.55	0.41
44:DV:70:LEU:CD2	44:DV:70:LEU:N	2.82	0.41
1:CA:604:G:C2'	1:CA:605:U:H5'	2.49	0.41
39:BQ:60:LEU:HD22	39:BQ:60:LEU:O	2.20	0.41
23:DA:2567:G:H2'	23:DA:2568:C:C6	2.56	0.41
50:D2:30:LEU:HD23	50:D2:30:LEU:HA	1.89	0.41
13:CM:98:VAL:HG12	13:CM:98:VAL:O	2.20	0.41
23:BA:1772:G:N1	23:BA:1980:G:C6	2.89	0.41
15:CO:42:HIS:CD2	15:CO:43:LEU:HD23	2.54	0.41
53:D5:50:LEU:HD23	53:D5:50:LEU:HA	1.87	0.41
34:DL:125:VAL:O	34:DL:125:VAL:HG13	2.21	0.41
34:DL:83:VAL:O	34:DL:114:ILE:HA	2.20	0.41
23:BA:2262:U:H4'	23:BA:2328:A:C2	2.55	0.41
43:BU:8:LYS:NZ	43:BU:8:LYS:N	2.62	0.41
26:DD:102:VAL:HB	26:DD:198:VAL:HG12	2.02	0.41
32:BJ:121:VAL:HG23	32:BJ:122:LEU:N	2.36	0.41
48:BZ:52:HIS:H	48:BZ:52:HIS:HD2	1.64	0.41
23:DA:103:A:O5'	23:DA:103:A:C8	2.74	0.41
33:DK:77:ILE:HD12	38:DP:73:GLU:O	2.20	0.41
2:AB:61:LEU:O	2:AB:61:LEU:HD12	2.20	0.41
34:BL:91:PHE:CE2	34:BL:95:VAL:HG12	2.56	0.41
1:CA:46:G:OP1	1:CA:307:C:H4'	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:577:G:C6	23:DA:578:A:C6	3.08	0.41
23:BA:1019:U:H5'	23:BA:1121:C:H1'	2.01	0.41
32:BJ:45:THR:HB	32:BJ:48:ARG:HG3	2.02	0.41
40:DR:35:LEU:C	40:DR:37:VAL:N	2.74	0.41
40:DR:44:LYS:HB3	40:DR:46:VAL:CG1	2.50	0.41
1:CA:376:G:H2'	1:CA:377:G:O5'	2.21	0.41
16:CP:21:VAL:HG11	16:CP:59:TRP:CD1	2.56	0.41
30:BH:97:ILE:HG21	30:BH:114:LEU:HD11	2.01	0.41
30:BH:79:ILE:HG22	30:BH:81:VAL:CG2	2.45	0.41
30:BH:82:ARG:CB	30:BH:89:TYR:HB2	2.50	0.41
39:BQ:53:ARG:HA	39:BQ:56:ASP:HB2	2.02	0.41
39:BQ:54:LYS:O	39:BQ:56:ASP:N	2.53	0.41
4:AD:49:ARG:HD2	4:AD:49:ARG:HA	1.76	0.41
23:BA:194:G:C2'	23:BA:195:A:H5'	2.50	0.41
23:DA:2337:G:N3	23:DA:2337:G:H2'	2.36	0.41
25:DC:177:LEU:HD12	25:DC:181:GLU:HB3	2.03	0.41
4:AD:31:CYS:C	4:AD:33:MET:H	2.23	0.41
4:CD:146:ILE:O	4:CD:146:ILE:HG22	2.20	0.41
23:DA:547:A:C5	23:DA:548:A:C6	3.08	0.41
2:CB:54:THR:HG21	2:CB:201:ILE:CD1	2.46	0.41
26:DD:85:ASN:HA	26:DD:86:PRO:HD3	1.76	0.41
4:CD:31:CYS:O	4:CD:32:ALA:CB	2.69	0.41
35:BM:141:GLN:HA	44:BV:72:ARG:HA	2.02	0.41
44:BV:56:VAL:O	44:BV:57:ILE:HD12	2.20	0.41
5:AE:80:ILE:HD11	5:AE:91:LEU:HD12	2.02	0.41
37:DO:51:ALA:O	37:DO:52:SER:O	2.39	0.41
26:DD:55:ASN:C	26:DD:57:LYS:N	2.74	0.41
1:AA:1084:G:H5'	1:AA:1102:A:OP2	2.20	0.41
1:AA:17:U:N3	1:AA:18:C:C4	2.88	0.41
27:BE:124:LEU:CD1	27:BE:125:LEU:O	2.68	0.41
43:DU:86:ARG:NH1	43:DU:95:LYS:HE3	2.35	0.41
6:CF:45:LEU:O	6:CF:46:ARG:HG2	2.20	0.41
1:CA:317:G:C4	1:CA:318:G:C8	3.08	0.41
23:DA:2306:C:C4	23:DA:2311:A:N6	2.88	0.41
23:DA:2308:G:O2'	23:DA:2310:A:P	2.78	0.41
23:DA:95:G:N2	23:DA:96:G:H1'	2.36	0.41
23:DA:1504:C:O2'	23:DA:1505:C:C6	2.72	0.41
6:CF:8:ILE:HG22	6:CF:9:VAL:N	2.34	0.41
23:BA:1323:U:C2'	23:BA:1324:G:H5'	2.50	0.41
16:AP:39:TYR:CD2	16:AP:39:TYR:C	2.94	0.41
23:DA:911:A:C6	35:DM:9:TYR:CE1	3.09	0.41
15:AO:50:HIS:O	15:AO:51:HIS:C	2.58	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:69:G:H2'	1:AA:73:G:C8	2.54	0.41
23:BA:1479:G:C4	23:BA:1480:G:C8	3.08	0.41
33:DK:23:ARG:HG3	33:DK:24:VAL:N	2.35	0.41
1:CA:1085:U:O4'	1:CA:1094:G:C2	2.73	0.41
23:DA:225:A:N6	23:DA:226:G:C6	2.89	0.41
23:BA:2287:A:C6	23:BA:2289:G:C5	3.09	0.41
23:BA:2861:G:C4	23:BA:2862:G:C8	3.08	0.41
23:DA:1389:G:C2	23:DA:1399:C:O2	2.73	0.41
2:CB:223:ILE:C	2:CB:225:ALA:N	2.73	0.41
2:CB:223:ILE:HA	2:CB:226:ARG:HB3	2.03	0.41
1:CA:649:G:C4	1:CA:650:G:C8	3.09	0.41
1:AA:1056:U:C5	1:AA:1200:C:C4	3.09	0.41
23:BA:781:A:C2	23:BA:1776:G:H2'	2.55	0.41
23:DA:1270:C:H5''	23:DA:1271:G:H5'	2.03	0.41
1:CA:538:G:N2	1:CA:539:A:H1'	2.36	0.41
1:AA:949:A:OP1	13:AM:101:GLN:HB3	2.21	0.41
1:AA:1022:G:C4	1:AA:1023:G:N7	2.88	0.41
8:AH:97:VAL:O	8:AH:99:GLU:N	2.52	0.41
23:DA:988:A:N7	48:DZ:13:ILE:HD12	2.36	0.41
36:BN:79:LEU:HD23	36:BN:83:ILE:CB	2.51	0.41
23:DA:1248:G:C5	39:DQ:3:ARG:HB2	2.55	0.41
35:BM:111:GLU:OE2	35:BM:133:ARG:NH2	2.54	0.41
1:CA:565:U:C4	1:CA:566:G:C6	3.08	0.41
23:BA:2705:A:H3'	23:BA:2706:G:H8	1.85	0.41
50:D2:4:HIS:CB	50:D2:5:PRO:CD	2.95	0.41
24:DB:3:C:H2'	24:DB:4:C:C6	2.54	0.41
1:AA:186(F):C:H42	1:AA:191(B):G:H1	1.67	0.41
6:CF:14:LEU:HD21	6:CF:19:LEU:N	2.36	0.41
23:BA:1131:G:N2	23:BA:1132:A:N3	2.69	0.41
1:AA:774:G:N2	1:AA:806:C:C6	2.89	0.41
23:BA:2213:U:H6	23:BA:2213:U:O5'	2.03	0.41
1:AA:925:G:C4	1:AA:1392:G:N2	2.88	0.41
37:BO:44:LYS:CB	37:BO:44:LYS:NZ	2.83	0.41
23:BA:1230:C:H2'	23:BA:1231:G:C8	2.56	0.41
23:DA:1441:G:H2'	23:DA:1442:G:H8	1.86	0.41
23:DA:1547:C:H2'	23:DA:1548:C:C6	2.51	0.41
23:BA:1355:G:H2'	23:BA:1356:G:O4'	2.20	0.41
23:BA:1800:C:OP2	25:BC:183:ARG:NH2	2.54	0.41
19:AS:12:ASP:O	19:AS:16:LEU:HD13	2.20	0.41
12:CL:89:VAL:O	12:CL:90:LYS:C	2.58	0.41
2:CB:16:HIS:HB3	2:CB:210:SER:HA	2.03	0.41
23:DA:914:C:C3'	23:DA:914:C:C6	3.03	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:95:GLN:HA	2:CB:95:GLN:OE1	2.20	0.41
25:BC:53:PHE:CE1	25:BC:220:HIS:HA	2.56	0.41
39:DQ:17:ILE:HA	39:DQ:20:LEU:HD23	2.03	0.41
23:BA:2837:G:C6	23:BA:2838:G:N7	2.89	0.41
1:AA:270:A:C5	1:AA:271:C:C5	3.09	0.41
5:CE:36:ASP:OD2	5:CE:38:GLN:N	2.53	0.41
38:DP:109:GLU:HA	38:DP:112:ARG:CG	2.50	0.41
26:DD:70:ALA:O	26:DD:72:VAL:HG23	2.21	0.41
35:DM:10:ARG:HA	35:DM:10:ARG:HD3	1.67	0.41
1:AA:760:G:H2'	1:AA:761:G:C5'	2.50	0.41
44:BV:91:LEU:CD2	44:BV:96:VAL:HG11	2.49	0.41
23:BA:646:A:N3	23:BA:646:A:H5'	2.36	0.41
1:CA:261:U:C5	20:CT:79:ARG:CZ	3.03	0.41
39:DQ:40:PHE:HA	39:DQ:40:PHE:HD2	1.71	0.41
41:DS:71:VAL:HA	41:DS:107:LEU:HD12	2.02	0.41
32:DJ:151:HIS:CD2	32:DJ:152:PRO:C	2.94	0.41
1:AA:838:G:H8	1:AA:838:G:O5'	2.04	0.41
1:AA:141:A:C5	1:AA:142:G:N7	2.88	0.41
25:DC:89:SER:HB2	25:DC:159:ALA:CB	2.50	0.41
23:DA:2760:C:C2'	23:DA:2760:C:O2	2.68	0.41
23:DA:1985:G:O2'	23:DA:1986:A:H5'	2.20	0.41
51:B3:13:CYS:HB2	51:B3:22:ALA:HB3	2.03	0.41
23:BA:1888:G:N3	23:BA:1888:G:H5''	2.36	0.41
23:DA:2881:C:C2'	23:DA:2882:A:H5'	2.49	0.41
1:AA:283:C:H2'	1:AA:284:G:O4'	2.20	0.41
23:BA:2523:G:C2'	23:BA:2524:G:H5'	2.51	0.41
30:BH:136:VAL:N	30:BH:137:PRO:HD3	2.36	0.41
5:CE:127:ASN:O	5:CE:128:PRO:C	2.59	0.41
23:DA:1718:G:N2	23:DA:1742:C:C2	2.88	0.41
35:BM:108:GLY:O	35:BM:109:VAL:HG13	2.21	0.41
43:BU:39:VAL:O	43:BU:40:GLU:CD	2.59	0.41
23:BA:1320:C:H4'	23:BA:1321:A:OP1	2.21	0.41
23:DA:280:C:C2'	23:DA:281:G:H5'	2.50	0.41
23:BA:2441:C:H4'	23:BA:2441:C:OP1	2.20	0.41
23:BA:2088:G:H2'	23:BA:2089:U:O4'	2.20	0.41
6:AF:83:ASP:N	6:AF:83:ASP:OD1	2.54	0.41
6:AF:25:ILE:HD13	6:AF:25:ILE:HA	1.80	0.41
3:CC:69:HIS:HA	3:CC:104:GLN:O	2.20	0.41
23:BA:1173:G:H3'	23:BA:1174:A:H5''	2.02	0.41
24:BB:82:G:H2'	24:BB:83:G:H8	1.85	0.41
23:DA:328:U:C2'	23:DA:329:G:OP1	2.68	0.41
38:DP:61:PHE:CE2	38:DP:76:PHE:HB2	2.56	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:977:A:H8	1:AA:1223:C:C4	2.38	0.41
26:BD:104:VAL:HG22	26:BD:198:VAL:HG13	2.01	0.41
22:AV:6191:A:C6	22:AV:6192:G:C5	3.08	0.41
23:DA:673:C:H2'	23:DA:674:G:H5'	2.02	0.41
23:DA:1900:A:C2	23:DA:1970:A:C4	3.09	0.41
23:DA:577:G:O6	23:DA:578:A:N6	2.54	0.41
25:DC:211:ARG:HD2	25:DC:211:ARG:HH11	1.74	0.41
32:BJ:110:LEU:O	32:BJ:110:LEU:CD2	2.68	0.41
23:BA:603:A:H2	23:BA:655:A:C2	2.38	0.41
28:DF:72:ARG:HG2	28:DF:87:PRO:O	2.21	0.41
3:AC:18:TRP:HE3	3:AC:18:TRP:H	1.69	0.41
40:BR:35:LEU:C	40:BR:37:VAL:N	2.73	0.41
1:AA:437:U:O4	1:AA:438:G:C6	2.74	0.41
12:AL:26:LEU:HD22	12:AL:27:LYS:H	1.85	0.41
1:AA:427:U:O4	1:AA:428:G:N1	2.54	0.41
11:AK:52:GLY:H	11:AK:55:LYS:HE2	1.85	0.41
23:DA:142:G:H2'	23:DA:143:C:C6	2.56	0.41
26:BD:84:PHE:CG	26:BD:84:PHE:O	2.74	0.41
26:BD:87:GLU:O	26:BD:88:GLY:C	2.54	0.41
23:BA:1589:C:C2'	23:BA:1589:C:O2	2.69	0.41
44:DV:48:PHE:CE1	44:DV:52:SER:HA	2.56	0.41
35:DM:140:ALA:HB1	44:DV:99:TYR:HB2	2.02	0.41
4:CD:31:CYS:C	4:CD:33:MET:N	2.74	0.41
24:BB:69:G:C6	24:BB:70:C:C4	3.09	0.41
45:BW:72:ARG:CZ	45:BW:75:LEU:CD1	2.96	0.41
5:AE:11:ILE:N	5:AE:31:LEU:O	2.51	0.41
1:AA:192:U:O2'	1:AA:193:C:H5'	2.21	0.41
1:CA:1072:G:O6	1:CA:1104:G:C6	2.73	0.41
2:CB:97:TRP:HH2	2:CB:176:GLU:CD	2.24	0.41
23:BA:71:A:H4'	23:BA:72:U:H5''	2.01	0.41
23:BA:2768:C:N4	23:BA:2769:C:C4	2.88	0.41
1:AA:1070:U:OP1	5:AE:25:ARG:NH1	2.53	0.41
1:AA:1104:G:N1	1:AA:1105:A:C5	2.88	0.41
1:CA:42:G:C2	1:CA:401:C:O2	2.74	0.41
45:BW:50:ASN:HD22	45:BW:83:PRO:HD3	1.85	0.41
14:AN:23:ARG:HG3	14:AN:24:CYS:N	2.36	0.41
4:AD:159:ARG:O	4:AD:162:LEU:N	2.54	0.41
23:BA:2310:A:H2'	23:BA:2311:A:H5'	2.03	0.41
46:DX:90:ILE:O	46:DX:94:LEU:HD22	2.20	0.41
23:BA:2819:G:H2'	23:BA:2821:A:N7	2.34	0.41
23:DA:1512:G:C2	23:DA:1513:C:C2	3.09	0.41
25:BC:168:ARG:HA	25:BC:173:VAL:HA	2.01	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CH:137:VAL:HG12	8:CH:138:TRP:N	2.36	0.41
23:BA:2753:A:H2'	23:BA:2754:U:C5'	2.51	0.41
1:AA:751:U:H2'	1:AA:751:U:O2	2.21	0.41
37:BO:51:ALA:O	37:BO:52:SER:O	2.38	0.41
1:AA:781:A:C3'	1:AA:782:A:C5'	2.91	0.41
1:AA:616:G:C2	1:AA:617:G:N7	2.89	0.41
1:AA:627:G:H2'	1:AA:628:G:H8	1.85	0.41
1:CA:710:G:C6	1:CA:711:G:N7	2.89	0.41
23:DA:753:C:H2'	23:DA:754:C:H6	1.85	0.41
36:DN:101:ALA:HB2	50:D2:44:THR:CB	2.51	0.41
23:BA:1434:A:H2'	23:BA:1435:G:H8	1.86	0.41
1:CA:781:A:C3'	1:CA:782:A:C5'	2.93	0.41
36:DN:100:LEU:H	36:DN:112:ALA:HA	1.85	0.41
11:AK:40:ILE:HG22	11:AK:75:TYR:CD2	2.55	0.41
36:BN:67:LEU:HD22	36:BN:67:LEU:HA	1.91	0.41
50:D2:50:GLY:O	50:D2:51:TYR:HB2	2.20	0.41
1:AA:976:G:H8	1:AA:1358:U:O2'	2.04	0.41
25:DC:61:LEU:HD13	25:DC:61:LEU:HA	1.53	0.41
44:BV:182:LYS:O	44:BV:186:GLU:HB2	2.21	0.41
23:BA:2861:G:O2'	23:BA:2862:G:H5'	2.20	0.41
1:CA:915:A:N7	1:CA:916:G:C8	2.89	0.41
3:CC:17:ASP:HB3	3:CC:21:ARG:HH22	1.84	0.41
1:CA:759:A:H2'	1:CA:760:G:H5'	2.03	0.41
1:CA:1342:C:O2'	1:CA:1343:G:H5'	2.21	0.41
36:BN:53:HIS:HB2	36:BN:94:TYR:CE1	2.56	0.41
23:DA:1717:G:O6	23:DA:1743:G:C6	2.74	0.41
1:AA:1446:A:O2'	1:AA:1447:G:C8	2.74	0.41
39:BQ:76:TYR:O	39:BQ:80:ILE:HB	2.19	0.41
29:BG:16:SER:HB2	29:BG:27:LYS:HB2	2.01	0.41
23:BA:479:A:N3	23:BA:481:G:H5''	2.36	0.41
1:CA:444:C:C4	1:CA:491:G:N1	2.89	0.41
36:BN:85:PRO:C	36:BN:87:TYR:N	2.74	0.41
15:AO:37:ASN:HD22	15:AO:37:ASN:N	2.14	0.41
19:AS:29:ARG:HB2	19:AS:48:THR:H	1.86	0.41
1:CA:186(F):C:H42	1:CA:191(B):G:H1	1.67	0.41
12:CL:5:THR:HG23	12:CL:8:GLN:CG	2.49	0.41
35:DM:69:PHE:CG	35:DM:70:PRO:HD2	2.55	0.41
1:AA:924:C:H2'	1:AA:925:G:C8	2.56	0.41
23:DA:2854:G:C6	23:DA:2864:G:N1	2.89	0.41
7:CG:30:ILE:HD12	7:CG:120:ILE:HD11	2.03	0.41
23:DA:2737:G:C5	23:DA:2738:A:N7	2.89	0.41
23:BA:2738:A:C2	23:BA:2739:U:C1'	3.03	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:577:G:C1'	1:CA:816:A:C4	3.03	0.41
1:CA:816:A:OP2	1:CA:1527:C:C4'	2.68	0.41
23:DA:880:G:H1	23:DA:897:C:H42	1.67	0.41
23:DA:26:G:H1'	23:DA:514:A:H61	1.86	0.41
23:DA:1775:U:C2'	23:DA:1776:G:O5'	2.68	0.41
23:DA:89:G:C5	23:DA:90:U:C5	3.08	0.41
42:DT:65:ARG:HE	42:DT:65:ARG:N	2.19	0.41
23:BA:1203:G:C6	23:BA:1204:A:C6	3.08	0.41
23:BA:1116:C:H2'	23:BA:1117:G:O4'	2.21	0.41
30:DH:9:LEU:O	30:DH:10:GLU:C	2.59	0.41
1:CA:269:C:H2'	1:CA:270:A:C8	2.55	0.41
34:DL:135:LEU:O	34:DL:139:LYS:HB2	2.20	0.41
37:BO:99:LYS:O	37:BO:100:ALA:C	2.58	0.41
23:DA:537:C:H2'	23:DA:539:G:O4'	2.20	0.41
30:BH:73:GLU:C	30:BH:75:LEU:H	2.23	0.41
23:DA:2290:G:C2	23:DA:2343:C:O2	2.74	0.41
23:BA:269:U:C4	23:BA:271(A):U:C2	3.09	0.41
23:DA:2238:G:N3	23:DA:2238:G:H2'	2.36	0.41
15:CO:17:ARG:NH1	15:CO:77:ARG:NH1	2.69	0.41
32:DJ:41:ALA:O	32:DJ:44:LYS:HG2	2.21	0.41
23:DA:32:C:C2'	23:DA:33:U:H5'	2.50	0.41
1:AA:604:G:C5	1:AA:605:U:C5	3.08	0.41
23:DA:1035:U:H2'	23:DA:1036:G:C8	2.56	0.41
23:DA:822:U:O2'	23:DA:823:G:H5'	2.19	0.41
23:DA:1370:C:H2'	23:DA:1371:G:C5'	2.51	0.41
38:DP:19:LEU:HG	38:DP:19:LEU:H	1.33	0.41
23:BA:239:U:O2'	23:BA:240:G:H5'	2.20	0.41
23:BA:1583:A:O5'	23:BA:1583:A:H8	2.04	0.41
1:AA:997:U:C4	1:AA:998(A):G:N7	2.89	0.41
23:DA:1949:G:H2'	23:DA:1950:G:O4'	2.20	0.41
23:DA:1491:G:C5	23:DA:1500:G:N2	2.89	0.41
38:DP:10:VAL:C	38:DP:12:SER:N	2.74	0.41
23:DA:2393:A:H5''	34:DL:62:LEU:CD1	2.41	0.41
23:DA:2393:A:N6	23:DA:2422:A:C2	2.89	0.41
23:BA:306:U:H3'	23:BA:306:U:H6	1.86	0.41
25:BC:150:LYS:HE3	25:BC:150:LYS:HA	2.01	0.41
23:DA:310:A:P	43:DU:18:GLY:HA2	2.60	0.41
2:AB:159:PRO:HB3	2:AB:161:ALA:O	2.21	0.41
32:DJ:157:ARG:O	32:DJ:157:ARG:CG	2.67	0.41
32:DJ:36:TRP:HB2	32:DJ:156:GLN:HB2	2.02	0.41
41:DS:17:VAL:O	41:DS:20:VAL:N	2.53	0.41
40:BR:47:VAL:CG1	40:BR:50:PRO:O	2.69	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:748:G:C8	23:BA:750:A:C8	3.09	0.41
1:CA:673:G:C6	1:CA:674:G:C6	3.09	0.41
4:CD:94:LEU:HD23	4:CD:97:LEU:HD12	2.01	0.41
1:AA:324:G:P	20:AT:22:ARG:HG2	2.61	0.41
1:CA:232:G:H2'	1:CA:233:C:O4'	2.20	0.41
36:DN:103:ARG:HH12	36:DN:110:PRO:HG3	1.84	0.41
24:BB:41:U:H5	28:BF:70:VAL:H	1.68	0.41
4:AD:110:PHE:CE1	4:AD:148:VAL:HG23	2.56	0.41
24:DB:70:C:C2	24:DB:71:C:C6	3.09	0.41
3:CC:91:LEU:HD12	3:CC:101:LEU:HD21	2.01	0.41
1:AA:367:U:C5	1:AA:394:G:N1	2.89	0.41
27:BE:167:ALA:O	27:BE:170:LEU:HB2	2.21	0.41
45:BW:70:GLN:HG2	45:BW:72:ARG:CG	2.51	0.41
5:AE:76:ILE:HG23	5:AE:78:HIS:H	1.86	0.41
23:DA:2542:A:C8	23:DA:2544:G:O6	2.73	0.41
1:CA:1072:G:C6	1:CA:1104:G:N1	2.89	0.41
1:AA:1063:C:C5	1:AA:1064:G:C4	3.09	0.41
1:AA:1071:C:O2	1:AA:1072:G:C8	2.73	0.41
25:DC:172:TYR:CD1	25:DC:185:VAL:C	2.91	0.41
2:CB:138:LEU:HA	2:CB:141:GLU:HG3	2.02	0.41
6:CF:62:TRP:CD2	6:CF:62:TRP:O	2.74	0.41
23:BA:528:A:N1	23:BA:2043:C:O5'	2.54	0.41
23:DA:2755:C:H6	23:DA:2755:C:O5'	2.03	0.41
5:CE:50:GLU:HB3	5:CE:53:LEU:CD1	2.51	0.41
1:AA:738:C:C2	1:AA:739:C:C5	3.09	0.41
23:BA:2752:C:C2'	23:BA:2753:A:H5'	2.51	0.41
1:AA:658:G:N1	1:AA:749:C:C4	2.88	0.41
23:BA:1105:U:C2'	23:BA:1106:G:H5'	2.50	0.41
9:CI:16:ARG:O	9:CI:63:ILE:HG23	2.20	0.41
16:AP:72:ARG:O	16:AP:72:ARG:HG2	2.20	0.41
8:CH:134:ILE:O	8:CH:135:CYS:HB3	2.21	0.41
25:BC:7:LYS:HG3	25:BC:8:PRO:HD2	2.03	0.41
23:DA:1669:A:H2'	23:DA:1670:C:H5'	2.02	0.41
37:DO:34:HIS:CB	37:DO:36:TYR:HE1	2.33	0.41
3:AC:50:ALA:HB1	3:AC:70:VAL:HG11	2.03	0.41
3:AC:58:GLU:C	3:AC:59:ARG:HG3	2.41	0.41
1:AA:69:G:C6	1:AA:101:A:N6	2.88	0.41
29:DG:87:LEU:CD2	29:DG:164:TYR:CD1	3.03	0.41
2:AB:165:VAL:HG23	2:AB:166:ASP:N	2.35	0.41
28:BF:106:LEU:HA	28:BF:110:ALA:HB3	2.01	0.41
40:DR:93:GLU:O	40:DR:94:LEU:HD23	2.21	0.41
50:D2:40:LYS:HE2	50:D2:46:CYS:SG	2.60	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BJ:136:GLY:O	32:BJ:139:LEU:HB2	2.20	0.41
23:BA:333:G:C2'	23:BA:334:C:H5'	2.51	0.41
23:BA:2631:G:C6	23:BA:2632:A:C5	3.08	0.41
33:DK:48:PRO:C	33:DK:49:ARG:HG2	2.41	0.41
23:BA:301:G:OP1	23:BA:301:G:H4'	2.20	0.41
23:BA:304:G:H2'	23:BA:305:U:O4'	2.21	0.41
36:BN:52:ILE:HD12	36:BN:79:LEU:HD21	2.02	0.41
1:CA:976:G:H8	1:CA:1358:U:O2'	2.03	0.41
41:BS:65:LEU:HB2	41:BS:68:ARG:NE	2.27	0.41
1:CA:630:G:H2'	1:CA:631:G:O4'	2.21	0.41
12:AL:7:ASN:CA	12:AL:10:VAL:HG23	2.51	0.41
8:AH:64:LYS:CB	8:AH:79:VAL:HG21	2.51	0.41
35:DM:111:GLU:OE2	35:DM:133:ARG:CZ	2.68	0.41
13:CM:24:GLY:CA	13:CM:70:LEU:HD13	2.50	0.41
23:BA:2870:C:H2'	23:BA:2871:C:O4'	2.21	0.41
1:AA:560:U:O5'	1:AA:566:G:N2	2.54	0.41
35:BM:45:GLN:O	35:BM:49:ALA:HB2	2.21	0.41
15:AO:6:GLU:HG2	15:AO:7:GLU:N	2.35	0.41
23:DA:189:G:C2'	23:DA:190:A:O5'	2.69	0.41
6:AF:47:ARG:HH11	6:AF:47:ARG:CG	2.32	0.41
24:BB:112:G:N3	24:BB:112:G:H2'	2.36	0.41
23:BA:2621:A:H5'	26:BD:119:ARG:HH22	1.85	0.41
23:BA:1515:C:O2	23:BA:1515:C:H2'	2.21	0.41
1:CA:55:A:C4	1:CA:56:U:C5	3.08	0.41
23:DA:524:U:H4'	23:DA:554:U:H4'	2.03	0.41
3:AC:120:VAL:HG21	3:AC:137:ALA:CB	2.50	0.41
23:DA:161:U:O2	23:DA:165:U:O4	2.39	0.41
23:BA:914:C:C6	23:BA:914:C:C3'	3.04	0.41
15:AO:67:LEU:HD23	15:AO:78:TYR:CE1	2.55	0.41
3:AC:186:PHE:CG	3:AC:187:ALA:N	2.88	0.41
1:CA:636:U:C5'	17:CQ:2:PRO:HG3	2.50	0.41
23:DA:621:A:H5'	23:DA:622:G:OP2	2.20	0.41
23:BA:260:G:C2	23:BA:261:G:H1'	2.56	0.41
23:BA:2615:U:N1	50:B2:7:PRO:HA	2.35	0.41
1:CA:1384:C:C2	1:CA:1385:G:C8	3.09	0.41
1:AA:572:A:H5''	1:AA:917:G:H4'	2.03	0.41
7:CG:41:ARG:O	7:CG:45:ASP:N	2.42	0.41
33:BK:13:ASN:C	33:BK:15:GLY:N	2.74	0.41
1:CA:1163:C:C2	1:CA:1174:G:C2	3.08	0.41
29:DG:34:GLU:O	29:DG:36:PRO:HD3	2.19	0.41
1:AA:296:U:H2'	1:AA:297:G:C8	2.56	0.41
23:BA:41:C:H2'	23:BA:43:G:O4'	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BH:78:THR:O	30:BH:80:PRO:HD3	2.21	0.41
7:CG:111:ARG:CZ	7:CG:122:HIS:HB3	2.50	0.41
23:BA:2446:G:N2	23:BA:2449:U:O2	2.53	0.41
40:DR:8:GLY:O	40:DR:10:LYS:HG3	2.21	0.41
36:BN:116:LEU:HD23	36:BN:116:LEU:HA	1.68	0.41
2:AB:172:ILE:HG13	2:AB:172:ILE:H	1.57	0.41
23:BA:1801:G:H2'	23:BA:1801:G:N3	2.36	0.41
28:BF:107:LEU:HD13	28:BF:177:GLY:O	2.21	0.41
23:DA:2415:G:H4'	34:DL:67:MET:N	2.36	0.41
23:BA:2415:G:C2	23:BA:2416:C:C2	3.09	0.41
23:BA:2415:G:H4'	34:BL:66:GLY:HA3	2.01	0.41
47:BY:1:MET:HE1	47:BY:4:SER:HB2	2.02	0.41
23:BA:1173:G:C8	23:BA:1173:G:OP2	2.73	0.41
32:BJ:120:ARG:O	32:BJ:121:VAL:C	2.58	0.41
23:DA:857:C:C2	23:DA:858:U:C5	3.09	0.41
38:DP:62:THR:HA	38:DP:74:ARG:O	2.20	0.41
2:AB:61:LEU:HG	2:AB:68:ILE:HG13	2.02	0.41
7:CG:9:VAL:HG12	7:CG:10:ARG:N	2.35	0.41
1:AA:950:U:H4'	1:AA:971:G:H22	1.81	0.41
1:AA:962:C:N4	1:AA:973:G:H1	2.19	0.41
1:CA:1251:A:H1'	1:CA:1369:C:O2'	2.20	0.41
5:CE:101:ILE:CD1	5:CE:119:LEU:HD23	2.24	0.41
23:DA:674:G:H4'	27:DE:74:ARG:HG3	2.02	0.41
23:DA:674:G:H2'	23:DA:804:A:H61	1.86	0.41
1:CA:365:U:O4'	1:CA:365:U:O2	2.32	0.41
1:CA:504:C:H2'	1:CA:504:C:O2	2.21	0.41
23:BA:2292:C:O5'	23:BA:2292:C:H6	2.04	0.41
23:BA:2293:C:H2'	23:BA:2294:C:H6	1.85	0.41
37:BO:28:VAL:HG21	37:BO:87:PHE:HE1	1.86	0.41
23:BA:2291:U:H2'	23:BA:2292:C:C6	2.56	0.41
32:BJ:36:TRP:CH2	32:BJ:74:PHE:CD2	3.09	0.41
23:BA:1188:U:H2'	23:BA:1189:A:H5'	2.01	0.41
28:BF:72:ARG:HG2	28:BF:86:MET:O	2.21	0.41
34:DL:40:SER:O	34:DL:41:ARG:CD	2.49	0.41
42:BT:49:VAL:HG21	42:BT:83:VAL:CG1	2.45	0.41
42:BT:83:VAL:O	42:BT:84:ALA:C	2.58	0.41
30:BH:77:LEU:HD23	30:BH:105:HIS:HE1	1.86	0.41
39:BQ:79:PHE:CE2	39:BQ:106:PHE:CZ	3.09	0.41
39:BQ:107:ALA:O	39:BQ:110:VAL:HB	2.20	0.41
23:DA:2292:C:O5'	23:DA:2292:C:H6	2.03	0.41
37:DO:29:PHE:CD2	37:DO:92:TYR:OH	2.74	0.41
1:AA:482:A:C2'	1:AA:482:A:N3	2.81	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:61:G:H2'	1:AA:62:U:O4'	2.20	0.41
25:DC:70:TRP:CD1	25:DC:70:TRP:O	2.73	0.41
1:AA:438:G:C4'	4:AD:123:HIS:ND1	2.82	0.41
4:CD:67:ILE:HG22	4:CD:68:TYR:CE1	2.56	0.41
1:CA:393:A:O2'	1:CA:394:G:H5'	2.21	0.41
30:DH:104:GLN:HE21	30:DH:104:GLN:HB3	1.68	0.41
23:DA:2712:U:O2'	23:DA:2713:A:H5'	2.21	0.41
1:CA:90:C:H2'	1:CA:91:C:O4'	2.21	0.41
3:CC:152:ILE:O	3:CC:152:ILE:HG22	2.21	0.41
26:BD:4:ILE:HG13	26:BD:5:LEU:O	2.21	0.41
1:CA:190:G:H8	1:CA:190:G:OP1	2.03	0.41
26:DD:86:PRO:HB2	26:DD:87:GLU:H	1.43	0.41
24:BB:13:A:H8	45:BW:74:ARG:NH2	2.19	0.41
45:BW:72:ARG:O	45:BW:73:GLY:C	2.60	0.41
23:DA:2885:C:H2'	23:DA:2886:G:O5'	2.21	0.41
26:DD:50:GLY:HA3	26:DD:75:VAL:HG11	2.01	0.41
23:DA:1323:U:C2'	23:DA:1324:G:H5'	2.50	0.41
3:AC:4:LYS:O	3:AC:5:ILE:C	2.58	0.41
1:CA:407:G:H2'	1:CA:408:A:H8	1.86	0.41
2:AB:86:GLU:C	2:AB:88:ALA:H	2.25	0.41
2:AB:88:ALA:HB2	2:AB:219:VAL:HG13	2.02	0.41
10:CJ:3:LYS:N	10:CJ:75:ILE:HA	2.35	0.41
1:CA:318:G:C2	1:CA:319:G:C5	3.09	0.41
1:CA:61:G:H2'	1:CA:62:U:O4'	2.21	0.41
23:DA:2743:C:H2'	23:DA:2744:G:O4'	2.21	0.41
29:DG:140:LYS:HB2	29:DG:140:LYS:HE3	1.88	0.41
23:DA:2758:A:C2	23:DA:2759:G:C1'	3.04	0.41
23:BA:2306:C:N4	23:BA:2311:A:N6	2.68	0.41
23:DA:1423:G:N2	23:DA:1576:U:H1'	2.35	0.41
1:CA:986:A:C2	1:CA:1220:G:C2	3.08	0.41
1:CA:448:A:OP2	1:CA:485:G:N1	2.52	0.41
23:DA:96:G:C4'	47:DY:48:HIS:CE1	2.96	0.41
1:AA:818:G:N3	1:AA:820:U:C5	2.89	0.41
40:DR:64:HIS:HA	40:DR:92:THR:HA	2.03	0.41
11:CK:69:ALA:O	11:CK:72:ALA:HB3	2.21	0.41
23:DA:1884:A:N1	23:DA:1885:A:C5	2.89	0.41
27:BE:65:TRP:CH2	27:BE:75:HIS:HD2	2.38	0.41
41:DS:41:LYS:O	41:DS:42:ARG:C	2.60	0.41
1:AA:628:G:O2'	1:AA:629:G:H5'	2.20	0.41
27:DE:89:VAL:C	27:DE:91:GLY:H	2.24	0.41
23:DA:911:A:C2'	35:DM:9:TYR:OH	2.62	0.41
23:BA:761:A:C8	23:BA:761:A:C3'	3.04	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:753:C:OP1	52:D4:1:MET:CE	2.67	0.41
15:CO:85:LEU:HA	15:CO:85:LEU:HD23	1.83	0.41
23:DA:2790:A:H2'	23:DA:2791:C:C5'	2.40	0.41
1:AA:1270:C:H2'	1:AA:1271:G:O4'	2.21	0.41
13:CM:67:GLU:HG3	13:CM:68:GLY:N	2.27	0.41
13:AM:67:GLU:HG3	13:AM:68:GLY:N	2.27	0.41
23:DA:2842:G:H2'	23:DA:2843:G:O4'	2.21	0.41
25:BC:25:THR:O	25:BC:27:THR:CB	2.68	0.41
23:DA:385:C:HO2'	23:DA:390:A:H2	1.69	0.41
4:AD:82:ALA:CB	4:AD:89:THR:HG23	2.50	0.41
25:DC:28:GLU:HB3	25:DC:29:PRO:CD	2.44	0.41
1:CA:1067:A:N3	1:CA:1068:G:H1'	2.36	0.41
1:AA:106:C:H2'	1:AA:107:G:H5'	2.00	0.41
1:CA:104:G:C2	1:CA:105:G:C5	3.09	0.41
1:CA:66:G:C4'	1:CA:173:U:C5	3.02	0.41
28:BF:111:LEU:N	28:BF:112:PRO:CD	2.84	0.41
44:BV:85:HIS:C	44:BV:85:HIS:HD1	2.24	0.41
50:D2:51:TYR:CZ	50:D2:52:TYR:CE1	3.09	0.41
50:B2:29:ILE:O	50:B2:42:PRO:HD3	2.21	0.41
50:B2:42:PRO:HB2	50:B2:43:HIS:CD2	2.55	0.41
18:CR:43:PHE:C	18:CR:44:LEU:HD12	2.41	0.41
23:BA:2188:C:C4	23:BA:2189:U:C6	3.09	0.41
1:CA:658:G:C4	1:CA:659:U:C5	3.08	0.41
46:BX:23:LYS:HB3	46:BX:37:ILE:HG12	2.02	0.41
23:BA:2287:A:C4	23:BA:2289:G:N7	2.89	0.41
23:BA:284:U:H2'	23:BA:285:C:H6	1.85	0.41
1:AA:216:G:C6	1:AA:217:C:N4	2.89	0.41
32:BJ:66:THR:HB	32:BJ:69:VAL:CG1	2.50	0.41
23:DA:559:G:H22	39:DQ:49:HIS:CD2	2.38	0.41
50:B2:40:LYS:NZ	50:B2:49:CYS:CB	2.81	0.41
23:DA:2639:A:H2'	23:DA:2640:G:C5'	2.46	0.41
23:BA:2346:A:H5''	23:BA:2383:G:O4'	2.20	0.41
29:DG:55:PRO:HG2	29:DG:61:HIS:ND1	2.36	0.41
1:CA:922:G:H3'	1:CA:923:A:H8	1.85	0.41
16:AP:43:LYS:HA	16:AP:48:TRP:CB	2.51	0.41
23:BA:991:C:O2	23:BA:991:C:H2'	2.21	0.41
1:CA:939:G:C6	1:CA:940:C:N4	2.89	0.41
1:CA:254:G:H2'	1:CA:255:G:C8	2.53	0.41
1:CA:909:A:C8	1:CA:910:C:C5	3.08	0.41
23:BA:278:A:C2	23:BA:279:C:C2	3.09	0.41
23:BA:278:A:O2'	23:BA:279:C:C1'	2.69	0.41
1:AA:918:A:C2	1:AA:919:A:C4	3.09	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:15:G:N3	1:CA:16:A:C8	2.89	0.41
5:AE:144:THR:HG23	5:AE:147:ASP:OD1	2.21	0.41
13:AM:79:LYS:O	13:AM:82:MET:HB3	2.20	0.41
4:AD:8:VAL:O	4:AD:11:LEU:HG	2.21	0.41
23:BA:1946:U:C2	23:BA:1947:C:C5	3.09	0.41
1:AA:720:C:H5'	18:AR:50:ILE:O	2.21	0.41
23:DA:2869:G:C6	23:DA:2870:C:C4	3.08	0.41
1:AA:522:C:O2'	1:AA:523:A:H5'	2.21	0.41
8:AH:64:LYS:HB3	8:AH:79:VAL:HG21	2.02	0.41
4:AD:70:ILE:HG12	4:AD:71:SER:H	1.84	0.41
35:DM:134:ARG:O	35:DM:135:ASP:C	2.59	0.41
7:CG:15:ASP:HB3	7:CG:19:GLY:H	1.86	0.41
8:AH:39:LEU:C	8:AH:45:ILE:HG12	2.41	0.41
43:BU:46:LYS:C	43:BU:48:ALA:N	2.74	0.41
12:CL:7:ASN:CA	12:CL:10:VAL:HG23	2.50	0.41
12:AL:74:HIS:CD2	12:AL:76:LEU:HB2	2.56	0.41
25:BC:257:LEU:HD23	25:BC:258:LYS:N	2.36	0.41
23:DA:2190:G:O2'	23:DA:2191:G:H5'	2.21	0.41
1:AA:1109:C:H2'	1:AA:1110:A:O4'	2.21	0.41
40:DR:72:VAL:HG23	40:DR:85:LYS:HB3	2.03	0.41
44:BV:120:ILE:H	44:BV:172:ALA:HA	1.86	0.41
23:DA:1217:C:OP1	39:DQ:15:LYS:HE2	2.20	0.41
1:CA:186(E):C:H2'	1:CA:186(F):C:H6	1.86	0.41
23:BA:1131:G:C2	23:BA:1132:A:C4	3.09	0.41
43:DU:89:PHE:HA	43:DU:89:PHE:HD1	1.68	0.41
6:CF:74:ASP:HA	6:CF:77:ARG:NH1	2.36	0.41
23:DA:2085:C:H2'	23:DA:2086:U:O4'	2.21	0.41
23:BA:1335:U:H2'	23:BA:1336:A:O5'	2.21	0.41
23:DA:2459:A:C4	23:DA:2460:U:C6	3.08	0.41
23:BA:1232:G:H2'	23:BA:1233:C:C6	2.51	0.41
23:DA:2853:C:H2'	23:DA:2854:G:C8	2.49	0.41
23:DA:1444:G:C2	23:DA:1548:C:C2	3.08	0.41
44:DV:120:ILE:HG12	44:DV:172:ALA:HA	2.03	0.41
33:BK:60:ALA:HB2	33:BK:86:ILE:HA	2.02	0.41
23:BA:189:G:H1'	23:BA:207:A:H61	1.85	0.41
38:BP:126:ALA:C	38:BP:128:GLU:H	2.23	0.41
1:AA:145:G:N2	1:AA:178:C:N3	2.69	0.41
21:CU:9:ARG:HG3	21:CU:10:ARG:N	2.36	0.41
23:DA:24:G:C6	23:DA:25:U:C4	3.09	0.41
23:BA:414:C:O2'	23:BA:415:A:H5'	2.20	0.41
3:AC:16:ARG:HH11	3:AC:16:ARG:HB2	1.83	0.41
2:AB:37:ASN:HA	2:AB:37:ASN:HD22	1.67	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:1993:U:H4'	26:DD:128:SER:HB2	2.03	0.41
23:DA:171:G:N3	23:DA:171:G:H2'	2.35	0.41
1:AA:1165:C:C2'	1:AA:1166:G:H5'	2.51	0.41
28:BF:139:LEU:HA	28:BF:144:ILE:HG21	2.03	0.41
14:CN:7:ILE:HD12	14:CN:8:GLU:N	2.36	0.41
29:BG:117:PRO:HA	29:BG:118:PRO:HD2	1.90	0.41
1:CA:259:G:OP2	20:CT:83:ARG:HD3	2.21	0.41
23:BA:503:A:C6	23:BA:506:G:C6	3.09	0.41
35:BM:29:PHE:N	35:BM:105:GLU:OE2	2.53	0.41
37:BO:98:VAL:HG23	37:BO:99:LYS:N	2.36	0.41
23:DA:1281:G:C4	23:DA:1282:U:C6	3.09	0.41
23:BA:1993:U:H4'	26:BD:128:SER:HB2	2.03	0.41
1:CA:425:G:O2'	1:CA:426:G:H5'	2.20	0.41
23:DA:1234:U:H2'	23:DA:1235:G:O4'	2.21	0.41
4:CD:23:GLY:HA3	4:CD:112:VAL:CG1	2.51	0.41
1:CA:1464:G:C2'	1:CA:1465:C:H5'	2.51	0.41
37:BO:79:ALA:C	37:BO:80:LEU:HD23	2.41	0.41
1:AA:157:G:C2	1:AA:165:C:N3	2.89	0.41
30:BH:30:LEU:O	30:BH:31:LEU:C	2.58	0.41
1:AA:619:U:O2	4:AD:135:LEU:HD22	2.20	0.41
1:CA:450:G:H2'	1:CA:451:A:OP1	2.21	0.41
23:BA:1464:C:H2'	23:BA:1465:G:H8	1.85	0.41
12:CL:51:LEU:H	12:CL:51:LEU:HD12	1.85	0.41
44:BV:157:LEU:HA	44:BV:158:PRO:HD2	1.92	0.41
23:DA:2694:G:C4	23:DA:2695:C:C5	3.09	0.41
1:AA:385:C:H3'	1:AA:385:C:C6	2.54	0.41
32:BJ:151:HIS:O	32:BJ:151:HIS:CG	2.73	0.41
23:BA:768:G:C6	23:BA:769:G:C5	3.08	0.41
35:BM:72:LYS:O	35:BM:93:TYR:HA	2.20	0.41
23:BA:2230:G:O3'	46:BX:43:TYR:HB2	2.21	0.41
18:AR:65:ILE:H	18:AR:65:ILE:HG12	1.52	0.41
23:BA:876:C:C2'	23:BA:877:U:H5'	2.51	0.41
1:CA:157:G:H2'	1:CA:158:G:H8	1.85	0.41
23:BA:2489:G:O2'	23:BA:2518:A:N6	2.52	0.41
23:DA:2818:G:O2'	23:DA:2819:G:H5'	2.20	0.41
23:BA:660:G:H5'	27:BE:99:TYR:CD2	2.56	0.41
1:CA:360:A:H2'	1:CA:361:G:C8	2.55	0.41
2:AB:51:LEU:HB3	2:AB:55:PHE:CE2	2.56	0.41
23:DA:2052:G:O4'	26:DD:142:GLY:HA3	2.21	0.41
23:DA:872:A:C6	23:DA:906:G:C2	3.09	0.41
6:AF:100:ASN:C	6:AF:100:ASN:HD22	2.24	0.41
17:AQ:43:LEU:HA	17:AQ:43:LEU:HD12	1.54	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:618(B):C:H2'	23:BA:618(B):C:O2	2.20	0.41
26:DD:64:LYS:HA	26:DD:64:LYS:HD2	1.81	0.41
33:BK:47:ILE:HA	33:BK:47:ILE:HD12	1.61	0.41
40:BR:99:ILE:HD13	40:BR:99:ILE:N	2.36	0.41
1:CA:135:C:H2'	1:CA:136:C:H5'	2.01	0.41
36:BN:105:ARG:HG2	36:BN:106:GLY:N	2.34	0.41
23:BA:2515:C:O2	23:BA:2570:G:C2	2.74	0.41
1:AA:930:C:C4	1:AA:931:C:C5	3.08	0.41
44:DV:129:SER:OG	44:DV:130:PRO:HD2	2.21	0.41
6:AF:24:GLU:O	6:AF:27:GLN:HB2	2.21	0.41
43:BU:52:SER:HA	43:BU:53:PRO:HD3	1.92	0.41
2:CB:51:LEU:HB3	2:CB:55:PHE:CE2	2.56	0.41
42:BT:92:LEU:HD23	42:BT:92:LEU:HA	1.91	0.41
40:BR:10:LYS:HB2	40:BR:10:LYS:HE3	1.83	0.41
48:BZ:55:ARG:HA	48:BZ:55:ARG:HD3	1.45	0.41
1:AA:102(A):C:H6	1:AA:102(A):C:O5'	2.04	0.41
1:AA:1114:C:H6	1:AA:1114:C:O5'	2.03	0.41
26:BD:183:LEU:HA	26:BD:183:LEU:HD12	1.79	0.41
23:DA:1914:C:O4'	23:DA:1914:C:O2	2.39	0.41
53:D5:13:ARG:O	53:D5:14:VAL:HG23	2.20	0.41
34:DL:101:VAL:C	34:DL:103:ALA:N	2.75	0.41
45:BW:26:TYR:HB2	45:BW:29:GLN:NE2	2.37	0.41
34:BL:148:LEU:H	34:BL:148:LEU:HD13	1.86	0.41
9:CI:118:LYS:C	9:CI:120:ARG:H	2.24	0.41
22:AV:6183:G:C6	22:AV:6184:A:C5	3.09	0.41
34:BL:36:LYS:HE3	34:BL:36:LYS:HB3	1.84	0.41
53:B5:32:LEU:CD2	53:B5:33:ASN:N	2.82	0.41
1:CA:1122:U:H2'	1:CA:1123:A:C8	2.56	0.41
39:DQ:72:HIS:ND1	39:DQ:110:VAL:HG21	2.36	0.41
39:DQ:69:CYS:HB3	39:DQ:79:PHE:CD2	2.56	0.41
23:DA:1144:G:C6	23:DA:1145:C:C4	3.09	0.41
30:BH:88:ILE:HG12	30:BH:122:GLU:C	2.42	0.41
39:BQ:92:ARG:HD3	39:BQ:94:ASN:CB	2.49	0.41
4:AD:55:ALA:O	4:AD:58:LEU:HB3	2.21	0.41
37:DO:25:ARG:CG	37:DO:88:ASP:HB2	2.51	0.41
2:CB:88:ALA:HB2	2:CB:219:VAL:HG13	2.02	0.41
5:AE:14:ARG:CZ	5:AE:129:ILE:HD11	2.50	0.41
1:CA:1102:A:C6	1:CA:1103:C:C4	3.09	0.41
23:DA:1439:A:C2	23:DA:1553:A:C4	3.09	0.41
1:AA:1085:U:O4'	1:AA:1094:G:C2	2.74	0.41
1:AA:255:G:O6	1:AA:266:G:O6	2.39	0.41
1:AA:1281:U:H3'	1:AA:1282:C:C6	2.56	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1371:G:C6	1:AA:1372:U:C4	3.08	0.41
23:BA:1652:A:OP1	36:BN:9:LYS:HD2	2.21	0.41
19:AS:62:ILE:C	19:AS:66:MET:HE3	2.41	0.41
1:CA:52:G:O2'	1:CA:53:A:H5'	2.21	0.41
23:BA:528:A:C2	23:BA:2043:C:C4'	3.04	0.41
33:BK:35:VAL:HG23	33:BK:65:THR:CG2	2.41	0.41
41:DS:9:TYR:N	41:DS:102:HIS:HD2	2.04	0.41
23:BA:2786:U:OP1	26:BD:69:LYS:HE3	2.21	0.41
23:BA:1577:C:H2'	23:BA:1578:U:C1'	2.51	0.41
23:BA:1884:A:N3	23:BA:1885:A:C8	2.89	0.41
6:CF:29:ALA:O	6:CF:30:LEU:C	2.59	0.41
23:BA:1586:A:C2'	23:BA:1587:A:H5'	2.50	0.41
23:BA:2755:C:H6	23:BA:2755:C:O5'	2.04	0.41
29:BG:21:PRO:HB2	29:BG:22:GLY:H	1.71	0.41
1:CA:642:A:C1'	8:CH:113:SER:OG	2.69	0.41
11:CK:22:HIS:HB3	11:CK:29:ILE:HG12	2.03	0.41
27:BE:130:ALA:O	27:BE:132:VAL:N	2.54	0.41
1:CA:29:G:C4	1:CA:30:U:C5	3.09	0.41
40:DR:99:ILE:HD13	40:DR:99:ILE:H	1.86	0.41
23:DA:379:G:C6	23:DA:380:U:C5	3.09	0.41
23:DA:2285:C:C2'	23:DA:2286:A:H5''	2.46	0.41
23:BA:1684:C:C2	23:BA:1705:G:C2	3.08	0.41
1:CA:67:C:H2'	1:CA:68:G:C8	2.56	0.41
11:AK:69:ALA:O	11:AK:72:ALA:HB3	2.21	0.41
15:CO:56:LEU:HD23	15:CO:60:VAL:CG2	2.51	0.41
27:BE:37:VAL:HG22	27:BE:184:TYR:HA	2.03	0.41
23:BA:1418:G:C8	23:BA:1418:G:O5'	2.61	0.41
29:DG:92:ILE:H	29:DG:92:ILE:CD1	2.34	0.41
23:BA:2428:G:H5''	23:BA:2429:G:O5'	2.20	0.41
1:AA:1342:C:O2'	1:AA:1343:G:H5'	2.21	0.41
23:BA:304:G:N2	23:BA:314:A:C4	2.89	0.41
1:CA:941:G:C2	1:CA:942:G:C8	3.09	0.41
23:BA:641:C:O2'	23:BA:2350:C:OP1	2.30	0.41
3:AC:22:TRP:HZ3	3:AC:24:ALA:HB2	1.85	0.41
8:CH:64:LYS:CB	8:CH:79:VAL:HG21	2.52	0.41
4:AD:13:ARG:O	4:AD:39:PRO:HA	2.21	0.41
23:DA:1006:C:O2'	23:DA:1007:C:H5'	2.21	0.41
8:AH:36:LEU:C	8:AH:38:ILE:H	2.23	0.41
1:AA:559:A:H4'	1:AA:560:U:C3'	2.51	0.41
23:DA:1894:C:N3	23:DA:1895:C:C5	2.89	0.41
1:AA:1095:U:H5'	1:AA:1109:C:O2	2.21	0.41
23:BA:572:A:H2'	23:BA:573:G:O4'	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BU:89:PHE:HD1	43:BU:89:PHE:HA	1.68	0.41
2:CB:35:GLU:HG3	2:CB:40:HIS:HA	2.03	0.41
44:BV:107:THR:HA	44:BV:108:PRO:HD3	1.77	0.41
23:DA:2461:C:H42	23:DA:2489:G:H1	1.67	0.41
1:AA:1262:C:C2	1:AA:1263:C:C5	3.09	0.41
1:AA:638:G:H2'	1:AA:639:G:C5'	2.50	0.41
1:AA:20:U:H2'	1:AA:21:G:O4'	2.21	0.41
26:BD:96:PHE:HA	26:BD:100:GLU:OE1	2.20	0.41
1:CA:145:G:N2	1:CA:178:C:N3	2.68	0.41
19:CS:16:LEU:HD12	19:CS:16:LEU:H	1.86	0.41
23:BA:2097:C:O5'	23:BA:2097:C:H6	2.04	0.41
18:AR:53:ARG:C	18:AR:55:ARG:N	2.73	0.41
1:CA:1480:G:C6	1:CA:1481:U:C4	3.09	0.41
29:BG:121:ILE:O	29:BG:122:THR:HG23	2.21	0.41
1:AA:576:G:N2	1:AA:759:A:OP1	2.53	0.41
23:BA:718:A:H2'	23:BA:719:C:H5'	2.03	0.41
23:BA:245:G:C4	23:BA:246:C:C6	3.09	0.41
30:BH:54:GLN:HA	30:BH:57:ARG:HB3	2.03	0.41
23:BA:1838:C:HO2'	23:BA:1898:U:H5	1.68	0.41
32:DJ:151:HIS:NE2	32:DJ:153:HIS:HA	2.36	0.41
1:AA:838:G:N2	1:AA:849:C:C4	2.89	0.41
1:CA:1438:G:H2'	1:CA:1439:C:H6	1.86	0.41
1:AA:897:C:H42	1:AA:902:G:H1	1.69	0.41
23:BA:1416:G:O2'	23:BA:1417:C:P	2.78	0.41
23:BA:663:G:O3'	34:BL:21:ARG:NH1	2.53	0.41
23:DA:2448:A:OP1	23:DA:2499:C:OP1	2.39	0.41
44:DV:77:ASP:HB2	44:DV:84:GLU:CG	2.51	0.41
44:BV:129:SER:HA	44:BV:130:PRO:HD3	1.90	0.41
25:BC:98:VAL:CG2	25:BC:99:ASP:N	2.84	0.41
22:CV:6179:U:H2'	22:CV:6180:U:C6	2.56	0.41
1:AA:298:A:H2'	1:AA:299:G:O4'	2.21	0.41
43:DU:31:LEU:HA	43:DU:32:PRO:HD3	1.80	0.41
27:DE:114:VAL:HG11	27:DE:202:PHE:CZ	2.55	0.41
23:BA:2626:C:H2'	23:BA:2627:G:O4'	2.21	0.41
23:DA:1632:A:C6	23:DA:1633:G:C6	3.09	0.41
23:DA:2859:G:O2'	23:DA:2860:A:H5'	2.21	0.41
4:AD:120:LEU:O	4:AD:125:HIS:HB2	2.21	0.41
25:DC:4:LYS:NZ	25:DC:4:LYS:CB	2.84	0.41
23:DA:97:C:H2'	23:DA:97:C:O2	2.19	0.41
6:CF:100:ASN:C	6:CF:100:ASN:HD22	2.24	0.41
23:BA:196:A:N3	23:BA:196:A:H2'	2.36	0.41
17:AQ:98:LEU:HD23	17:AQ:98:LEU:HA	1.70	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:56:LEU:C	9:CI:56:LEU:HD23	2.41	0.41
26:BD:68:ALA:C	26:BD:70:ALA:H	2.25	0.41
6:CF:41:GLU:O	6:CF:43:LEU:N	2.54	0.41
34:DL:80:TYR:CZ	34:DL:111:ARG:HG2	2.55	0.40
23:BA:960:A:H2	23:BA:2495:G:N3	2.19	0.40
34:BL:59:LEU:O	34:BL:59:LEU:HD23	2.20	0.40
47:DY:2:LYS:O	47:DY:5:GLU:CD	2.59	0.40
23:BA:2013:A:N6	23:BA:2014:A:C6	2.89	0.40
23:DA:1541:U:H3'	23:DA:1542:G:C2'	2.50	0.40
23:BA:1448:G:N2	23:BA:149(B):A:N6	2.69	0.40
23:BA:1541:U:H5''	23:BA:1543:A:OP2	2.19	0.40
23:DA:1178:C:H2'	23:DA:1179:C:H6	1.86	0.40
2:AB:182:ILE:O	2:AB:183:PRO:C	2.59	0.40
2:AB:184:VAL:H	2:AB:198:ASP:HB2	1.86	0.40
1:CA:1351:U:C2'	1:CA:1352:C:H5'	2.50	0.40
23:BA:1191:G:OP1	34:BL:35:HIS:CE1	2.74	0.40
38:BP:62:THR:HA	38:BP:74:ARG:O	2.20	0.40
2:CB:61:LEU:O	2:CB:61:LEU:HD12	2.21	0.40
23:DA:743:G:O2'	23:DA:744:G:H5'	2.21	0.40
16:CP:4:ILE:HA	16:CP:20:VAL:O	2.21	0.40
1:AA:551:U:H5'	12:AL:118:LYS:HZ3	1.86	0.40
1:AA:429:U:H1'	1:AA:430:A:H5''	2.03	0.40
47:BY:29:LYS:HD3	47:BY:57:ILE:HG21	2.02	0.40
47:BY:60:LEU:C	47:BY:62:THR:N	2.74	0.40
20:AT:30:LYS:HA	20:AT:30:LYS:HD3	1.93	0.40
23:DA:1299:G:H3'	23:DA:1639:U:O4	2.22	0.40
23:DA:1640:C:H5'	23:DA:1640:C:H6	1.85	0.40
24:DB:41:U:OP1	24:DB:42:C:H5	2.04	0.40
24:DB:73:A:C8	24:DB:74:U:C5	3.09	0.40
26:BD:34:VAL:HG11	26:BD:78:LEU:HD12	2.03	0.40
1:CA:1201:A:C2'	1:CA:1202:G:OP2	2.68	0.40
5:CE:109:ILE:O	5:CE:113:ALA:HB2	2.20	0.40
36:DN:21:TYR:OH	36:DN:43:GLU:HG2	2.21	0.40
44:BV:30:ASN:O	44:BV:33:LEU:N	2.53	0.40
4:AD:195:ALA:C	4:AD:196:LEU:HD12	2.41	0.40
23:DA:1286:A:O2'	23:DA:1288:U:P	2.79	0.40
42:BT:31:HIS:HA	42:BT:32:PRO:HD3	1.92	0.40
48:DZ:40:THR:HG23	48:DZ:43:ILE:CD1	2.50	0.40
25:DC:172:TYR:CD1	25:DC:185:VAL:O	2.67	0.40
12:AL:44:PRO:HB3	12:AL:91:ASP:OD1	2.21	0.40
23:DA:2310:A:H2'	23:DA:2311:A:H5'	2.03	0.40
47:DY:48:HIS:C	47:DY:50:ILE:N	2.72	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:1486:A:C2	23:DA:1487:G:C5	3.09	0.40
27:BE:106:ARG:HG2	27:BE:106:ARG:H	1.46	0.40
27:BE:39:TRP:CH2	27:BE:106:ARG:NE	2.89	0.40
23:BA:2776:A:C2	23:BA:2778:A:C4	3.09	0.40
23:BA:732:C:H2'	23:BA:733:G:C5'	2.51	0.40
1:AA:828:A:C5'	1:AA:859:A:C2	2.96	0.40
23:DA:2207:C:H2'	23:DA:2208:U:O4'	2.22	0.40
33:DK:88:ASN:N	33:DK:92:GLU:O	2.40	0.40
40:DR:99:ILE:HD13	40:DR:100:ARG:H	1.86	0.40
43:DU:3:VAL:C	43:DU:5:MET:H	2.23	0.40
25:BC:81:ALA:O	25:BC:93:ALA:HA	2.20	0.40
23:DA:2562:U:H2'	23:DA:2563:U:C5'	2.50	0.40
1:CA:1085:U:O4'	1:CA:1094:G:N1	2.54	0.40
3:CC:4:LYS:O	3:CC:5:ILE:C	2.58	0.40
25:BC:165:ILE:C	25:BC:166:GLN:HE21	2.24	0.40
23:DA:256:A:HO2'	23:DA:257:A:H5'	1.84	0.40
1:CA:658:G:C4'	15:CO:22:THR:HB	2.51	0.40
23:BA:1386:C:C2	23:BA:1387:C:C5	3.08	0.40
23:BA:1389:G:N2	23:BA:1390:U:C2	2.89	0.40
1:CA:1056:U:C5	1:CA:1200:C:N4	2.88	0.40
27:BE:89:VAL:CG1	27:BE:90:PHE:H	2.28	0.40
23:BA:1728:G:C8	23:BA:1728:G:C3'	3.04	0.40
23:BA:2840:C:H5''	36:BN:53:HIS:CG	2.56	0.40
23:DA:1248:G:N7	39:DQ:3:ARG:HB2	2.36	0.40
13:CM:76:ALA:CA	13:CM:79:LYS:HE2	2.45	0.40
8:CH:64:LYS:HB3	8:CH:79:VAL:HG21	2.02	0.40
1:CA:973:G:OP1	10:CJ:57:LYS:HE2	2.21	0.40
1:CA:973:G:OP1	10:CJ:57:LYS:CE	2.69	0.40
13:CM:24:GLY:HA2	13:CM:70:LEU:HD13	2.02	0.40
1:CA:433:C:C5	1:CA:434:U:H5	2.39	0.40
23:BA:978:G:H2'	23:BA:979:G:H5'	1.99	0.40
7:CG:23:VAL:HG13	7:CG:43:PHE:CE2	2.56	0.40
23:BA:737:C:O2'	23:BA:738:G:H5'	2.21	0.40
8:CH:39:LEU:HA	8:CH:39:LEU:HD13	1.77	0.40
7:AG:23:VAL:CG1	7:AG:43:PHE:HE2	2.34	0.40
23:DA:1709:U:C2	23:DA:1750:G:N2	2.88	0.40
23:BA:1833:U:H2'	23:BA:1834:U:H6	1.86	0.40
12:CL:5:THR:O	12:CL:9:LEU:HD12	2.21	0.40
37:BO:13:ARG:HG3	37:BO:14:VAL:H	1.85	0.40
23:BA:2280:G:C2'	23:BA:2281:C:H5'	2.52	0.40
23:BA:2738:A:H2'	23:BA:2739:U:O5'	2.21	0.40
23:BA:136:G:C4	23:BA:137(A):C:C6	3.10	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:AS:12:ASP:HB2	19:AS:15:LEU:HD23	2.03	0.40
43:DU:61:ILE:HG12	43:DU:61:ILE:H	1.54	0.40
23:DA:1797:C:O2'	25:DC:259:THR:CG2	2.69	0.40
25:BC:162:SER:HB2	25:BC:195:ALA:CB	2.51	0.40
9:CI:46:ALA:HB2	9:CI:74:ILE:HG22	2.03	0.40
23:DA:1242:A:C8	23:DA:1243:G:C8	3.08	0.40
35:DM:30:GLY:HA2	35:DM:107:ALA:HB2	2.02	0.40
24:BB:100:G:H2'	24:BB:101:A:O4'	2.21	0.40
3:CC:16:ARG:HB2	3:CC:16:ARG:HH11	1.86	0.40
12:AL:125:LYS:HD2	12:AL:125:LYS:HA	1.84	0.40
23:BA:466:A:C3'	23:BA:467:G:H5'	2.50	0.40
23:BA:608:A:C4	23:BA:621:A:C6	3.09	0.40
23:BA:273(B):G:N2	23:BA:364:C:C2	2.89	0.40
36:DN:18:LEU:HD11	36:DN:22:ARG:CZ	2.50	0.40
23:BA:878:A:C6	23:BA:900:A:N7	2.89	0.40
23:DA:265:A:C8	23:DA:266:G:H1'	2.56	0.40
23:BA:1465:G:H21	23:BA:1466:G:H1'	1.85	0.40
23:DA:2812:G:H2'	23:DA:2813:A:O5'	2.21	0.40
1:AA:892:A:O2'	1:AA:1415:G:H4'	2.21	0.40
23:BA:1769:G:C6	23:BA:1984:G:C6	3.09	0.40
23:BA:270(X):G:O2'	23:BA:270(Y):G:H5'	2.21	0.40
23:BA:1416:G:O2'	23:BA:1417:C:H6	2.04	0.40
33:BK:7:TYR:CZ	33:BK:44:LYS:HG3	2.56	0.40
34:DL:23:PRO:O	34:DL:29:LYS:O	2.38	0.40
15:CO:66:LEU:H	15:CO:66:LEU:HD13	1.86	0.40
40:BR:99:ILE:HD13	40:BR:99:ILE:H	1.86	0.40
46:DX:34:THR:C	46:DX:35:THR:HG23	2.41	0.40
1:CA:340:U:H2'	1:CA:341:C:C6	2.56	0.40
23:DA:1107:G:H2'	23:DA:1108:U:H6	1.86	0.40
8:AH:74:PRO:O	8:AH:76:PRO:HD3	2.21	0.40
28:DF:97:ASP:HA	28:DF:100:TRP:HD1	1.86	0.40
23:BA:1484:G:H2'	23:BA:1485:G:H8	1.85	0.40
23:BA:2508:G:H2'	23:BA:2509:G:O4'	2.20	0.40
25:DC:248:SER:HB2	25:DC:250:TRP:CE3	2.56	0.40
23:BA:180:G:N1	23:BA:214:G:N7	2.62	0.40
36:DN:28:LEU:HD23	36:DN:28:LEU:HA	1.70	0.40
23:BA:2006:C:H6	23:BA:2006:C:O5'	2.04	0.40
23:BA:144:C:H2'	23:BA:145:G:H8	1.86	0.40
23:BA:2760:C:H2'	23:BA:2760:C:O2	2.21	0.40
27:BE:140:LEU:HA	27:BE:140:LEU:HD12	1.90	0.40
2:CB:169:LYS:HE2	2:CB:169:LYS:C	2.41	0.40
23:DA:2380:C:H6	23:DA:2380:C:O5'	2.03	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DQ:59:ARG:HB2	39:DQ:59:ARG:HE	1.50	0.40
2:AB:122:PHE:O	2:AB:122:PHE:CD2	2.74	0.40
23:DA:1733:G:H8	23:DA:1733:G:O5'	2.03	0.40
3:AC:136:GLN:O	3:AC:140:ARG:N	2.54	0.40
43:BU:73:ARG:HH22	43:BU:82:PRO:HD3	1.86	0.40
53:D5:53:PRO:HA	53:D5:56:GLU:HB2	2.04	0.40
23:BA:2388:A:H8	23:BA:2389:G:C5	2.40	0.40
23:BA:1448:G:H1'	23:BA:1528:A:N1	2.36	0.40
34:BL:90:ARG:C	34:BL:91:PHE:HD1	2.24	0.40
23:DA:2846:G:C4	23:DA:2847:U:C5	3.09	0.40
2:CB:61:LEU:HD21	2:CB:161:ALA:CB	2.51	0.40
2:CB:61:LEU:HG	2:CB:68:ILE:HG13	2.03	0.40
42:BT:63:LYS:HZ1	42:BT:72:LYS:HB3	1.85	0.40
34:DL:51:PHE:O	34:DL:52:GLU:C	2.59	0.40
53:B5:7:HIS:CD2	53:B5:60:LEU:HD13	2.56	0.40
3:CC:18:TRP:HE3	3:CC:18:TRP:H	1.68	0.40
4:CD:68:TYR:N	4:CD:68:TYR:CD1	2.88	0.40
1:AA:690:G:C5	1:AA:691:G:C6	3.09	0.40
23:DA:72:U:H1'	47:DY:58:ALA:CB	2.52	0.40
30:DH:97:ILE:HG21	30:DH:114:LEU:HD11	2.04	0.40
13:AM:56:LEU:HD13	13:AM:56:LEU:O	2.21	0.40
1:AA:1098:C:H2'	1:AA:1099:G:O4'	2.21	0.40
49:D1:59:VAL:CG1	49:D1:60:GLU:H	2.15	0.40
36:DN:103:ARG:NH1	36:DN:108:GLY:O	2.55	0.40
24:DB:72:G:N2	24:DB:103:U:C5	2.89	0.40
26:BD:61:ARG:HB2	26:BD:63:LEU:HB2	2.04	0.40
27:DE:123:LEU:HD11	27:DE:125:LEU:HD23	2.03	0.40
17:CQ:63:ARG:HG2	17:CQ:64:PRO:CD	2.52	0.40
5:CE:79:GLU:CG	5:CE:92:LYS:HG3	2.52	0.40
24:BB:16:G:O6	24:BB:69:G:C2	2.74	0.40
23:DA:1332:G:H22	23:DA:1610:A:H8	1.68	0.40
1:CA:1102:A:N6	1:CA:1103:C:N4	2.70	0.40
2:AB:100:GLY:N	2:AB:176:GLU:OE2	2.41	0.40
1:AA:1151:A:O2'	1:AA:1152:A:O4'	2.39	0.40
1:AA:1292:U:O5'	1:AA:1292:U:H6	2.04	0.40
36:BN:59:ASP:N	36:BN:59:ASP:OD2	2.53	0.40
27:DE:167:ALA:O	27:DE:168:ARG:C	2.60	0.40
23:DA:2396:G:N3	23:DA:2421:G:C2	2.89	0.40
23:DA:2305:A:H5''	28:DF:134:GLY:CA	2.48	0.40
1:CA:448:A:C6	1:CA:487:A:N3	2.89	0.40
23:BA:2792:G:C6	23:BA:2805:G:N1	2.90	0.40
23:BA:380:U:O2	23:BA:381:G:C8	2.74	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CF:29:ALA:HA	6:CF:32:ASN:OD1	2.21	0.40
23:BA:1509:A:O3'	23:BA:1510:A:O4'	2.39	0.40
6:AF:91:VAL:HG13	18:AR:72:ARG:HH21	1.87	0.40
1:AA:1118:C:H5''	9:AI:104:ARG:HG2	2.04	0.40
37:DO:34:HIS:HB3	37:DO:36:TYR:HE1	1.86	0.40
23:DA:2208:U:C1'	25:DC:151:LYS:HE3	2.51	0.40
18:CR:40:LEU:HA	18:CR:40:LEU:HD23	1.88	0.40
23:DA:998:C:OP2	39:DQ:93:LYS:NZ	2.55	0.40
1:AA:102:G:C5	1:AA:103:C:C5	3.09	0.40
25:DC:205:VAL:O	25:DC:205:VAL:CG1	2.68	0.40
23:DA:283:A:H4'	23:DA:284:U:OP2	2.21	0.40
50:B2:31:VAL:HG13	50:B2:42:PRO:HG3	2.02	0.40
46:BX:23:LYS:HE2	46:BX:37:ILE:HD11	2.03	0.40
23:BA:2285:C:H5	51:B3:27:LYS:HZ2	1.69	0.40
2:CB:74:LYS:HB2	2:CB:74:LYS:NZ	2.36	0.40
3:CC:21:ARG:O	3:CC:22:TRP:HB3	2.21	0.40
17:AQ:3:LYS:O	17:AQ:5:VAL:HG23	2.21	0.40
26:DD:110:GLY:CA	26:DD:162:ALA:HB2	2.52	0.40
23:DA:2749:A:H4'	29:DG:62:LYS:HB3	2.02	0.40
1:CA:862:C:C5	1:CA:863:U:C5	3.09	0.40
44:BV:36:LYS:C	44:BV:37:VAL:CG1	2.88	0.40
23:BA:1607:C:N4	23:BA:1621:U:C3'	2.84	0.40
8:AH:17:THR:O	8:AH:78:GLN:NE2	2.54	0.40
14:CN:36:PHE:CD1	14:CN:36:PHE:C	2.94	0.40
6:CF:55:ASP:OD1	6:CF:56:PRO:HD2	2.22	0.40
23:DA:855:G:C6	23:DA:856:C:C4	3.10	0.40
26:BD:158:GLY:O	26:BD:159:HIS:O	2.38	0.40
1:CA:638:G:H2'	1:CA:639:G:C5'	2.51	0.40
23:DA:902:C:H2'	23:DA:903:C:C6	2.56	0.40
15:CO:63:ARG:O	15:CO:67:LEU:HD12	2.21	0.40
19:AS:53:ASN:C	19:AS:55:LYS:H	2.24	0.40
1:AA:540:G:C6	1:AA:541:G:C5	3.09	0.40
23:DA:692:C:C2'	23:DA:693:C:H5'	2.52	0.40
23:BA:958:U:C2'	23:BA:959:A:OP2	2.69	0.40
23:DA:415:A:C5	23:DA:416:C:C5	3.09	0.40
23:DA:415:A:H2'	23:DA:416:C:O4'	2.22	0.40
30:BH:27:ARG:HD2	46:BX:71:TYR:CE1	2.56	0.40
23:DA:2299:G:O6	23:DA:2318:G:N2	2.54	0.40
44:DV:9:TYR:CD2	44:DV:35:ARG:CZ	3.03	0.40
38:DP:126:ALA:C	38:DP:128:GLU:H	2.24	0.40
23:BA:2575:C:H5'	26:BD:144:ARG:HG2	2.02	0.40
23:DA:2183:C:C2'	23:DA:2183:C:O2	2.67	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:DA:288:C:O2'	23:DA:289:A:H5'	2.21	0.40
1:AA:562:C:H1'	12:AL:14:ARG:HD2	2.02	0.40
1:CA:562:C:N3	1:CA:884:U:C5	2.89	0.40
23:DA:2039:C:H2'	23:DA:2040:C:C6	2.54	0.40
2:AB:52:GLU:HG2	2:AB:56:ARG:HE	1.86	0.40
41:BS:107:LEU:N	41:BS:107:LEU:HD13	2.36	0.40
18:CR:53:ARG:C	18:CR:55:ARG:N	2.74	0.40
30:DH:9:LEU:HB3	30:DH:12:LEU:HD23	2.04	0.40
35:BM:83:MET:CG	35:BM:83:MET:O	2.70	0.40
2:AB:74:LYS:NZ	2:AB:74:LYS:HB2	2.36	0.40
23:DA:769:G:O2'	23:DA:770:G:H5'	2.21	0.40
23:BA:2823:A:OP1	26:BD:113:PHE:HB2	2.21	0.40
23:DA:2197:U:H1'	23:DA:2198:A:C8	2.56	0.40
1:AA:450:G:H5''	16:AP:41:PRO:O	2.22	0.40
1:AA:451:A:H1'	1:AA:452:A:N7	2.37	0.40
23:BA:1926:U:O2	23:BA:1929:G:C2	2.75	0.40
1:CA:614:A:H2'	1:CA:615:C:C6	2.56	0.40
27:BE:144:LYS:O	27:BE:146:ALA:N	2.44	0.40
23:DA:1416:G:O2'	23:DA:1417:C:H6	2.03	0.40
1:AA:245:C:C2	1:AA:284:G:C2	3.09	0.40
1:CA:604:G:N7	1:CA:605:U:C5	2.89	0.40
15:CO:43:LEU:HD23	15:CO:43:LEU:HA	1.87	0.40
23:DA:1632:A:H8	23:DA:1632:A:O5'	2.04	0.40
36:DN:105:ARG:HG2	36:DN:106:GLY:N	2.37	0.40
12:AL:36:CYS:SG	12:AL:80:SER:HB2	2.61	0.40
23:BA:455:C:N3	23:BA:472:A:H2'	2.36	0.40
3:AC:48:TYR:O	3:AC:51:GLY:N	2.51	0.40
23:DA:2464:C:C2	23:DA:2487:G:N2	2.90	0.40
23:BA:2052:G:O4'	26:BD:142:GLY:HA3	2.21	0.40
23:DA:1555:G:O2'	23:DA:1556:C:H5'	2.21	0.40
1:AA:700:G:H4'	1:AA:704:A:H1'	2.04	0.40
45:DW:55:ARG:NH1	45:DW:55:ARG:HB3	2.36	0.40
7:CG:75:VAL:O	7:CG:75:VAL:HG23	2.21	0.40
23:BA:2415:G:H4'	34:BL:67:MET:H	1.86	0.40
24:BB:83:G:N2	24:BB:84:C:H1'	2.36	0.40
23:DA:857:C:N3	23:DA:858:U:C4	2.89	0.40
23:BA:674:G:H2'	23:BA:804:A:H61	1.85	0.40
1:CA:1371:G:H4'	9:CI:69:GLY:HA3	2.04	0.40
9:AI:127:LYS:O	9:AI:128:ARG:O	2.38	0.40
34:BL:32:THR:C	34:BL:36:LYS:HE2	2.36	0.40
1:CA:977:A:H8	1:CA:1223:C:C4	2.40	0.40
1:AA:953:G:C6	1:AA:954:G:C4	3.10	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:BA:578:A:H5'	23:BA:1254:A:OP1	2.21	0.40
42:BT:62:LYS:C	42:BT:63:LYS:HD3	2.42	0.40
39:DQ:106:PHE:O	39:DQ:109:LEU:HB2	2.21	0.40
25:DC:32:SER:HA	25:DC:36:PRO:HG3	2.03	0.40
35:DM:74:TYR:N	35:DM:92:GLY:O	2.45	0.40
23:DA:1614:A:C6	41:DS:87:PRO:HB3	2.56	0.40
23:DA:114(B):A:N3	23:DA:1144:G:C8	2.90	0.40
30:BH:79:ILE:H	30:BH:145:VAL:HG23	1.87	0.40
39:BQ:79:PHE:CE1	39:BQ:83:LEU:HD13	2.57	0.40
23:BA:748:G:OP2	41:BS:88:ARG:HG3	2.21	0.40
23:BA:2727:G:C6	23:BA:2728:U:C5	3.08	0.40
23:BA:2682:U:O4	23:BA:2728:U:H1'	2.21	0.40
16:AP:6:LEU:HB3	16:AP:17:TYR:HD2	1.85	0.40
25:DC:147:LEU:HD13	25:DC:155:LEU:HD13	2.03	0.40
25:DC:130:ALA:CB	25:DC:192:THR:HA	2.51	0.40
12:AL:100:VAL:HG12	12:AL:103:VAL:HG23	2.03	0.40
42:DT:35:THR:O	42:DT:39:ILE:CG1	2.61	0.40
23:BA:1411:C:O2'	23:BA:1412:A:H5'	2.21	0.40
8:AH:120:THR:O	8:AH:121:ASP:C	2.60	0.40
1:AA:92:G:H2'	1:AA:93:U:O4'	2.22	0.40
26:BD:6:GLY:CA	26:BD:51:PHE:HE2	2.33	0.40
3:AC:172:ARG:O	3:AC:173:VAL:CG2	2.56	0.40
23:DA:1596:A:O2'	23:DA:1597:A:H5'	2.22	0.40
34:DL:16:ARG:O	34:DL:18:ARG:N	2.55	0.40
3:AC:33:LEU:HD12	3:AC:33:LEU:O	2.21	0.40
1:CA:130:A:H5''	1:CA:190:G:O2'	2.21	0.40
26:DD:2:LYS:CD	26:DD:95:ILE:O	2.69	0.40
26:DD:47:VAL:HG21	26:DD:85:ASN:HA	2.02	0.40
39:DQ:60:LEU:HD13	39:DQ:60:LEU:C	2.41	0.40
5:CE:136:MET:O	5:CE:139:LEU:N	2.54	0.40
23:DA:1652:A:OP1	36:DN:9:LYS:HD2	2.21	0.40
5:AE:12:LEU:O	5:AE:12:LEU:HD22	2.22	0.40
5:AE:77:PRO:CD	5:AE:142:LEU:HD22	2.45	0.40
1:AA:184:G:N2	1:AA:194:C:C2	2.90	0.40
26:DD:34:VAL:HG11	26:DD:78:LEU:CD1	2.52	0.40
5:AE:51:VAL:O	5:AE:52:PRO:C	2.57	0.40
42:BT:7:VAL:HG13	42:BT:30:VAL:HG13	2.02	0.40
1:AA:1066:C:H3'	1:AA:1067:A:C8	2.56	0.40
41:DS:6:ILE:HG12	41:DS:104:THR:OG1	2.21	0.40
1:CA:402:G:H2'	1:CA:403:C:H5'	2.03	0.40
1:AA:448:A:C2	1:AA:487:A:C2	3.08	0.40
23:BA:2378:A:H4'	37:BO:84:GLN:NE2	2.35	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DC:185:VAL:HG12	25:DC:186:HIS:H	1.85	0.40
20:CT:55:ILE:C	20:CT:57:ARG:N	2.74	0.40
20:CT:15:ARG:HD3	20:CT:15:ARG:HA	1.89	0.40
23:DA:2755:C:O2'	23:DA:2756:U:H6	2.03	0.40
27:DE:154:VAL:O	27:DE:174:VAL:HG23	2.21	0.40
23:BA:2305:A:C5'	28:BF:134:GLY:HA3	2.48	0.40
23:BA:2722:G:O2'	36:BN:5:LYS:HB2	2.22	0.40
23:DA:1401:G:C5	23:DA:1402:C:C4	3.09	0.40
6:CF:88:VAL:CG1	6:CF:89:MET:N	2.83	0.40
23:DA:1105:U:C2'	23:DA:1106:G:H5'	2.51	0.40
15:AO:45:VAL:HG22	15:AO:46:HIS:N	2.36	0.40
23:BA:1649:G:C6	23:BA:2009:G:C6	3.09	0.40
23:DA:528:A:H2'	23:DA:529:A:O5'	2.21	0.40
23:BA:2746:U:C2'	23:BA:2747:G:O5'	2.69	0.40
27:DE:101:LEU:CD1	27:DE:102:PRO:HD2	2.42	0.40
8:AH:111:ILE:O	8:AH:112:LEU:CB	2.70	0.40
1:AA:658:G:C4	1:AA:659:U:C5	3.10	0.40
1:AA:658:G:O2'	1:AA:659:U:H5'	2.22	0.40
25:DC:133:LEU:HG	25:DC:189:CYS:O	2.20	0.40
1:AA:781:A:H3'	1:AA:782:A:C5'	2.50	0.40
1:AA:59:A:C2	1:AA:354:G:C4	3.10	0.40
1:AA:53:A:C2	1:AA:54:C:C1'	3.04	0.40
1:AA:630:G:H2'	1:AA:631:G:O4'	2.22	0.40
33:DK:114:ILE:O	33:DK:118:ALA:N	2.49	0.40
25:BC:8:PRO:CB	25:BC:14:ARG:HB2	2.42	0.40
33:DK:119:PRO:HB2	38:DP:68:TYR:HE1	1.76	0.40
1:CA:69:G:H2'	1:CA:73:G:C8	2.56	0.40
15:AO:85:LEU:HD23	15:AO:85:LEU:HA	1.83	0.40
23:DA:2592:G:C5	23:DA:2593:U:C5	3.09	0.40
50:D2:51:TYR:CZ	50:D2:52:TYR:CZ	3.09	0.40
1:CA:1060:C:H5''	10:CJ:51:ARG:HG2	2.03	0.40
35:DM:54:MET:CG	35:DM:64:ILE:HD13	2.46	0.40
23:BA:865:C:C4'	23:BA:866:A:N7	2.82	0.40
35:BM:127:ILE:HG23	35:BM:128:LYS:N	2.36	0.40
23:BA:588:U:C2	27:BE:90:PHE:CE1	3.10	0.40
23:BA:588:U:H1'	27:BE:90:PHE:HB3	2.04	0.40
23:BA:2861:G:C2	23:BA:2862:G:C8	3.09	0.40
1:CA:20:U:O2	1:CA:916:G:C2	2.75	0.40
23:BA:830:G:C8	23:BA:2448:A:C2	3.09	0.40
23:DA:2661:G:H2'	23:DA:2662:A:O4'	2.21	0.40
1:CA:1077:G:C6	1:CA:1081:G:C6	3.10	0.40
23:BA:2244:U:H1'	23:BA:2434:A:C4	2.55	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1410:G:H2'	1:CA:1411:C:C6	2.57	0.40
1:AA:731:G:C6	1:AA:732:C:C4	3.09	0.40
23:DA:814:C:H41	34:DL:27:HIS:HD2	1.64	0.40
23:DA:2242:G:H2'	23:DA:2243:U:O4'	2.21	0.40
1:AA:754:C:H1'	15:AO:69:TYR:CG	2.56	0.40
1:CA:972:C:OP2	10:CJ:57:LYS:HD2	2.22	0.40
43:DU:63:LYS:CG	43:DU:64:GLU:N	2.84	0.40
23:DA:2036:C:C6	23:DA:2036:C:C5'	2.99	0.40
12:CL:6:ILE:O	12:CL:7:ASN:C	2.60	0.40
1:AA:560:U:H4'	1:AA:561:U:O5'	2.21	0.40
1:AA:565:U:C4	1:AA:566:G:C6	3.09	0.40
23:DA:1856:G:C2	23:DA:1857:G:H1'	2.56	0.40
24:BB:3:C:H2'	24:BB:4:C:C6	2.57	0.40
23:BA:1335:U:OP2	42:BT:65:ARG:NH1	2.54	0.40
1:AA:538:G:O3'	12:AL:113:LYS:HG3	2.22	0.40
34:BL:122:PRO:O	34:BL:123:LEU:HB3	2.22	0.40
20:AT:78:ALA:O	20:AT:79:ARG:C	2.60	0.40
1:CA:465:A:O2'	1:CA:466:G:H5''	2.21	0.40
23:BA:1051:G:C5	23:BA:1052:C:N3	2.89	0.40
41:DS:45:TYR:CD2	41:DS:46:PHE:CE1	3.10	0.40
26:BD:67:PHE:HB3	26:BD:72:VAL:O	2.20	0.40
2:AB:16:HIS:HB3	2:AB:210:SER:HA	2.03	0.40
47:DY:36:ARG:HA	47:DY:39:ALA:HB2	2.02	0.40
2:CB:52:GLU:HG2	2:CB:56:ARG:HE	1.86	0.40
1:CA:1048:G:C2	1:CA:1210:C:N3	2.88	0.40
40:BR:15:GLU:HB3	40:BR:16:PRO:HD2	2.04	0.40
36:DN:13:HIS:CE1	36:DN:15:SER:HB3	2.56	0.40
5:CE:104:ALA:O	5:CE:107:ARG:HB3	2.21	0.40
1:AA:425:G:C6	1:AA:426:G:C5	3.10	0.40
39:DQ:47:TYR:CE1	40:DR:74:LYS:HE3	2.56	0.40
23:DA:770:G:C2'	23:DA:771:G:O5'	2.69	0.40
23:DA:900:A:C5	23:DA:901:A:C8	3.10	0.40
1:CA:897:C:H5''	1:CA:898:G:OP2	2.21	0.40
1:CA:451:A:H61	1:CA:481:G:C5'	2.34	0.40
23:DA:1881:C:O2'	23:DA:1882:C:H5'	2.21	0.40
33:BK:18:LYS:HG3	33:BK:45:GLU:OE2	2.22	0.40
23:DA:1314:C:H2'	23:DA:1315:C:H5'	2.04	0.40
35:DM:34:LEU:HB2	35:DM:118:LEU:HD13	2.02	0.40
38:DP:34:VAL:O	38:DP:40:THR:HA	2.21	0.40
23:BA:1687:G:H2'	23:BA:1688:U:C6	2.56	0.40
23:DA:1416:G:O2'	23:DA:1417:C:P	2.78	0.40
23:DA:1417:C:N4	23:DA:1581:G:H1	2.20	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BP:113:LYS:O	38:BP:114:LEU:HD23	2.21	0.40
23:BA:2615:U:C2	50:B2:7:PRO:HA	2.56	0.40
23:DA:2063:C:O2	23:DA:2450:A:N1	2.54	0.40
8:CH:69:ARG:HD3	8:CH:69:ARG:HA	1.80	0.40
23:DA:1718:G:H2'	23:DA:1725:G:H8	1.87	0.40
23:BA:799:G:N1	23:BA:800:A:N6	2.70	0.40
23:DA:791:C:H4'	23:DA:792:G:OP1	2.21	0.40
1:CA:900:A:H2'	1:CA:901:A:C8	2.56	0.40
25:DC:98:VAL:HG23	25:DC:99:ASP:N	2.36	0.40
23:DA:1805:U:H2'	23:DA:1806:C:C6	2.56	0.40
18:CR:65:ILE:O	18:CR:69:THR:HG23	2.21	0.40
1:CA:772:U:C2'	1:CA:773:G:H5'	2.51	0.40
34:BL:6:LEU:HD12	34:BL:8:PRO:HD2	2.01	0.40
23:BA:2552:U:H6	23:BA:2552:U:O5'	2.04	0.40
8:AH:2:LEU:HD23	8:AH:2:LEU:HA	1.88	0.40
13:CM:93:ARG:HE	13:CM:93:ARG:HA	1.87	0.40
5:AE:127:ASN:HB3	5:AE:130:ASN:HB2	2.04	0.40
23:DA:1599:C:H2'	23:DA:1600:C:C6	2.57	0.40
26:DD:24:THR:CB	26:DD:186:GLY:HA2	2.50	0.40
23:DA:1448:G:H1'	23:DA:1528:A:N1	2.35	0.40
34:BL:107:LYS:C	34:BL:108:LYS:HG2	2.41	0.40
34:BL:112:LEU:HD23	34:BL:112:LEU:C	2.42	0.40
1:CA:1371:G:C6	1:CA:1372:U:C4	3.10	0.40
9:CI:111:ARG:O	9:CI:113:LYS:HE3	2.20	0.40
25:BC:206:LEU:HA	25:BC:211:ARG:HE	1.86	0.40
23:DA:2846:G:N7	23:DA:2847:U:C5	2.90	0.40
37:BO:26:LEU:HD23	37:BO:38:GLN:O	2.21	0.40
32:BJ:91:GLU:HA	32:BJ:111:GLU:OE2	2.21	0.40
23:DA:1263:U:O4'	50:D2:10:LYS:HG3	2.22	0.40
24:DB:81:G:C5	24:DB:82:G:N7	2.90	0.40
16:CP:18:ARG:O	16:CP:19:ILE:C	2.59	0.40
23:BA:243:U:OP1	53:B5:6:THR:CG2	2.70	0.40
28:DF:25:TYR:HD1	28:DF:30:GLU:HB3	1.79	0.40
23:DA:2295:C:N3	23:DA:2296:U:C5	2.89	0.40
16:AP:32:TYR:C	16:AP:32:TYR:HD2	2.25	0.40
25:DC:70:TRP:CH2	25:DC:150:LYS:CA	3.03	0.40
4:AD:146:ILE:HG22	4:AD:146:ILE:O	2.21	0.40
3:CC:141:VAL:HG11	3:CC:202:ILE:HG23	2.04	0.40
1:AA:690:G:C6	1:AA:691:G:N1	2.89	0.40
30:DH:129:THR:HG22	30:DH:130:TYR:H	1.87	0.40
13:AM:33:ALA:HB1	13:AM:56:LEU:CD2	2.47	0.40
20:CT:23:ARG:O	20:CT:26:ASN:ND2	2.55	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:BF:41:GLN:HG2	28:BF:155:MET:CB	2.48	0.40
44:DV:48:PHE:CE2	44:DV:71:VAL:HG21	2.57	0.40
44:DV:56:VAL:C	44:DV:57:ILE:HD12	2.41	0.40
47:DY:35:LEU:HD12	47:DY:53:LEU:CD1	2.35	0.40
23:DA:1999:C:O2	23:DA:2687:U:O2'	2.29	0.40
24:BB:72:G:N2	24:BB:103:U:C5	2.90	0.40
25:BC:232:PRO:HG3	25:BC:248:SER:O	2.21	0.40
23:DA:2766:G:C2	23:DA:2767:C:C5	3.10	0.40
1:CA:39:G:N1	1:CA:40:C:C5	2.90	0.40
4:AD:156:GLU:O	4:AD:160:GLN:HG3	2.21	0.40
41:BS:29:LEU:HD21	41:BS:33:ARG:NH2	2.36	0.40
1:CA:725:G:H2'	1:CA:726:C:C6	2.56	0.40
26:BD:9:VAL:CG2	26:BD:10:GLY:N	2.85	0.40
23:BA:2791:C:H2'	23:BA:2791:C:O2	2.21	0.40
23:BA:379:G:N2	46:BX:20:ARG:NH2	2.70	0.40
23:BA:380:U:C2'	46:BX:20:ARG:HE	2.35	0.40
2:CB:83:MET:HE2	2:CB:234:PRO:HG2	2.04	0.40
11:CK:13:GLN:HG3	11:CK:75:TYR:C	2.42	0.40
37:BO:73:LEU:O	37:BO:77:ALA:N	2.54	0.40
27:BE:64:ILE:HG23	27:BE:65:TRP:NE1	2.36	0.40
1:AA:724:G:N3	1:AA:725:G:C8	2.89	0.40
23:BA:953:A:O2'	23:BA:954:G:H5'	2.21	0.40
11:AK:93:GLN:HA	11:AK:96:ARG:HB2	2.04	0.40
25:DC:26:LYS:HB2	25:DC:26:LYS:HE3	1.68	0.40
23:DA:1952:A:C6	33:DK:22:ILE:HD12	2.55	0.40
1:AA:853:G:H2'	1:AA:854:G:H5'	2.03	0.40
25:DC:205:VAL:O	25:DC:206:LEU:C	2.57	0.40
1:CA:1129:C:C1'	1:CA:1130:A:OP2	2.63	0.40
1:CA:1139:G:N2	1:CA:1143:G:N1	2.70	0.40
43:BU:2:ARG:HG3	43:BU:2:ARG:NH1	2.35	0.40
15:AO:81:LEU:HD12	15:AO:81:LEU:O	2.20	0.40
23:BA:1679:U:C3'	23:BA:1680:U:H5'	2.52	0.40
1:AA:336:C:H2'	1:AA:337:C:C6	2.56	0.40
50:D2:33:CYS:SG	50:D2:38:ALA:HB3	2.62	0.40
1:CA:719:C:O2'	18:CR:49:LYS:HB3	2.21	0.40
23:BA:1389:G:H2'	23:BA:1390:U:H6	1.85	0.40
23:BA:286:C:C2	23:BA:287:C:C5	3.09	0.40
23:DA:1388:G:C4	23:DA:1389:G:C8	3.10	0.40
50:B2:51:TYR:CZ	50:B2:52:TYR:CE1	3.09	0.40
23:BA:814:C:H41	34:BL:27:HIS:HD2	1.64	0.40
34:BL:131:SER:HB3	34:BL:134:ALA:H	1.86	0.40
1:CA:1233:G:OP1	9:CI:123:PRO:HA	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:650:G:C2'	1:AA:651:C:H5'	2.51	0.40
36:BN:45:ARG:HG3	36:BN:95:THR:CG2	2.51	0.40
13:CM:79:LYS:O	13:CM:82:MET:HB3	2.22	0.40
1:AA:728:A:C6	15:AO:54:ARG:HD2	2.57	0.40
23:DA:826:U:O2	23:DA:832:G:C2	2.75	0.40
35:DM:138:ASP:HB3	35:DM:139:GLU:H	1.53	0.40
23:DA:2322:A:H3'	23:DA:2323:G:C8	2.48	0.40
36:BN:84:ALA:N	36:BN:85:PRO:CD	2.84	0.40
1:AA:186(D):G:C6	1:AA:186(E):C:C4	3.09	0.40
1:AA:505:G:OP2	1:AA:534:U:H2'	2.21	0.40
7:AG:95:ARG:CZ	7:AG:99:LEU:HD11	2.50	0.40
1:CA:357:G:H8	1:CA:357:G:O5'	2.04	0.40
39:DQ:8:VAL:O	39:DQ:9:VAL:C	2.59	0.40
6:AF:96:PRO:HB3	18:AR:30:ASP:OD2	2.21	0.40
39:DQ:34:LYS:HE3	39:DQ:37:GLU:OE1	2.21	0.40
23:DA:2837:G:N1	23:DA:2838:G:C5	2.90	0.40
23:BA:189:G:H1'	23:BA:207:A:N6	2.36	0.40
23:DA:553:U:C4	23:DA:554:U:C4	3.10	0.40
23:DA:2370:G:O2'	51:D3:45:LYS:HE3	2.21	0.40
46:DX:67:ILE:N	46:DX:68:PRO:CD	2.83	0.40
1:CA:311:C:OP1	16:CP:26:ARG:NH2	2.45	0.40
12:CL:64:GLU:OE1	12:CL:64:GLU:C	2.59	0.40
23:DA:1798:U:C5'	25:DC:259:THR:O	2.70	0.40
23:DA:1116:C:H2'	23:DA:1117:G:O4'	2.22	0.40
3:AC:146:ALA:HA	3:AC:204:LEU:HD23	2.04	0.40
23:BA:2436:G:C4	23:BA:2437:U:C5	3.10	0.40
23:BA:1234:U:H2'	23:BA:1235:G:O4'	2.22	0.40
1:CA:1466:C:H2'	1:CA:1467:G:O4'	2.22	0.40
23:BA:337:C:C2'	23:BA:338:G:O5'	2.70	0.40
23:DA:1314:C:O2'	23:DA:1315:C:H5'	2.21	0.40
44:DV:146:ILE:HG12	44:DV:146:ILE:H	1.62	0.40
1:CA:654:G:C2	1:CA:753:A:C4	3.08	0.40
23:DA:2358:G:C5	23:DA:2359:C:C5	3.10	0.40
23:BA:2075:U:C4	23:BA:2238:G:C6	3.09	0.40
52:D4:31:LEU:HD12	52:D4:31:LEU:HA	1.84	0.40
23:DA:1889:A:C6	23:DA:1890:A:C6	3.09	0.40
28:BF:96:ARG:HB2	28:BF:97:ASP:H	1.63	0.40
3:AC:56:ASP:HB3	3:AC:67:THR:HB	2.04	0.40
23:DA:53:A:H2'	23:DA:54:G:O4'	2.22	0.40
23:DA:1497:U:O4'	23:DA:1497:U:O2	2.38	0.40
30:BH:35:LEU:N	30:BH:35:LEU:HD23	2.36	0.40
4:CD:78:LEU:HD23	4:CD:78:LEU:HA	1.93	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DH:136:VAL:N	30:DH:137:PRO:HD3	2.37	0.40
3:CC:61:ALA:O	3:CC:62:ASP:HB2	2.22	0.40
23:BA:1341:U:H4'	42:BT:56:THR:O	2.21	0.40
34:DL:88:LEU:CD2	34:DL:114:ILE:HG21	2.51	0.40
47:DY:1:MET:O	47:DY:1:MET:HE2	2.22	0.40
26:DD:103:ASP:OD2	26:DD:201:THR:HA	2.21	0.40
23:DA:1542:G:H4'	23:DA:1543:A:O4'	2.21	0.40
24:BB:80:U:C2	24:BB:81:G:N2	2.90	0.40
1:AA:979:C:P	1:AA:981:U:O4	2.80	0.40
9:AI:128:ARG:CZ	22:AV:6184:A:OP2	2.69	0.40
1:CA:979:C:P	1:CA:981:U:O4	2.80	0.40
33:BK:75:SER:HB2	38:BP:75:ILE:O	2.21	0.40
38:BP:57:PHE:CD2	38:BP:58:ASN:N	2.89	0.40
34:DL:33:ARG:NE	34:DL:36:LYS:CD	2.77	0.40
42:BT:62:LYS:O	42:BT:63:LYS:HD3	2.22	0.40
39:DQ:69:CYS:SG	39:DQ:79:PHE:CD2	3.14	0.40
40:DR:49:THR:HB	40:DR:50:PRO:CD	2.51	0.40
1:AA:675:A:O2'	11:AK:114:VAL:O	2.38	0.40
23:BA:1615:C:O2'	23:BA:1617:C:H5''	2.22	0.40
53:B5:62:LEU:HA	53:B5:62:LEU:HD23	1.32	0.40
37:DO:90:GLY:O	37:DO:92:TYR:O	2.40	0.40
23:DA:1799:G:O2'	25:DC:181:GLU:OE2	2.38	0.40
1:AA:407:G:N3	1:AA:408:A:C8	2.90	0.40
23:DA:71:A:C2	42:DT:31:HIS:HE1	2.36	0.40
1:CA:80:G:H8	1:CA:80:G:OP2	2.04	0.40
35:BM:74:TYR:CE2	35:BM:91:GLU:HB2	2.52	0.40
20:CT:72:LEU:HD23	20:CT:72:LEU:C	2.42	0.40
2:CB:80:ILE:HG22	2:CB:80:ILE:O	2.22	0.40
24:BB:41:U:O4	28:BF:71:THR:HA	2.21	0.40
4:AD:108:LEU:HD23	4:AD:110:PHE:CE2	2.56	0.40
24:DB:73:A:C5	24:DB:74:U:C6	3.10	0.40
44:DV:30:ASN:O	44:DV:31:ARG:C	2.59	0.40
44:DV:92:SER:HB2	44:DV:94:GLU:OE1	2.22	0.40
14:CN:23:ARG:HG3	14:CN:24:CYS:N	2.36	0.40
5:CE:41:VAL:HG23	5:CE:67:VAL:HG13	2.04	0.40
1:CA:1252:A:H2'	1:CA:1253:G:O4'	2.22	0.40
1:CA:737:A:C5	1:CA:738:C:C5	3.09	0.40
23:BA:2516:G:C6	23:BA:2517:C:C4	3.09	0.40
23:BA:2517:C:C5	23:BA:2542:A:C2	3.10	0.40
23:BA:848:G:N9	23:BA:933:A:C8	2.89	0.40
43:DU:96:ILE:HD11	43:DU:99:CYS:HB2	2.03	0.40
1:CA:1292:U:O5'	1:CA:1292:U:H6	2.04	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DS:23:LEU:HD12	41:DS:23:LEU:HA	1.79	0.40
41:DS:24:ILE:CG2	41:DS:36:LEU:CD2	3.00	0.40
6:AF:62:TRP:CD1	18:AR:35:ARG:NH1	2.89	0.40
26:BD:37:ARG:NH1	26:BD:42:ASP:OD1	2.55	0.40
5:CE:51:VAL:O	5:CE:52:PRO:C	2.60	0.40
25:BC:121:PRO:CB	25:BC:135:PHE:CE2	3.00	0.40
25:DC:165:ILE:C	25:DC:166:GLN:HE21	2.24	0.40
23:BA:2758:A:C2	23:BA:2759:G:C1'	3.05	0.40
23:BA:1503:U:H2'	23:BA:1504:C:H6	1.87	0.40
1:AA:658:G:O4'	15:AO:22:THR:HB	2.22	0.40
35:BM:85:LYS:HD2	35:BM:86:GLY:H	1.85	0.40
23:DA:588:U:H1'	27:DE:90:PHE:CG	2.56	0.40
33:DK:112:MET:HA	33:DK:115:VAL:HG13	2.03	0.40
18:CR:40:LEU:C	18:CR:42:ARG:N	2.74	0.40
23:DA:295:G:C5	23:DA:296:C:C5	3.09	0.40
30:DH:8:PRO:HA	30:DH:14:ASP:HA	2.03	0.40
43:BU:41:GLY:O	43:BU:42:VAL:C	2.60	0.40
1:AA:914:A:OP2	1:AA:914:A:O4'	2.39	0.40
1:AA:39:G:N2	1:AA:40:C:N1	2.69	0.40
23:DA:1478:G:C2	23:DA:1479:G:N7	2.90	0.40
18:CR:74:ARG:H	18:CR:74:ARG:HG3	1.50	0.40
25:DC:176:ARG:CG	25:DC:176:ARG:NH1	2.83	0.40
23:BA:2284:C:H1'	23:BA:2325:G:N2	2.37	0.40
23:BA:1270:C:H5''	23:BA:1271:G:H5'	2.04	0.40
21:AU:9:ARG:HG3	21:AU:10:ARG:N	2.37	0.40
1:CA:1053:G:C5	1:CA:1199:U:C6	3.09	0.40
50:B2:40:LYS:HE2	50:B2:46:CYS:HB3	2.04	0.40
27:BE:199:TRP:CZ3	27:BE:203:GLN:HG3	2.57	0.40
27:BE:203:GLN:OE1	27:BE:207:GLY:CA	2.69	0.40
28:BF:178:PHE:HA	28:BF:179:PRO:HD3	1.68	0.40
28:BF:173:LEU:HB2	28:BF:180:PHE:HZ	1.87	0.40
1:CA:922:G:H3'	1:CA:923:A:C8	2.56	0.40
23:BA:774:A:C2'	23:BA:775:G:OP2	2.68	0.40
1:AA:941:G:C2	1:AA:942:G:C8	3.09	0.40
1:AA:1232:U:H5''	9:AI:124:GLN:O	2.21	0.40
23:DA:1747:G:C2	23:DA:1748:G:C8	3.10	0.40
23:BA:998:C:C2'	23:BA:999:U:O5'	2.69	0.40
23:DA:815:C:H2'	23:DA:816:C:C6	2.56	0.40
23:DA:2872:G:C2	23:DA:2873:A:N6	2.89	0.40
35:BM:138:ASP:HB3	35:BM:139:GLU:H	1.55	0.40
28:BF:11:TYR:HE2	28:BF:16:ARG:HH21	1.69	0.40
23:BA:1162:G:O4'	40:BR:23:GLU:HG3	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:490:G:H2'	1:CA:491:G:H8	1.86	0.40
41:DS:65:LEU:HD23	41:DS:65:LEU:HA	1.76	0.40
23:BA:2811:G:C6	23:BA:2891:G:N2	2.90	0.40
1:CA:754:C:O5'	15:CO:72:ARG:NH2	2.55	0.40
23:DA:991:C:H2'	23:DA:991:C:O2	2.22	0.40
1:AA:806:C:O2'	1:AA:807:A:H5'	2.21	0.40
24:BB:28:C:H3'	24:BB:28:C:C6	2.57	0.40
41:BS:44:ALA:O	41:BS:46:PHE:N	2.54	0.40
23:DA:1442:G:C2	23:DA:1443:G:C4	3.09	0.40
23:BA:136:G:C6	23:BA:137(A):C:C5	3.10	0.40
23:BA:460:A:H2'	23:BA:461:C:O4'	2.21	0.40
1:AA:1166:G:N2	1:AA:1170:A:OP2	2.54	0.40
23:BA:270(Q):C:O2'	23:BA:270(R):C:P	2.79	0.40
1:AA:1501:C:C6	1:AA:1504:G:N7	2.90	0.40
1:AA:1399:C:N3	1:AA:1502:A:N1	2.69	0.40
44:DV:91:LEU:HD21	44:DV:96:VAL:HG11	2.02	0.40
1:CA:425:G:C2'	1:CA:426:G:H5'	2.52	0.40
28:BF:15:VAL:HG22	28:BF:175:LEU:HB3	2.03	0.40
23:BA:2695:C:H2'	23:BA:2696:U:C6	2.55	0.40
23:BA:245:G:N3	23:BA:246:C:C6	2.89	0.40
1:CA:892:A:O2'	1:CA:1415:G:H4'	2.22	0.40
23:DA:2194:G:C5	23:DA:2195:C:C5	3.09	0.40
23:BA:1632:A:N6	23:BA:1633:G:N1	2.70	0.40
17:AQ:14:LYS:H	17:AQ:14:LYS:CD	2.34	0.40
1:AA:929:G:C6	1:AA:930:C:C4	3.10	0.40
23:DA:1987:G:H2'	23:DA:1988:C:H6	1.85	0.40
1:AA:702:A:O4'	23:BA:1848:A:H1'	2.22	0.40
23:BA:2404:C:C4	23:BA:2414:G:N1	2.89	0.40
1:CA:298:A:H2'	1:CA:299:G:O4'	2.22	0.40
1:AA:1419:G:C6	1:AA:1420:C:C4	3.09	0.40
38:BP:10:VAL:C	38:BP:12:SER:N	2.75	0.40
23:DA:14:A:H8	23:DA:14:A:O5'	2.03	0.40
23:DA:1362:C:H3'	23:DA:1362:C:C6	2.57	0.40
24:BB:1:U:O2	24:BB:1:U:H2'	2.21	0.40
26:DD:152:LYS:HE3	26:DD:152:LYS:HB3	1.77	0.40

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

Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AF:15:ASP:OD1	4:CD:20:TYR:OH[4_555]	2.18	0.02

## 5.3 Torsion angles

### 5.3.1 Protein backbone ⓘ

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	AB	232/234 (99%)	172 (74%)	40 (17%)	20 (9%)	1	17
2	CB	232/234 (99%)	173 (75%)	38 (16%)	21 (9%)	1	15
3	AC	204/206 (99%)	136 (67%)	43 (21%)	25 (12%)	1	8
3	CC	204/206 (99%)	134 (66%)	45 (22%)	25 (12%)	1	8
4	AD	206/208 (99%)	152 (74%)	38 (18%)	16 (8%)	1	20
4	CD	206/208 (99%)	151 (73%)	40 (19%)	15 (7%)	2	22
5	AE	149/151 (99%)	103 (69%)	34 (23%)	12 (8%)	1	19
5	CE	149/151 (99%)	104 (70%)	34 (23%)	11 (7%)	2	22
6	AF	99/101 (98%)	71 (72%)	17 (17%)	11 (11%)	1	10
6	CF	99/101 (98%)	71 (72%)	18 (18%)	10 (10%)	1	12
7	AG	153/155 (99%)	121 (79%)	27 (18%)	5 (3%)	6	50
7	CG	153/155 (99%)	121 (79%)	27 (18%)	5 (3%)	6	50
8	AH	136/138 (99%)	97 (71%)	29 (21%)	10 (7%)	2	22
8	CH	136/138 (99%)	98 (72%)	28 (21%)	10 (7%)	2	22
9	AI	125/127 (98%)	91 (73%)	31 (25%)	3 (2%)	9	58
9	CI	125/127 (98%)	89 (71%)	32 (26%)	4 (3%)	6	51
10	AJ	96/98 (98%)	72 (75%)	20 (21%)	4 (4%)	4	41
10	CJ	96/98 (98%)	74 (77%)	18 (19%)	4 (4%)	4	41
11	AK	117/119 (98%)	83 (71%)	29 (25%)	5 (4%)	4	40
11	CK	117/119 (98%)	82 (70%)	30 (26%)	5 (4%)	4	40
12	AL	122/124 (98%)	78 (64%)	28 (23%)	16 (13%)	0	7
12	CL	122/124 (98%)	80 (66%)	27 (22%)	15 (12%)	1	8
13	AM	114/116 (98%)	93 (82%)	17 (15%)	4 (4%)	6	48
13	CM	114/116 (98%)	93 (82%)	17 (15%)	4 (4%)	6	48
14	AN	58/60 (97%)	46 (79%)	9 (16%)	3 (5%)	3	32

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
14	CN	58/60 (97%)	46 (79%)	9 (16%)	3 (5%)	3	32
15	AO	86/88 (98%)	62 (72%)	17 (20%)	7 (8%)	1	19
15	CO	86/88 (98%)	61 (71%)	19 (22%)	6 (7%)	2	23
16	AP	81/83 (98%)	46 (57%)	24 (30%)	11 (14%)	0	6
16	CP	81/83 (98%)	46 (57%)	25 (31%)	10 (12%)	1	8
17	AQ	97/99 (98%)	74 (76%)	16 (16%)	7 (7%)	2	23
17	CQ	97/99 (98%)	75 (77%)	16 (16%)	6 (6%)	2	27
18	AR	68/70 (97%)	40 (59%)	19 (28%)	9 (13%)	0	7
18	CR	68/70 (97%)	41 (60%)	18 (26%)	9 (13%)	0	7
19	AS	76/78 (97%)	51 (67%)	21 (28%)	4 (5%)	3	32
19	CS	76/78 (97%)	50 (66%)	21 (28%)	5 (7%)	2	25
20	AT	97/99 (98%)	67 (69%)	23 (24%)	7 (7%)	2	23
20	CT	97/99 (98%)	67 (69%)	23 (24%)	7 (7%)	2	23
21	AU	22/24 (92%)	13 (59%)	8 (36%)	1 (4%)	4	38
21	CU	22/24 (92%)	13 (59%)	8 (36%)	1 (4%)	4	38
25	BC	269/271 (99%)	213 (79%)	36 (13%)	20 (7%)	2	22
25	DC	269/271 (99%)	210 (78%)	39 (14%)	20 (7%)	2	22
26	BD	202/204 (99%)	154 (76%)	34 (17%)	14 (7%)	2	24
26	DD	202/204 (99%)	155 (77%)	32 (16%)	15 (7%)	2	22
27	BE	200/202 (99%)	152 (76%)	32 (16%)	16 (8%)	1	19
27	DE	200/202 (99%)	155 (78%)	30 (15%)	15 (8%)	2	22
28	BF	179/181 (99%)	136 (76%)	31 (17%)	12 (7%)	2	25
28	DF	179/181 (99%)	136 (76%)	31 (17%)	12 (7%)	2	25
29	BG	157/159 (99%)	112 (71%)	35 (22%)	10 (6%)	2	26
29	DG	157/159 (99%)	111 (71%)	36 (23%)	10 (6%)	2	26
30	BH	143/145 (99%)	95 (66%)	29 (20%)	19 (13%)	0	7
30	DH	143/145 (99%)	91 (64%)	31 (22%)	21 (15%)	0	5
31	BI	28/65 (43%)	25 (89%)	3 (11%)	0	100	100
31	DI	28/65 (43%)	25 (89%)	3 (11%)	0	100	100
32	BJ	135/137 (98%)	97 (72%)	26 (19%)	12 (9%)	1	16
32	DJ	135/137 (98%)	97 (72%)	24 (18%)	14 (10%)	1	11

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
33	BK	120/122 (98%)	100 (83%)	11 (9%)	9 (8%)	2	22
33	DK	120/122 (98%)	98 (82%)	14 (12%)	8 (7%)	2	25
34	BL	144/146 (99%)	87 (60%)	31 (22%)	26 (18%)	0	3
34	DL	144/146 (99%)	86 (60%)	35 (24%)	23 (16%)	0	4
35	BM	134/136 (98%)	86 (64%)	28 (21%)	20 (15%)	0	4
35	DM	134/136 (98%)	86 (64%)	30 (22%)	18 (13%)	0	6
36	BN	115/117 (98%)	91 (79%)	13 (11%)	11 (10%)	1	14
36	DN	115/117 (98%)	90 (78%)	15 (13%)	10 (9%)	1	17
37	BO	96/98 (98%)	57 (59%)	23 (24%)	16 (17%)	0	4
37	DO	96/98 (98%)	54 (56%)	25 (26%)	17 (18%)	0	3
38	BP	135/137 (98%)	101 (75%)	18 (13%)	16 (12%)	1	9
38	DP	135/137 (98%)	100 (74%)	19 (14%)	16 (12%)	1	9
39	BQ	114/116 (98%)	78 (68%)	22 (19%)	14 (12%)	1	8
39	DQ	114/116 (98%)	82 (72%)	20 (18%)	12 (10%)	1	11
40	BR	99/101 (98%)	70 (71%)	20 (20%)	9 (9%)	1	15
40	DR	99/101 (98%)	70 (71%)	20 (20%)	9 (9%)	1	15
41	BS	110/112 (98%)	88 (80%)	17 (16%)	5 (4%)	4	38
41	DS	110/112 (98%)	87 (79%)	17 (16%)	6 (6%)	3	31
42	BT	90/92 (98%)	69 (77%)	16 (18%)	5 (6%)	3	30
42	DT	90/92 (98%)	67 (74%)	18 (20%)	5 (6%)	3	30
43	BU	98/100 (98%)	55 (56%)	24 (24%)	19 (19%)	0	2
43	DU	98/100 (98%)	58 (59%)	21 (21%)	19 (19%)	0	2
44	BV	186/188 (99%)	135 (73%)	34 (18%)	17 (9%)	1	15
44	DV	186/188 (99%)	135 (73%)	34 (18%)	17 (9%)	1	15
45	BW	74/76 (97%)	61 (82%)	10 (14%)	3 (4%)	4	42
45	DW	74/76 (97%)	60 (81%)	10 (14%)	4 (5%)	3	31
46	BX	86/88 (98%)	57 (66%)	16 (19%)	13 (15%)	0	4
46	DX	86/88 (98%)	54 (63%)	19 (22%)	13 (15%)	0	4
47	BY	60/62 (97%)	45 (75%)	8 (13%)	7 (12%)	1	9
47	DY	60/62 (97%)	41 (68%)	12 (20%)	7 (12%)	1	9
48	BZ	57/59 (97%)	49 (86%)	7 (12%)	1 (2%)	13	65

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
48	DZ	57/59 (97%)	50 (88%)	6 (10%)	1 (2%)	13	65
49	B1	28/30 (93%)	15 (54%)	7 (25%)	6 (21%)	0	2
49	D1	28/30 (93%)	15 (54%)	7 (25%)	6 (21%)	0	2
50	B2	50/52 (96%)	40 (80%)	6 (12%)	4 (8%)	1	19
50	D2	50/52 (96%)	39 (78%)	7 (14%)	4 (8%)	1	19
51	B3	42/44 (96%)	26 (62%)	11 (26%)	5 (12%)	1	9
51	D3	42/44 (96%)	26 (62%)	11 (26%)	5 (12%)	1	9
52	B4	46/48 (96%)	42 (91%)	3 (6%)	1 (2%)	10	60
52	D4	46/48 (96%)	42 (91%)	3 (6%)	1 (2%)	10	60
53	B5	61/63 (97%)	43 (70%)	12 (20%)	6 (10%)	1	13
53	D5	61/63 (97%)	44 (72%)	10 (16%)	7 (12%)	1	9
All	All	11192/11458 (98%)	8080 (72%)	2125 (19%)	987 (9%)	1	16

All (987) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	204	ASN
3	AC	189	ALA
3	AC	196	LEU
4	AD	28	SER
4	AD	30	LYS
5	AE	37	ARG
5	AE	140	ARG
6	AF	6	VAL
6	AF	36	ARG
6	AF	39	LYS
6	AF	42	GLU
6	AF	87	ARG
10	AJ	92	THR
11	AK	27	ASN
12	AL	50	ALA
12	AL	63	TYR
12	AL	117	SER
13	AM	106	ASN
15	AO	29	VAL
16	AP	11	SER
16	AP	19	ILE
17	AQ	79	SER

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Mol	Chain	Res	Type
17	AQ	99	SER
18	AR	20	ALA
19	AS	28	LYS
20	AT	71	THR
20	AT	99	LEU
25	BC	26	LYS
25	BC	33	LEU
25	BC	34	VAL
25	BC	236	GLY
25	BC	237	GLU
25	BC	271	ILE
26	BD	2	LYS
26	BD	17	ASP
27	BE	89	VAL
27	BE	128	ALA
27	BE	168	ARG
28	BF	86	MET
28	BF	87	PRO
29	BG	92	ILE
29	BG	165	ALA
30	BH	10	GLU
30	BH	82	ARG
30	BH	132	PRO
30	BH	142	VAL
30	BH	143	SER
32	BJ	149	PRO
32	BJ	155	ALA
32	BJ	157	ARG
33	BK	4	PRO
33	BK	27	GLY
33	BK	29	ASN
33	BK	91	LEU
33	BK	101	PRO
34	BL	11	GLY
34	BL	15	ARG
34	BL	17	LYS
34	BL	36	LYS
34	BL	39	LYS
34	BL	49	ARG
34	BL	50	ARG
34	BL	65	ARG
34	BL	110	TYR

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Mol	Chain	Res	Type
34	BL	141	ALA
34	BL	147	LEU
35	BM	8	LYS
35	BM	13	GLN
35	BM	18	LYS
35	BM	21	THR
35	BM	25	ASP
35	BM	30	GLY
35	BM	82	ARG
35	BM	134	ARG
35	BM	135	ASP
36	BN	3	HIS
36	BN	5	LYS
36	BN	6	SER
36	BN	12	ARG
36	BN	86	ARG
37	BO	12	PHE
37	BO	35	ILE
37	BO	44	LYS
37	BO	52	SER
37	BO	53	SER
37	BO	59	LYS
38	BP	58	ASN
38	BP	89	VAL
38	BP	90	GLN
38	BP	107	ASP
38	BP	136	GLN
39	BQ	9	VAL
39	BQ	31	SER
39	BQ	33	ARG
39	BQ	99	ALA
40	BR	35	LEU
40	BR	78	LYS
43	BU	7	VAL
43	BU	49	VAL
43	BU	76	CYS
43	BU	88	LYS
44	BV	31	ARG
44	BV	93	ASP
44	BV	177	PRO
45	BW	47	PRO
46	BX	10	LYS

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Mol	Chain	Res	Type
46	BX	11	ARG
46	BX	32	LYS
46	BX	85	LEU
47	BY	3	LEU
47	BY	44	LEU
48	BZ	13	ILE
49	B1	44	CYS
49	B1	52	SER
50	B2	4	HIS
50	B2	35	GLU
50	B2	49	CYS
51	B3	28	ARG
51	B3	51	GLU
53	B5	31	HIS
53	B5	34	TRP
53	B5	51	ALA
53	B5	62	LEU
2	CB	204	ASN
3	CC	189	ALA
3	CC	196	LEU
4	CD	30	LYS
5	CE	37	ARG
5	CE	140	ARG
6	CF	6	VAL
6	CF	36	ARG
6	CF	39	LYS
6	CF	42	GLU
6	CF	87	ARG
10	CJ	92	THR
11	CK	27	ASN
11	CK	122	LYS
12	CL	50	ALA
12	CL	63	TYR
12	CL	117	SER
13	CM	106	ASN
15	CO	29	VAL
16	CP	11	SER
16	CP	19	ILE
17	CQ	79	SER
17	CQ	99	SER
18	CR	20	ALA
19	CS	28	LYS

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Mol	Chain	Res	Type
20	CT	71	THR
20	CT	99	LEU
25	DC	26	LYS
25	DC	33	LEU
25	DC	34	VAL
25	DC	271	ILE
26	DD	2	LYS
26	DD	17	ASP
26	DD	86	PRO
27	DE	68	LYS
27	DE	89	VAL
27	DE	128	ALA
27	DE	168	ARG
28	DF	86	MET
28	DF	87	PRO
29	DG	92	ILE
29	DG	165	ALA
30	DH	10	GLU
30	DH	15	VAL
30	DH	82	ARG
30	DH	132	PRO
30	DH	142	VAL
30	DH	143	SER
32	DJ	81	ASP
32	DJ	149	PRO
32	DJ	155	ALA
32	DJ	157	ARG
33	DK	27	GLY
33	DK	29	ASN
33	DK	101	PRO
34	DL	15	ARG
34	DL	17	LYS
34	DL	36	LYS
34	DL	39	LYS
34	DL	49	ARG
34	DL	50	ARG
34	DL	65	ARG
34	DL	110	TYR
34	DL	141	ALA
34	DL	147	LEU
35	DM	8	LYS
35	DM	13	GLN

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Mol	Chain	Res	Type
35	DM	21	THR
35	DM	25	ASP
35	DM	30	GLY
35	DM	82	ARG
35	DM	134	ARG
36	DN	3	HIS
36	DN	5	LYS
36	DN	6	SER
36	DN	12	ARG
36	DN	86	ARG
37	DO	12	PHE
37	DO	35	ILE
37	DO	44	LYS
37	DO	52	SER
37	DO	53	SER
37	DO	59	LYS
38	DP	58	ASN
38	DP	89	VAL
38	DP	90	GLN
38	DP	97	ALA
38	DP	107	ASP
38	DP	136	GLN
39	DQ	9	VAL
39	DQ	31	SER
39	DQ	33	ARG
39	DQ	99	ALA
40	DR	35	LEU
40	DR	78	LYS
43	DU	7	VAL
43	DU	17	SER
43	DU	49	VAL
43	DU	76	CYS
43	DU	88	LYS
44	DV	31	ARG
44	DV	93	ASP
44	DV	177	PRO
45	DW	47	PRO
45	DW	74	ARG
46	DX	11	ARG
46	DX	13	ILE
46	DX	32	LYS
46	DX	85	LEU

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Mol	Chain	Res	Type
47	DY	3	LEU
47	DY	44	LEU
48	DZ	13	ILE
49	D1	44	CYS
49	D1	52	SER
50	D2	4	HIS
50	D2	35	GLU
50	D2	49	CYS
51	D3	28	ARG
51	D3	51	GLU
53	D5	31	HIS
53	D5	34	TRP
53	D5	51	ALA
53	D5	62	LEU
2	AB	14	GLY
2	AB	19	HIS
2	AB	24	TRP
2	AB	129	GLU
2	AB	176	GLU
2	AB	205	ASP
2	AB	229	VAL
3	AC	14	ILE
3	AC	22	TRP
3	AC	56	ASP
3	AC	100	ALA
3	AC	144	SER
3	AC	188	LEU
4	AD	4	TYR
4	AD	110	PHE
4	AD	145	GLU
4	AD	171	GLY
6	AF	2	ARG
6	AF	89	MET
7	AG	4	ARG
8	AH	2	LEU
8	AH	133	LEU
9	AI	31	GLN
10	AJ	59	SER
11	AK	122	LYS
12	AL	22	LYS
12	AL	27	LYS
12	AL	64	GLU

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Mol	Chain	Res	Type
15	AO	6	GLU
15	AO	19	PRO
16	AP	10	GLY
16	AP	16	HIS
16	AP	26	ARG
16	AP	48	TRP
16	AP	64	ALA
18	AR	45	SER
18	AR	54	ARG
18	AR	57	GLY
19	AS	11	VAL
20	AT	11	SER
20	AT	42	GLN
20	AT	74	LYS
21	AU	9	ARG
25	BC	169	GLU
25	BC	261	LYS
25	BC	268	ARG
26	BD	29	GLY
26	BD	86	PRO
27	BE	19	GLU
27	BE	68	LYS
27	BE	132	VAL
28	BF	26	GLN
28	BF	96	ARG
28	BF	115	ARG
29	BG	21	PRO
29	BG	138	LYS
30	BH	15	VAL
30	BH	16	GLY
30	BH	74	ASN
30	BH	91	SER
30	BH	92	VAL
32	BJ	81	ASP
32	BJ	89	LYS
34	BL	32	THR
34	BL	137	LYS
35	BM	47	ILE
35	BM	136	ALA
35	BM	140	ALA
36	BN	8	ARG
37	BO	57	LYS

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Mol	Chain	Res	Type
37	BO	82	ILE
37	BO	90	GLY
37	BO	95	HIS
38	BP	2	ASN
38	BP	36	GLU
38	BP	57	PHE
38	BP	97	ALA
38	BP	106	SER
38	BP	115	ARG
38	BP	126	ALA
38	BP	127	ALA
39	BQ	54	LYS
39	BQ	98	LEU
39	BQ	117	GLN
40	BR	46	VAL
40	BR	100	ARG
41	BS	61	ASN
41	BS	63	ASP
43	BU	3	VAL
43	BU	11	ASP
43	BU	17	SER
43	BU	69	ALA
43	BU	98	VAL
44	BV	80	ARG
44	BV	135	GLU
44	BV	178	GLU
45	BW	74	ARG
46	BX	13	ILE
47	BY	43	GLN
47	BY	61	LEU
2	CB	14	GLY
2	CB	18	GLY
2	CB	19	HIS
2	CB	24	TRP
2	CB	129	GLU
2	CB	176	GLU
2	CB	205	ASP
2	CB	229	VAL
3	CC	14	ILE
3	CC	22	TRP
3	CC	56	ASP
3	CC	100	ALA

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Mol	Chain	Res	Type
3	CC	144	SER
3	CC	188	LEU
4	CD	4	TYR
4	CD	28	SER
4	CD	110	PHE
4	CD	145	GLU
4	CD	171	GLY
5	CE	85	GLY
6	CF	2	ARG
6	CF	89	MET
7	CG	4	ARG
8	CH	2	LEU
8	CH	133	LEU
9	CI	31	GLN
10	CJ	57	LYS
10	CJ	59	SER
12	CL	22	LYS
12	CL	27	LYS
12	CL	64	GLU
12	CL	78	GLU
13	CM	4	ILE
15	CO	6	GLU
16	CP	10	GLY
16	CP	16	HIS
16	CP	26	ARG
16	CP	48	TRP
16	CP	64	ALA
18	CR	54	ARG
18	CR	57	GLY
19	CS	11	VAL
20	CT	11	SER
21	CU	9	ARG
25	DC	43	ARG
25	DC	125	ILE
25	DC	134	ARG
25	DC	169	GLU
25	DC	236	GLY
25	DC	237	GLU
25	DC	261	LYS
25	DC	268	ARG
26	DD	29	GLY
27	DE	19	GLU

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Mol	Chain	Res	Type
27	DE	132	VAL
28	DF	26	GLN
28	DF	96	ARG
28	DF	115	ARG
29	DG	21	PRO
29	DG	138	LYS
30	DH	16	GLY
30	DH	74	ASN
30	DH	91	SER
30	DH	92	VAL
32	DJ	89	LYS
33	DK	91	LEU
34	DL	11	GLY
34	DL	42	SER
34	DL	52	GLU
34	DL	136	GLU
34	DL	137	LYS
35	DM	18	LYS
35	DM	47	ILE
35	DM	135	ASP
35	DM	136	ALA
35	DM	140	ALA
37	DO	57	LYS
37	DO	82	ILE
37	DO	85	VAL
37	DO	89	ARG
37	DO	90	GLY
37	DO	95	HIS
38	DP	2	ASN
38	DP	4	GLY
38	DP	36	GLU
38	DP	57	PHE
38	DP	106	SER
38	DP	115	ARG
38	DP	126	ALA
38	DP	127	ALA
39	DQ	117	GLN
40	DR	46	VAL
40	DR	100	ARG
41	DS	48	ALA
41	DS	61	ASN
43	DU	3	VAL

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Mol	Chain	Res	Type
43	DU	98	VAL
44	DV	80	ARG
44	DV	135	GLU
44	DV	178	GLU
45	DW	57	PHE
46	DX	10	LYS
46	DX	38	SER
47	DY	43	GLN
47	DY	61	LEU
2	AB	18	GLY
2	AB	88	ALA
2	AB	130	ARG
2	AB	183	PRO
2	AB	206	ASP
2	AB	235	SER
3	AC	15	THR
3	AC	47	LEU
3	AC	60	ALA
3	AC	81	GLY
3	AC	91	LEU
3	AC	127	ARG
4	AD	105	VAL
5	AE	21	ALA
5	AE	49	PRO
5	AE	85	GLY
7	AG	14	PRO
8	AH	77	GLU
8	AH	98	LYS
8	AH	112	LEU
8	AH	119	LEU
10	AJ	57	LYS
12	AL	11	ARG
12	AL	61	SER
12	AL	78	GLU
12	AL	88	ARG
13	AM	4	ILE
15	AO	21	ASP
16	AP	77	ALA
17	AQ	78	GLU
17	AQ	80	GLY
20	AT	84	LEU
25	BC	35	LYS

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Mol	Chain	Res	Type
25	BC	42	GLY
25	BC	43	ARG
25	BC	115	GLN
25	BC	125	ILE
25	BC	134	ARG
26	BD	159	HIS
27	BE	66	PRO
27	BE	86	GLY
27	BE	145	GLU
27	BE	176	LEU
28	BF	14	GLU
28	BF	148	MET
29	BG	80	SER
29	BG	155	SER
30	BH	30	LEU
30	BH	77	LEU
30	BH	99	GLU
30	BH	144	VAL
32	BJ	152	PRO
34	BL	12	ALA
34	BL	42	SER
34	BL	43	GLY
34	BL	52	GLU
34	BL	90	ARG
34	BL	136	GLU
35	BM	10	ARG
35	BM	22	LYS
35	BM	54	MET
36	BN	32	GLY
37	BO	83	LYS
37	BO	85	VAL
37	BO	89	ARG
37	BO	91	PRO
39	BQ	93	LYS
39	BQ	96	ALA
40	BR	61	VAL
42	BT	72	LYS
43	BU	42	VAL
43	BU	90	LEU
43	BU	99	CYS
44	BV	38	TYR
44	BV	117	LEU

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Mol	Chain	Res	Type
44	BV	142	SER
44	BV	153	SER
45	BW	57	PHE
46	BX	56	GLN
46	BX	83	GLU
47	BY	17	SER
50	B2	46	CYS
51	B3	31	PRO
51	B3	32	ASN
51	B3	46	HIS
53	B5	3	LYS
2	CB	88	ALA
2	CB	130	ARG
2	CB	150	SER
2	CB	206	ASP
2	CB	235	SER
3	CC	15	THR
3	CC	47	LEU
3	CC	60	ALA
3	CC	81	GLY
3	CC	105	GLU
3	CC	127	ARG
5	CE	72	GLN
5	CE	128	PRO
7	CG	14	PRO
8	CH	87	SER
8	CH	98	LYS
8	CH	112	LEU
8	CH	119	LEU
12	CL	61	SER
14	CN	18	VAL
15	CO	19	PRO
15	CO	21	ASP
16	CP	77	ALA
17	CQ	78	GLU
17	CQ	80	GLY
18	CR	45	SER
20	CT	42	GLN
20	CT	74	LYS
25	DC	35	LYS
25	DC	37	LEU
25	DC	42	GLY

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Mol	Chain	Res	Type
25	DC	239	ARG
26	DD	69	LYS
26	DD	159	HIS
26	DD	185	LYS
27	DE	86	GLY
27	DE	134	GLY
27	DE	145	GLU
27	DE	176	LEU
28	DF	14	GLU
28	DF	148	MET
29	DG	80	SER
29	DG	155	SER
30	DH	30	LEU
30	DH	39	ALA
30	DH	77	LEU
30	DH	99	GLU
32	DJ	124	HIS
32	DJ	152	PRO
33	DK	4	PRO
34	DL	108	LYS
35	DM	10	ARG
35	DM	62	GLY
36	DN	8	ARG
39	DQ	8	VAL
39	DQ	54	LYS
39	DQ	96	ALA
39	DQ	98	LEU
40	DR	53	GLU
40	DR	61	VAL
41	DS	49	LYS
41	DS	64	MET
42	DT	41	ASN
42	DT	87	GLN
43	DU	11	ASP
43	DU	39	VAL
43	DU	42	VAL
43	DU	69	ALA
43	DU	90	LEU
43	DU	99	CYS
44	DV	38	TYR
44	DV	39	VAL
44	DV	117	LEU

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Mol	Chain	Res	Type
44	DV	142	SER
44	DV	153	SER
46	DX	9	GLY
46	DX	56	GLN
46	DX	83	GLU
47	DY	17	SER
47	DY	47	ASN
49	D1	62	CYS
50	D2	46	CYS
51	D3	31	PRO
51	D3	32	ASN
51	D3	46	HIS
53	D5	3	LYS
2	AB	150	SER
2	AB	182	ILE
2	AB	224	GLN
3	AC	18	TRP
3	AC	45	LYS
3	AC	61	ALA
3	AC	105	GLU
3	AC	145	GLY
4	AD	10	ARG
5	AE	62	ALA
5	AE	72	GLN
5	AE	104	ALA
5	AE	128	PRO
6	AF	38	GLU
10	AJ	78	ASN
11	AK	39	PRO
12	AL	28	GLY
12	AL	86	GLY
13	AM	116	THR
14	AN	18	VAL
15	AO	23	GLY
17	AQ	33	GLY
17	AQ	34	LYS
18	AR	41	LYS
19	AS	25	LYS
25	BC	37	LEU
25	BC	224	ALA
25	BC	239	ARG
25	BC	256	GLY

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Mol	Chain	Res	Type
26	BD	60	ASN
26	BD	87	GLU
26	BD	178	GLU
26	BD	185	LYS
27	BE	48	THR
27	BE	127	GLU
28	BF	24	GLY
28	BF	25	TYR
28	BF	46	ALA
29	BG	107	VAL
30	BH	7	GLU
30	BH	60	GLU
32	BJ	156	GLN
32	BJ	158	PRO
33	BK	21	CYS
33	BK	97	ARG
34	BL	47	ASP
34	BL	70	GLN
34	BL	109	GLY
37	BO	62	LYS
38	BP	4	GLY
40	BR	48	GLY
40	BR	53	GLU
41	BS	48	ALA
41	BS	64	MET
42	BT	40	LYS
42	BT	41	ASN
42	BT	87	GLN
43	BU	39	VAL
43	BU	80	GLY
44	BV	39	VAL
44	BV	101	PRO
46	BX	9	GLY
49	B1	41	ILE
49	B1	54	LYS
49	B1	62	CYS
52	B4	47	ARG
53	B5	61	LEU
2	CB	224	GLN
3	CC	18	TRP
3	CC	61	ALA
3	CC	91	LEU

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Mol	Chain	Res	Type
3	CC	145	GLY
3	CC	164	ARG
4	CD	147	ALA
5	CE	49	PRO
5	CE	104	ALA
5	CE	107	ARG
6	CF	38	GLU
8	CH	77	GLU
11	CK	39	PRO
12	CL	11	ARG
12	CL	28	GLY
12	CL	86	GLY
13	CM	116	THR
14	CN	58	LYS
15	CO	23	GLY
17	CQ	34	LYS
18	CR	36	ASN
19	CS	25	LYS
20	CT	84	LEU
25	DC	115	GLN
25	DC	256	GLY
26	DD	60	ASN
26	DD	87	GLU
26	DD	94	GLU
26	DD	127	ASP
26	DD	178	GLU
27	DE	127	GLU
28	DF	24	GLY
28	DF	25	TYR
29	DG	107	VAL
30	DH	7	GLU
30	DH	86	THR
30	DH	144	VAL
32	DJ	133	GLY
32	DJ	158	PRO
33	DK	21	CYS
33	DK	22	ILE
33	DK	97	ARG
34	DL	43	GLY
34	DL	47	ASP
34	DL	109	GLY
35	DM	22	LYS

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Mol	Chain	Res	Type
37	DO	62	LYS
37	DO	83	LYS
37	DO	91	PRO
38	DP	14	TYR
39	DQ	58	ARG
41	DS	63	ASP
42	DT	40	LYS
42	DT	72	LYS
43	DU	80	GLY
49	D1	41	ILE
49	D1	54	LYS
52	D4	47	ARG
53	D5	61	LEU
4	AD	75	PHE
4	AD	146	ILE
4	AD	147	ALA
4	AD	168	ARG
5	AE	11	ILE
5	AE	107	ARG
8	AH	37	ARG
8	AH	68	ARG
9	AI	10	ARG
9	AI	127	LYS
11	AK	80	VAL
12	AL	79	HIS
13	AM	3	ARG
14	AN	58	LYS
16	AP	72	ARG
17	AQ	30	PRO
18	AR	64	ARG
18	AR	87	ARG
19	AS	29	ARG
26	BD	69	LYS
26	BD	94	GLU
27	BE	134	GLY
29	BG	15	VAL
29	BG	90	LYS
30	BH	86	THR
30	BH	93	THR
32	BJ	75	VAL
32	BJ	105	LEU
32	BJ	106	LYS

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Mol	Chain	Res	Type
33	BK	120	GLU
34	BL	108	LYS
35	BM	117	ALA
36	BN	10	LEU
36	BN	45	ARG
36	BN	85	PRO
38	BP	14	TYR
39	BQ	58	ARG
39	BQ	86	ALA
41	BS	67	ASP
43	BU	47	LYS
44	BV	140	ASP
46	BX	36	GLY
46	BX	38	SER
46	BX	53	VAL
47	BY	47	ASN
2	CB	182	ILE
2	CB	183	PRO
2	CB	228	GLY
3	CC	45	LYS
4	CD	10	ARG
4	CD	48	ALA
4	CD	105	VAL
4	CD	146	ILE
5	CE	11	ILE
5	CE	62	ALA
5	CE	129	ILE
6	CF	11	ASN
8	CH	73	ASP
9	CI	10	ARG
9	CI	124	GLN
9	CI	127	LYS
10	CJ	78	ASN
11	CK	80	VAL
12	CL	79	HIS
13	CM	3	ARG
16	CP	78	GLY
18	CR	41	LYS
18	CR	64	ARG
18	CR	87	ARG
19	CS	29	ARG
25	DC	224	ALA

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Mol	Chain	Res	Type
26	DD	201	THR
27	DE	144	LYS
27	DE	160	ASN
28	DF	46	ALA
29	DG	15	VAL
30	DH	60	GLU
30	DH	76	THR
30	DH	93	THR
30	DH	115	ALA
32	DJ	75	VAL
32	DJ	90	LEU
32	DJ	105	LEU
32	DJ	156	GLN
34	DL	70	GLN
34	DL	90	ARG
35	DM	23	GLY
36	DN	45	ARG
36	DN	85	PRO
37	DO	101	LEU
39	DQ	86	ALA
40	DR	48	GLY
41	DS	110	LYS
43	DU	47	LYS
44	DV	101	PRO
44	DV	140	ASP
45	DW	55	ARG
47	DY	15	LYS
53	D5	40	GLU
2	AB	228	GLY
3	AC	5	ILE
3	AC	74	GLY
3	AC	96	GLY
3	AC	117	ALA
4	AD	48	ALA
6	AF	11	ASN
6	AF	90	VAL
7	AG	17	VAL
8	AH	73	ASP
11	AK	112	THR
12	AL	94	GLY
16	AP	63	GLY
16	AP	78	GLY

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Mol	Chain	Res	Type
18	AR	36	ASN
20	AT	98	PRO
26	BD	201	THR
27	BE	144	LYS
30	BH	76	THR
33	BK	22	ILE
35	BM	62	GLY
37	BO	101	LEU
44	BV	114	GLY
44	BV	133	ILE
44	BV	134	PRO
2	CB	191	ASP
3	CC	96	GLY
4	CD	63	LYS
4	CD	189	PRO
7	CG	17	VAL
8	CH	37	ARG
11	CK	112	THR
14	CN	42	ILE
17	CQ	30	PRO
19	CS	27	GLU
20	CT	98	PRO
26	DD	61	ARG
27	DE	66	PRO
29	DG	139	GLN
32	DJ	106	LYS
35	DM	54	MET
43	DU	41	GLY
44	DV	133	ILE
44	DV	134	PRO
46	DX	53	VAL
3	AC	173	VAL
4	AD	189	PRO
7	AG	82	GLY
12	AL	62	GLY
14	AN	42	ILE
18	AR	27	GLY
26	BD	61	ARG
27	BE	206	ILE
32	BJ	133	GLY
34	BL	19	VAL
35	BM	23	GLY

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Mol	Chain	Res	Type
39	BQ	26	GLY
39	BQ	65	ILE
44	BV	37	VAL
3	CC	5	ILE
3	CC	74	GLY
3	CC	173	VAL
7	CG	82	GLY
12	CL	94	GLY
15	CO	87	ILE
16	CP	63	GLY
26	DD	30	PRO
27	DE	206	ILE
40	DR	50	PRO
42	DT	84	ALA
43	DU	18	GLY
43	DU	96	ILE
44	DV	114	GLY
46	DX	36	GLY
15	AO	36	ILE
15	AO	87	ILE
43	BU	18	GLY
43	BU	41	GLY
43	BU	55	TYR
43	BU	96	ILE
46	BX	31	GLY
2	CB	159	PRO
3	CC	39	ILE
4	CD	197	PRO
36	DN	73	VAL
38	DP	81	PRO
2	AB	159	PRO
2	AB	194	PRO
4	AD	197	PRO
6	AF	40	VAL
25	BC	123	ALA
26	BD	30	PRO
27	BE	25	PRO
36	BN	58	GLY
38	BP	81	PRO
40	BR	50	PRO
42	BT	84	ALA
2	CB	194	PRO

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Mol	Chain	Res	Type
12	CL	62	GLY
36	DN	58	GLY
40	DR	17	GLY
44	DV	37	VAL
3	AC	39	ILE
4	AD	56	VAL
5	AE	129	ILE
8	AH	103	VAL
12	AL	17	VAL
28	BF	109	VAL
28	BF	142	PRO
34	BL	10	PRO
35	BM	81	VAL
35	BM	92	GLY
39	BQ	8	VAL
40	BR	17	GLY
47	BY	50	ILE
4	CD	56	VAL
6	CF	90	VAL
7	CG	70	LYS
8	CH	51	VAL
12	CL	17	VAL
29	DG	52	VAL
34	DL	10	PRO
35	DM	81	VAL
39	DQ	65	ILE
43	DU	55	TYR
46	DX	14	VAL
46	DX	31	GLY
7	AG	70	LYS
29	BG	52	VAL
34	BL	125	VAL
46	BX	14	VAL
49	B1	47	VAL
18	CR	50	ILE
25	DC	10	THR
28	DF	109	VAL
28	DF	142	PRO
34	DL	19	VAL
37	DO	60	GLY
49	D1	47	VAL

### 5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution. The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	AB	202/202 (100%)	178 (88%)	24 (12%)	8	36
2	CB	202/202 (100%)	179 (89%)	23 (11%)	8	38
3	AC	160/160 (100%)	146 (91%)	14 (9%)	14	55
3	CC	160/160 (100%)	145 (91%)	15 (9%)	13	50
4	AD	180/180 (100%)	150 (83%)	30 (17%)	3	19
4	CD	180/180 (100%)	150 (83%)	30 (17%)	3	19
5	AE	116/116 (100%)	92 (79%)	24 (21%)	2	8
5	CE	116/116 (100%)	94 (81%)	22 (19%)	2	11
6	AF	90/90 (100%)	82 (91%)	8 (9%)	14	55
6	CF	90/90 (100%)	83 (92%)	7 (8%)	18	62
7	AG	126/126 (100%)	121 (96%)	5 (4%)	42	84
7	CG	126/126 (100%)	121 (96%)	5 (4%)	42	84
8	AH	119/119 (100%)	102 (86%)	17 (14%)	5	27
8	CH	119/119 (100%)	104 (87%)	15 (13%)	7	33
9	AI	98/98 (100%)	88 (90%)	10 (10%)	11	46
9	CI	98/98 (100%)	88 (90%)	10 (10%)	11	46
10	AJ	88/88 (100%)	78 (89%)	10 (11%)	8	38
10	CJ	88/88 (100%)	78 (89%)	10 (11%)	8	38
11	AK	90/90 (100%)	75 (83%)	15 (17%)	3	19
11	CK	90/90 (100%)	76 (84%)	14 (16%)	4	23
12	AL	104/104 (100%)	83 (80%)	21 (20%)	2	9
12	CL	104/104 (100%)	83 (80%)	21 (20%)	2	9
13	AM	94/94 (100%)	87 (93%)	7 (7%)	20	65
13	CM	94/94 (100%)	87 (93%)	7 (7%)	20	65
14	AN	49/49 (100%)	45 (92%)	4 (8%)	17	60
14	CN	49/49 (100%)	45 (92%)	4 (8%)	17	60
15	AO	79/79 (100%)	69 (87%)	10 (13%)	6	33

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
15	CO	79/79 (100%)	69 (87%)	10 (13%)	6	33
16	AP	72/72 (100%)	57 (79%)	15 (21%)	2	8
16	CP	72/72 (100%)	56 (78%)	16 (22%)	1	7
17	AQ	94/94 (100%)	78 (83%)	16 (17%)	3	18
17	CQ	94/94 (100%)	79 (84%)	15 (16%)	3	21
18	AR	61/61 (100%)	58 (95%)	3 (5%)	35	79
18	CR	61/61 (100%)	58 (95%)	3 (5%)	35	79
19	AS	69/69 (100%)	60 (87%)	9 (13%)	6	31
19	CS	69/69 (100%)	60 (87%)	9 (13%)	6	31
20	AT	76/76 (100%)	65 (86%)	11 (14%)	5	26
20	CT	76/76 (100%)	65 (86%)	11 (14%)	5	26
21	AU	19/19 (100%)	19 (100%)	0	100	100
21	CU	19/19 (100%)	19 (100%)	0	100	100
25	BC	213/213 (100%)	164 (77%)	49 (23%)	1	6
25	DC	213/213 (100%)	162 (76%)	51 (24%)	1	5
26	BD	165/165 (100%)	129 (78%)	36 (22%)	1	7
26	DD	165/165 (100%)	129 (78%)	36 (22%)	1	7
27	BE	161/161 (100%)	124 (77%)	37 (23%)	1	6
27	DE	161/161 (100%)	124 (77%)	37 (23%)	1	6
28	BF	155/155 (100%)	132 (85%)	23 (15%)	4	25
28	DF	155/155 (100%)	134 (86%)	21 (14%)	6	29
29	BG	132/132 (100%)	108 (82%)	24 (18%)	2	13
29	DG	132/132 (100%)	107 (81%)	25 (19%)	2	12
30	BH	122/122 (100%)	103 (84%)	19 (16%)	4	23
30	DH	122/122 (100%)	103 (84%)	19 (16%)	4	23
31	BI	27/53 (51%)	25 (93%)	2 (7%)	20	65
31	DI	27/53 (51%)	25 (93%)	2 (7%)	20	65
32	BJ	116/116 (100%)	84 (72%)	32 (28%)	0	3
32	DJ	116/116 (100%)	85 (73%)	31 (27%)	1	4
33	BK	100/100 (100%)	78 (78%)	22 (22%)	1	7
33	DK	100/100 (100%)	78 (78%)	22 (22%)	1	7

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
34	BL	112/112 (100%)	75 (67%)	37 (33%)	0	2
34	DL	112/112 (100%)	76 (68%)	36 (32%)	0	2
35	BM	106/106 (100%)	82 (77%)	24 (23%)	1	6
35	DM	106/106 (100%)	81 (76%)	25 (24%)	1	6
36	BN	100/100 (100%)	75 (75%)	25 (25%)	1	5
36	DN	100/100 (100%)	76 (76%)	24 (24%)	1	5
37	BO	77/77 (100%)	63 (82%)	14 (18%)	2	13
37	DO	77/77 (100%)	63 (82%)	14 (18%)	2	13
38	BP	121/121 (100%)	96 (79%)	25 (21%)	2	8
38	DP	121/121 (100%)	94 (78%)	27 (22%)	1	7
39	BQ	92/92 (100%)	71 (77%)	21 (23%)	1	6
39	DQ	92/92 (100%)	71 (77%)	21 (23%)	1	6
40	BR	82/82 (100%)	63 (77%)	19 (23%)	1	6
40	DR	82/82 (100%)	61 (74%)	21 (26%)	1	4
41	BS	91/91 (100%)	65 (71%)	26 (29%)	0	3
41	DS	91/91 (100%)	65 (71%)	26 (29%)	0	3
42	BT	74/74 (100%)	60 (81%)	14 (19%)	2	12
42	DT	74/74 (100%)	60 (81%)	14 (19%)	2	12
43	BU	84/84 (100%)	66 (79%)	18 (21%)	1	8
43	DU	84/84 (100%)	67 (80%)	17 (20%)	2	9
44	BV	163/163 (100%)	142 (87%)	21 (13%)	6	32
44	DV	163/163 (100%)	141 (86%)	22 (14%)	6	29
45	BW	61/61 (100%)	52 (85%)	9 (15%)	4	25
45	DW	61/61 (100%)	53 (87%)	8 (13%)	6	31
46	BX	73/73 (100%)	50 (68%)	23 (32%)	0	3
46	DX	73/73 (100%)	50 (68%)	23 (32%)	0	3
47	BY	58/58 (100%)	46 (79%)	12 (21%)	2	8
47	DY	58/58 (100%)	46 (79%)	12 (21%)	2	8
48	BZ	51/51 (100%)	43 (84%)	8 (16%)	4	23
48	DZ	51/51 (100%)	43 (84%)	8 (16%)	4	23
49	B1	27/27 (100%)	26 (96%)	1 (4%)	45	85

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
49	D1	27/27 (100%)	26 (96%)	1 (4%)	45	85
50	B2	45/45 (100%)	40 (89%)	5 (11%)	9	40
50	D2	45/45 (100%)	39 (87%)	6 (13%)	6	30
51	B3	43/43 (100%)	38 (88%)	5 (12%)	8	37
51	D3	43/43 (100%)	38 (88%)	5 (12%)	8	37
52	B4	41/41 (100%)	29 (71%)	12 (29%)	0	3
52	D4	41/41 (100%)	28 (68%)	13 (32%)	0	3
53	B5	53/53 (100%)	42 (79%)	11 (21%)	2	8
53	D5	53/53 (100%)	43 (81%)	10 (19%)	2	12
All	All	9462/9514 (100%)	7811 (83%)	1651 (17%)	3	16

All (1651) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	16	HIS
2	AB	27	LYS
2	AB	28	PHE
2	AB	60	ASP
2	AB	61	LEU
2	AB	71	VAL
2	AB	75	LYS
2	AB	76	GLN
2	AB	87	ARG
2	AB	93	VAL
2	AB	111	ARG
2	AB	117	GLU
2	AB	127	ILE
2	AB	128	GLU
2	AB	130	ARG
2	AB	142	LEU
2	AB	153	ARG
2	AB	154	LEU
2	AB	158	LEU
2	AB	164	VAL
2	AB	169	LYS
2	AB	178	ARG
2	AB	187	LEU
2	AB	221	LEU
3	AC	3	ASN

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Mol	Chain	Res	Type
3	AC	5	ILE
3	AC	11	ARG
3	AC	16	ARG
3	AC	29	TYR
3	AC	79	ARG
3	AC	95	THR
3	AC	115	LEU
3	AC	131	ARG
3	AC	152	ILE
3	AC	165	THR
3	AC	167	TRP
3	AC	196	LEU
3	AC	202	ILE
4	AD	3	ARG
4	AD	4	TYR
4	AD	8	VAL
4	AD	9	CYS
4	AD	11	LEU
4	AD	21	LEU
4	AD	45	GLN
4	AD	49	ARG
4	AD	59	ARG
4	AD	72	GLU
4	AD	76	ARG
4	AD	92	VAL
4	AD	96	LEU
4	AD	103	ASN
4	AD	108	LEU
4	AD	110	PHE
4	AD	114	ARG
4	AD	119	GLN
4	AD	122	ARG
4	AD	129	ASN
4	AD	131	ARG
4	AD	135	LEU
4	AD	141	ARG
4	AD	144	ASP
4	AD	154	ASN
4	AD	155	LEU
4	AD	158	ILE
4	AD	166	LYS
4	AD	203	VAL

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Mol	Chain	Res	Type
4	AD	208	SER
5	AE	8	GLU
5	AE	12	LEU
5	AE	16	THR
5	AE	18	ARG
5	AE	20	GLN
5	AE	28	PHE
5	AE	31	LEU
5	AE	43	LEU
5	AE	47	LYS
5	AE	53	LEU
5	AE	55	VAL
5	AE	60	TYR
5	AE	64	ARG
5	AE	71	LEU
5	AE	73	ASN
5	AE	76	ILE
5	AE	78	HIS
5	AE	79	GLU
5	AE	110	LEU
5	AE	116	THR
5	AE	120	THR
5	AE	126	ARG
5	AE	144	THR
5	AE	147	ASP
6	AF	43	LEU
6	AF	46	ARG
6	AF	48	LEU
6	AF	63	TYR
6	AF	69	GLU
6	AF	72	VAL
6	AF	89	MET
6	AF	100	ASN
7	AG	67	GLU
7	AG	91	VAL
7	AG	104	LEU
7	AG	118	VAL
7	AG	148	ASN
8	AH	1	MET
8	AH	8	ASP
8	AH	25	ASP
8	AH	26	VAL

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Mol	Chain	Res	Type
8	AH	39	LEU
8	AH	50	ARG
8	AH	52	ASP
8	AH	54	ASP
8	AH	73	ASP
8	AH	80	ILE
8	AH	91	ARG
8	AH	104	ARG
8	AH	107	LEU
8	AH	111	ILE
8	AH	119	LEU
8	AH	127	LEU
8	AH	136	GLU
9	AI	10	ARG
9	AI	14	VAL
9	AI	88	TYR
9	AI	95	LYS
9	AI	99	LEU
9	AI	104	ARG
9	AI	109	VAL
9	AI	114	TYR
9	AI	121	ARG
9	AI	124	GLN
10	AJ	16	LEU
10	AJ	22	LYS
10	AJ	49	VAL
10	AJ	55	LYS
10	AJ	62	HIS
10	AJ	63	PHE
10	AJ	66	ARG
10	AJ	74	ILE
10	AJ	92	THR
10	AJ	96	ILE
11	AK	14	VAL
11	AK	29	ILE
11	AK	32	ILE
11	AK	33	THR
11	AK	34	ASP
11	AK	40	ILE
11	AK	48	ILE
11	AK	53	SER
11	AK	80	VAL

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Mol	Chain	Res	Type
11	AK	81	ASP
11	AK	92	GLU
11	AK	103	LEU
11	AK	114	VAL
11	AK	117	ASN
11	AK	126	ARG
12	AL	5	THR
12	AL	6	ILE
12	AL	9	LEU
12	AL	10	VAL
12	AL	19	LYS
12	AL	31	PHE
12	AL	35	VAL
12	AL	40	ARG
12	AL	41	THR
12	AL	42	VAL
12	AL	43	THR
12	AL	52	ARG
12	AL	59	LEU
12	AL	61	SER
12	AL	65	VAL
12	AL	69	ILE
12	AL	83	LEU
12	AL	84	ILE
12	AL	95	VAL
12	AL	99	ILE
12	AL	109	VAL
13	AM	58	GLU
13	AM	64	TRP
13	AM	87	TYR
13	AM	93	ARG
13	AM	105	THR
13	AM	106	ASN
13	AM	115	LYS
14	AN	16	PHE
14	AN	41	ARG
14	AN	42	ILE
14	AN	44	LEU
15	AO	5	LYS
15	AO	17	ARG
15	AO	34	LEU
15	AO	39	LEU

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Mol	Chain	Res	Type
15	AO	44	LYS
15	AO	45	VAL
15	AO	63	ARG
15	AO	66	LEU
15	AO	67	LEU
15	AO	82	ILE
16	AP	1	MET
16	AP	2	VAL
16	AP	16	HIS
16	AP	20	VAL
16	AP	27	LYS
16	AP	28	ARG
16	AP	32	TYR
16	AP	47	ASP
16	AP	61	SER
16	AP	65	GLN
16	AP	69	THR
16	AP	72	ARG
16	AP	74	LEU
16	AP	82	GLN
16	AP	83	GLU
17	AQ	4	LYS
17	AQ	7	THR
17	AQ	9	VAL
17	AQ	10	VAL
17	AQ	11	VAL
17	AQ	15	MET
17	AQ	19	VAL
17	AQ	23	VAL
17	AQ	38	ARG
17	AQ	43	LEU
17	AQ	52	LYS
17	AQ	57	VAL
17	AQ	59	ILE
17	AQ	70	ARG
17	AQ	74	LEU
17	AQ	85	VAL
18	AR	65	ILE
18	AR	84	LYS
18	AR	88	LYS
19	AS	6	LYS
19	AS	7	LYS

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Mol	Chain	Res	Type
19	AS	22	LEU
19	AS	27	GLU
19	AS	29	ARG
19	AS	37	ARG
19	AS	44	MET
19	AS	49	ILE
19	AS	53	ASN
20	AT	9	ASN
20	AT	10	LEU
20	AT	22	ARG
20	AT	26	ASN
20	AT	30	LYS
20	AT	55	ILE
20	AT	57	ARG
20	AT	62	LEU
20	AT	73	HIS
20	AT	93	GLU
20	AT	100	ILE
25	BC	10	THR
25	BC	13	ARG
25	BC	14	ARG
25	BC	16	MET
25	BC	33	LEU
25	BC	38	LYS
25	BC	44	ASN
25	BC	61	LEU
25	BC	68	LYS
25	BC	69	ARG
25	BC	73	VAL
25	BC	87	ASN
25	BC	94	LEU
25	BC	95	LEU
25	BC	99	ASP
25	BC	102	LYS
25	BC	103	ARG
25	BC	105	ILE
25	BC	111	LEU
25	BC	112	GLN
25	BC	125	ILE
25	BC	126	GLN
25	BC	131	LEU
25	BC	134	ARG

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Mol	Chain	Res	Type
25	BC	138	VAL
25	BC	141	VAL
25	BC	150	LYS
25	BC	154	LYS
25	BC	155	LEU
25	BC	166	GLN
25	BC	171	ASP
25	BC	174	ILE
25	BC	192	THR
25	BC	193	VAL
25	BC	198	ASN
25	BC	204	ILE
25	BC	205	VAL
25	BC	211	ARG
25	BC	212	SER
25	BC	218	ARG
25	BC	226	MET
25	BC	227	ASN
25	BC	229	VAL
25	BC	237	GLU
25	BC	242	ARG
25	BC	244	ARG
25	BC	259	THR
25	BC	270	ILE
25	BC	271	ILE
26	BD	1	MET
26	BD	4	ILE
26	BD	5	LEU
26	BD	9	VAL
26	BD	16	ARG
26	BD	18	ASP
26	BD	33	VAL
26	BD	34	VAL
26	BD	40	GLU
26	BD	45	THR
26	BD	49	LEU
26	BD	54	GLN
26	BD	57	LYS
26	BD	76	ARG
26	BD	77	ILE
26	BD	79	ARG
26	BD	84	PHE

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Mol	Chain	Res	Type
26	BD	95	ILE
26	BD	116	VAL
26	BD	121	ASN
26	BD	141	ILE
26	BD	145	LYS
26	BD	152	LYS
26	BD	154	LYS
26	BD	156	MET
26	BD	160	TYR
26	BD	167	VAL
26	BD	169	ASN
26	BD	170	LEU
26	BD	171	GLU
26	BD	173	VAL
26	BD	175	VAL
26	BD	176	ILE
26	BD	181	LEU
26	BD	184	VAL
26	BD	197	ILE
27	BE	6	MET
27	BE	8	GLN
27	BE	9	ILE
27	BE	24	LEU
27	BE	33	LEU
27	BE	46	ARG
27	BE	48	THR
27	BE	50	SER
27	BE	53	THR
27	BE	64	ILE
27	BE	65	TRP
27	BE	67	GLN
27	BE	68	LYS
27	BE	70	THR
27	BE	74	ARG
27	BE	78	ILE
27	BE	82	ILE
27	BE	88	VAL
27	BE	98	SER
27	BE	100	THR
27	BE	106	ARG
27	BE	122	LYS
27	BE	125	LEU

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Mol	Chain	Res	Type
27	BE	127	GLU
27	BE	129	PHE
27	BE	136	THR
27	BE	158	THR
27	BE	160	ASN
27	BE	164	ARG
27	BE	165	ARG
27	BE	174	VAL
27	BE	175	THR
27	BE	181	LEU
27	BE	183	VAL
27	BE	192	LEU
27	BE	194	MET
27	BE	197	ASP
28	BF	5	LEU
28	BF	8	LYS
28	BF	26	GLN
28	BF	33	ARG
28	BF	35	GLU
28	BF	47	LYS
28	BF	78	SER
28	BF	86	MET
28	BF	90	LEU
28	BF	93	THR
28	BF	94	LEU
28	BF	97	ASP
28	BF	98	ARG
28	BF	107	LEU
28	BF	115	ARG
28	BF	128	ARG
28	BF	132	ASN
28	BF	143	GLU
28	BF	155	MET
28	BF	157	ILE
28	BF	159	VAL
28	BF	161	THR
28	BF	166	ASP
29	BG	13	LYS
29	BG	23	ARG
29	BG	34	GLU
29	BG	37	VAL
29	BG	57	ASP

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Mol	Chain	Res	Type
29	BG	60	ARG
29	BG	71	LEU
29	BG	90	LYS
29	BG	94	TYR
29	BG	101	ARG
29	BG	116	GLU
29	BG	122	THR
29	BG	123	PHE
29	BG	124	GLU
29	BG	129	THR
29	BG	133	VAL
29	BG	136	ILE
29	BG	139	GLN
29	BG	140	LYS
29	BG	147	ASN
29	BG	151	ILE
29	BG	158	HIS
29	BG	162	ILE
29	BG	163	TYR
30	BH	3	VAL
30	BH	4	ILE
30	BH	5	LEU
30	BH	6	LEU
30	BH	14	ASP
30	BH	20	ASP
30	BH	21	VAL
30	BH	33	ARG
30	BH	40	THR
30	BH	50	ARG
30	BH	67	ARG
30	BH	68	LEU
30	BH	73	GLU
30	BH	77	LEU
30	BH	89	TYR
30	BH	91	SER
30	BH	109	ILE
30	BH	135	GLU
30	BH	142	VAL
31	BI	3	ASN
31	BI	58	LEU
32	BJ	38	LEU
32	BJ	39	ILE

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Mol	Chain	Res	Type
32	BJ	42	GLU
32	BJ	46	LEU
32	BJ	51	THR
32	BJ	56	LEU
32	BJ	57	LEU
32	BJ	68	ASN
32	BJ	71	MET
32	BJ	81	ASP
32	BJ	83	ILE
32	BJ	86	THR
32	BJ	92	GLN
32	BJ	105	LEU
32	BJ	106	LYS
32	BJ	110	LEU
32	BJ	112	LYS
32	BJ	113	MET
32	BJ	116	THR
32	BJ	117	HIS
32	BJ	122	LEU
32	BJ	126	VAL
32	BJ	129	MET
32	BJ	132	LYS
32	BJ	137	ARG
32	BJ	142	ARG
32	BJ	143	LEU
32	BJ	144	LYS
32	BJ	146	TYR
32	BJ	154	GLN
32	BJ	160	LYS
32	BJ	161	LEU
33	BK	2	ILE
33	BK	3	GLN
33	BK	4	PRO
33	BK	19	ILE
33	BK	22	ILE
33	BK	23	ARG
33	BK	24	VAL
33	BK	26	LYS
33	BK	31	LYS
33	BK	32	TYR
33	BK	47	ILE
33	BK	52	VAL

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Mol	Chain	Res	Type
33	BK	65	THR
33	BK	78	ARG
33	BK	87	ILE
33	BK	89	ASN
33	BK	90	GLN
33	BK	91	LEU
33	BK	98	VAL
33	BK	99	PHE
33	BK	102	VAL
33	BK	115	VAL
34	BL	9	ASN
34	BL	15	ARG
34	BL	16	ARG
34	BL	18	ARG
34	BL	19	VAL
34	BL	29	LYS
34	BL	33	ARG
34	BL	39	LYS
34	BL	40	SER
34	BL	41	ARG
34	BL	42	SER
34	BL	49	ARG
34	BL	50	ARG
34	BL	51	PHE
34	BL	52	GLU
34	BL	55	ARG
34	BL	56	SER
34	BL	57	THR
34	BL	59	LEU
34	BL	61	ARG
34	BL	62	LEU
34	BL	67	MET
34	BL	75	ILE
34	BL	81	GLN
34	BL	83	VAL
34	BL	85	LEU
34	BL	88	LEU
34	BL	91	PHE
34	BL	105	LEU
34	BL	111	ARG
34	BL	114	ILE
34	BL	123	LEU

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Mol	Chain	Res	Type
34	BL	135	LEU
34	BL	144	GLU
34	BL	146	VAL
34	BL	147	LEU
34	BL	148	LEU
35	BM	6	ARG
35	BM	9	TYR
35	BM	11	LYS
35	BM	13	GLN
35	BM	22	LYS
35	BM	25	ASP
35	BM	43	THR
35	BM	45	GLN
35	BM	52	VAL
35	BM	58	PHE
35	BM	59	ARG
35	BM	63	LYS
35	BM	66	ILE
35	BM	79	LEU
35	BM	80	GLU
35	BM	81	VAL
35	BM	83	MET
35	BM	89	ASN
35	BM	103	MET
35	BM	109	VAL
35	BM	115	MET
35	BM	119	ARG
35	BM	132	VAL
35	BM	135	ASP
36	BN	2	ARG
36	BN	8	ARG
36	BN	10	LEU
36	BN	12	ARG
36	BN	15	SER
36	BN	17	ARG
36	BN	18	LEU
36	BN	28	LEU
36	BN	35	THR
36	BN	37	THR
36	BN	44	LEU
36	BN	52	ILE
36	BN	54	LEU

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Mol	Chain	Res	Type
36	BN	60	LEU
36	BN	63	ARG
36	BN	67	LEU
36	BN	70	LEU
36	BN	75	LEU
36	BN	79	LEU
36	BN	95	THR
36	BN	98	LEU
36	BN	99	LYS
36	BN	104	ARG
36	BN	107	ASP
36	BN	111	LEU
37	BO	12	PHE
37	BO	13	ARG
37	BO	26	LEU
37	BO	30	ARG
37	BO	36	TYR
37	BO	40	ILE
37	BO	44	LYS
37	BO	48	LEU
37	BO	54	LEU
37	BO	63	THR
37	BO	69	VAL
37	BO	92	TYR
37	BO	93	LYS
37	BO	101	LEU
38	BP	15	VAL
38	BP	19	LEU
38	BP	23	ARG
38	BP	28	VAL
38	BP	30	VAL
38	BP	41	ARG
38	BP	50	ILE
38	BP	51	ARG
38	BP	53	ARG
38	BP	54	ARG
38	BP	58	ASN
38	BP	61	PHE
38	BP	63	VAL
38	BP	75	ILE
38	BP	84	GLN
38	BP	85	LYS

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Mol	Chain	Res	Type
38	BP	86	ILE
38	BP	87	ASP
38	BP	88	ILE
38	BP	89	VAL
38	BP	99	LEU
38	BP	100	TYR
38	BP	112	ARG
38	BP	113	LYS
38	BP	115	ARG
39	BQ	8	VAL
39	BQ	14	HIS
39	BQ	18	LEU
39	BQ	20	LEU
39	BQ	27	LEU
39	BQ	34	LYS
39	BQ	40	PHE
39	BQ	52	ARG
39	BQ	55	ARG
39	BQ	62	ILE
39	BQ	64	ARG
39	BQ	70	ARG
39	BQ	74	LEU
39	BQ	76	TYR
39	BQ	79	PHE
39	BQ	80	ILE
39	BQ	92	ARG
39	BQ	97	ASP
39	BQ	101	ARG
39	BQ	108	GLU
39	BQ	112	ARG
40	BR	5	VAL
40	BR	10	LYS
40	BR	12	TYR
40	BR	13	ARG
40	BR	18	LEU
40	BR	20	LEU
40	BR	21	ARG
40	BR	37	VAL
40	BR	39	LEU
40	BR	44	LYS
40	BR	53	GLU
40	BR	57	VAL

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Mol	Chain	Res	Type
40	BR	72	VAL
40	BR	78	LYS
40	BR	79	VAL
40	BR	80	GLN
40	BR	88	ARG
40	BR	98	GLU
40	BR	99	ILE
41	BS	1	MET
41	BS	8	ARG
41	BS	10	VAL
41	BS	11	ARG
41	BS	15	ARG
41	BS	17	VAL
41	BS	19	LEU
41	BS	23	LEU
41	BS	28	SER
41	BS	36	LEU
41	BS	39	THR
41	BS	47	VAL
41	BS	51	LEU
41	BS	53	SER
41	BS	60	ASN
41	BS	61	ASN
41	BS	69	LEU
41	BS	75	TYR
41	BS	76	VAL
41	BS	78	GLU
41	BS	84	ARG
41	BS	92	ARG
41	BS	96	ILE
41	BS	100	THR
41	BS	105	VAL
41	BS	107	LEU
42	BT	9	LEU
42	BT	12	VAL
42	BT	28	PHE
42	BT	39	ILE
42	BT	45	THR
42	BT	49	VAL
42	BT	52	VAL
42	BT	57	LEU
42	BT	62	LYS

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Mol	Chain	Res	Type
42	BT	65	ARG
42	BT	68	ARG
42	BT	70	LEU
42	BT	80	ILE
42	BT	81	VAL
43	BU	4	LYS
43	BU	6	HIS
43	BU	8	LYS
43	BU	9	LYS
43	BU	30	VAL
43	BU	31	LEU
43	BU	32	PRO
43	BU	60	PHE
43	BU	61	ILE
43	BU	62	GLU
43	BU	63	LYS
43	BU	67	LEU
43	BU	71	LYS
43	BU	76	CYS
43	BU	89	PHE
43	BU	90	LEU
43	BU	97	ARG
43	BU	98	VAL
44	BV	3	TYR
44	BV	24	LEU
44	BV	27	VAL
44	BV	31	ARG
44	BV	35	ARG
44	BV	39	VAL
44	BV	42	VAL
44	BV	70	LEU
44	BV	72	ARG
44	BV	82	ARG
44	BV	85	HIS
44	BV	86	VAL
44	BV	89	PHE
44	BV	94	GLU
44	BV	98	MET
44	BV	118	GLN
44	BV	140	ASP
44	BV	146	ILE
44	BV	150	LEU

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Mol	Chain	Res	Type
44	BV	161	VAL
44	BV	163	LEU
45	BW	14	ARG
45	BW	20	ARG
45	BW	21	LEU
45	BW	38	VAL
45	BW	53	MET
45	BW	63	VAL
45	BW	64	ASP
45	BW	80	HIS
45	BW	84	LEU
46	BX	8	SER
46	BX	13	ILE
46	BX	17	SER
46	BX	18	ILE
46	BX	21	ARG
46	BX	25	LYS
46	BX	27	GLU
46	BX	37	ILE
46	BX	38	SER
46	BX	40	ARG
46	BX	41	ARG
46	BX	45	ASN
46	BX	46	LEU
46	BX	51	VAL
46	BX	58	ILE
46	BX	60	PHE
46	BX	70	VAL
46	BX	72	GLU
46	BX	73	LEU
46	BX	75	GLU
46	BX	80	LEU
46	BX	88	LYS
46	BX	95	LEU
47	BY	1	MET
47	BY	2	LYS
47	BY	3	LEU
47	BY	5	GLU
47	BY	19	VAL
47	BY	21	LEU
47	BY	24	LEU
47	BY	32	LEU

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Mol	Chain	Res	Type
47	BY	35	LEU
47	BY	57	ILE
47	BY	61	LEU
47	BY	62	THR
48	BZ	1	MET
48	BZ	8	LEU
48	BZ	37	LEU
48	BZ	40	THR
48	BZ	43	ILE
48	BZ	52	HIS
48	BZ	55	ARG
48	BZ	56	VAL
49	B1	60	GLU
50	B2	3	LYS
50	B2	4	HIS
50	B2	11	THR
50	B2	25	LEU
50	B2	52	TYR
51	B3	12	GLU
51	B3	29	ASN
51	B3	30	THR
51	B3	34	LEU
51	B3	42	TRP
52	B4	4	THR
52	B4	8	ASN
52	B4	9	ARG
52	B4	15	THR
52	B4	19	ARG
52	B4	24	THR
52	B4	31	LEU
52	B4	34	ARG
52	B4	36	GLN
52	B4	41	ARG
52	B4	42	LEU
52	B4	46	VAL
53	B5	4	MET
53	B5	11	LYS
53	B5	19	SER
53	B5	30	ARG
53	B5	31	HIS
53	B5	33	ASN
53	B5	41	ILE

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Mol	Chain	Res	Type
53	B5	57	ARG
53	B5	60	LEU
53	B5	62	LEU
53	B5	64	TYR
2	CB	16	HIS
2	CB	27	LYS
2	CB	28	PHE
2	CB	60	ASP
2	CB	61	LEU
2	CB	71	VAL
2	CB	75	LYS
2	CB	76	GLN
2	CB	87	ARG
2	CB	93	VAL
2	CB	111	ARG
2	CB	117	GLU
2	CB	127	ILE
2	CB	128	GLU
2	CB	142	LEU
2	CB	153	ARG
2	CB	154	LEU
2	CB	158	LEU
2	CB	164	VAL
2	CB	169	LYS
2	CB	178	ARG
2	CB	187	LEU
2	CB	221	LEU
3	CC	3	ASN
3	CC	5	ILE
3	CC	11	ARG
3	CC	16	ARG
3	CC	29	TYR
3	CC	79	ARG
3	CC	95	THR
3	CC	111	LEU
3	CC	115	LEU
3	CC	131	ARG
3	CC	152	ILE
3	CC	165	THR
3	CC	167	TRP
3	CC	196	LEU
3	CC	202	ILE

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Mol	Chain	Res	Type
4	CD	3	ARG
4	CD	4	TYR
4	CD	8	VAL
4	CD	9	CYS
4	CD	11	LEU
4	CD	21	LEU
4	CD	45	GLN
4	CD	49	ARG
4	CD	59	ARG
4	CD	72	GLU
4	CD	76	ARG
4	CD	92	VAL
4	CD	96	LEU
4	CD	103	ASN
4	CD	108	LEU
4	CD	110	PHE
4	CD	114	ARG
4	CD	119	GLN
4	CD	122	ARG
4	CD	129	ASN
4	CD	131	ARG
4	CD	135	LEU
4	CD	141	ARG
4	CD	144	ASP
4	CD	154	ASN
4	CD	155	LEU
4	CD	158	ILE
4	CD	166	LYS
4	CD	203	VAL
4	CD	208	SER
5	CE	8	GLU
5	CE	12	LEU
5	CE	16	THR
5	CE	18	ARG
5	CE	20	GLN
5	CE	31	LEU
5	CE	43	LEU
5	CE	47	LYS
5	CE	53	LEU
5	CE	55	VAL
5	CE	60	TYR
5	CE	64	ARG

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Mol	Chain	Res	Type
5	CE	71	LEU
5	CE	73	ASN
5	CE	76	ILE
5	CE	78	HIS
5	CE	79	GLU
5	CE	110	LEU
5	CE	116	THR
5	CE	120	THR
5	CE	126	ARG
5	CE	147	ASP
6	CF	43	LEU
6	CF	46	ARG
6	CF	48	LEU
6	CF	63	TYR
6	CF	69	GLU
6	CF	89	MET
6	CF	100	ASN
7	CG	67	GLU
7	CG	91	VAL
7	CG	104	LEU
7	CG	118	VAL
7	CG	148	ASN
8	CH	1	MET
8	CH	8	ASP
8	CH	25	ASP
8	CH	26	VAL
8	CH	50	ARG
8	CH	52	ASP
8	CH	54	ASP
8	CH	73	ASP
8	CH	80	ILE
8	CH	91	ARG
8	CH	104	ARG
8	CH	107	LEU
8	CH	119	LEU
8	CH	127	LEU
8	CH	136	GLU
9	CI	10	ARG
9	CI	14	VAL
9	CI	88	TYR
9	CI	95	LYS
9	CI	99	LEU

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Mol	Chain	Res	Type
9	CI	104	ARG
9	CI	109	VAL
9	CI	114	TYR
9	CI	121	ARG
9	CI	124	GLN
10	CJ	16	LEU
10	CJ	22	LYS
10	CJ	49	VAL
10	CJ	55	LYS
10	CJ	62	HIS
10	CJ	63	PHE
10	CJ	66	ARG
10	CJ	74	ILE
10	CJ	92	THR
10	CJ	96	ILE
11	CK	14	VAL
11	CK	29	ILE
11	CK	32	ILE
11	CK	33	THR
11	CK	34	ASP
11	CK	40	ILE
11	CK	48	ILE
11	CK	80	VAL
11	CK	81	ASP
11	CK	92	GLU
11	CK	103	LEU
11	CK	114	VAL
11	CK	117	ASN
11	CK	126	ARG
12	CL	5	THR
12	CL	6	ILE
12	CL	9	LEU
12	CL	10	VAL
12	CL	19	LYS
12	CL	31	PHE
12	CL	35	VAL
12	CL	40	ARG
12	CL	41	THR
12	CL	42	VAL
12	CL	43	THR
12	CL	52	ARG
12	CL	59	LEU

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Mol	Chain	Res	Type
12	CL	61	SER
12	CL	65	VAL
12	CL	69	ILE
12	CL	83	LEU
12	CL	84	ILE
12	CL	95	VAL
12	CL	99	ILE
12	CL	109	VAL
13	CM	58	GLU
13	CM	64	TRP
13	CM	87	TYR
13	CM	93	ARG
13	CM	105	THR
13	CM	106	ASN
13	CM	115	LYS
14	CN	16	PHE
14	CN	41	ARG
14	CN	42	ILE
14	CN	44	LEU
15	CO	5	LYS
15	CO	17	ARG
15	CO	34	LEU
15	CO	39	LEU
15	CO	44	LYS
15	CO	45	VAL
15	CO	63	ARG
15	CO	66	LEU
15	CO	67	LEU
15	CO	82	ILE
16	CP	1	MET
16	CP	2	VAL
16	CP	16	HIS
16	CP	17	TYR
16	CP	20	VAL
16	CP	27	LYS
16	CP	28	ARG
16	CP	32	TYR
16	CP	47	ASP
16	CP	61	SER
16	CP	65	GLN
16	CP	69	THR
16	CP	72	ARG

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Mol	Chain	Res	Type
16	CP	74	LEU
16	CP	82	GLN
16	CP	83	GLU
17	CQ	4	LYS
17	CQ	7	THR
17	CQ	9	VAL
17	CQ	10	VAL
17	CQ	11	VAL
17	CQ	19	VAL
17	CQ	23	VAL
17	CQ	38	ARG
17	CQ	43	LEU
17	CQ	52	LYS
17	CQ	57	VAL
17	CQ	59	ILE
17	CQ	70	ARG
17	CQ	74	LEU
17	CQ	85	VAL
18	CR	65	ILE
18	CR	84	LYS
18	CR	88	LYS
19	CS	6	LYS
19	CS	7	LYS
19	CS	22	LEU
19	CS	27	GLU
19	CS	29	ARG
19	CS	37	ARG
19	CS	44	MET
19	CS	49	ILE
19	CS	53	ASN
20	CT	9	ASN
20	CT	10	LEU
20	CT	22	ARG
20	CT	26	ASN
20	CT	30	LYS
20	CT	55	ILE
20	CT	57	ARG
20	CT	62	LEU
20	CT	73	HIS
20	CT	93	GLU
20	CT	100	ILE
25	DC	10	THR

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Mol	Chain	Res	Type
25	DC	13	ARG
25	DC	14	ARG
25	DC	16	MET
25	DC	33	LEU
25	DC	38	LYS
25	DC	44	ASN
25	DC	61	LEU
25	DC	68	LYS
25	DC	69	ARG
25	DC	73	VAL
25	DC	87	ASN
25	DC	94	LEU
25	DC	95	LEU
25	DC	99	ASP
25	DC	102	LYS
25	DC	103	ARG
25	DC	105	ILE
25	DC	111	LEU
25	DC	112	GLN
25	DC	125	ILE
25	DC	126	GLN
25	DC	131	LEU
25	DC	134	ARG
25	DC	138	VAL
25	DC	141	VAL
25	DC	150	LYS
25	DC	154	LYS
25	DC	155	LEU
25	DC	166	GLN
25	DC	171	ASP
25	DC	174	ILE
25	DC	192	THR
25	DC	193	VAL
25	DC	198	ASN
25	DC	200	ASP
25	DC	204	ILE
25	DC	205	VAL
25	DC	211	ARG
25	DC	212	SER
25	DC	217	ARG
25	DC	218	ARG
25	DC	226	MET

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Mol	Chain	Res	Type
25	DC	227	ASN
25	DC	229	VAL
25	DC	237	GLU
25	DC	242	ARG
25	DC	244	ARG
25	DC	254	THR
25	DC	259	THR
25	DC	271	ILE
26	DD	1	MET
26	DD	4	ILE
26	DD	9	VAL
26	DD	16	ARG
26	DD	18	ASP
26	DD	33	VAL
26	DD	34	VAL
26	DD	40	GLU
26	DD	45	THR
26	DD	49	LEU
26	DD	54	GLN
26	DD	57	LYS
26	DD	76	ARG
26	DD	77	ILE
26	DD	78	LEU
26	DD	79	ARG
26	DD	84	PHE
26	DD	95	ILE
26	DD	116	VAL
26	DD	121	ASN
26	DD	122	PHE
26	DD	141	ILE
26	DD	144	ARG
26	DD	145	LYS
26	DD	152	LYS
26	DD	154	LYS
26	DD	156	MET
26	DD	160	TYR
26	DD	169	ASN
26	DD	170	LEU
26	DD	171	GLU
26	DD	173	VAL
26	DD	175	VAL
26	DD	176	ILE

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Mol	Chain	Res	Type
26	DD	181	LEU
26	DD	184	VAL
27	DE	6	MET
27	DE	8	GLN
27	DE	9	ILE
27	DE	24	LEU
27	DE	33	LEU
27	DE	46	ARG
27	DE	48	THR
27	DE	50	SER
27	DE	53	THR
27	DE	62	ARG
27	DE	64	ILE
27	DE	65	TRP
27	DE	67	GLN
27	DE	68	LYS
27	DE	70	THR
27	DE	74	ARG
27	DE	78	ILE
27	DE	82	ILE
27	DE	88	VAL
27	DE	98	SER
27	DE	100	THR
27	DE	106	ARG
27	DE	122	LYS
27	DE	127	GLU
27	DE	129	PHE
27	DE	136	THR
27	DE	158	THR
27	DE	160	ASN
27	DE	164	ARG
27	DE	165	ARG
27	DE	174	VAL
27	DE	175	THR
27	DE	181	LEU
27	DE	183	VAL
27	DE	192	LEU
27	DE	194	MET
27	DE	197	ASP
28	DF	5	LEU
28	DF	8	LYS
28	DF	26	GLN

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Mol	Chain	Res	Type
28	DF	33	ARG
28	DF	35	GLU
28	DF	47	LYS
28	DF	78	SER
28	DF	86	MET
28	DF	90	LEU
28	DF	93	THR
28	DF	94	LEU
28	DF	98	ARG
28	DF	107	LEU
28	DF	115	ARG
28	DF	128	ARG
28	DF	143	GLU
28	DF	155	MET
28	DF	157	ILE
28	DF	159	VAL
28	DF	161	THR
28	DF	166	ASP
29	DG	13	LYS
29	DG	23	ARG
29	DG	34	GLU
29	DG	37	VAL
29	DG	52	VAL
29	DG	57	ASP
29	DG	60	ARG
29	DG	71	LEU
29	DG	90	LYS
29	DG	94	TYR
29	DG	101	ARG
29	DG	116	GLU
29	DG	122	THR
29	DG	123	PHE
29	DG	124	GLU
29	DG	129	THR
29	DG	133	VAL
29	DG	136	ILE
29	DG	139	GLN
29	DG	140	LYS
29	DG	147	ASN
29	DG	151	ILE
29	DG	158	HIS
29	DG	162	ILE

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Mol	Chain	Res	Type
29	DG	163	TYR
30	DH	3	VAL
30	DH	4	ILE
30	DH	5	LEU
30	DH	6	LEU
30	DH	14	ASP
30	DH	20	ASP
30	DH	21	VAL
30	DH	33	ARG
30	DH	40	THR
30	DH	50	ARG
30	DH	67	ARG
30	DH	68	LEU
30	DH	73	GLU
30	DH	77	LEU
30	DH	89	TYR
30	DH	91	SER
30	DH	109	ILE
30	DH	135	GLU
30	DH	142	VAL
31	DI	3	ASN
31	DI	58	LEU
32	DJ	38	LEU
32	DJ	39	ILE
32	DJ	42	GLU
32	DJ	46	LEU
32	DJ	51	THR
32	DJ	56	LEU
32	DJ	57	LEU
32	DJ	71	MET
32	DJ	83	ILE
32	DJ	86	THR
32	DJ	92	GLN
32	DJ	96	THR
32	DJ	105	LEU
32	DJ	106	LYS
32	DJ	110	LEU
32	DJ	112	LYS
32	DJ	113	MET
32	DJ	116	THR
32	DJ	117	HIS
32	DJ	122	LEU

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Mol	Chain	Res	Type
32	DJ	126	VAL
32	DJ	129	MET
32	DJ	132	LYS
32	DJ	137	ARG
32	DJ	142	ARG
32	DJ	143	LEU
32	DJ	144	LYS
32	DJ	146	TYR
32	DJ	154	GLN
32	DJ	160	LYS
32	DJ	161	LEU
33	DK	2	ILE
33	DK	3	GLN
33	DK	4	PRO
33	DK	19	ILE
33	DK	22	ILE
33	DK	23	ARG
33	DK	24	VAL
33	DK	26	LYS
33	DK	31	LYS
33	DK	32	TYR
33	DK	47	ILE
33	DK	52	VAL
33	DK	65	THR
33	DK	78	ARG
33	DK	87	ILE
33	DK	89	ASN
33	DK	90	GLN
33	DK	91	LEU
33	DK	98	VAL
33	DK	99	PHE
33	DK	102	VAL
33	DK	115	VAL
34	DL	6	LEU
34	DL	9	ASN
34	DL	15	ARG
34	DL	16	ARG
34	DL	18	ARG
34	DL	19	VAL
34	DL	29	LYS
34	DL	33	ARG
34	DL	39	LYS

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Mol	Chain	Res	Type
34	DL	40	SER
34	DL	42	SER
34	DL	49	ARG
34	DL	50	ARG
34	DL	51	PHE
34	DL	52	GLU
34	DL	55	ARG
34	DL	56	SER
34	DL	57	THR
34	DL	59	LEU
34	DL	61	ARG
34	DL	62	LEU
34	DL	67	MET
34	DL	75	ILE
34	DL	81	GLN
34	DL	85	LEU
34	DL	88	LEU
34	DL	91	PHE
34	DL	105	LEU
34	DL	111	ARG
34	DL	114	ILE
34	DL	123	LEU
34	DL	135	LEU
34	DL	144	GLU
34	DL	146	VAL
34	DL	147	LEU
34	DL	148	LEU
35	DM	6	ARG
35	DM	9	TYR
35	DM	11	LYS
35	DM	13	GLN
35	DM	22	LYS
35	DM	25	ASP
35	DM	43	THR
35	DM	45	GLN
35	DM	52	VAL
35	DM	58	PHE
35	DM	59	ARG
35	DM	63	LYS
35	DM	66	ILE
35	DM	79	LEU
35	DM	80	GLU

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Mol	Chain	Res	Type
35	DM	81	VAL
35	DM	83	MET
35	DM	89	ASN
35	DM	103	MET
35	DM	106	VAL
35	DM	109	VAL
35	DM	115	MET
35	DM	119	ARG
35	DM	132	VAL
35	DM	135	ASP
36	DN	2	ARG
36	DN	10	LEU
36	DN	15	SER
36	DN	17	ARG
36	DN	28	LEU
36	DN	35	THR
36	DN	37	THR
36	DN	40	LYS
36	DN	44	LEU
36	DN	48	VAL
36	DN	52	ILE
36	DN	54	LEU
36	DN	60	LEU
36	DN	63	ARG
36	DN	67	LEU
36	DN	70	LEU
36	DN	75	LEU
36	DN	79	LEU
36	DN	95	THR
36	DN	98	LEU
36	DN	99	LYS
36	DN	104	ARG
36	DN	107	ASP
36	DN	111	LEU
37	DO	12	PHE
37	DO	13	ARG
37	DO	26	LEU
37	DO	30	ARG
37	DO	36	TYR
37	DO	40	ILE
37	DO	44	LYS
37	DO	48	LEU

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Mol	Chain	Res	Type
37	DO	54	LEU
37	DO	63	THR
37	DO	69	VAL
37	DO	92	TYR
37	DO	93	LYS
37	DO	101	LEU
38	DP	15	VAL
38	DP	19	LEU
38	DP	23	ARG
38	DP	28	VAL
38	DP	30	VAL
38	DP	39	ARG
38	DP	41	ARG
38	DP	50	ILE
38	DP	51	ARG
38	DP	53	ARG
38	DP	54	ARG
38	DP	58	ASN
38	DP	63	VAL
38	DP	64	ARG
38	DP	75	ILE
38	DP	84	GLN
38	DP	85	LYS
38	DP	86	ILE
38	DP	87	ASP
38	DP	88	ILE
38	DP	89	VAL
38	DP	99	LEU
38	DP	100	TYR
38	DP	104	ASN
38	DP	112	ARG
38	DP	113	LYS
38	DP	115	ARG
39	DQ	8	VAL
39	DQ	14	HIS
39	DQ	18	LEU
39	DQ	20	LEU
39	DQ	27	LEU
39	DQ	34	LYS
39	DQ	40	PHE
39	DQ	47	TYR
39	DQ	52	ARG

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Mol	Chain	Res	Type
39	DQ	55	ARG
39	DQ	62	ILE
39	DQ	64	ARG
39	DQ	70	ARG
39	DQ	76	TYR
39	DQ	79	PHE
39	DQ	80	ILE
39	DQ	92	ARG
39	DQ	97	ASP
39	DQ	101	ARG
39	DQ	108	GLU
39	DQ	112	ARG
40	DR	5	VAL
40	DR	10	LYS
40	DR	12	TYR
40	DR	13	ARG
40	DR	18	LEU
40	DR	20	LEU
40	DR	21	ARG
40	DR	33	VAL
40	DR	37	VAL
40	DR	39	LEU
40	DR	44	LYS
40	DR	53	GLU
40	DR	57	VAL
40	DR	66	ARG
40	DR	72	VAL
40	DR	78	LYS
40	DR	79	VAL
40	DR	80	GLN
40	DR	88	ARG
40	DR	98	GLU
40	DR	99	ILE
41	DS	1	MET
41	DS	8	ARG
41	DS	10	VAL
41	DS	11	ARG
41	DS	15	ARG
41	DS	17	VAL
41	DS	19	LEU
41	DS	23	LEU
41	DS	28	SER

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Mol	Chain	Res	Type
41	DS	33	ARG
41	DS	36	LEU
41	DS	39	THR
41	DS	47	VAL
41	DS	51	LEU
41	DS	53	SER
41	DS	60	ASN
41	DS	61	ASN
41	DS	69	LEU
41	DS	75	TYR
41	DS	76	VAL
41	DS	78	GLU
41	DS	84	ARG
41	DS	92	ARG
41	DS	100	THR
41	DS	105	VAL
41	DS	107	LEU
42	DT	9	LEU
42	DT	12	VAL
42	DT	28	PHE
42	DT	39	ILE
42	DT	45	THR
42	DT	49	VAL
42	DT	52	VAL
42	DT	57	LEU
42	DT	62	LYS
42	DT	65	ARG
42	DT	68	ARG
42	DT	70	LEU
42	DT	80	ILE
42	DT	81	VAL
43	DU	4	LYS
43	DU	6	HIS
43	DU	8	LYS
43	DU	9	LYS
43	DU	30	VAL
43	DU	31	LEU
43	DU	32	PRO
43	DU	60	PHE
43	DU	61	ILE
43	DU	62	GLU
43	DU	63	LYS

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Mol	Chain	Res	Type
43	DU	71	LYS
43	DU	76	CYS
43	DU	89	PHE
43	DU	90	LEU
43	DU	97	ARG
43	DU	98	VAL
44	DV	3	TYR
44	DV	24	LEU
44	DV	27	VAL
44	DV	31	ARG
44	DV	35	ARG
44	DV	39	VAL
44	DV	42	VAL
44	DV	70	LEU
44	DV	72	ARG
44	DV	81	ARG
44	DV	82	ARG
44	DV	85	HIS
44	DV	86	VAL
44	DV	89	PHE
44	DV	94	GLU
44	DV	98	MET
44	DV	118	GLN
44	DV	140	ASP
44	DV	146	ILE
44	DV	150	LEU
44	DV	161	VAL
44	DV	163	LEU
45	DW	17	GLN
45	DW	20	ARG
45	DW	21	LEU
45	DW	38	VAL
45	DW	53	MET
45	DW	63	VAL
45	DW	64	ASP
45	DW	84	LEU
46	DX	8	SER
46	DX	13	ILE
46	DX	17	SER
46	DX	18	ILE
46	DX	21	ARG
46	DX	25	LYS

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Mol	Chain	Res	Type
46	DX	27	GLU
46	DX	37	ILE
46	DX	38	SER
46	DX	40	ARG
46	DX	41	ARG
46	DX	45	ASN
46	DX	46	LEU
46	DX	51	VAL
46	DX	58	ILE
46	DX	60	PHE
46	DX	70	VAL
46	DX	72	GLU
46	DX	73	LEU
46	DX	75	GLU
46	DX	80	LEU
46	DX	88	LYS
46	DX	95	LEU
47	DY	1	MET
47	DY	2	LYS
47	DY	3	LEU
47	DY	5	GLU
47	DY	19	VAL
47	DY	21	LEU
47	DY	24	LEU
47	DY	32	LEU
47	DY	35	LEU
47	DY	57	ILE
47	DY	61	LEU
47	DY	62	THR
48	DZ	1	MET
48	DZ	8	LEU
48	DZ	37	LEU
48	DZ	40	THR
48	DZ	43	ILE
48	DZ	52	HIS
48	DZ	55	ARG
48	DZ	56	VAL
49	D1	60	GLU
50	D2	3	LYS
50	D2	4	HIS
50	D2	11	THR
50	D2	25	LEU

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Mol	Chain	Res	Type
50	D2	49	CYS
50	D2	52	TYR
51	D3	12	GLU
51	D3	29	ASN
51	D3	30	THR
51	D3	34	LEU
51	D3	42	TRP
52	D4	1	MET
52	D4	4	THR
52	D4	8	ASN
52	D4	9	ARG
52	D4	15	THR
52	D4	19	ARG
52	D4	24	THR
52	D4	31	LEU
52	D4	34	ARG
52	D4	36	GLN
52	D4	41	ARG
52	D4	42	LEU
52	D4	46	VAL
53	D5	4	MET
53	D5	11	LYS
53	D5	19	SER
53	D5	30	ARG
53	D5	31	HIS
53	D5	33	ASN
53	D5	41	ILE
53	D5	57	ARG
53	D5	60	LEU
53	D5	62	LEU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (245) such sidechains are listed below:

Mol	Chain	Res	Type
2	AB	37	ASN
2	AB	40	HIS
2	AB	110	GLN
2	AB	135	GLN
2	AB	212	GLN
3	AC	28	GLN
3	AC	31	HIS
3	AC	69	HIS

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Mol	Chain	Res	Type
3	AC	136	GLN
3	AC	170	GLN
3	AC	176	HIS
4	AD	42	GLN
4	AD	62	GLN
6	AF	100	ASN
7	AG	13	GLN
7	AG	96	GLN
8	AH	82	HIS
9	AI	23	ASN
9	AI	73	GLN
9	AI	117	HIS
9	AI	124	GLN
10	AJ	56	HIS
10	AJ	78	ASN
11	AK	26	ASN
12	AL	48	ASN
12	AL	74	HIS
12	AL	79	HIS
13	AM	101	GLN
15	AO	37	ASN
15	AO	46	HIS
15	AO	53	HIS
16	AP	82	GLN
19	AS	14	HIS
19	AS	53	ASN
19	AS	57	HIS
19	AS	65	ASN
20	AT	18	GLN
20	AT	26	ASN
25	BC	58	HIS
25	BC	87	ASN
25	BC	116	GLN
25	BC	126	GLN
25	BC	166	GLN
25	BC	186	HIS
25	BC	198	ASN
25	BC	220	HIS
25	BC	227	ASN
25	BC	231	HIS
25	BC	233	HIS
26	BD	60	ASN

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Mol	Chain	Res	Type
26	BD	66	HIS
26	BD	85	ASN
26	BD	132	HIS
26	BD	143	ASN
26	BD	169	ASN
26	BD	192	ASN
27	BE	67	GLN
27	BE	75	HIS
27	BE	160	ASN
27	BE	169	ASN
28	BF	58	GLN
28	BF	108	ASN
28	BF	121	ASN
28	BF	132	ASN
29	BG	65	HIS
29	BG	147	ASN
30	BH	17	GLN
30	BH	104	GLN
30	BH	133	HIS
31	BI	3	ASN
31	BI	56	ASN
32	BJ	61	HIS
32	BJ	68	ASN
32	BJ	79	ASN
32	BJ	151	HIS
32	BJ	153	HIS
32	BJ	154	GLN
33	BK	82	ASN
34	BL	70	GLN
35	BM	45	GLN
36	BN	3	HIS
36	BN	16	HIS
36	BN	53	HIS
36	BN	61	HIS
36	BN	71	GLN
36	BN	91	GLN
38	BP	58	ASN
38	BP	84	GLN
38	BP	90	GLN
39	BQ	14	HIS
39	BQ	49	HIS
39	BQ	72	HIS

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Mol	Chain	Res	Type
39	BQ	75	ASN
40	BR	11	GLN
40	BR	64	HIS
40	BR	87	HIS
41	BS	34	ASN
41	BS	57	ASN
41	BS	61	ASN
41	BS	102	HIS
42	BT	31	HIS
42	BT	41	ASN
42	BT	55	ASN
42	BT	82	GLN
42	BT	87	GLN
43	BU	6	HIS
44	BV	73	GLN
44	BV	121	HIS
45	BW	35	ASN
45	BW	50	ASN
46	BX	45	ASN
46	BX	56	GLN
46	BX	66	HIS
47	BY	47	ASN
47	BY	56	GLN
48	BZ	19	GLN
48	BZ	46	ASN
48	BZ	52	HIS
50	B2	22	HIS
50	B2	23	HIS
50	B2	43	HIS
51	B3	29	ASN
52	B4	8	ASN
53	B5	33	ASN
2	CB	37	ASN
2	CB	40	HIS
2	CB	110	GLN
2	CB	135	GLN
2	CB	212	GLN
3	CC	28	GLN
3	CC	31	HIS
3	CC	69	HIS
3	CC	170	GLN
4	CD	62	GLN

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Mol	Chain	Res	Type
4	CD	123	HIS
4	CD	161	ASN
6	CF	100	ASN
7	CG	13	GLN
7	CG	96	GLN
8	CH	15	ASN
8	CH	82	HIS
9	CI	23	ASN
9	CI	117	HIS
9	CI	124	GLN
10	CJ	56	HIS
10	CJ	78	ASN
11	CK	26	ASN
12	CL	48	ASN
12	CL	74	HIS
12	CL	79	HIS
13	CM	101	GLN
15	CO	37	ASN
15	CO	46	HIS
15	CO	53	HIS
16	CP	82	GLN
19	CS	14	HIS
19	CS	53	ASN
19	CS	57	HIS
19	CS	65	ASN
20	CT	18	GLN
20	CT	26	ASN
25	DC	58	HIS
25	DC	87	ASN
25	DC	116	GLN
25	DC	126	GLN
25	DC	143	HIS
25	DC	166	GLN
25	DC	186	HIS
25	DC	198	ASN
25	DC	220	HIS
25	DC	227	ASN
25	DC	231	HIS
25	DC	233	HIS
26	DD	60	ASN
26	DD	66	HIS
26	DD	85	ASN

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Mol	Chain	Res	Type
26	DD	143	ASN
26	DD	169	ASN
26	DD	192	ASN
27	DE	67	GLN
27	DE	75	HIS
27	DE	160	ASN
27	DE	169	ASN
28	DF	58	GLN
28	DF	108	ASN
28	DF	121	ASN
28	DF	132	ASN
29	DG	65	HIS
29	DG	147	ASN
30	DH	17	GLN
30	DH	104	GLN
30	DH	133	HIS
31	DI	3	ASN
31	DI	56	ASN
32	DJ	61	HIS
32	DJ	68	ASN
32	DJ	79	ASN
32	DJ	151	HIS
32	DJ	154	GLN
33	DK	82	ASN
34	DL	70	GLN
36	DN	3	HIS
36	DN	16	HIS
36	DN	61	HIS
36	DN	71	GLN
36	DN	91	GLN
38	DP	58	ASN
38	DP	84	GLN
38	DP	90	GLN
39	DQ	14	HIS
39	DQ	49	HIS
39	DQ	72	HIS
39	DQ	75	ASN
40	DR	11	GLN
40	DR	87	HIS
41	DS	34	ASN
41	DS	57	ASN
41	DS	61	ASN

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Mol	Chain	Res	Type
41	DS	102	HIS
42	DT	31	HIS
42	DT	41	ASN
42	DT	55	ASN
42	DT	82	GLN
42	DT	87	GLN
43	DU	6	HIS
44	DV	73	GLN
44	DV	121	HIS
45	DW	35	ASN
45	DW	50	ASN
46	DX	45	ASN
46	DX	56	GLN
46	DX	66	HIS
47	DY	47	ASN
47	DY	56	GLN
48	DZ	19	GLN
48	DZ	46	ASN
48	DZ	52	HIS
50	D2	22	HIS
50	D2	23	HIS
50	D2	43	HIS
51	D3	29	ASN
51	D3	49	HIS
52	D4	8	ASN
53	D5	31	HIS
53	D5	33	ASN

### 5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1505/1506 (99%)	293 (19%)	14 (0%)
1	CA	1505/1506 (99%)	294 (19%)	14 (0%)
22	AV	32/43 (74%)	3 (9%)	0
22	CV	32/43 (74%)	3 (9%)	0
23	BA	2755/2879 (95%)	584 (21%)	27 (0%)
23	DA	2757/2879 (95%)	589 (21%)	29 (1%)
24	BB	118/119 (99%)	26 (22%)	0
24	DB	118/119 (99%)	27 (22%)	0
All	All	8822/9094 (97%)	1819 (20%)	84 (0%)

All (1819) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	6	G
1	AA	7	G
1	AA	9	G
1	AA	13	U
1	AA	14	U
1	AA	15	G
1	AA	32	A
1	AA	33	A
1	AA	39	G
1	AA	41	G
1	AA	42	G
1	AA	47	C
1	AA	48	C
1	AA	50	A
1	AA	51	A
1	AA	59	A
1	AA	61	G
1	AA	88	C
1	AA	97	U
1	AA	99	C
1	AA	110	C
1	AA	115	G
1	AA	116	A
1	AA	120	A
1	AA	121	C
1	AA	131	C
1	AA	144	G
1	AA	151	A
1	AA	163	C
1	AA	171	A
1	AA	182	U
1	AA	183	G
1	AA	189	U
1	AA	190	G
1	AA	195	A
1	AA	196	A
1	AA	197	A
1	AA	201	C
1	AA	209	U
1	AA	210	U
1	AA	231	G
1	AA	240	C
1	AA	247	G

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Mol	Chain	Res	Type
1	AA	250	A
1	AA	251	G
1	AA	252	U
1	AA	258	G
1	AA	266	G
1	AA	267	C
1	AA	280	C
1	AA	281	G
1	AA	289	G
1	AA	298	A
1	AA	305	G
1	AA	306	G
1	AA	320	C
1	AA	321	A
1	AA	328	C
1	AA	330	C
1	AA	332	G
1	AA	345	C
1	AA	347	G
1	AA	351	G
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	358	U
1	AA	364	A
1	AA	365	U
1	AA	366	C
1	AA	367	U
1	AA	372	C
1	AA	373	A
1	AA	382	A
1	AA	384	G
1	AA	387	U
1	AA	388	G
1	AA	397	A
1	AA	398	C
1	AA	406	G
1	AA	410	G
1	AA	412	A
1	AA	413	G
1	AA	414	A
1	AA	422	C

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Mol	Chain	Res	Type
1	AA	423	G
1	AA	427	U
1	AA	429	U
1	AA	439	A
1	AA	452	A
1	AA	453	A
1	AA	457	C
1	AA	464	G
1	AA	465	A
1	AA	466	G
1	AA	467	G
1	AA	484	G
1	AA	485	G
1	AA	486	U
1	AA	496	A
1	AA	497	U
1	AA	500	G
1	AA	509	A
1	AA	511	C
1	AA	512	U
1	AA	518	C
1	AA	523	A
1	AA	527	G
1	AA	531	U
1	AA	532	A
1	AA	533	A
1	AA	547	A
1	AA	558	G
1	AA	559	A
1	AA	560	U
1	AA	561	U
1	AA	562	C
1	AA	567	G
1	AA	572	A
1	AA	573	A
1	AA	575	G
1	AA	576	G
1	AA	577	G
1	AA	580	U
1	AA	581	G
1	AA	596	C
1	AA	607	A

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Mol	Chain	Res	Type
1	AA	653	A
1	AA	665	A
1	AA	687	A
1	AA	688	G
1	AA	690	G
1	AA	693	G
1	AA	702	A
1	AA	718	G
1	AA	731	G
1	AA	733	A
1	AA	753	A
1	AA	777	A
1	AA	782	A
1	AA	792	A
1	AA	793	U
1	AA	794	A
1	AA	800	G
1	AA	810	C
1	AA	816	A
1	AA	817	C
1	AA	818	G
1	AA	819	A
1	AA	828	A
1	AA	829	G
1	AA	833	U
1	AA	841	U
1	AA	842	C
1	AA	843	U
1	AA	849	C
1	AA	859	A
1	AA	870	U
1	AA	873	A
1	AA	876	G
1	AA	884	U
1	AA	897	C
1	AA	902	G
1	AA	914	A
1	AA	916	G
1	AA	921	U
1	AA	922	G
1	AA	927	G
1	AA	934	C

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Mol	Chain	Res	Type
1	AA	935	A
1	AA	945	G
1	AA	951	G
1	AA	960	U
1	AA	961	U
1	AA	968	A
1	AA	969	A
1	AA	971	G
1	AA	972	C
1	AA	974	A
1	AA	976	G
1	AA	977	A
1	AA	980	C
1	AA	981	U
1	AA	982	U
1	AA	992	U
1	AA	993	G
1	AA	1004	A
1	AA	1006	C
1	AA	1009	G
1	AA	1025	U
1	AA	1045	C
1	AA	1054	C
1	AA	1055	A
1	AA	1065	U
1	AA	1067	A
1	AA	1068	G
1	AA	1080	A
1	AA	1081	G
1	AA	1094	G
1	AA	1095	U
1	AA	1101	A
1	AA	1117	G
1	AA	1118	C
1	AA	1124	G
1	AA	1125	U
1	AA	1126	U
1	AA	1129	C
1	AA	1130	A
1	AA	1131	G
1	AA	1136	U
1	AA	1137	C

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Mol	Chain	Res	Type
1	AA	1139	G
1	AA	1151	A
1	AA	1152	A
1	AA	1159	U
1	AA	1160	G
1	AA	1181	G
1	AA	1183	A
1	AA	1189	C
1	AA	1193	G
1	AA	1196	U
1	AA	1197	G
1	AA	1202	G
1	AA	1212	U
1	AA	1213	A
1	AA	1214	C
1	AA	1218	C
1	AA	1224	G
1	AA	1225	A
1	AA	1226	C
1	AA	1227	A
1	AA	1228	C
1	AA	1238	A
1	AA	1240	U
1	AA	1241	G
1	AA	1245	A
1	AA	1256	A
1	AA	1257	U
1	AA	1262	C
1	AA	1270	C
1	AA	1277	C
1	AA	1280	A
1	AA	1281	U
1	AA	1287	A
1	AA	1300	G
1	AA	1301	U
1	AA	1302	U
1	AA	1305	G
1	AA	1317	C
1	AA	1320	C
1	AA	1322	C
1	AA	1323	G
1	AA	1326	C

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Mol	Chain	Res	Type
1	AA	1331	G
1	AA	1335	C
1	AA	1337	G
1	AA	1346	A
1	AA	1347	G
1	AA	1353	G
1	AA	136(B)	C
1	AA	1363	A
1	AA	1364	U
1	AA	1366	C
1	AA	1378	C
1	AA	1379	G
1	AA	1397	C
1	AA	1401	G
1	AA	1419	G
1	AA	1440	C
1	AA	1442	G
1	AA	1443	G
1	AA	1446	A
1	AA	1447	G
1	AA	1451	A
1	AA	1452	C
1	AA	1454	G
1	AA	1469	G
1	AA	1483	A
1	AA	1487	G
1	AA	1492	A
1	AA	1494	G
1	AA	1497	G
1	AA	1502	A
1	AA	1503	A
1	AA	1504	G
1	AA	1506	U
1	AA	1514	C
1	AA	1517	G
1	AA	1519	A
1	AA	1520	G
1	AA	1528	U
1	AA	1529	G
1	AA	1530	G
22	AV	6182	A
22	AV	6187	A

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Mol	Chain	Res	Type
22	AV	6194	C
23	BA	10	G
23	BA	11	G
23	BA	34	C
23	BA	35	G
23	BA	46	C
23	BA	64	A
23	BA	71	A
23	BA	72	U
23	BA	74	A
23	BA	75	G
23	BA	84	A
23	BA	96	G
23	BA	97	C
23	BA	101	G
23	BA	102	G
23	BA	116	C
23	BA	118	A
23	BA	119	A
23	BA	120	U
23	BA	125	G
23	BA	135	G
23	BA	138	G
23	BA	139	G
23	BA	140	A
23	BA	181	A
23	BA	192	C
23	BA	195	A
23	BA	196	A
23	BA	197	A
23	BA	198	C
23	BA	199	A
23	BA	205	G
23	BA	215	G
23	BA	216	A
23	BA	218	A
23	BA	221	A
23	BA	222	A
23	BA	225	A
23	BA	228	A
23	BA	229	A
23	BA	230	U

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Mol	Chain	Res	Type
23	BA	244	A
23	BA	248	G
23	BA	249	C
23	BA	252	G
23	BA	257	A
23	BA	258	G
23	BA	265	A
23	BA	269	U
23	BA	270(K)	G
23	BA	270(L)	C
23	BA	270(M)	U
23	BA	270(N)	U
23	BA	270(O)	G
23	BA	270(Q)	C
23	BA	270(R)	C
23	BA	271(D)	U
23	BA	271	G
23	BA	274	G
23	BA	275	G
23	BA	276	A
23	BA	277	C
23	BA	278	A
23	BA	283	A
23	BA	302	C
23	BA	304	G
23	BA	311	A
23	BA	323	G
23	BA	324	A
23	BA	329	G
23	BA	330	A
23	BA	334	C
23	BA	335	C
23	BA	345	A
23	BA	352	G
23	BA	353	G
23	BA	360	G
23	BA	363(A)	G
23	BA	372	G
23	BA	386	G
23	BA	396	G
23	BA	405	U
23	BA	406	G

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Mol	Chain	Res	Type
23	BA	407	G
23	BA	411	G
23	BA	416	C
23	BA	421	U
23	BA	444	C
23	BA	455	C
23	BA	456	C
23	BA	457	A
23	BA	464	U
23	BA	467	G
23	BA	480	A
23	BA	481	G
23	BA	483	A
23	BA	491	G
23	BA	504	U
23	BA	505	A
23	BA	508	G
23	BA	509	C
23	BA	530	G
23	BA	531	C
23	BA	532	A
23	BA	533	G
23	BA	546	C
23	BA	547	A
23	BA	548	A
23	BA	558	G
23	BA	563	G
23	BA	566	U
23	BA	573	G
23	BA	575	A
23	BA	580	C
23	BA	586	A
23	BA	593	G
23	BA	595	C
23	BA	599	G
23	BA	603	A
23	BA	609(A)	A
23	BA	615	G
23	BA	617	G
23	BA	620	G
23	BA	627	A
23	BA	632	A

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Mol	Chain	Res	Type
23	BA	637	A
23	BA	645	C
23	BA	646	A
23	BA	654	U
23	BA	655	A
23	BA	682	G
23	BA	686	G
23	BA	694	U
23	BA	695	G
23	BA	717	G
23	BA	730	C
23	BA	739	G
23	BA	746	A
23	BA	747	U
23	BA	775	G
23	BA	776	G
23	BA	777	A
23	BA	782	A
23	BA	784	A
23	BA	785	G
23	BA	787	U
23	BA	792	G
23	BA	805	G
23	BA	812	C
23	BA	819	A
23	BA	822	U
23	BA	827	U
23	BA	828	U
23	BA	832	G
23	BA	846	C
23	BA	855	G
23	BA	857	C
23	BA	859	G
23	BA	868	U
23	BA	869	G
23	BA	878	A
23	BA	887	A
23	BA	889	C
23	BA	890	A
23	BA	896	A
23	BA	897	C
23	BA	910	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
23	BA	914	C
23	BA	915	C
23	BA	917	A
23	BA	919	G
23	BA	932	G
23	BA	933	A
23	BA	934	G
23	BA	938	G
23	BA	941	A
23	BA	946	G
23	BA	948	G
23	BA	957	A
23	BA	958	U
23	BA	959	A
23	BA	961	C
23	BA	964	C
23	BA	974(A)	G
23	BA	974(B)	C
23	BA	975	G
23	BA	979	G
23	BA	983	A
23	BA	989	G
23	BA	990	A
23	BA	991	C
23	BA	996	A
23	BA	1005	C
23	BA	1009	A
23	BA	1010	A
23	BA	1011	G
23	BA	1012	U
23	BA	1013	C
23	BA	1020	A
23	BA	1022	G
23	BA	1023	U
23	BA	1025	G
23	BA	1026	U
23	BA	1030	G
23	BA	1033	U
23	BA	1046	A
23	BA	1047	G
23	BA	1053	C
23	BA	1105	U

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Mol	Chain	Res	Type
23	BA	1110	G
23	BA	1112	G
23	BA	1122	G
23	BA	1126	A
23	BA	1129	A
23	BA	1130	U
23	BA	1135	C
23	BA	1136	G
23	BA	1139	G
23	BA	1142	U
23	BA	114(B)	A
23	BA	1143	A
23	BA	1144	G
23	BA	1151	G
23	BA	1155	A
23	BA	1156	A
23	BA	1174	A
23	BA	1175	U
23	BA	1177	A
23	BA	1178	C
23	BA	1190	G
23	BA	1205	U
23	BA	1210	A
23	BA	1211	U
23	BA	1212	G
23	BA	1220	A
23	BA	1221	C
23	BA	1227	G
23	BA	1236	G
23	BA	1248	G
23	BA	1253	A
23	BA	1256	G
23	BA	1269	A
23	BA	1271	G
23	BA	1272	A
23	BA	1273	U
23	BA	1287	A
23	BA	1288	U
23	BA	1289	C
23	BA	1300	U
23	BA	1301	A
23	BA	1310	G

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Mol	Chain	Res	Type
23	BA	1313	U
23	BA	1314	C
23	BA	1317	A
23	BA	1329	U
23	BA	1332	G
23	BA	1338	G
23	BA	1343	G
23	BA	1344	G
23	BA	1345	C
23	BA	1349	A
23	BA	1352	U
23	BA	1359	A
23	BA	1360	A
23	BA	1365	A
23	BA	1368	G
23	BA	1380	G
23	BA	1384	A
23	BA	1385	G
23	BA	1396	U
23	BA	1405	U
23	BA	1416	G
23	BA	1417	C
23	BA	1420	U
23	BA	1427	A
23	BA	1428	C
23	BA	1434	A
23	BA	144(B)	A
23	BA	1453	A
23	BA	1458	C
23	BA	1459	G
23	BA	1467	C
23	BA	1469	A
23	BA	1483	G
23	BA	1490	A
23	BA	1493	C
23	BA	1494	A
23	BA	1495	A
23	BA	1496	A
23	BA	1497	U
23	BA	1505	C
23	BA	1509	A
23	BA	1510	A

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Mol	Chain	Res	Type
23	BA	1519	G
23	BA	1535	U
23	BA	1537	C
23	BA	1542	G
23	BA	1543	A
23	BA	1544	C
23	BA	1545	A
23	BA	1547	C
23	BA	1558	A
23	BA	1559	G
23	BA	1565	C
23	BA	1566	A
23	BA	1569	A
23	BA	1578	U
23	BA	1585	C
23	BA	1586	A
23	BA	1588	C
23	BA	1598	C
23	BA	1599	C
23	BA	1608	A
23	BA	1609	A
23	BA	1610	A
23	BA	1616	A
23	BA	1617	C
23	BA	1618	A
23	BA	1631	A
23	BA	1639	U
23	BA	1640	C
23	BA	1644	C
23	BA	1647	G
23	BA	1648	C
23	BA	1651	G
23	BA	1654	A
23	BA	1669	A
23	BA	1674	G
23	BA	1677	A
23	BA	1680	U
23	BA	1681	G
23	BA	1690	A
23	BA	1696	G
23	BA	1703	G
23	BA	1727	U

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Mol	Chain	Res	Type
23	BA	1729	A
23	BA	1743	G
23	BA	1750	G
23	BA	1756	G
23	BA	1761	C
23	BA	1763	G
23	BA	1764	G
23	BA	1767	C
23	BA	1773	A
23	BA	1778	U
23	BA	1787	A
23	BA	1791	A
23	BA	1800	C
23	BA	1801	G
23	BA	1811	G
23	BA	1813	G
23	BA	1816	G
23	BA	1829	A
23	BA	1835	G
23	BA	1838	C
23	BA	1840	G
23	BA	1847	A
23	BA	1870	C
23	BA	1887	C
23	BA	1888	G
23	BA	1889	A
23	BA	1896	G
23	BA	1900	A
23	BA	1902	C
23	BA	1903	G
23	BA	1906	G
23	BA	1913	A
23	BA	1914	C
23	BA	1929	G
23	BA	1930	G
23	BA	1936	A
23	BA	1938	A
23	BA	1939	U
23	BA	1955	U
23	BA	1956	U
23	BA	1960	A
23	BA	1963	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
23	BA	1964	G
23	BA	1966	A
23	BA	1967	C
23	BA	1970	A
23	BA	1971	A
23	BA	1972	A
23	BA	1974	C
23	BA	1975	G
23	BA	1981	A
23	BA	1982	C
23	BA	1985	G
23	BA	1991	U
23	BA	1992	G
23	BA	1993	U
23	BA	1997	G
23	BA	2007	C
23	BA	2010	G
23	BA	2020	A
23	BA	2023	G
23	BA	2031	A
23	BA	2032	G
23	BA	2033	A
23	BA	2034	U
23	BA	2036	C
23	BA	2043	C
23	BA	2049	G
23	BA	2051	A
23	BA	2055	C
23	BA	2056	G
23	BA	2060	A
23	BA	2061	G
23	BA	2062	A
23	BA	2063	C
23	BA	2067	G
23	BA	2069	G
23	BA	2079	U
23	BA	2080	G
23	BA	2086	U
23	BA	2099	U
23	BA	2183	C
23	BA	2189	U
23	BA	2190	G

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Mol	Chain	Res	Type
23	BA	2198	A
23	BA	2211	G
23	BA	2212	A
23	BA	2213	U
23	BA	2215	G
23	BA	2225	A
23	BA	2226	C
23	BA	2227	A
23	BA	2228	G
23	BA	2235	G
23	BA	2238	G
23	BA	2239	G
23	BA	2267	A
23	BA	2268	A
23	BA	2269	A
23	BA	2272	U
23	BA	2273	A
23	BA	2275	C
23	BA	2278	A
23	BA	2283	C
23	BA	2287	A
23	BA	2288	A
23	BA	2305	A
23	BA	2306	C
23	BA	2307	G
23	BA	2309	A
23	BA	2310	A
23	BA	2319	G
23	BA	2320	A
23	BA	2322	A
23	BA	2325	G
23	BA	2334	G
23	BA	2336	A
23	BA	2343	C
23	BA	2346	A
23	BA	2347	C
23	BA	2350	C
23	BA	2358	G
23	BA	2361	A
23	BA	2365	G
23	BA	2379	G
23	BA	2383	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
23	BA	2384	G
23	BA	2385	C
23	BA	2388	A
23	BA	2389	G
23	BA	2394	C
23	BA	2402	C
23	BA	2403	C
23	BA	2405	G
23	BA	2406	U
23	BA	2410	G
23	BA	2413	G
23	BA	2414	G
23	BA	2422	A
23	BA	2423	U
23	BA	2424	C
23	BA	2425	A
23	BA	2429	G
23	BA	2430	A
23	BA	2431	U
23	BA	2434	A
23	BA	2436	G
23	BA	2439	A
23	BA	2440	C
23	BA	2441	C
23	BA	2448	A
23	BA	2468	G
23	BA	2469	A
23	BA	2470	G
23	BA	2474	C
23	BA	2476	A
23	BA	2477	C
23	BA	2478	A
23	BA	2484	G
23	BA	2491	U
23	BA	2496	C
23	BA	2502	G
23	BA	2503	A
23	BA	2505	G
23	BA	2515	C
23	BA	2518	A
23	BA	2520	C
23	BA	2525	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
23	BA	2529	G
23	BA	2532	G
23	BA	2535	G
23	BA	2541	A
23	BA	2542	A
23	BA	2543	G
23	BA	2550	G
23	BA	2554	U
23	BA	2566	A
23	BA	2567	G
23	BA	2574	G
23	BA	2585	U
23	BA	2593	U
23	BA	2599	G
23	BA	2602	A
23	BA	2603	G
23	BA	2604	U
23	BA	2609	U
23	BA	2612	C
23	BA	2613	U
23	BA	2615	U
23	BA	2617	C
23	BA	2621	A
23	BA	2636	U
23	BA	2637	U
23	BA	2638	G
23	BA	2647	U
23	BA	2657	A
23	BA	2660	A
23	BA	2665	A
23	BA	2679	A
23	BA	2682	U
23	BA	2683	C
23	BA	2684	U
23	BA	2689	U
23	BA	2691	C
23	BA	2693	A
23	BA	2700	C
23	BA	2702	U
23	BA	2703	C
23	BA	2705	A
23	BA	2707	G

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Mol	Chain	Res	Type
23	BA	2712	U
23	BA	712(B)	A
23	BA	2713	A
23	BA	2714	G
23	BA	2719	G
23	BA	2724	C
23	BA	2726	U
23	BA	2730	C
23	BA	2731	G
23	BA	2733	A
23	BA	2748	A
23	BA	2751	G
23	BA	2755	C
23	BA	2757	A
23	BA	2758	A
23	BA	2764	A
23	BA	2765	A
23	BA	2766	G
23	BA	2768	C
23	BA	2778	A
23	BA	2779	U
23	BA	2781	A
23	BA	2790	A
23	BA	2791	C
23	BA	2792	G
23	BA	2808	U
23	BA	2818	G
23	BA	2820	A
23	BA	2821	A
23	BA	2825	U
23	BA	2833	G
23	BA	2834	G
23	BA	2835	A
23	BA	2836	U
23	BA	2872	G
23	BA	2874	C
23	BA	2886	G
23	BA	2892	A
23	BA	2894	G
24	BB	5	C
24	BB	9	G
24	BB	12	C

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Mol	Chain	Res	Type
24	BB	13	A
24	BB	15	A
24	BB	16	G
24	BB	23	G
24	BB	24	G
24	BB	41	U
24	BB	42	C
24	BB	44	G
24	BB	47	C
24	BB	65	C
24	BB	66	A
24	BB	73	A
24	BB	84	C
24	BB	88	C
24	BB	89(A)	G
24	BB	89(B)	A
24	BB	90	C
24	BB	96	G
24	BB	100	G
24	BB	105	G
24	BB	107	U
24	BB	109	G
24	BB	110	G
1	CA	6	G
1	CA	7	G
1	CA	9	G
1	CA	13	U
1	CA	14	U
1	CA	15	G
1	CA	32	A
1	CA	33	A
1	CA	39	G
1	CA	41	G
1	CA	42	G
1	CA	47	C
1	CA	48	C
1	CA	50	A
1	CA	51	A
1	CA	59	A
1	CA	61	G
1	CA	88	C
1	CA	97	U

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Mol	Chain	Res	Type
1	CA	99	C
1	CA	110	C
1	CA	115	G
1	CA	116	A
1	CA	120	A
1	CA	121	C
1	CA	131	C
1	CA	144	G
1	CA	151	A
1	CA	163	C
1	CA	171	A
1	CA	182	U
1	CA	183	G
1	CA	189	U
1	CA	190	G
1	CA	195	A
1	CA	196	A
1	CA	197	A
1	CA	201	C
1	CA	209	U
1	CA	210	U
1	CA	231	G
1	CA	240	C
1	CA	247	G
1	CA	250	A
1	CA	251	G
1	CA	252	U
1	CA	258	G
1	CA	266	G
1	CA	267	C
1	CA	280	C
1	CA	281	G
1	CA	289	G
1	CA	298	A
1	CA	305	G
1	CA	306	G
1	CA	320	C
1	CA	321	A
1	CA	328	C
1	CA	329	A
1	CA	330	C
1	CA	332	G

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Mol	Chain	Res	Type
1	CA	345	C
1	CA	347	G
1	CA	351	G
1	CA	352	C
1	CA	353	A
1	CA	354	G
1	CA	358	U
1	CA	364	A
1	CA	365	U
1	CA	366	C
1	CA	367	U
1	CA	372	C
1	CA	373	A
1	CA	382	A
1	CA	384	G
1	CA	387	U
1	CA	388	G
1	CA	397	A
1	CA	398	C
1	CA	406	G
1	CA	412	A
1	CA	413	G
1	CA	414	A
1	CA	422	C
1	CA	423	G
1	CA	427	U
1	CA	429	U
1	CA	439	A
1	CA	452	A
1	CA	453	A
1	CA	457	C
1	CA	464	G
1	CA	465	A
1	CA	466	G
1	CA	467	G
1	CA	484	G
1	CA	485	G
1	CA	486	U
1	CA	496	A
1	CA	497	U
1	CA	500	G
1	CA	511	C

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Mol	Chain	Res	Type
1	CA	512	U
1	CA	518	C
1	CA	523	A
1	CA	527	G
1	CA	531	U
1	CA	532	A
1	CA	533	A
1	CA	547	A
1	CA	558	G
1	CA	559	A
1	CA	560	U
1	CA	561	U
1	CA	562	C
1	CA	567	G
1	CA	572	A
1	CA	573	A
1	CA	575	G
1	CA	576	G
1	CA	577	G
1	CA	580	U
1	CA	581	G
1	CA	596	C
1	CA	607	A
1	CA	653	A
1	CA	665	A
1	CA	687	A
1	CA	688	G
1	CA	690	G
1	CA	693	G
1	CA	702	A
1	CA	724	G
1	CA	731	G
1	CA	733	A
1	CA	753	A
1	CA	777	A
1	CA	782	A
1	CA	792	A
1	CA	793	U
1	CA	794	A
1	CA	800	G
1	CA	810	C
1	CA	816	A

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Mol	Chain	Res	Type
1	CA	817	C
1	CA	818	G
1	CA	819	A
1	CA	828	A
1	CA	829	G
1	CA	833	U
1	CA	841	U
1	CA	842	C
1	CA	843	U
1	CA	849	C
1	CA	859	A
1	CA	870	U
1	CA	873	A
1	CA	876	G
1	CA	884	U
1	CA	897	C
1	CA	902	G
1	CA	914	A
1	CA	916	G
1	CA	921	U
1	CA	922	G
1	CA	927	G
1	CA	934	C
1	CA	935	A
1	CA	945	G
1	CA	951	G
1	CA	960	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	976	G
1	CA	977	A
1	CA	980	C
1	CA	981	U
1	CA	982	U
1	CA	992	U
1	CA	993	G
1	CA	1004	A
1	CA	1006	C

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Mol	Chain	Res	Type
1	CA	1009	G
1	CA	1025	U
1	CA	103(A)	A
1	CA	1033	G
1	CA	1045	C
1	CA	1054	C
1	CA	1055	A
1	CA	1065	U
1	CA	1067	A
1	CA	1068	G
1	CA	1080	A
1	CA	1081	G
1	CA	1094	G
1	CA	1095	U
1	CA	1101	A
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	1130	A
1	CA	1131	G
1	CA	1136	U
1	CA	1137	C
1	CA	1139	G
1	CA	1151	A
1	CA	1152	A
1	CA	1159	U
1	CA	1160	G
1	CA	1181	G
1	CA	1183	A
1	CA	1189	C
1	CA	1193	G
1	CA	1196	U
1	CA	1197	G
1	CA	1202	G
1	CA	1212	U
1	CA	1213	A
1	CA	1214	C
1	CA	1218	C
1	CA	1224	G

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Mol	Chain	Res	Type
1	CA	1225	A
1	CA	1226	C
1	CA	1227	A
1	CA	1228	C
1	CA	1238	A
1	CA	1240	U
1	CA	1241	G
1	CA	1245	A
1	CA	1256	A
1	CA	1257	U
1	CA	1262	C
1	CA	1270	C
1	CA	1277	C
1	CA	1280	A
1	CA	1281	U
1	CA	1287	A
1	CA	1300	G
1	CA	1301	U
1	CA	1302	U
1	CA	1305	G
1	CA	1317	C
1	CA	1320	C
1	CA	1322	C
1	CA	1323	G
1	CA	1326	C
1	CA	1331	G
1	CA	1335	C
1	CA	1337	G
1	CA	1346	A
1	CA	1347	G
1	CA	1353	G
1	CA	136(B)	C
1	CA	1363	A
1	CA	1364	U
1	CA	1366	C
1	CA	1378	C
1	CA	1379	G
1	CA	1397	C
1	CA	1401	G
1	CA	1419	G
1	CA	1440	C
1	CA	1442	G

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Mol	Chain	Res	Type
1	CA	1443	G
1	CA	1446	A
1	CA	1447	G
1	CA	1451	A
1	CA	1452	C
1	CA	1454	G
1	CA	1469	G
1	CA	1483	A
1	CA	1487	G
1	CA	1492	A
1	CA	1494	G
1	CA	1497	G
1	CA	1502	A
1	CA	1503	A
1	CA	1504	G
1	CA	1506	U
1	CA	1514	C
1	CA	1517	G
1	CA	1519	A
1	CA	1520	G
1	CA	1528	U
1	CA	1529	G
1	CA	1530	G
22	CV	6182	A
22	CV	6187	A
22	CV	6194	C
23	DA	10	G
23	DA	11	G
23	DA	34	C
23	DA	35	G
23	DA	46	C
23	DA	60	G
23	DA	61	G
23	DA	64	A
23	DA	71	A
23	DA	72	U
23	DA	74	A
23	DA	75	G
23	DA	84	A
23	DA	96	G
23	DA	97	C
23	DA	101	G

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Mol	Chain	Res	Type
23	DA	102	G
23	DA	110	G
23	DA	116	C
23	DA	117	G
23	DA	118	A
23	DA	119	A
23	DA	120	U
23	DA	125	G
23	DA	129	C
23	DA	135	G
23	DA	138	G
23	DA	139	G
23	DA	140	A
23	DA	181	A
23	DA	192	C
23	DA	195	A
23	DA	196	A
23	DA	197	A
23	DA	199	A
23	DA	205	G
23	DA	215	G
23	DA	216	A
23	DA	218	A
23	DA	221	A
23	DA	222	A
23	DA	225	A
23	DA	228	A
23	DA	229	A
23	DA	230	U
23	DA	233	A
23	DA	244	A
23	DA	248	G
23	DA	249	C
23	DA	252	G
23	DA	257	A
23	DA	258	G
23	DA	265	A
23	DA	269	U
23	DA	270(K)	G
23	DA	270(L)	C
23	DA	270(M)	U
23	DA	270(N)	U

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Mol	Chain	Res	Type
23	DA	270(O)	G
23	DA	270(Q)	C
23	DA	270(R)	C
23	DA	271(D)	U
23	DA	271	G
23	DA	274	G
23	DA	275	G
23	DA	276	A
23	DA	277	C
23	DA	278	A
23	DA	283	A
23	DA	301	G
23	DA	302	C
23	DA	304	G
23	DA	311	A
23	DA	323	G
23	DA	324	A
23	DA	329	G
23	DA	330	A
23	DA	334	C
23	DA	335	C
23	DA	345	A
23	DA	352	G
23	DA	353	G
23	DA	360	G
23	DA	363(A)	G
23	DA	372	G
23	DA	386	G
23	DA	396	G
23	DA	405	U
23	DA	406	G
23	DA	407	G
23	DA	411	G
23	DA	416	C
23	DA	421	U
23	DA	444	C
23	DA	455	C
23	DA	456	C
23	DA	457	A
23	DA	463	G
23	DA	464	U
23	DA	467	G

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Mol	Chain	Res	Type
23	DA	480	A
23	DA	481	G
23	DA	483	A
23	DA	491	G
23	DA	504	U
23	DA	505	A
23	DA	508	G
23	DA	509	C
23	DA	530	G
23	DA	531	C
23	DA	532	A
23	DA	533	G
23	DA	546	C
23	DA	547	A
23	DA	548	A
23	DA	558	G
23	DA	563	G
23	DA	566	U
23	DA	573	G
23	DA	575	A
23	DA	580	C
23	DA	586	A
23	DA	593	G
23	DA	595	C
23	DA	599	G
23	DA	603	A
23	DA	609(A)	A
23	DA	615	G
23	DA	617	G
23	DA	620	G
23	DA	627	A
23	DA	632	A
23	DA	637	A
23	DA	645	C
23	DA	646	A
23	DA	647	G
23	DA	654	U
23	DA	655	A
23	DA	664	C
23	DA	682	G
23	DA	686	G
23	DA	694	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
23	DA	695	G
23	DA	717	G
23	DA	730	C
23	DA	739	G
23	DA	746	A
23	DA	747	U
23	DA	761	A
23	DA	775	G
23	DA	776	G
23	DA	777	A
23	DA	782	A
23	DA	784	A
23	DA	785	G
23	DA	787	U
23	DA	792	G
23	DA	805	G
23	DA	812	C
23	DA	819	A
23	DA	822	U
23	DA	826	U
23	DA	827	U
23	DA	828	U
23	DA	832	G
23	DA	846	C
23	DA	855	G
23	DA	857	C
23	DA	858	U
23	DA	859	G
23	DA	869	G
23	DA	878	A
23	DA	887	A
23	DA	889	C
23	DA	890	A
23	DA	896	A
23	DA	897	C
23	DA	910	A
23	DA	914	C
23	DA	915	C
23	DA	917	A
23	DA	919	G
23	DA	932	G
23	DA	933	A

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Mol	Chain	Res	Type
23	DA	934	G
23	DA	938	G
23	DA	941	A
23	DA	946	G
23	DA	957	A
23	DA	958	U
23	DA	959	A
23	DA	961	C
23	DA	964	C
23	DA	974(A)	G
23	DA	974(B)	C
23	DA	975	G
23	DA	979	G
23	DA	983	A
23	DA	989	G
23	DA	990	A
23	DA	991	C
23	DA	996	A
23	DA	1005	C
23	DA	1009	A
23	DA	1010	A
23	DA	1011	G
23	DA	1012	U
23	DA	1013	C
23	DA	1020	A
23	DA	1022	G
23	DA	1023	U
23	DA	1025	G
23	DA	1026	U
23	DA	1030	G
23	DA	1033	U
23	DA	1046	A
23	DA	1047	G
23	DA	1053	C
23	DA	1105	U
23	DA	1110	G
23	DA	1112	G
23	DA	1122	G
23	DA	1126	A
23	DA	1129	A
23	DA	1130	U
23	DA	1135	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
23	DA	1136	G
23	DA	1139	G
23	DA	1142	U
23	DA	114(B)	A
23	DA	1143	A
23	DA	1151	G
23	DA	1155	A
23	DA	1156	A
23	DA	1174	A
23	DA	1175	U
23	DA	1177	A
23	DA	1178	C
23	DA	1190	G
23	DA	1205	U
23	DA	1210	A
23	DA	1211	U
23	DA	1212	G
23	DA	1220	A
23	DA	1221	C
23	DA	1227	G
23	DA	1236	G
23	DA	1241	A
23	DA	1253	A
23	DA	1256	G
23	DA	1269	A
23	DA	1271	G
23	DA	1272	A
23	DA	1273	U
23	DA	1287	A
23	DA	1288	U
23	DA	1289	C
23	DA	1300	U
23	DA	1301	A
23	DA	1310	G
23	DA	1313	U
23	DA	1314	C
23	DA	1329	U
23	DA	1332	G
23	DA	1338	G
23	DA	1343	G
23	DA	1344	G
23	DA	1345	C

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Mol	Chain	Res	Type
23	DA	1349	A
23	DA	1352	U
23	DA	1359	A
23	DA	1360	A
23	DA	1365	A
23	DA	1368	G
23	DA	1380	G
23	DA	1384	A
23	DA	1385	G
23	DA	1386	C
23	DA	1396	U
23	DA	1416	G
23	DA	1417	C
23	DA	1420	U
23	DA	1427	A
23	DA	1428	C
23	DA	1434	A
23	DA	144(B)	A
23	DA	1453	A
23	DA	1459	G
23	DA	1467	C
23	DA	1469	A
23	DA	1483	G
23	DA	1490	A
23	DA	1493	C
23	DA	1494	A
23	DA	1495	A
23	DA	1496	A
23	DA	1497	U
23	DA	1505	C
23	DA	1509	A
23	DA	1510	A
23	DA	1519	G
23	DA	1535	U
23	DA	1537	C
23	DA	1542	G
23	DA	1543	A
23	DA	1544	C
23	DA	1545	A
23	DA	1547	C
23	DA	1558	A
23	DA	1559	G

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Mol	Chain	Res	Type
23	DA	1565	C
23	DA	1566	A
23	DA	1569	A
23	DA	1578	U
23	DA	1585	C
23	DA	1586	A
23	DA	1587	A
23	DA	1588	C
23	DA	1598	C
23	DA	1599	C
23	DA	1608	A
23	DA	1609	A
23	DA	1610	A
23	DA	1617	C
23	DA	1618	A
23	DA	1631	A
23	DA	1639	U
23	DA	1640	C
23	DA	1644	C
23	DA	1647	G
23	DA	1648	C
23	DA	1651	G
23	DA	1654	A
23	DA	1674	G
23	DA	1677	A
23	DA	1680	U
23	DA	1681	G
23	DA	1690	A
23	DA	1696	G
23	DA	1703	G
23	DA	1727	U
23	DA	1729	A
23	DA	1743	G
23	DA	1750	G
23	DA	1756	G
23	DA	1763	G
23	DA	1764	G
23	DA	1767	C
23	DA	1773	A
23	DA	1778	U
23	DA	1787	A
23	DA	1788	C

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Mol	Chain	Res	Type
23	DA	1791	A
23	DA	1800	C
23	DA	1801	G
23	DA	1811	G
23	DA	1813	G
23	DA	1816	G
23	DA	1829	A
23	DA	1835	G
23	DA	1838	C
23	DA	1840	G
23	DA	1847	A
23	DA	1870	C
23	DA	1887	C
23	DA	1888	G
23	DA	1889	A
23	DA	1896	G
23	DA	1900	A
23	DA	1902	C
23	DA	1903	G
23	DA	1906	G
23	DA	1913	A
23	DA	1914	C
23	DA	1929	G
23	DA	1936	A
23	DA	1938	A
23	DA	1939	U
23	DA	1955	U
23	DA	1956	U
23	DA	1960	A
23	DA	1963	U
23	DA	1964	G
23	DA	1966	A
23	DA	1967	C
23	DA	1970	A
23	DA	1971	A
23	DA	1972	A
23	DA	1974	C
23	DA	1975	G
23	DA	1981	A
23	DA	1982	C
23	DA	1985	G
23	DA	1991	U

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Mol	Chain	Res	Type
23	DA	1992	G
23	DA	1993	U
23	DA	1997	G
23	DA	2007	C
23	DA	2010	G
23	DA	2020	A
23	DA	2023	G
23	DA	2031	A
23	DA	2032	G
23	DA	2033	A
23	DA	2034	U
23	DA	2036	C
23	DA	2043	C
23	DA	2049	G
23	DA	2051	A
23	DA	2055	C
23	DA	2056	G
23	DA	2060	A
23	DA	2061	G
23	DA	2062	A
23	DA	2069	G
23	DA	2079	U
23	DA	2080	G
23	DA	2086	U
23	DA	2099	U
23	DA	2183	C
23	DA	2189	U
23	DA	2190	G
23	DA	2196	C
23	DA	2198	A
23	DA	2205	C
23	DA	2211	G
23	DA	2212	A
23	DA	2213	U
23	DA	2215	G
23	DA	2225	A
23	DA	2226	C
23	DA	2227	A
23	DA	2228	G
23	DA	2235	G
23	DA	2238	G
23	DA	2239	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
23	DA	2267	A
23	DA	2268	A
23	DA	2269	A
23	DA	2272	U
23	DA	2273	A
23	DA	2275	C
23	DA	2278	A
23	DA	2283	C
23	DA	2287	A
23	DA	2288	A
23	DA	2305	A
23	DA	2306	C
23	DA	2307	G
23	DA	2309	A
23	DA	2310	A
23	DA	2319	G
23	DA	2320	A
23	DA	2322	A
23	DA	2325	G
23	DA	2334	G
23	DA	2336	A
23	DA	2343	C
23	DA	2346	A
23	DA	2347	C
23	DA	2350	C
23	DA	2358	G
23	DA	2360	A
23	DA	2361	A
23	DA	2365	G
23	DA	2379	G
23	DA	2383	G
23	DA	2384	G
23	DA	2385	C
23	DA	2388	A
23	DA	2389	G
23	DA	2394	C
23	DA	2402	C
23	DA	2403	C
23	DA	2405	G
23	DA	2406	U
23	DA	2410	G
23	DA	2413	G

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Mol	Chain	Res	Type
23	DA	2414	G
23	DA	2422	A
23	DA	2423	U
23	DA	2424	C
23	DA	2425	A
23	DA	2429	G
23	DA	2430	A
23	DA	2434	A
23	DA	2436	G
23	DA	2439	A
23	DA	2440	C
23	DA	2441	C
23	DA	2448	A
23	DA	2468	G
23	DA	2469	A
23	DA	2470	G
23	DA	2474	C
23	DA	2476	A
23	DA	2477	C
23	DA	2478	A
23	DA	2484	G
23	DA	2491	U
23	DA	2496	C
23	DA	2502	G
23	DA	2503	A
23	DA	2505	G
23	DA	2515	C
23	DA	2518	A
23	DA	2520	C
23	DA	2525	G
23	DA	2529	G
23	DA	2532	G
23	DA	2535	G
23	DA	2542	A
23	DA	2543	G
23	DA	2554	U
23	DA	2566	A
23	DA	2567	G
23	DA	2574	G
23	DA	2584	U
23	DA	2585	U
23	DA	2599	G

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Mol	Chain	Res	Type
23	DA	2602	A
23	DA	2603	G
23	DA	2604	U
23	DA	2609	U
23	DA	2612	C
23	DA	2613	U
23	DA	2615	U
23	DA	2617	C
23	DA	2621	A
23	DA	2636	U
23	DA	2637	U
23	DA	2638	G
23	DA	2647	U
23	DA	2657	A
23	DA	2660	A
23	DA	2665	A
23	DA	2679	A
23	DA	2680	C
23	DA	2682	U
23	DA	2683	C
23	DA	2684	U
23	DA	2689	U
23	DA	2691	C
23	DA	2693	A
23	DA	2700	C
23	DA	2702	U
23	DA	2705	A
23	DA	2707	G
23	DA	2711	A
23	DA	2712	U
23	DA	712(B)	A
23	DA	2713	A
23	DA	2714	G
23	DA	2719	G
23	DA	2724	C
23	DA	2726	U
23	DA	2730	C
23	DA	2731	G
23	DA	2733	A
23	DA	2748	A
23	DA	2751	G
23	DA	2752	C

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Mol	Chain	Res	Type
23	DA	2755	C
23	DA	2757	A
23	DA	2758	A
23	DA	2764	A
23	DA	2765	A
23	DA	2766	G
23	DA	2768	C
23	DA	2778	A
23	DA	2779	U
23	DA	2781	A
23	DA	2790	A
23	DA	2791	C
23	DA	2792	G
23	DA	2808	U
23	DA	2818	G
23	DA	2820	A
23	DA	2821	A
23	DA	2825	U
23	DA	2833	G
23	DA	2834	G
23	DA	2835	A
23	DA	2836	U
23	DA	2872	G
23	DA	2874	C
23	DA	2886	G
23	DA	2892	A
23	DA	2894	G
24	DB	5	C
24	DB	9	G
24	DB	12	C
24	DB	13	A
24	DB	15	A
24	DB	16	G
24	DB	23	G
24	DB	24	G
24	DB	41	U
24	DB	42	C
24	DB	44	G
24	DB	47	C
24	DB	65	C
24	DB	66	A
24	DB	73	A

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Mol	Chain	Res	Type
24	DB	82	G
24	DB	88	C
24	DB	89(A)	G
24	DB	89(B)	A
24	DB	90	C
24	DB	96	G
24	DB	100	G
24	DB	101	A
24	DB	105	G
24	DB	107	U
24	DB	109	G
24	DB	110	G

All (84) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	251	G
1	AA	327	A
1	AA	364	A
1	AA	428	G
1	AA	560	U
1	AA	687	A
1	AA	793	U
1	AA	913	A
1	AA	1064	G
1	AA	1067	A
1	AA	1129	C
1	AA	1201	A
1	AA	1493	A
1	AA	1529	G
23	BA	196	A
23	BA	257	A
23	BA	385	C
23	BA	479	A
23	BA	685	A
23	BA	746	A
23	BA	791	C
23	BA	974(A)	G
23	BA	1022	G
23	BA	1210	A
23	BA	1343	G
23	BA	1379	A

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Mol	Chain	Res	Type
23	BA	1558	A
23	BA	1608	A
23	BA	1609	A
23	BA	1617	C
23	BA	1786	A
23	BA	1936	A
23	BA	2062	A
23	BA	2225	A
23	BA	2272	U
23	BA	2275	C
23	BA	2405	G
23	BA	2433	A
23	BA	2439	A
23	BA	2542	A
23	BA	2778	A
1	CA	251	G
1	CA	327	A
1	CA	364	A
1	CA	428	G
1	CA	560	U
1	CA	687	A
1	CA	793	U
1	CA	913	A
1	CA	1064	G
1	CA	1067	A
1	CA	1129	C
1	CA	1201	A
1	CA	1493	A
1	CA	1529	G
23	DA	60	G
23	DA	196	A
23	DA	257	A
23	DA	385	C
23	DA	479	A
23	DA	685	A
23	DA	746	A
23	DA	791	C
23	DA	858	U
23	DA	974(A)	G
23	DA	1022	G
23	DA	1210	A
23	DA	1343	G

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Mol	Chain	Res	Type
23	DA	1379	A
23	DA	1558	A
23	DA	1608	A
23	DA	1609	A
23	DA	1617	C
23	DA	1786	A
23	DA	1936	A
23	DA	2062	A
23	DA	2225	A
23	DA	2272	U
23	DA	2275	C
23	DA	2405	G
23	DA	2433	A
23	DA	2435	A
23	DA	2439	A
23	DA	2542	A

## 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 1198 ligands modelled in this entry, 1198 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

## 5.7 Other polymers ⓘ

There are no such residues in this entry.



## 5.8 Polymer linkage issues

There are no chain breaks in this entry.

## 6 Fit of model and data ⓘ

### 6.1 Protein, DNA and RNA chains ⓘ

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95<sup>th</sup> 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 <sup>2</sup> )	Q<0.9
1	AA	1506/1506 (100%)	0.17	39 (2%)	53	21	51, 122, 245, 498	0
1	CA	1506/1506 (100%)	0.24	58 (3%)	37	14	51, 126, 251, 414	0
2	AB	234/234 (100%)	0.61	24 (10%)	7	4	113, 174, 244, 298	0
2	CB	234/234 (100%)	0.56	14 (5%)	21	8	111, 177, 259, 325	0
3	AC	206/206 (100%)	0.44	13 (6%)	19	8	106, 160, 225, 263	0
3	CC	206/206 (100%)	0.52	13 (6%)	19	8	105, 161, 226, 271	0
4	AD	208/208 (100%)	0.31	1 (0%)	88	61	90, 142, 199, 247	0
4	CD	208/208 (100%)	0.77	15 (7%)	15	6	94, 146, 220, 300	0
5	AE	151/151 (100%)	0.20	2 (1%)	74	37	73, 114, 172, 272	0
5	CE	151/151 (100%)	0.34	2 (1%)	74	37	73, 117, 188, 252	0
6	AF	101/101 (100%)	0.44	3 (2%)	48	20	83, 135, 192, 270	0
6	CF	101/101 (100%)	0.13	2 (1%)	62	28	79, 131, 184, 246	0
7	AG	155/155 (100%)	0.85	17 (10%)	6	4	118, 187, 237, 333	0
7	CG	155/155 (100%)	1.13	30 (19%)	2	2	119, 187, 237, 286	0
8	AH	138/138 (100%)	0.31	4 (2%)	49	21	77, 121, 166, 199	0
8	CH	138/138 (100%)	0.46	6 (4%)	34	13	81, 123, 167, 219	0
9	AI	127/127 (100%)	1.24	28 (22%)	1	2	119, 225, 289, 345	0
9	CI	127/127 (100%)	1.06	18 (14%)	3	2	121, 225, 286, 354	0
10	AJ	98/98 (100%)	1.18	16 (16%)	2	2	118, 198, 278, 356	0
10	CJ	98/98 (100%)	1.11	16 (16%)	2	2	122, 197, 264, 351	0
11	AK	119/119 (100%)	0.27	5 (4%)	35	13	71, 111, 171, 263	0
11	CK	119/119 (100%)	0.17	5 (4%)	35	13	74, 111, 178, 264	0
12	AL	124/124 (100%)	0.30	2 (1%)	68	32	67, 107, 165, 268	0
12	CL	124/124 (100%)	0.53	6 (4%)	29	12	70, 109, 178, 252	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
13	AM	116/116 (100%)	0.81	12 (10%) 7 4	134, 213, 299, 335	0
13	CM	116/116 (100%)	1.42	31 (26%) 1 1	135, 214, 309, 362	0
14	AN	60/60 (100%)	0.85	7 (11%) 5 3	114, 166, 217, 235	0
14	CN	60/60 (100%)	0.85	4 (6%) 17 7	116, 167, 227, 281	0
15	AO	88/88 (100%)	0.15	0 100 100	66, 108, 159, 227	0
15	CO	88/88 (100%)	0.20	0 100 100	67, 110, 166, 241	0
16	AP	83/83 (100%)	0.30	0 100 100	84, 118, 174, 214	0
16	CP	83/83 (100%)	1.27	15 (18%) 2 2	87, 123, 177, 210	0
17	AQ	99/99 (100%)	0.14	0 100 100	78, 112, 169, 216	0
17	CQ	99/99 (100%)	0.67	5 (5%) 27 10	79, 116, 166, 215	0
18	AR	70/70 (100%)	0.69	5 (7%) 16 6	84, 128, 183, 284	0
18	CR	70/70 (100%)	0.32	2 (2%) 49 21	82, 128, 192, 232	0
19	AS	78/78 (100%)	1.59	25 (32%) 1 1	152, 210, 275, 321	0
19	CS	78/78 (100%)	1.88	25 (32%) 1 1	151, 216, 291, 350	0
20	AT	99/99 (100%)	0.47	1 (1%) 79 44	86, 134, 203, 241	0
20	CT	99/99 (100%)	0.87	11 (11%) 6 3	92, 136, 212, 269	0
21	AU	24/24 (100%)	2.04	11 (45%) 1 1	160, 225, 264, 322	0
21	CU	24/24 (100%)	2.32	13 (54%) 0 1	163, 218, 265, 364	0
22	AV	34/43 (79%)	1.21	8 (23%) 1 2	89, 196, 324, 362	0
22	CV	34/43 (79%)	1.87	11 (32%) 1 1	92, 198, 333, 339	0
23	BA	2760/2879 (95%)	-0.15	43 (1%) 68 32	27, 65, 180, 398	0
23	DA	2760/2879 (95%)	-0.11	35 (1%) 74 37	25, 63, 178, 410	0
24	BB	119/119 (100%)	0.09	5 (4%) 35 13	77, 129, 182, 232	0
24	DB	119/119 (100%)	0.06	4 (3%) 43 17	78, 129, 184, 236	0
25	BC	271/271 (100%)	-0.04	3 (1%) 77 40	25, 58, 109, 175	0
25	DC	271/271 (100%)	-0.07	0 100 100	18, 57, 109, 177	0
26	BD	204/204 (100%)	0.20	2 (0%) 79 44	36, 73, 146, 341	0
26	DD	204/204 (100%)	0.17	1 (0%) 88 61	33, 71, 145, 347	0
27	BE	202/202 (100%)	-0.11	0 100 100	31, 73, 155, 246	0
27	DE	202/202 (100%)	0.08	2 (0%) 79 44	25, 73, 155, 192	0
28	BF	181/181 (100%)	0.87	25 (13%) 4 2	102, 182, 254, 314	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
28	DF	181/181 (100%)	0.83	26 (14%) 3 2	104, 185, 268, 331	0
29	BG	159/159 (100%)	0.99	29 (18%) 2 2	85, 143, 221, 343	0
29	DG	159/159 (100%)	0.41	6 (3%) 38 15	79, 136, 186, 235	0
30	BH	145/145 (100%)	1.92	43 (29%) 1 1	67, 243, 391, 482	0
30	DH	145/145 (100%)	1.10	29 (20%) 2 2	64, 236, 379, 480	0
31	BI	32/65 (49%)	3.68	26 (81%) 0 0	171, 246, 347, 355	0
31	DI	32/65 (49%)	2.07	20 (62%) 0 0	168, 253, 310, 334	0
32	BJ	137/137 (100%)	0.06	0 100 100	51, 81, 142, 201	0
32	DJ	137/137 (100%)	-0.06	0 100 100	52, 81, 146, 194	0
33	BK	122/122 (100%)	0.04	0 100 100	42, 70, 111, 150	0
33	DK	122/122 (100%)	0.08	0 100 100	41, 69, 111, 162	0
34	BL	146/146 (100%)	0.29	2 (1%) 72 35	34, 97, 166, 309	0
34	DL	146/146 (100%)	0.34	4 (2%) 52 21	32, 97, 163, 293	0
35	BM	136/136 (100%)	0.16	4 (2%) 49 21	49, 89, 199, 370	0
35	DM	136/136 (100%)	0.36	4 (2%) 49 21	48, 88, 205, 406	0
36	BN	117/117 (100%)	0.22	0 100 100	45, 73, 137, 249	0
36	DN	117/117 (100%)	0.14	0 100 100	43, 73, 134, 235	0
37	BO	98/98 (100%)	0.77	3 (3%) 47 19	82, 137, 197, 223	0
37	DO	98/98 (100%)	0.63	8 (8%) 12 6	80, 136, 190, 215	0
38	BP	137/137 (100%)	0.10	2 (1%) 70 33	58, 93, 185, 250	0
38	DP	137/137 (100%)	0.29	8 (5%) 22 8	55, 92, 190, 273	0
39	BQ	116/116 (100%)	-0.03	0 100 100	35, 75, 124, 239	0
39	DQ	116/116 (100%)	-0.14	0 100 100	26, 74, 126, 248	0
40	BR	101/101 (100%)	0.08	0 100 100	41, 105, 164, 264	0
40	DR	101/101 (100%)	0.29	0 100 100	41, 110, 156, 259	0
41	BS	112/112 (100%)	0.12	0 100 100	44, 59, 137, 254	0
41	DS	112/112 (100%)	0.01	0 100 100	43, 59, 134, 255	0
42	BT	92/92 (100%)	0.13	0 100 100	45, 77, 129, 170	0
42	DT	92/92 (100%)	0.13	0 100 100	36, 73, 127, 169	0
43	BU	100/100 (100%)	0.97	13 (13%) 4 2	62, 104, 257, 396	0
43	DU	100/100 (100%)	0.84	7 (7%) 16 6	61, 102, 251, 408	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
44	BV	188/188 (100%)	0.46	10 (5%) 25 9	83, 138, 195, 245	0
44	DV	188/188 (100%)	0.19	1 (0%) 88 61	83, 139, 194, 230	0
45	BW	76/76 (100%)	0.31	0 100 100	58, 84, 139, 261	0
45	DW	76/76 (100%)	0.42	3 (3%) 37 14	59, 84, 135, 256	0
46	BX	88/88 (100%)	0.26	1 (1%) 77 40	37, 74, 153, 322	0
46	DX	88/88 (100%)	0.28	0 100 100	39, 70, 153, 326	0
47	BY	62/62 (100%)	0.34	5 (8%) 12 6	57, 98, 209, 292	0
47	DY	62/62 (100%)	0.49	4 (6%) 18 7	51, 96, 212, 328	0
48	BZ	59/59 (100%)	0.57	3 (5%) 27 10	43, 81, 156, 299	0
48	DZ	59/59 (100%)	0.93	5 (8%) 11 5	45, 85, 157, 305	0
49	B1	30/30 (100%)	1.46	10 (33%) 1 1	184, 253, 295, 311	0
49	D1	30/30 (100%)	1.57	10 (33%) 1 1	183, 261, 306, 358	0
50	B2	52/52 (100%)	0.31	4 (7%) 13 6	26, 71, 187, 233	0
50	D2	52/52 (100%)	-0.05	1 (1%) 64 29	21, 72, 197, 229	0
51	B3	44/44 (100%)	5.10	36 (81%) 0 0	139, 249, 299, 320	0
51	D3	44/44 (100%)	5.02	32 (72%) 0 0	141, 245, 312, 333	0
52	B4	48/48 (100%)	-0.02	1 (2%) 60 27	33, 43, 93, 194	0
52	D4	48/48 (100%)	-0.04	0 100 100	21, 41, 91, 200	0
53	B5	63/63 (100%)	0.16	0 100 100	45, 68, 131, 215	0
53	D5	63/63 (100%)	0.27	0 100 100	45, 70, 132, 216	0
All	All	20230/20552 (98%)	0.29	1005 (4%) 28 10	18, 104, 241, 498	0

All (1005) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	AA	82	U	21.1
1	AA	85	U	17.8
51	D3	47	THR	15.8
51	B3	41	PRO	15.6
51	B3	13	CYS	14.6
30	DH	90	GLY	14.1
51	D3	49	HIS	13.6
51	B3	40	CYS	13.5
51	B3	47	THR	11.9
51	D3	13	CYS	11.9

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Mol	Chain	Res	Type	RSRZ
1	AA	86	U	11.8
1	AA	84	U	11.7
51	D3	43	CYS	11.4
30	BH	85	GLU	11.3
43	DU	50	ARG	11.2
51	B3	49	HIS	10.4
43	DU	52	SER	10.1
1	AA	81	G	10.0
51	B3	14	THR	9.6
30	BH	111	PRO	9.5
51	D3	46	HIS	9.4
51	D3	48	VAL	9.4
23	DA	2798	C	9.4
30	BH	68	LEU	9.3
51	B3	44	ARG	9.3
51	B3	39	TYR	9.2
43	BU	53	PRO	9.0
51	D3	21	TYR	8.7
23	DA	2801	A	8.7
1	AA	80	G	8.7
9	CI	8	GLY	8.4
23	DA	2799	A	8.4
31	BI	8	GLU	8.3
51	B3	16	CYS	8.2
30	BH	84	GLY	8.2
51	D3	22	ALA	8.1
47	DY	16	LEU	7.9
51	D3	15	GLU	7.9
30	BH	128	LEU	7.5
51	B3	43	CYS	7.3
23	BA	2798	C	7.2
51	D3	14	THR	7.1
23	BA	2799	A	7.1
51	D3	16	CYS	7.1
30	BH	119	PRO	7.1
51	B3	46	HIS	7.1
51	D3	18	ARG	7.0
23	BA	2797	U	6.9
28	BF	2	PRO	6.9
51	D3	41	PRO	6.8
1	CA	1533	C	6.8
23	DA	2797	U	6.8

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
48	DZ	1	MET	6.7
43	DU	59	GLY	6.7
30	BH	112	LYS	6.7
21	CU	18	TYR	6.6
31	BI	9	LEU	6.6
22	CV	6212	U	6.6
43	DU	51	VAL	6.6
19	AS	75	ALA	6.4
23	BA	888	C	6.4
31	BI	66	LEU	6.4
19	CS	48	THR	6.4
51	D3	37	ARG	6.4
22	CV	6174	G	6.3
43	BU	52	SER	6.3
51	D3	19	ARG	6.3
51	D3	20	ASN	6.3
35	DM	141	GLN	6.2
30	BH	100	ALA	6.1
31	BI	15	GLU	6.1
30	BH	118	LYS	6.1
51	D3	17	LYS	6.1
51	D3	39	TYR	6.1
47	DY	15	LYS	6.0
1	AA	1000	A	6.0
51	D3	44	ARG	6.0
35	BM	140	ALA	5.9
51	B3	21	TYR	5.9
30	DH	80	PRO	5.9
23	BA	1174	A	5.9
44	DV	181	GLU	5.8
30	BH	72	LEU	5.8
23	DA	2803	C	5.8
1	CA	84	U	5.7
1	AA	1129	C	5.7
51	B3	42	TRP	5.6
51	B3	48	VAL	5.6
51	B3	15	GLU	5.6
43	BU	51	VAL	5.6
30	BH	1	MET	5.6
1	CA	1286	A	5.5
51	B3	50	ARG	5.5
1	AA	1001	G	5.5

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
3	CC	207	VAL	5.5
9	AI	9	ARG	5.5
30	BH	134	PRO	5.4
30	DH	88	ILE	5.4
48	BZ	1	MET	5.4
7	CG	80	VAL	5.4
28	BF	85	GLY	5.3
19	CS	41	VAL	5.3
51	B3	38	LYS	5.3
51	D3	45	LYS	5.3
13	CM	30	ALA	5.3
31	BI	11	ALA	5.3
51	D3	36	LEU	5.3
21	CU	25	LYS	5.3
30	BH	140	LEU	5.3
51	B3	17	LYS	5.3
30	BH	65	ALA	5.2
23	BA	2801	A	5.2
22	AV	6174	G	5.1
30	BH	122	GLU	5.1
31	BI	67	GLY	5.1
2	CB	132	LYS	5.1
30	BH	103	ARG	5.1
20	CT	102	GLY	5.0
23	BA	2793	G	5.0
23	BA	1046	A	5.0
51	D3	24	GLU	5.0
31	BI	14	LYS	5.0
9	AI	62	TYR	4.9
35	DM	140	ALA	4.9
22	AV	6212	U	4.9
46	BX	85	LEU	4.9
51	D3	52	VAL	4.8
16	CP	34	GLU	4.8
30	BH	110	ASP	4.8
31	BI	64	LYS	4.8
19	CS	47	HIS	4.8
3	CC	206	GLU	4.8
35	BM	141	GLN	4.8
51	B3	51	GLU	4.8
30	DH	63	ALA	4.7
7	CG	82	GLY	4.7

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Mol	Chain	Res	Type	RSRZ
19	CS	73	GLU	4.7
31	BI	4	LYS	4.7
2	AB	7	VAL	4.7
30	BH	121	LYS	4.7
23	DA	888	C	4.7
19	AS	81	ARG	4.7
51	B3	24	GLU	4.7
23	DA	1535	U	4.6
1	CA	1289	A	4.6
21	AU	18	TYR	4.6
13	CM	117	VAL	4.6
7	CG	8	GLU	4.6
19	CS	69	HIS	4.6
49	D1	65	CYS	4.6
45	DW	85	ALA	4.6
31	BI	5	ARG	4.6
51	D3	38	LYS	4.6
1	CA	1002	G	4.5
19	CS	66	MET	4.5
13	CM	96	LEU	4.5
31	DI	62	ALA	4.5
19	CS	37	ARG	4.4
16	CP	35	LYS	4.4
24	DB	52	A	4.4
30	BH	104	GLN	4.4
2	CB	188	ALA	4.4
49	D1	44	CYS	4.4
23	DA	2804	C	4.4
7	CG	5	ARG	4.4
30	DH	116	LEU	4.4
19	CS	74	PHE	4.3
1	AA	1138	G	4.3
11	AK	12	ARG	4.3
2	AB	19	HIS	4.3
28	BF	21	ARG	4.3
13	CM	87	TYR	4.3
30	BH	79	ILE	4.3
30	BH	109	ILE	4.3
31	BI	12	THR	4.3
22	CV	6175	G	4.2
19	CS	61	TYR	4.2
30	BH	93	THR	4.2

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Mol	Chain	Res	Type	RSRZ
9	CI	128	ARG	4.2
51	D3	40	CYS	4.2
47	BY	3	LEU	4.2
7	AG	80	VAL	4.2
12	CL	28	GLY	4.2
2	CB	101	MET	4.1
3	CC	149	ALA	4.1
12	AL	127	ALA	4.1
23	BA	1045	A	4.1
24	BB	52	A	4.1
19	CS	81	ARG	4.1
30	BH	108	THR	4.1
21	AU	17	THR	4.1
51	B3	22	ALA	4.1
16	CP	54	GLU	4.1
1	CA	1112	C	4.1
13	AM	116	THR	4.1
51	B3	45	LYS	4.1
30	BH	137	PRO	4.1
19	CS	40	ILE	4.1
23	BA	2211	G	4.1
19	AS	74	PHE	4.1
30	DH	87	LYS	4.1
21	CU	7	ARG	4.1
1	CA	210	U	4.0
1	CA	1243	C	4.0
34	BL	149	GLU	4.0
10	AJ	72	VAL	4.0
37	BO	58	LEU	4.0
31	BI	6	ASN	4.0
20	CT	103	GLY	4.0
30	DH	114	LEU	4.0
4	CD	169	LYS	4.0
19	AS	5	LEU	4.0
19	AS	44	MET	4.0
30	BH	94	ALA	4.0
10	AJ	34	VAL	4.0
19	CS	36	ARG	3.9
2	CB	133	LYS	3.9
4	CD	182	LYS	3.9
30	BH	86	THR	3.9
1	AA	1002	G	3.9

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Mol	Chain	Res	Type	RSRZ
51	B3	19	ARG	3.9
21	AU	22	ARG	3.9
9	CI	13	ALA	3.9
29	BG	161	GLY	3.9
19	CS	5	LEU	3.9
9	CI	7	THR	3.9
10	CJ	61	GLU	3.9
9	AI	82	ALA	3.9
9	AI	64	THR	3.9
13	CM	91	ARG	3.9
22	AV	6175	G	3.9
30	BH	64	GLU	3.9
31	BI	65	GLU	3.9
23	BA	2794	C	3.9
43	DU	53	PRO	3.9
9	AI	32	ASP	3.8
1	CA	1000	A	3.8
30	DH	92	VAL	3.8
31	BI	63	LEU	3.8
9	CI	93	ARG	3.8
49	D1	45	GLY	3.8
23	DA	11	G	3.8
51	B3	36	LEU	3.8
30	BH	120	ILE	3.8
1	AA	1287	A	3.8
49	D1	37	PRO	3.8
28	DF	146	TYR	3.8
34	DL	150	ALA	3.8
31	BI	13	LEU	3.8
43	BU	50	ARG	3.8
51	D3	50	ARG	3.8
12	AL	126	GLU	3.8
49	B1	36	VAL	3.8
31	DI	5	ARG	3.8
9	AI	65	VAL	3.8
1	AA	1257	U	3.8
30	BH	129	THR	3.8
28	DF	87	PRO	3.8
30	BH	131	LYS	3.8
1	CA	958	A	3.8
21	AU	21	TYR	3.7
22	CV	6213	A	3.7

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Mol	Chain	Res	Type	RSRZ
29	BG	32	GLU	3.7
23	BA	1420	U	3.7
1	AA	1288	A	3.7
1	CA	1111	A	3.7
30	BH	114	LEU	3.7
30	BH	117	GLU	3.7
49	B1	37	PRO	3.7
7	CG	12	LEU	3.7
28	BF	69	ALA	3.7
1	CA	1257	U	3.7
30	BH	127	VAL	3.7
9	CI	12	GLU	3.7
13	CM	116	THR	3.6
2	CB	138	LEU	3.6
21	CU	5	ASP	3.6
51	B3	52	VAL	3.6
29	BG	170	ARG	3.6
22	CV	6189	G	3.6
19	AS	49	ILE	3.6
20	CT	48	LYS	3.6
1	CA	1149	C	3.6
23	DA	2107	C	3.6
2	AB	36	ARG	3.6
9	CI	127	LYS	3.6
28	DF	13	GLU	3.6
24	BB	54	G	3.6
51	B3	26	ASN	3.6
7	AG	79	ARG	3.6
19	AS	67	VAL	3.6
23	BA	2795	G	3.5
1	CA	999	U	3.5
19	CS	71	LEU	3.5
1	CA	1353	G	3.5
23	DA	2602	A	3.5
47	DY	12	GLU	3.5
13	CM	63	THR	3.5
47	DY	14	ARG	3.5
34	DL	149	GLU	3.5
21	CU	23	PRO	3.5
19	AS	41	VAL	3.5
1	AA	87	A	3.5
23	DA	887	A	3.5

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Mol	Chain	Res	Type	RSRZ
9	AI	63	ILE	3.5
31	BI	19	ARG	3.5
8	CH	52	ASP	3.5
12	CL	127	ALA	3.5
31	BI	10	LEU	3.5
43	BU	87	LYS	3.5
7	CG	81	GLY	3.5
19	AS	50	ALA	3.5
21	CU	22	ARG	3.5
30	BH	91	SER	3.5
51	B3	37	ARG	3.5
30	DH	145	VAL	3.5
29	BG	124	GLU	3.5
51	B3	20	ASN	3.5
13	CM	65	LYS	3.5
16	CP	36	ILE	3.4
1	AA	210	U	3.4
13	AM	39	ILE	3.4
13	CM	97	PRO	3.4
2	AB	40	HIS	3.4
23	DA	2802	G	3.4
30	DH	59	ALA	3.4
30	DH	89	TYR	3.4
34	DL	89	ALA	3.4
14	CN	8	GLU	3.4
49	B1	55	PRO	3.4
6	AF	101	ALA	3.4
28	DF	2	PRO	3.4
9	CI	97	LYS	3.4
31	DI	20	ALA	3.4
28	BF	171	ALA	3.4
18	AR	31	LEU	3.4
51	D3	42	TRP	3.4
31	DI	63	LEU	3.4
51	B3	28	ARG	3.4
13	CM	113	PRO	3.3
13	CM	15	VAL	3.3
31	BI	21	GLN	3.3
11	CK	127	LYS	3.3
43	BU	54	LYS	3.3
52	B4	48	LYS	3.3
28	DF	85	GLY	3.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
49	D1	41	ILE	3.3
6	CF	95	GLU	3.3
21	AU	25	LYS	3.3
51	B3	18	ARG	3.3
31	DI	14	LYS	3.3
44	BV	97	GLU	3.3
1	CA	136	C	3.3
23	BA	277	C	3.3
10	AJ	28	ARG	3.3
23	BA	1535	U	3.3
51	D3	31	PRO	3.3
20	CT	100	ILE	3.2
31	BI	7	VAL	3.2
11	CK	12	ARG	3.2
47	BY	16	LEU	3.2
1	CA	1260	C	3.2
16	CP	21	VAL	3.2
19	CS	49	ILE	3.2
2	AB	132	LYS	3.2
31	BI	61	LEU	3.2
7	AG	16	LEU	3.2
1	CA	998(B)	C	3.2
2	CB	134	GLU	3.2
13	CM	90	LEU	3.2
51	D3	11	LEU	3.2
10	CJ	6	ILE	3.2
28	DF	52	ILE	3.2
37	DO	87	PHE	3.2
7	AG	78	ARG	3.2
31	BI	59	ILE	3.2
1	CA	1493	A	3.2
7	CG	62	PHE	3.2
23	DA	508	G	3.2
10	CJ	4	ILE	3.2
18	AR	46	GLU	3.2
23	DA	271(D)	U	3.2
23	BA	2803	C	3.2
1	AA	1493	A	3.2
19	AS	60	VAL	3.2
19	AS	70	LYS	3.2
7	CG	6	ARG	3.2
51	D3	12	GLU	3.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
31	DI	59	ILE	3.1
19	AS	69	HIS	3.1
18	AR	23	LYS	3.1
28	DF	48	GLU	3.1
1	CA	723	U	3.1
31	DI	18	GLU	3.1
19	CS	46	GLY	3.1
21	CU	12	LYS	3.1
24	BB	88	C	3.1
7	CG	83	ALA	3.1
14	AN	13	THR	3.1
19	AS	77	THR	3.1
26	BD	204	ALA	3.1
28	DF	82	LEU	3.1
49	B1	51	TYR	3.1
7	CG	32	ARG	3.1
3	AC	207	VAL	3.1
9	AI	18	PHE	3.1
9	AI	101	PHE	3.1
13	AM	94	ARG	3.1
23	BA	1104	C	3.1
31	BI	16	ASN	3.1
2	AB	130	ARG	3.1
1	AA	1260	C	3.1
23	DA	10	G	3.1
3	CC	160	ALA	3.1
23	BA	2108	C	3.0
35	BM	91	GLU	3.0
49	B1	54	LYS	3.0
1	CA	136(B)	C	3.0
9	AI	15	ALA	3.0
13	CM	112	GLY	3.0
3	AC	149	ALA	3.0
29	DG	60	ARG	3.0
28	BF	87	PRO	3.0
7	CG	22	LEU	3.0
29	BG	105	LEU	3.0
7	CG	31	MET	3.0
16	CP	19	ILE	3.0
29	BG	95	ARG	3.0
30	DH	67	ARG	3.0
23	DA	2211	G	3.0

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Mol	Chain	Res	Type	RSRZ
22	AV	6176	U	3.0
16	CP	22	THR	3.0
16	CP	18	ARG	3.0
29	BG	90	LYS	3.0
30	DH	122	GLU	3.0
31	DI	8	GLU	3.0
28	DF	88	ILE	3.0
7	CG	16	LEU	3.0
44	BV	169	GLU	3.0
13	CM	85	GLY	3.0
1	AA	723	U	3.0
48	DZ	57	GLU	3.0
8	AH	94	TYR	3.0
10	CJ	71	LEU	3.0
1	CA	1003	G	3.0
20	CT	95	ALA	3.0
9	CI	18	PHE	3.0
51	D3	23	THR	3.0
10	CJ	38	ILE	2.9
11	CK	128	ALA	2.9
19	CS	39	THR	2.9
23	DA	1026	U	2.9
23	BA	2802	G	2.9
10	AJ	33	GLN	2.9
10	AJ	27	ALA	2.9
4	CD	108	LEU	2.9
19	AS	59	PRO	2.9
29	BG	104	GLU	2.9
45	DW	61	ALA	2.9
49	B1	50	THR	2.9
10	CJ	26	ALA	2.9
30	DH	83	ALA	2.9
50	B2	46	CYS	2.9
22	AV	6201	C	2.9
4	CD	104	VAL	2.9
1	CA	407	G	2.9
23	DA	2896	C	2.9
29	DG	169	VAL	2.9
29	BG	25	LYS	2.9
1	AA	999	U	2.9
9	AI	8	GLY	2.9
9	AI	61	ALA	2.9

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Mol	Chain	Res	Type	RSRZ
31	BI	60	ARG	2.9
23	DA	1104	C	2.9
29	BG	89	ILE	2.9
45	DW	76	GLY	2.9
10	AJ	98	ILE	2.9
2	AB	165	VAL	2.9
23	BA	34	C	2.9
23	DA	2897	U	2.9
29	BG	55	PRO	2.9
38	DP	133	GLU	2.9
10	AJ	70	ARG	2.9
10	CJ	72	VAL	2.9
31	DI	13	LEU	2.9
1	AA	1036	G	2.8
10	AJ	26	ALA	2.8
30	DH	94	ALA	2.8
1	AA	1042	G	2.8
1	CA	1044	A	2.8
1	CA	1288	A	2.8
13	CM	82	MET	2.8
7	AG	85	TYR	2.8
28	DF	86	MET	2.8
13	CM	16	ASP	2.8
7	AG	12	LEU	2.8
43	BU	62	GLU	2.8
44	BV	168	GLU	2.8
10	AJ	68	HIS	2.8
11	AK	13	GLN	2.8
13	AM	117	VAL	2.8
9	AI	33	PHE	2.8
49	B1	49	GLU	2.8
1	CA	135	C	2.8
23	BA	11	G	2.8
28	DF	81	LYS	2.8
3	CC	204	LEU	2.8
16	CP	55	ARG	2.8
29	DG	170	ARG	2.8
10	AJ	25	GLU	2.8
6	AF	63	TYR	2.8
13	AM	113	PRO	2.8
25	BC	2	ALA	2.8
7	AG	81	GLY	2.8

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
29	BG	94	TYR	2.8
14	AN	8	GLU	2.8
28	DF	152	LEU	2.8
23	BA	2892	A	2.8
10	CJ	73	ASP	2.8
21	CU	6	ARG	2.8
28	DF	137	GLU	2.8
49	B1	53	THR	2.8
2	CB	29	ALA	2.8
4	CD	200	GLU	2.8
18	AR	62	GLU	2.8
34	BL	148	LEU	2.8
3	AC	152	ILE	2.8
1	CA	843	U	2.8
4	AD	38	TYR	2.8
11	AK	129	SER	2.8
31	DI	6	ASN	2.8
23	BA	1509	A	2.8
28	DF	175	LEU	2.8
9	AI	27	THR	2.7
10	CJ	8	LEU	2.7
11	CK	13	GLN	2.7
19	CS	70	LYS	2.7
2	AB	48	MET	2.7
5	AE	19	MET	2.7
38	DP	129	ARG	2.7
44	BV	162	GLU	2.7
1	CA	1352	C	2.7
23	BA	886	C	2.7
2	CB	137	ARG	2.7
16	CP	1	MET	2.7
9	AI	26	VAL	2.7
30	DH	106	GLY	2.7
43	DU	2	ARG	2.7
7	CG	13	GLN	2.7
28	DF	176	LEU	2.7
2	CB	28	PHE	2.7
28	BF	25	TYR	2.7
29	BG	101	ARG	2.7
28	BF	143	GLU	2.7
9	CI	9	ARG	2.7
10	AJ	67	THR	2.7

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Mol	Chain	Res	Type	RSRZ
7	CG	10	ARG	2.7
1	CA	90	C	2.7
9	CI	102	LEU	2.7
30	BH	87	LYS	2.7
38	DP	91	ARG	2.7
1	CA	1116	C	2.7
23	BA	1175	U	2.7
7	CG	134	ALA	2.7
9	AI	36	TYR	2.7
10	CJ	95	GLU	2.7
37	DO	26	LEU	2.7
7	CG	79	ARG	2.7
9	CI	96	LEU	2.7
9	AI	14	VAL	2.7
19	CS	80	TYR	2.7
31	DI	9	LEU	2.7
3	CC	179	ARG	2.7
7	CG	11	GLN	2.7
43	BU	2	ARG	2.7
13	CM	115	LYS	2.7
31	DI	4	LYS	2.7
31	DI	66	LEU	2.7
23	BA	2896	C	2.7
28	BF	35	GLU	2.7
51	B3	23	THR	2.7
3	CC	168	ALA	2.7
44	BV	163	LEU	2.7
29	BG	43	VAL	2.7
1	CA	179	A	2.7
9	AI	17	VAL	2.6
31	DI	12	THR	2.6
7	AG	110	GLN	2.6
13	AM	87	TYR	2.6
29	BG	159	GLU	2.6
48	DZ	3	ARG	2.6
38	DP	132	LYS	2.6
22	CV	6180	U	2.6
19	AS	4	SER	2.6
3	CC	170	GLN	2.6
24	BB	53	A	2.6
9	CI	33	PHE	2.6
4	CD	11	LEU	2.6

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Mol	Chain	Res	Type	RSRZ
17	CQ	58	GLU	2.6
3	AC	151	VAL	2.6
2	CB	128	GLU	2.6
10	AJ	5	ARG	2.6
7	CG	9	VAL	2.6
7	CG	26	PHE	2.6
7	CG	101	LEU	2.6
51	B3	25	LYS	2.6
10	CJ	9	ARG	2.6
7	CG	84	ASN	2.6
37	DO	86	ALA	2.6
49	B1	38	ALA	2.6
9	AI	85	LEU	2.6
2	AB	167	PRO	2.6
16	CP	4	ILE	2.6
1	AA	1025	U	2.6
22	AV	6177	U	2.6
28	DF	26	GLN	2.6
12	CL	29	ALA	2.6
14	AN	17	LYS	2.6
30	DH	118	LYS	2.6
1	AA	1030	C	2.6
38	DP	1	MET	2.6
9	AI	12	GLU	2.6
29	DG	61	HIS	2.6
13	CM	110	ARG	2.6
1	AA	1041	A	2.6
1	CA	975	A	2.6
13	CM	34	LEU	2.6
23	DA	645	C	2.6
16	CP	37	GLY	2.6
19	CS	75	ALA	2.6
51	B3	12	GLU	2.6
28	BF	26	GLN	2.6
1	CA	1240	U	2.6
28	BF	82	LEU	2.6
28	BF	172	LEU	2.6
1	CA	1285	A	2.6
4	CD	145	GLU	2.6
29	BG	116	GLU	2.6
28	BF	77	ILE	2.6
49	D1	55	PRO	2.6

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Mol	Chain	Res	Type	RSRZ
2	CB	27	LYS	2.5
2	CB	96	ARG	2.5
9	AI	7	THR	2.5
1	AA	1250	A	2.5
1	CA	1248	A	2.5
19	CS	59	PRO	2.5
23	DA	2309	A	2.5
3	CC	19	GLU	2.5
21	AU	23	PRO	2.5
3	AC	201	TYR	2.5
1	AA	1116	C	2.5
10	CJ	65	LEU	2.5
49	D1	49	GLU	2.5
17	CQ	22	LEU	2.5
22	AV	6213	A	2.5
28	DF	72	ARG	2.5
19	CS	12	ASP	2.5
21	CU	4	GLY	2.5
31	DI	17	LEU	2.5
23	BA	2402	C	2.5
23	BA	2474	C	2.5
3	CC	185	GLY	2.5
14	CN	12	ARG	2.5
23	BA	2894	G	2.5
43	BU	5	MET	2.5
38	BP	2	ASN	2.5
49	D1	64	LYS	2.5
19	CS	50	ALA	2.5
14	AN	14	PRO	2.5
13	AM	112	GLY	2.5
21	CU	19	GLY	2.5
28	BF	83	ARG	2.5
7	AG	15	ASP	2.5
2	AB	137	ARG	2.5
1	CA	87	A	2.5
10	CJ	33	GLN	2.5
10	CJ	3	LYS	2.5
25	BC	26	LYS	2.5
50	B2	37	LYS	2.5
4	CD	168	ARG	2.5
31	DI	19	ARG	2.5
14	AN	55	GLY	2.5

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Mol	Chain	Res	Type	RSRZ
1	CA	1030	C	2.5
14	AN	20	ALA	2.5
2	AB	128	GLU	2.5
38	BP	1	MET	2.5
4	CD	153	ARG	2.5
30	DH	125	GLU	2.5
22	AV	6199	G	2.5
14	CN	32	SER	2.5
2	AB	12	GLU	2.4
4	CD	181	MET	2.4
28	BF	34	LEU	2.4
29	BG	88	LEU	2.4
31	DI	10	LEU	2.4
10	AJ	99	LYS	2.4
21	CU	2	GLY	2.4
1	AA	1492	A	2.4
1	AA	1224	G	2.4
20	CT	18	GLN	2.4
21	CU	17	THR	2.4
19	AS	48	THR	2.4
11	AK	11	LYS	2.4
23	BA	2895	U	2.4
10	CJ	5	ARG	2.4
19	AS	71	LEU	2.4
27	DE	27	GLU	2.4
2	CB	140	HIS	2.4
21	AU	24	ARG	2.4
3	AC	197	GLY	2.4
28	BF	88	ILE	2.4
1	CA	75	C	2.4
23	BA	2105	C	2.4
38	DP	125	ARG	2.4
9	AI	29	ASN	2.4
4	CD	18	LYS	2.4
10	CJ	36	GLY	2.4
9	CI	65	VAL	2.4
16	CP	65	GLN	2.4
31	DI	11	ALA	2.4
13	CM	61	GLU	2.4
1	CA	1249	C	2.4
7	CG	58	PRO	2.4
18	CR	24	ALA	2.4

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Mol	Chain	Res	Type	RSRZ
31	BI	20	ALA	2.4
47	BY	13	ALA	2.4
7	CG	85	TYR	2.4
12	CL	27	LYS	2.4
10	AJ	71	LEU	2.4
30	DH	127	VAL	2.4
2	AB	166	ASP	2.4
7	CG	7	ALA	2.4
21	AU	9	ARG	2.4
29	BG	96	ALA	2.4
2	AB	226	ARG	2.4
3	AC	206	GLU	2.4
6	CF	55	ASP	2.4
13	CM	86	CYS	2.4
14	AN	12	ARG	2.4
28	DF	34	LEU	2.4
31	BI	18	GLU	2.4
1	AA	1137	C	2.4
1	CA	488	C	2.4
5	AE	18	ARG	2.4
1	CA	103(B)	G	2.4
23	BA	2792	G	2.4
20	CT	9	ASN	2.4
44	BV	159	PRO	2.4
51	B3	27	LYS	2.4
49	D1	56	GLU	2.3
1	CA	1023	G	2.3
23	DA	2182	G	2.3
19	AS	51	VAL	2.3
7	CG	4	ARG	2.3
19	AS	40	ILE	2.3
2	AB	133	LYS	2.3
3	AC	147	LYS	2.3
30	DH	120	ILE	2.3
7	AG	113	GLU	2.3
23	BA	2804	C	2.3
3	AC	170	GLN	2.3
38	DP	136	GLN	2.3
44	BV	186	GLU	2.3
2	AB	101	MET	2.3
7	AG	36	LYS	2.3
12	CL	97	TYR	2.3

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Mol	Chain	Res	Type	RSRZ
1	AA	79	G	2.3
37	DO	28	VAL	2.3
30	BH	113	ARG	2.3
22	CV	6191	A	2.3
28	BF	23	PHE	2.3
37	DO	23	ARG	2.3
19	CS	76	PRO	2.3
13	AM	80	ARG	2.3
28	BF	86	MET	2.3
30	BH	95	LYS	2.3
23	BA	508	G	2.3
24	BB	87	G	2.3
7	AG	5	ARG	2.3
50	D2	48	GLU	2.3
17	CQ	8	GLY	2.3
23	BA	1026	U	2.3
30	DH	70	GLU	2.3
8	AH	119	LEU	2.3
13	AM	82	MET	2.3
23	DA	1536	A	2.3
2	AB	131	PRO	2.3
13	CM	98	VAL	2.3
22	CV	6215	C	2.3
23	BA	280	C	2.3
24	DB	88	C	2.3
2	AB	143	GLU	2.3
13	CM	32	GLU	2.3
14	CN	2	ALA	2.3
30	DH	66	GLU	2.3
28	DF	147	ASP	2.3
29	BG	27	LYS	2.3
23	BA	276	A	2.3
29	BG	29	PRO	2.3
23	BA	2897	U	2.3
29	BG	34	GLU	2.3
30	DH	126	TYR	2.3
48	BZ	2	PRO	2.3
13	AM	107	ALA	2.3
30	BH	58	LEU	2.3
1	CA	442	C	2.3
7	CG	137	LYS	2.3
9	CI	94	ALA	2.3

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Mol	Chain	Res	Type	RSRZ
9	AI	37	PHE	2.3
16	CP	9	PHE	2.3
1	CA	1031	G	2.2
1	CA	103(C)	G	2.2
1	CA	1033	G	2.2
23	BA	1051	G	2.2
7	AG	104	LEU	2.2
13	CM	60	VAL	2.2
23	DA	12	U	2.2
30	BH	62	LYS	2.2
43	BU	55	TYR	2.2
30	DH	4	ILE	2.2
20	CT	106	ALA	2.2
37	BO	68	GLN	2.2
31	BI	56	ASN	2.2
1	CA	81	G	2.2
10	AJ	73	ASP	2.2
30	BH	132	PRO	2.2
51	B3	30	THR	2.2
1	CA	1351	U	2.2
29	DG	167	GLU	2.2
1	CA	1115	C	2.2
34	DL	100	LEU	2.2
4	CD	175	SER	2.2
11	CK	11	LYS	2.2
28	DF	14	GLU	2.2
37	DO	38	GLN	2.2
44	BV	127	LYS	2.2
1	CA	63	C	2.2
4	CD	95	GLY	2.2
23	DA	2310	A	2.2
7	AG	83	ALA	2.2
3	AC	54	ARG	2.2
7	CG	29	LYS	2.2
25	BC	262	ARG	2.2
1	AA	1267	C	2.2
23	BA	279	C	2.2
44	BV	95	PRO	2.2
27	DE	6	MET	2.2
30	DH	98	ALA	2.2
43	BU	47	LYS	2.2
44	BV	164	ALA	2.2

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Mol	Chain	Res	Type	RSRZ
3	AC	87	LEU	2.2
28	BF	90	LEU	2.2
29	BG	61	HIS	2.2
30	BH	4	ILE	2.2
17	CQ	73	VAL	2.2
30	DH	121	LYS	2.2
1	CA	91	C	2.2
5	CE	78	HIS	2.2
23	DA	2794	C	2.2
9	AI	92	TYR	2.2
28	BF	11	TYR	2.2
7	CG	20	ASP	2.2
22	CV	6199	G	2.2
8	CH	51	VAL	2.2
22	CV	6198	U	2.2
23	DA	1509	A	2.2
13	AM	34	LEU	2.2
1	AA	1249	C	2.2
8	CH	25	ASP	2.2
28	DF	80	PHE	2.2
8	CH	60	ARG	2.2
9	AI	128	ARG	2.2
13	CM	73	GLU	2.2
23	DA	1174	A	2.2
4	CD	101	LEU	2.2
30	BH	71	ILE	2.2
30	DH	107	ILE	2.2
43	BU	91	GLU	2.2
28	BF	72	ARG	2.2
29	BG	91	GLY	2.2
37	BO	57	LYS	2.2
47	BY	15	LYS	2.2
1	CA	610	G	2.2
1	CA	1001	G	2.2
20	CT	55	ILE	2.2
21	AU	2	GLY	2.2
43	DU	5	MET	2.2
30	DH	78	THR	2.2
2	CB	139	LYS	2.1
7	AG	31	MET	2.1
8	AH	25	ASP	2.1
19	AS	47	HIS	2.1

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Mol	Chain	Res	Type	RSRZ
28	DF	115	ARG	2.1
10	AJ	83	GLU	2.1
13	AM	36	LYS	2.1
13	CM	80	ARG	2.1
13	CM	89	GLY	2.1
1	AA	1357	A	2.1
2	AB	170	GLU	2.1
5	CE	25	ARG	2.1
28	DF	131	TYR	2.1
1	AA	980	C	2.1
20	AT	72	LEU	2.1
23	DA	654	U	2.1
2	AB	41	ILE	2.1
23	DA	1460	A	2.1
31	DI	16	ASN	2.1
23	DA	2795	G	2.1
47	BY	10	LEU	2.1
3	AC	2	GLY	2.1
16	CP	39	TYR	2.1
18	CR	31	LEU	2.1
1	CA	85	U	2.1
18	AR	22	VAL	2.1
29	BG	41	MET	2.1
50	B2	29	ILE	2.1
1	AA	1003	G	2.1
1	CA	1356	G	2.1
28	DF	47	LYS	2.1
51	D3	51	GLU	2.1
7	AG	37	ASN	2.1
3	AC	46	GLU	2.1
35	DM	139	GLU	2.1
43	BU	64	GLU	2.1
1	AA	1035	A	2.1
38	DP	2	ASN	2.1
13	CM	5	ALA	2.1
20	CT	17	ARG	2.1
28	DF	46	ALA	2.1
1	AA	91	C	2.1
3	CC	151	VAL	2.1
9	CI	14	VAL	2.1
13	CM	7	VAL	2.1
37	DO	85	VAL	2.1

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Mol	Chain	Res	Type	RSRZ
12	CL	44	PRO	2.1
48	BZ	58	VAL	2.1
9	AI	79	LEU	2.1
23	BA	2107	C	2.1
21	AU	20	LYS	2.1
29	BG	100	GLY	2.1
29	BG	168	PRO	2.1
28	BF	145	THR	2.1
1	CA	1246	C	2.1
4	CD	192	GLU	2.1
29	BG	58	GLU	2.1
29	BG	167	GLU	2.1
48	DZ	2	PRO	2.1
20	CT	96	GLY	2.1
24	DB	53	A	2.1
2	AB	129	GLU	2.1
19	AS	36	ARG	2.1
28	DF	143	GLU	2.1
35	DM	91	GLU	2.1
7	CG	48	LYS	2.1
19	AS	28	LYS	2.1
22	CV	6190	U	2.1
23	DA	362	U	2.1
13	CM	29	ARG	2.1
2	AB	187	LEU	2.1
1	AA	1130	A	2.0
28	BF	36	LYS	2.0
6	AF	4	TYR	2.0
28	BF	142	PRO	2.0
29	DG	59	ARG	2.0
23	DA	277	C	2.0
9	CI	4	TYR	2.0
19	AS	9	VAL	2.0
30	BH	139	GLN	2.0
3	CC	131	ARG	2.0
24	DB	54	G	2.0
21	AU	3	LYS	2.0
49	B1	56	GLU	2.0
9	AI	81	ILE	2.0
8	CH	61	VAL	2.0
17	CQ	75	ARG	2.0
21	CU	8	THR	2.0

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Mol	Chain	Res	Type	RSRZ
9	CI	5	TYR	2.0
11	AK	128	ALA	2.0
26	BD	73	GLU	2.0
35	BM	139	GLU	2.0
37	DO	22	GLY	2.0
2	AB	43	ASP	2.0
13	CM	94	ARG	2.0
19	CS	33	THR	2.0
49	D1	36	VAL	2.0
51	B3	31	PRO	2.0
1	CA	181	G	2.0
23	BA	1056	G	2.0
8	CH	62	TYR	2.0
29	BG	106	THR	2.0
3	CC	101	LEU	2.0
7	AG	111	ARG	2.0
19	AS	29	ARG	2.0
48	DZ	4	LEU	2.0
50	B2	39	MET	2.0
2	AB	35	GLU	2.0
23	BA	2475	C	2.0
8	AH	131	GLY	2.0
19	AS	76	PRO	2.0
31	DI	21	GLN	2.0
28	BF	3	LEU	2.0
26	DD	204	ALA	2.0
1	CA	1287	A	2.0
30	DH	60	GLU	2.0
9	AI	21	PRO	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, 95<sup>th</sup> 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 <sup>2</sup> )	Q<0.9
54	MG	BA	3191	1/1	0.36	-	76,76,76,76	0
54	MG	DA	3144	1/1	0.24	-	72,72,72,72	0
54	MG	AA	1655	1/1	0.63	-	72,72,72,72	0
54	MG	DA	3076	1/1	0.16	-	63,63,63,63	0
54	MG	CA	1632	1/1	0.28	-	79,79,79,79	0
54	MG	DA	3195	1/1	0.25	-	51,51,51,51	0
54	MG	AA	1658	1/1	0.11	-	94,94,94,94	0
54	MG	AA	1641	1/1	0.39	-	85,85,85,85	0
54	MG	BA	3283	1/1	0.20	-	76,76,76,76	0
54	MG	BA	2912	1/1	0.66	-	36,36,36,36	0
54	MG	BA	3050	1/1	0.19	-	41,41,41,41	0
54	MG	DA	3095	1/1	0.17	-	67,67,67,67	0
54	MG	BA	3114	1/1	0.73	-	78,78,78,78	0
54	MG	DA	3099	1/1	0.15	-	81,81,81,81	0
54	MG	BA	2951	1/1	0.39	-	28,28,28,28	0
54	MG	BA	3200	1/1	0.32	-	64,64,64,64	0
54	MG	CA	1615	1/1	0.25	-	51,51,51,51	0
54	MG	AA	1731	1/1	0.32	-	76,76,76,76	0
54	MG	DA	3142	1/1	0.20	-	109,109,109,109	0
54	MG	DA	3128	1/1	0.24	-	114,114,114,114	0
54	MG	AD	302	1/1	0.17	-	87,87,87,87	0
54	MG	BB	212	1/1	0.14	-	89,89,89,89	0
54	MG	DA	3320	1/1	0.42	-	58,58,58,58	0
54	MG	AA	1718	1/1	0.62	-	98,98,98,98	0
54	MG	DA	3071	1/1	0.39	-	64,64,64,64	0
54	MG	BA	3135	1/1	0.14	-	77,77,77,77	0
54	MG	BA	3057	1/1	0.44	-	63,63,63,63	0
54	MG	DA	3209	1/1	0.61	-	80,80,80,80	0
54	MG	DA	3084	1/1	0.14	-	146,146,146,146	0
54	MG	DA	3040	1/1	0.34	-	41,41,41,41	0
54	MG	AA	1640	1/1	0.48	-	106,106,106,106	0
54	MG	AA	1649	1/1	0.35	-	89,89,89,89	0
54	MG	BA	2965	1/1	0.26	-	47,47,47,47	0
54	MG	BA	3077	1/1	0.12	-	75,75,75,75	0
54	MG	AA	1629	1/1	0.35	-	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	DA	2949	1/1	0.54	-	41,41,41,41	0
54	MG	DA	3323	1/1	0.30	-	69,69,69,69	0
54	MG	BA	3100	1/1	0.07	-	77,77,77,77	0
54	MG	CA	1663	1/1	0.31	-	86,86,86,86	0
54	MG	DA	3230	1/1	0.21	-	63,63,63,63	0
54	MG	DA	3306	1/1	0.35	-	51,51,51,51	0
54	MG	DA	3185	1/1	0.31	-	108,108,108,108	0
54	MG	DA	3025	1/1	0.19	-	69,69,69,69	0
54	MG	BA	3153	1/1	0.29	-	67,67,67,67	0
54	MG	AA	1738	1/1	0.33	-	70,70,70,70	0
54	MG	DA	2966	1/1	0.36	-	70,70,70,70	0
54	MG	CA	1646	1/1	0.14	-	78,78,78,78	0
54	MG	AA	1698	1/1	0.40	-	88,88,88,88	0
54	MG	CA	1659	1/1	0.30	-	71,71,71,71	0
54	MG	DA	3089	1/1	0.24	-	76,76,76,76	0
54	MG	BA	3024	1/1	0.50	-	67,67,67,67	0
54	MG	BA	3059	1/1	0.18	-	60,60,60,60	0
54	MG	DA	3220	1/1	0.29	-	70,70,70,70	0
54	MG	BA	3212	1/1	0.23	-	69,69,69,69	0
54	MG	BB	203	1/1	0.17	-	83,83,83,83	0
54	MG	DA	3105	1/1	0.52	-	75,75,75,75	0
54	MG	DA	3061	1/1	0.28	-	75,75,75,75	0
54	MG	BA	3088	1/1	0.56	-	73,73,73,73	0
54	MG	AA	1707	1/1	0.20	-	100,100,100,100	0
54	MG	AA	1666	1/1	0.07	-	100,100,100,100	0
54	MG	AA	1628	1/1	0.38	-	62,62,62,62	0
54	MG	BA	3284	1/1	0.59	-	85,85,85,85	0
54	MG	CA	1714	1/1	0.19	-	74,74,74,74	0
54	MG	BA	3020	1/1	0.28	-	62,62,62,62	0
54	MG	AA	1633	1/1	0.17	-	73,73,73,73	0
54	MG	BA	3123	1/1	0.37	-	52,52,52,52	0
54	MG	AA	1654	1/1	0.34	-	76,76,76,76	0
54	MG	DA	3094	1/1	0.28	-	76,76,76,76	0
54	MG	DA	3026	1/1	0.10	-	48,48,48,48	0
54	MG	DA	2993	1/1	0.06	-	69,69,69,69	0
54	MG	DA	3024	1/1	0.39	-	36,36,36,36	0
54	MG	DA	2955	1/1	0.42	-	40,40,40,40	0
54	MG	BA	2962	1/1	0.17	-	17,17,17,17	0
54	MG	CA	1648	1/1	0.34	-	64,64,64,64	0
54	MG	AA	1692	1/1	0.31	-	84,84,84,84	0
54	MG	BA	3223	1/1	0.28	-	54,54,54,54	0
54	MG	DA	3274	1/1	0.36	-	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	BA	3106	1/1	0.20	-	70,70,70,70	0
54	MG	BA	3293	1/1	0.18	-	86,86,86,86	0
54	MG	CA	1703	1/1	0.42	-	108,108,108,108	0
54	MG	BA	3152	1/1	0.14	-	75,75,75,75	0
54	MG	DA	2994	1/1	0.15	-	67,67,67,67	0
54	MG	BB	201	1/1	0.35	-	56,56,56,56	0
54	MG	BA	3197	1/1	0.38	-	57,57,57,57	0
54	MG	DA	3235	1/1	0.73	-	90,90,90,90	0
54	MG	DA	3263	1/1	0.34	-	63,63,63,63	0
54	MG	CA	1620	1/1	0.14	-	79,79,79,79	0
54	MG	DA	3273	1/1	0.26	-	85,85,85,85	0
54	MG	BA	3091	1/1	0.42	-	56,56,56,56	0
54	MG	BA	2958	1/1	0.34	-	42,42,42,42	0
54	MG	DB	210	1/1	0.07	-	74,74,74,74	0
54	MG	BA	3304	1/1	0.06	-	124,124,124,124	0
54	MG	DA	3078	1/1	0.52	-	79,79,79,79	0
54	MG	BA	3263	1/1	0.27	-	80,80,80,80	0
54	MG	DA	3293	1/1	0.11	-	67,67,67,67	0
54	MG	BA	3267	1/1	0.47	-	86,86,86,86	0
54	MG	DA	3233	1/1	0.32	-	57,57,57,57	0
54	MG	BA	3214	1/1	0.38	-	53,53,53,53	0
54	MG	AA	1681	1/1	0.22	-	99,99,99,99	0
54	MG	BA	3090	1/1	0.43	-	69,69,69,69	0
54	MG	BB	211	1/1	0.48	-	112,112,112,112	0
54	MG	BA	2915	1/1	0.17	-	4,4,4,4	0
54	MG	BA	3301	1/1	0.71	-	66,66,66,66	0
54	MG	BA	3166	1/1	0.35	-	74,74,74,74	0
54	MG	AA	1700	1/1	0.62	-	98,98,98,98	0
54	MG	DA	2990	1/1	0.16	-	35,35,35,35	0
54	MG	CA	1666	1/1	0.06	-	116,116,116,116	0
54	MG	DA	2946	1/1	0.53	-	24,24,24,24	0
54	MG	AA	1626	1/1	0.17	-	62,62,62,62	0
54	MG	DA	3208	1/1	0.41	-	49,49,49,49	0
54	MG	BB	217	1/1	0.13	-	78,78,78,78	0
54	MG	DA	3250	1/1	0.33	-	74,74,74,74	0
54	MG	BA	3206	1/1	0.10	-	60,60,60,60	0
54	MG	CA	1644	1/1	0.45	-	77,77,77,77	0
54	MG	CA	1633	1/1	0.55	-	102,102,102,102	0
54	MG	BA	2903	1/1	0.39	-	14,14,14,14	0
54	MG	BA	3189	1/1	0.45	-	88,88,88,88	0
54	MG	AA	1603	1/1	0.33	-	35,35,35,35	0
54	MG	CA	1670	1/1	0.48	-	128,128,128,128	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	BA	3036	1/1	0.13	-	92,92,92,92	0
54	MG	BA	3201	1/1	0.16	-	80,80,80,80	0
54	MG	DA	3037	1/1	0.17	-	77,77,77,77	0
54	MG	BA	3219	1/1	0.80	-	66,66,66,66	0
54	MG	AA	1611	1/1	0.26	-	49,49,49,49	0
54	MG	AA	1704	1/1	0.15	-	81,81,81,81	0
54	MG	BA	2952	1/1	0.29	-	38,38,38,38	0
54	MG	CP	101	1/1	0.18	-	96,96,96,96	0
54	MG	AA	1751	1/1	0.17	-	72,72,72,72	0
54	MG	DA	3124	1/1	0.08	-	90,90,90,90	0
54	MG	CA	1699	1/1	0.74	-	71,71,71,71	0
54	MG	AA	1753	1/1	0.33	-	102,102,102,102	0
54	MG	AA	1716	1/1	0.18	-	120,120,120,120	0
54	MG	AA	1728	1/1	0.93	-	105,105,105,105	0
54	MG	DE	301	1/1	0.21	-	44,44,44,44	0
54	MG	DA	3023	1/1	0.30	-	49,49,49,49	0
54	MG	DA	3052	1/1	0.19	-	107,107,107,107	0
54	MG	CA	1735	1/1	0.25	-	61,61,61,61	0
54	MG	BA	3157	1/1	0.33	-	68,68,68,68	0
54	MG	CA	1715	1/1	0.31	-	74,74,74,74	0
54	MG	BA	3276	1/1	0.23	-	65,65,65,65	0
54	MG	AA	1630	1/1	0.36	-	70,70,70,70	0
54	MG	DA	2983	1/1	0.34	-	70,70,70,70	0
54	MG	AA	1676	1/1	0.10	-	63,63,63,63	0
54	MG	CA	1651	1/1	0.09	-	99,99,99,99	0
54	MG	DA	3289	1/1	0.40	-	92,92,92,92	0
54	MG	DA	3310	1/1	0.30	-	52,52,52,52	0
54	MG	DA	2927	1/1	0.24	-	22,22,22,22	0
54	MG	CA	1658	1/1	0.42	-	110,110,110,110	0
55	ZN	CD	301	1/1	0.24	-	131,131,131,131	0
54	MG	BA	3208	1/1	0.23	-	48,48,48,48	0
54	MG	BA	3174	1/1	0.23	-	84,84,84,84	0
54	MG	BA	3259	1/1	0.39	-	75,75,75,75	0
54	MG	DA	3034	1/1	0.27	-	65,65,65,65	0
54	MG	DA	3183	1/1	0.10	-	83,83,83,83	0
54	MG	DA	3001	1/1	0.16	-	56,56,56,56	0
54	MG	CA	1723	1/1	0.30	-	141,141,141,141	0
54	MG	BA	3040	1/1	0.27	-	58,58,58,58	0
54	MG	BA	3245	1/1	0.28	-	54,54,54,54	0
54	MG	BA	3085	1/1	0.40	-	68,68,68,68	0
54	MG	BA	3299	1/1	0.27	-	80,80,80,80	0
54	MG	BA	3252	1/1	0.10	-	92,92,92,92	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	BA	2940	1/1	0.30	-	29,29,29,29	0
54	MG	CV	6301	1/1	0.19	-	98,98,98,98	0
54	MG	AA	1740	1/1	0.30	-	80,80,80,80	0
54	MG	DA	3221	1/1	0.19	-	68,68,68,68	0
54	MG	CA	1619	1/1	0.43	-	61,61,61,61	0
54	MG	BA	3017	1/1	0.23	-	69,69,69,69	0
54	MG	CA	1731	1/1	0.13	-	90,90,90,90	0
54	MG	DA	3079	1/1	0.28	-	38,38,38,38	0
54	MG	AV	6301	1/1	0.11	-	72,72,72,72	0
54	MG	DA	3154	1/1	0.33	-	94,94,94,94	0
54	MG	DA	2996	1/1	0.35	-	43,43,43,43	0
54	MG	BA	3289	1/1	0.23	-	65,65,65,65	0
54	MG	BA	3232	1/1	0.45	-	24,24,24,24	0
54	MG	BA	3138	1/1	0.14	-	100,100,100,100	0
54	MG	CA	1716	1/1	0.23	-	77,77,77,77	0
54	MG	BA	2905	1/1	0.55	-	12,12,12,12	0
54	MG	BA	2947	1/1	0.30	-	14,14,14,14	0
54	MG	CA	1711	1/1	0.42	-	87,87,87,87	0
54	MG	DA	3178	1/1	0.24	-	83,83,83,83	0
54	MG	AA	1653	1/1	0.35	-	89,89,89,89	0
54	MG	DB	215	1/1	0.43	-	103,103,103,103	0
54	MG	DA	3069	1/1	0.18	-	81,81,81,81	0
54	MG	AA	1645	1/1	0.58	-	79,79,79,79	0
54	MG	DA	3087	1/1	0.30	-	67,67,67,67	0
54	MG	AA	1760	1/1	0.13	-	84,84,84,84	0
54	MG	DA	3210	1/1	0.11	-	59,59,59,59	0
54	MG	DA	2988	1/1	0.58	-	41,41,41,41	0
54	MG	DA	2962	1/1	0.35	-	37,37,37,37	0
54	MG	DA	3121	1/1	0.19	-	69,69,69,69	0
54	MG	BA	3182	1/1	0.47	-	20,20,20,20	0
54	MG	BA	2977	1/1	0.33	-	52,52,52,52	0
54	MG	CA	1603	1/1	0.27	-	48,48,48,48	0
54	MG	BA	2917	1/1	0.39	-	8,8,8,8	0
54	MG	AA	1754	1/1	0.23	-	110,110,110,110	0
54	MG	AA	1757	1/1	0.47	-	89,89,89,89	0
54	MG	DA	3010	1/1	0.67	-	51,51,51,51	0
54	MG	DB	214	1/1	0.25	-	90,90,90,90	0
54	MG	DA	2922	1/1	0.32	-	7,7,7,7	0
54	MG	CA	1642	1/1	0.18	-	71,71,71,71	0
54	MG	BA	3075	1/1	0.17	-	67,67,67,67	0
54	MG	BA	2967	1/1	0.39	-	24,24,24,24	0
54	MG	DA	3093	1/1	0.35	-	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	BB	209	1/1	0.34	-	83,83,83,83	0
54	MG	BA	3250	1/1	0.11	-	95,95,95,95	0
54	MG	DA	3049	1/1	0.22	-	56,56,56,56	0
54	MG	DA	2915	1/1	0.47	-	14,14,14,14	0
54	MG	DA	3102	1/1	0.21	-	68,68,68,68	0
54	MG	AA	1722	1/1	0.25	-	83,83,83,83	0
54	MG	DA	2976	1/1	0.30	-	37,37,37,37	0
54	MG	BA	3107	1/1	0.30	-	87,87,87,87	0
54	MG	BA	2936	1/1	0.19	-	43,43,43,43	0
54	MG	CA	1640	1/1	0.36	-	69,69,69,69	0
54	MG	DA	3017	1/1	0.25	-	93,93,93,93	0
54	MG	CA	1602	1/1	0.08	-	64,64,64,64	0
54	MG	DA	3194	1/1	0.34	-	10,10,10,10	0
54	MG	BA	2927	1/1	0.30	-	37,37,37,37	0
54	MG	DA	2982	1/1	0.20	-	33,33,33,33	0
54	MG	BA	3074	1/1	0.20	-	61,61,61,61	0
54	MG	DA	3062	1/1	0.14	-	65,65,65,65	0
54	MG	DA	3159	1/1	1.07	-	87,87,87,87	0
54	MG	DA	3122	1/1	0.18	-	87,87,87,87	0
54	MG	DA	3193	1/1	0.55	-	51,51,51,51	0
54	MG	BA	3060	1/1	0.69	-	74,74,74,74	0
54	MG	AA	1730	1/1	0.10	-	49,49,49,49	0
54	MG	DA	3257	1/1	0.21	-	94,94,94,94	0
54	MG	DA	3007	1/1	0.18	-	43,43,43,43	0
54	MG	BB	210	1/1	0.11	-	100,100,100,100	0
54	MG	BA	3045	1/1	0.12	-	80,80,80,80	0
54	MG	DA	3073	1/1	0.12	-	80,80,80,80	0
54	MG	CA	1668	1/1	1.15	-	116,116,116,116	0
54	MG	DA	3098	1/1	0.36	-	71,71,71,71	0
54	MG	BA	3066	1/1	0.48	-	56,56,56,56	0
54	MG	BA	2935	1/1	0.52	-	34,34,34,34	0
54	MG	BA	3029	1/1	0.56	-	63,63,63,63	0
54	MG	DA	3196	1/1	1.06	-	39,39,39,39	0
54	MG	DA	3028	1/1	0.16	-	78,78,78,78	0
54	MG	BB	205	1/1	0.43	-	71,71,71,71	0
54	MG	BA	3190	1/1	0.34	-	115,115,115,115	0
54	MG	BA	3300	1/1	0.47	-	83,83,83,83	0
54	MG	CA	1724	1/1	0.25	-	74,74,74,74	0
54	MG	BA	3225	1/1	0.57	-	74,74,74,74	0
54	MG	BA	3069	1/1	0.11	-	109,109,109,109	0
54	MG	BA	3137	1/1	0.53	-	54,54,54,54	0
54	MG	BA	2946	1/1	0.47	-	33,33,33,33	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	BA	3117	1/1	0.13	-	77,77,77,77	0
54	MG	DA	3002	1/1	0.44	-	59,59,59,59	0
54	MG	DA	2939	1/1	0.18	-	40,40,40,40	0
54	MG	DA	3219	1/1	0.31	-	67,67,67,67	0
54	MG	DA	2969	1/1	0.21	-	42,42,42,42	0
54	MG	BB	214	1/1	0.22	-	101,101,101,101	0
54	MG	DA	2978	1/1	0.27	-	44,44,44,44	0
54	MG	BA	2923	1/1	0.34	-	29,29,29,29	0
54	MG	AA	1691	1/1	0.36	-	78,78,78,78	0
54	MG	BA	3042	1/1	0.12	-	90,90,90,90	0
54	MG	DA	3065	1/1	0.40	-	56,56,56,56	0
54	MG	BA	3023	1/1	0.56	-	64,64,64,64	0
54	MG	BA	3116	1/1	0.50	-	85,85,85,85	0
54	MG	CA	1639	1/1	0.62	-	66,66,66,66	0
54	MG	BA	2918	1/1	0.35	-	17,17,17,17	0
54	MG	DA	2997	1/1	0.13	-	35,35,35,35	0
54	MG	DA	3107	1/1	0.27	-	67,67,67,67	0
54	MG	DA	2952	1/1	0.35	-	50,50,50,50	0
54	MG	AA	1706	1/1	0.26	-	103,103,103,103	0
54	MG	CA	1740	1/1	0.25	-	117,117,117,117	0
54	MG	BA	3052	1/1	0.24	-	56,56,56,56	0
54	MG	BA	2955	1/1	0.20	-	50,50,50,50	0
54	MG	DA	3169	1/1	0.13	-	112,112,112,112	0
54	MG	DA	2940	1/1	0.70	-	51,51,51,51	0
54	MG	DA	3031	1/1	0.07	-	62,62,62,62	0
54	MG	CA	1710	1/1	0.20	-	119,119,119,119	0
54	MG	BA	3026	1/1	0.41	-	82,82,82,82	0
54	MG	DA	3227	1/1	0.34	-	34,34,34,34	0
54	MG	BA	2901	1/1	0.40	-	23,23,23,23	0
54	MG	DA	3276	1/1	0.20	-	128,128,128,128	0
54	MG	DB	212	1/1	0.17	-	70,70,70,70	0
54	MG	AA	1741	1/1	0.13	-	74,74,74,74	0
54	MG	DA	3205	1/1	0.32	-	48,48,48,48	0
54	MG	AA	1668	1/1	0.13	-	90,90,90,90	0
54	MG	DA	2908	1/1	0.26	-	24,24,24,24	0
54	MG	DA	3312	1/1	0.61	-	66,66,66,66	0
54	MG	DA	3252	1/1	0.11	-	44,44,44,44	0
54	MG	CA	1705	1/1	0.20	-	54,54,54,54	0
54	MG	DA	2995	1/1	0.51	-	48,48,48,48	0
54	MG	DA	3020	1/1	0.20	-	63,63,63,63	0
54	MG	DA	3123	1/1	0.07	-	59,59,59,59	0
54	MG	DA	3047	1/1	0.38	-	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	DA	3281	1/1	0.28	-	73,73,73,73	0
54	MG	DA	3004	1/1	0.32	-	67,67,67,67	0
54	MG	BA	2968	1/1	0.48	-	51,51,51,51	0
54	MG	BA	3249	1/1	0.29	-	37,37,37,37	0
54	MG	DA	3234	1/1	0.12	-	130,130,130,130	0
54	MG	DA	2934	1/1	0.47	-	25,25,25,25	0
54	MG	BA	3022	1/1	0.19	-	77,77,77,77	0
54	MG	AA	1672	1/1	0.62	-	101,101,101,101	0
54	MG	BA	2914	1/1	0.46	-	31,31,31,31	0
54	MG	DA	3109	1/1	0.29	-	54,54,54,54	0
54	MG	DA	2936	1/1	0.40	-	27,27,27,27	0
54	MG	DA	3226	1/1	0.44	-	80,80,80,80	0
54	MG	BA	2910	1/1	0.53	-	27,27,27,27	0
54	MG	CA	1719	1/1	0.10	-	78,78,78,78	0
54	MG	BA	3142	1/1	0.08	-	89,89,89,89	0
54	MG	BA	3302	1/1	0.31	-	121,121,121,121	0
54	MG	BA	3167	1/1	0.11	-	50,50,50,50	0
54	MG	BA	3209	1/1	0.25	-	69,69,69,69	0
54	MG	AA	1631	1/1	0.32	-	70,70,70,70	0
54	MG	DA	2975	1/1	0.07	-	58,58,58,58	0
54	MG	AA	1637	1/1	0.41	-	61,61,61,61	0
54	MG	DA	2944	1/1	0.34	-	35,35,35,35	0
54	MG	DA	3053	1/1	0.25	-	61,61,61,61	0
54	MG	BA	3220	1/1	0.34	-	56,56,56,56	0
54	MG	DA	3189	1/1	0.28	-	37,37,37,37	0
54	MG	BA	3292	1/1	0.21	-	72,72,72,72	0
54	MG	BA	3243	1/1	0.17	-	82,82,82,82	0
54	MG	CA	1676	1/1	0.39	-	82,82,82,82	0
54	MG	BA	3043	1/1	0.34	-	70,70,70,70	0
54	MG	AA	1647	1/1	0.23	-	85,85,85,85	0
54	MG	AA	1735	1/1	0.16	-	104,104,104,104	0
54	MG	DA	2943	1/1	0.43	-	32,32,32,32	0
54	MG	DA	3018	1/1	0.15	-	73,73,73,73	0
54	MG	DA	3284	1/1	0.32	-	134,134,134,134	0
54	MG	AA	1719	1/1	0.27	-	78,78,78,78	0
54	MG	AA	1620	1/1	0.23	-	56,56,56,56	0
54	MG	DA	2991	1/1	0.24	-	31,31,31,31	0
54	MG	AA	1697	1/1	0.37	-	80,80,80,80	0
54	MG	AA	1619	1/1	0.20	-	80,80,80,80	0
54	MG	DA	2911	1/1	0.40	-	7,7,7,7	0
54	MG	AA	1756	1/1	0.20	-	106,106,106,106	0
54	MG	BA	3175	1/1	0.22	-	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	DA	3012	1/1	0.38	-	45,45,45,45	0
54	MG	BA	3266	1/1	0.26	-	98,98,98,98	0
54	MG	DA	2938	1/1	0.30	-	66,66,66,66	0
54	MG	BA	2991	1/1	0.15	-	36,36,36,36	0
54	MG	BA	2979	1/1	0.26	-	40,40,40,40	0
54	MG	DA	3222	1/1	0.55	-	70,70,70,70	0
54	MG	DA	3139	1/1	0.13	-	60,60,60,60	0
54	MG	BA	3257	1/1	0.37	-	64,64,64,64	0
54	MG	DB	204	1/1	0.11	-	75,75,75,75	0
54	MG	DA	3238	1/1	0.27	-	58,58,58,58	0
54	MG	BA	3168	1/1	0.17	-	76,76,76,76	0
54	MG	AA	1685	1/1	0.20	-	106,106,106,106	0
54	MG	BA	2966	1/1	0.12	-	75,75,75,75	0
54	MG	BA	2987	1/1	0.29	-	59,59,59,59	0
54	MG	BA	3264	1/1	0.09	-	116,116,116,116	0
54	MG	BA	2980	1/1	0.24	-	40,40,40,40	0
54	MG	BA	2953	1/1	0.15	-	37,37,37,37	0
54	MG	BA	3004	1/1	1.27	-	74,74,74,74	0
54	MG	CA	1672	1/1	0.35	-	62,62,62,62	0
54	MG	CA	1612	1/1	0.92	-	58,58,58,58	0
54	MG	DA	3106	1/1	0.41	-	67,67,67,67	0
54	MG	DA	3200	1/1	0.12	-	87,87,87,87	0
54	MG	DB	202	1/1	0.65	-	64,64,64,64	0
54	MG	CA	1645	1/1	0.63	-	72,72,72,72	0
54	MG	BB	213	1/1	0.66	-	84,84,84,84	0
54	MG	BA	3179	1/1	0.46	-	19,19,19,19	0
54	MG	DA	3199	1/1	0.70	-	38,38,38,38	0
54	MG	AA	1711	1/1	0.58	-	53,53,53,53	0
54	MG	DA	2985	1/1	0.41	-	48,48,48,48	0
54	MG	DA	3315	1/1	0.17	-	52,52,52,52	0
54	MG	BA	2998	1/1	0.28	-	46,46,46,46	0
54	MG	AV	6302	1/1	0.55	-	121,121,121,121	0
54	MG	CA	1681	1/1	0.50	-	81,81,81,81	0
54	MG	DA	3033	1/1	0.50	-	101,101,101,101	0
54	MG	BA	3248	1/1	0.12	-	77,77,77,77	0
54	MG	CA	1725	1/1	0.19	-	105,105,105,105	0
54	MG	DB	213	1/1	0.48	-	63,63,63,63	0
54	MG	BA	3131	1/1	0.27	-	67,67,67,67	0
54	MG	BA	3093	1/1	0.32	-	83,83,83,83	0
54	MG	DA	2970	1/1	0.22	-	67,67,67,67	0
54	MG	AA	1713	1/1	0.32	-	93,93,93,93	0
54	MG	BA	3018	1/1	0.35	-	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	AA	1755	1/1	0.19	-	103,103,103,103	0
54	MG	DA	3085	1/1	0.13	-	89,89,89,89	0
54	MG	BA	3083	1/1	0.33	-	87,87,87,87	0
54	MG	BA	3143	1/1	0.69	-	84,84,84,84	0
54	MG	DA	3197	1/1	0.37	-	28,28,28,28	0
54	MG	BA	3233	1/1	0.25	-	52,52,52,52	0
54	MG	DA	3188	1/1	0.48	-	9,9,9,9	0
54	MG	BA	3007	1/1	0.17	-	55,55,55,55	0
54	MG	BA	3290	1/1	0.28	-	42,42,42,42	0
54	MG	CA	1647	1/1	0.33	-	77,77,77,77	0
54	MG	AA	1607	1/1	0.21	-	54,54,54,54	0
54	MG	BA	3273	1/1	0.21	-	83,83,83,83	0
54	MG	DA	2998	1/1	0.43	-	68,68,68,68	0
54	MG	DA	3264	1/1	0.24	-	61,61,61,61	0
54	MG	BA	3180	1/1	0.27	-	26,26,26,26	0
54	MG	AA	1634	1/1	0.18	-	70,70,70,70	0
54	MG	BA	2995	1/1	0.19	-	47,47,47,47	0
54	MG	DA	3131	1/1	0.41	-	66,66,66,66	0
54	MG	DA	3216	1/1	0.67	-	46,46,46,46	0
54	MG	CA	1738	1/1	0.47	-	81,81,81,81	0
54	MG	AA	1621	1/1	0.61	-	74,74,74,74	0
54	MG	AA	1612	1/1	0.27	-	64,64,64,64	0
54	MG	BA	2993	1/1	0.24	-	58,58,58,58	0
54	MG	AA	1724	1/1	0.27	-	85,85,85,85	0
54	MG	DA	3255	1/1	0.14	-	101,101,101,101	0
54	MG	DA	2961	1/1	0.14	-	29,29,29,29	0
54	MG	DA	3224	1/1	0.18	-	72,72,72,72	0
54	MG	BA	2976	1/1	0.48	-	70,70,70,70	0
54	MG	DA	3231	1/1	0.71	-	60,60,60,60	0
54	MG	BA	3172	1/1	0.49	-	102,102,102,102	0
54	MG	DA	3153	1/1	0.18	-	85,85,85,85	0
54	MG	CA	1706	1/1	0.52	-	101,101,101,101	0
54	MG	AA	1748	1/1	0.17	-	96,96,96,96	0
54	MG	BA	3297	1/1	0.39	-	67,67,67,67	0
54	MG	BA	3049	1/1	0.18	-	86,86,86,86	0
54	MG	BA	3230	1/1	0.52	-	44,44,44,44	0
54	MG	BA	3288	1/1	0.62	-	62,62,62,62	0
54	MG	BA	3021	1/1	0.22	-	60,60,60,60	0
54	MG	DA	3217	1/1	0.16	-	56,56,56,56	0
54	MG	BA	3199	1/1	0.68	-	68,68,68,68	0
54	MG	AA	1661	1/1	0.43	-	65,65,65,65	0
54	MG	DA	3145	1/1	0.43	-	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	BA	3151	1/1	0.55	-	56,56,56,56	0
54	MG	DA	3302	1/1	0.56	-	77,77,77,77	0
54	MG	DA	3060	1/1	0.16	-	87,87,87,87	0
54	MG	BA	3102	1/1	0.17	-	69,69,69,69	0
54	MG	DA	3301	1/1	0.28	-	80,80,80,80	0
54	MG	BA	3241	1/1	0.25	-	60,60,60,60	0
54	MG	BB	216	1/1	0.23	-	79,79,79,79	0
54	MG	DA	2992	1/1	0.17	-	46,46,46,46	0
54	MG	CA	1700	1/1	0.47	-	65,65,65,65	0
54	MG	DA	3249	1/1	0.40	-	56,56,56,56	0
54	MG	BA	2956	1/1	0.38	-	35,35,35,35	0
54	MG	BA	3229	1/1	0.35	-	62,62,62,62	0
54	MG	DA	3311	1/1	0.12	-	95,95,95,95	0
54	MG	BA	3065	1/1	0.21	-	61,61,61,61	0
54	MG	CA	1626	1/1	0.30	-	65,65,65,65	0
54	MG	BA	3028	1/1	0.58	-	62,62,62,62	0
54	MG	BA	3188	1/1	0.42	-	45,45,45,45	0
54	MG	BA	3269	1/1	0.26	-	63,63,63,63	0
54	MG	CA	1702	1/1	0.71	-	68,68,68,68	0
54	MG	DG	201	1/1	0.49	-	101,101,101,101	0
54	MG	DA	3048	1/1	0.09	-	66,66,66,66	0
54	MG	AA	1657	1/1	0.47	-	101,101,101,101	0
54	MG	BA	3205	1/1	0.27	-	38,38,38,38	0
54	MG	DA	3056	1/1	0.19	-	48,48,48,48	0
54	MG	DA	3029	1/1	0.24	-	70,70,70,70	0
54	MG	AA	1758	1/1	0.11	-	73,73,73,73	0
54	MG	BA	3006	1/1	0.52	-	77,77,77,77	0
54	MG	DA	2984	1/1	0.18	-	66,66,66,66	0
54	MG	BA	2949	1/1	0.20	-	47,47,47,47	0
54	MG	CA	1730	1/1	0.10	-	122,122,122,122	0
54	MG	DA	3331	1/1	0.18	-	52,52,52,52	0
54	MG	CA	1614	1/1	0.43	-	89,89,89,89	0
54	MG	BA	2904	1/1	0.39	-	13,13,13,13	0
54	MG	BA	2943	1/1	0.36	-	42,42,42,42	0
54	MG	DA	3236	1/1	0.53	-	63,63,63,63	0
54	MG	BA	2913	1/1	0.32	-	16,16,16,16	0
54	MG	BB	202	1/1	0.26	-	75,75,75,75	0
54	MG	DA	3316	1/1	0.23	-	97,97,97,97	0
54	MG	BA	2909	1/1	0.40	-	24,24,24,24	0
54	MG	CA	1680	1/1	0.33	-	58,58,58,58	0
54	MG	DA	3146	1/1	0.12	-	95,95,95,95	0
54	MG	DA	3067	1/1	0.18	-	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	BA	2920	1/1	0.36	-	28,28,28,28	0
54	MG	CA	1655	1/1	0.25	-	80,80,80,80	0
54	MG	BA	3296	1/1	0.17	-	47,47,47,47	0
54	MG	BA	3236	1/1	0.23	-	119,119,119,119	0
54	MG	BA	2964	1/1	0.45	-	30,30,30,30	0
54	MG	DA	3072	1/1	0.56	-	73,73,73,73	0
54	MG	DA	3241	1/1	0.54	-	54,54,54,54	0
54	MG	CA	1696	1/1	0.24	-	133,133,133,133	0
54	MG	AA	1703	1/1	0.15	-	83,83,83,83	0
54	MG	AA	1759	1/1	0.08	-	81,81,81,81	0
54	MG	BA	3144	1/1	0.36	-	75,75,75,75	0
54	MG	AA	1615	1/1	0.14	-	42,42,42,42	0
54	MG	DA	3134	1/1	0.18	-	71,71,71,71	0
54	MG	BA	3070	1/1	0.36	-	75,75,75,75	0
54	MG	AA	1644	1/1	0.32	-	53,53,53,53	0
54	MG	BA	3126	1/1	0.13	-	54,54,54,54	0
54	MG	DA	3180	1/1	0.16	-	77,77,77,77	0
54	MG	BA	3262	1/1	0.33	-	60,60,60,60	0
54	MG	DA	2967	1/1	0.34	-	54,54,54,54	0
54	MG	DA	3015	1/1	0.23	-	74,74,74,74	0
54	MG	CA	1684	1/1	0.10	-	117,117,117,117	0
54	MG	DA	3161	1/1	0.30	-	74,74,74,74	0
54	MG	DA	3074	1/1	0.29	-	64,64,64,64	0
54	MG	BA	3170	1/1	0.11	-	64,64,64,64	0
54	MG	DA	3148	1/1	0.21	-	99,99,99,99	0
54	MG	BA	2950	1/1	0.20	-	32,32,32,32	0
54	MG	BA	3124	1/1	0.33	-	89,89,89,89	0
54	MG	DB	203	1/1	0.22	-	82,82,82,82	0
54	MG	DA	3046	1/1	0.08	-	76,76,76,76	0
54	MG	DA	3214	1/1	0.34	-	46,46,46,46	0
54	MG	CA	1662	1/1	0.76	-	86,86,86,86	0
54	MG	DA	2971	1/1	0.34	-	47,47,47,47	0
54	MG	DA	3254	1/1	0.40	-	79,79,79,79	0
54	MG	DA	3156	1/1	0.16	-	78,78,78,78	0
54	MG	CA	1609	1/1	0.24	-	93,93,93,93	0
54	MG	DA	3324	1/1	0.51	-	78,78,78,78	0
54	MG	DB	205	1/1	0.07	-	79,79,79,79	0
54	MG	BA	3054	1/1	0.23	-	46,46,46,46	0
54	MG	BA	2975	1/1	0.18	-	37,37,37,37	0
54	MG	AA	1677	1/1	0.50	-	64,64,64,64	0
54	MG	DA	2999	1/1	0.47	-	76,76,76,76	0
54	MG	BA	3291	1/1	0.28	-	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	BB	208	1/1	0.45	-	109,109,109,109	0
54	MG	BA	3213	1/1	0.32	-	101,101,101,101	0
54	MG	DA	3030	1/1	0.41	-	71,71,71,71	0
54	MG	CA	1607	1/1	0.28	-	52,52,52,52	0
54	MG	DB	211	1/1	0.11	-	109,109,109,109	0
54	MG	BA	3204	1/1	0.35	-	74,74,74,74	0
54	MG	BA	3287	1/1	0.39	-	74,74,74,74	0
54	MG	AA	1624	1/1	0.42	-	67,67,67,67	0
54	MG	AA	1669	1/1	0.34	-	110,110,110,110	0
54	MG	DA	3313	1/1	0.24	-	107,107,107,107	0
54	MG	BA	3271	1/1	0.18	-	91,91,91,91	0
54	MG	BA	3113	1/1	0.26	-	71,71,71,71	0
54	MG	BA	3087	1/1	0.08	-	69,69,69,69	0
54	MG	BA	3110	1/1	0.17	-	86,86,86,86	0
54	MG	DA	2921	1/1	0.36	-	17,17,17,17	0
54	MG	DA	3176	1/1	0.22	-	83,83,83,83	0
54	MG	BA	2972	1/1	0.39	-	49,49,49,49	0
54	MG	BA	3061	1/1	0.24	-	91,91,91,91	0
54	MG	CA	1630	1/1	0.35	-	70,70,70,70	0
54	MG	BA	3307	1/1	0.11	-	68,68,68,68	0
54	MG	BA	3014	1/1	0.19	-	47,47,47,47	0
54	MG	AA	1720	1/1	0.25	-	69,69,69,69	0
54	MG	DA	3003	1/1	0.37	-	41,41,41,41	0
54	MG	DA	3292	1/1	0.38	-	33,33,33,33	0
54	MG	CA	1605	1/1	0.19	-	56,56,56,56	0
54	MG	BA	2929	1/1	0.44	-	37,37,37,37	0
54	MG	DA	3282	1/1	0.13	-	96,96,96,96	0
54	MG	DA	2913	1/1	0.41	-	17,17,17,17	0
54	MG	BA	3278	1/1	0.32	-	115,115,115,115	0
54	MG	DA	3168	1/1	0.47	-	94,94,94,94	0
54	MG	CA	1634	1/1	0.28	-	60,60,60,60	0
54	MG	AA	1702	1/1	1.06	-	94,94,94,94	0
54	MG	AA	1743	1/1	0.49	-	83,83,83,83	0
54	MG	BA	2902	1/1	0.49	-	16,16,16,16	0
54	MG	BA	3058	1/1	0.08	-	114,114,114,114	0
54	MG	CA	1686	1/1	0.23	-	60,60,60,60	0
54	MG	DA	2928	1/1	0.25	-	43,43,43,43	0
54	MG	CA	1622	1/1	0.25	-	79,79,79,79	0
54	MG	DA	2926	1/1	0.25	-	43,43,43,43	0
54	MG	DA	3013	1/1	0.29	-	44,44,44,44	0
54	MG	BA	3041	1/1	0.21	-	67,67,67,67	0
54	MG	BA	3192	1/1	0.59	-	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	DA	3050	1/1	0.09	-	105,105,105,105	0
54	MG	DA	2916	1/1	0.28	-	22,22,22,22	0
54	MG	BA	3001	1/1	0.30	-	59,59,59,59	0
54	MG	CA	1625	1/1	0.09	-	94,94,94,94	0
54	MG	DA	3006	1/1	0.09	-	74,74,74,74	0
54	MG	DA	3043	1/1	0.74	-	70,70,70,70	0
54	MG	DA	3151	1/1	0.36	-	82,82,82,82	0
54	MG	DA	2942	1/1	0.28	-	39,39,39,39	0
54	MG	CA	1688	1/1	0.37	-	99,99,99,99	0
54	MG	DA	3129	1/1	0.26	-	63,63,63,63	0
54	MG	DA	3260	1/1	0.64	-	102,102,102,102	0
54	MG	DA	3149	1/1	0.52	-	74,74,74,74	0
54	MG	BA	3237	1/1	0.17	-	60,60,60,60	0
54	MG	BA	3103	1/1	0.24	-	88,88,88,88	0
54	MG	AA	1613	1/1	0.15	-	47,47,47,47	0
54	MG	CA	1629	1/1	0.16	-	106,106,106,106	0
54	MG	BA	3169	1/1	0.49	-	75,75,75,75	0
54	MG	DA	3009	1/1	0.49	-	49,49,49,49	0
54	MG	BA	2971	1/1	0.41	-	65,65,65,65	0
54	MG	BA	3078	1/1	0.14	-	83,83,83,83	0
54	MG	AA	1667	1/1	0.53	-	61,61,61,61	0
54	MG	DA	3299	1/1	0.22	-	68,68,68,68	0
54	MG	BA	3277	1/1	0.23	-	71,71,71,71	0
54	MG	DA	3248	1/1	0.35	-	75,75,75,75	0
54	MG	DA	3054	1/1	0.17	-	75,75,75,75	0
54	MG	BA	3127	1/1	0.79	-	56,56,56,56	0
54	MG	CA	1623	1/1	0.54	-	99,99,99,99	0
54	MG	AA	1627	1/1	0.11	-	85,85,85,85	0
54	MG	BA	3053	1/1	0.23	-	67,67,67,67	0
54	MG	BA	3027	1/1	0.57	-	62,62,62,62	0
54	MG	CA	1671	1/1	0.22	-	74,74,74,74	0
54	MG	CA	1635	1/1	0.15	-	67,67,67,67	0
54	MG	BA	3270	1/1	0.24	-	61,61,61,61	0
54	MG	BA	3253	1/1	0.47	-	76,76,76,76	0
54	MG	BA	2921	1/1	0.39	-	21,21,21,21	0
54	MG	DA	3132	1/1	0.07	-	70,70,70,70	0
54	MG	BA	2924	1/1	0.48	-	47,47,47,47	0
54	MG	BA	3235	1/1	0.11	-	62,62,62,62	0
54	MG	DA	2902	1/1	0.39	-	10,10,10,10	0
54	MG	DA	3322	1/1	0.35	-	95,95,95,95	0
54	MG	DA	2965	1/1	0.49	-	57,57,57,57	0
54	MG	DA	3192	1/1	0.27	-	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	AA	1763	1/1	0.16	-	96,96,96,96	0
54	MG	DB	216	1/1	0.43	-	88,88,88,88	0
54	MG	BA	3063	1/1	0.22	-	56,56,56,56	0
54	MG	DA	3314	1/1	0.82	-	102,102,102,102	0
54	MG	BA	3030	1/1	0.16	-	57,57,57,57	0
54	MG	BA	2945	1/1	0.29	-	72,72,72,72	0
54	MG	BA	3039	1/1	0.18	-	94,94,94,94	0
54	MG	CA	1685	1/1	0.55	-	106,106,106,106	0
54	MG	BA	3244	1/1	0.74	-	47,47,47,47	0
54	MG	AA	1684	1/1	0.40	-	95,95,95,95	0
54	MG	DA	3011	1/1	0.17	-	99,99,99,99	0
54	MG	BA	3173	1/1	0.40	-	80,80,80,80	0
54	MG	CA	1728	1/1	0.36	-	82,82,82,82	0
54	MG	DA	3096	1/1	0.31	-	40,40,40,40	0
54	MG	DA	2930	1/1	0.21	-	36,36,36,36	0
54	MG	AA	1674	1/1	0.47	-	79,79,79,79	0
54	MG	DA	3268	1/1	0.42	-	81,81,81,81	0
54	MG	BA	3089	1/1	0.32	-	59,59,59,59	0
54	MG	AA	1663	1/1	0.14	-	70,70,70,70	0
55	ZN	CN	101	1/1	0.08	-	144,144,144,144	0
54	MG	BA	3308	1/1	0.52	-	94,94,94,94	0
54	MG	DA	3055	1/1	0.79	-	93,93,93,93	0
54	MG	DA	2935	1/1	0.57	-	30,30,30,30	0
54	MG	AA	1690	1/1	0.08	-	117,117,117,117	0
54	MG	AA	1708	1/1	0.14	-	101,101,101,101	0
54	MG	B2	101	1/1	0.53	-	64,64,64,64	0
54	MG	DA	3179	1/1	0.21	-	68,68,68,68	0
54	MG	AA	1664	1/1	0.56	-	103,103,103,103	0
54	MG	BA	3226	1/1	0.32	-	81,81,81,81	0
54	MG	BA	3282	1/1	0.30	-	62,62,62,62	0
54	MG	BA	3231	1/1	0.17	-	22,22,22,22	0
54	MG	BA	3306	1/1	0.34	-	74,74,74,74	0
54	MG	BK	201	1/1	0.24	-	91,91,91,91	0
54	MG	CA	1638	1/1	0.25	-	65,65,65,65	0
54	MG	BA	2970	1/1	0.59	-	45,45,45,45	0
54	MG	CA	1643	1/1	0.13	-	58,58,58,58	0
54	MG	DA	3150	1/1	0.29	-	62,62,62,62	0
54	MG	DA	3294	1/1	0.29	-	61,61,61,61	0
54	MG	DA	2945	1/1	0.65	-	41,41,41,41	0
54	MG	AA	1609	1/1	0.61	-	70,70,70,70	0
54	MG	BA	3216	1/1	0.27	-	65,65,65,65	0
54	MG	BA	3218	1/1	0.68	-	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	DA	3171	1/1	0.26	-	61,61,61,61	0
54	MG	CA	1695	1/1	0.41	-	80,80,80,80	0
54	MG	CA	1683	1/1	0.38	-	91,91,91,91	0
54	MG	CA	1613	1/1	0.24	-	87,87,87,87	0
54	MG	DA	3228	1/1	0.39	-	51,51,51,51	0
54	MG	AA	1639	1/1	0.35	-	79,79,79,79	0
54	MG	DA	3082	1/1	0.39	-	70,70,70,70	0
54	MG	AA	1643	1/1	0.28	-	70,70,70,70	0
54	MG	CA	1606	1/1	0.12	-	68,68,68,68	0
54	MG	BA	3080	1/1	0.12	-	73,73,73,73	0
54	MG	DA	2947	1/1	0.30	-	40,40,40,40	0
54	MG	BA	3139	1/1	0.27	-	78,78,78,78	0
54	MG	DA	3051	1/1	0.20	-	89,89,89,89	0
54	MG	DA	3041	1/1	0.16	-	51,51,51,51	0
54	MG	BA	3193	1/1	0.39	-	53,53,53,53	0
54	MG	DA	2914	1/1	0.42	-	27,27,27,27	0
54	MG	BA	2986	1/1	0.26	-	67,67,67,67	0
54	MG	AA	1736	1/1	0.10	-	79,79,79,79	0
54	MG	DA	2931	1/1	0.27	-	23,23,23,23	0
54	MG	BA	3163	1/1	0.47	-	72,72,72,72	0
54	MG	DA	3005	1/1	0.31	-	33,33,33,33	0
54	MG	BA	3203	1/1	0.18	-	41,41,41,41	0
54	MG	AA	1605	1/1	0.56	-	42,42,42,42	0
54	MG	BA	3003	1/1	0.31	-	48,48,48,48	0
54	MG	DA	2901	1/1	0.46	-	7,7,7,7	0
54	MG	DA	3059	1/1	0.22	-	67,67,67,67	0
54	MG	DA	3286	1/1	0.24	-	98,98,98,98	0
54	MG	DA	3112	1/1	0.20	-	60,60,60,60	0
54	MG	BA	3081	1/1	0.13	-	65,65,65,65	0
54	MG	DA	3191	1/1	0.49	-	24,24,24,24	0
54	MG	CA	1734	1/1	0.14	-	117,117,117,117	0
54	MG	BA	2957	1/1	0.53	-	35,35,35,35	0
54	MG	AA	1671	1/1	0.14	-	114,114,114,114	0
54	MG	DA	3290	1/1	0.15	-	85,85,85,85	0
54	MG	DA	3212	1/1	0.46	-	78,78,78,78	0
54	MG	BA	3251	1/1	0.10	-	64,64,64,64	0
54	MG	BB	204	1/1	0.11	-	87,87,87,87	0
54	MG	DA	2912	1/1	0.43	-	18,18,18,18	0
54	MG	CA	1604	1/1	0.25	-	59,59,59,59	0
54	MG	DA	3211	1/1	0.23	-	38,38,38,38	0
54	MG	DA	3088	1/1	0.11	-	70,70,70,70	0
54	MG	AA	1749	1/1	0.26	-	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	DA	3275	1/1	0.18	-	78,78,78,78	0
54	MG	DA	3136	1/1	0.42	-	68,68,68,68	0
54	MG	BA	3111	1/1	0.51	-	46,46,46,46	0
54	MG	DA	2905	1/1	0.36	-	9,9,9,9	0
54	MG	AA	1652	1/1	0.24	-	89,89,89,89	0
54	MG	BA	3238	1/1	0.18	-	91,91,91,91	0
54	MG	BA	3161	1/1	0.25	-	62,62,62,62	0
54	MG	DA	2903	1/1	0.34	-	7,7,7,7	0
54	MG	BA	3260	1/1	0.15	-	62,62,62,62	0
54	MG	DA	3247	1/1	0.23	-	40,40,40,40	0
54	MG	DA	2923	1/1	0.24	-	17,17,17,17	0
54	MG	AA	1721	1/1	0.58	-	66,66,66,66	0
54	MG	BA	3095	1/1	0.13	-	83,83,83,83	0
54	MG	DA	3157	1/1	0.15	-	71,71,71,71	0
54	MG	AA	1717	1/1	0.33	-	81,81,81,81	0
54	MG	DA	3075	1/1	0.15	-	64,64,64,64	0
54	MG	BA	3012	1/1	0.15	-	91,91,91,91	0
54	MG	AA	1726	1/1	0.07	-	108,108,108,108	0
54	MG	DA	3014	1/1	0.40	-	69,69,69,69	0
54	MG	BA	3155	1/1	0.30	-	85,85,85,85	0
54	MG	BA	3034	1/1	0.80	-	102,102,102,102	0
54	MG	DA	2968	1/1	0.33	-	56,56,56,56	0
54	MG	BA	3118	1/1	0.49	-	109,109,109,109	0
54	MG	CA	1732	1/1	0.17	-	73,73,73,73	0
54	MG	DA	3245	1/1	0.49	-	54,54,54,54	0
54	MG	BA	3129	1/1	0.11	-	75,75,75,75	0
54	MG	BA	3294	1/1	0.18	-	64,64,64,64	0
54	MG	DA	3155	1/1	0.07	-	124,124,124,124	0
54	MG	DA	3278	1/1	0.36	-	75,75,75,75	0
54	MG	DA	2974	1/1	0.10	-	46,46,46,46	0
54	MG	BA	3185	1/1	0.24	-	56,56,56,56	0
54	MG	DB	206	1/1	0.35	-	99,99,99,99	0
54	MG	DA	3318	1/1	0.29	-	101,101,101,101	0
54	MG	DA	3288	1/1	0.28	-	78,78,78,78	0
54	MG	BA	2931	1/1	0.54	-	32,32,32,32	0
54	MG	DA	3303	1/1	0.17	-	66,66,66,66	0
54	MG	DA	3038	1/1	0.27	-	71,71,71,71	0
54	MG	BA	3013	1/1	0.11	-	90,90,90,90	0
54	MG	DA	3297	1/1	0.39	-	49,49,49,49	0
54	MG	BA	3136	1/1	0.21	-	87,87,87,87	0
54	MG	CA	1637	1/1	0.20	-	112,112,112,112	0
54	MG	BA	3098	1/1	0.18	-	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	DA	3202	1/1	0.64	-	44,44,44,44	0
54	MG	AA	1617	1/1	0.21	-	77,77,77,77	0
54	MG	BA	2928	1/1	0.39	-	42,42,42,42	0
54	MG	AA	1625	1/1	1.02	-	88,88,88,88	0
54	MG	DA	3172	1/1	0.38	-	81,81,81,81	0
54	MG	DA	2951	1/1	0.20	-	38,38,38,38	0
54	MG	AA	1744	1/1	0.22	-	82,82,82,82	0
54	MG	CA	1677	1/1	0.34	-	85,85,85,85	0
54	MG	BA	2959	1/1	0.39	-	55,55,55,55	0
54	MG	DA	3232	1/1	0.35	-	39,39,39,39	0
54	MG	DA	3325	1/1	0.72	-	92,92,92,92	0
54	MG	DA	3133	1/1	0.14	-	89,89,89,89	0
54	MG	BA	3183	1/1	0.33	-	27,27,27,27	0
54	MG	BA	3281	1/1	0.22	-	84,84,84,84	0
54	MG	BA	3104	1/1	0.33	-	63,63,63,63	0
54	MG	BA	2906	1/1	0.20	-	5,5,5,5	0
54	MG	AA	1632	1/1	0.09	-	68,68,68,68	0
54	MG	DA	3147	1/1	0.14	-	78,78,78,78	0
54	MG	DA	3077	1/1	0.71	-	67,67,67,67	0
54	MG	DA	3022	1/1	0.26	-	60,60,60,60	0
54	MG	AA	1710	1/1	0.27	-	65,65,65,65	0
54	MG	DA	3182	1/1	0.38	-	86,86,86,86	0
54	MG	BA	3181	1/1	0.51	-	22,22,22,22	0
54	MG	BA	2934	1/1	0.42	-	28,28,28,28	0
54	MG	BA	3082	1/1	0.19	-	61,61,61,61	0
54	MG	BA	3265	1/1	0.34	-	80,80,80,80	0
54	MG	BA	3055	1/1	0.20	-	60,60,60,60	0
54	MG	BA	3140	1/1	0.41	-	76,76,76,76	0
54	MG	CA	1674	1/1	0.17	-	74,74,74,74	0
54	MG	DA	2907	1/1	0.46	-	7,7,7,7	0
54	MG	DA	3204	1/1	0.17	-	54,54,54,54	0
54	MG	DA	3321	1/1	0.55	-	30,30,30,30	0
54	MG	DA	3328	1/1	0.07	-	45,45,45,45	0
54	MG	BA	3202	1/1	0.58	-	63,63,63,63	0
54	MG	DA	3035	1/1	0.50	-	77,77,77,77	0
54	MG	CA	1652	1/1	0.46	-	85,85,85,85	0
54	MG	DA	2918	1/1	0.36	-	15,15,15,15	0
54	MG	CA	1687	1/1	0.33	-	64,64,64,64	0
54	MG	BA	2922	1/1	0.44	-	25,25,25,25	0
54	MG	DA	2909	1/1	0.39	-	5,5,5,5	0
54	MG	AA	1750	1/1	0.28	-	109,109,109,109	0
54	MG	DA	3092	1/1	0.10	-	98,98,98,98	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	BA	3032	1/1	0.24	-	59,59,59,59	0
54	MG	BA	3000	1/1	0.17	-	65,65,65,65	0
54	MG	BA	3120	1/1	0.25	-	57,57,57,57	0
54	MG	DA	3130	1/1	0.29	-	82,82,82,82	0
54	MG	DA	2910	1/1	0.28	-	6,6,6,6	0
54	MG	DA	3277	1/1	0.33	-	52,52,52,52	0
54	MG	BA	2919	1/1	0.39	-	24,24,24,24	0
54	MG	DA	3100	1/1	0.44	-	59,59,59,59	0
54	MG	AA	1745	1/1	0.20	-	97,97,97,97	0
54	MG	BA	3177	1/1	0.24	-	93,93,93,93	0
54	MG	BA	3047	1/1	0.37	-	65,65,65,65	0
54	MG	BA	3067	1/1	0.09	-	86,86,86,86	0
54	MG	DA	3319	1/1	0.22	-	83,83,83,83	0
54	MG	DA	2960	1/1	0.34	-	42,42,42,42	0
54	MG	DA	2972	1/1	0.50	-	47,47,47,47	0
54	MG	AA	1747	1/1	0.74	-	75,75,75,75	0
54	MG	DA	3215	1/1	0.45	-	39,39,39,39	0
54	MG	CA	1660	1/1	0.10	-	100,100,100,100	0
54	MG	DA	2948	1/1	0.31	-	52,52,52,52	0
54	MG	DA	2933	1/1	0.46	-	30,30,30,30	0
54	MG	DA	3101	1/1	0.78	-	72,72,72,72	0
54	MG	DA	3280	1/1	0.21	-	84,84,84,84	0
54	MG	DA	3187	1/1	0.22	-	90,90,90,90	0
54	MG	DA	3137	1/1	0.18	-	68,68,68,68	0
54	MG	BA	3305	1/1	0.46	-	103,103,103,103	0
54	MG	BA	3198	1/1	0.23	-	81,81,81,81	0
54	MG	CA	1664	1/1	0.18	-	82,82,82,82	0
54	MG	BA	2926	1/1	0.55	-	31,31,31,31	0
54	MG	DA	3119	1/1	0.69	-	88,88,88,88	0
55	ZN	AD	301	1/1	0.27	-	80,80,80,80	0
54	MG	CA	1617	1/1	0.34	-	90,90,90,90	0
54	MG	DA	3272	1/1	0.37	-	41,41,41,41	0
54	MG	DA	3256	1/1	0.19	-	82,82,82,82	0
54	MG	BA	3211	1/1	0.41	-	59,59,59,59	0
54	MG	DA	2920	1/1	0.41	-	30,30,30,30	0
54	MG	BA	2961	1/1	0.39	-	43,43,43,43	0
54	MG	DA	3253	1/1	0.09	-	92,92,92,92	0
54	MG	DA	3083	1/1	0.22	-	67,67,67,67	0
54	MG	DA	2925	1/1	0.44	-	24,24,24,24	0
54	MG	DA	3008	1/1	0.51	-	59,59,59,59	0
54	MG	AA	1737	1/1	0.30	-	86,86,86,86	0
54	MG	DA	3295	1/1	0.26	-	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	AA	1689	1/1	0.31	-	68,68,68,68	0
54	MG	BA	3010	1/1	0.17	-	37,37,37,37	0
54	MG	BA	2981	1/1	0.16	-	48,48,48,48	0
54	MG	BA	3048	1/1	0.24	-	67,67,67,67	0
54	MG	BA	3035	1/1	0.36	-	44,44,44,44	0
54	MG	BA	3101	1/1	0.50	-	75,75,75,75	0
54	MG	CA	1722	1/1	0.47	-	108,108,108,108	0
54	MG	BA	2969	1/1	0.15	-	37,37,37,37	0
54	MG	BA	2937	1/1	0.33	-	36,36,36,36	0
54	MG	AA	1682	1/1	0.39	-	85,85,85,85	0
54	MG	BA	3122	1/1	0.22	-	101,101,101,101	0
54	MG	AA	1638	1/1	0.45	-	63,63,63,63	0
54	MG	DA	3240	1/1	0.33	-	60,60,60,60	0
54	MG	BA	3239	1/1	0.59	-	82,82,82,82	0
54	MG	DA	2981	1/1	0.30	-	55,55,55,55	0
54	MG	DA	2929	1/1	0.39	-	39,39,39,39	0
54	MG	BA	2974	1/1	0.32	-	45,45,45,45	0
54	MG	D4	101	1/1	0.57	-	55,55,55,55	0
54	MG	DA	3167	1/1	0.12	-	68,68,68,68	0
54	MG	CA	1708	1/1	0.18	-	143,143,143,143	0
54	MG	DA	3184	1/1	0.34	-	117,117,117,117	0
54	MG	DA	3269	1/1	0.55	-	91,91,91,91	0
54	MG	BA	2916	1/1	0.42	-	38,38,38,38	0
54	MG	BA	3005	1/1	0.52	-	69,69,69,69	0
54	MG	DA	2917	1/1	0.27	-	22,22,22,22	0
54	MG	CA	1689	1/1	0.34	-	83,83,83,83	0
54	MG	AA	1650	1/1	0.36	-	103,103,103,103	0
54	MG	DA	2932	1/1	0.52	-	38,38,38,38	0
54	MG	DA	3125	1/1	0.28	-	81,81,81,81	0
54	MG	AA	1727	1/1	0.14	-	100,100,100,100	0
54	MG	AA	1618	1/1	0.10	-	91,91,91,91	0
54	MG	AA	1604	1/1	0.11	-	57,57,57,57	0
54	MG	CA	1733	1/1	0.13	-	72,72,72,72	0
54	MG	AA	1673	1/1	0.46	-	61,61,61,61	0
54	MG	DB	207	1/1	0.32	-	72,72,72,72	0
54	MG	AV	6303	1/1	0.18	-	67,67,67,67	0
54	MG	BA	3149	1/1	0.65	-	82,82,82,82	0
54	MG	BA	2932	1/1	0.31	-	41,41,41,41	0
54	MG	DA	2954	1/1	0.27	-	28,28,28,28	0
54	MG	DA	3207	1/1	0.40	-	42,42,42,42	0
54	MG	AA	1642	1/1	0.56	-	97,97,97,97	0
54	MG	DA	3042	1/1	0.53	-	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	DA	3097	1/1	0.30	-	94,94,94,94	0
54	MG	CA	1726	1/1	0.35	-	87,87,87,87	0
54	MG	DA	2958	1/1	0.14	-	2,2,2,2	0
54	MG	AA	1659	1/1	0.36	-	51,51,51,51	0
54	MG	BA	3194	1/1	0.51	-	45,45,45,45	0
54	MG	BA	2944	1/1	0.14	-	17,17,17,17	0
54	MG	DA	3027	1/1	0.53	-	53,53,53,53	0
54	MG	CA	1682	1/1	0.20	-	97,97,97,97	0
54	MG	DA	3115	1/1	0.53	-	65,65,65,65	0
54	MG	DA	3261	1/1	0.28	-	73,73,73,73	0
54	MG	BA	3195	1/1	0.15	-	53,53,53,53	0
54	MG	CA	1737	1/1	0.20	-	70,70,70,70	0
54	MG	BA	3217	1/1	0.40	-	111,111,111,111	0
54	MG	BA	2948	1/1	0.69	-	39,39,39,39	0
54	MG	CA	1616	1/1	0.37	-	75,75,75,75	0
54	MG	BA	2973	1/1	0.19	-	61,61,61,61	0
54	MG	AV	6304	1/1	0.45	-	118,118,118,118	0
54	MG	AA	1729	1/1	0.17	-	75,75,75,75	0
54	MG	BA	2989	1/1	0.33	-	53,53,53,53	0
54	MG	AA	1665	1/1	0.26	-	82,82,82,82	0
54	MG	BA	3224	1/1	0.21	-	45,45,45,45	0
54	MG	AA	1739	1/1	0.19	-	129,129,129,129	0
54	MG	DA	3307	1/1	0.35	-	73,73,73,73	0
54	MG	DA	3223	1/1	0.60	-	45,45,45,45	0
54	MG	DA	3244	1/1	0.23	-	87,87,87,87	0
54	MG	DA	3039	1/1	0.33	-	48,48,48,48	0
54	MG	BA	2907	1/1	0.27	-	7,7,7,7	0
54	MG	DA	3239	1/1	0.22	-	42,42,42,42	0
54	MG	CA	1608	1/1	0.11	-	61,61,61,61	0
54	MG	CA	1736	1/1	1.00	-	115,115,115,115	0
54	MG	BA	2978	1/1	0.31	-	59,59,59,59	0
54	MG	BA	2939	1/1	0.49	-	26,26,26,26	0
54	MG	AA	1761	1/1	0.26	-	104,104,104,104	0
54	MG	BA	3286	1/1	0.31	-	67,67,67,67	0
54	MG	BA	2985	1/1	0.52	-	54,54,54,54	0
54	MG	CA	1611	1/1	0.23	-	76,76,76,76	0
54	MG	BA	3130	1/1	0.13	-	78,78,78,78	0
54	MG	DA	3258	1/1	0.48	-	72,72,72,72	0
54	MG	BA	3115	1/1	0.38	-	91,91,91,91	0
54	MG	AA	1656	1/1	0.27	-	72,72,72,72	0
54	MG	CA	1707	1/1	0.09	-	104,104,104,104	0
54	MG	DA	3118	1/1	0.29	-	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	BA	3176	1/1	0.37	-	99,99,99,99	0
54	MG	CA	1704	1/1	0.56	-	108,108,108,108	0
54	MG	CA	1739	1/1	0.11	-	99,99,99,99	0
54	MG	DA	3152	1/1	0.21	-	77,77,77,77	0
54	MG	DA	3068	1/1	0.36	-	72,72,72,72	0
54	MG	AA	1651	1/1	0.45	-	97,97,97,97	0
54	MG	DA	3120	1/1	0.62	-	66,66,66,66	0
54	MG	DA	3334	1/1	0.20	-	72,72,72,72	0
54	MG	DA	3225	1/1	0.07	-	80,80,80,80	0
54	MG	DA	3246	1/1	0.62	-	67,67,67,67	0
54	MG	CA	1628	1/1	0.19	-	100,100,100,100	0
54	MG	DA	2924	1/1	0.48	-	41,41,41,41	0
54	MG	DA	3251	1/1	0.41	-	63,63,63,63	0
54	MG	BA	3056	1/1	0.37	-	62,62,62,62	0
54	MG	DA	3287	1/1	0.39	-	69,69,69,69	0
54	MG	CA	1601	1/1	0.47	-	53,53,53,53	0
54	MG	CA	1618	1/1	0.72	-	63,63,63,63	0
54	MG	DA	3175	1/1	0.14	-	81,81,81,81	0
54	MG	BA	3158	1/1	0.14	-	105,105,105,105	0
54	MG	CA	1693	1/1	0.31	-	65,65,65,65	0
54	MG	BA	3002	1/1	0.33	-	45,45,45,45	0
54	MG	BA	2930	1/1	0.34	-	34,34,34,34	0
54	MG	DA	3164	1/1	0.06	-	88,88,88,88	0
54	MG	DA	3103	1/1	0.45	-	79,79,79,79	0
54	MG	DA	3237	1/1	0.29	-	87,87,87,87	0
54	MG	BA	3215	1/1	0.39	-	68,68,68,68	0
54	MG	AA	1679	1/1	0.38	-	78,78,78,78	0
54	MG	BA	3274	1/1	0.06	-	78,78,78,78	0
54	MG	AA	1614	1/1	0.51	-	85,85,85,85	0
54	MG	DA	2956	1/1	0.30	-	45,45,45,45	0
54	MG	BA	3295	1/1	0.63	-	70,70,70,70	0
54	MG	CA	1653	1/1	0.18	-	84,84,84,84	0
54	MG	DA	3267	1/1	0.30	-	76,76,76,76	0
54	MG	AA	1636	1/1	0.35	-	76,76,76,76	0
54	MG	BA	3279	1/1	0.47	-	77,77,77,77	0
54	MG	BA	3134	1/1	0.23	-	64,64,64,64	0
54	MG	DA	3016	1/1	0.18	-	74,74,74,74	0
54	MG	BA	3112	1/1	0.38	-	68,68,68,68	0
54	MG	DA	3181	1/1	0.16	-	106,106,106,106	0
54	MG	AA	1622	1/1	0.88	-	88,88,88,88	0
54	MG	BA	3160	1/1	0.42	-	106,106,106,106	0
54	MG	BA	2990	1/1	0.17	-	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	CA	1631	1/1	0.20	-	68,68,68,68	0
54	MG	AA	1699	1/1	0.29	-	91,91,91,91	0
54	MG	DA	3335	1/1	0.34	-	90,90,90,90	0
54	MG	BA	3133	1/1	0.27	-	67,67,67,67	0
54	MG	DA	3259	1/1	0.33	-	108,108,108,108	0
54	MG	DA	3309	1/1	0.37	-	30,30,30,30	0
54	MG	DA	2986	1/1	0.19	-	55,55,55,55	0
54	MG	CA	1698	1/1	0.21	-	117,117,117,117	0
54	MG	DA	3242	1/1	0.29	-	96,96,96,96	0
54	MG	BA	3148	1/1	0.34	-	68,68,68,68	0
54	MG	AA	1678	1/1	0.29	-	115,115,115,115	0
54	MG	AA	1662	1/1	0.15	-	53,53,53,53	0
54	MG	DA	3174	1/1	0.52	-	42,42,42,42	0
54	MG	BA	3154	1/1	0.18	-	89,89,89,89	0
54	MG	BA	2996	1/1	0.39	-	54,54,54,54	0
54	MG	BA	3242	1/1	0.34	-	44,44,44,44	0
54	MG	DA	2904	1/1	0.46	-	4,4,4,4	0
54	MG	DA	3021	1/1	0.18	-	67,67,67,67	0
54	MG	DA	3110	1/1	0.30	-	86,86,86,86	0
54	MG	BA	3125	1/1	0.37	-	87,87,87,87	0
54	MG	DA	3271	1/1	0.18	-	97,97,97,97	0
54	MG	CA	1721	1/1	0.24	-	101,101,101,101	0
54	MG	BB	207	1/1	0.12	-	105,105,105,105	0
54	MG	AA	1660	1/1	0.31	-	59,59,59,59	0
54	MG	DA	3140	1/1	0.12	-	67,67,67,67	0
54	MG	AA	1687	1/1	0.09	-	73,73,73,73	0
54	MG	DA	3165	1/1	0.66	-	71,71,71,71	0
54	MG	BB	215	1/1	0.14	-	131,131,131,131	0
54	MG	BA	3156	1/1	0.27	-	80,80,80,80	0
54	MG	BA	3227	1/1	0.17	-	48,48,48,48	0
54	MG	BA	3280	1/1	0.36	-	70,70,70,70	0
54	MG	DA	3158	1/1	0.18	-	59,59,59,59	0
54	MG	DA	3218	1/1	0.44	-	48,48,48,48	0
54	MG	CA	1691	1/1	0.29	-	85,85,85,85	0
54	MG	AA	1694	1/1	0.26	-	129,129,129,129	0
54	MG	DA	3090	1/1	0.20	-	71,71,71,71	0
54	MG	DA	3298	1/1	0.57	-	79,79,79,79	0
54	MG	BA	2960	1/1	0.52	-	40,40,40,40	0
54	MG	AA	1742	1/1	0.33	-	87,87,87,87	0
54	MG	BA	3051	1/1	0.28	-	66,66,66,66	0
54	MG	BA	3071	1/1	0.16	-	72,72,72,72	0
54	MG	DA	3206	1/1	0.33	-	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	DA	3160	1/1	0.15	-	71,71,71,71	0
54	MG	BA	3044	1/1	0.13	-	64,64,64,64	0
54	MG	AA	1680	1/1	0.15	-	90,90,90,90	0
54	MG	BB	206	1/1	0.23	-	70,70,70,70	0
54	MG	BA	3084	1/1	0.38	-	51,51,51,51	0
54	MG	CA	1692	1/1	0.87	-	78,78,78,78	0
54	MG	DA	2941	1/1	0.22	-	37,37,37,37	0
54	MG	DA	3279	1/1	0.08	-	88,88,88,88	0
54	MG	CA	1720	1/1	0.38	-	63,63,63,63	0
54	MG	CA	1667	1/1	0.12	-	67,67,67,67	0
54	MG	DA	3138	1/1	0.15	-	70,70,70,70	0
54	MG	BA	3016	1/1	0.42	-	60,60,60,60	0
54	MG	BA	3275	1/1	0.93	-	87,87,87,87	0
54	MG	DA	3143	1/1	0.27	-	77,77,77,77	0
54	MG	DA	3262	1/1	0.28	-	82,82,82,82	0
54	MG	BA	3015	1/1	0.37	-	58,58,58,58	0
54	MG	CA	1669	1/1	0.15	-	66,66,66,66	0
54	MG	CA	1690	1/1	0.53	-	61,61,61,61	0
54	MG	AA	1715	1/1	0.38	-	63,63,63,63	0
54	MG	AA	1648	1/1	0.40	-	76,76,76,76	0
54	MG	BA	3009	1/1	0.52	-	87,87,87,87	0
54	MG	DA	3330	1/1	0.63	-	69,69,69,69	0
54	MG	BA	3145	1/1	0.19	-	67,67,67,67	0
54	MG	DA	3296	1/1	0.12	-	104,104,104,104	0
54	MG	BA	3086	1/1	0.27	-	102,102,102,102	0
54	MG	BA	3246	1/1	0.23	-	73,73,73,73	0
54	MG	DA	3317	1/1	0.52	-	97,97,97,97	0
54	MG	AA	1608	1/1	0.38	-	47,47,47,47	0
54	MG	DA	3135	1/1	0.22	-	65,65,65,65	0
54	MG	AA	1695	1/1	0.40	-	83,83,83,83	0
54	MG	DA	3081	1/1	0.09	-	71,71,71,71	0
54	MG	DA	3070	1/1	0.33	-	70,70,70,70	0
54	MG	BA	3210	1/1	0.24	-	48,48,48,48	0
54	MG	CA	1636	1/1	0.38	-	93,93,93,93	0
54	MG	BA	3240	1/1	0.09	-	114,114,114,114	0
54	MG	DA	2989	1/1	0.36	-	45,45,45,45	0
54	MG	DA	3327	1/1	0.35	-	68,68,68,68	0
54	MG	DA	3127	1/1	0.44	-	90,90,90,90	0
54	MG	DA	3266	1/1	0.35	-	83,83,83,83	0
54	MG	DA	3243	1/1	0.35	-	72,72,72,72	0
54	MG	DA	3091	1/1	0.32	-	125,125,125,125	0
54	MG	DA	3116	1/1	0.22	-	115,115,115,115	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	DA	3163	1/1	0.12	-	83,83,83,83	0
54	MG	BA	3097	1/1	0.29	-	53,53,53,53	0
54	MG	BA	3159	1/1	0.41	-	78,78,78,78	0
54	MG	AA	1675	1/1	0.17	-	77,77,77,77	0
54	MG	AA	1732	1/1	0.24	-	63,63,63,63	0
54	MG	BA	3165	1/1	0.26	-	71,71,71,71	0
54	MG	BA	3261	1/1	0.24	-	53,53,53,53	0
54	MG	AA	1746	1/1	0.25	-	100,100,100,100	0
54	MG	DA	3203	1/1	0.21	-	46,46,46,46	0
54	MG	DA	3032	1/1	0.10	-	49,49,49,49	0
54	MG	DA	2919	1/1	0.30	-	45,45,45,45	0
54	MG	BA	2984	1/1	0.22	-	41,41,41,41	0
54	MG	AA	1635	1/1	0.43	-	68,68,68,68	0
54	MG	DA	2980	1/1	0.23	-	63,63,63,63	0
54	MG	DA	3186	1/1	0.12	-	90,90,90,90	0
54	MG	BA	3064	1/1	0.30	-	40,40,40,40	0
54	MG	AA	1686	1/1	0.17	-	72,72,72,72	0
54	MG	BA	3076	1/1	0.28	-	68,68,68,68	0
54	MG	BA	2992	1/1	0.54	-	70,70,70,70	0
54	MG	AA	1683	1/1	0.16	-	102,102,102,102	0
54	MG	CA	1657	1/1	0.37	-	78,78,78,78	0
54	MG	BA	3062	1/1	0.28	-	76,76,76,76	0
54	MG	DA	2987	1/1	0.43	-	70,70,70,70	0
54	MG	BA	3099	1/1	0.15	-	78,78,78,78	0
54	MG	CA	1624	1/1	0.11	-	66,66,66,66	0
54	MG	CA	1727	1/1	0.26	-	75,75,75,75	0
54	MG	DA	3064	1/1	0.21	-	80,80,80,80	0
54	MG	CA	1627	1/1	0.19	-	67,67,67,67	0
54	MG	BA	3285	1/1	0.28	-	87,87,87,87	0
54	MG	BA	2911	1/1	0.46	-	23,23,23,23	0
54	MG	DA	2957	1/1	0.10	-	63,63,63,63	0
54	MG	DA	3283	1/1	0.30	-	53,53,53,53	0
54	MG	BA	3303	1/1	0.23	-	98,98,98,98	0
54	MG	CA	1697	1/1	0.46	-	74,74,74,74	0
54	MG	BA	3019	1/1	0.70	-	58,58,58,58	0
54	MG	BA	3178	1/1	0.42	-	72,72,72,72	0
55	ZN	AN	101	1/1	0.12	-	120,120,120,120	0
54	MG	AA	1602	1/1	0.59	-	49,49,49,49	0
54	MG	DA	2977	1/1	0.18	-	47,47,47,47	0
54	MG	BA	2982	1/1	0.29	-	41,41,41,41	0
54	MG	CA	1709	1/1	0.39	-	81,81,81,81	0
54	MG	BA	2925	1/1	0.25	-	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	BA	3186	1/1	0.34	-	52,52,52,52	0
54	MG	DB	217	1/1	0.11	-	74,74,74,74	0
54	MG	AA	1709	1/1	0.37	-	83,83,83,83	0
54	MG	DA	3114	1/1	0.34	-	83,83,83,83	0
54	MG	BA	3094	1/1	0.70	-	70,70,70,70	0
54	MG	AA	1693	1/1	0.36	-	74,74,74,74	0
54	MG	DA	3170	1/1	0.18	-	80,80,80,80	0
54	MG	DA	3036	1/1	0.29	-	51,51,51,51	0
54	MG	DA	2979	1/1	0.20	-	69,69,69,69	0
54	MG	DA	3108	1/1	0.18	-	50,50,50,50	0
54	MG	DA	3291	1/1	0.44	-	78,78,78,78	0
54	MG	BA	2908	1/1	0.47	-	18,18,18,18	0
54	MG	DA	3336	1/1	0.06	-	89,89,89,89	0
54	MG	DA	3305	1/1	0.13	-	110,110,110,110	0
54	MG	AA	1723	1/1	0.54	-	81,81,81,81	0
54	MG	DA	3213	1/1	0.23	-	66,66,66,66	0
54	MG	CA	1713	1/1	0.15	-	80,80,80,80	0
54	MG	AA	1701	1/1	0.42	-	83,83,83,83	0
54	MG	DA	3166	1/1	0.19	-	87,87,87,87	0
54	MG	CA	1717	1/1	0.28	-	84,84,84,84	0
54	MG	CA	1673	1/1	0.12	-	73,73,73,73	0
54	MG	BA	3164	1/1	0.70	-	88,88,88,88	0
54	MG	DA	3086	1/1	0.76	-	92,92,92,92	0
54	MG	BA	3108	1/1	0.36	-	99,99,99,99	0
54	MG	BA	3011	1/1	0.08	-	83,83,83,83	0
54	MG	BA	2983	1/1	0.40	-	62,62,62,62	0
54	MG	CA	1718	1/1	0.13	-	78,78,78,78	0
54	MG	CA	1610	1/1	0.32	-	77,77,77,77	0
54	MG	BA	2988	1/1	0.37	-	60,60,60,60	0
54	MG	BA	3162	1/1	0.07	-	94,94,94,94	0
54	MG	DA	3113	1/1	0.09	-	71,71,71,71	0
54	MG	AA	1714	1/1	0.34	-	58,58,58,58	0
54	MG	BA	3272	1/1	0.43	-	119,119,119,119	0
54	MG	BA	3068	1/1	0.35	-	59,59,59,59	0
54	MG	DA	3304	1/1	0.32	-	59,59,59,59	0
54	MG	BA	3128	1/1	0.46	-	59,59,59,59	0
54	MG	DA	3044	1/1	0.10	-	59,59,59,59	0
54	MG	BA	3254	1/1	0.43	-	81,81,81,81	0
54	MG	CA	1654	1/1	0.17	-	111,111,111,111	0
54	MG	BA	2933	1/1	0.32	-	32,32,32,32	0
54	MG	BA	3150	1/1	0.24	-	79,79,79,79	0
54	MG	AA	1705	1/1	0.19	-	92,92,92,92	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	DA	3117	1/1	0.21	-	87,87,87,87	0
54	MG	CA	1701	1/1	0.43	-	112,112,112,112	0
54	MG	DA	2964	1/1	0.20	-	34,34,34,34	0
54	MG	AA	1734	1/1	0.44	-	103,103,103,103	0
54	MG	DA	3190	1/1	0.43	-	27,27,27,27	0
54	MG	BA	3072	1/1	0.46	-	67,67,67,67	0
54	MG	DA	3162	1/1	0.11	-	143,143,143,143	0
54	MG	BA	3146	1/1	0.30	-	83,83,83,83	0
54	MG	BA	3268	1/1	0.82	-	58,58,58,58	0
54	MG	BA	3256	1/1	0.44	-	79,79,79,79	0
54	MG	BA	3171	1/1	0.21	-	68,68,68,68	0
54	MG	DA	3066	1/1	0.45	-	85,85,85,85	0
54	MG	BA	3096	1/1	0.20	-	65,65,65,65	0
54	MG	DA	3126	1/1	0.07	-	77,77,77,77	0
54	MG	DA	3329	1/1	0.80	-	69,69,69,69	0
54	MG	AA	1696	1/1	0.23	-	132,132,132,132	0
54	MG	CA	1641	1/1	0.12	-	85,85,85,85	0
54	MG	BA	3038	1/1	0.19	-	65,65,65,65	0
54	MG	DA	3173	1/1	0.18	-	97,97,97,97	0
54	MG	BA	3207	1/1	0.46	-	94,94,94,94	0
54	MG	BA	3008	1/1	0.16	-	57,57,57,57	0
54	MG	DA	3045	1/1	0.28	-	48,48,48,48	0
54	MG	BA	3234	1/1	0.24	-	61,61,61,61	0
54	MG	DA	3063	1/1	0.27	-	79,79,79,79	0
54	MG	BA	2954	1/1	0.18	-	52,52,52,52	0
54	MG	DA	3198	1/1	0.30	-	26,26,26,26	0
54	MG	CA	1649	1/1	0.27	-	80,80,80,80	0
54	MG	DA	3300	1/1	0.28	-	68,68,68,68	0
54	MG	BA	3196	1/1	0.23	-	51,51,51,51	0
54	MG	DA	3270	1/1	0.42	-	81,81,81,81	0
54	MG	CA	1679	1/1	0.13	-	93,93,93,93	0
54	MG	BA	3147	1/1	0.27	-	72,72,72,72	0
54	MG	BA	3221	1/1	0.35	-	48,48,48,48	0
54	MG	DA	3019	1/1	0.41	-	51,51,51,51	0
54	MG	BA	3031	1/1	0.86	-	87,87,87,87	0
54	MG	BA	3228	1/1	0.12	-	66,66,66,66	0
54	MG	BA	3222	1/1	1.17	-	91,91,91,91	0
54	MG	CA	1712	1/1	0.12	-	78,78,78,78	0
54	MG	DA	3265	1/1	0.30	-	120,120,120,120	0
54	MG	AA	1733	1/1	0.25	-	91,91,91,91	0
54	MG	DA	3058	1/1	0.13	-	54,54,54,54	0
54	MG	DA	2963	1/1	0.42	-	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	BA	3025	1/1	0.34	-	65,65,65,65	0
54	MG	BA	3046	1/1	0.96	-	87,87,87,87	0
54	MG	DA	2953	1/1	0.45	-	58,58,58,58	0
54	MG	DB	201	1/1	0.35	-	63,63,63,63	0
54	MG	BA	3092	1/1	0.17	-	63,63,63,63	0
54	MG	CA	1650	1/1	0.33	-	108,108,108,108	0
54	MG	AA	1606	1/1	0.39	-	53,53,53,53	0
54	MG	BA	2941	1/1	0.60	-	50,50,50,50	0
54	MG	DA	2959	1/1	0.39	-	56,56,56,56	0
54	MG	AA	1688	1/1	0.15	-	68,68,68,68	0
54	MG	AA	1601	1/1	0.46	-	31,31,31,31	0
54	MG	DA	3333	1/1	0.17	-	126,126,126,126	0
54	MG	DA	3229	1/1	0.48	-	64,64,64,64	0
54	MG	DA	3111	1/1	0.39	-	67,67,67,67	0
54	MG	CA	1656	1/1	0.16	-	79,79,79,79	0
54	MG	BA	3258	1/1	0.20	-	104,104,104,104	0
54	MG	DA	2950	1/1	0.23	-	29,29,29,29	0
54	MG	DA	3141	1/1	0.15	-	95,95,95,95	0
54	MG	AA	1725	1/1	0.28	-	72,72,72,72	0
54	MG	AA	1646	1/1	0.30	-	99,99,99,99	0
54	MG	DA	3308	1/1	0.22	-	91,91,91,91	0
54	MG	BA	3298	1/1	0.16	-	74,74,74,74	0
54	MG	BA	2963	1/1	0.21	-	54,54,54,54	0
54	MG	AA	1752	1/1	1.00	-	81,81,81,81	0
54	MG	AA	1623	1/1	0.43	-	93,93,93,93	0
54	MG	DA	2906	1/1	0.40	-	27,27,27,27	0
54	MG	BA	3132	1/1	0.20	-	79,79,79,79	0
54	MG	DA	3201	1/1	0.26	-	72,72,72,72	0
54	MG	CA	1675	1/1	0.32	-	107,107,107,107	0
54	MG	BA	3073	1/1	0.23	-	89,89,89,89	0
54	MG	BA	3109	1/1	0.53	-	90,90,90,90	0
54	MG	DA	2937	1/1	0.54	-	25,25,25,25	0
54	MG	DA	3104	1/1	0.19	-	99,99,99,99	0
54	MG	BA	2999	1/1	0.17	-	45,45,45,45	0
54	MG	BA	3079	1/1	0.47	-	86,86,86,86	0
54	MG	DA	3326	1/1	0.15	-	85,85,85,85	0
54	MG	AA	1762	1/1	0.11	-	155,155,155,155	0
54	MG	AA	1610	1/1	0.31	-	78,78,78,78	0
54	MG	BA	2994	1/1	0.74	-	56,56,56,56	0
54	MG	DA	3177	1/1	0.31	-	62,62,62,62	0
54	MG	BA	3037	1/1	0.13	-	93,93,93,93	0
54	MG	DA	3000	1/1	0.31	-	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
54	MG	DA	3285	1/1	0.28	-	113,113,113,113	0
54	MG	BA	3141	1/1	0.20	-	78,78,78,78	0
54	MG	CA	1661	1/1	0.46	-	92,92,92,92	0
54	MG	BA	3184	1/1	0.36	-	42,42,42,42	0
54	MG	BA	3255	1/1	0.23	-	57,57,57,57	0
54	MG	AA	1712	1/1	0.61	-	75,75,75,75	0
54	MG	BA	3187	1/1	0.51	-	40,40,40,40	0
54	MG	AA	1616	1/1	0.21	-	63,63,63,63	0
54	MG	DA	3057	1/1	0.21	-	59,59,59,59	0
54	MG	DB	209	1/1	0.14	-	75,75,75,75	0
54	MG	DA	3332	1/1	0.43	-	60,60,60,60	0
54	MG	AA	1670	1/1	0.15	-	85,85,85,85	0
54	MG	BA	3121	1/1	0.26	-	77,77,77,77	0
54	MG	BA	2942	1/1	0.35	-	22,22,22,22	0
54	MG	BA	3119	1/1	0.29	-	64,64,64,64	0
54	MG	CA	1694	1/1	0.40	-	59,59,59,59	0
54	MG	CA	1678	1/1	0.11	-	107,107,107,107	0
54	MG	CA	1621	1/1	0.41	-	67,67,67,67	0
54	MG	D2	101	1/1	0.25	-	66,66,66,66	0
54	MG	BA	2938	1/1	0.21	-	10,10,10,10	0
54	MG	CA	1729	1/1	0.14	-	98,98,98,98	0
54	MG	BA	2997	1/1	0.34	-	57,57,57,57	0
54	MG	BA	3247	1/1	0.12	-	52,52,52,52	0
54	MG	BA	3105	1/1	0.24	-	60,60,60,60	0
54	MG	CA	1665	1/1	0.23	-	89,89,89,89	0
54	MG	DA	2973	1/1	0.28	-	50,50,50,50	0
54	MG	DB	208	1/1	0.23	-	96,96,96,96	0
54	MG	DA	3080	1/1	0.44	-	69,69,69,69	0
54	MG	BA	3033	1/1	0.19	-	67,67,67,67	0

## 6.5 Other polymers ⓘ

There are no such residues in this entry.