



Full wwPDB X-ray Structure Validation Report ⓘ

May 26, 2021 – 02:55 PM EDT

PDB ID : 7LH5
Title : Crystal structure of the *Thermus thermophilus* 70S ribosome in complex with plazomicin, mRNA and tRNAs
Authors : Golkar, T.; Berghuis, A.M.; Schmeing, T.M.
Deposited on : 2021-01-21
Resolution : 3.27 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467
Mogul : 1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix) : 1.13
EDS : 2.18
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0158
CCP4 : 7.0.044 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.18

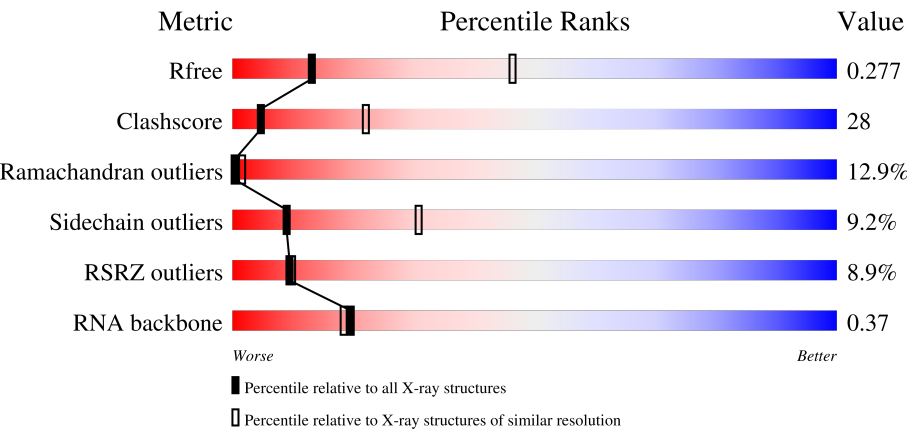
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.27 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}	130704	1177 (3.32-3.24)
Clashscore	141614	1044 (3.30-3.26)
Ramachandran outliers	138981	1026 (3.30-3.26)
Sidechain outliers	138945	1025 (3.30-3.26)
RSRZ outliers	127900	1141 (3.32-3.24)
RNA backbone	3102	1091 (3.66-2.90)

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

Mol	Chain	Length	Quality of chain
1	AA	1520	
1	CA	1520	
2	AB	256	
2	CB	256	

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Mol	Chain	Length	Quality of chain
3	AC	239	
3	CC	239	
4	AD	209	
4	CD	209	
5	AE	162	
5	CE	162	
6	AF	101	
6	CF	101	
7	AG	156	
7	CG	156	
8	AH	138	
8	CH	138	
9	AI	128	
9	CI	128	
10	AJ	105	
10	CJ	105	
11	AK	129	
11	CK	129	
12	AL	132	
12	CL	132	
13	AM	126	
13	CM	126	
14	AN	61	
14	CN	61	
15	AO	89	

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Mol	Chain	Length	Quality of chain
15	CO	89	
16	AP	88	
16	CP	88	
17	AQ	105	
17	CQ	105	
18	AR	88	
18	CR	88	
19	AS	93	
19	CS	93	
20	AT	106	
20	CT	106	
21	AU	27	
21	CU	27	
22	AV	77	
22	CV	77	
23	AW	76	
23	AY	76	
23	CW	76	
23	CY	76	
24	AX	24	
24	CX	24	
25	B0	85	
25	D0	85	
26	B1	98	
26	D1	98	

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Mol	Chain	Length	Quality of chain
27	B2	72	
27	D2	72	
28	B3	60	
28	D3	60	
29	B4	71	
29	D4	71	
30	B5	60	
30	D5	60	
31	B6	54	
31	D6	54	
32	B7	49	
32	D7	49	
33	B8	65	
33	D8	65	
34	B9	37	
34	D9	37	
35	BA	2839	
35	DA	2839	
36	BB	122	
36	DB	122	
37	BC	229	
37	DC	229	
38	BD	276	
38	DD	276	
39	BE	206	

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Mol	Chain	Length	Quality of chain
39	DE	206	
40	BF	210	
40	DF	210	
41	BG	182	
41	DG	182	
42	BH	180	
42	DH	180	
43	BI	148	
43	DI	148	
44	BJ	173	
44	DJ	173	
45	BK	147	
45	DK	147	
46	BN	140	
46	DN	140	
47	BO	122	
47	DO	122	
48	BP	150	
48	DP	150	
49	BQ	141	
49	DQ	141	
50	BR	118	
50	DR	118	
51	BS	112	
51	DS	112	

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Mol	Chain	Length	Quality of chain
52	BT	146	
52	DT	146	
53	BU	118	
53	DU	118	
54	BV	101	
54	DV	101	
55	BW	113	
55	DW	113	
56	BX	96	
56	DX	96	
57	BY	110	
57	DY	110	
58	BZ	206	
58	DZ	206	

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
59	MG	AA	1619	-	-	-	X
59	MG	AA	1645	-	-	-	X
59	MG	AA	1660	-	-	-	X
59	MG	AA	1670	-	-	-	X
59	MG	AA	1674	-	-	-	X
59	MG	AA	1676	-	-	-	X
59	MG	AA	1681	-	-	-	X
59	MG	AA	1697	-	-	-	X
59	MG	AA	1743	-	-	-	X
59	MG	AA	1756	-	-	-	X
59	MG	AA	1760	-	-	-	X
59	MG	AA	1770	-	-	-	X
59	MG	AA	1777	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
59	MG	AA	1804	-	-	-	X
59	MG	AA	1808	-	-	-	X
59	MG	AD	301	-	-	-	X
59	MG	AL	201	-	-	-	X
59	MG	AT	201	-	-	-	X
59	MG	AV	102	-	-	-	X
59	MG	AW	101	-	-	-	X
59	MG	AW	104	-	-	-	X
59	MG	AW	105	-	-	-	X
59	MG	AW	110	-	-	-	X
59	MG	AW	113	-	-	-	X
59	MG	AW	114	-	-	-	X
59	MG	AW	117	-	-	-	X
59	MG	AW	119	-	-	-	X
59	MG	BA	3011	-	-	-	X
59	MG	BA	3014	-	-	-	X
59	MG	BA	3108	-	-	-	X
59	MG	BA	3126	-	-	-	X
59	MG	BA	3132	-	-	-	X
59	MG	BA	3142	-	-	-	X
59	MG	BA	3145	-	-	-	X
59	MG	BA	3186	-	-	-	X
59	MG	BA	3224	-	-	-	X
59	MG	BA	3254	-	-	-	X
59	MG	BA	3257	-	-	-	X
59	MG	BA	3271	-	-	-	X
59	MG	BA	3285	-	-	-	X
59	MG	BA	3302	-	-	-	X
59	MG	BA	3306	-	-	-	X
59	MG	BA	3313	-	-	-	X
59	MG	BA	3344	-	-	-	X
59	MG	BA	3350	-	-	-	X
59	MG	BA	3353	-	-	-	X
59	MG	BA	3357	-	-	-	X
59	MG	BA	3364	-	-	-	X
59	MG	BA	3385	-	-	-	X
59	MG	BA	3389	-	-	-	X
59	MG	BA	3399	-	-	-	X
59	MG	BA	3400	-	-	-	X
59	MG	BA	3405	-	-	-	X
59	MG	BA	3427	-	-	-	X
59	MG	BA	3434	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
59	MG	BA	3456	-	-	-	X
59	MG	BA	3457	-	-	-	X
59	MG	CA	1602	-	-	-	X
59	MG	CA	1619	-	-	-	X
59	MG	CA	1620	-	-	-	X
59	MG	CA	1627	-	-	-	X
59	MG	CA	1637	-	-	-	X
59	MG	CA	1646	-	-	-	X
59	MG	CA	1649	-	-	-	X
59	MG	CA	1652	-	-	-	X
59	MG	CA	1664	-	-	-	X
59	MG	CA	1674	-	-	-	X
59	MG	CA	1675	-	-	-	X
59	MG	CA	1677	-	-	-	X
59	MG	CA	1690	-	-	-	X
59	MG	CA	1695	-	-	-	X
59	MG	CA	1725	-	-	-	X
59	MG	CA	1742	-	-	-	X
59	MG	CA	1793	-	-	-	X
59	MG	CE	201	-	-	-	X
59	MG	CW	106	-	-	-	X
59	MG	CW	108	-	-	-	X
59	MG	CW	109	-	-	-	X
59	MG	CW	112	-	-	-	X
59	MG	DA	3005	-	-	-	X
59	MG	DA	3007	-	-	-	X
59	MG	DA	3008	-	-	-	X
59	MG	DA	3086	-	-	-	X
59	MG	DA	3105	-	-	-	X
59	MG	DA	3136	-	-	-	X
59	MG	DA	3152	-	-	-	X
59	MG	DA	3163	-	-	-	X
59	MG	DA	3203	-	-	-	X
59	MG	DA	3206	-	-	-	X
59	MG	DA	3224	-	-	-	X
59	MG	DA	3230	-	-	-	X
59	MG	DA	3246	-	-	-	X
59	MG	DA	3256	-	-	-	X
59	MG	DA	3258	-	-	-	X
59	MG	DA	3280	-	-	-	X
59	MG	DA	3307	-	-	-	X
59	MG	DA	3315	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
59	MG	DA	3316	-	-	-	X
59	MG	DA	3320	-	-	-	X
59	MG	DA	3342	-	-	-	X
59	MG	DA	3348	-	-	-	X
59	MG	DA	3356	-	-	-	X
59	MG	DA	3373	-	-	-	X
59	MG	DA	3382	-	-	-	X
59	MG	DB	207	-	-	-	X
59	MG	DB	211	-	-	-	X
59	MG	DO	202	-	-	-	X
59	MG	DV	201	-	-	-	X

2 Entry composition

There are 62 unique types of molecules in this entry. The entry contains 296449 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a RNA chain called 16S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	1504	Total	C	N	O	P	0	0	0
			32329	14390	5992	10444	1503			
1	CA	1504	Total	C	N	O	P	0	0	0
			32332	14390	5992	10446	1504			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AB	218	Total	C	N	O	S	0	0	0
			1784	1139	321	319	5			
2	CB	234	Total	C	N	O	S	0	0	0
			1900	1213	341	341	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
			1612	1016	314	281	1			
3	CC	207	Total	C	N	O	S	0	0	0
			1620	1021	315	282	2			

- 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	150	Total	C	N	O	S	0	0	0
			1146	724	217	201	4			
5	CE	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	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	121	Total	C	N	O		0	0	0
			947	599	186	162				
9	CI	127	Total	C	N	O		0	0	0
			1010	639	197	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
			794	499	156	138	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	CJ	98	Total	C	N	O	S	0	0	0
			794	499	156	138	1			

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	AL	122	Total	C	N	O	S	0	0	0
			956	603	193	159	1			
12	CL	124	Total	C	N	O	S	0	0	0
			970	611	195	163	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
			922	570	189	161	2			
13	CM	119	Total	C	N	O	S	0	0	0
			946	585	195	164	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
			491	312	104	71	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
			700	443	139	117	1			
16	CP	83	Total	C	N	O	S	0	0	0
			700	443	139	117	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
			823	528	151	142	2			
17	CQ	99	Total	C	N	O	S	0	0	0
			823	528	151	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
			629	403	114	110	2			
19	CS	78	Total	C	N	O	S	0	0	0
			629	403	114	110	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AT	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			
20	CT	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	AU	24	Total	C	N	O	0	0	0
			208	128	50	30			
21	CU	25	Total	C	N	O	0	0	0
			217	134	52	31			

- Molecule 22 is a RNA chain called P-site tRNA fMet.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AV	76	Total	C	N	O	P	0	0	0
			1622	723	294	529	76			
22	CV	77	Total	C	N	O	P	0	0	0
			1643	732	297	537	77			

- Molecule 23 is a RNA chain called E-Site tRNA Phe and A-site tRNA Phe.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	AW	76	Total	C	N	O	P	0	0	0
			1623	723	290	534	76			
23	AY	19	Total	C	N	O	P	0	0	0
			410	183	78	130	19			
23	CW	76	Total	C	N	O	P	0	0	0
			1623	723	290	534	76			
23	CY	21	Total	C	N	O	P	0	0	0
			453	202	86	144	21			

- Molecule 24 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	AX	12	Total	C	N	O	P	0	0	0
			255	115	46	82	12			
24	CX	12	Total	C	N	O	P	0	0	0
			255	115	46	82	12			

- Molecule 25 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	B0	76	Total	C	N	O	S	0	0	0
			607	376	128	102	1			
25	D0	82	Total	C	N	O	S	0	0	0
			645	401	136	107	1			

- Molecule 26 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
26	B1	88	Total	C	N	O	0	0	0
			692	435	139	118			
26	D1	88	Total	C	N	O	0	0	0
			692	435	139	118			

- Molecule 27 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	B2	50	Total	C	N	O	S	0	0	0
			420	263	84	72	1			
27	D2	53	Total	C	N	O	S	0	0	0
			446	279	88	78	1			

- Molecule 28 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	B3	58	Total	C	N	O	S	0	0	0
			459	293	89	77				
28	D3	60	Total	C	N	O	S	0	0	0
			476	303	91	81	1			

- Molecule 29 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
29	B4	45	Total	C	N	O	0	0	0
			222	132	45	45			
29	D4	49	Total	C	N	O	0	0	0
			241	143	49	49			

- Molecule 30 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	B5	54	Total	C	N	O	S	0	0	0
			418	261	84	68	5			
30	D5	60	Total	C	N	O	S	0	0	0
			467	293	91	77	6			

- Molecule 31 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	B6	46	Total	C	N	O	S	0	0	0
			398	247	81	66	4			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	D6	47	Total	C	N	O	S	0	0	0
			408	253	84	67	4			

- Molecule 32 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	B7	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			
32	D7	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			

- Molecule 33 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	B8	63	Total	C	N	O	S	0	0	0
			507	326	101	78	2			
33	D8	62	Total	C	N	O	S	0	0	0
			495	317	100	76	2			

- Molecule 34 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	B9	37	Total	C	N	O	S	0	0	0
			307	188	68	47	4			
34	D9	37	Total	C	N	O	S	0	0	0
			307	188	68	47	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	BA	2824	Total	C	N	O	P	0	0	0
			60821	27070	11372	19556	2823			
35	DA	2824	Total	C	N	O	P	0	0	0
			60821	27070	11372	19556	2823			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	BB	120	Total	C	N	O	P	0	0	0
			2576	1146	476	834	120			
36	DB	119	Total	C	N	O	P	0	0	0
			2551	1136	471	826	118			

- Molecule 37 is a protein called 50S ribosomal protein L1.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
37	BC	190	Total	C	N	O	0	0	0
			1141	691	220	230			
37	DC	190	Total	C	N	O	0	0	0
			1141	691	220	230			

- Molecule 38 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	BD	273	Total	C	N	O	S	0	0	0
			2126	1341	424	358	3			
38	DD	275	Total	C	N	O	S	0	0	0
			2144	1353	428	360	3			

- Molecule 39 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	BE	204	Total	C	N	O	S	0	0	0
			1563	988	299	270	6			
39	DE	204	Total	C	N	O	S	0	0	0
			1563	988	299	270	6			

- Molecule 40 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	BF	206	Total	C	N	O	S	0	0	0
			1615	1030	302	281	2			
40	DF	208	Total	C	N	O	S	0	0	0
			1627	1037	304	283	3			

- Molecule 41 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	BG	178	Total	C	N	O	S	0	0	0
			1449	925	264	256	4			
41	DG	181	Total	C	N	O	S	0	0	0
			1474	942	268	260	4			

- Molecule 42 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	BH	159	Total	C	N	O	S	0	0	0
			1222	773	228	220	1			
42	DH	165	Total	C	N	O	S	0	0	0
			1270	806	237	226	1			

- Molecule 43 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BI	145	Total	C	N	O	S	0	0	0
			1131	723	200	207	1			
43	DI	144	Total	C	N	O	S	0	0	0
			1124	718	199	206	1			

- Molecule 44 is a protein called 50S ribosomal protein L10.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
44	BJ	130	Total	C	N	O	0	0	0
			651	391	130	130			
44	DJ	130	Total	C	N	O	0	0	0
			651	391	130	130			

- Molecule 45 is a protein called 50S ribosomal protein L11.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
45	BK	140	Total	C	N	O	0	0	0
			700	420	140	140			
45	DK	140	Total	C	N	O	0	0	0
			700	420	140	140			

- Molecule 46 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	BN	137	Total	C	N	O	S	0	0	0
			1096	707	205	181	3			
46	DN	140	Total	C	N	O	S	0	0	0
			1120	722	208	186	4			

- Molecule 47 is a protein called 50S ribosomal protein L14.

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

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

- Molecule 48 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	BP	144	Total	C	N	O	S	0	0	0
			1099	684	225	188	2			
48	DP	146	Total	C	N	O	S	0	0	0
			1114	692	227	193	2			

- Molecule 49 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	BQ	135	Total	C	N	O	S	0	0	0
			1074	686	205	178	5			
49	DQ	136	Total	C	N	O	S	0	0	0
			1083	691	206	181	5			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	BR	116	Total	C	N	O		0	0	0
			949	593	198	158				
50	DR	117	Total	C	N	O		0	0	0
			960	599	202	159				

- Molecule 51 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	BS	102	Total	C	N	O		0	0	0
			813	512	164	137				
51	DS	99	Total	C	N	O		0	0	0
			781	492	158	131				

- Molecule 52 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	BT	132	Total	C	N	O	S	0	0	0
			1100	686	227	186	1			
52	DT	137	Total	C	N	O	S	0	0	0
			1141	710	234	196	1			

- Molecule 53 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	BU	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			
53	DU	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			

- Molecule 54 is a protein called 50S ribosomal protein L21.

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

- Molecule 55 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	BW	111	Total	C	N	O	S	0	0	0
			886	558	174	152	2			
55	DW	111	Total	C	N	O	S	0	0	0
			886	558	174	152	2			

- Molecule 56 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	BX	89	Total	C	N	O		0	0	0
			704	458	128	118				
56	DX	94	Total	C	N	O	S	0	0	0
			742	482	134	125	1			

- Molecule 57 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
57	BY	100	Total	C	N	O	S	0	0	0
			775	500	148	123	4			
57	DY	109	Total	C	N	O	S	0	0	0
			835	534	157	139	5			

- Molecule 58 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
58	BZ	176	Total	C	N	O	S	0	0	0
			1403	897	252	252	2			
58	DZ	176	Total	C	N	O	S	0	0	0
			1403	897	252	252	2			

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	AA	209	Total	Mg	0	0
			209	209		
59	AC	1	Total	Mg	0	0
			1	1		
59	AD	1	Total	Mg	0	0
			1	1		
59	AE	1	Total	Mg	0	0
			1	1		
59	AL	1	Total	Mg	0	0
			1	1		
59	AT	1	Total	Mg	0	0
			1	1		
59	AV	7	Total	Mg	0	0
			7	7		
59	AW	20	Total	Mg	0	0
			20	20		
59	AX	3	Total	Mg	0	0
			3	3		
59	B0	1	Total	Mg	0	0
			1	1		
59	B1	2	Total	Mg	0	0
			2	2		
59	B2	1	Total	Mg	0	0
			1	1		
59	B5	1	Total	Mg	0	0
			1	1		
59	B7	1	Total	Mg	0	0
			1	1		
59	B8	2	Total	Mg	0	0
			2	2		
59	BA	457	Total	Mg	0	0
			457	457		
59	BB	17	Total	Mg	0	0
			17	17		
59	BC	2	Total	Mg	0	0
			2	2		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	BE	2	Total 2	Mg 2	0	0
59	BF	3	Total 3	Mg 3	0	0
59	BQ	1	Total 1	Mg 1	0	0
59	BS	1	Total 1	Mg 1	0	0
59	BU	5	Total 5	Mg 5	0	0
59	BV	1	Total 1	Mg 1	0	0
59	BX	2	Total 2	Mg 2	0	0
59	CA	195	Total 195	Mg 195	0	0
59	CE	1	Total 1	Mg 1	0	0
59	CF	1	Total 1	Mg 1	0	0
59	CG	1	Total 1	Mg 1	0	0
59	CI	1	Total 1	Mg 1	0	0
59	CU	1	Total 1	Mg 1	0	0
59	CV	4	Total 4	Mg 4	0	0
59	CW	13	Total 13	Mg 13	0	0
59	CX	2	Total 2	Mg 2	0	0
59	D2	2	Total 2	Mg 2	0	0
59	D5	1	Total 1	Mg 1	0	0
59	DA	392	Total 392	Mg 392	0	0
59	DB	12	Total 12	Mg 12	0	0
59	DE	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	DF	2	Total Mg 2 2	0	0
59	DN	1	Total Mg 1 1	0	0
59	DO	2	Total Mg 2 2	0	0
59	DV	1	Total Mg 1 1	0	0

- # EDS

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
60	AA	1	Total 41	C 25	N 6	O 10	0	0
60	CA	1	Total 41	C 25	N 6	O 10	0	0

- | Mol | Chain | Residues | Atoms | ZeroOcc | AltConf |
|-----|-------|----------|-----------------|---------|---------|
| 61 | AD | 1 | Total Zn
1 1 | 0 | 0 |
| 61 | AN | 1 | Total Zn
1 1 | 0 | 0 |



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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	B9	1	Total 1	Zn 1	0	0
61	CD	1	Total 1	Zn 1	0	0
61	CN	1	Total 1	Zn 1	0	0
61	D9	1	Total 1	Zn 1	0	0

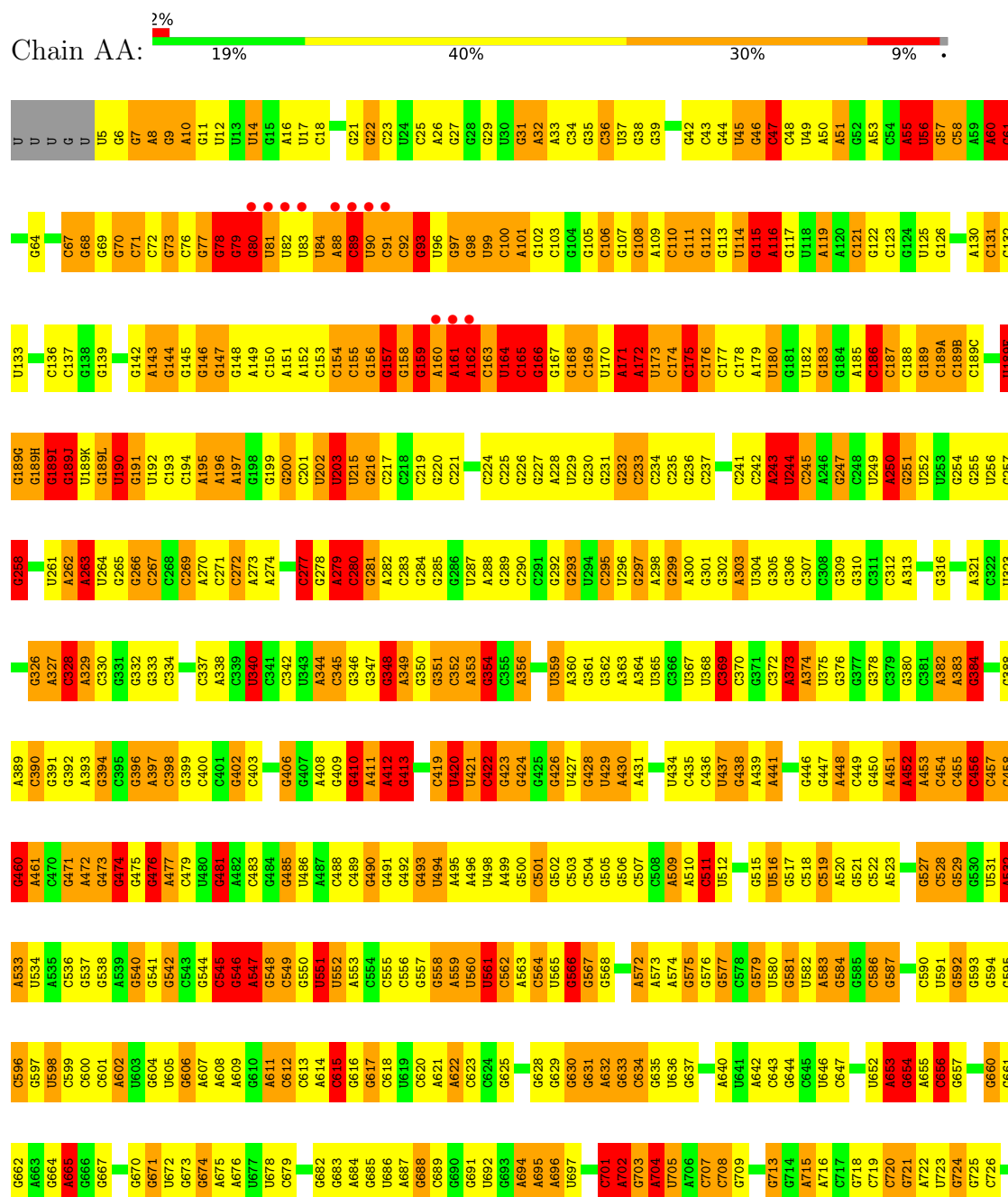
- Molecule 62 is water.

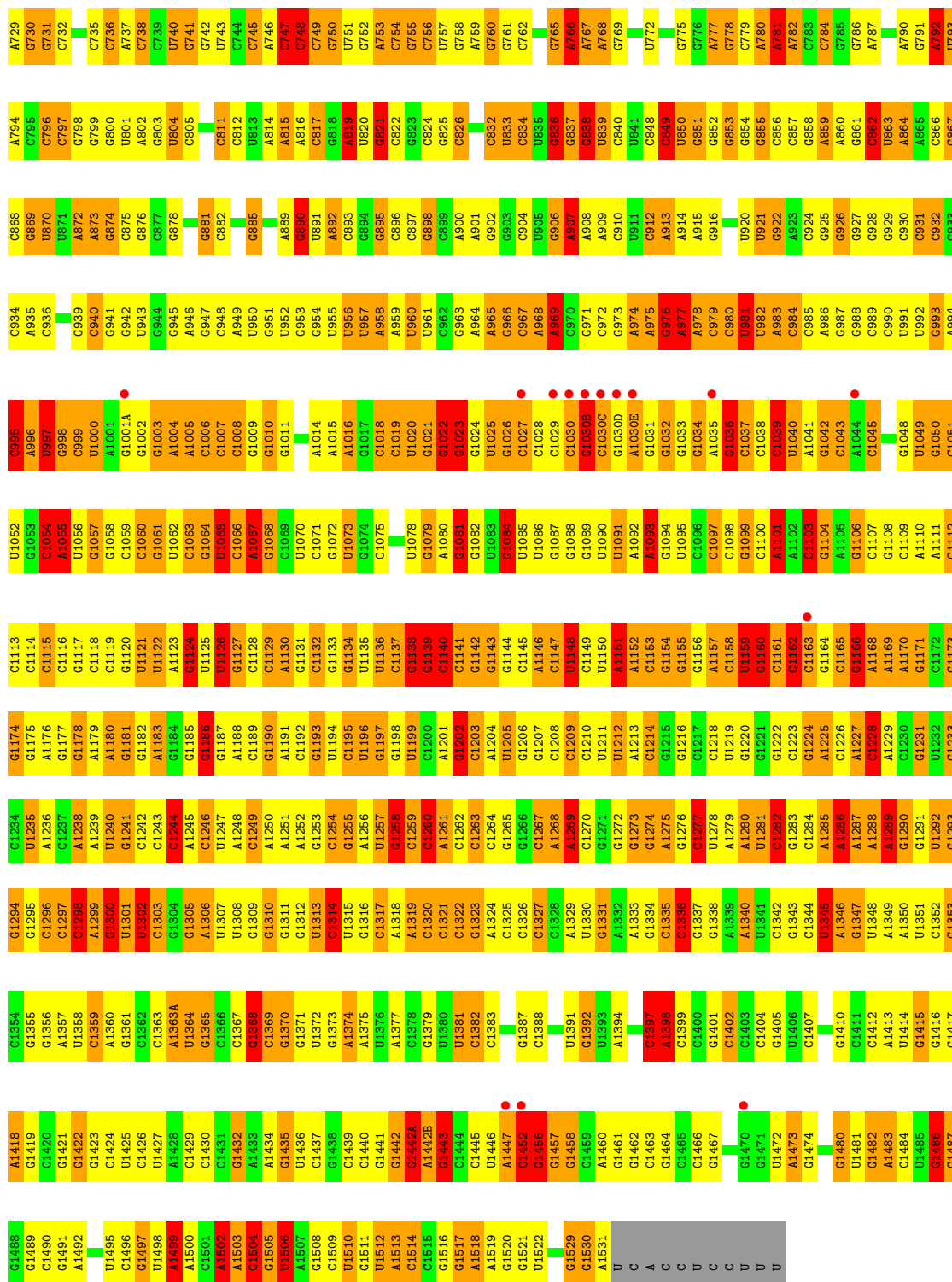
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
62	AA	2	Total 2	O 2	0	0

3 Residue-property plots

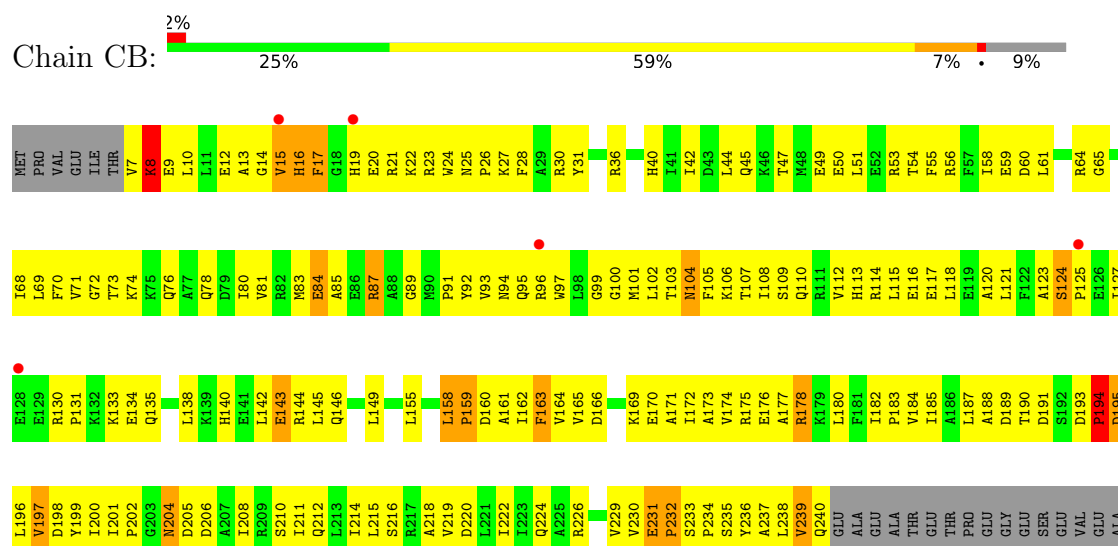
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density.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

- Molecule 1: 16S ribosomal RNA

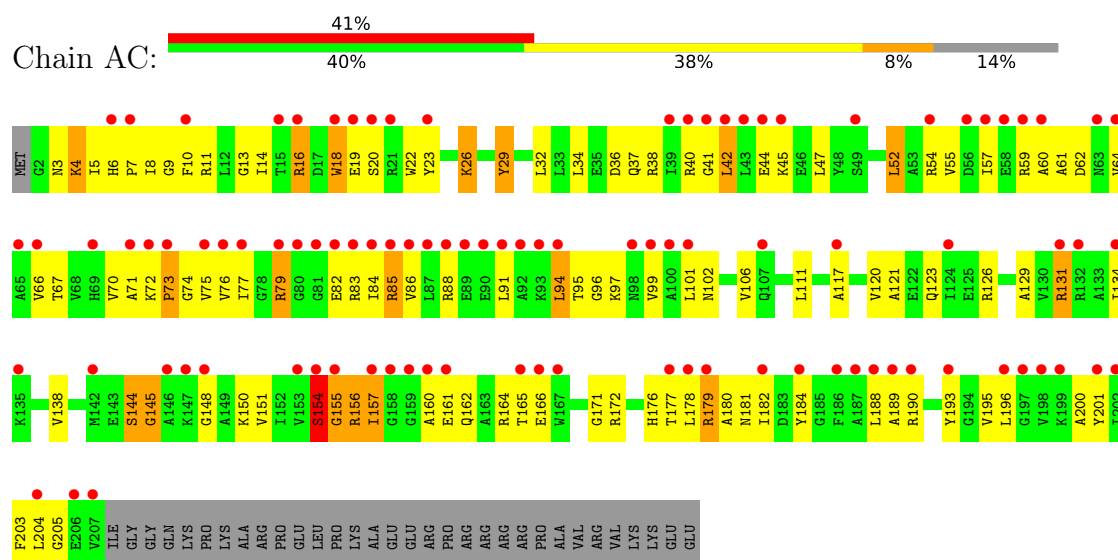




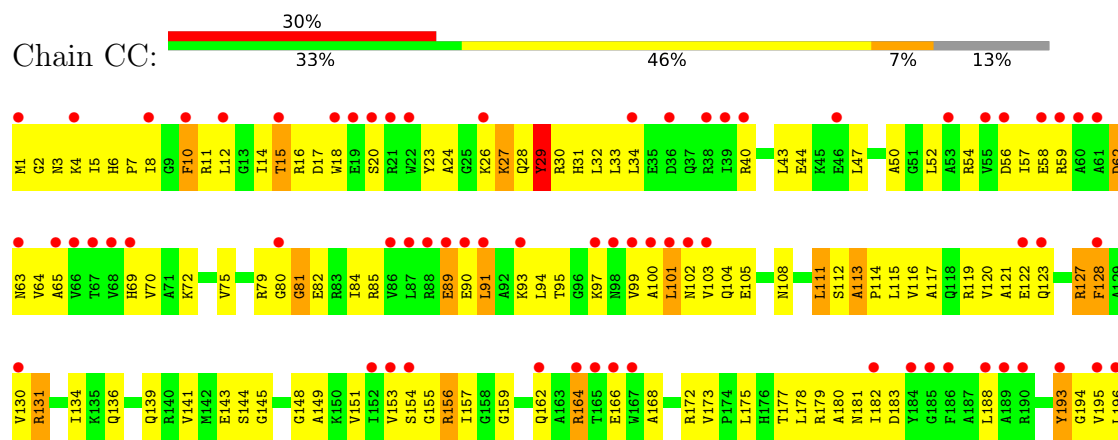
G1001A	G930	G867	C797	A729	U659	G594	C528	G450	G388	C322	G259	G189H	C131	U62
G1002	G933	C868	G798	G730	G660	G595	G529	A451	A389	U323	G260	G189I	C132	C83
G1003	G934	G869	G799	G731	G661	C596	G530	A452	C390	G324	U261	G189J	U133	G64
A1004	G935	U870	G800	C732	G662	C597	U531	A453	G391	A325	A262	U189K		U85
A1005	A936	U871	U801	C733	A663	U598	A532	C454	G392	G326	A263	G189L	C136	G66
A1006	C936	A872	A802	G734	G664	C599	A533	C455	G393	A327	U264	U190	C137	C67
C1007	A937	A873	G803	C735	A665	C600	U534	C456	G394	C328	G265	G191	G138	G68
C1008	A938	G874	U804	C736	G666	C601	A535	C457	C395	A329	C266	U192	G139	G69
G1009	G939	C875	C805	A737	G667	A602	C536	C458	G396	C330	C267	U193	A140	G70
G1010	C940	G876	C806	C738	G668			C459	A397	G331	C268	C194	A141	C71
G1011	G941	C877	A806					C460	C398	G332	C269	A195	G142	C72
G1012	G942	G878	A807					C461	G399	G333	A270	A196	A143	G73
G1013		G879	C810	G741	G671	A607	G540	G471	C400	C334	C271	A197	G144	C76
A1014	G947	C880	C811	G742	U672	A608	G541	A472	C401	C335	A273	G198	G145	G77
A1015	C948	G881	C812	A746	G673	A609	G542	A473	G402	C336	A274	G199	G146	G78
C1016	A949	C882	U813	C747	G674	C610	C543	G474	C403	C337	G275	G200	G147	G79
G1017		C883	A814	C748	A675	A611	G544	G475	U405	A338	G276	G201	G148	G80
C1018		A815		G749	U678	A614	C545	G476	U406	U340	C277	U202	A152	U81
C1019	G953	A816	C815	G750	C680	C615	G546		G407	C341	G278	U203	C153	U82
G1020	U955	G885	A817	U751	C681	G616	A547	A481	A408	C342	A279	U204	G154	U83
U1021	U956	G886	C817	G752	C682	U617	U552		G484	C343	C280	C217	A155	U84
G1022	A957	G887	A819	C753	G683	C618	A553		G485	U343	C281	C218	G156	A88
G1023	A958		U820	C754	G684	U619	C554		G486	A344	G282	C219	G157	C89
U1024	A959		A684	G755	G685	C620	A555		U496	C345	G283	G220	G158	U90
U1025	U960		G621	G756	U686	A622	C556		A412	G346	G284	U205	G159	U91
G1026		G894	C824	U757	U687	A623	C557		A413	C347	G285	U206	A160	C92
C1027	G963	G895	G825	G758	C688	C624	C558		A414	G348		U207	A161	G93
C1028	A964	C996	C826		G689	A625	C559		A415		A288	U222	A162	U96
C1029	A965	C997	U827	G761	C690	G626	C560		G416	C351	G289	C224	G163	G97
C1030	G966	G898	A828	G762	U691	U626	A561		C417	C352	C291	C225	U164	G98
G1030A	C967	C999	G829	G763	G692	G627	U560		C418	A353	G292	G226	C165	U99
C1030B	A968	A900	G830		U692	G628	U561		C419	C354	G293	G227	G166	C100
G1030C	A969	A901	U831	A766	G693	G629			U420	C355	G294	A228	G167	A101
A1030D	C970	G902	C832	A767	A694	G630	U565		U421	A356	U294	G231	G168	G102
G1031	G971	C903	U833	A768	A695	C631	G566		C422	G357	G295	G232	C169	C103
C1032	C972	C904	C834		A696	A632			A493		U296	G233	U170	G104
G1033	G973	U905	U835	G771	G703	G633	G570		G500	G361	G297	C233	A171	G105
G1034	A974		G836	U772	A704	C634	U571		C501	C362	A298	C234	A172	C106
A1035	A975	A908	G837	G773	G709	G635	A572		G502	A363	G299	C235	U173	G107
G1036	G976	A909	G838	G774	A715	U636	A573		C503	A364	A300	G236	C174	G108
C1037	A977	C910	U839		G710	G637	A574		U429	U365	G301	C237	C175	A109
C1038	A978	U911	C940		G711	G638	A575		A430	C366		G238	C176	C110
C1039	C979	C912	U841		G712	G639	G576		A431	U367	U304	U239	C177	G111
U1040	C980	A913	C848		A712	A640	G577		A432	U368	G305	C240	C178	G112
	U981	A914	C849		G713		C578		C433		G306			G113
A1044	U982	A915	U850		G714	G644	C579		U434	G371	C307	A243	G181	U114
C1045	A983	C916	G851		A715	C645	U580		C435	C372	C308	U244	U182	G115
	C984	A917	G852		A716	U646	G581		C436	A373	G309	C245	G183	A116
G1048	C985	A918	G853		G717	G647	U582		U437	A374	G310	A246	G184	G117
U1049	A986	A919	G854		G718	A648	A583		G438	U375	G311	G247	A185	U118
G1050	G987	U920	G855		C719	G649	G584		A439	C376	C312		C186	U119
	G988	U921	C856		G720	G650	G585		A441	G377	A313	A250	C187	A120
G1053	C989	A922	C857		G721	C651	C586		C442	G378	C314	G251	C188	G121
C1054	C990	A923	G858		A722	U652	G887		A520		A315	U252	G189	C122
A1055	U991	C924	A859		U723	A653	G588		G521		G316	G254	C189A	C123
U1056	U992	U925	A860		G724	C654	C589		G445	A383	G317	G255	C189B	
G1057	G993	G926	G861		G725	A655	C590		G446	C384	G318	G256		G128
	A994	C927	C862		C726	C656	U591		G447	C385	G319	U257	U189F	U129
C1058	C995	G928	A865		G727	G657	G592		A448	C386	G320	G257		G129A
C1060		G929	A728		C796	G658	G593		C449	U387	A321	G258	G189G	A130

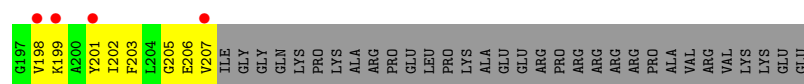


• Molecule 3: 30S ribosomal protein S3

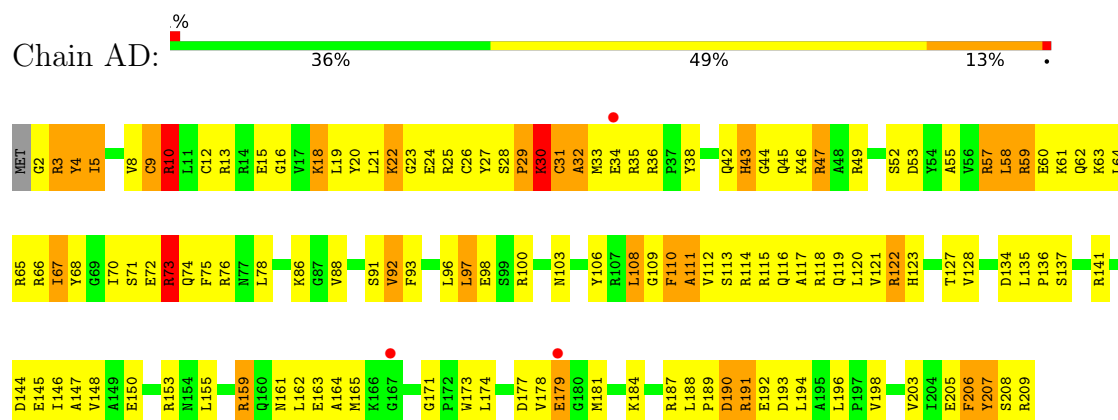


• Molecule 3: 30S ribosomal protein S3

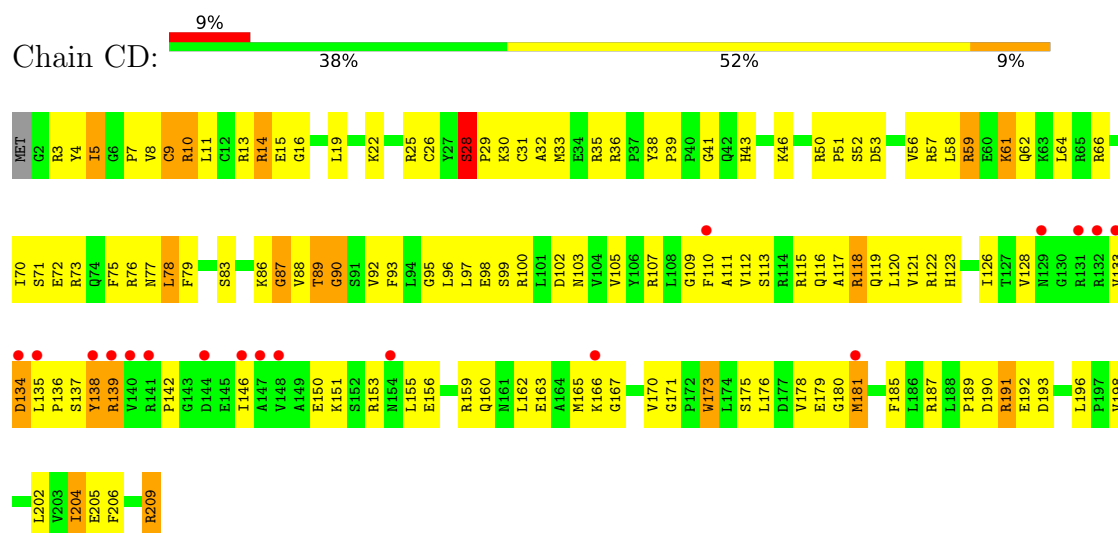




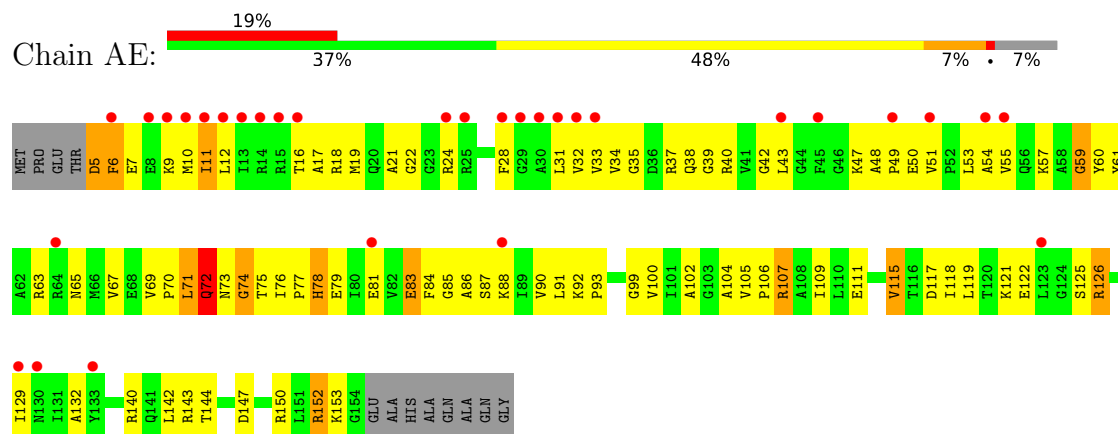
• Molecule 4: 30S ribosomal protein S4



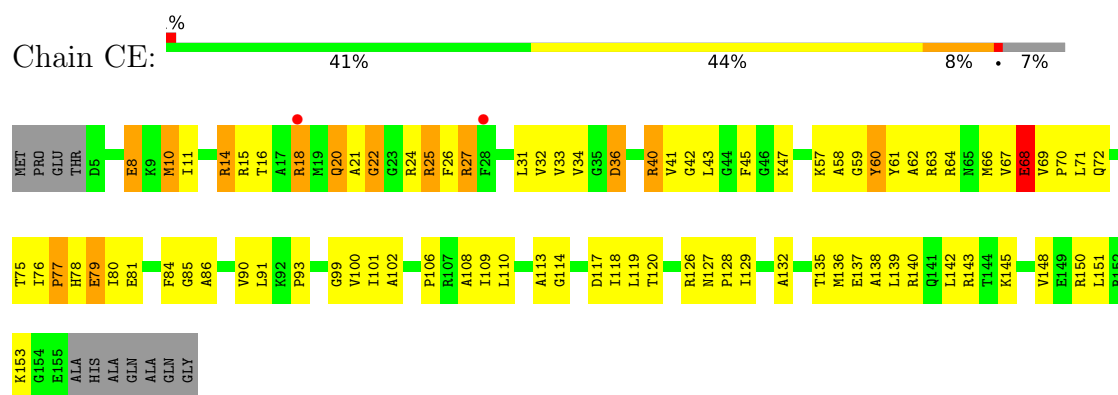
• Molecule 4: 30S ribosomal protein S4



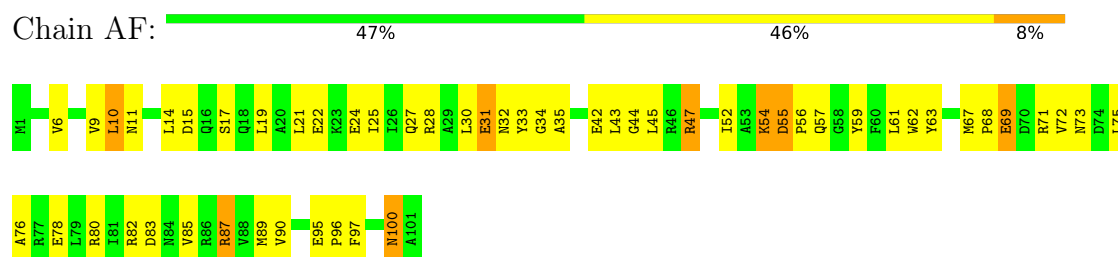
• Molecule 5: 30S ribosomal protein S5



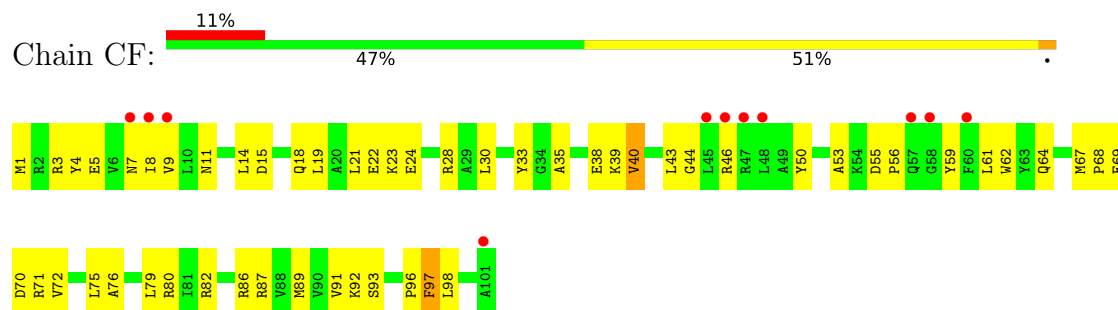
• Molecule 5: 30S ribosomal protein S5



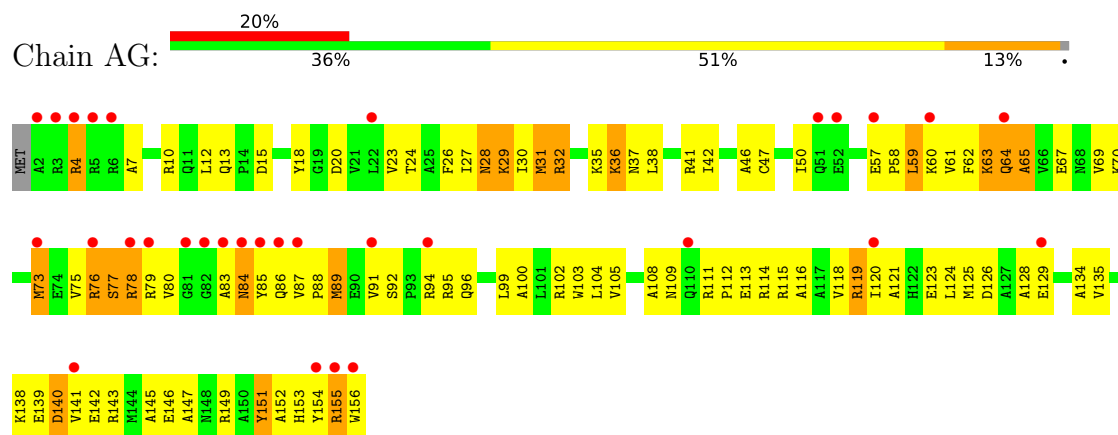
- Molecule 6: 30S ribosomal protein S6



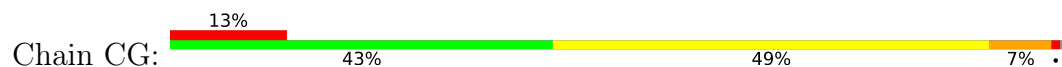
- Molecule 6: 30S ribosomal protein S6

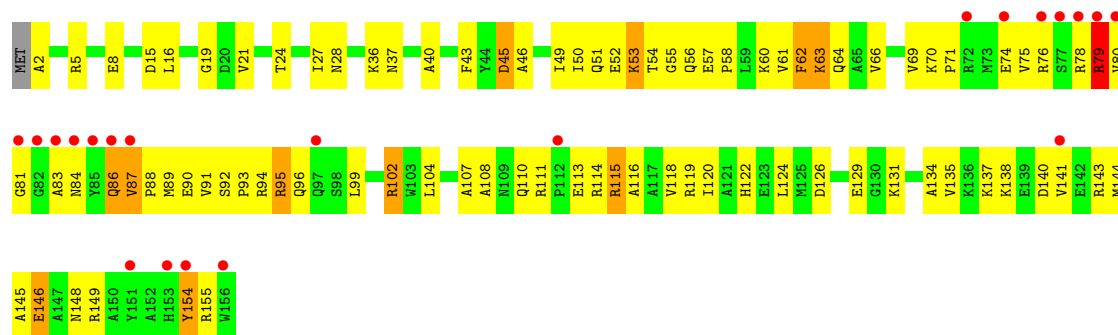


- Molecule 7: 30S ribosomal protein S7

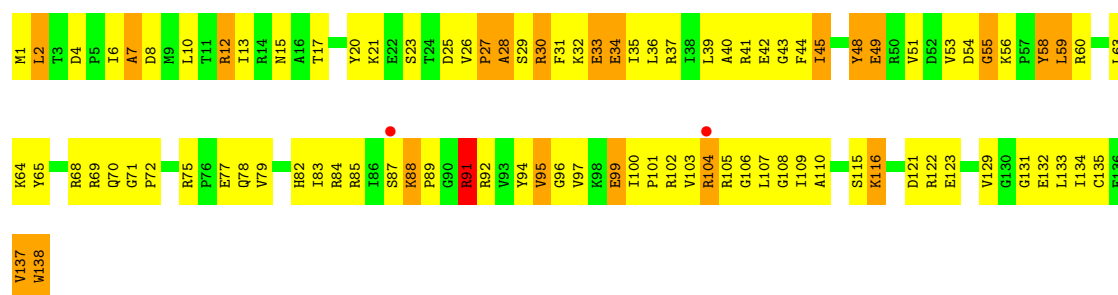


- Molecule 7: 30S ribosomal protein S7

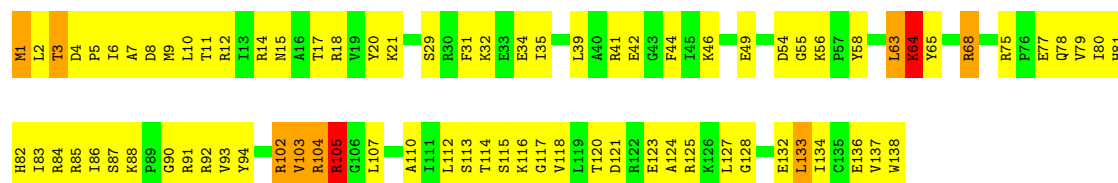




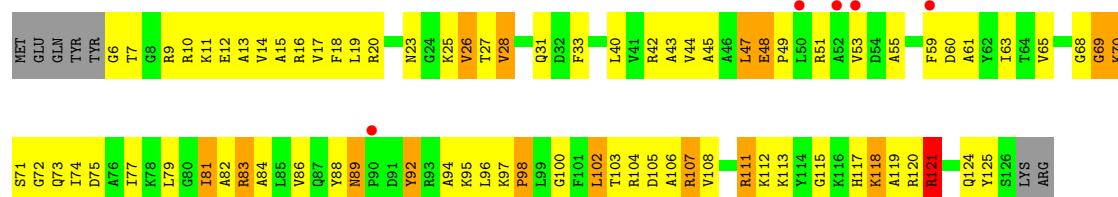
• Molecule 8: 30S ribosomal protein S8



• Molecule 8: 30S ribosomal protein S8

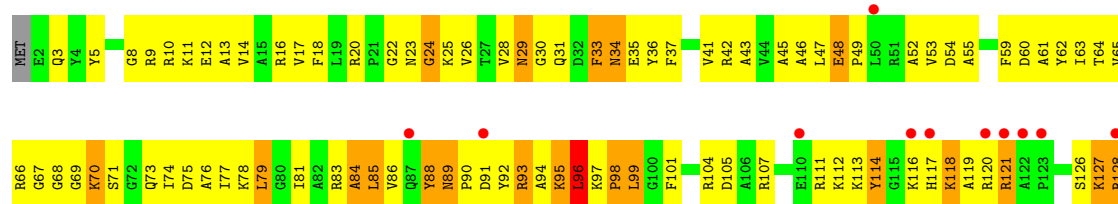


• Molecule 9: 30S ribosomal protein S9

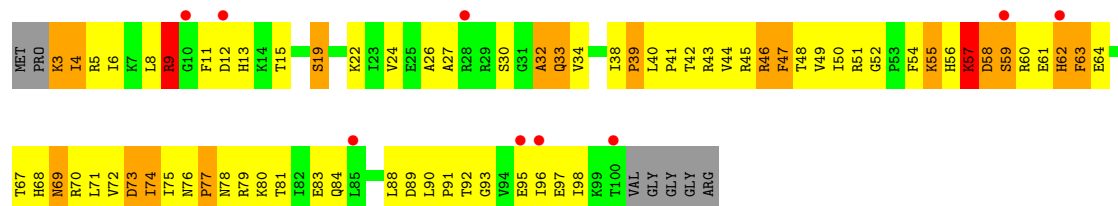


• Molecule 9: 30S ribosomal protein S9

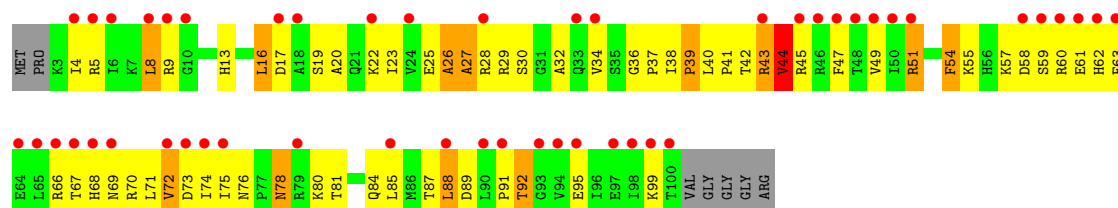




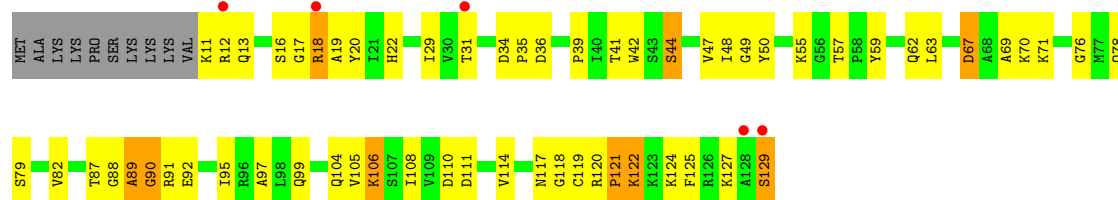
• Molecule 10: 30S ribosomal protein S10



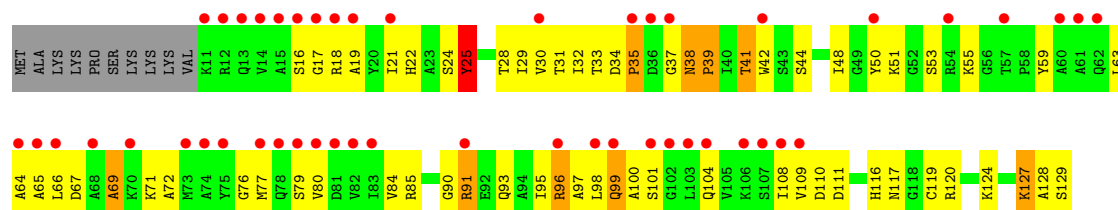
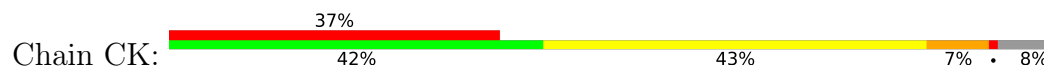
• Molecule 10: 30S ribosomal protein S10



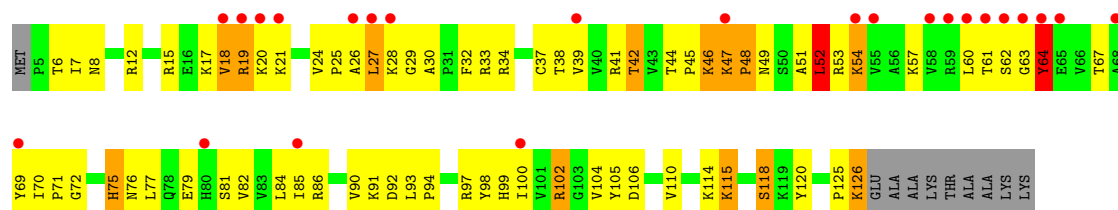
• Molecule 11: 30S ribosomal protein S11



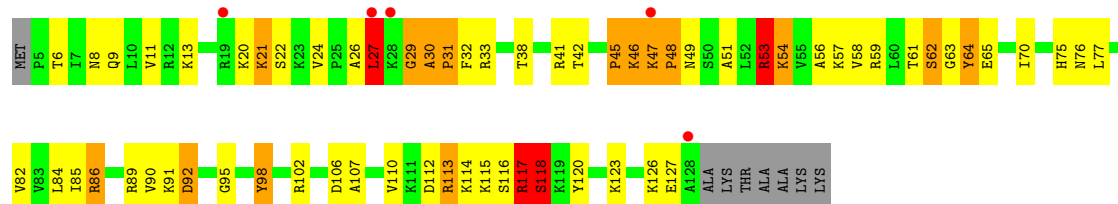
• Molecule 11: 30S ribosomal protein S11



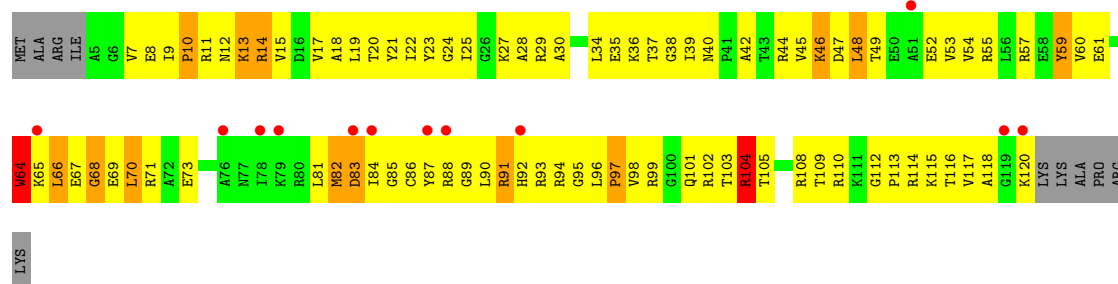
- Molecule 12: 30S ribosomal protein S12



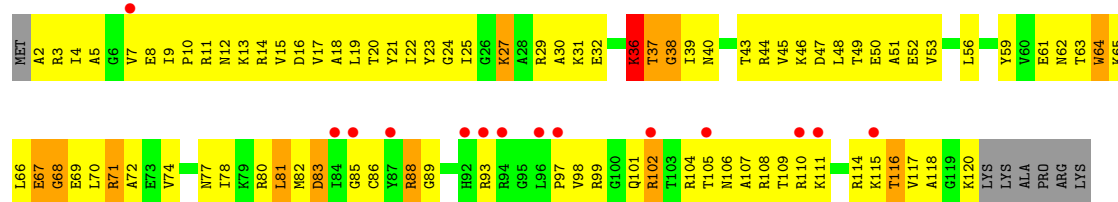
- Molecule 12: 30S ribosomal protein S12



- Molecule 13: 30S ribosomal protein S13



- Molecule 13: 30S ribosomal protein S13

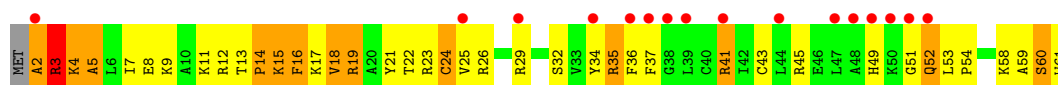


- Molecule 14: 30S ribosomal protein S14 type Z

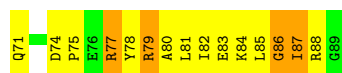
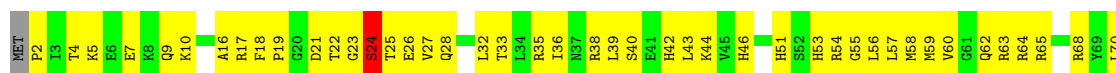




- Molecule 14: 30S ribosomal protein S14 type Z



- Molecule 15: 30S ribosomal protein S15



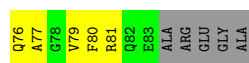
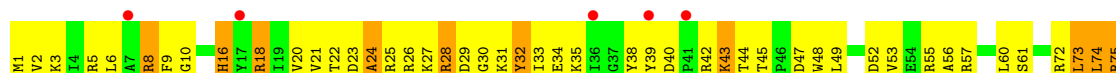
- Molecule 15: 30S ribosomal protein S15



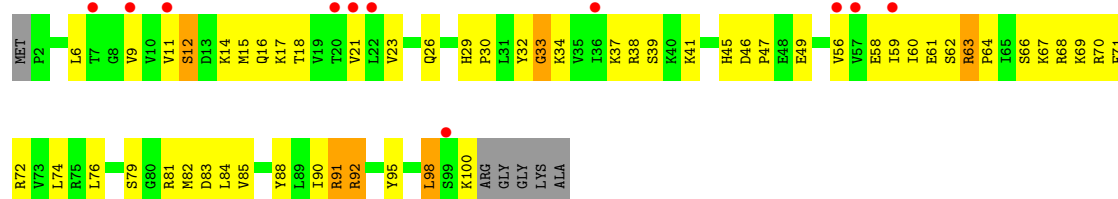
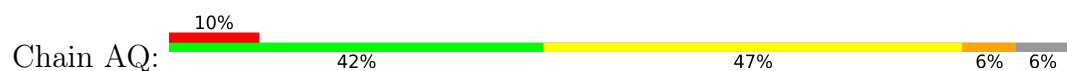
- Molecule 16: 30S ribosomal protein S16



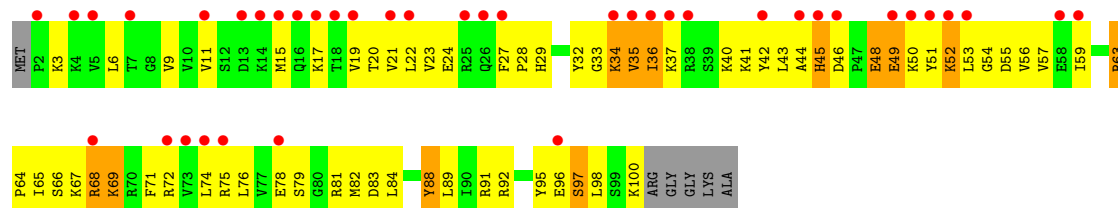
- Molecule 16: 30S ribosomal protein S16



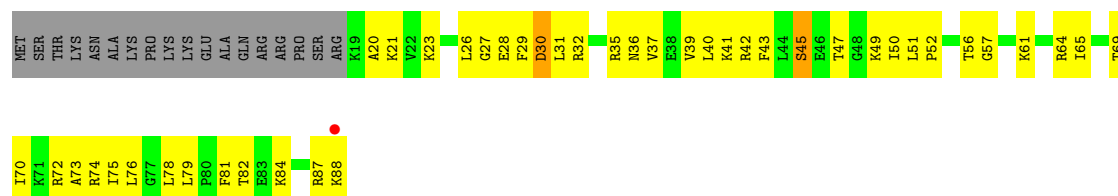
- Molecule 17: 30S ribosomal protein S17



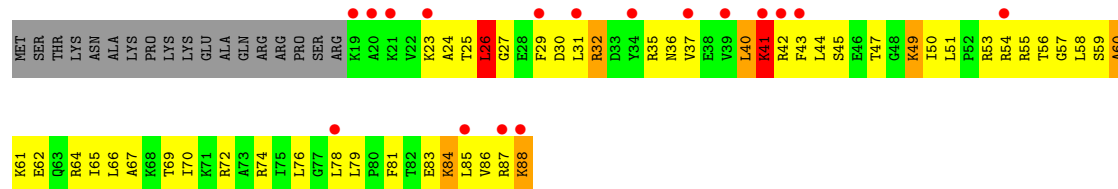
- Molecule 17: 30S ribosomal protein S17



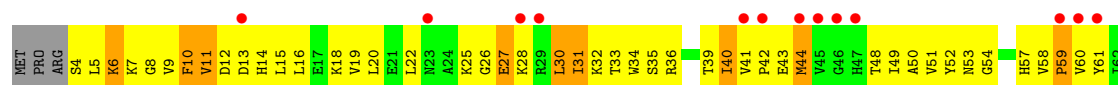
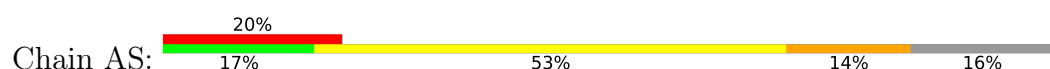
- Molecule 18: 30S ribosomal protein S18



- Molecule 18: 30S ribosomal protein S18

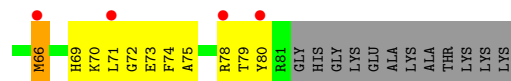
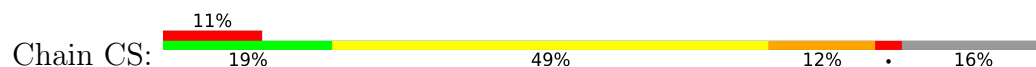


- Molecule 19: 30S ribosomal protein S19

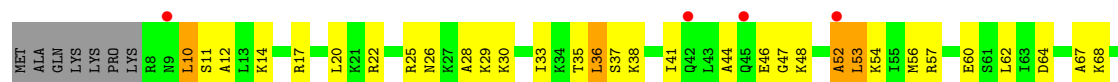
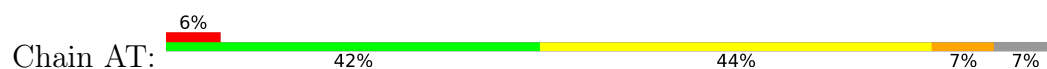




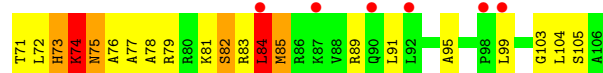
- Molecule 19: 30S ribosomal protein S19



- Molecule 20: 30S ribosomal protein S20



- Molecule 20: 30S ribosomal protein S20



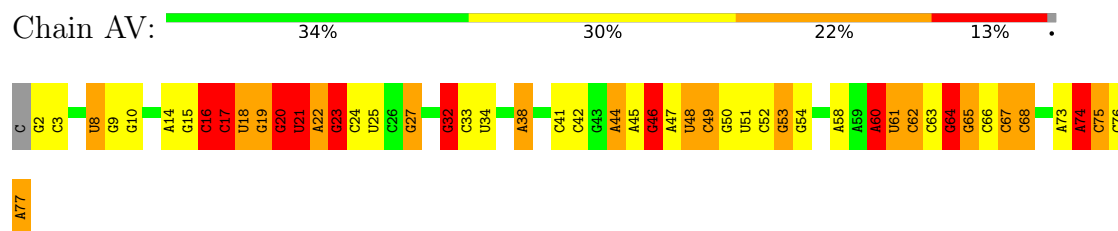
- Molecule 21: 30S ribosomal protein Thx



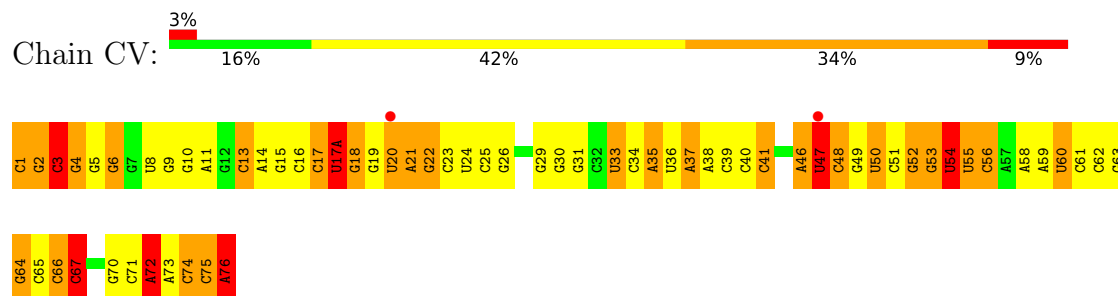
- Molecule 21: 30S ribosomal protein Thx



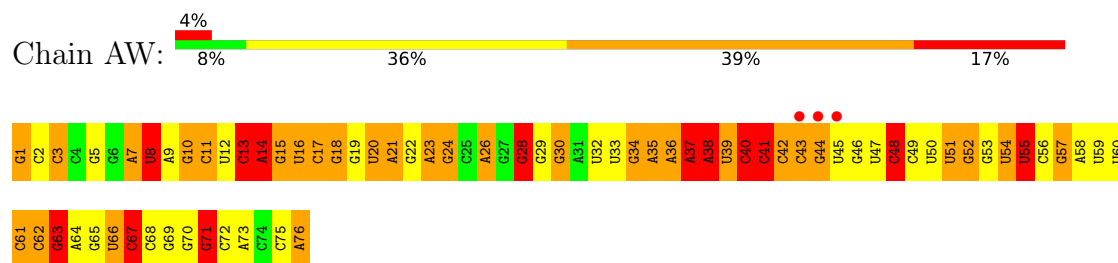
- Molecule 22: P-site tRNA fMet



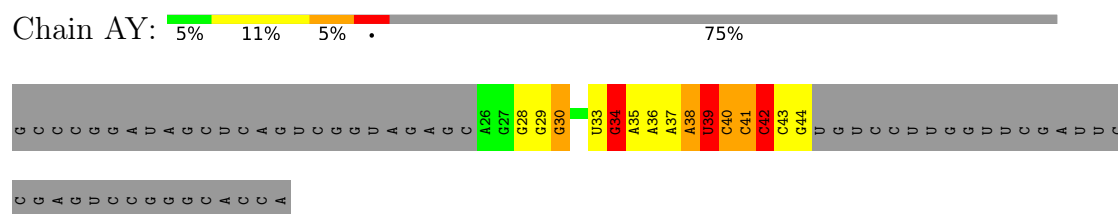
- Molecule 22: P-site tRNA fMet



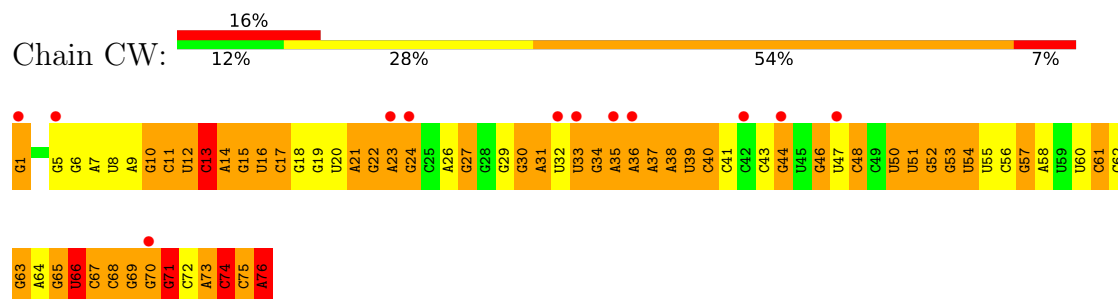
- Molecule 23: E-Site tRNA Phe and A-site tRNA Phe



- Molecule 23: E-Site tRNA Phe and A-site tRNA Phe



- Molecule 23: E-Site tRNA Phe and A-site tRNA Phe

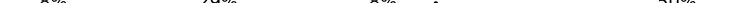


- Molecule 23: E-Site tRNA Phe and A-site tRNA Phe

Chain CY:  9% 9% 7% 72%



- Molecule 24: mRNA

Chain AX: 



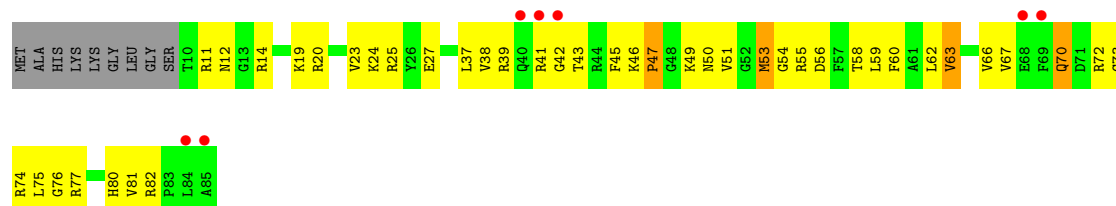
- Molecule 24: mRNA

Chain CX: 

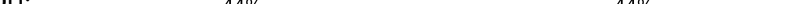


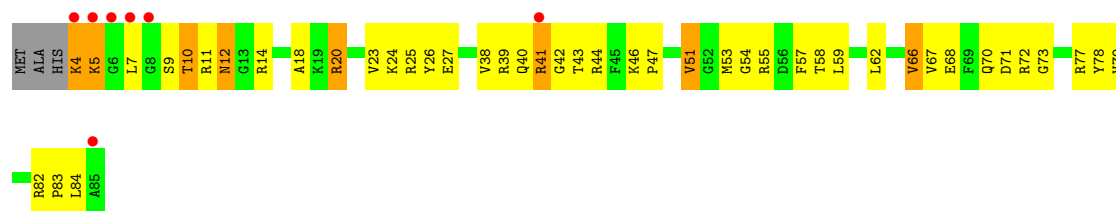
- Molecule 25: 50S ribosomal protein L27

Chain B0: 

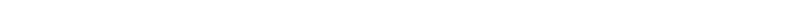


- Molecule 25: 50S ribosomal protein L27

Chain D0: 



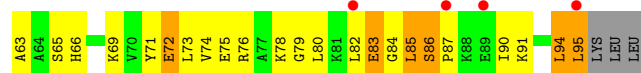
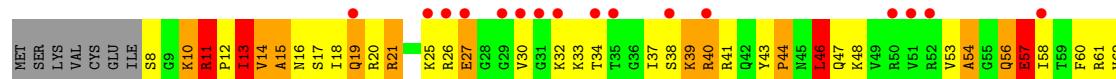
- Molecule 26: 50S ribosomal protein L28

Chain B1: 

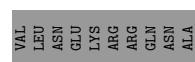
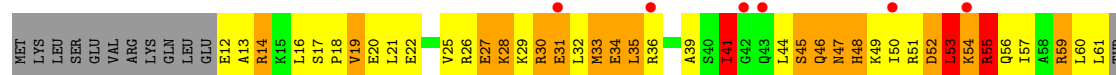




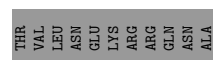
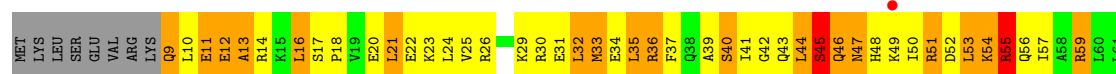
• Molecule 26: 50S ribosomal protein L28



• Molecule 27: 50S ribosomal protein L29



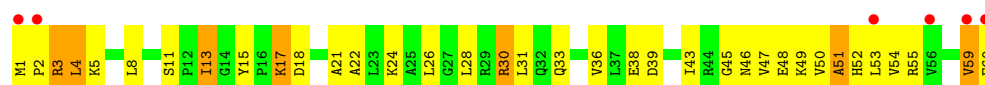
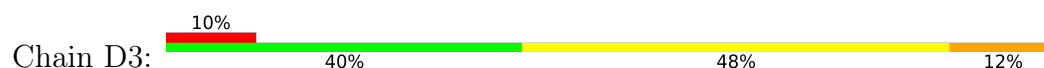
• Molecule 27: 50S ribosomal protein L29



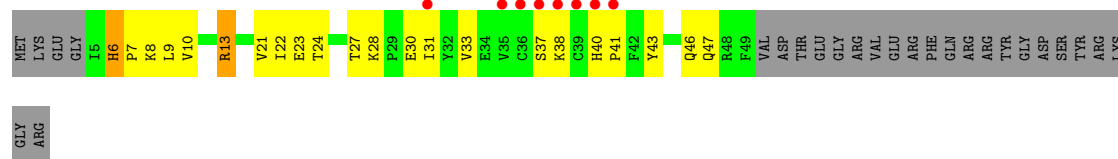
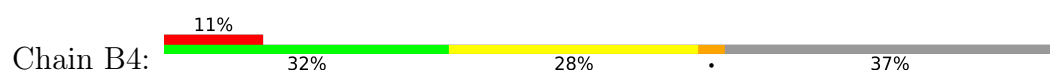
• Molecule 28: 50S ribosomal protein L30



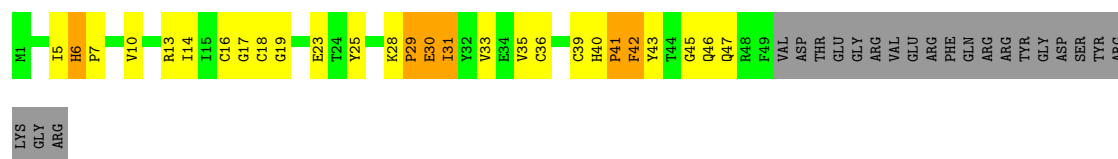
• Molecule 28: 50S ribosomal protein L30



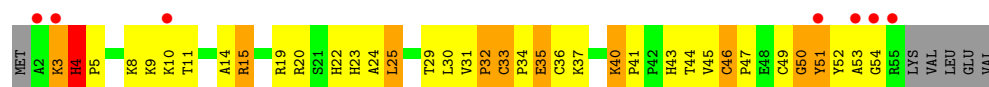
• Molecule 29: 50S ribosomal protein L31



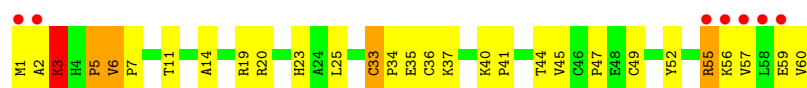
- Molecule 29: 50S ribosomal protein L31



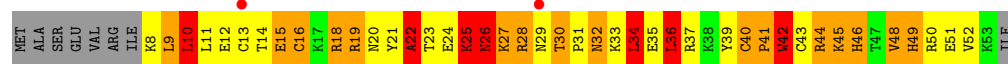
- Molecule 30: 50S ribosomal protein L32



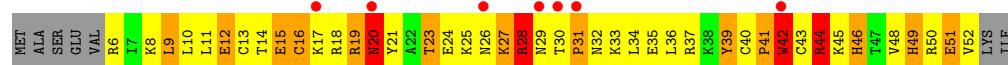
- Molecule 30: 50S ribosomal protein L32



- Molecule 31: 50S ribosomal protein L33



- Molecule 31: 50S ribosomal protein L33



- Molecule 32: 50S ribosomal protein L34

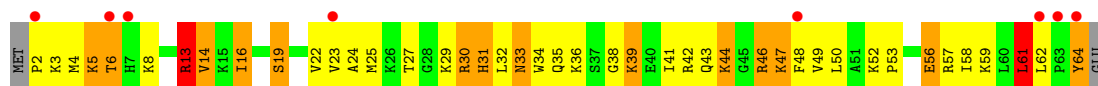




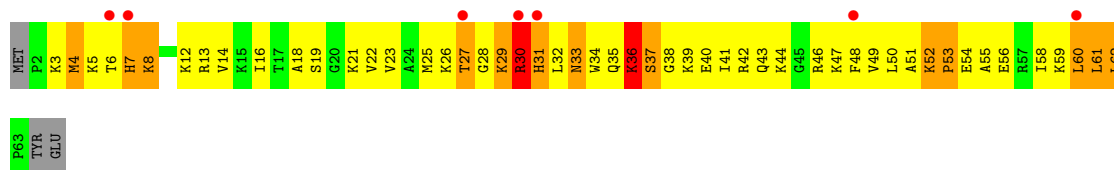
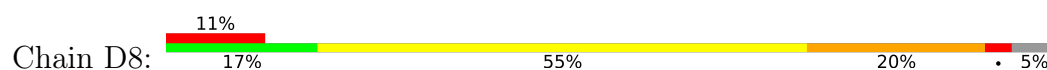
- Molecule 32: 50S ribosomal protein L34



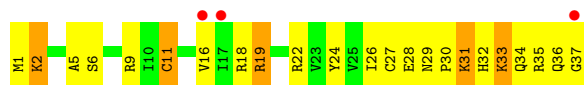
- Molecule 33: 50S ribosomal protein L35



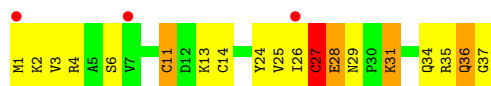
- Molecule 33: 50S ribosomal protein L35



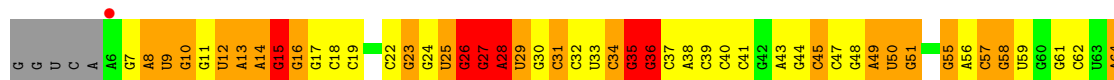
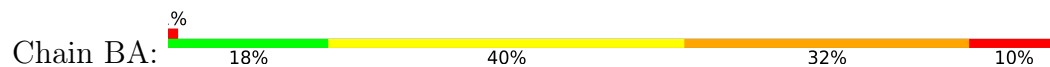
- Molecule 34: 50S ribosomal protein L36

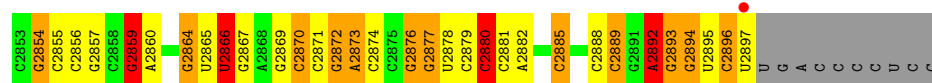


- Molecule 34: 50S ribosomal protein L36

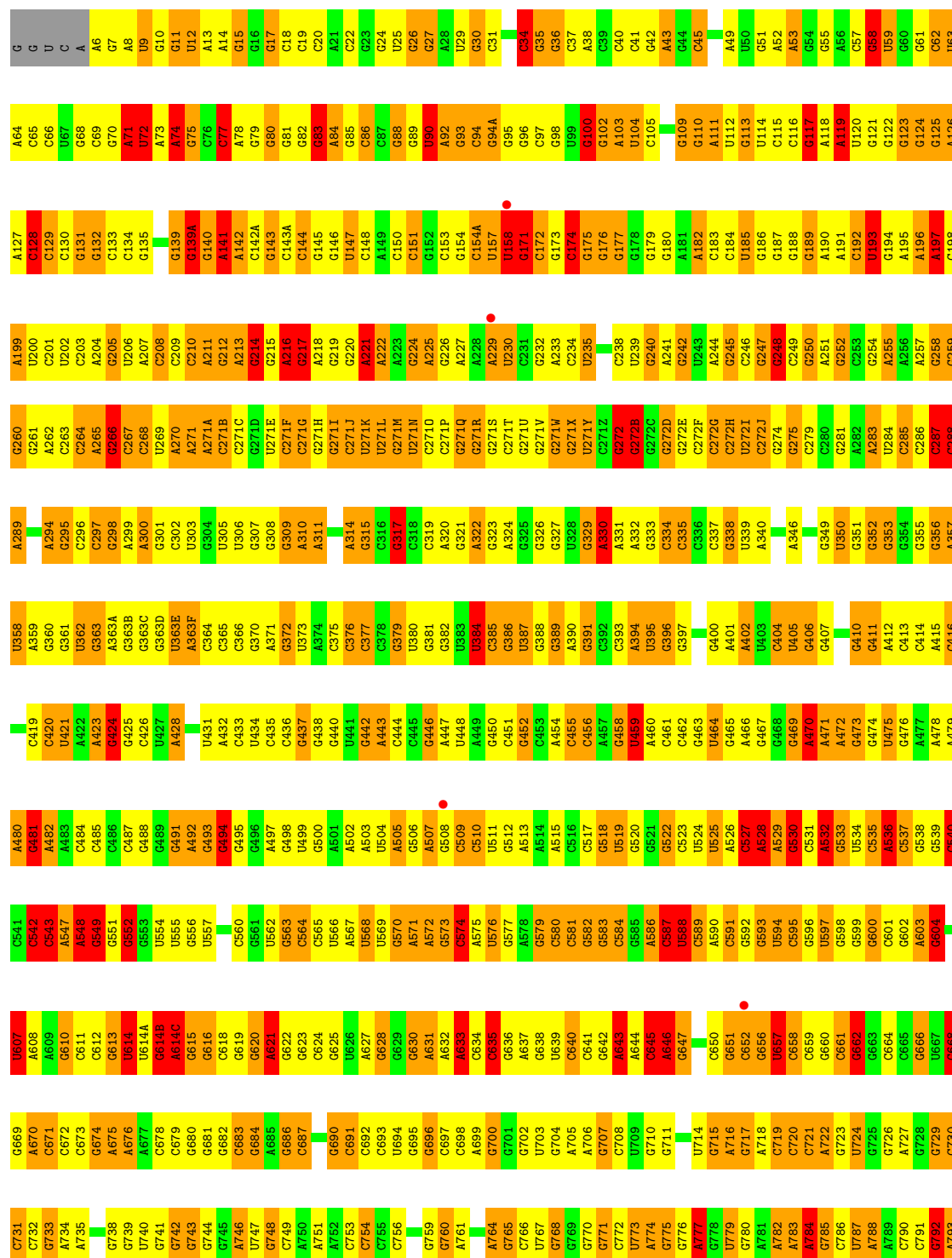
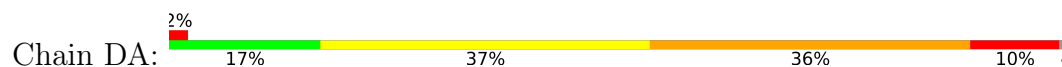


- Molecule 35: 23S ribosomal RNA



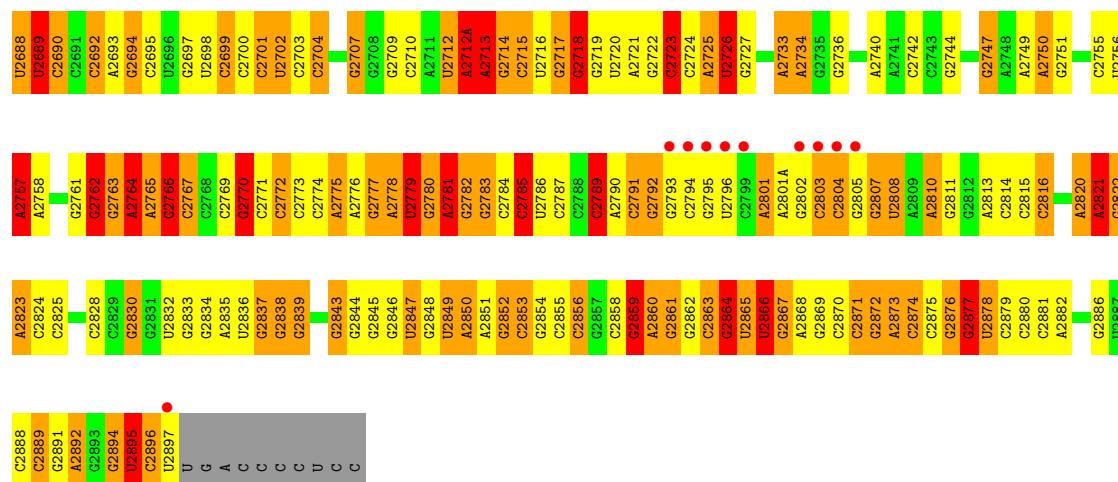


• Molecule 35: 23S ribosomal RNA



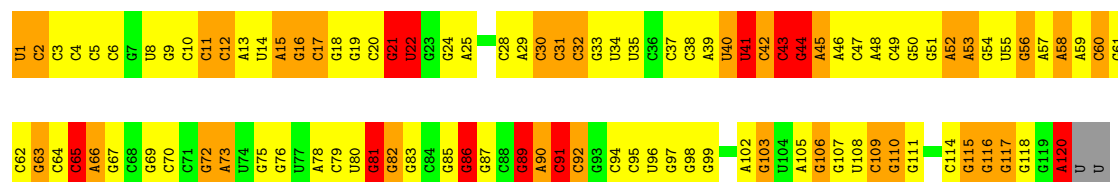
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A1619	G1426	C1557	G1238	A1174	A1111	C1051	A988	C926	U858	C796
G1620	A1427	A1558	G1239	C1300	G1112	G1052	G989	A926	U859	C797
G1621	A1428	C1362	U1240	G1113	U1113	C1053	U860	G928	U860	G798
G1622	G1429	G1303	A1241	U1114	U1114	A1054	A861	U930	U861	G799
G1623	G1430	C1304	A1242	G1115	G1115	G1055	C991	G931	A862	A800
C1624	U1431	C1305	G1243	C1116	C1116	G1056	G993	G932	A863	G801
C1625	C1432	C1306	G1244	G1117	G1117	A1057	C994	G933	A864	A802
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A1628	G1435	G1309	A1247	G1120	G1120	U1060	G997	C936	C867	G805
C1629	G1436	G1310	G1248	C1121	U1061	U1061	C998	U937	U868	C806
G1630	C1437	G1311	U1249	G1122	G1062	G1062	U999	G938	U869	U807
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A1637	A1445	G1319	C1257	U1130	A1070	A1070	C1007	G946	U878	C815
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G1639	G1446	A1321	G1259	U1132	C1072	C1072	A1009	G948	C880	C817
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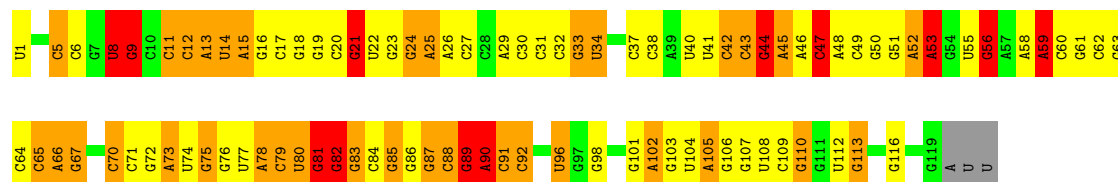
• Molecule 36: 5S ribosomal RNA

Chain BB: 15% 48% 26% 9% .



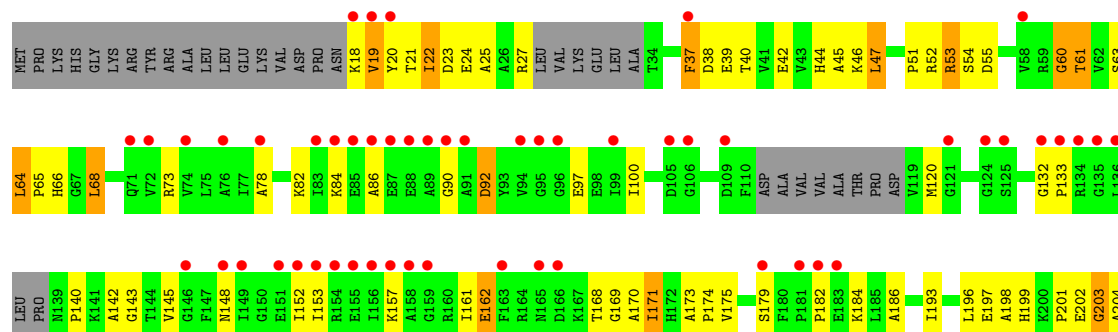
• Molecule 36: 5S ribosomal RNA

Chain DB: 20% 39% 28% 10% .



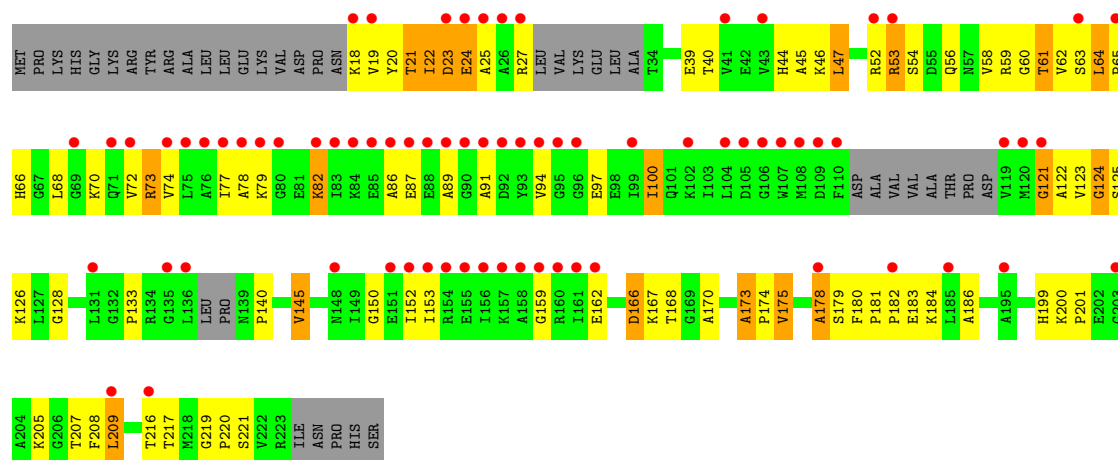
• Molecule 37: 50S ribosomal protein L1

Chain BC: 24% 48% 29% 6% 17%

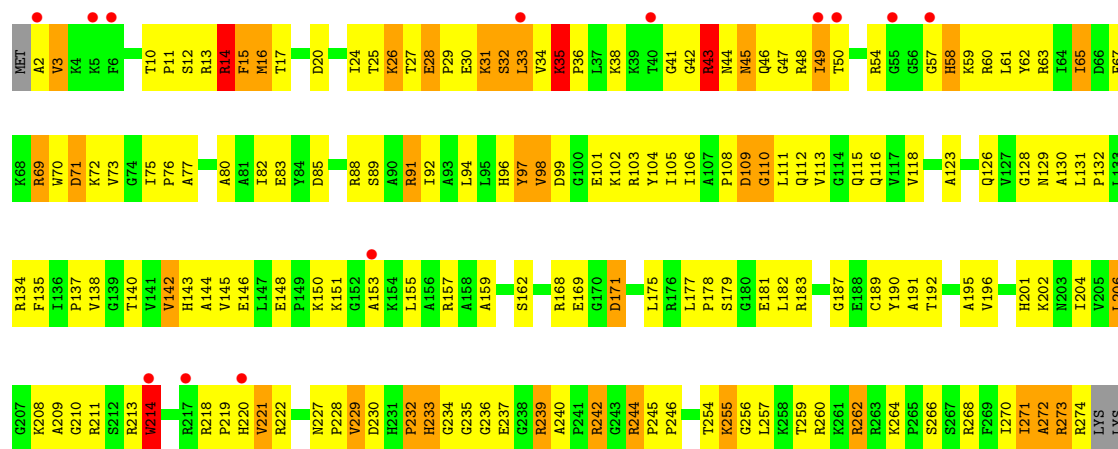




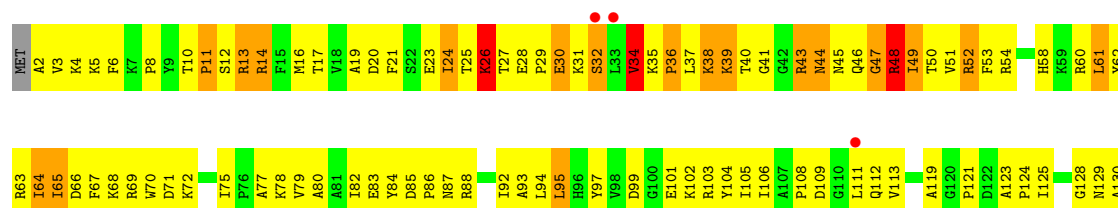
• Molecule 37: 50S ribosomal protein L1

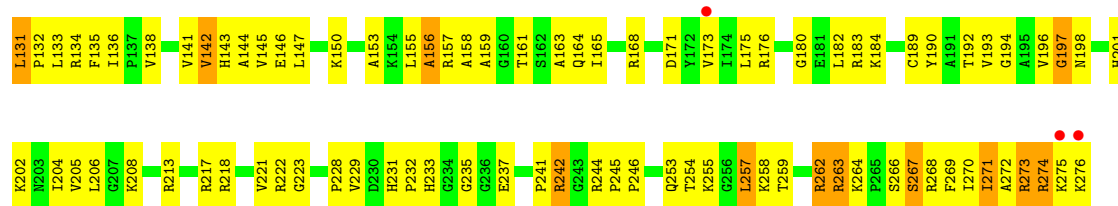


• Molecule 38: 50S ribosomal protein L2

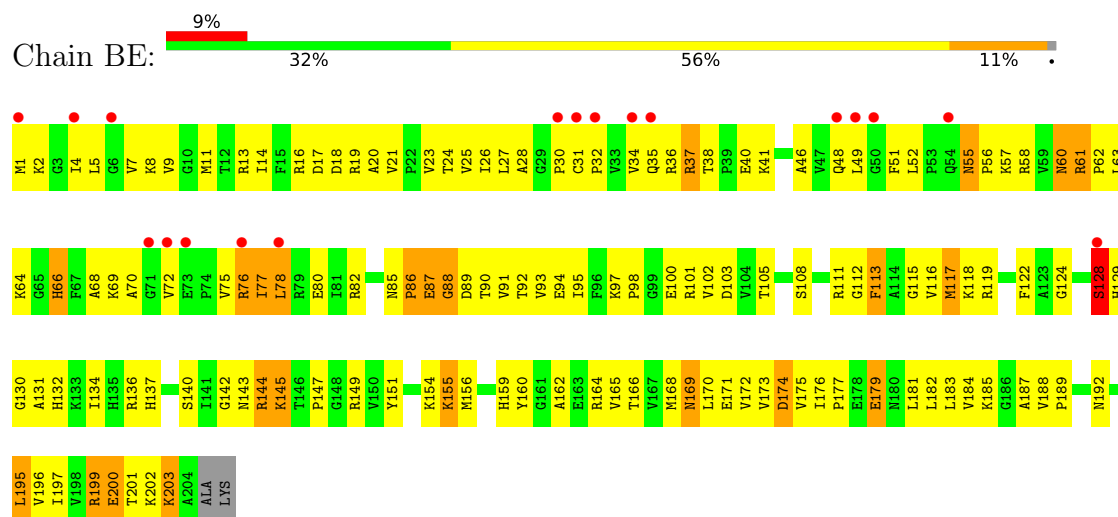


• Molecule 38: 50S ribosomal protein L2

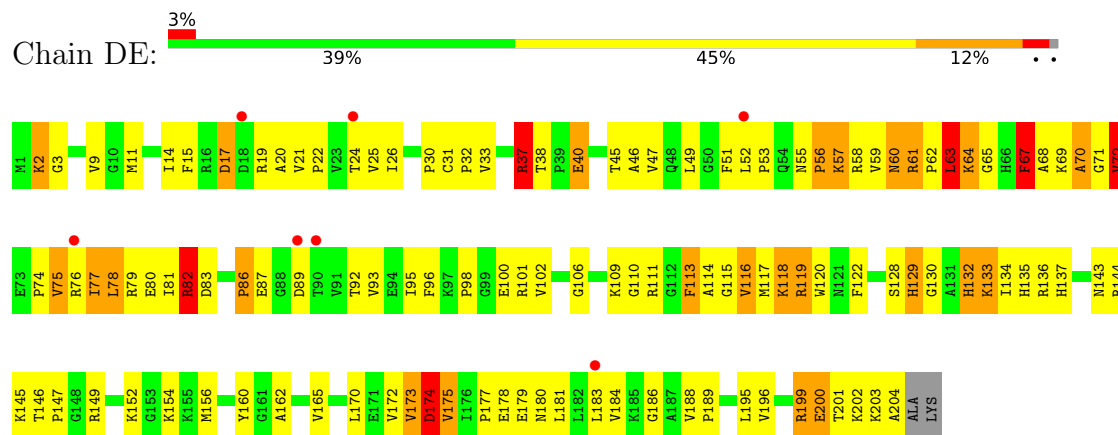




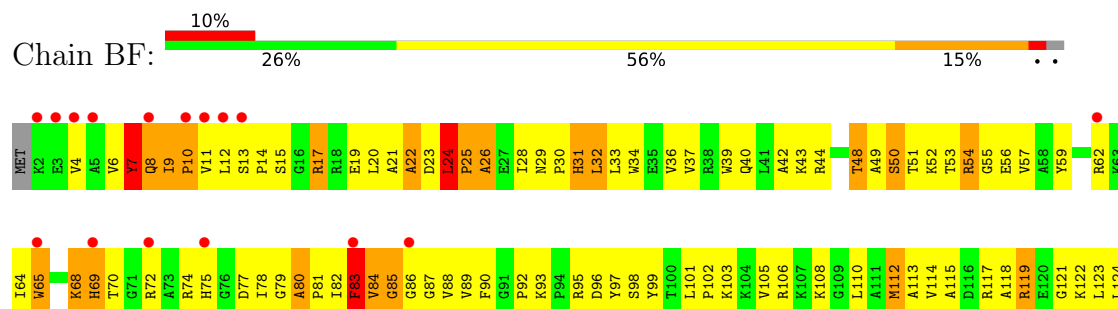
• Molecule 39: 50S ribosomal protein L3

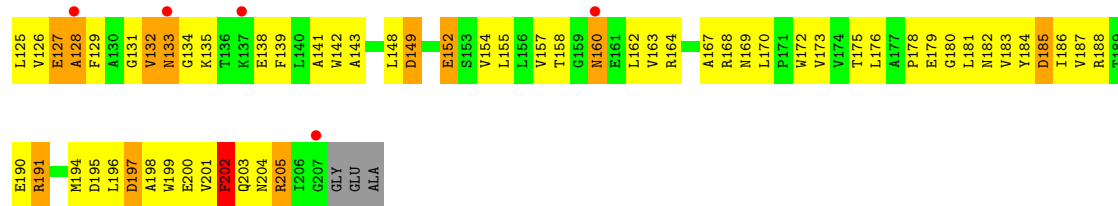


• Molecule 39: 50S ribosomal protein L3

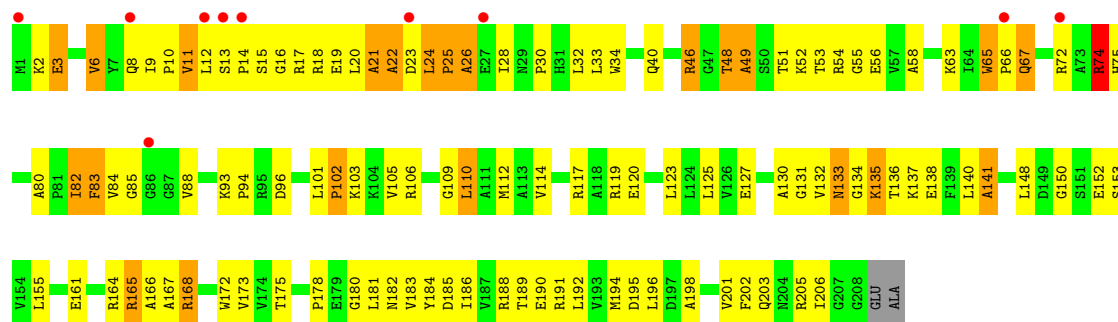


• Molecule 40: 50S ribosomal protein L4

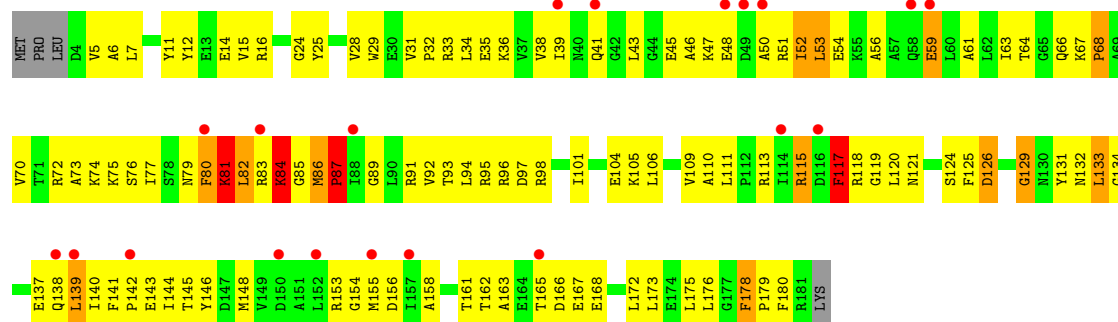




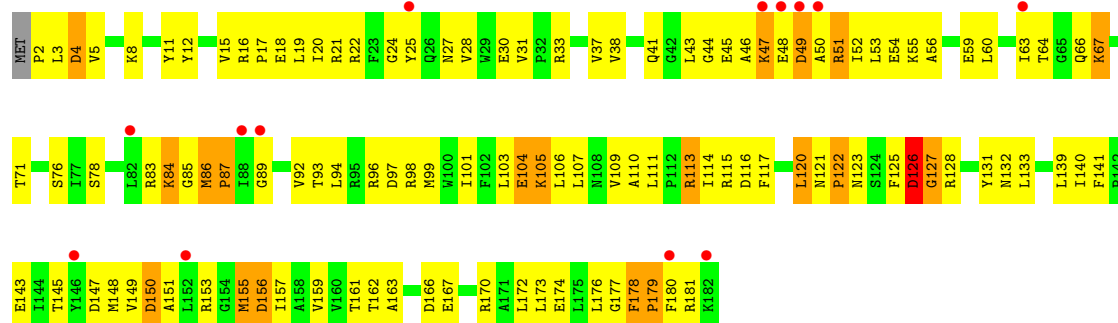
• Molecule 40: 50S ribosomal protein L4



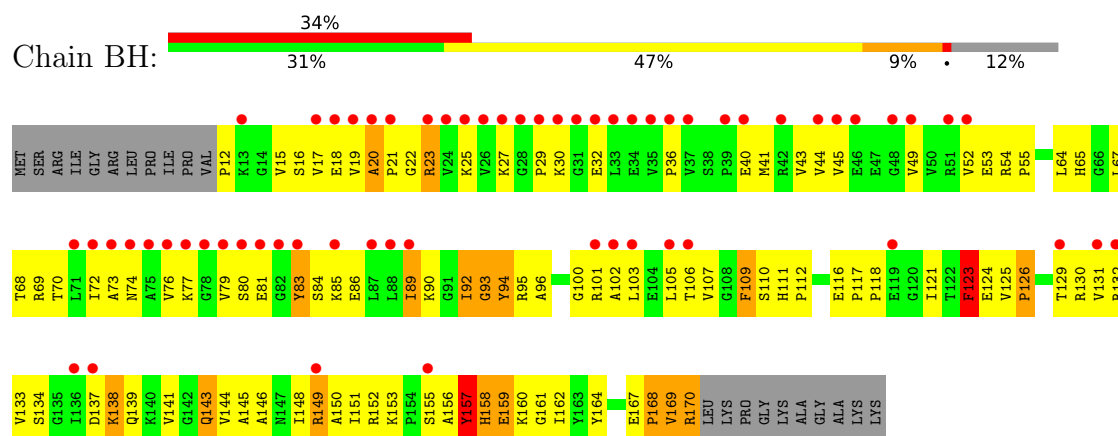
• Molecule 41: 50S ribosomal protein L5



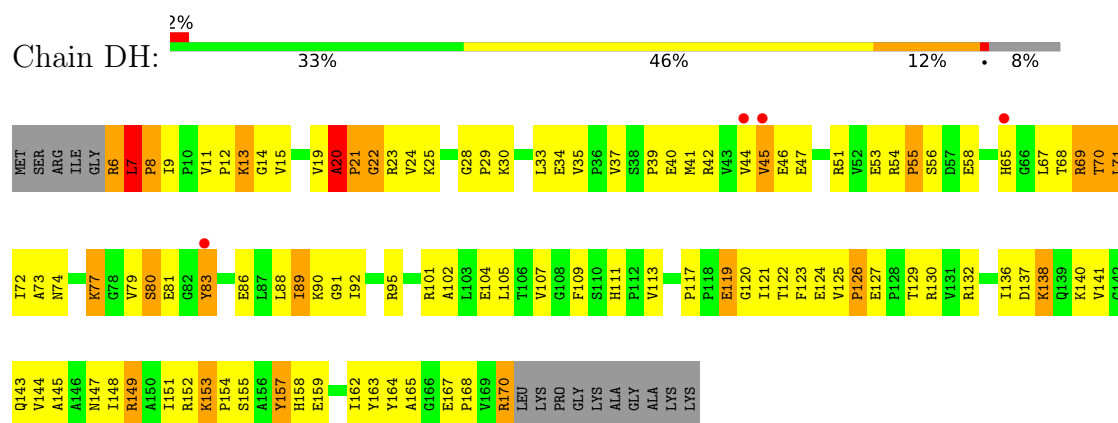
• Molecule 41: 50S ribosomal protein L5



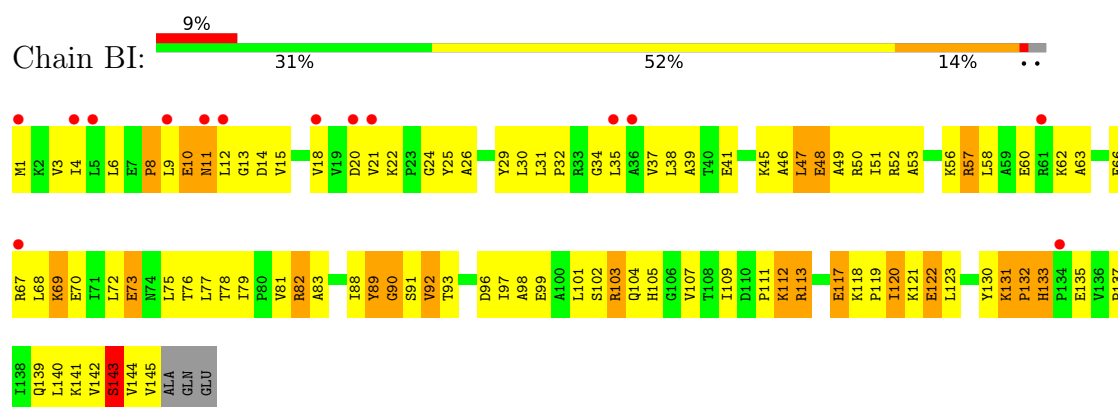
• Molecule 42: 50S ribosomal protein L6



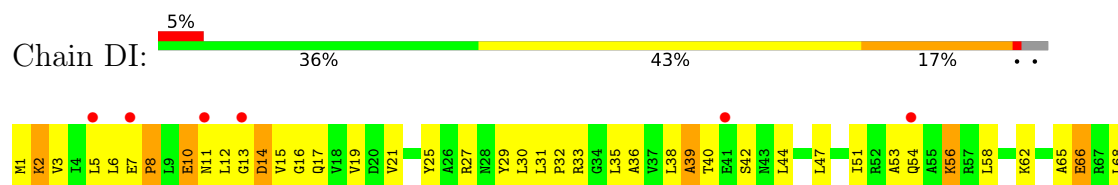
• Molecule 42: 50S ribosomal protein L6

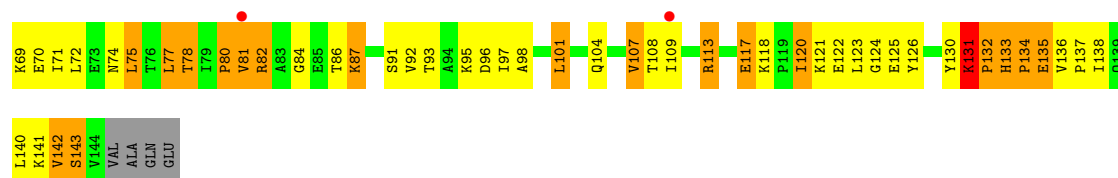


• Molecule 43: 50S ribosomal protein L9



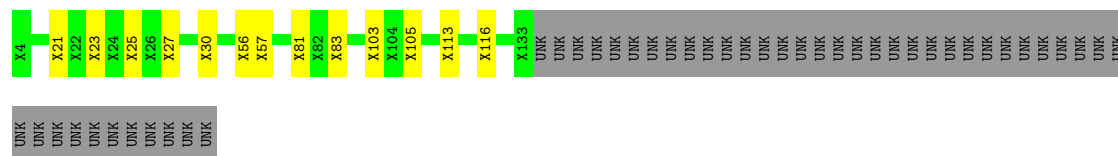
• Molecule 43: 50S ribosomal protein L9





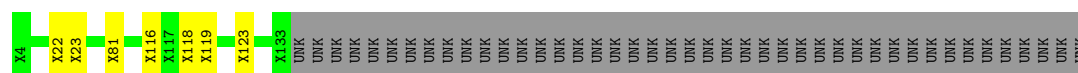
- Molecule 44: 50S ribosomal protein L10

Chain BJ: 68% 8% 25%



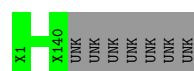
- Molecule 44: 50S ribosomal protein L10

Chain DJ: 71% 25%



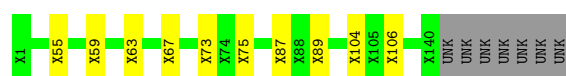
- Molecule 45: 50S ribosomal protein L11

Chain BK: 95% 5%



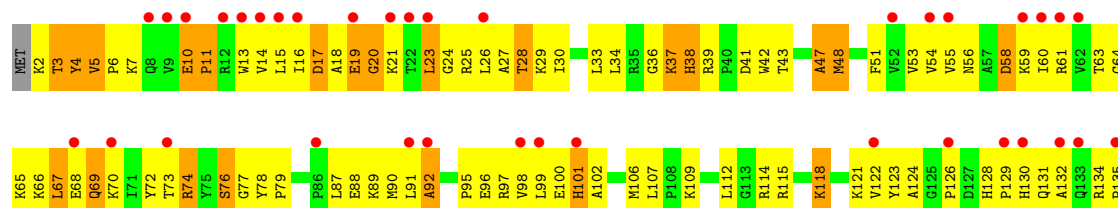
- Molecule 45: 50S ribosomal protein L11

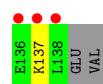
Chain DK: 88% 7% 5%



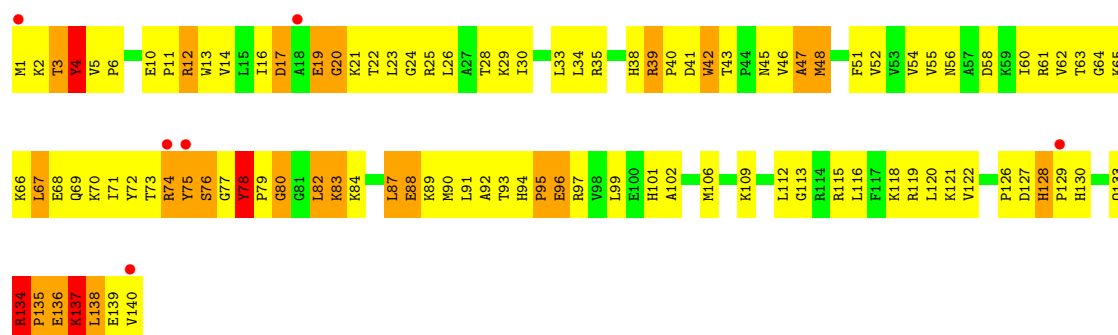
- Molecule 46: 50S ribosomal protein L13

Chain BN: 28% 31% 51% 16%

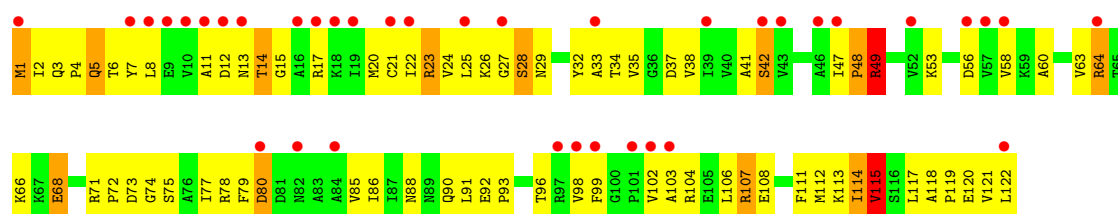




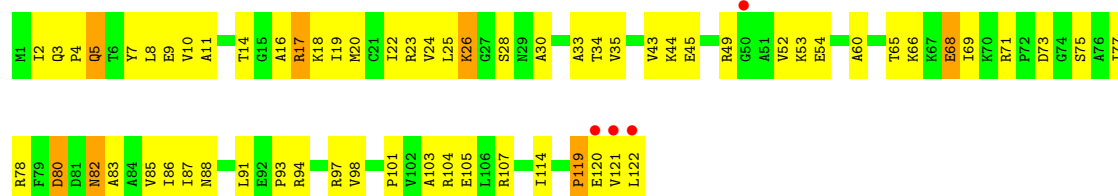
• Molecule 46: 50S ribosomal protein L13



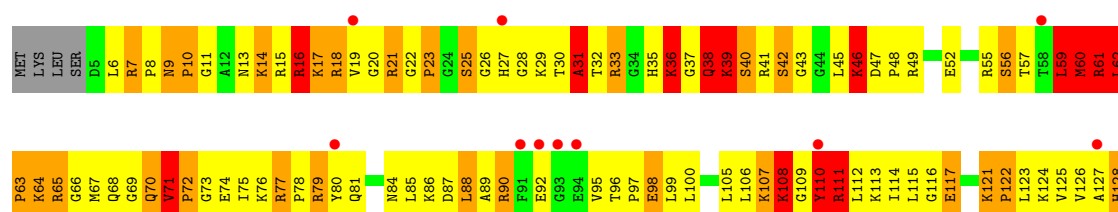
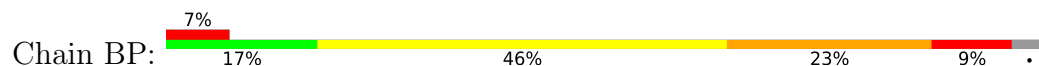
• Molecule 47: 50S ribosomal protein L14



• Molecule 47: 50S ribosomal protein L14

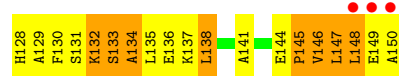
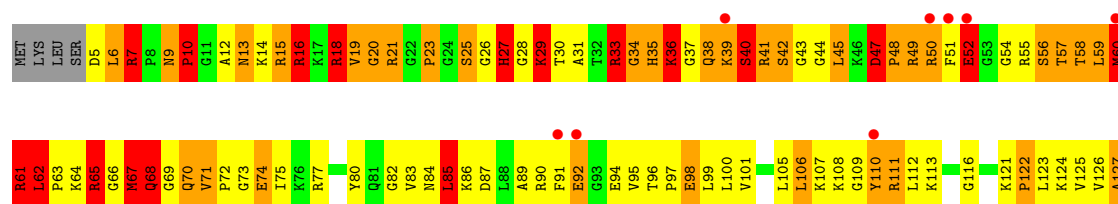
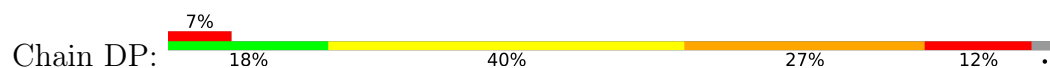


• Molecule 48: 50S ribosomal protein L15

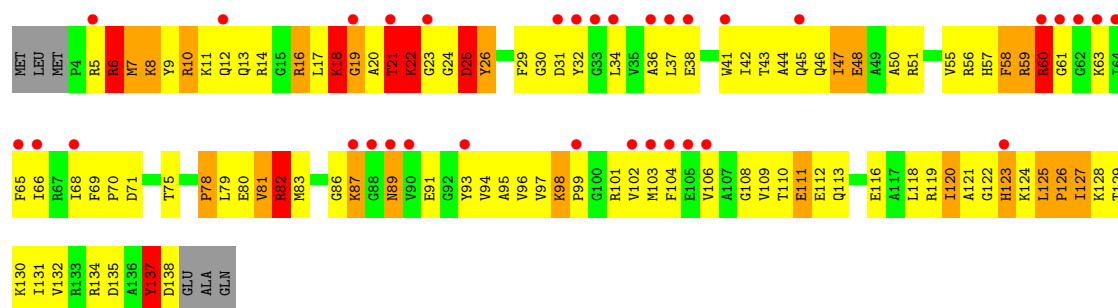




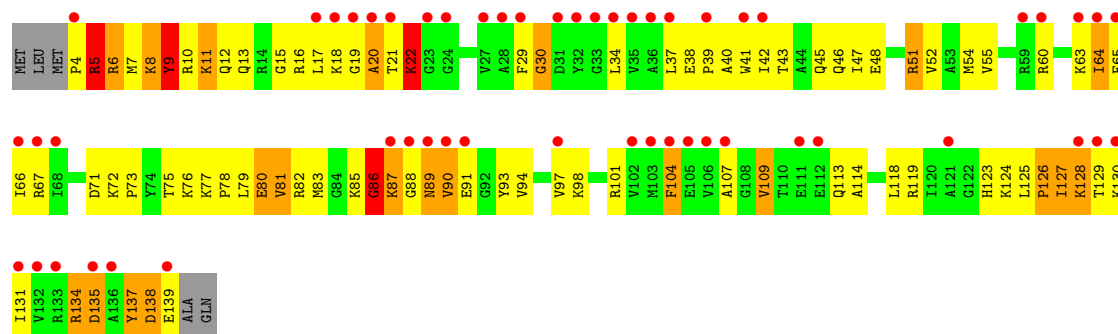
- Molecule 48: 50S ribosomal protein L15



- Molecule 49: 50S ribosomal protein L16

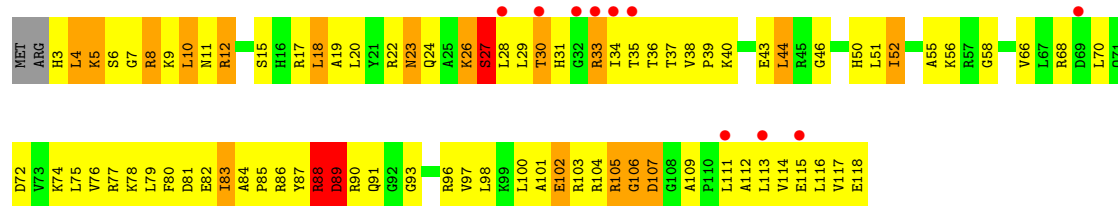


- Molecule 49: 50S ribosomal protein L16

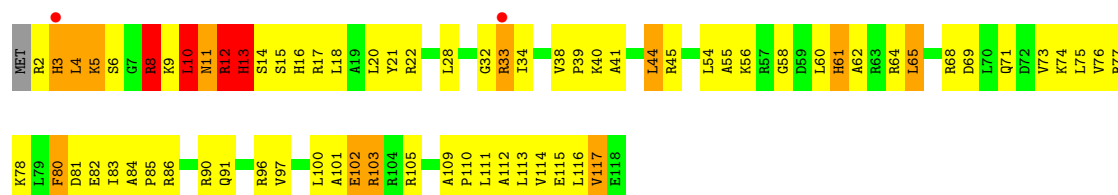


- Molecule 50: 50S ribosomal protein L17

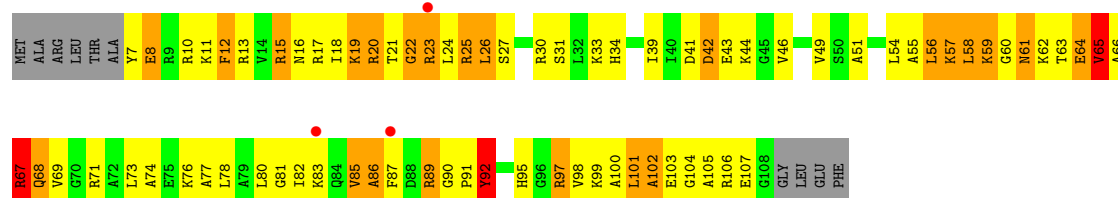
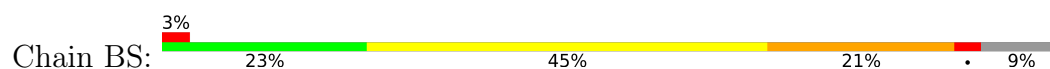




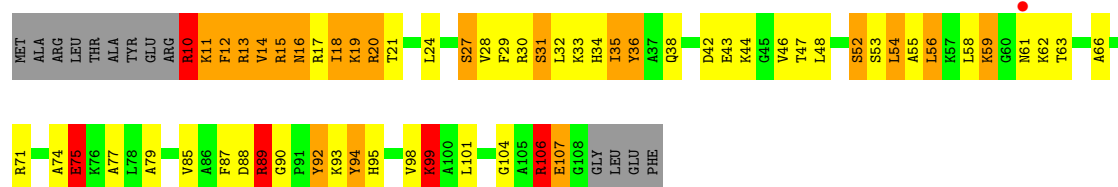
• Molecule 50: 50S ribosomal protein L17



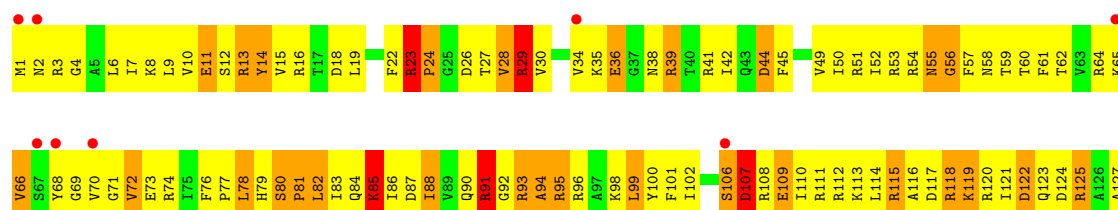
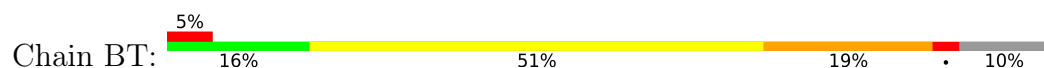
• Molecule 51: 50S ribosomal protein L18

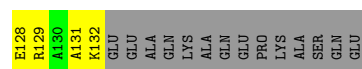


• Molecule 51: 50S ribosomal protein L18

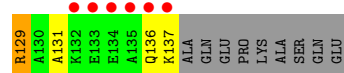
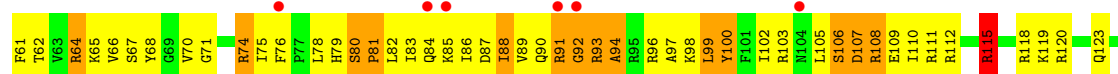
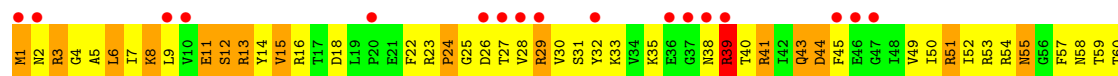


• Molecule 52: 50S ribosomal protein L19

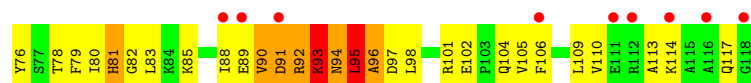
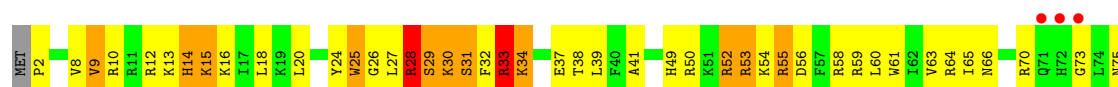




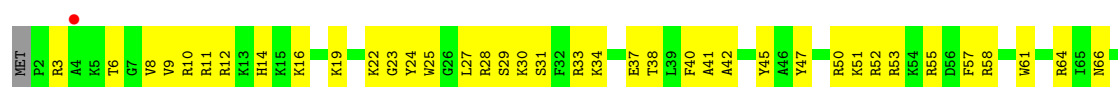
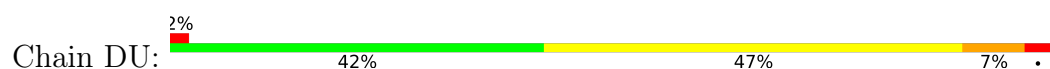
• Molecule 52: 50S ribosomal protein L19



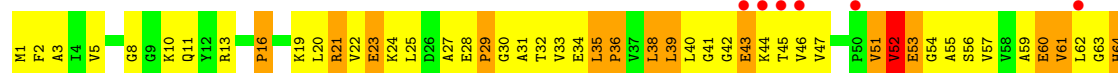
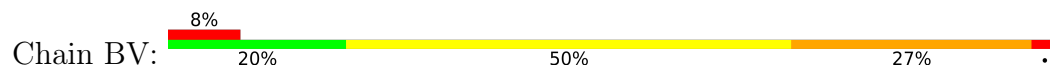
• Molecule 53: 50S ribosomal protein L20



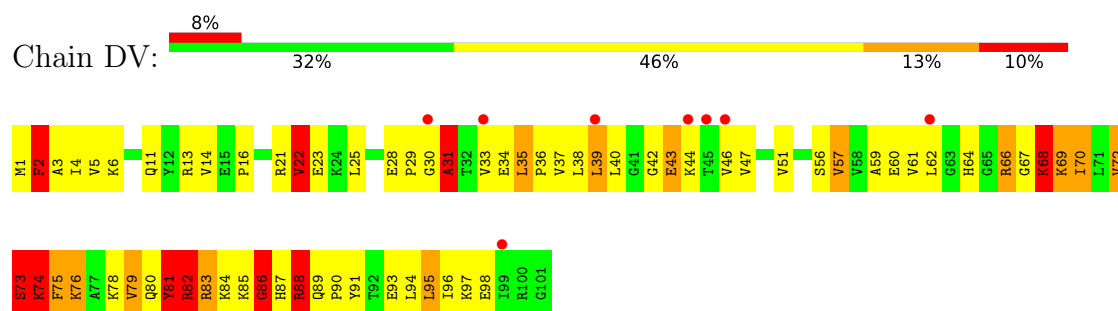
• Molecule 53: 50S ribosomal protein L20



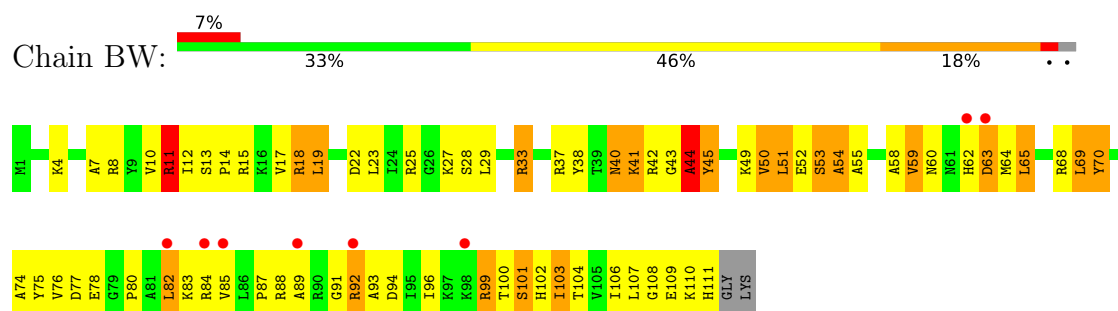
• Molecule 54: 50S ribosomal protein L21



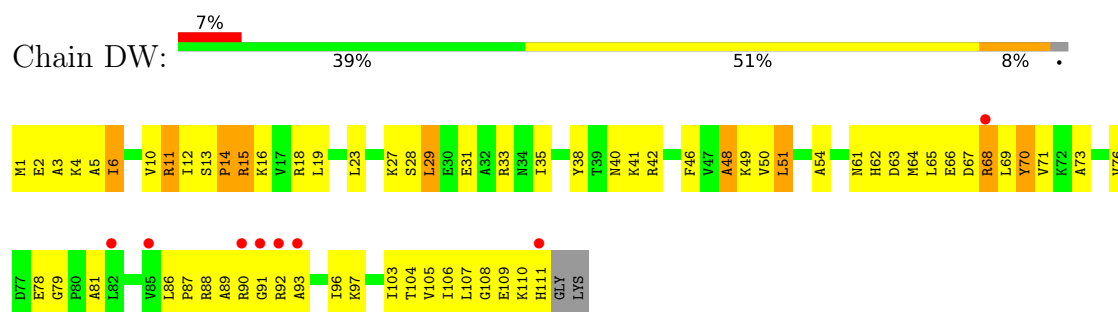
- Molecule 54: 50S ribosomal protein L21



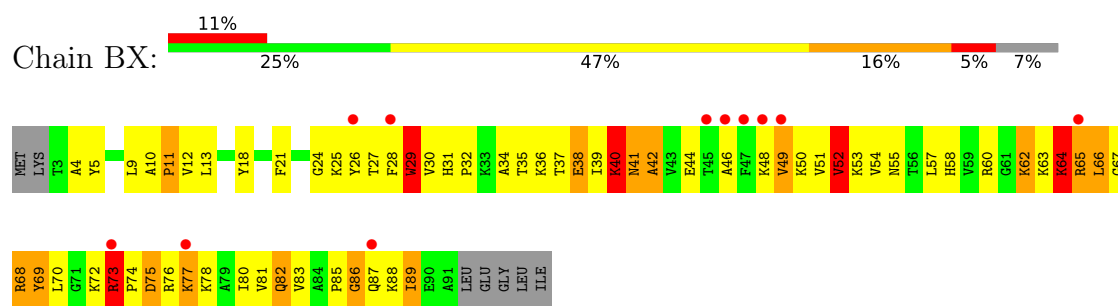
- Molecule 55: 50S ribosomal protein L22



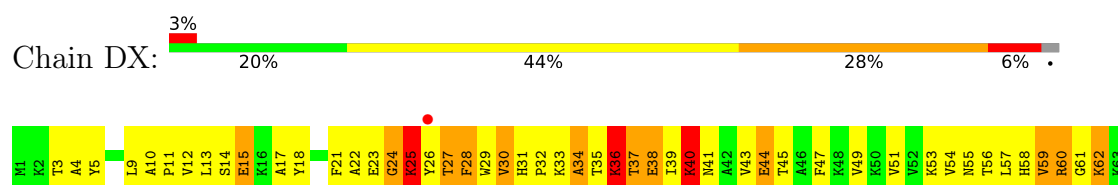
- Molecule 55: 50S ribosomal protein L22

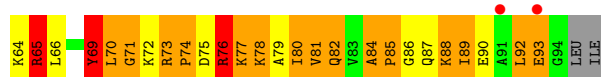


- Molecule 56: 50S ribosomal protein L23

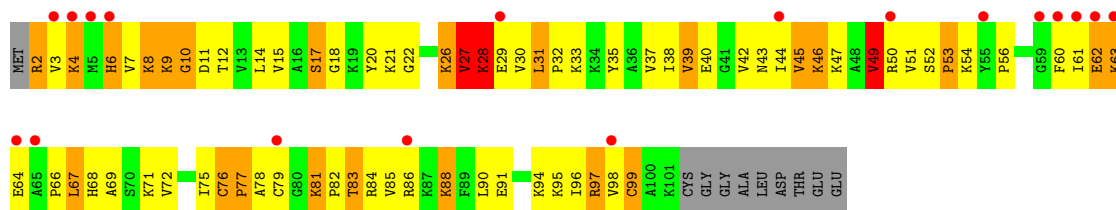


- Molecule 56: 50S ribosomal protein L23

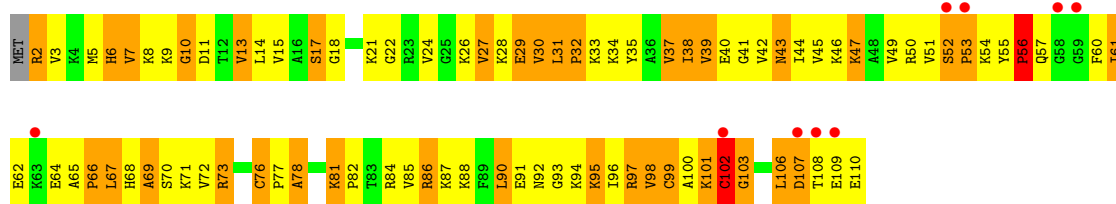
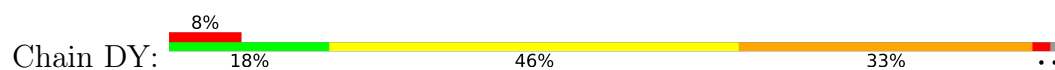




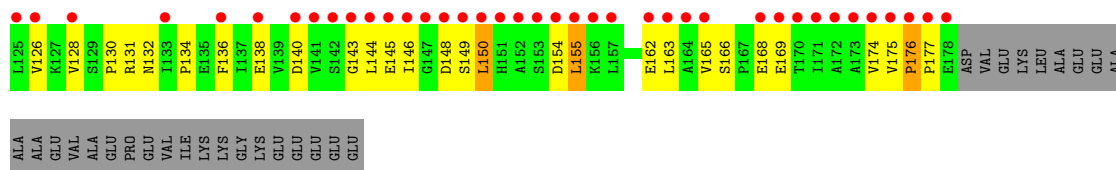
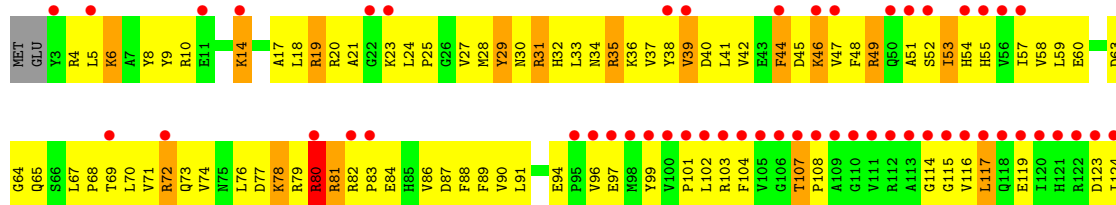
- Molecule 57: 50S ribosomal protein L24



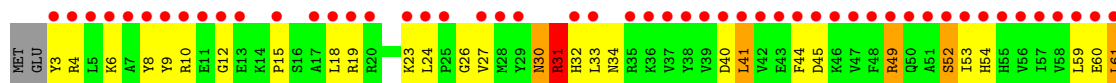
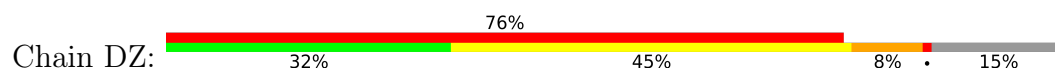
- Molecule 57: 50S ribosomal protein L24



- Molecule 58: 50S ribosomal protein L25



- Molecule 58: 50S ribosomal protein L25



LYS	R122	P62
LEU	D123	D63
ALA	I124	G64
GLU	V125	Q65
GLU	V126	S66
ALA	K127	L67
ALA	V128	P68
ALA	S129	T69
GLU	P130	L70
VAL	R131	V71
ALA	H132	R72
GLU	I133	Q73
PRO	P134	V74
GLU	E135	N75
VAL	F136	L76
ILE	I137	D77
LYS	E138	K78
LYS	V139	R79
GLY	D140	R80
LYS	V141	R81
GLU	S142	R82
GLU	G143	P83
GLU	L144	E84
GLU	E145	H85
GLU	L146	V86
GLU	G147	D87
	D148	F88
	S149	F89
	L150	V90
	H151	L91
	A152	S92
	S153	D93
	D154	E94
	L155	P95
	K156	V96
	L157	E97
	P158	M98
	P159	Y99
	G160	V100
	V161	P101
	E162	L102
	L163	R103
	A164	F104
	V165	V105
	S166	G106
	P167	T107
	E168	P108
	E169	A109
	T170	G110
	I171	V111
	A172	R112
	A173	A113
	V174	G114
	V175	G115
	P176	V116
	P177	L117
	E178	Q118
	ASP	E119
	VAL	I120
	GLU	V121

4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	209.45Å 449.38Å 619.59Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	147.06 – 3.27 147.06 – 3.27	Depositor EDS
% Data completeness (in resolution range)	99.7 (147.06-3.27) 99.7 (147.06-3.27)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.40 (at 3.26Å)	Xtriage
Refinement program	PHENIX 1.16_3549	Depositor
R, R_{free}	0.214 , 0.277 0.214 , 0.277	Depositor DCC
R_{free} test set	44294 reflections (4.98%)	wwPDB-VP
Wilson B-factor (Å ²)	85.1	Xtriage
Anisotropy	0.091	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.25 , 75.3	EDS
L-test for twinning ²	$\langle L \rangle = 0.48$, $\langle L^2 \rangle = 0.31$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.92	EDS
Total number of atoms	296449	wwPDB-VP
Average B, all atoms (Å ²)	86.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.44% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

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

5 Model quality ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: ZN, EDS, 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	0.93	31/36190 (0.1%)	1.66	836/56486 (1.5%)
1	CA	0.90	14/36193 (0.0%)	1.53	592/56490 (1.0%)
2	AB	0.50	1/1816 (0.1%)	0.90	6/2445 (0.2%)
2	CB	0.45	0/1935	0.66	1/2609 (0.0%)
3	AC	0.43	0/1636	0.68	1/2205 (0.0%)
3	CC	0.50	0/1644	0.68	1/2215 (0.0%)
4	AD	0.61	0/1733	0.82	2/2318 (0.1%)
4	CD	0.53	0/1733	0.74	0/2318
5	AE	0.50	0/1162	0.94	4/1564 (0.3%)
5	CE	0.60	1/1171 (0.1%)	0.79	0/1576
6	AF	0.52	0/856	0.70	0/1154
6	CF	0.56	0/856	0.68	1/1154 (0.1%)
7	AG	0.48	0/1276	0.71	1/1709 (0.1%)
7	CG	0.53	0/1276	0.73	4/1709 (0.2%)
8	AH	1.00	6/1136 (0.5%)	1.06	6/1527 (0.4%)
8	CH	0.54	0/1136	0.73	1/1527 (0.1%)
9	AI	0.45	0/964	0.64	0/1294
9	CI	0.42	0/1029	0.71	2/1379 (0.1%)
10	AJ	0.44	0/807	0.71	0/1085
10	CJ	0.46	0/807	0.76	1/1085 (0.1%)
11	AK	0.54	0/900	0.75	0/1213
11	CK	0.54	0/900	0.72	0/1213
12	AL	0.67	0/972	0.91	1/1301 (0.1%)
12	CL	0.69	0/986	0.96	1/1320 (0.1%)
13	AM	0.44	0/932	0.71	1/1249 (0.1%)
13	CM	0.51	0/956	0.68	0/1281
14	AN	0.55	0/500	0.83	0/664
14	CN	0.58	0/501	0.84	0/664
15	AO	0.48	0/745	0.78	1/992 (0.1%)
15	CO	0.53	0/745	0.67	0/992
16	AP	0.63	0/716	0.88	2/963 (0.2%)
16	CP	0.54	0/716	0.85	2/963 (0.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	AQ	0.57	0/836	0.77	1/1117 (0.1%)
17	CQ	0.56	0/836	0.83	0/1117
18	AR	0.51	0/579	0.78	1/768 (0.1%)
18	CR	0.54	0/579	0.82	0/768
19	AS	0.45	0/642	0.76	0/865
19	CS	0.55	0/642	0.76	0/865
20	AT	0.47	0/765	0.72	1/1007 (0.1%)
20	CT	0.47	0/765	0.77	0/1007
21	AU	0.47	0/212	0.74	0/277
21	CU	0.62	0/221	0.74	0/288
22	AV	0.84	1/1812 (0.1%)	1.59	39/2823 (1.4%)
22	CV	0.96	1/1835 (0.1%)	1.70	38/2857 (1.3%)
23	AW	0.71	1/1813 (0.1%)	1.52	37/2823 (1.3%)
23	AY	1.24	3/459 (0.7%)	1.96	18/714 (2.5%)
23	CW	0.73	1/1813 (0.1%)	1.45	25/2823 (0.9%)
23	CY	0.93	3/507 (0.6%)	1.56	7/789 (0.9%)
24	AX	0.90	0/285	1.66	6/441 (1.4%)
24	CX	1.11	0/285	1.87	13/441 (2.9%)
25	B0	0.64	0/615	0.92	1/819 (0.1%)
25	D0	0.80	1/653 (0.2%)	1.04	1/869 (0.1%)
26	B1	1.05	1/699 (0.1%)	1.30	8/929 (0.9%)
26	D1	1.07	2/699 (0.3%)	1.39	6/929 (0.6%)
27	B2	0.70	0/422	1.04	1/558 (0.2%)
27	D2	1.02	0/448	1.59	7/593 (1.2%)
28	B3	0.59	0/464	0.74	0/623
28	D3	0.65	0/481	0.90	1/646 (0.2%)
29	B4	0.46	0/221	0.72	0/306
29	D4	0.36	0/240	0.76	0/332
30	B5	0.79	0/432	1.00	2/585 (0.3%)
30	D5	0.82	1/481 (0.2%)	1.02	1/649 (0.2%)
31	B6	1.00	1/405 (0.2%)	1.18	3/540 (0.6%)
31	D6	1.10	5/415 (1.2%)	1.24	2/554 (0.4%)
32	B7	0.89	1/426 (0.2%)	1.11	5/561 (0.9%)
32	D7	0.79	1/426 (0.2%)	0.97	2/561 (0.4%)
33	B8	1.06	3/515 (0.6%)	1.47	6/679 (0.9%)
33	D8	0.98	0/502	1.37	6/661 (0.9%)
34	B9	0.56	0/310	0.89	1/407 (0.2%)
34	D9	0.62	0/310	0.95	1/407 (0.2%)
35	BA	1.16	199/68122 (0.3%)	1.89	2611/106350 (2.5%)
35	DA	1.31	367/68122 (0.5%)	2.03	3452/106350 (3.2%)
36	BB	0.81	0/2881	1.58	52/4494 (1.2%)
36	DB	1.00	4/2853 (0.1%)	1.80	95/4451 (2.1%)
37	BC	0.32	0/1144	0.62	0/1554

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
37	DC	0.31	0/1144	0.57	0/1554
38	BD	0.79	0/2176	1.01	9/2933 (0.3%)
38	DD	0.82	1/2194 (0.0%)	1.05	10/2955 (0.3%)
39	BE	0.70	0/1596	0.98	4/2153 (0.2%)
39	DE	0.80	1/1596 (0.1%)	1.01	3/2153 (0.1%)
40	BF	0.72	2/1650 (0.1%)	0.87	1/2234 (0.0%)
40	DF	0.78	1/1662 (0.1%)	0.98	5/2249 (0.2%)
41	BG	0.47	0/1473	0.78	2/1983 (0.1%)
41	DG	0.52	0/1499	0.81	3/2016 (0.1%)
42	BH	0.45	0/1245	0.69	0/1682
42	DH	0.69	1/1295 (0.1%)	0.89	4/1753 (0.2%)
43	BI	0.52	0/1146	0.76	0/1551
43	DI	0.55	0/1139	0.87	3/1541 (0.2%)
46	BN	0.68	0/1123	0.90	1/1515 (0.1%)
46	DN	0.87	3/1147 (0.3%)	0.96	2/1547 (0.1%)
47	BO	0.71	0/943	0.93	3/1269 (0.2%)
47	DO	0.78	0/943	0.88	0/1269
48	BP	0.90	3/1116 (0.3%)	1.35	14/1485 (0.9%)
48	DP	1.12	7/1131 (0.6%)	1.56	22/1504 (1.5%)
49	BQ	0.70	0/1095	1.00	7/1464 (0.5%)
49	DQ	0.90	0/1104	1.21	5/1476 (0.3%)
50	BR	0.74	0/963	1.09	5/1288 (0.4%)
50	DR	0.74	0/974	1.08	6/1302 (0.5%)
51	BS	0.75	3/822 (0.4%)	1.05	4/1094 (0.4%)
51	DS	0.71	0/789	1.10	2/1050 (0.2%)
52	BT	0.72	0/1114	0.98	4/1488 (0.3%)
52	DT	0.84	2/1155 (0.2%)	1.12	5/1542 (0.3%)
53	BU	0.77	0/982	0.87	4/1306 (0.3%)
53	DU	0.83	1/982 (0.1%)	0.99	2/1306 (0.2%)
54	BV	0.70	0/790	1.48	4/1057 (0.4%)
54	DV	0.92	1/790 (0.1%)	1.32	11/1057 (1.0%)
55	BW	0.82	0/897	1.16	8/1204 (0.7%)
55	DW	0.70	0/897	0.97	5/1204 (0.4%)
56	BX	0.83	2/718 (0.3%)	1.08	2/965 (0.2%)
56	DX	1.06	2/756 (0.3%)	1.39	10/1014 (1.0%)
57	BY	0.66	1/788 (0.1%)	0.86	0/1051
57	DY	0.82	1/848 (0.1%)	1.10	3/1132 (0.3%)
58	BZ	0.46	1/1435 (0.1%)	0.69	0/1949
58	DZ	0.53	0/1435	0.82	2/1949 (0.1%)
All	All	1.01	682/317649 (0.2%)	1.64	8092/475105 (1.7%)

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
2	AB	0	1
2	CB	0	1
3	AC	0	1
3	CC	0	1
4	AD	0	2
4	CD	0	2
7	CG	0	1
8	AH	0	2
9	CI	0	1
10	AJ	0	3
10	CJ	0	2
12	AL	0	3
12	CL	0	4
14	CN	0	2
16	AP	0	2
16	CP	0	1
17	AQ	0	1
17	CQ	0	2
18	AR	0	1
18	CR	0	1
19	CS	0	1
20	AT	0	1
20	CT	0	2
26	B1	0	5
26	D1	0	4
27	B2	0	3
27	D2	0	5
29	D4	0	2
30	B5	0	2
31	B6	0	4
31	D6	0	4
32	B7	0	4
32	D7	0	1
33	B8	0	2
33	D8	0	1
37	DC	0	1
38	BD	0	4
38	DD	0	6
39	BE	0	3
39	DE	0	4
40	BF	0	2

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Mol	Chain	#Chirality outliers	#Planarity outliers
40	DF	0	1
41	BG	0	4
41	DG	0	1
42	BH	0	1
42	DH	0	2
43	BI	0	2
43	DI	0	3
46	BN	0	3
46	DN	0	5
47	BO	0	3
47	DO	0	1
48	BP	0	10
48	DP	0	12
49	BQ	0	6
49	DQ	0	5
50	BR	0	3
50	DR	0	1
51	BS	0	3
51	DS	0	5
52	BT	0	4
52	DT	0	6
53	BU	0	3
53	DU	0	3
54	BV	0	5
54	DV	0	5
55	BW	0	2
56	BX	0	4
56	DX	0	5
57	BY	0	2
57	DY	0	3
58	DZ	0	1
All	All	0	209

All (682) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
8	AH	104	ARG	CG-CD	17.27	1.95	1.51
35	BA	783	A	N9-C4	-13.33	1.29	1.37
8	AH	138	TRP	CE3-CZ3	-12.54	1.17	1.38
48	DP	16	ARG	CZ-NH1	-11.74	1.17	1.33
35	DA	528	A	N9-C4	-11.44	1.30	1.37
35	DA	2593	U	C4-O4	11.40	1.32	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	DA	568	U	C4-O4	11.28	1.32	1.23
35	DA	652	C	P-O5'	11.22	1.71	1.59
35	BA	539	G	N9-C4	11.04	1.46	1.38
35	DA	652	C	O3'-P	10.96	1.74	1.61
35	DA	656	G	P-O5'	10.91	1.70	1.59
35	BA	568	U	C4-O4	10.89	1.32	1.23
35	BA	2589	A	N9-C4	-10.60	1.31	1.37
8	AH	138	TRP	CB-CG	10.45	1.69	1.50
35	DA	975	C	N3-C4	10.43	1.41	1.33
23	AW	1	G	OP3-P	-10.39	1.48	1.61
35	BA	774	A	N9-C4	-10.32	1.31	1.37
1	CA	794	A	N9-C4	-10.17	1.31	1.37
35	DA	783	A	N9-C4	-10.13	1.31	1.37
23	CW	1	G	OP3-P	-10.07	1.49	1.61
35	DA	527	C	N3-C4	9.99	1.41	1.33
35	DA	1142(A)	A	N9-C4	-9.98	1.31	1.37
35	BA	2430	A	N9-C4	-9.95	1.31	1.37
35	DA	1187	G	C6-O6	9.92	1.33	1.24
35	DA	652	C	C3'-O3'	9.77	1.55	1.42
35	DA	1786	A	N9-C4	-9.76	1.31	1.37
8	AH	104	ARG	CZ-NH1	-9.73	1.20	1.33
35	DA	774	A	N9-C4	-9.73	1.32	1.37
35	BA	84	A	N9-C4	9.67	1.43	1.37
35	BA	106	C	N1-C2	9.54	1.49	1.40
22	CV	1	C	OP3-P	-9.47	1.49	1.61
35	DA	676	A	C5-C6	-9.45	1.32	1.41
35	DA	2506	U	C2-N3	9.40	1.44	1.37
35	BA	105	C	P-O5'	9.39	1.69	1.59
35	DA	676	A	N9-C8	9.18	1.45	1.37
35	BA	1142(A)	A	N9-C4	-9.11	1.32	1.37
35	BA	539	G	O3'-P	9.10	1.72	1.61
1	AA	1456	G	N9-C4	8.96	1.45	1.38
48	DP	16	ARG	CG-CD	8.83	1.74	1.51
35	BA	539	G	N3-C4	8.82	1.41	1.35
35	BA	2713	A	N9-C4	-8.82	1.32	1.37
35	BA	975	C	N3-C4	8.80	1.40	1.33
35	BA	539	G	P-O5'	8.73	1.68	1.59
35	DA	1332	G	N9-C4	-8.67	1.31	1.38
35	DA	1899	G	N9-C4	-8.64	1.31	1.38
35	DA	2476	A	N9-C4	8.53	1.43	1.37
40	BF	65	TRP	CB-CG	-8.49	1.34	1.50
35	BA	2378	A	N9-C8	8.47	1.44	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1307	A	N9-C4	-8.37	1.32	1.37
36	DB	81	G	C2-N3	8.36	1.39	1.32
35	DA	216	A	N9-C4	-8.35	1.32	1.37
35	DA	527	C	N1-C6	8.33	1.42	1.37
35	DA	1384	A	N9-C4	-8.32	1.32	1.37
35	BA	133	C	P-O5'	8.26	1.68	1.59
35	DA	1786	A	N3-C4	-8.24	1.29	1.34
35	DA	621	A	N9-C4	-8.23	1.32	1.37
35	BA	132	G	O3'-P	8.19	1.71	1.61
35	DA	2287	A	N9-C4	-8.18	1.32	1.37
35	DA	2660	A	N9-C4	8.09	1.42	1.37
35	BA	2818	G	C5-C6	-8.07	1.34	1.42
35	DA	503	A	N9-C4	-8.03	1.33	1.37
35	DA	1960	A	N7-C5	-8.02	1.34	1.39
31	D6	12	GLU	CG-CD	8.01	1.64	1.51
46	DN	78	TYR	C-N	8.00	1.49	1.34
35	DA	1570	A	N9-C4	-7.99	1.33	1.37
35	DA	1021	A	N9-C4	-7.97	1.33	1.37
35	DA	1698	A	N9-C4	-7.92	1.33	1.37
35	DA	656	G	C5'-C4'	7.89	1.60	1.51
35	BA	2419	U	C4-O4	7.89	1.29	1.23
35	DA	933	A	N9-C4	-7.88	1.33	1.37
35	DA	141	A	C5-C6	-7.86	1.33	1.41
1	AA	1503	A	N9-C4	7.84	1.42	1.37
35	DA	472	A	N3-C4	-7.84	1.30	1.34
35	DA	1762	A	N9-C4	7.81	1.42	1.37
35	BA	1786	A	N7-C5	-7.80	1.34	1.39
35	DA	503	A	N3-C4	-7.78	1.30	1.34
35	DA	652	C	C5'-C4'	7.74	1.60	1.51
35	DA	1789	A	N9-C4	-7.73	1.33	1.37
54	DV	75	PHE	CB-CG	-7.71	1.38	1.51
32	B7	5	TRP	CB-CG	7.69	1.64	1.50
48	DP	52	GLU	CG-CD	7.69	1.63	1.51
35	DA	1616	A	N9-C4	-7.64	1.33	1.37
35	BA	1899	G	N3-C4	-7.63	1.30	1.35
35	BA	528	A	N9-C4	-7.60	1.33	1.37
35	BA	210	C	N3-C4	-7.59	1.28	1.33
35	BA	1899	G	C2-N3	-7.58	1.26	1.32
35	BA	2699	C	C2-N3	-7.56	1.29	1.35
35	BA	2287	A	N9-C4	-7.53	1.33	1.37
35	DA	795	C	N1-C6	-7.51	1.32	1.37
35	DA	141	A	N7-C5	-7.48	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	AV	77	A	N9-C4	-7.48	1.33	1.37
1	CA	1503	A	N9-C4	7.43	1.42	1.37
35	DA	2058	A	N3-C4	-7.41	1.30	1.34
1	CA	794	A	N3-C4	-7.41	1.30	1.34
35	DA	1210	A	N9-C4	-7.41	1.33	1.37
35	BA	2506	U	N1-C2	7.38	1.45	1.38
1	CA	1507	A	N9-C4	-7.38	1.33	1.37
35	DA	1786	A	N7-C5	-7.38	1.34	1.39
35	DA	1783	A	N7-C5	-7.38	1.34	1.39
35	DA	1966	A	N9-C4	-7.35	1.33	1.37
35	BA	446	G	N7-C5	-7.35	1.34	1.39
35	DA	1783	A	C5-C6	-7.30	1.34	1.41
35	BA	1918	A	N9-C4	-7.30	1.33	1.37
35	DA	2009	G	N3-C4	-7.25	1.30	1.35
35	DA	2393	A	N9-C4	-7.21	1.33	1.37
35	DA	2551	C	N1-C6	-7.20	1.32	1.37
35	DA	119	A	N9-C4	-7.18	1.33	1.37
35	DA	603	A	N9-C4	7.18	1.42	1.37
35	DA	2661	G	N9-C4	7.15	1.43	1.38
35	DA	2442	C	N3-C4	-7.13	1.28	1.33
35	DA	1755	A	N9-C4	-7.10	1.33	1.37
35	DA	676	A	C5-C4	7.08	1.43	1.38
35	DA	859	G	N9-C4	-7.07	1.32	1.38
35	BA	975	C	N1-C6	7.05	1.41	1.37
30	D5	36	CYS	CB-SG	-7.04	1.70	1.82
35	DA	2589	A	N9-C4	-7.04	1.33	1.37
35	BA	795	C	N3-C4	-7.03	1.29	1.33
35	DA	1674	G	N7-C5	-7.02	1.35	1.39
35	BA	1932	A	N9-C4	-7.01	1.33	1.37
35	DA	694	U	C2-N3	-7.01	1.32	1.37
35	DA	784	A	C6-N1	-7.01	1.30	1.35
35	DA	2591	C	N1-C6	-7.01	1.32	1.37
2	AB	142	LEU	CG-CD2	7.00	1.77	1.51
35	BA	945	A	C5-C6	-6.99	1.34	1.41
33	B8	13	ARG	CG-CD	6.99	1.69	1.51
35	DA	2542	A	N3-C4	-6.97	1.30	1.34
35	DA	1792	G	C6-N1	-6.96	1.34	1.39
35	DA	1142(A)	A	N3-C4	-6.95	1.30	1.34
35	BA	1840	G	C6-O6	6.94	1.30	1.24
35	DA	241	A	N9-C4	-6.94	1.33	1.37
35	BA	1379	A	N9-C4	-6.92	1.33	1.37
35	DA	975	C	C2-N3	6.90	1.41	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	DA	2393	A	N3-C4	-6.89	1.30	1.34
35	BA	1568	G	N9-C4	-6.88	1.32	1.38
35	DA	71	A	C5-C6	-6.88	1.34	1.41
35	BA	1323	U	N3-C4	6.87	1.44	1.38
35	DA	975	C	N1-C6	6.87	1.41	1.37
35	DA	1494	A	N9-C4	6.86	1.42	1.37
35	BA	105	C	O3'-P	6.86	1.69	1.61
35	BA	1638	C	N3-C4	-6.86	1.29	1.33
35	DA	661	C	C5-C6	-6.84	1.28	1.34
56	DX	59	VAL	CB-CG2	-6.84	1.38	1.52
35	BA	2823	A	N9-C4	-6.84	1.33	1.37
35	BA	568	U	C4-C5	6.83	1.49	1.43
35	BA	1786	A	C5-C6	-6.83	1.34	1.41
35	BA	2376	A	C6-N6	-6.80	1.28	1.33
35	DA	2594	C	N1-C6	-6.78	1.33	1.37
35	BA	1618	A	N9-C4	-6.76	1.33	1.37
1	AA	1499	A	N9-C4	-6.75	1.33	1.37
35	DA	1022	G	N3-C4	-6.75	1.30	1.35
35	DA	2247	A	N3-C4	-6.75	1.30	1.34
35	BA	2083	G	N7-C5	-6.75	1.35	1.39
31	D6	39	TYR	C-N	6.74	1.49	1.34
35	BA	83	G	N9-C4	6.72	1.43	1.38
35	BA	2699	C	N3-C4	-6.72	1.29	1.33
35	DA	1969	A	C6-N1	-6.71	1.30	1.35
1	AA	263	A	N9-C4	-6.70	1.33	1.37
35	DA	1616	A	N3-C4	-6.70	1.30	1.34
35	DA	1655	A	N9-C4	-6.70	1.33	1.37
35	DA	1204	A	C5-C6	-6.69	1.35	1.41
35	DA	651	G	N9-C4	6.68	1.43	1.38
35	DA	322	A	N9-C4	-6.68	1.33	1.37
36	DB	90	A	N9-C4	6.67	1.41	1.37
8	AH	137	VAL	CB-CG1	-6.67	1.38	1.52
35	DA	676	A	N9-C4	-6.64	1.33	1.37
35	BA	74	A	N3-C4	-6.64	1.30	1.34
35	BA	2506	U	C2-N3	6.63	1.42	1.37
35	DA	568	U	C2-N3	6.62	1.42	1.37
35	DA	1570	A	N3-C4	-6.61	1.30	1.34
35	DA	1668	A	N3-C4	-6.60	1.30	1.34
31	D6	40	CYS	CB-SG	6.59	1.93	1.82
35	DA	2453	A	N9-C4	-6.59	1.33	1.37
35	DA	109	G	N1-C2	-6.55	1.32	1.37
1	AA	915	A	N9-C4	-6.55	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	DA	945	A	C5-C6	-6.54	1.35	1.41
35	BA	1142(A)	A	N3-C4	-6.54	1.30	1.34
35	DA	2544	G	C6-N1	6.53	1.44	1.39
35	BA	1558	A	N9-C4	-6.53	1.33	1.37
35	DA	2287	A	C5-C6	-6.50	1.35	1.41
35	BA	2298	A	N9-C4	-6.50	1.33	1.37
35	BA	2062	A	N3-C4	6.50	1.38	1.34
35	BA	602	G	N3-C4	6.49	1.40	1.35
35	DA	1799	G	N7-C5	-6.49	1.35	1.39
35	BA	1678	G	N3-C4	-6.46	1.30	1.35
23	AY	42	C	N1-C2	6.45	1.46	1.40
35	BA	1322	A	N7-C5	6.45	1.43	1.39
35	BA	1771	C	N3-C4	-6.45	1.29	1.33
35	DA	139(A)	G	N9-C8	6.44	1.42	1.37
35	DA	2713	A	N9-C4	-6.44	1.33	1.37
35	DA	2764	A	N9-C4	-6.43	1.33	1.37
35	BA	1278	A	N9-C4	-6.43	1.33	1.37
35	DA	1986	A	C6-N1	-6.41	1.31	1.35
31	B6	40	CYS	CB-SG	6.41	1.93	1.82
35	DA	652	C	C4'-C3'	6.39	1.60	1.53
35	DA	671	C	N1-C6	-6.39	1.33	1.37
1	AA	583	A	N9-C4	-6.39	1.34	1.37
35	BA	633	A	N9-C4	-6.38	1.34	1.37
26	D1	19	GLN	CG-CD	6.38	1.65	1.51
35	DA	330	A	N9-C4	-6.37	1.34	1.37
35	DA	1257	C	N3-C4	-6.37	1.29	1.33
35	DA	2273	A	C5-C4	-6.37	1.34	1.38
35	DA	579	G	C5-C4	-6.37	1.33	1.38
35	BA	1545	A	N9-C4	6.36	1.41	1.37
35	DA	2064	C	N1-C6	-6.36	1.33	1.37
35	DA	527	C	C2-N3	6.35	1.40	1.35
35	DA	2665	A	N9-C4	-6.35	1.34	1.37
35	DA	2506	U	N3-C4	6.35	1.44	1.38
35	DA	311	A	N9-C4	-6.35	1.34	1.37
35	DA	671	C	N3-C4	-6.35	1.29	1.33
35	BA	2509	G	N7-C5	-6.31	1.35	1.39
35	BA	1829	A	N7-C5	-6.28	1.35	1.39
35	BA	1021	A	N9-C4	-6.28	1.34	1.37
35	BA	602	G	N9-C4	6.27	1.43	1.38
35	BA	471	A	N9-C4	-6.27	1.34	1.37
35	DA	2066	C	N3-C4	-6.27	1.29	1.33
35	BA	1899	G	N9-C4	-6.26	1.32	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	DA	2243	U	N3-C4	-6.26	1.32	1.38
35	DA	656	G	O3'-P	6.24	1.68	1.61
35	BA	1605	C	N1-C6	-6.22	1.33	1.37
35	BA	540	C	P-O5'	6.21	1.66	1.59
35	DA	1784	A	C6-N1	-6.21	1.31	1.35
35	BA	2430	A	N3-C4	-6.21	1.31	1.34
51	BS	20	ARG	CZ-NH1	-6.21	1.25	1.33
35	DA	2023	G	C5-C4	-6.20	1.34	1.38
35	DA	2073	C	N1-C6	-6.20	1.33	1.37
35	DA	1822	G	N1-C2	-6.20	1.32	1.37
35	DA	2595	G	C5-C6	-6.20	1.36	1.42
35	BA	2697	G	C5-C6	6.18	1.48	1.42
35	DA	1265	A	N7-C5	-6.18	1.35	1.39
35	BA	2599	G	C6-N1	-6.17	1.35	1.39
35	DA	682	G	C6-N1	-6.17	1.35	1.39
35	DA	738	G	N7-C5	-6.17	1.35	1.39
35	BA	2062	A	C6-N1	6.16	1.39	1.35
35	DA	1786	A	C5-C6	-6.16	1.35	1.41
35	DA	820	A	N3-C4	-6.15	1.31	1.34
35	DA	804	A	N9-C4	-6.15	1.34	1.37
35	BA	571	A	N9-C4	-6.14	1.34	1.37
35	BA	1312	U	N3-C4	-6.14	1.32	1.38
35	BA	1786	A	N3-C4	-6.14	1.31	1.34
35	DA	1128	A	N9-C4	-6.14	1.34	1.37
35	DA	1133	U	N1-C2	-6.14	1.33	1.38
35	DA	1190	G	C5-C6	-6.14	1.36	1.42
35	DA	2243	U	C4-O4	-6.14	1.18	1.23
35	DA	2346	A	N9-C4	-6.13	1.34	1.37
35	DA	71	A	N7-C5	-6.13	1.35	1.39
26	D1	19	GLN	CB-CG	6.12	1.69	1.52
35	BA	2518	A	N9-C4	-6.12	1.34	1.37
35	BA	1809	A	N9-C4	-6.11	1.34	1.37
35	DA	529	A	N9-C4	-6.11	1.34	1.37
1	AA	715	A	N9-C4	-6.11	1.34	1.37
35	BA	539	G	C4'-C3'	6.10	1.59	1.53
35	BA	782	A	C6-N1	-6.09	1.31	1.35
35	DA	2621	A	N9-C4	-6.09	1.34	1.37
35	DA	1970	A	N9-C4	-6.09	1.34	1.37
35	BA	652	C	O3'-P	6.09	1.68	1.61
35	DA	828	U	N3-C4	-6.08	1.32	1.38
35	DA	845	G	N9-C4	-6.08	1.33	1.38
35	DA	71	A	N3-C4	-6.07	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	DA	783	A	C5-C6	-6.06	1.35	1.41
35	BA	651	G	N3-C4	6.04	1.39	1.35
35	DA	530	G	N9-C8	6.04	1.42	1.37
35	BA	656	G	P-O5'	6.03	1.65	1.59
35	DA	799	G	N3-C4	-6.02	1.31	1.35
35	DA	735	A	N3-C4	-6.02	1.31	1.34
35	DA	2451	A	C6-N1	-6.01	1.31	1.35
35	BA	2699	C	C2-O2	-6.00	1.19	1.24
35	BA	1633	G	N7-C5	-5.99	1.35	1.39
35	BA	2251	G	C5-C4	-5.98	1.34	1.38
35	DA	2712(A)	A	N7-C5	-5.97	1.35	1.39
35	BA	272	G	N9-C4	5.97	1.42	1.38
35	BA	518	G	N7-C5	-5.96	1.35	1.39
35	DA	670	A	C5-C4	-5.95	1.34	1.38
35	DA	322	A	N3-C4	-5.95	1.31	1.34
35	DA	837	C	N3-C4	-5.95	1.29	1.33
35	BA	975	C	C2-N3	5.95	1.40	1.35
35	DA	2661	G	N7-C5	-5.93	1.35	1.39
53	DU	75	ASN	CB-CG	5.93	1.64	1.51
35	DA	2781	A	C6-N1	-5.93	1.31	1.35
35	DA	1544	A	N7-C5	5.92	1.42	1.39
35	DA	1786	A	C6-N1	-5.91	1.31	1.35
35	DA	2629	A	N9-C4	5.91	1.41	1.37
35	DA	2427	C	N1-C6	-5.91	1.33	1.37
35	BA	2581	G	C6-N1	-5.89	1.35	1.39
35	BA	2585	U	C2-N3	5.89	1.41	1.37
35	BA	14	A	N7-C5	-5.89	1.35	1.39
51	BS	20	ARG	CZ-NH2	-5.88	1.25	1.33
35	DA	458	G	N9-C4	-5.88	1.33	1.38
35	DA	390	A	N9-C4	-5.87	1.34	1.37
35	BA	1890	A	N9-C4	-5.87	1.34	1.37
35	DA	2519	U	N1-C2	-5.87	1.33	1.38
35	DA	1187	G	N3-C4	-5.86	1.31	1.35
35	BA	2660	A	N9-C4	5.86	1.41	1.37
35	BA	2697	G	N9-C4	5.85	1.42	1.38
35	DA	109	G	C6-N1	-5.85	1.35	1.39
35	BA	1841	U	C4-O4	5.84	1.28	1.23
35	DA	686	G	N7-C5	-5.84	1.35	1.39
35	DA	2199	A	C6-N1	-5.84	1.31	1.35
38	DD	237	GLU	CG-CD	5.84	1.60	1.51
1	CA	315	A	N9-C4	-5.84	1.34	1.37
35	DA	1129	A	N3-C4	-5.83	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	2698	U	N3-C4	5.83	1.43	1.38
35	DA	1050	A	N9-C4	5.83	1.41	1.37
35	BA	2360	A	N9-C4	-5.82	1.34	1.37
35	DA	1362	C	N3-C4	-5.82	1.29	1.33
35	DA	731	C	N1-C6	-5.81	1.33	1.37
35	DA	1698	A	C5-C6	-5.81	1.35	1.41
35	BA	652	C	C3'-O3'	5.81	1.50	1.42
51	BS	20	ARG	CB-CG	-5.81	1.36	1.52
35	DA	579	G	N3-C4	-5.81	1.31	1.35
35	DA	1840	G	C6-O6	5.80	1.29	1.24
35	DA	651	G	N3-C4	5.80	1.39	1.35
35	DA	1800	C	N1-C6	-5.79	1.33	1.37
35	BA	2590	A	N9-C4	-5.79	1.34	1.37
35	DA	603	A	C5-C6	5.78	1.46	1.41
35	BA	1351	C	N3-C4	-5.78	1.29	1.33
35	BA	1323	U	C2-N3	5.77	1.41	1.37
35	BA	2713	A	C5-C6	-5.77	1.35	1.41
35	DA	129	C	N1-C6	-5.76	1.33	1.37
35	DA	2590	A	N9-C4	-5.76	1.34	1.37
35	DA	389	G	N9-C4	-5.75	1.33	1.38
35	DA	2587	A	N3-C4	-5.75	1.31	1.34
35	BA	2057	A	N9-C4	-5.75	1.34	1.37
35	DA	2713	A	C5-C6	-5.75	1.35	1.41
35	DA	837	C	C4-C5	-5.74	1.38	1.43
35	DA	2243	U	C4-C5	-5.74	1.38	1.43
1	CA	428	G	N9-C4	-5.74	1.33	1.38
35	DA	1815	A	N3-C4	-5.74	1.31	1.34
35	DA	528	A	C5-C6	-5.74	1.35	1.41
39	DE	116	VAL	CB-CG2	-5.74	1.40	1.52
56	DX	15	GLU	CG-CD	5.73	1.60	1.51
35	DA	2593	U	C2-N3	5.72	1.41	1.37
35	BA	1496	A	N9-C4	5.72	1.41	1.37
35	DA	603	A	N7-C5	5.72	1.42	1.39
1	CA	807	A	C6-N1	-5.71	1.31	1.35
1	AA	364	A	N3-C4	-5.71	1.31	1.34
35	BA	1784	A	N7-C5	-5.71	1.35	1.39
35	BA	1678	G	N9-C4	-5.70	1.33	1.38
35	DA	2447	G	C2-N3	5.70	1.37	1.32
31	D6	12	GLU	CB-CG	5.70	1.62	1.52
35	DA	197	A	N9-C4	-5.70	1.34	1.37
35	BA	509	C	N3-C4	-5.69	1.29	1.33
35	DA	2327	A	C5-C4	-5.69	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	DA	656	G	O5'-C5'	5.69	1.53	1.44
35	BA	2252	G	N3-C4	-5.68	1.31	1.35
35	BA	568	U	C2-N3	5.68	1.41	1.37
35	DA	1214	A	N7-C5	-5.68	1.35	1.39
35	DA	2274	A	N9-C4	-5.67	1.34	1.37
35	BA	1698	A	N7-C5	-5.67	1.35	1.39
35	DA	450	G	N7-C5	-5.66	1.35	1.39
1	CA	1523	G	N9-C8	-5.66	1.33	1.37
35	DA	2600	A	C6-N1	-5.66	1.31	1.35
56	BX	29	TRP	CB-CG	-5.65	1.40	1.50
35	DA	1268	A	C6-N1	-5.65	1.31	1.35
35	DA	1268	A	N9-C4	-5.65	1.34	1.37
35	BA	945	A	N9-C4	-5.65	1.34	1.37
26	B1	57	GLU	CB-CG	5.64	1.62	1.52
35	BA	1321	A	N9-C4	5.64	1.41	1.37
1	CA	1417	G	N9-C4	5.63	1.42	1.38
1	AA	299	G	C6-O6	5.63	1.29	1.24
35	BA	2392	A	N7-C5	-5.62	1.35	1.39
35	DA	1637	A	C6-N1	-5.62	1.31	1.35
35	BA	133	C	O3'-P	5.62	1.67	1.61
35	BA	272	G	O3'-P	5.61	1.67	1.61
1	AA	300	A	N9-C4	-5.61	1.34	1.37
35	DA	581	C	C4-C5	-5.61	1.38	1.43
35	DA	942	G	N3-C4	-5.61	1.31	1.35
35	BA	210	C	N1-C6	-5.61	1.33	1.37
35	BA	1274	A	N9-C4	-5.61	1.34	1.37
35	DA	480	A	N7-C5	-5.61	1.35	1.39
35	DA	983	A	N3-C4	-5.61	1.31	1.34
40	DF	65	TRP	CB-CG	-5.61	1.40	1.50
35	BA	332	A	N9-C4	-5.60	1.34	1.37
35	DA	2273	A	N3-C4	-5.60	1.31	1.34
35	BA	1496	A	C5-C4	5.59	1.42	1.38
35	DA	528	A	N9-C8	5.59	1.42	1.37
1	AA	1286	A	N9-C4	5.59	1.41	1.37
35	BA	669	G	C2-N3	-5.59	1.28	1.32
23	AY	40	C	C2-N3	5.59	1.40	1.35
35	DA	1439	A	N9-C4	-5.58	1.34	1.37
35	DA	1210	A	N7-C5	-5.58	1.35	1.39
35	DA	1969	A	N3-C4	-5.58	1.31	1.34
35	DA	2222	G	N9-C8	-5.57	1.33	1.37
35	DA	783	A	N3-C4	-5.57	1.31	1.34
35	BA	2506	U	N1-C6	5.57	1.43	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	783	A	N7-C5	-5.56	1.35	1.39
35	BA	1294	U	N3-C4	-5.56	1.33	1.38
35	DA	1285	G	N3-C4	-5.55	1.31	1.35
35	DA	2681	C	N3-C4	-5.55	1.30	1.33
35	DA	773	U	C2-N3	-5.55	1.33	1.37
35	DA	1353	A	N3-C4	-5.55	1.31	1.34
35	DA	568	U	C5-C6	5.54	1.39	1.34
35	DA	675	A	C5-C6	-5.54	1.36	1.41
1	CA	704	A	N9-C4	-5.54	1.34	1.37
1	AA	1030	C	N1-C2	5.54	1.45	1.40
35	BA	789	A	N7-C5	-5.53	1.35	1.39
35	BA	1576	U	C2-O2	-5.53	1.17	1.22
35	BA	1637	A	C6-N1	-5.53	1.31	1.35
35	DA	211	A	N3-C4	-5.53	1.31	1.34
35	DA	1569	A	N3-C4	-5.53	1.31	1.34
35	DA	2346	A	N3-C4	-5.53	1.31	1.34
35	DA	2451	A	N3-C4	-5.53	1.31	1.34
35	BA	1986	A	N9-C4	-5.51	1.34	1.37
35	DA	71	A	N9-C4	-5.51	1.34	1.37
48	DP	74	GLU	CG-CD	5.51	1.60	1.51
35	DA	858	U	C2-N3	-5.51	1.33	1.37
35	DA	377	C	N1-C6	-5.51	1.33	1.37
35	BA	1448	G	N9-C4	5.50	1.42	1.38
35	BA	471	A	N3-C4	-5.50	1.31	1.34
35	BA	2392	A	N9-C4	-5.50	1.34	1.37
35	DA	2477	C	N1-C2	5.50	1.45	1.40
35	DA	1614	A	N9-C4	-5.49	1.34	1.37
35	DA	980	A	N9-C4	-5.49	1.34	1.37
35	DA	818	G	N3-C4	-5.49	1.31	1.35
35	DA	997	G	C5-C4	-5.49	1.34	1.38
35	DA	1129	A	C5-C4	-5.49	1.34	1.38
35	BA	2818	G	N9-C4	-5.49	1.33	1.38
35	DA	2533	A	N9-C4	-5.49	1.34	1.37
35	DA	1261	C	N1-C6	-5.48	1.33	1.37
35	DA	1662	C	N1-C6	-5.48	1.33	1.37
35	DA	2222	G	C5-C4	-5.48	1.34	1.38
1	AA	1418	A	N3-C4	-5.48	1.31	1.34
35	DA	1088	A	N9-C4	5.48	1.41	1.37
35	BA	216	A	N9-C4	-5.48	1.34	1.37
1	AA	451	A	N9-C4	-5.47	1.34	1.37
57	DY	13	VAL	CB-CG1	-5.47	1.41	1.52
1	AA	1101	A	N9-C4	-5.47	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	DA	670	A	C5-C6	-5.47	1.36	1.41
35	DA	1660	C	N3-C4	-5.47	1.30	1.33
35	BA	1810	A	N9-C4	-5.47	1.34	1.37
35	DA	1676	A	N9-C4	-5.47	1.34	1.37
35	DA	1822	G	C6-N1	-5.46	1.35	1.39
35	DA	1259	G	C5-C6	-5.46	1.36	1.42
35	DA	1808	U	C4-O4	5.46	1.28	1.23
35	DA	1755	A	C6-N1	-5.46	1.31	1.35
48	DP	16	ARG	CD-NE	5.46	1.55	1.46
23	AY	40	C	N3-C4	5.46	1.37	1.33
33	B8	56	GLU	CG-CD	-5.46	1.43	1.51
35	BA	2725	A	N3-C4	-5.46	1.31	1.34
1	AA	1298	C	N1-C2	5.45	1.45	1.40
35	DA	827	U	C2-N3	-5.45	1.33	1.37
35	DA	2725	A	C6-N1	-5.45	1.31	1.35
35	DA	777	A	N3-C4	-5.45	1.31	1.34
1	CA	812	C	N1-C2	5.45	1.45	1.40
35	DA	614(C)	A	N9-C4	-5.45	1.34	1.37
35	DA	1638	C	N1-C6	-5.45	1.33	1.37
35	DA	2671	A	N9-C4	-5.43	1.34	1.37
35	BA	133	C	C4'-C3'	5.43	1.59	1.53
35	DA	2713	A	N7-C5	-5.43	1.35	1.39
35	BA	1792	G	C5-C6	-5.42	1.36	1.42
35	DA	1595	G	C6-N1	-5.42	1.35	1.39
56	BX	38	GLU	CB-CG	5.42	1.62	1.52
35	DA	792	G	C6-N1	-5.42	1.35	1.39
1	AA	1202	G	N7-C5	-5.42	1.35	1.39
35	DA	774	A	C5-C6	-5.42	1.36	1.41
1	AA	189(J)	G	C2-N3	5.42	1.37	1.32
35	DA	1257	C	N1-C6	-5.41	1.33	1.37
35	BA	539	G	C3'-O3'	5.40	1.49	1.42
35	DA	1780	A	C6-N1	-5.40	1.31	1.35
32	D7	40	TRP	CB-CG	-5.40	1.40	1.50
35	DA	2430	A	N9-C4	-5.40	1.34	1.37
35	BA	2698	U	C2-N3	5.39	1.41	1.37
35	BA	2070	G	C6-N1	-5.38	1.35	1.39
35	DA	587	C	N3-C4	-5.37	1.30	1.33
1	AA	1502	A	N3-C4	-5.37	1.31	1.34
35	DA	1244	G	C5-C4	-5.37	1.34	1.38
35	BA	2585	U	N3-C4	5.37	1.43	1.38
35	DA	942	G	C6-N1	-5.36	1.35	1.39
36	DB	81	G	C2-N2	5.36	1.40	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	DA	189	G	C8-N7	-5.35	1.27	1.30
35	DA	2023	G	N3-C4	-5.35	1.31	1.35
35	DA	579	G	C2-N3	-5.34	1.28	1.32
35	BA	105	C	C4'-C3'	5.34	1.59	1.53
35	BA	2572	A	N9-C4	-5.34	1.34	1.37
35	DA	1247	A	N9-C4	-5.34	1.34	1.37
48	DP	33	ARG	CG-CD	5.34	1.65	1.51
35	DA	1755	A	N3-C4	-5.33	1.31	1.34
35	BA	1655	A	N9-C4	-5.33	1.34	1.37
35	BA	1767	C	N3-C4	-5.33	1.30	1.33
35	DA	1204	A	N7-C5	-5.33	1.36	1.39
35	DA	2551	C	C2-N3	-5.33	1.31	1.35
1	AA	165	C	N1-C2	5.33	1.45	1.40
35	BA	1187	G	C6-O6	5.33	1.28	1.24
35	DA	827	U	N3-C4	-5.33	1.33	1.38
35	DA	52	A	N9-C4	5.32	1.41	1.37
35	DA	2573	C	N1-C2	5.32	1.45	1.40
35	DA	51	G	C5-C4	-5.32	1.34	1.38
35	DA	2273	A	N9-C4	-5.32	1.34	1.37
35	DA	2062	A	C5-C4	5.32	1.42	1.38
1	CA	1491	G	N1-C2	-5.31	1.33	1.37
35	DA	1755	A	C5-C6	-5.31	1.36	1.41
1	AA	1447	A	N3-C4	5.31	1.38	1.34
35	DA	2465	C	N1-C6	-5.31	1.33	1.37
52	DT	106	SER	CA-CB	5.31	1.60	1.52
1	AA	1057	G	N9-C4	-5.31	1.33	1.38
35	DA	1269	A	N9-C4	-5.31	1.34	1.37
35	DA	2258	C	N1-C6	-5.30	1.33	1.37
35	BA	199	A	N9-C4	5.30	1.41	1.37
35	BA	1770	G	N1-C2	-5.30	1.33	1.37
35	DA	86	C	N1-C6	-5.30	1.33	1.37
35	DA	782	A	N7-C5	-5.30	1.36	1.39
35	DA	933	A	C5-C6	-5.29	1.36	1.41
35	BA	253	C	N3-C4	-5.29	1.30	1.33
35	DA	608	A	N7-C5	-5.29	1.36	1.39
35	DA	2541	A	N9-C4	-5.29	1.34	1.37
35	DA	568	U	N3-C4	5.29	1.43	1.38
1	AA	157	G	N3-C4	5.29	1.39	1.35
35	DA	2518	A	N9-C4	-5.29	1.34	1.37
35	DA	2608	G	C5-C4	-5.29	1.34	1.38
35	BA	1323	U	N1-C6	5.28	1.42	1.38
35	DA	446	G	C5-C6	-5.28	1.37	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	DA	1569	A	N9-C4	-5.28	1.34	1.37
35	DA	1342	A	N3-C4	-5.28	1.31	1.34
35	DA	2544	G	C6-O6	5.28	1.28	1.24
35	DA	262	A	N9-C4	-5.27	1.34	1.37
35	DA	780	G	C6-N1	-5.27	1.35	1.39
8	AH	104	ARG	CZ-NH2	-5.27	1.26	1.33
35	DA	536	A	C5-C4	-5.27	1.35	1.38
35	DA	473	G	N1-C2	-5.26	1.33	1.37
35	BA	139	G	C6-N1	5.26	1.43	1.39
25	D0	12	ASN	CB-CG	5.26	1.63	1.51
35	BA	587	C	N1-C6	-5.25	1.33	1.37
35	BA	81	G	O3'-P	5.25	1.67	1.61
35	DA	1799	G	N9-C8	-5.25	1.34	1.37
35	BA	652	C	P-O5'	5.25	1.65	1.59
35	BA	2072	G	C2-N3	-5.25	1.28	1.32
35	BA	1689	A	N7-C5	-5.24	1.36	1.39
35	DA	111	A	C5-C6	-5.24	1.36	1.41
35	BA	204	A	C6-N1	-5.24	1.31	1.35
35	DA	1559	G	N9-C4	-5.24	1.33	1.38
35	BA	142(A)	C	C5-C6	5.24	1.38	1.34
35	DA	109	G	N7-C5	5.23	1.42	1.39
1	CA	572	A	N9-C4	-5.23	1.34	1.37
23	CY	37	A	N9-C4	5.23	1.41	1.37
35	BA	106	C	N1-C6	5.23	1.40	1.37
52	DT	29	ARG	CG-CD	5.23	1.65	1.51
1	AA	364	A	C6-N1	-5.22	1.31	1.35
35	DA	742	G	C5-C4	-5.22	1.34	1.38
31	D6	42	TRP	CB-CG	5.22	1.59	1.50
35	DA	1821	A	N7-C5	-5.22	1.36	1.39
35	DA	204	A	C5-C4	-5.21	1.35	1.38
35	DA	2062	A	N9-C4	5.21	1.41	1.37
35	DA	472	A	C5-C6	-5.21	1.36	1.41
35	DA	1797	C	N1-C6	-5.21	1.34	1.37
35	DA	2005	A	N9-C4	-5.21	1.34	1.37
35	DA	2082	A	N9-C4	-5.21	1.34	1.37
35	DA	1951	U	N1-C2	-5.21	1.33	1.38
35	BA	2551	C	N1-C6	-5.20	1.34	1.37
48	BP	77	ARG	CB-CG	-5.20	1.38	1.52
35	DA	211	A	C5-C6	-5.20	1.36	1.41
35	DA	2544	G	N1-C2	5.20	1.42	1.37
35	BA	781	A	N7-C5	-5.20	1.36	1.39
35	DA	1332	G	N9-C8	5.20	1.41	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	DA	1570	A	C5-C4	-5.20	1.35	1.38
48	BP	61	ARG	C-N	-5.19	1.22	1.34
35	BA	1698	A	C5-C6	-5.19	1.36	1.41
35	DA	471	A	N9-C4	-5.19	1.34	1.37
1	AA	915	A	C5-C4	-5.19	1.35	1.38
35	BA	81	G	C5-C4	5.19	1.42	1.38
1	AA	159	G	N7-C5	5.19	1.42	1.39
35	DA	2509	G	C5-C4	-5.19	1.34	1.38
35	BA	1831	G	C6-N1	-5.18	1.35	1.39
35	BA	2578	G	N9-C8	-5.18	1.34	1.37
35	DA	536	A	N3-C4	-5.18	1.31	1.34
35	BA	1269	A	C6-N1	-5.17	1.31	1.35
35	DA	1367	A	C5-C6	-5.17	1.36	1.41
35	DA	1658	C	P-OP1	5.17	1.57	1.49
35	DA	2448	A	N7-C5	-5.17	1.36	1.39
35	BA	1899	G	C8-N7	5.17	1.34	1.30
35	DA	119	A	N9-C8	-5.17	1.33	1.37
35	DA	1812	A	C6-N1	-5.17	1.31	1.35
40	BF	83	PHE	CE2-CZ	5.17	1.47	1.37
35	BA	132	G	C3'-O3'	5.16	1.49	1.42
58	BZ	176	PRO	C-N	5.16	1.44	1.34
35	DA	687	C	N3-C4	-5.16	1.30	1.33
35	DA	896	A	N9-C4	5.16	1.41	1.37
46	DN	4	TYR	CD2-CE2	-5.16	1.31	1.39
35	DA	1251	C	N1-C6	-5.15	1.34	1.37
35	DA	1566	A	N9-C4	-5.15	1.34	1.37
35	DA	2369	A	C6-N1	-5.15	1.31	1.35
46	DN	4	TYR	CD1-CE1	-5.15	1.31	1.39
35	DA	1978	A	C5-C6	-5.15	1.36	1.41
35	BA	132	G	N9-C4	5.15	1.42	1.38
35	DA	1674	G	C8-N7	-5.15	1.27	1.30
35	DA	2577	A	C6-N1	-5.14	1.31	1.35
1	AA	1275	A	N9-C4	5.14	1.41	1.37
35	DA	773	U	N3-C4	-5.14	1.33	1.38
35	BA	105	C	C5'-C4'	5.14	1.57	1.51
35	DA	271	A	N9-C4	-5.14	1.34	1.37
35	DA	1982	C	N1-C2	-5.14	1.35	1.40
35	BA	281	G	P-O5'	5.13	1.64	1.59
35	DA	775	G	C5-C4	-5.13	1.34	1.38
35	DA	946	G	N3-C4	-5.13	1.31	1.35
35	BA	1835	G	N1-C2	-5.13	1.33	1.37
35	DA	1889	A	N7-C5	-5.13	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1321	A	C5-C4	5.13	1.42	1.38
35	BA	2243	U	N3-C4	-5.12	1.33	1.38
35	DA	804	A	C5-C4	-5.12	1.35	1.38
35	BA	2031	A	N9-C4	5.12	1.41	1.37
35	BA	2459	A	N9-C4	5.12	1.41	1.37
35	BA	2589	A	C5-C4	-5.12	1.35	1.38
35	DA	584	C	N1-C6	-5.12	1.34	1.37
35	DA	1345	C	N1-C6	-5.12	1.34	1.37
35	DA	2071	A	N7-C5	-5.12	1.36	1.39
48	BP	33	ARG	CB-CG	5.12	1.66	1.52
35	DA	1210	A	N3-C4	-5.12	1.31	1.34
35	BA	664	C	N3-C4	-5.12	1.30	1.33
35	DA	518	G	N1-C2	-5.11	1.33	1.37
35	DA	620	G	N7-C5	-5.11	1.36	1.39
35	DA	337	C	N3-C4	-5.11	1.30	1.33
33	B8	14	VAL	CB-CG1	-5.11	1.42	1.52
35	BA	503	A	N3-C4	-5.11	1.31	1.34
35	DA	2004	G	N7-C5	-5.11	1.36	1.39
1	AA	1434	A	N9-C4	-5.11	1.34	1.37
35	DA	686	G	C5-C6	-5.11	1.37	1.42
35	BA	1616	A	N9-C4	-5.11	1.34	1.37
35	DA	2360	A	N9-C4	-5.10	1.34	1.37
35	BA	331	A	N9-C4	-5.10	1.34	1.37
35	DA	113	G	N9-C4	-5.10	1.33	1.38
35	DA	376	C	N3-C4	-5.10	1.30	1.33
35	DA	1779	U	N3-C4	-5.10	1.33	1.38
35	DA	1904	G	N9-C8	-5.10	1.34	1.37
23	CY	26	A	N9-C4	5.09	1.41	1.37
35	BA	1790	C	C4-N4	5.09	1.38	1.33
35	DA	458	G	N3-C4	-5.09	1.31	1.35
35	BA	394	A	C6-N1	-5.09	1.31	1.35
35	DA	812	C	N1-C6	-5.08	1.34	1.37
35	DA	727	A	C6-N1	-5.08	1.31	1.35
35	DA	1840	G	N1-C2	5.08	1.41	1.37
35	DA	2725	A	N3-C4	-5.08	1.31	1.34
35	BA	471	A	C6-N1	-5.08	1.31	1.35
35	DA	389	G	N3-C4	-5.08	1.31	1.35
1	AA	572	A	N9-C4	-5.07	1.34	1.37
35	DA	528	A	N7-C5	-5.07	1.36	1.39
35	DA	1332	G	C8-N7	5.07	1.33	1.30
1	AA	264	U	N1-C2	-5.07	1.33	1.38
35	DA	812	C	N3-C4	-5.07	1.30	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	CY	37	A	N3-C4	5.06	1.37	1.34
35	DA	1244	G	C2-N3	-5.06	1.28	1.32
35	DA	139(A)	G	N7-C5	5.06	1.42	1.39
35	DA	2506	U	N1-C6	5.06	1.42	1.38
42	DH	83	TYR	CB-CG	5.06	1.59	1.51
35	DA	1784	A	N3-C4	-5.06	1.31	1.34
35	DA	2496	C	N3-C4	-5.06	1.30	1.33
35	BA	1271	G	N9-C8	-5.06	1.34	1.37
35	DA	672	C	N3-C4	-5.06	1.30	1.33
35	DA	1348	G	C5-C4	-5.05	1.34	1.38
35	BA	1351	C	N1-C6	-5.05	1.34	1.37
36	DB	46	A	N9-C4	-5.05	1.34	1.37
35	BA	1767	C	C2-N3	-5.05	1.31	1.35
35	DA	2611	U	N3-C4	-5.05	1.33	1.38
35	DA	1128	A	C5-C4	-5.05	1.35	1.38
1	CA	1501	C	N1-C6	-5.04	1.34	1.37
35	DA	2066	C	N1-C6	-5.04	1.34	1.37
35	BA	774	A	C5-C6	-5.04	1.36	1.41
35	BA	2318	G	N3-C4	-5.04	1.31	1.35
35	BA	2510	C	N1-C6	-5.04	1.34	1.37
35	DA	1528	A	N7-C5	-5.04	1.36	1.39
35	DA	1792	G	N1-C2	-5.04	1.33	1.37
1	AA	907	A	N9-C4	-5.04	1.34	1.37
35	BA	70	G	N1-C2	-5.04	1.33	1.37
35	BA	656	G	C4'-C3'	5.04	1.58	1.53
35	BA	1632	A	N9-C4	-5.04	1.34	1.37
35	DA	793	A	N7-C5	-5.04	1.36	1.39
35	BA	186	G	C6-N1	-5.04	1.36	1.39
35	BA	1354	A	C5-C4	-5.03	1.35	1.38
35	DA	1239	G	N3-C4	-5.03	1.31	1.35
5	CE	68	GLU	CB-CG	5.02	1.61	1.52
35	DA	800	A	C6-N1	-5.02	1.32	1.35
57	BY	27	VAL	CB-CG1	-5.02	1.42	1.52
35	DA	51	G	N9-C8	-5.02	1.34	1.37
35	DA	1927	A	N9-C4	-5.02	1.34	1.37
35	DA	458	G	C5-C4	-5.02	1.34	1.38
48	DP	52	GLU	CB-CG	5.02	1.61	1.52
35	BA	568	U	C5-C6	5.01	1.38	1.34
35	DA	197	A	N3-C4	-5.01	1.31	1.34
35	DA	385	C	N3-C4	-5.01	1.30	1.33
35	BA	272(B)	G	P-O5'	5.01	1.64	1.59
35	DA	824	A	N9-C4	-5.01	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	DA	2548	G	C5-C4	-5.01	1.34	1.38
35	BA	1963	U	N1-C2	5.01	1.43	1.38
35	DA	1352	U	P-OP2	5.01	1.57	1.49
35	DA	676	A	C6-N6	-5.00	1.29	1.33

All (8092) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	BV	38	LEU	CB-CG-CD2	-27.88	63.60	111.00
35	BA	1899	G	N3-C4-N9	-23.15	112.11	126.00
35	BA	2818	G	N1-C6-O6	22.38	133.33	119.90
35	BA	2818	G	C5-C6-O6	-22.14	115.32	128.60
35	DA	1779	U	C5-C6-N1	-21.39	112.01	122.70
8	AH	104	ARG	CG-CD-NE	21.26	156.44	111.80
54	BV	38	LEU	CB-CG-CD1	20.60	146.03	111.00
35	DA	1332	G	N3-C4-N9	-20.45	113.73	126.00
35	BA	2818	G	C4-C5-N7	19.83	118.73	110.80
35	DA	975	C	C5-C6-N1	19.47	130.73	121.00
35	DA	676	A	C5-N7-C8	-19.34	94.23	103.90
35	BA	1899	G	N3-C2-N2	-19.29	106.39	119.90
35	DA	1332	G	N3-C4-C5	18.98	138.09	128.60
35	DA	568	U	N3-C4-C5	-18.80	103.32	114.60
35	DA	1786	A	C2-N3-C4	-18.11	101.55	110.60
2	AB	142	LEU	CA-CB-CG	17.85	156.36	115.30
5	AE	152	ARG	NE-CZ-NH2	-17.80	111.40	120.30
35	DA	676	A	C4-C5-N7	17.57	119.49	110.70
35	DA	945	A	N1-C6-N6	17.49	129.09	118.60
35	DA	676	A	C2-N3-C4	-17.49	101.86	110.60
35	DA	2593	U	N3-C4-C5	-17.43	104.14	114.60
35	BA	1899	G	N9-C4-C5	17.37	112.35	105.40
35	DA	1838	C	C6-N1-C2	17.30	127.22	120.30
35	DA	1332	G	C2-N3-C4	-17.23	103.28	111.90
35	DA	527	C	C5-C6-N1	17.13	129.56	121.00
35	DA	2448	A	N1-C6-N6	16.96	128.78	118.60
35	BA	2818	G	C6-C5-N7	-16.81	120.31	130.40
35	DA	1899	G	N3-C4-C5	16.81	137.00	128.60
35	DA	527	C	C4-C5-C6	-16.76	109.02	117.40
35	BA	2818	G	N9-C4-C5	-16.67	98.73	105.40
35	DA	975	C	C2-N1-C1'	16.48	136.93	118.80
35	DA	141	A	N1-C6-N6	16.44	128.46	118.60
35	DA	652	C	C6-N1-C2	-16.27	113.79	120.30
35	DA	2544	G	N1-C6-O6	16.10	129.56	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	774	A	C5-N7-C8	-16.06	95.87	103.90
35	BA	106	C	O5'-P-OP1	-16.03	91.28	105.70
35	DA	2287	A	C2-N3-C4	-16.01	102.59	110.60
35	DA	2593	U	N3-C4-O4	15.95	130.56	119.40
1	AA	1298	C	O4'-C1'-N1	15.83	120.86	108.20
35	BA	975	C	C5-C6-N1	15.75	128.88	121.00
35	BA	1786	A	C6-C5-N7	-15.75	121.28	132.30
35	DA	1786	A	N7-C8-N9	15.64	121.62	113.80
35	BA	945	A	N1-C6-N6	15.59	127.95	118.60
35	DA	528	A	C5-N7-C8	-15.58	96.11	103.90
26	D1	46	LEU	CB-CG-CD2	-15.54	84.58	111.00
35	BA	1786	A	N7-C8-N9	15.46	121.53	113.80
35	DA	1899	G	N3-C4-N9	-15.42	116.75	126.00
22	CV	76	A	C8-N9-C4	15.27	111.91	105.80
35	BA	783	A	C5-N7-C8	-15.18	96.31	103.90
35	BA	975	C	O4'-C1'-N1	15.16	120.33	108.20
35	DA	774	A	C2-N3-C4	-15.06	103.07	110.60
33	B8	13	ARG	NE-CZ-NH2	14.96	127.78	120.30
35	DA	1786	A	C5-N7-C8	-14.92	96.44	103.90
35	DA	783	A	N1-C6-N6	14.80	127.48	118.60
35	DA	1187	G	C8-N9-C4	-14.76	100.50	106.40
35	DA	1786	A	N1-C2-N3	14.75	136.68	129.30
35	BA	539	G	C2-N3-C4	14.70	119.25	111.90
35	BA	1323	U	C5-C6-N1	14.70	130.05	122.70
35	BA	105	C	C2-N1-C1'	14.49	134.74	118.80
35	DA	1899	G	C2-N3-C4	-14.46	104.67	111.90
35	DA	528	A	C2-N3-C4	-14.44	103.38	110.60
35	DA	676	A	N7-C8-N9	14.44	121.02	113.80
35	DA	676	A	N1-C6-N6	14.44	127.26	118.60
35	BA	975	C	C2-N1-C1'	14.27	134.50	118.80
35	BA	1779	U	C5-C6-N1	-14.09	115.65	122.70
35	DA	109	G	N1-C6-O6	-14.07	111.46	119.90
35	BA	1932	A	O5'-P-OP1	-14.04	93.06	105.70
35	DA	945	A	C6-C5-N7	-14.03	122.48	132.30
1	AA	1443	G	O5'-P-OP1	-14.02	93.08	105.70
35	BA	1786	A	N1-C6-N6	13.97	126.98	118.60
36	DB	81	G	C4-C5-N7	13.97	116.39	110.80
35	DA	783	A	C5-N7-C8	-13.93	96.93	103.90
35	BA	2699	C	N3-C2-O2	-13.91	112.16	121.90
35	DA	2595	G	C5-C6-O6	-13.90	120.26	128.60
35	BA	1899	G	N3-C4-C5	13.88	135.54	128.60
35	BA	568	U	N3-C4-C5	-13.87	106.28	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	1840	G	N1-C6-O6	13.85	128.21	119.90
35	BA	2818	G	C8-N9-C1'	-13.81	109.05	127.00
35	DA	1187	G	C5-C6-N1	-13.78	104.61	111.50
35	DA	975	C	C4-C5-C6	-13.74	110.53	117.40
35	BA	1786	A	C5-N7-C8	-13.72	97.04	103.90
35	BA	2880	C	C6-N1-C2	-13.64	114.84	120.30
1	AA	172	A	C8-N9-C4	-13.57	100.37	105.80
35	DA	975	C	C6-N1-C1'	-13.56	104.53	120.80
35	DA	2573	C	N1-C2-O2	13.52	127.01	118.90
35	BA	84	A	C8-N9-C4	-13.49	100.40	105.80
35	BA	1312	U	C5-C4-O4	13.48	133.99	125.90
35	DA	141	A	C4-C5-N7	13.47	117.44	110.70
35	DA	2346	A	C2-N3-C4	-13.40	103.90	110.60
35	DA	975	C	O4'-C1'-N1	13.38	118.90	108.20
35	DA	528	A	O5'-P-OP2	-13.34	93.70	105.70
35	DA	456	C	C6-N1-C2	13.32	125.63	120.30
35	DA	527	C	N1-C2-N3	-13.31	109.89	119.20
35	DA	2609	U	C5-C6-N1	-13.27	116.07	122.70
5	AE	152	ARG	NE-CZ-NH1	13.25	126.92	120.30
35	DA	2593	U	C4-C5-C6	13.23	127.64	119.70
35	DA	1021	A	C2-N3-C4	-13.22	103.99	110.60
35	DA	945	A	C5-N7-C8	-13.20	97.30	103.90
35	DA	2518	A	C5-N7-C8	-13.14	97.33	103.90
48	BP	61	ARG	C-N-CA	-13.13	88.86	121.70
35	DA	568	U	C6-N1-C2	-13.13	113.12	121.00
35	DA	2518	A	N1-C6-N6	13.04	126.42	118.60
23	AY	40	C	C5-C6-N1	13.03	127.52	121.00
35	DA	2055	C	N1-C2-O2	13.02	126.71	118.90
35	BA	1332	G	C6-C5-N7	-12.98	122.61	130.40
35	DA	2238	G	O5'-P-OP1	-12.96	94.04	105.70
35	BA	945	A	C4-C5-N7	12.94	117.17	110.70
36	DB	90	A	C8-N9-C4	-12.94	100.62	105.80
35	DA	446	G	N1-C6-O6	12.91	127.65	119.90
1	AA	67	C	OP1-P-O3'	-12.90	76.82	105.20
35	BA	1786	A	N1-C2-N3	12.86	135.73	129.30
35	DA	2032	G	N1-C6-O6	12.83	127.60	119.90
35	DA	2318	G	C4-N9-C1'	12.81	143.16	126.50
35	DA	845	G	N3-C4-C5	12.77	134.99	128.60
35	DA	945	A	C4-C5-N7	12.75	117.08	110.70
35	DA	527	C	C6-N1-C1'	-12.75	105.50	120.80
35	DA	783	A	C2-N3-C4	-12.71	104.24	110.60
35	DA	679	C	C6-N1-C2	12.71	125.38	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2699	C	N3-C4-N4	-12.71	109.11	118.00
35	DA	2713	A	C2-N3-C4	-12.68	104.26	110.60
1	AA	162	A	C5-C6-N6	-12.62	113.61	123.70
35	BA	1786	A	C2-N3-C4	-12.61	104.30	110.60
1	CA	117	G	N1-C6-O6	12.60	127.46	119.90
1	CA	812	C	N1-C2-O2	12.58	126.45	118.90
35	BA	1496	A	N1-C6-N6	12.57	126.14	118.60
35	DA	1786	A	C6-C5-N7	-12.56	123.50	132.30
35	BA	945	A	C5-N7-C8	-12.56	97.62	103.90
35	DA	1268	A	C2-N3-C4	-12.55	104.32	110.60
35	DA	527	C	C2-N1-C1'	12.50	132.56	118.80
35	BA	1899	G	C2-N3-C4	-12.48	105.66	111.90
35	BA	2818	G	C5-N7-C8	-12.44	98.08	104.30
35	BA	2430	A	C2-N3-C4	-12.43	104.39	110.60
1	AA	172	A	N7-C8-N9	12.42	120.01	113.80
35	BA	2402	C	C6-N1-C2	-12.40	115.34	120.30
35	DA	1899	G	N3-C2-N2	-12.38	111.23	119.90
35	DA	1698	A	C2-N3-C4	-12.35	104.42	110.60
35	DA	1779	U	C2-N1-C1'	-12.34	102.89	117.70
35	DA	2476	A	C2-N3-C4	12.30	116.75	110.60
35	BA	1249	U	N3-C2-O2	-12.29	113.59	122.20
35	BA	1899	G	C8-N9-C1'	12.27	142.95	127.00
35	BA	2688	U	N3-C2-O2	-12.25	113.62	122.20
35	DA	71	A	N1-C6-N6	12.24	125.94	118.60
35	DA	684	G	N1-C6-O6	-12.24	112.56	119.90
35	BA	1332	G	N7-C8-N9	12.23	119.22	113.10
35	DA	141	A	C6-C5-N7	-12.23	123.74	132.30
48	DP	16	ARG	NE-CZ-NH2	-12.21	114.19	120.30
35	DA	871	U	O5'-P-OP1	-12.21	94.71	105.70
35	DA	676	A	C6-C5-N7	-12.18	123.77	132.30
35	BA	1899	G	C4-C5-N7	-12.17	105.93	110.80
35	DA	330	A	C2-N3-C4	-12.16	104.52	110.60
35	BA	71	A	C5-N7-C8	-12.14	97.83	103.90
35	DA	661	C	N3-C4-C5	12.14	126.75	121.90
1	AA	162	A	N1-C6-N6	12.14	125.88	118.60
35	BA	539	G	N3-C4-C5	-12.11	122.54	128.60
22	AV	77	A	C8-N9-C4	12.10	110.64	105.80
35	BA	774	A	N1-C6-N6	12.08	125.85	118.60
35	DA	2713	A	C5-N7-C8	-12.07	97.86	103.90
35	BA	774	A	C4-C5-N7	12.07	116.73	110.70
35	DA	141	A	C5-N7-C8	-12.06	97.87	103.90
35	BA	2419	U	N3-C4-C5	-12.06	107.36	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	774	A	N1-C6-N6	12.06	125.83	118.60
35	DA	1904	G	C8-N9-C4	12.02	111.21	106.40
1	AA	165	C	N1-C2-O2	12.02	126.11	118.90
35	DA	2417	C	O5'-P-OP2	-11.99	94.91	105.70
35	BA	945	A	C6-C5-N7	-11.99	123.91	132.30
35	DA	208	C	C6-N1-C2	11.98	125.09	120.30
1	AA	769	G	O5'-P-OP2	-11.98	94.92	105.70
35	DA	1992	G	C8-N9-C4	11.96	111.19	106.40
35	DA	928	G	N1-C6-O6	11.96	127.08	119.90
35	BA	1576	U	N3-C2-O2	-11.94	113.84	122.20
35	DA	621	A	C2-N3-C4	-11.94	104.63	110.60
35	DA	652	C	C5-C6-N1	11.91	126.95	121.00
35	DA	568	U	N1-C2-O2	-11.90	114.47	122.80
35	DA	2661	G	N3-C4-C5	-11.90	122.65	128.60
35	DA	1779	U	C4-C5-C6	11.89	126.83	119.70
35	BA	785	G	O5'-P-OP1	-11.86	95.03	105.70
35	BA	1786	A	C4-C5-C6	11.82	122.91	117.00
1	AA	1345	U	N1-C2-O2	11.82	131.07	122.80
35	DA	933	A	C5-N7-C8	-11.81	97.99	103.90
35	DA	1142(A)	A	C2-N3-C4	-11.73	104.74	110.60
35	DA	71	A	C5-N7-C8	-11.71	98.05	103.90
35	BA	2828	C	C2-N3-C4	11.70	125.75	119.90
35	DA	2593	U	N1-C2-O2	-11.70	114.61	122.80
35	BA	2460	U	O5'-P-OP1	-11.69	95.18	105.70
35	BA	221	A	O5'-P-OP1	-11.68	95.19	105.70
35	BA	2238	G	O5'-P-OP2	-11.66	95.20	105.70
35	BA	752	A	C8-N9-C4	-11.66	101.14	105.80
48	DP	16	ARG	CD-NE-CZ	11.63	139.88	123.60
35	DA	783	A	C4-C5-N7	11.58	116.49	110.70
35	DA	2595	G	C4-C5-N7	11.54	115.42	110.80
35	BA	1385	G	O4'-C1'-N9	11.53	117.42	108.20
35	DA	527	C	O4'-C1'-N1	11.49	117.39	108.20
35	DA	828	U	C5-C4-O4	11.49	132.79	125.90
35	DA	1762	A	C8-N9-C4	-11.47	101.21	105.80
35	BA	1902	C	C5-C6-N1	-11.47	115.27	121.00
35	BA	783	A	N7-C8-N9	11.45	119.53	113.80
35	BA	657	U	O5'-P-OP1	-11.42	95.42	105.70
35	DA	2609	U	C2-N3-C4	-11.42	120.15	127.00
35	BA	103	A	C8-N9-C4	-11.41	101.24	105.80
36	DB	81	G	N9-C4-C5	-11.40	100.84	105.40
35	BA	1902	C	C4-C5-C6	11.40	123.10	117.40
35	DA	90	U	O4'-C1'-N1	11.39	117.31	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	2448	A	C5-C6-N6	-11.38	114.59	123.70
35	DA	1210	A	C5-N7-C8	-11.37	98.22	103.90
35	DA	945	A	C5-C6-N6	-11.36	114.61	123.70
35	BA	105	C	C5-C6-N1	11.36	126.68	121.00
35	DA	690	G	C8-N9-C4	11.35	110.94	106.40
35	DA	527	C	C2-N3-C4	11.34	125.57	119.90
35	BA	1955	U	C2-N1-C1'	11.33	131.29	117.70
35	DA	210	C	C6-N1-C2	11.33	124.83	120.30
35	DA	2318	G	O4'-C1'-N9	11.33	117.26	108.20
35	BA	652	C	C6-N1-C2	-11.32	115.77	120.30
1	AA	1456	G	C8-N9-C4	-11.32	101.87	106.40
48	DP	144	GLU	C-N-CD	-11.31	95.72	120.60
35	BA	676	A	C5-N7-C8	-11.30	98.25	103.90
35	DA	226	G	N1-C6-O6	11.29	126.67	119.90
35	BA	106	C	N3-C2-O2	-11.28	114.00	121.90
35	DA	1559	G	N3-C4-C5	11.27	134.23	128.60
35	DA	2518	A	C6-C5-N7	-11.27	124.41	132.30
1	CA	1054	C	C2-N1-C1'	11.26	131.19	118.80
35	DA	2024	G	C8-N9-C4	11.24	110.90	106.40
36	DB	81	G	C8-N9-C1'	-11.24	112.39	127.00
35	BA	774	A	N7-C8-N9	11.24	119.42	113.80
35	BA	133	C	OP1-P-OP2	-11.23	102.75	119.60
35	BA	1629	U	C4-C5-C6	11.23	126.44	119.70
35	DA	141	A	C5-C6-N6	-11.23	114.72	123.70
35	DA	2499	C	C6-N1-C2	-11.22	115.81	120.30
35	DA	528	A	N3-C4-C5	11.21	134.65	126.80
35	DA	1544	A	N7-C8-N9	-11.21	108.20	113.80
35	BA	2713	A	C5-N7-C8	-11.20	98.30	103.90
1	AA	299	G	C5-C6-N1	-11.19	105.90	111.50
35	BA	210	C	C4-C5-C6	11.19	123.00	117.40
35	BA	765	G	O5'-P-OP2	-11.18	95.64	105.70
35	DA	1190	G	C4-C5-N7	11.17	115.27	110.80
35	DA	71	A	C6-C5-N7	-11.17	124.48	132.30
35	DA	975	C	C5-C4-N4	-11.16	112.39	120.20
35	BA	105	C	C6-N1-C2	-11.14	115.84	120.30
35	DA	2318	G	N7-C8-N9	11.14	118.67	113.10
1	CA	980	C	C6-N1-C2	-11.13	115.85	120.30
35	DA	2595	G	N1-C6-O6	11.11	126.57	119.90
35	DA	528	A	C4-C5-N7	11.07	116.24	110.70
36	DB	81	G	C6-C5-N7	-11.06	123.76	130.40
35	BA	272(H)	C	C2-N1-C1'	11.06	130.96	118.80
35	BA	253	C	C4-C5-C6	11.06	122.93	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2430	A	O5'-P-OP1	-11.05	95.75	105.70
2	AB	142	LEU	CB-CG-CD1	-11.04	92.23	111.00
35	DA	1332	G	C8-N9-C1'	11.04	141.35	127.00
35	BA	1249	U	C5-C4-O4	11.03	132.52	125.90
35	BA	1779	U	C4-C5-C6	11.02	126.31	119.70
35	BA	2818	G	C4-N9-C1'	11.01	140.82	126.50
35	BA	136	G	C4-C5-N7	11.01	115.20	110.80
36	DB	15	A	O4'-C1'-N9	11.00	117.00	108.20
35	BA	1831	G	O5'-P-OP2	-11.00	95.80	105.70
35	BA	2699	C	N1-C2-O2	11.00	125.50	118.90
35	BA	1840	G	C5-C6-N1	-10.99	106.00	111.50
35	DA	272	G	N3-C4-C5	-10.99	123.11	128.60
35	DA	777	A	N1-C2-N3	10.99	134.79	129.30
36	DB	47	C	C6-N1-C2	10.99	124.69	120.30
35	BA	1786	A	C8-N9-C4	-10.98	101.41	105.80
35	DA	2318	G	C6-C5-N7	-10.98	123.81	130.40
1	AA	165	C	N3-C2-O2	-10.97	114.22	121.90
35	DA	1332	G	N3-C2-N2	-10.94	112.24	119.90
35	DA	845	G	N3-C4-N9	-10.94	119.44	126.00
35	BA	141	A	N7-C8-N9	10.92	119.26	113.80
35	BA	1082	U	OP2-P-O3'	-10.89	81.24	105.20
35	BA	1332	G	C5-N7-C8	-10.89	98.85	104.30
35	DA	2430	A	C2-N3-C4	-10.89	105.15	110.60
35	DA	528	A	N7-C8-N9	10.89	119.24	113.80
35	DA	1332	G	C5-N7-C8	-10.88	98.86	104.30
35	DA	1265	A	O5'-P-OP1	-10.88	95.91	105.70
35	DA	1786	A	C8-N9-C4	-10.87	101.45	105.80
36	DB	8	U	O5'-P-OP2	-10.84	95.94	105.70
35	DA	975	C	C2-N3-C4	10.84	125.32	119.90
35	BA	783	A	N1-C6-N6	10.83	125.10	118.60
1	AA	768	A	C2-N3-C4	-10.82	105.19	110.60
36	DB	81	G	C4-N9-C1'	10.82	140.57	126.50
35	DA	272(B)	G	O4'-C1'-N9	10.80	116.84	108.20
35	BA	975	C	C6-N1-C1'	-10.80	107.84	120.80
35	DA	2252	G	C8-N9-C4	10.80	110.72	106.40
35	DA	1614	A	N7-C8-N9	10.80	119.20	113.80
1	AA	817	C	C6-N1-C2	10.79	124.62	120.30
33	B8	13	ARG	NE-CZ-NH1	-10.79	114.91	120.30
35	DA	530	G	C8-N9-C4	-10.77	102.09	106.40
1	AA	365	U	C5-C6-N1	-10.75	117.32	122.70
35	DA	2464	C	N3-C2-O2	10.74	129.42	121.90
35	DA	470	A	O5'-P-OP2	-10.74	96.03	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	702	G	C8-N9-C4	10.72	110.69	106.40
35	BA	1082	U	OP1-P-O3'	-10.71	81.63	105.20
1	AA	1336	C	N1-C2-O2	10.71	125.33	118.90
35	DA	247	G	C8-N9-C4	10.70	110.68	106.40
35	DA	2593	U	C6-N1-C2	-10.68	114.59	121.00
22	CV	76	A	N9-C4-C5	-10.67	101.53	105.80
35	DA	2518	A	N7-C8-N9	10.66	119.13	113.80
35	DA	264	C	C6-N1-C2	10.65	124.56	120.30
35	DA	1327	C	C6-N1-C2	-10.65	116.04	120.30
35	BA	2699	C	C5-C4-N4	10.64	127.65	120.20
35	DA	1627	G	O5'-P-OP2	-10.63	96.13	105.70
35	DA	2518	A	C4-C5-N7	10.62	116.01	110.70
35	BA	1558	A	C2-N3-C4	-10.61	105.29	110.60
35	DA	2073	C	C5-C6-N1	-10.61	115.69	121.00
35	BA	1323	U	C2-N1-C1'	10.61	130.43	117.70
35	BA	1899	G	C5-C6-O6	10.61	134.96	128.60
35	DA	1210	A	N7-C8-N9	10.59	119.10	113.80
23	AY	42	C	C5-C6-N1	-10.59	115.71	121.00
35	BA	2697	G	C8-N9-C4	-10.58	102.17	106.40
35	DA	456	C	C5-C6-N1	-10.58	115.71	121.00
35	BA	1899	G	C6-C5-N7	10.58	136.75	130.40
35	DA	945	A	O5'-P-OP1	-10.57	96.19	105.70
35	DA	568	U	C4-C5-C6	10.56	126.04	119.70
35	DA	2032	G	C5-C6-O6	-10.56	122.26	128.60
35	BA	1678	G	C2-N3-C4	-10.56	106.62	111.90
35	BA	945	A	C5-C6-N6	-10.53	115.27	123.70
1	AA	117	G	N1-C6-O6	10.53	126.22	119.90
35	DA	2318	G	C8-N9-C4	-10.52	102.19	106.40
35	BA	2506	U	C6-N1-C2	-10.50	114.70	121.00
35	BA	528	A	N1-C2-N3	10.49	134.54	129.30
35	BA	621	A	C2-N3-C4	-10.49	105.36	110.60
35	DA	679	C	C5-C6-N1	-10.48	115.76	121.00
35	BA	787	U	O5'-P-OP2	-10.48	96.27	105.70
35	DA	527	C	C5-C4-N4	-10.47	112.87	120.20
1	AA	1115	C	C2-N1-C1'	-10.46	107.29	118.80
35	DA	142	A	N7-C8-N9	10.46	119.03	113.80
35	BA	1332	G	C4-N9-C1'	10.46	140.09	126.50
35	DA	1187	G	N9-C4-C5	10.45	109.58	105.40
52	DT	6	LEU	CA-CB-CG	10.44	139.32	115.30
1	AA	1345	U	N3-C2-O2	-10.44	114.89	122.20
1	AA	1456	G	N3-C4-C5	-10.41	123.39	128.60
1	CA	1412	C	C6-N1-C2	10.41	124.47	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	818	G	O5'-P-OP1	-10.40	96.34	105.70
35	BA	1210	A	N7-C8-N9	10.39	119.00	113.80
35	BA	1786	A	C4-N9-C1'	10.37	144.96	126.30
35	DA	1265	A	C8-N9-C4	-10.37	101.65	105.80
35	DA	975	C	N3-C4-N4	10.36	125.25	118.00
36	DB	81	G	C5-C6-O6	-10.36	122.38	128.60
23	AY	39	U	N3-C2-O2	-10.36	114.95	122.20
35	BA	1031	G	C8-N9-C4	10.35	110.54	106.40
35	BA	2697	G	N1-C6-O6	-10.35	113.69	119.90
1	CA	896	C	C6-N1-C2	10.35	124.44	120.30
35	DA	247	G	N9-C4-C5	-10.35	101.26	105.40
35	DA	71	A	N7-C8-N9	10.33	118.96	113.80
35	BA	142(A)	C	C6-N1-C2	-10.33	116.17	120.30
35	DA	1187	G	N3-C2-N2	-10.32	112.68	119.90
27	D2	10	LEU	CA-CB-CG	10.31	139.02	115.30
35	BA	1558	A	N1-C2-N3	10.31	134.45	129.30
35	DA	2713	A	N7-C8-N9	10.30	118.95	113.80
35	DA	2442	C	C2-N3-C4	-10.30	114.75	119.90
35	BA	975	C	C2-N3-C4	10.30	125.05	119.90
35	DA	1840	G	C5-C6-N1	-10.29	106.36	111.50
35	BA	71	A	N7-C8-N9	10.28	118.94	113.80
35	BA	308	G	OP1-P-O3'	-10.28	82.59	105.20
1	AA	1423	G	O5'-P-OP2	-10.27	96.46	105.70
35	DA	2073	C	C4-C5-C6	10.25	122.52	117.40
35	BA	774	A	C2-N3-C4	-10.24	105.48	110.60
36	DB	81	G	N3-C4-N9	10.24	132.15	126.00
35	BA	139(A)	G	C8-N9-C4	-10.24	102.31	106.40
35	DA	2042	A	O5'-P-OP2	-10.22	96.50	105.70
35	DA	1614	A	C8-N9-C4	-10.22	101.71	105.80
22	AV	17	C	N1-C2-O2	10.22	125.03	118.90
35	DA	1190	G	N1-C6-O6	10.22	126.03	119.90
35	DA	2352	A	C8-N9-C4	10.22	109.89	105.80
23	AY	40	C	C6-N1-C2	-10.21	116.21	120.30
35	BA	1786	A	C4-C5-N7	10.21	115.81	110.70
36	DB	21	G	O4'-C1'-N9	10.21	116.37	108.20
1	CA	1054	C	C6-N1-C1'	-10.21	108.55	120.80
35	BA	530	G	C8-N9-C4	-10.20	102.32	106.40
1	CA	812	C	N3-C2-O2	-10.20	114.76	121.90
35	DA	845	G	C2-N3-C4	-10.19	106.81	111.90
35	BA	132	G	N3-C4-C5	-10.18	123.51	128.60
35	BA	1899	G	C4-N9-C1'	-10.18	113.27	126.50
35	BA	1955	U	N3-C2-O2	-10.17	115.08	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	2679	A	O5'-P-OP2	-10.17	96.55	105.70
35	DA	1190	G	C6-C5-N7	-10.16	124.31	130.40
1	CA	1108	G	C5-C6-N1	-10.16	106.42	111.50
35	BA	1814	G	C5-C6-N1	-10.15	106.42	111.50
35	BA	2378	A	O5'-P-OP1	-10.15	96.56	105.70
35	DA	36	G	O5'-P-OP2	-10.13	96.58	105.70
35	DA	1614	A	C5-N7-C8	-10.13	98.84	103.90
35	BA	1743	C	N1-C2-O2	10.12	124.97	118.90
35	BA	2698	U	C5-C6-N1	10.12	127.76	122.70
48	DP	47	ASP	C-N-CD	-10.12	98.33	120.60
35	BA	1332	G	C4-C5-N7	10.11	114.84	110.80
1	CA	629	G	C8-N9-C4	-10.11	102.36	106.40
35	BA	783	A	C2-N3-C4	-10.10	105.55	110.60
35	BA	272	G	C8-N9-C4	-10.08	102.37	106.40
35	DA	2028	U	O5'-P-OP1	-10.07	96.63	105.70
35	DA	1899	G	N1-C6-O6	10.07	125.94	119.90
35	BA	2697	G	N3-C4-C5	-10.07	123.57	128.60
35	BA	1602	U	N3-C4-C5	-10.06	108.56	114.60
35	BA	2818	G	O4'-C1'-N9	10.06	116.25	108.20
35	BA	1448	G	N3-C4-C5	-10.06	123.57	128.60
35	DA	793	A	C8-N9-C4	-10.06	101.78	105.80
35	DA	945	A	N7-C8-N9	10.06	118.83	113.80
35	DA	661	C	C4-C5-C6	-10.05	112.37	117.40
35	DA	272	G	C8-N9-C4	-10.05	102.38	106.40
35	BA	448	U	N3-C2-O2	-10.04	115.18	122.20
35	DA	623	G	C5-C6-O6	-10.03	122.58	128.60
35	BA	540	C	OP1-P-OP2	-10.03	104.55	119.60
35	BA	246	C	C6-N1-C2	10.03	124.31	120.30
35	DA	1544	A	C8-N9-C4	10.00	109.80	105.80
35	BA	141	A	C5-N7-C8	-9.99	98.91	103.90
1	AA	1452	C	C6-N1-C2	9.98	124.29	120.30
35	DA	2049	G	C8-N9-C4	9.97	110.39	106.40
35	BA	2688	U	C5-C6-N1	-9.96	117.72	122.70
1	AA	156	G	C5-C6-O6	-9.95	122.63	128.60
35	DA	272	G	N1-C6-O6	-9.95	113.93	119.90
35	DA	446	G	C6-C5-N7	-9.93	124.44	130.40
35	DA	1495	A	N1-C6-N6	9.92	124.56	118.60
35	DA	1204	A	C6-C5-N7	-9.92	125.36	132.30
35	DA	2346	A	N1-C2-N3	9.91	134.26	129.30
35	DA	743	G	O5'-P-OP1	9.91	122.59	110.70
35	BA	272	G	N3-C4-C5	-9.91	123.65	128.60
35	BA	1677	A	N1-C6-N6	9.90	124.54	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	652	C	C2-N1-C1'	9.89	129.68	118.80
56	DX	66	LEU	CA-CB-CG	9.88	138.02	115.30
35	DA	1544	A	N1-C6-N6	-9.87	112.68	118.60
48	BP	61	ARG	CG-CD-NE	-9.85	91.12	111.80
35	DA	1528	A	N7-C8-N9	9.85	118.72	113.80
35	BA	1840	G	N1-C6-O6	9.84	125.81	119.90
35	BA	2376	A	N1-C6-N6	-9.84	112.70	118.60
36	DB	81	G	O4'-C1'-N9	9.83	116.06	108.20
1	AA	365	U	C2-N1-C1'	-9.82	105.91	117.70
35	DA	2688	U	C5-C4-O4	9.82	131.79	125.90
1	AA	299	G	C4-C5-N7	-9.81	106.88	110.80
35	BA	2057	A	C8-N9-C4	9.79	109.72	105.80
35	DA	603	A	N1-C6-N6	-9.79	112.73	118.60
35	DA	774	A	C8-N9-C4	9.79	109.72	105.80
35	DA	528	A	N3-C4-N9	-9.78	119.57	127.40
35	DA	788	A	N1-C6-N6	9.78	124.47	118.60
35	BA	2392	A	O5'-P-OP1	-9.78	96.90	105.70
35	DA	2573	C	N3-C2-O2	-9.78	115.06	121.90
35	BA	1066	U	C2-N1-C1'	9.77	129.43	117.70
35	DA	2226	C	C6-N1-C2	9.77	124.21	120.30
35	DA	2318	G	C8-N9-C1'	-9.77	114.30	127.00
35	BA	528	A	C2-N3-C4	-9.76	105.72	110.60
35	DA	793	A	O5'-P-OP2	-9.74	96.93	105.70
35	DA	287	C	N1-C2-O2	9.74	124.74	118.90
1	AA	553	A	O5'-P-OP2	-9.73	96.94	105.70
35	BA	272(H)	C	C5-C6-N1	9.73	125.87	121.00
35	BA	1568	G	N3-C4-C5	9.73	133.47	128.60
35	DA	2426	A	C8-N9-C4	-9.73	101.91	105.80
35	DA	2448	A	C6-C5-N7	-9.73	125.49	132.30
35	BA	621	A	N7-C8-N9	9.73	118.67	113.80
35	BA	2619	C	C6-N1-C2	9.73	124.19	120.30
35	DA	210	C	C5-C6-N1	-9.72	116.14	121.00
35	DA	1678	G	C5-N7-C8	-9.72	99.44	104.30
35	DA	1780	A	N1-C2-N3	9.71	134.16	129.30
35	BA	783	A	C4-C5-N7	9.71	115.55	110.70
35	DA	2343	C	O5'-P-OP1	-9.70	96.97	105.70
35	DA	2542	A	C2-N3-C4	-9.70	105.75	110.60
35	BA	146	G	C6-C5-N7	-9.69	124.59	130.40
35	BA	2573	C	N1-C2-O2	9.69	124.71	118.90
35	BA	2589	A	C8-N9-C4	9.69	109.67	105.80
35	DA	1433	U	C5-C6-N1	9.69	127.54	122.70
35	DA	808	G	O5'-P-OP2	-9.68	96.99	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	103	A	N7-C8-N9	9.68	118.64	113.80
35	BA	651	G	C2-N3-C4	9.68	116.74	111.90
35	DA	2844	G	N1-C6-O6	9.67	125.70	119.90
1	AA	893	C	C6-N1-C2	9.67	124.17	120.30
35	BA	645	C	C2-N1-C1'	9.65	129.42	118.80
35	BA	2713	A	C4-C5-N7	9.65	115.53	110.70
35	BA	752	A	N7-C8-N9	9.64	118.62	113.80
35	DA	1412	A	O5'-P-OP2	-9.63	97.03	105.70
35	DA	1439	A	C8-N9-C4	9.63	109.65	105.80
35	DA	446	G	C4-C5-N7	9.63	114.65	110.80
35	BA	240	G	C5-C6-N1	-9.63	106.69	111.50
35	BA	1937	A	C8-N9-C4	9.63	109.65	105.80
35	DA	2553	G	N1-C6-O6	-9.63	114.12	119.90
35	BA	925	C	C6-N1-C2	9.62	124.15	120.30
35	DA	1680	U	C5-C4-O4	9.62	131.67	125.90
35	BA	1528(A)	A	C8-N9-C4	-9.61	101.96	105.80
35	DA	621	A	C5-N7-C8	-9.61	99.09	103.90
35	DA	1190	G	C5-C6-O6	-9.61	122.84	128.60
35	DA	676	A	N3-C4-C5	9.60	133.52	126.80
35	DA	2375	G	O5'-P-OP1	9.60	122.22	110.70
1	AA	160	A	O4'-C1'-N9	9.60	115.88	108.20
35	BA	1312	U	N3-C2-O2	-9.60	115.48	122.20
35	BA	568	U	C5-C4-O4	9.59	131.66	125.90
35	DA	2681	C	C5-C4-N4	9.59	126.92	120.20
35	BA	133	C	O5'-P-OP1	9.59	122.21	110.70
1	CA	436	C	C4-C5-C6	-9.59	112.60	117.40
35	BA	2779	U	O5'-P-OP2	-9.59	97.07	105.70
48	DP	16	ARG	CG-CD-NE	9.59	131.93	111.80
35	DA	540	C	O5'-P-OP1	-9.58	97.08	105.70
35	BA	662	G	O5'-P-OP1	-9.58	97.08	105.70
35	BA	106	C	N1-C2-O2	9.58	124.65	118.90
35	DA	1494	A	C2-N3-C4	9.57	115.39	110.60
35	DA	2447	G	C6-C5-N7	-9.57	124.66	130.40
35	DA	2553	G	N3-C4-C5	-9.57	123.82	128.60
35	DA	548	A	N1-C6-N6	9.56	124.34	118.60
35	DA	509	C	C6-N1-C2	-9.56	116.48	120.30
35	DA	1678	G	C2-N3-C4	-9.56	107.12	111.90
35	DA	2590	A	C2-N3-C4	-9.56	105.82	110.60
35	DA	828	U	N3-C4-O4	-9.55	112.71	119.40
35	DA	2648	C	C6-N1-C2	9.55	124.12	120.30
35	DA	933	A	C4-C5-N7	9.55	115.48	110.70
35	DA	975	C	N1-C2-N3	-9.55	112.52	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	105	C	C6-N1-C1'	-9.55	109.34	120.80
35	BA	621	A	C5-N7-C8	-9.55	99.13	103.90
35	DA	690	G	N7-C8-N9	-9.54	108.33	113.10
35	DA	465	G	C5-C6-N1	-9.54	106.73	111.50
35	BA	2318	G	C8-N9-C4	-9.54	102.58	106.40
35	DA	548	A	C5-C6-N6	-9.54	116.07	123.70
35	BA	673	C	C6-N1-C2	-9.53	116.49	120.30
36	DB	101	G	C8-N9-C4	9.52	110.21	106.40
35	DA	828	U	N3-C2-O2	-9.52	115.53	122.20
35	DA	2022	U	C6-N1-C2	9.52	126.71	121.00
35	DA	2465	C	O5'-P-OP2	-9.52	97.13	105.70
35	BA	146	G	C4-C5-N7	9.52	114.61	110.80
35	BA	990	A	O5'-P-OP1	-9.52	97.13	105.70
1	AA	79	G	O4'-C1'-N9	9.51	115.81	108.20
1	AA	1030	C	N1-C2-O2	9.50	124.60	118.90
35	BA	2423	U	C5-C6-N1	-9.50	117.95	122.70
35	BA	530	G	N9-C4-C5	9.49	109.20	105.40
35	BA	580	C	C6-N1-C2	-9.49	116.50	120.30
23	CW	13	C	N1-C2-O2	9.49	124.59	118.90
35	DA	911	A	N1-C6-N6	9.48	124.29	118.60
35	BA	2361	A	N1-C6-N6	9.48	124.29	118.60
35	BA	2589	A	O5'-P-OP2	-9.48	97.16	105.70
35	BA	2548	G	C5-C6-O6	-9.48	122.91	128.60
35	BA	470	A	O5'-P-OP2	-9.48	97.17	105.70
35	BA	1187	G	C8-N9-C4	-9.47	102.61	106.40
35	BA	1899	G	N1-C2-N2	9.47	124.72	116.20
35	DA	661	C	C5-C6-N1	9.46	125.73	121.00
35	BA	1898	U	N3-C4-C5	-9.45	108.93	114.60
1	AA	1277	C	C5-C6-N1	9.45	125.72	121.00
35	DA	1544	A	C6-C5-N7	9.45	138.91	132.30
35	BA	2713	A	N1-C6-N6	9.44	124.27	118.60
35	BA	566	U	C6-N1-C2	9.44	126.66	121.00
35	BA	2424	C	C6-N1-C2	9.44	124.08	120.30
35	DA	783	A	C6-C5-N7	-9.44	125.69	132.30
1	AA	356	A	N1-C6-N6	-9.43	112.94	118.60
1	AA	1027	C	N1-C2-O2	9.43	124.56	118.90
35	DA	1902	C	N3-C4-N4	-9.43	111.40	118.00
35	DA	2713	A	C4-C5-N7	9.43	115.41	110.70
35	DA	131	G	O5'-P-OP2	-9.42	97.22	105.70
48	DP	16	ARG	NE-CZ-NH1	9.41	125.01	120.30
35	DA	1131	G	N3-C4-N9	9.40	131.64	126.00
35	DA	2287	A	N3-C4-C5	9.40	133.38	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
49	DQ	79	LEU	CA-CB-CG	9.40	136.91	115.30
35	DA	1663	C	N3-C2-O2	-9.39	115.33	121.90
35	DA	1204	A	N1-C6-N6	9.39	124.23	118.60
35	DA	670	A	N1-C6-N6	9.37	124.22	118.60
35	DA	2430	A	N1-C2-N3	9.37	133.99	129.30
35	BA	782	A	N1-C6-N6	-9.37	112.98	118.60
35	BA	1210	A	C5-N7-C8	-9.36	99.22	103.90
51	BS	20	ARG	NE-CZ-NH2	-9.35	115.62	120.30
35	BA	676	A	C4-C5-N7	9.35	115.37	110.70
35	DA	676	A	C8-N9-C4	-9.34	102.06	105.80
1	CA	428	G	N3-C4-C5	9.33	133.27	128.60
35	DA	621	A	N1-C6-N6	9.33	124.20	118.60
35	DA	1599	C	O5'-P-OP2	-9.32	97.31	105.70
35	BA	2585	U	C2-N1-C1'	9.31	128.87	117.70
35	DA	1022	G	N9-C4-C5	9.30	109.12	105.40
1	AA	583	A	C8-N9-C4	9.30	109.52	105.80
35	BA	2014	A	C8-N9-C4	9.30	109.52	105.80
35	DA	935	C	C6-N1-C2	9.30	124.02	120.30
10	CJ	44	VAL	CG1-CB-CG2	-9.29	96.03	110.90
35	DA	656	G	C8-N9-C4	-9.29	102.69	106.40
35	BA	1204	A	C2-N3-C4	-9.28	105.96	110.60
16	CP	72	ARG	NE-CZ-NH2	-9.28	115.66	120.30
35	DA	568	U	N3-C4-O4	9.28	125.90	119.40
35	DA	1779	U	C5-C4-O4	9.27	131.46	125.90
35	BA	83	G	C8-N9-C4	-9.27	102.69	106.40
35	DA	568	U	N1-C2-N3	9.27	120.46	114.90
35	BA	946	G	C8-N9-C4	9.26	110.11	106.40
35	DA	1308	A	O5'-P-OP2	-9.26	97.36	105.70
35	DA	1678	G	C4-C5-N7	9.26	114.50	110.80
1	CA	1135	U	C2-N1-C1'	9.26	128.81	117.70
35	BA	2688	U	N3-C4-O4	-9.25	112.92	119.40
35	DA	100	G	O5'-P-OP2	-9.25	97.37	105.70
35	BA	2713	A	C2-N3-C4	-9.25	105.97	110.60
22	CV	76	A	N7-C8-N9	-9.25	109.18	113.80
35	DA	1204	A	C2-N3-C4	-9.24	105.98	110.60
1	AA	1126	U	C2-N1-C1'	9.24	128.79	117.70
35	DA	2781	A	N1-C6-N6	-9.24	113.06	118.60
1	AA	1502	A	N1-C2-N3	9.24	133.92	129.30
35	BA	1576	U	N1-C2-N3	9.24	120.44	114.90
35	BA	1481	U	C5-C4-O4	9.23	131.44	125.90
35	BA	1528(A)	A	O4'-C1'-N9	9.23	115.59	108.20
35	BA	1021	A	C2-N3-C4	-9.23	105.98	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1797	C	C5-C6-N1	-9.23	116.39	121.00
35	BA	271(K)	U	N3-C2-O2	-9.22	115.75	122.20
35	BA	2208	A	C8-N9-C4	-9.22	102.11	105.80
35	DA	2661	G	C8-N9-C4	-9.22	102.71	106.40
1	AA	1502	A	O5'-P-OP2	-9.22	97.41	105.70
35	DA	1840	G	C6-C5-N7	-9.21	124.87	130.40
1	AA	981	U	C5-C6-N1	9.21	127.31	122.70
1	CA	1520	G	C5-C6-O6	-9.21	123.08	128.60
35	BA	1999	C	C6-N1-C2	9.20	123.98	120.30
35	DA	71	A	C4-C5-N7	9.20	115.30	110.70
35	DA	2474	C	O4'-C1'-N1	9.20	115.56	108.20
35	DA	783	A	N7-C8-N9	9.20	118.40	113.80
35	BA	1323	U	C4-C5-C6	-9.19	114.19	119.70
1	AA	117	G	C6-C5-N7	-9.19	124.89	130.40
35	BA	2031	A	C8-N9-C4	-9.18	102.13	105.80
35	DA	142	A	C5-N7-C8	-9.18	99.31	103.90
35	BA	2518	A	C5-N7-C8	-9.18	99.31	103.90
35	DA	1698	A	N3-C4-C5	9.18	133.22	126.80
35	DA	142	A	C8-N9-C4	-9.18	102.13	105.80
36	BB	65	C	N3-C4-C5	9.17	125.57	121.90
1	AA	162	A	O5'-P-OP1	-9.16	97.45	105.70
35	DA	2544	G	C5-C6-N1	-9.16	106.92	111.50
35	DA	1904	G	N7-C8-N9	-9.16	108.52	113.10
35	BA	2595	G	C8-N9-C4	9.16	110.06	106.40
35	DA	1187	G	N7-C8-N9	9.15	117.68	113.10
35	DA	2442	C	C5-C6-N1	-9.15	116.42	121.00
1	AA	1456	G	C4-N9-C1'	9.15	138.39	126.50
35	DA	1274	A	N1-C6-N6	9.14	124.09	118.60
35	DA	1648	C	N1-C2-O2	-9.14	113.42	118.90
35	DA	2544	G	C6-C5-N7	-9.14	124.92	130.40
35	DA	656	G	N7-C8-N9	9.14	117.67	113.10
1	AA	1162	C	C6-N1-C2	-9.14	116.64	120.30
35	BA	1797	C	C6-N1-C2	9.13	123.95	120.30
35	DA	2593	U	N1-C2-N3	9.13	120.38	114.90
35	DA	1544	A	C4-N9-C1'	-9.13	109.87	126.30
35	BA	25	U	N1-C2-O2	-9.11	116.42	122.80
35	BA	651	G	C5-C6-N1	9.11	116.06	111.50
35	DA	615	G	N7-C8-N9	-9.11	108.54	113.10
35	DA	2595	G	C6-C5-N7	-9.11	124.94	130.40
1	AA	189(J)	G	C4-N9-C1'	9.10	138.33	126.50
1	AA	155	C	N1-C2-O2	9.10	124.36	118.90
35	BA	1768	U	C5-C6-N1	9.10	127.25	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1779	U	C5-C4-O4	9.09	131.35	125.90
35	DA	2447	G	N3-C4-N9	9.09	131.45	126.00
35	DA	2713	A	N1-C6-N6	9.08	124.05	118.60
35	BA	456	C	N1-C2-O2	-9.08	113.45	118.90
35	DA	2712	U	N3-C4-O4	-9.07	113.05	119.40
35	BA	2634	G	O5'-P-OP2	-9.07	97.54	105.70
35	DA	1531	C	C6-N1-C2	-9.06	116.67	120.30
35	BA	915	C	C6-N1-C2	-9.06	116.68	120.30
35	DA	1211	U	O5'-P-OP1	-9.06	97.55	105.70
35	DA	2506	U	C5-C6-N1	9.06	127.23	122.70
35	DA	2573	C	C2-N1-C1'	9.06	128.76	118.80
35	DA	1259	G	C5-C6-O6	-9.05	123.17	128.60
35	BA	74	A	N1-C6-N6	-9.05	113.17	118.60
35	DA	910	A	O5'-P-OP1	-9.04	97.56	105.70
35	DA	2446	G	O5'-P-OP2	-9.04	97.56	105.70
35	BA	136	G	N9-C4-C5	-9.04	101.78	105.40
35	DA	1352	U	O5'-P-OP2	-9.04	97.56	105.70
35	DA	2689	U	C2-N3-C4	-9.04	121.58	127.00
35	BA	2828	C	N3-C4-C5	-9.04	118.28	121.90
1	CA	1054	C	C5-C6-N1	9.04	125.52	121.00
24	CX	23	A	N1-C2-N3	9.04	133.82	129.30
35	DA	529	A	C4-C5-N7	9.03	115.22	110.70
46	BN	67	LEU	CA-CB-CG	9.03	136.07	115.30
35	DA	2688	U	N1-C2-N3	9.02	120.31	114.90
35	DA	2713	A	C6-C5-N7	-9.02	125.98	132.30
35	BA	1496	A	C6-C5-N7	-9.02	125.99	132.30
35	DA	2246	G	C8-N9-C4	9.02	110.01	106.40
35	DA	1838	C	C5-C6-N1	-9.02	116.49	121.00
35	BA	280	C	C6-N1-C2	-9.01	116.69	120.30
35	DA	1808	U	N3-C4-C5	-9.01	109.19	114.60
1	AA	159	G	C4-N9-C1'	-9.01	114.79	126.50
35	BA	1239	G	N1-C6-O6	9.00	125.30	119.90
35	DA	271(Y)	U	O5'-P-OP1	-9.00	97.60	105.70
35	DA	1049	C	C2-N1-C1'	8.99	128.69	118.80
35	BA	1678	G	C5-N7-C8	-8.99	99.80	104.30
1	AA	1336	C	N3-C2-O2	-8.99	115.61	121.90
35	DA	1992	G	N9-C4-C5	-8.99	101.81	105.40
1	AA	784	C	C6-N1-C2	8.98	123.89	120.30
1	AA	1518	A	C8-N9-C4	-8.98	102.21	105.80
35	BA	2873	A	N1-C6-N6	-8.98	113.21	118.60
35	DA	1543	C	C6-N1-C2	-8.98	116.71	120.30
35	BA	1528(A)	A	N7-C8-N9	8.97	118.29	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	530	G	N3-C4-N9	-8.97	120.62	126.00
35	DA	2464	C	C6-N1-C2	8.97	123.89	120.30
35	BA	471	A	C2-N3-C4	-8.97	106.12	110.60
35	BA	2218	U	C5-C6-N1	8.96	127.18	122.70
35	BA	2699	C	O5'-P-OP2	-8.95	97.64	105.70
35	DA	1123	C	O5'-P-OP2	-8.95	97.64	105.70
35	BA	1779	U	N1-C2-N3	8.95	120.27	114.90
35	BA	2755	C	C5-C6-N1	8.94	125.47	121.00
35	BA	698	C	C4-C5-C6	8.94	121.87	117.40
1	AA	1298	C	N3-C2-O2	-8.94	115.64	121.90
35	DA	2055	C	N3-C2-O2	-8.93	115.65	121.90
35	DA	1786	A	C4-C5-N7	8.93	115.16	110.70
35	BA	1326	U	OP2-P-O3'	8.92	124.83	105.20
35	DA	109	G	C5-C6-O6	8.92	133.95	128.60
35	DA	2346	A	C5-C6-N1	-8.92	113.24	117.70
1	AA	1452	C	O4'-C1'-N1	8.92	115.33	108.20
35	DA	1921	G	C8-N9-C4	8.91	109.97	106.40
35	DA	729	G	C5-C6-O6	-8.91	123.25	128.60
35	DA	859	G	N3-C4-C5	8.91	133.06	128.60
35	BA	539	G	C5-C6-N1	8.91	115.95	111.50
1	CA	306	G	N1-C6-O6	8.91	125.25	119.90
36	DB	81	G	C5-N7-C8	-8.90	99.85	104.30
35	BA	2419	U	C6-N1-C2	-8.90	115.66	121.00
35	DA	512	G	O4'-C1'-N9	8.89	115.32	108.20
35	BA	945	A	N9-C4-C5	-8.89	102.24	105.80
35	DA	529	A	C5-N7-C8	-8.89	99.45	103.90
35	BA	2688	U	C5-C4-O4	8.88	131.23	125.90
35	DA	1899	G	C4-N9-C1'	-8.88	114.95	126.50
35	DA	2003	G	C6-C5-N7	-8.88	125.07	130.40
35	DA	615	G	C5-N7-C8	8.88	108.74	104.30
35	DA	2083	G	N1-C6-O6	8.87	125.22	119.90
35	BA	645	C	N1-C2-O2	8.87	124.22	118.90
35	BA	1187	G	C5-C6-N1	-8.87	107.07	111.50
35	DA	782	A	N1-C6-N6	8.87	123.92	118.60
1	AA	861	G	C8-N9-C4	-8.86	102.86	106.40
35	DA	2655	G	O4'-C1'-N9	8.86	115.29	108.20
35	DA	2564	A	N1-C6-N6	8.86	123.91	118.60
35	BA	210	C	N3-C2-O2	-8.85	115.70	121.90
35	DA	2022	U	C6-N1-C1'	-8.85	108.80	121.20
35	BA	272(B)	G	O4'-C1'-N9	8.85	115.28	108.20
35	DA	1528	A	C8-N9-C4	-8.85	102.26	105.80
35	DA	2271	G	O5'-P-OP2	-8.85	97.74	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	672	C	C5-C6-N1	-8.85	116.58	121.00
35	BA	19	C	C6-N1-C2	8.85	123.84	120.30
35	DA	2298	A	O5'-P-OP2	-8.84	97.74	105.70
35	DA	1192	G	O5'-P-OP2	-8.84	97.74	105.70
35	DA	1374	G	N1-C6-O6	8.84	125.20	119.90
35	BA	134	C	N3-C2-O2	-8.84	115.71	121.90
35	BA	272	G	P-O3'-C3'	8.84	130.31	119.70
23	CW	76	A	O5'-P-OP1	-8.84	97.75	105.70
35	DA	110	G	C8-N9-C4	8.84	109.93	106.40
35	DA	2451	A	N9-C4-C5	8.84	109.33	105.80
35	DA	219	G	N3-C4-C5	-8.83	124.18	128.60
35	BA	2597	G	C4-C5-N7	8.83	114.33	110.80
1	CA	690	G	N3-C4-N9	8.83	131.30	126.00
35	BA	512	G	O5'-P-OP1	-8.83	97.75	105.70
35	BA	568	U	C4-C5-C6	8.83	125.00	119.70
35	BA	676	A	N7-C8-N9	8.83	118.21	113.80
35	BA	1698	A	C2-N3-C4	-8.82	106.19	110.60
35	DA	651	G	N3-C4-N9	8.81	131.29	126.00
35	BA	1835	G	N3-C4-N9	8.80	131.28	126.00
35	BA	989	G	C8-N9-C4	8.79	109.92	106.40
35	DA	11	G	N3-C4-N9	-8.79	120.72	126.00
35	BA	74	A	N9-C4-C5	8.79	109.32	105.80
35	BA	1024	G	N1-C6-O6	8.79	125.17	119.90
35	DA	2275	C	N1-C2-O2	-8.79	113.63	118.90
36	DB	90	A	N7-C8-N9	8.78	118.19	113.80
35	BA	1312	U	N3-C4-O4	-8.78	113.25	119.40
35	DA	1187	G	C4-C5-C6	8.78	124.07	118.80
1	CA	580	U	O5'-P-OP2	-8.78	97.80	105.70
35	BA	1678	G	N3-C4-C5	8.77	132.99	128.60
35	BA	1480	G	O5'-P-OP2	-8.77	97.81	105.70
35	BA	759	G	C8-N9-C4	8.76	109.90	106.40
1	CA	436	C	C5-C4-N4	-8.76	114.07	120.20
35	DA	2032	G	C4-C5-N7	8.76	114.30	110.80
35	DA	2350	C	O5'-P-OP1	-8.76	97.82	105.70
35	DA	2542	A	N1-C2-N3	8.75	133.67	129.30
35	DA	621	A	C4-C5-N7	8.74	115.07	110.70
35	DA	1017	G	C5-N7-C8	-8.74	99.93	104.30
35	DA	446	G	N9-C4-C5	-8.73	101.91	105.40
35	DA	2483	C	C6-N1-C2	8.73	123.79	120.30
1	CA	436	C	N3-C4-C5	8.73	125.39	121.90
35	DA	1997	G	C8-N9-C4	8.73	109.89	106.40
35	BA	1493	C	C2-N1-C1'	8.72	128.40	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	1142(A)	A	N3-C4-N9	-8.72	120.42	127.40
35	BA	116	C	N1-C2-O2	-8.72	113.67	118.90
27	D2	55	ARG	NE-CZ-NH2	-8.71	115.94	120.30
35	BA	2458	G	N3-C4-C5	-8.71	124.24	128.60
35	DA	826	U	C5-C6-N1	-8.71	118.34	122.70
35	BA	2087	G	N1-C6-O6	8.71	125.13	119.90
35	DA	2661	G	N3-C4-N9	8.71	131.22	126.00
1	CA	1266	G	N3-C4-N9	-8.71	120.78	126.00
35	DA	1462	C	C6-N1-C2	-8.70	116.82	120.30
35	BA	1655	A	C8-N9-C4	8.70	109.28	105.80
35	DA	809	G	OP1-P-O3'	8.70	124.33	105.20
35	DA	2665	A	C2-N3-C4	-8.70	106.25	110.60
35	DA	1204	A	C4-C5-N7	8.69	115.05	110.70
35	DA	1957	C	C5-C6-N1	-8.69	116.65	121.00
35	BA	446	G	C6-C5-N7	-8.69	125.19	130.40
35	BA	308	G	OP2-P-O3'	-8.69	86.09	105.20
35	DA	774	A	N3-C4-C5	8.68	132.88	126.80
35	DA	1268	A	O5'-P-OP2	-8.68	97.88	105.70
35	DA	2594	C	C6-N1-C2	8.68	123.77	120.30
36	DB	96	U	N1-C2-O2	-8.68	116.72	122.80
35	BA	1814	G	N1-C6-O6	8.68	125.11	119.90
35	DA	678	C	N3-C4-C5	8.67	125.37	121.90
35	DA	1328	G	C8-N9-C4	8.67	109.87	106.40
35	BA	2506	U	C5-C6-N1	8.67	127.03	122.70
35	BA	446	G	C5-C6-O6	-8.67	123.40	128.60
35	BA	2598	A	O5'-P-OP2	-8.67	97.90	105.70
1	CA	904	C	C6-N1-C2	8.67	123.77	120.30
35	DA	1210	A	C8-N9-C4	-8.66	102.33	105.80
35	DA	2392	A	C2-N3-C4	-8.66	106.27	110.60
35	DA	2022	U	N1-C2-N3	-8.66	109.70	114.90
35	BA	1198	U	N3-C2-O2	-8.66	116.14	122.20
36	DB	81	G	N3-C2-N2	8.66	125.96	119.90
35	BA	1258	C	C5-C6-N1	8.66	125.33	121.00
35	DA	1261	C	C5-C6-N1	-8.66	116.67	121.00
22	AV	77	A	N3-C4-C5	8.65	132.86	126.80
35	BA	1448	G	C2-N3-C4	8.65	116.23	111.90
1	CA	1517	G	O5'-P-OP2	-8.65	97.91	105.70
35	DA	529	A	N1-C6-N6	8.65	123.79	118.60
35	DA	568	U	C6-N1-C1'	8.65	133.31	121.20
35	BA	2242	G	N1-C6-O6	8.65	125.09	119.90
1	CA	1503	A	O4'-C1'-N9	8.65	115.12	108.20
35	DA	1509	C	C2-N1-C1'	8.65	128.31	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	783	A	N3-C4-C5	8.64	132.85	126.80
35	DA	1786	A	C4-C5-C6	8.64	121.32	117.00
35	BA	729	G	N7-C8-N9	8.64	117.42	113.10
35	BA	614	U	N3-C2-O2	-8.64	116.15	122.20
35	DA	684	G	C5-C6-O6	8.64	133.78	128.60
35	DA	2375	G	O5'-P-OP2	-8.64	97.93	105.70
35	DA	1493	C	C2-N1-C1'	8.64	128.30	118.80
35	DA	148	C	C5-C6-N1	-8.63	116.68	121.00
35	DA	991	C	O5'-P-OP1	-8.63	97.93	105.70
36	DB	64	C	C6-N1-C2	8.63	123.75	120.30
35	BA	1698	A	C4-C5-N7	8.63	115.02	110.70
35	DA	1509	C	N1-C2-O2	8.63	124.08	118.90
1	CA	980	C	N3-C4-C5	-8.63	118.45	121.90
35	DA	2032	G	C5-N7-C8	-8.63	99.99	104.30
35	BA	1698	A	C5-N7-C8	-8.62	99.59	103.90
35	BA	2161	C	N1-C2-O2	8.62	124.07	118.90
1	CA	428	G	N3-C4-N9	-8.62	120.83	126.00
35	BA	1496	A	N7-C8-N9	8.62	118.11	113.80
1	CA	328	C	N3-C2-O2	-8.62	115.87	121.90
35	BA	2079	U	O5'-P-OP1	-8.62	97.94	105.70
35	DA	527	C	N1-C2-O2	8.61	124.07	118.90
35	DA	691	C	C5-C6-N1	-8.61	116.69	121.00
35	DA	2575	C	N1-C2-O2	8.61	124.06	118.90
35	DA	731	C	C6-N1-C2	8.61	123.74	120.30
54	DV	35	LEU	CA-CB-CG	8.60	135.09	115.30
36	BB	65	C	C2-N1-C1'	8.60	128.26	118.80
35	BA	2287	A	C2-N3-C4	-8.60	106.30	110.60
36	BB	65	C	C5-C4-N4	-8.59	114.19	120.20
35	DA	2688	U	C4-C5-C6	8.59	124.85	119.70
35	DA	1244	G	C8-N9-C4	8.58	109.83	106.40
1	AA	451	A	C2-N3-C4	-8.58	106.31	110.60
48	BP	62	LEU	CB-CG-CD2	-8.58	96.42	111.00
1	AA	494	U	N3-C2-O2	-8.57	116.20	122.20
35	DA	979	G	N1-C6-O6	8.57	125.04	119.90
35	DA	1220	A	N1-C6-N6	-8.57	113.46	118.60
35	BA	2318	G	N7-C8-N9	8.57	117.39	113.10
35	DA	2648	C	N3-C4-C5	8.57	125.33	121.90
35	BA	1248	G	O5'-P-OP1	8.56	120.98	110.70
1	AA	1486	G	C8-N9-C4	8.56	109.83	106.40
35	DA	971	C	C5-C6-N1	8.56	125.28	121.00
35	BA	847	U	C2-N1-C1'	-8.55	107.44	117.70
22	AV	17	C	C2-N1-C1'	8.55	128.20	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	539	G	N1-C6-O6	-8.54	114.77	119.90
35	BA	2712(A)	A	C8-N9-C4	-8.54	102.38	105.80
35	DA	2869	G	C8-N9-C4	-8.54	102.98	106.40
35	DA	287	C	N3-C2-O2	-8.54	115.92	121.90
35	DA	1902	C	C5-C4-N4	8.54	126.17	120.20
35	BA	503	A	N9-C4-C5	8.53	109.21	105.80
35	DA	1332	G	C4-N9-C1'	-8.53	115.41	126.50
35	BA	2413	G	O5'-P-OP2	-8.53	98.03	105.70
35	DA	189	G	N9-C4-C5	-8.53	101.99	105.40
1	AA	300	A	O5'-P-OP1	-8.52	98.03	105.70
35	DA	2393	A	O5'-P-OP1	-8.52	98.03	105.70
35	DA	2544	G	C5-C6-O6	-8.52	123.49	128.60
35	DA	615	G	C4-C5-N7	-8.52	107.39	110.80
35	BA	2841	C	C6-N1-C2	8.52	123.71	120.30
35	BA	1619	G	O5'-P-OP1	-8.51	98.04	105.70
35	BA	1799	G	N1-C6-O6	-8.51	114.79	119.90
35	DA	2777	G	C8-N9-C4	-8.50	103.00	106.40
35	DA	193	U	C5-C6-N1	8.50	126.95	122.70
35	BA	71	A	N1-C6-N6	8.50	123.70	118.60
35	BA	2458	G	N3-C4-N9	8.50	131.10	126.00
1	AA	1499	A	C2-N3-C4	-8.50	106.35	110.60
35	BA	71	A	C4-C5-N7	8.50	114.95	110.70
50	DR	10	LEU	CB-CG-CD2	8.49	125.44	111.00
35	BA	133	C	O5'-P-OP2	-8.49	98.06	105.70
35	BA	1249	U	N1-C2-N3	8.49	120.00	114.90
35	DA	1765	C	C5-C6-N1	-8.49	116.75	121.00
35	DA	1655	A	N1-C6-N6	8.49	123.69	118.60
35	BA	330	A	C2-N3-C4	-8.48	106.36	110.60
35	DA	1779	U	C2-N3-C4	-8.48	121.91	127.00
35	DA	2448	A	N9-C4-C5	-8.48	102.41	105.80
35	DA	2083	G	C5-C6-O6	-8.48	123.51	128.60
35	DA	300	A	N1-C6-N6	8.47	123.68	118.60
35	DA	2242	G	N1-C6-O6	8.47	124.98	119.90
35	DA	530	G	N7-C8-N9	8.47	117.33	113.10
35	DA	2447	G	N1-C2-N2	-8.47	108.58	116.20
35	DA	2271	G	O5'-P-OP1	8.47	120.86	110.70
35	DA	2308	G	O4'-C1'-N9	8.46	114.97	108.20
35	BA	2821	A	C2-N3-C4	-8.46	106.37	110.60
35	BA	540	C	O5'-P-OP2	-8.46	98.09	105.70
1	CA	1499	A	O5'-P-OP1	-8.46	98.09	105.70
35	DA	1647	G	O5'-P-OP1	-8.46	98.09	105.70
35	BA	105	C	N1-C2-O2	8.46	123.97	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	529	G	N1-C6-O6	8.46	124.97	119.90
1	AA	1202	G	C6-C5-N7	-8.45	125.33	130.40
35	DA	141	A	N9-C4-C5	-8.45	102.42	105.80
35	DA	675	A	N1-C6-N6	8.45	123.67	118.60
1	AA	862	C	O5'-P-OP1	-8.44	98.10	105.70
35	DA	837	C	N3-C4-C5	8.44	125.28	121.90
35	BA	84	A	N3-C4-C5	-8.44	120.89	126.80
35	DA	1017	G	N1-C6-O6	8.44	124.96	119.90
41	DG	120	LEU	CA-CB-CG	8.44	134.71	115.30
35	BA	1021	A	C5-N7-C8	-8.43	99.69	103.90
1	AA	1151	A	O4'-C1'-N9	8.43	114.94	108.20
35	BA	27	G	N3-C2-N2	-8.43	114.00	119.90
35	DA	656	G	C6-C5-N7	-8.43	125.34	130.40
23	CW	13	C	N3-C2-O2	-8.42	116.00	121.90
35	DA	474	G	C8-N9-C4	-8.42	103.03	106.40
35	DA	1243	G	N1-C6-O6	8.42	124.95	119.90
35	DA	2585	U	C5-C6-N1	8.42	126.91	122.70
35	BA	2444	G	O5'-P-OP2	-8.42	98.12	105.70
35	BA	1357	U	N3-C4-C5	-8.42	109.55	114.60
35	DA	1668	A	N1-C2-N3	8.42	133.51	129.30
35	BA	673	C	C5-C6-N1	8.41	125.21	121.00
36	BB	65	C	C6-N1-C1'	-8.41	110.70	120.80
35	DA	845	G	C5-N7-C8	-8.41	100.09	104.30
35	BA	1210	A	N1-C6-N6	8.41	123.65	118.60
35	BA	1782	C	C6-N1-C2	8.41	123.66	120.30
35	DA	2618	G	C8-N9-C4	-8.41	103.04	106.40
35	BA	682	G	C8-N9-C4	8.40	109.76	106.40
35	BA	974	G	N3-C4-C5	-8.40	124.40	128.60
35	DA	2469	A	C2-N3-C4	-8.40	106.40	110.60
1	CA	1335	C	C6-N1-C2	8.40	123.66	120.30
35	DA	679	C	N3-C4-C5	8.39	125.26	121.90
35	BA	253	C	C5-C4-N4	8.39	126.07	120.20
55	BW	19	LEU	CB-CG-CD2	-8.39	96.73	111.00
35	BA	1951	U	C5-C4-O4	8.39	130.93	125.90
35	DA	263	C	N1-C2-O2	8.39	123.93	118.90
1	CA	1417	G	N3-C4-C5	-8.38	124.41	128.60
35	BA	139(A)	G	N7-C8-N9	8.38	117.29	113.10
35	BA	201	C	O5'-P-OP1	-8.38	98.16	105.70
35	BA	2419	U	N3-C4-O4	8.38	125.27	119.40
35	BA	271(K)	U	N1-C2-O2	8.38	128.66	122.80
35	DA	1983	C	C6-N1-C2	8.37	123.65	120.30
1	AA	579	G	N3-C4-N9	8.37	131.02	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	1678	G	O5'-P-OP2	-8.37	98.16	105.70
35	DA	1951	U	N1-C2-O2	-8.37	116.94	122.80
35	BA	83	G	N3-C4-C5	-8.37	124.42	128.60
35	BA	2585	U	C5-C6-N1	8.37	126.88	122.70
35	DA	2447	G	N9-C4-C5	-8.37	102.05	105.40
1	CA	621	A	C8-N9-C4	-8.37	102.45	105.80
35	DA	151	C	C6-N1-C2	8.37	123.65	120.30
35	DA	1203	G	N1-C6-O6	-8.37	114.88	119.90
35	BA	1756	G	C5-C6-N1	-8.37	107.32	111.50
35	BA	272(H)	C	C6-N1-C1'	-8.36	110.76	120.80
35	DA	933	A	N7-C8-N9	8.36	117.98	113.80
35	DA	1698	A	C4-C5-N7	8.36	114.88	110.70
35	BA	57	C	N3-C4-C5	-8.36	118.56	121.90
1	AA	1030	C	N3-C2-O2	-8.36	116.05	121.90
35	BA	142(A)	C	N3-C4-C5	-8.36	118.56	121.90
35	DA	298	G	C5-C6-O6	-8.36	123.59	128.60
35	BA	1678	G	N3-C4-N9	-8.35	120.99	126.00
35	DA	911	A	C5-C6-N6	-8.35	117.02	123.70
35	DA	1784	A	N1-C2-N3	8.35	133.48	129.30
22	AV	48	U	C2-N1-C1'	8.35	127.72	117.70
35	BA	2818	G	C8-N9-C4	8.35	109.74	106.40
1	CA	1266	G	N3-C4-C5	8.35	132.77	128.60
35	BA	2818	G	C2-N3-C4	-8.34	107.73	111.90
35	BA	621	A	C5-C6-N1	-8.34	113.53	117.70
35	DA	182	A	N1-C6-N6	8.34	123.60	118.60
35	DA	2377	A	C2-N3-C4	-8.34	106.43	110.60
1	CA	794	A	C2-N3-C4	-8.34	106.43	110.60
1	AA	1300	G	P-O3'-C3'	8.33	129.70	119.70
35	BA	1698	A	C6-C5-N7	-8.33	126.47	132.30
35	DA	743	G	O5'-P-OP2	-8.33	98.21	105.70
35	DA	1616	A	C5-N7-C8	-8.33	99.74	103.90
35	BA	827	U	C6-N1-C2	8.32	125.99	121.00
35	DA	692	C	C5-C6-N1	-8.31	116.84	121.00
35	DA	705	A	C8-N9-C4	8.31	109.12	105.80
35	DA	945	A	C2-N3-C4	-8.31	106.44	110.60
35	DA	945	A	N9-C4-C5	-8.31	102.47	105.80
35	DA	1957	C	C4-C5-C6	8.31	121.56	117.40
35	DA	2021	C	C6-N1-C2	8.31	123.62	120.30
35	BA	2702	U	O5'-P-OP2	-8.31	98.22	105.70
1	CA	436	C	C6-N1-C2	8.31	123.62	120.30
35	DA	1254	A	C2-N3-C4	-8.31	106.45	110.60
35	BA	783	A	C6-C5-N7	-8.30	126.49	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1899	G	N1-C2-N3	8.30	128.88	123.90
35	DA	204	A	C6-N1-C2	-8.30	113.62	118.60
1	CA	238	G	C8-N9-C4	8.30	109.72	106.40
23	AW	8	U	C2-N1-C1'	8.29	127.65	117.70
35	BA	1792	G	N1-C6-O6	8.29	124.88	119.90
35	BA	2358	G	C5-C6-O6	-8.30	123.62	128.60
35	DA	185	U	C5-C6-N1	-8.29	118.55	122.70
35	DA	572	A	C8-N9-C4	-8.29	102.48	105.80
35	DA	1156	A	N1-C6-N6	-8.29	113.62	118.60
35	BA	1698	A	N1-C6-N6	8.29	123.57	118.60
35	DA	1544	A	O4'-C1'-N9	8.29	114.83	108.20
35	BA	539	G	C5'-C4'-O4'	-8.29	99.16	109.10
35	DA	83	G	N9-C4-C5	-8.29	102.08	105.40
35	BA	1899	G	C5-C6-N1	-8.29	107.36	111.50
35	DA	421	U	N3-C2-O2	-8.29	116.40	122.20
35	DA	2439	A	C5-N7-C8	-8.28	99.76	103.90
35	DA	2595	G	N9-C4-C5	-8.28	102.09	105.40
1	AA	1027	C	C2-N1-C1'	8.28	127.91	118.80
22	AV	77	A	N7-C8-N9	-8.28	109.66	113.80
35	DA	563	G	O5'-P-OP1	-8.28	98.25	105.70
33	D8	61	LEU	CA-CB-CG	-8.27	96.28	115.30
35	DA	528	A	N1-C6-N6	8.27	123.56	118.60
35	DA	2369	A	N1-C6-N6	-8.27	113.64	118.60
35	BA	29	U	C5-C6-N1	8.26	126.83	122.70
36	BB	40	U	C6-N1-C1'	8.26	132.77	121.20
35	DA	456	C	C2-N1-C1'	-8.26	109.71	118.80
35	DA	272(B)	G	C4-N9-C1'	-8.26	115.76	126.50
38	DD	61	LEU	CB-CG-CD2	-8.25	96.97	111.00
35	BA	1790	C	N3-C4-N4	8.25	123.78	118.00
35	DA	2376	A	N9-C4-C5	-8.25	102.50	105.80
22	CV	76	A	O5'-P-OP2	-8.25	98.28	105.70
35	DA	584	C	N3-C4-N4	8.24	123.77	118.00
35	BA	1024	G	C6-C5-N7	-8.24	125.45	130.40
1	CA	372	C	C6-N1-C2	8.24	123.60	120.30
35	DA	1936	A	N1-C6-N6	8.24	123.54	118.60
1	AA	1115	C	C6-N1-C1'	8.23	130.68	120.80
35	BA	2508	G	N9-C4-C5	-8.23	102.11	105.40
35	DA	676	A	O4'-C1'-N9	8.23	114.79	108.20
35	DA	702	G	N7-C8-N9	-8.23	108.99	113.10
35	BA	2711	A	O4'-C1'-N9	8.22	114.78	108.20
35	DA	774	A	N9-C4-C5	-8.22	102.51	105.80
35	DA	1698	A	C5-C6-N1	-8.22	113.59	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	2028	U	N3-C4-C5	-8.22	109.67	114.60
35	DA	247	G	C5-C6-O6	-8.22	123.67	128.60
35	BA	1792	G	C5-C6-O6	-8.22	123.67	128.60
22	AV	17	C	N3-C2-O2	-8.21	116.15	121.90
35	BA	240	G	N3-C4-N9	-8.21	121.07	126.00
35	DA	109	G	C6-C5-N7	8.21	135.33	130.40
35	DA	694	U	N3-C2-O2	-8.21	116.45	122.20
35	BA	1995	U	C5-C6-N1	-8.21	118.60	122.70
35	DA	2058	A	N1-C2-N3	8.21	133.41	129.30
35	DA	513	A	C8-N9-C4	-8.21	102.52	105.80
35	DA	579	G	N3-C2-N2	-8.21	114.16	119.90
35	DA	1497	U	C5-C4-O4	8.21	130.82	125.90
35	DA	2476	A	C8-N9-C4	-8.21	102.52	105.80
35	DA	783	A	C5-C6-N1	-8.21	113.60	117.70
35	BA	1142(A)	A	C2-N3-C4	-8.20	106.50	110.60
35	DA	661	C	C5'-C4'-O4'	8.20	118.94	109.10
35	BA	2509	G	N1-C6-O6	8.20	124.82	119.90
35	BA	90	U	O4'-C1'-N1	8.20	114.76	108.20
35	BA	1248	G	O5'-P-OP2	-8.20	98.32	105.70
35	BA	2282	G	O4'-C1'-N9	8.19	114.75	108.20
1	AA	189(F)	U	N3-C4-O4	-8.19	113.67	119.40
23	AY	39	U	N1-C2-O2	8.19	128.53	122.80
35	BA	1568	G	N3-C4-N9	-8.19	121.08	126.00
35	BA	2519	U	C6-N1-C2	8.19	125.92	121.00
35	DA	1529	G	N7-C8-N9	8.19	117.19	113.10
35	BA	253	C	N3-C4-C5	-8.19	118.62	121.90
57	DY	101	LYS	CD-CE-NZ	-8.19	92.87	111.70
35	BA	446	G	C4-N9-C1'	8.18	137.13	126.50
35	BA	1299	G	O5'-P-OP1	-8.18	98.34	105.70
35	DA	729	G	C6-C5-N7	-8.18	125.49	130.40
35	DA	2018	G	C8-N9-C4	-8.18	103.13	106.40
35	BA	2049	G	N1-C6-O6	-8.18	115.00	119.90
35	DA	1207	C	N3-C4-C5	-8.18	118.63	121.90
35	DA	1559	G	N1-C6-O6	8.17	124.80	119.90
36	BB	41	U	C2-N1-C1'	8.16	127.50	117.70
35	DA	2448	A	C4-C5-C6	8.16	121.08	117.00
35	DA	2612	C	C6-N1-C2	8.16	123.56	120.30
35	DA	2573	C	C6-N1-C1'	-8.16	111.01	120.80
35	DA	199	A	N1-C2-N3	-8.16	125.22	129.30
35	BA	2244	U	C5-C6-N1	-8.15	118.62	122.70
1	CA	869	G	O5'-P-OP1	-8.15	98.37	105.70
35	BA	2427	C	C6-N1-C2	8.15	123.56	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	126	A	N1-C6-N6	-8.15	113.71	118.60
35	DA	1265	A	N7-C8-N9	8.14	117.87	113.80
35	BA	2466	C	C6-N1-C2	-8.14	117.04	120.30
35	DA	1187	G	N1-C6-O6	8.14	124.78	119.90
35	DA	2287	A	N1-C6-N6	8.14	123.48	118.60
35	DA	1786	A	N1-C6-N6	8.14	123.48	118.60
35	DA	568	U	C5-C4-O4	8.14	130.78	125.90
36	BB	40	U	N1-C2-O2	-8.14	117.10	122.80
35	BA	136	G	C5-N7-C8	-8.13	100.23	104.30
35	DA	1304	C	C6-N1-C2	8.13	123.55	120.30
35	BA	1835	G	N1-C2-N2	-8.13	108.89	116.20
35	DA	27	G	O5'-P-OP1	-8.13	98.39	105.70
35	DA	621	A	N1-C2-N3	8.13	133.36	129.30
35	DA	1017	G	N7-C8-N9	8.13	117.16	113.10
1	AA	189(J)	G	C8-N9-C1'	-8.12	116.44	127.00
35	DA	2782	G	N7-C8-N9	8.12	117.16	113.10
35	DA	265	A	N7-C8-N9	8.12	117.86	113.80
1	AA	279	A	C5-N7-C8	-8.12	99.84	103.90
35	BA	1243	G	N1-C6-O6	8.12	124.77	119.90
35	BA	2581	G	C2-N3-C4	-8.12	107.84	111.90
35	DA	1678	G	N7-C8-N9	8.12	117.16	113.10
35	DA	2712(A)	A	C4-C5-C6	8.12	121.06	117.00
36	DB	112	U	C5-C4-O4	8.12	130.77	125.90
1	CA	1135	U	N1-C2-O2	8.11	128.48	122.80
35	DA	2782	G	C5-N7-C8	-8.11	100.24	104.30
35	DA	1899	G	C8-N9-C1'	8.11	137.54	127.00
1	AA	156	G	N1-C6-O6	8.11	124.77	119.90
35	BA	2430	A	C5-C6-N1	-8.11	113.64	117.70
35	DA	226	G	C6-C5-N7	-8.11	125.54	130.40
35	DA	2420	C	N3-C4-N4	-8.11	112.33	118.00
35	BA	142(A)	C	C5-C4-N4	8.10	125.87	120.20
35	BA	1999	C	C5-C6-N1	-8.10	116.95	121.00
35	DA	1613	G	N1-C6-O6	-8.10	115.04	119.90
35	DA	2712(A)	A	C8-N9-C4	-8.10	102.56	105.80
36	DB	8	U	C5-C6-N1	8.10	126.75	122.70
35	DA	141	A	N7-C8-N9	8.10	117.85	113.80
35	BA	134	C	N1-C2-O2	8.09	123.76	118.90
1	AA	849	C	C5-C6-N1	8.09	125.05	121.00
35	BA	568	U	C6-N1-C2	-8.09	116.14	121.00
35	BA	272(H)	C	N1-C2-O2	8.09	123.75	118.90
35	BA	1786	A	N9-C1'-C2'	8.09	124.51	114.00
35	BA	2827	C	C6-N1-C2	8.09	123.53	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	110	G	N7-C8-N9	-8.09	109.06	113.10
35	DA	528	A	C8-N9-C4	-8.09	102.57	105.80
35	DA	2022	U	N1-C2-O2	8.09	128.46	122.80
1	AA	111	G	C8-N9-C4	8.08	109.63	106.40
1	AA	456	C	C6-N1-C2	-8.08	117.07	120.30
35	BA	668	G	OP2-P-O3'	8.08	122.98	105.20
1	CA	857	C	O5'-P-OP2	-8.08	98.43	105.70
35	DA	1142(A)	A	C5-N7-C8	-8.08	99.86	103.90
35	DA	2689	U	N1-C2-N3	8.08	119.75	114.90
35	BA	2063	C	C6-N1-C2	-8.08	117.07	120.30
35	BA	2774	C	C6-N1-C2	8.08	123.53	120.30
35	DA	391	G	C6-C5-N7	-8.08	125.55	130.40
35	BA	945	A	C2-N3-C4	-8.07	106.56	110.60
35	BA	1918	A	C8-N9-C4	8.07	109.03	105.80
35	DA	115	C	C6-N1-C2	8.07	123.53	120.30
35	DA	793	A	N7-C8-N9	8.07	117.84	113.80
35	DA	1008	C	C6-N1-C2	8.07	123.53	120.30
35	DA	2249	U	C6-N1-C2	-8.07	116.16	121.00
35	BA	774	A	C6-C5-N7	-8.07	126.65	132.30
35	BA	1355	G	C4-N9-C1'	8.07	136.99	126.50
35	DA	1776	G	C2-N3-C4	8.07	115.93	111.90
35	DA	2255	G	C8-N9-C4	8.07	109.63	106.40
24	AX	18	G	O5'-P-OP1	-8.06	98.44	105.70
35	DA	71	A	C5-C6-N6	-8.06	117.25	123.70
1	AA	137	C	C6-N1-C2	8.06	123.52	120.30
1	AA	244	U	C6-N1-C2	8.05	125.83	121.00
1	AA	1020	U	C2-N1-C1'	8.05	127.36	117.70
35	BA	1332	G	C8-N9-C4	-8.05	103.18	106.40
35	BA	1629	U	C5-C6-N1	-8.05	118.67	122.70
35	BA	975	C	C4-C5-C6	-8.05	113.38	117.40
35	DA	572	A	N9-C4-C5	8.05	109.02	105.80
35	DA	2439	A	N7-C8-N9	8.05	117.83	113.80
35	BA	105	C	P-O3'-C3'	8.05	129.36	119.70
1	CA	533	A	O5'-P-OP1	-8.05	98.46	105.70
35	DA	139	G	N1-C6-O6	8.05	124.73	119.90
35	DA	2688	U	N3-C2-O2	-8.05	116.57	122.20
33	B8	13	ARG	CD-NE-CZ	8.05	134.86	123.60
35	BA	1323	U	C5-C4-O4	-8.04	121.07	125.90
1	CA	579	G	O5'-P-OP2	-8.04	98.46	105.70
35	BA	2545	G	C6-C5-N7	-8.04	125.58	130.40
35	DA	571	A	O5'-P-OP2	-8.04	98.47	105.70
35	DA	928	G	C6-C5-N7	-8.03	125.58	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2566	A	N1-C6-N6	8.03	123.42	118.60
1	AA	1499	A	N3-C4-C5	8.03	132.42	126.80
35	DA	676	A	C5-C6-N6	-8.03	117.28	123.70
35	DA	2363	C	C6-N1-C2	8.02	123.51	120.30
35	DA	1653	G	OP1-P-O3'	-8.02	87.55	105.20
35	DA	2782	G	C6-C5-N7	-8.02	125.59	130.40
35	DA	2260	C	C6-N1-C2	8.02	123.51	120.30
35	BA	1284	A	N1-C6-N6	8.02	123.41	118.60
1	AA	158	G	O5'-P-OP2	-8.01	98.49	105.70
35	BA	1992	G	P-O3'-C3'	8.01	129.31	119.70
35	DA	658	C	C4-C5-C6	8.01	121.40	117.40
35	DA	958	U	C6-N1-C2	-8.00	116.20	121.00
35	BA	2504	U	O5'-P-OP1	-8.00	98.50	105.70
35	DA	1332	G	C8-N9-C4	-8.00	103.20	106.40
35	DA	2781	A	C5-C6-N6	8.00	130.10	123.70
35	BA	1332	G	C8-N9-C1'	-7.99	116.61	127.00
35	BA	1822	G	N1-C6-O6	7.99	124.69	119.90
35	DA	930	U	N3-C4-O4	-7.99	113.81	119.40
35	DA	1250	G	P-O3'-C3'	7.99	129.29	119.70
35	DA	788	A	C8-N9-C4	7.99	108.99	105.80
35	DA	1698	A	N1-C6-N6	7.98	123.39	118.60
1	AA	772	U	O5'-P-OP1	7.98	120.28	110.70
35	DA	945	A	OP2-P-O3'	7.98	122.76	105.20
1	CA	901	A	C2-N3-C4	-7.98	106.61	110.60
35	DA	661	C	N3-C2-O2	7.98	127.48	121.90
35	DA	1807	G	C5-C6-O6	-7.98	123.81	128.60
35	BA	682	G	N7-C8-N9	-7.97	109.11	113.10
54	BV	38	LEU	CD1-CG-CD2	-7.97	86.58	110.50
35	DA	1274	A	C5-C6-N6	-7.97	117.32	123.70
35	DA	1383	C	C6-N1-C2	7.97	123.49	120.30
35	DA	1791	A	O5'-P-OP1	-7.97	98.52	105.70
35	DA	2037	G	O5'-P-OP2	-7.97	98.53	105.70
35	DA	1618	A	O5'-P-OP2	7.97	120.27	110.70
35	BA	2014	A	N7-C8-N9	-7.97	109.81	113.80
35	DA	1159	U	C5-C6-N1	-7.96	118.72	122.70
35	BA	446	G	N7-C8-N9	7.96	117.08	113.10
35	DA	462	C	N3-C4-N4	-7.96	112.43	118.00
41	BG	34	LEU	CA-CB-CG	7.96	133.60	115.30
35	BA	676	A	O4'-C1'-N9	7.95	114.56	108.20
35	BA	2697	G	C5-C6-O6	7.95	133.37	128.60
35	BA	1620	G	OP1-P-OP2	-7.95	107.68	119.60
35	BA	2346	A	C2-N3-C4	-7.95	106.63	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	995	C	N1-C2-O2	-7.94	114.14	118.90
1	AA	1242	C	C6-N1-C2	7.94	123.47	120.30
35	BA	1691	C	C6-N1-C2	7.94	123.47	120.30
1	CA	428	G	C4-N9-C1'	-7.93	116.19	126.50
35	DA	2589	A	C8-N9-C4	7.93	108.97	105.80
35	BA	142(A)	C	C4-C5-C6	7.93	121.37	117.40
35	BA	1210	A	C8-N9-C4	-7.93	102.63	105.80
35	DA	656	G	O4'-C1'-N9	7.93	114.54	108.20
35	BA	1790	C	N3-C4-C5	-7.92	118.73	121.90
35	DA	1760	A	N1-C6-N6	7.92	123.35	118.60
35	BA	764	A	C8-N9-C4	-7.92	102.63	105.80
1	CA	436	C	N1-C2-N3	-7.92	113.66	119.20
35	BA	621	A	C8-N9-C4	-7.92	102.63	105.80
1	AA	1442(A)	G	C2-N3-C4	7.92	115.86	111.90
35	BA	2519	U	C5-C6-N1	-7.91	118.75	122.70
1	CA	362	G	N3-C4-N9	-7.91	121.25	126.00
1	CA	572	A	C8-N9-C4	7.91	108.96	105.80
30	D5	33	CYS	CA-CB-SG	-7.91	99.76	114.00
35	DA	219	G	C2-N3-C4	7.91	115.85	111.90
35	DA	1342	A	N1-C2-N3	7.91	133.25	129.30
35	DA	2084	C	C6-N1-C2	7.91	123.46	120.30
1	CA	1126	U	C2-N1-C1'	7.91	127.19	117.70
35	BA	2597	G	N1-C6-O6	7.90	124.64	119.90
35	BA	2386	C	N1-C2-O2	-7.90	114.16	118.90
35	DA	1416	G	O4'-C1'-N9	7.90	114.52	108.20
35	BA	508	G	O4'-C1'-N9	-7.90	101.88	108.20
35	DA	2579	C	C6-N1-C2	7.90	123.46	120.30
35	DA	1493	C	C5-C6-N1	7.90	124.95	121.00
35	DA	2779	U	C5-C6-N1	-7.90	118.75	122.70
1	AA	577	G	C8-N9-C4	7.89	109.56	106.40
35	DA	1841	U	C6-N1-C2	7.89	125.74	121.00
35	BA	1653	G	N1-C6-O6	-7.89	115.17	119.90
35	BA	2871	C	O5'-P-OP2	-7.89	98.60	105.70
35	BA	271(K)	U	C2-N1-C1'	7.89	127.17	117.70
35	BA	595	C	C5-C6-N1	7.89	124.94	121.00
1	AA	890	G	C8-N9-C4	7.89	109.55	106.40
35	BA	446	G	N3-C4-N9	7.89	130.73	126.00
35	BA	1695	G	N3-C4-N9	7.88	130.73	126.00
35	BA	925	C	N3-C4-C5	7.88	125.05	121.90
35	BA	518	G	C4-N9-C1'	7.88	136.74	126.50
35	BA	1786	A	C8-N9-C1'	-7.87	113.53	127.70
35	DA	2226	C	N3-C4-C5	7.87	125.05	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	189(F)	U	C5-C4-O4	7.87	130.62	125.90
1	AA	691	G	C8-N9-C4	7.87	109.55	106.40
35	BA	451	C	C6-N1-C2	7.87	123.45	120.30
1	CA	1520	G	C8-N9-C4	7.86	109.55	106.40
35	DA	1257	C	C5-C6-N1	-7.86	117.07	121.00
1	AA	977	A	C5-N7-C8	-7.86	99.97	103.90
35	DA	989	G	N1-C6-O6	7.86	124.62	119.90
35	BA	575	A	O4'-C1'-N9	7.86	114.49	108.20
35	BA	2548	G	C4-C5-N7	7.86	113.94	110.80
35	DA	1496	A	N7-C8-N9	7.85	117.73	113.80
35	DA	1777	U	C4-C5-C6	7.85	124.41	119.70
1	AA	224	C	C6-N1-C2	7.85	123.44	120.30
35	BA	2712	U	C5-C6-N1	-7.85	118.78	122.70
35	DA	1678	G	O5'-P-OP1	7.85	120.11	110.70
35	DA	1257	C	C4-C5-C6	7.84	121.32	117.40
35	DA	2253	G	O5'-P-OP2	-7.84	98.64	105.70
35	BA	1291	C	O5'-P-OP2	-7.84	98.64	105.70
1	AA	1027	C	N3-C2-O2	-7.84	116.41	121.90
35	BA	1206	G	O5'-P-OP1	-7.84	98.64	105.70
35	BA	1995	U	C4-C5-C6	7.84	124.40	119.70
1	AA	162	A	N9-C4-C5	-7.83	102.67	105.80
35	BA	684	G	C8-N9-C4	-7.83	103.27	106.40
35	DA	1142(A)	A	N3-C4-C5	7.83	132.28	126.80
35	DA	2520	C	C5-C6-N1	-7.83	117.08	121.00
1	AA	362	G	N3-C4-N9	-7.83	121.30	126.00
35	DA	1428	C	O5'-P-OP1	-7.83	98.66	105.70
35	BA	945	A	N7-C8-N9	7.82	117.71	113.80
35	BA	830	G	C8-N9-C4	7.82	109.53	106.40
35	BA	29	U	N3-C4-O4	7.82	124.87	119.40
35	DA	83	G	C8-N9-C4	7.82	109.53	106.40
35	DA	2518	A	C5-C6-N6	-7.82	117.45	123.70
54	DV	39	LEU	CA-CB-CG	7.82	133.28	115.30
35	DA	651	G	C2-N3-C4	7.81	115.81	111.90
35	DA	1780	A	N1-C6-N6	-7.81	113.91	118.60
35	BA	309	G	OP1-P-OP2	7.81	131.31	119.60
35	DA	298	G	C4-C5-N7	7.81	113.92	110.80
35	DA	326	G	N3-C4-N9	-7.81	121.31	126.00
35	DA	2439	A	C4-C5-N7	7.81	114.60	110.70
35	BA	729	G	C8-N9-C4	-7.81	103.28	106.40
35	BA	2584	U	C2-N1-C1'	7.80	127.06	117.70
35	DA	623	G	N9-C4-C5	-7.80	102.28	105.40
35	DA	2585	U	C2-N1-C1'	7.80	127.06	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1203	G	N7-C8-N9	-7.80	109.20	113.10
35	BA	1667	G	C5-C6-O6	-7.80	123.92	128.60
35	DA	2242	G	C5-C6-O6	-7.80	123.92	128.60
1	AA	754	C	C2-N1-C1'	7.80	127.38	118.80
35	BA	569	U	C5-C6-N1	-7.80	118.80	122.70
35	BA	1619	G	C5-C6-O6	-7.79	123.92	128.60
35	DA	265	A	C2-N3-C4	-7.79	106.70	110.60
38	DD	131	LEU	CA-CB-CG	7.79	133.22	115.30
35	BA	146	G	N9-C4-C5	-7.79	102.29	105.40
35	BA	1259	G	N1-C2-N3	7.79	128.57	123.90
35	BA	645	C	C2-N3-C4	7.78	123.79	119.90
35	BA	2161	C	C2-N1-C1'	7.78	127.36	118.80
35	DA	212	G	O5'-P-OP1	7.78	120.04	110.70
35	DA	779	U	C5-C6-N1	-7.78	118.81	122.70
1	AA	1282	C	O5'-P-OP1	-7.78	98.70	105.70
35	BA	945	A	O4'-C1'-N9	7.78	114.42	108.20
35	BA	1628	G	N3-C2-N2	-7.78	114.45	119.90
1	CA	1528	U	C5-C6-N1	-7.78	118.81	122.70
23	AW	38	A	C5-N7-C8	-7.78	100.01	103.90
35	BA	695	G	N1-C6-O6	7.78	124.57	119.90
1	AA	117	G	C5-C6-O6	-7.78	123.93	128.60
1	CA	280	C	C6-N1-C2	7.78	123.41	120.30
23	AY	42	C	N3-C4-C5	7.78	125.01	121.90
35	DA	657	U	O5'-P-OP1	-7.78	98.70	105.70
35	BA	1308	A	O5'-P-OP1	-7.77	98.71	105.70
33	D8	62	LEU	CB-CG-CD2	7.77	124.21	111.00
35	DA	2021	C	O5'-P-OP1	-7.77	98.71	105.70
35	BA	450	G	C8-N9-C4	-7.77	103.29	106.40
35	BA	1678	G	N7-C8-N9	7.77	116.98	113.10
35	DA	22	C	C5-C6-N1	-7.77	117.12	121.00
35	DA	71	A	C8-N9-C4	-7.77	102.69	105.80
35	DA	2419	U	C6-N1-C2	7.76	125.66	121.00
35	BA	2518	A	O4'-C1'-N9	-7.76	101.99	108.20
35	DA	117	G	C4-C5-N7	7.76	113.91	110.80
1	AA	110	C	N1-C2-O2	7.76	123.56	118.90
35	DA	989	G	C5-C6-O6	-7.76	123.94	128.60
1	AA	1115	C	C5-C4-N4	7.76	125.63	120.20
1	AA	1327	C	C6-N1-C2	7.76	123.40	120.30
35	BA	774	A	N3-C4-C5	7.76	132.23	126.80
35	DA	607	U	O5'-P-OP1	-7.76	98.72	105.70
35	DA	1793	C	O5'-P-OP2	-7.76	98.72	105.70
35	DA	1100	C	N1-C2-O2	7.75	123.55	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	1210	A	C6-C5-N7	-7.75	126.87	132.30
35	BA	272	G	N1-C6-O6	-7.75	115.25	119.90
35	DA	2050	C	N1-C2-O2	-7.75	114.25	118.90
1	AA	980	C	N3-C2-O2	-7.75	116.47	121.90
39	BE	195	LEU	CA-CB-CG	-7.75	97.47	115.30
1	CA	306	G	C5-C6-O6	-7.75	123.95	128.60
35	DA	2779	U	C4-C5-C6	7.74	124.35	119.70
35	BA	141	A	C6-C5-N7	-7.74	126.88	132.30
35	BA	503	A	C8-N9-C4	-7.74	102.70	105.80
35	BA	141	A	C8-N9-C4	-7.74	102.71	105.80
35	DA	1784	A	C5-N7-C8	7.74	107.77	103.90
35	DA	2043	C	O5'-P-OP2	-7.74	98.74	105.70
35	DA	2055	C	O5'-P-OP2	7.74	119.98	110.70
1	AA	156	G	N9-C4-C5	-7.73	102.31	105.40
1	AA	1159	U	O4'-C1'-N1	7.73	114.39	108.20
35	DA	739	G	N3-C4-N9	7.73	130.64	126.00
35	DA	799	G	N7-C8-N9	-7.73	109.23	113.10
35	DA	219	G	N3-C4-N9	7.73	130.63	126.00
1	CA	1504	G	O5'-P-OP1	-7.72	98.75	105.70
35	BA	2518	A	C2-N3-C4	-7.72	106.74	110.60
35	DA	788	A	N9-C4-C5	-7.72	102.71	105.80
35	DA	2609	U	N1-C2-N3	7.72	119.53	114.90
35	BA	645	C	C5-C6-N1	7.72	124.86	121.00
35	DA	1268	A	N1-C2-N3	7.72	133.16	129.30
35	BA	1607	C	N1-C2-O2	7.72	123.53	118.90
1	CA	690	G	C8-N9-C4	7.72	109.49	106.40
35	BA	1493	C	N1-C2-O2	7.71	123.53	118.90
1	CA	1498	U	P-O3'-C3'	7.71	128.96	119.70
35	DA	568	U	C2-N3-C4	7.71	131.63	127.00
1	AA	754	C	N1-C2-O2	7.71	123.53	118.90
35	DA	1647	G	O5'-P-OP2	7.71	119.95	110.70
35	DA	1927	A	O5'-P-OP2	-7.71	98.76	105.70
35	DA	2782	G	N1-C6-O6	7.71	124.53	119.90
1	AA	117	G	N9-C4-C5	-7.71	102.32	105.40
35	DA	1310	G	N3-C4-N9	7.71	130.62	126.00
35	DA	2022	U	C5-C4-O4	-7.70	121.28	125.90
35	DA	2374	C	O5'-P-OP2	-7.70	98.77	105.70
35	DA	829	A	C8-N9-C4	7.70	108.88	105.80
35	DA	1619	G	C8-N9-C4	-7.70	103.32	106.40
35	DA	1616	A	C2-N3-C4	-7.70	106.75	110.60
1	AA	579	G	N3-C4-C5	-7.70	124.75	128.60
3	AC	94	LEU	CA-CB-CG	7.70	133.00	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1502	A	N7-C8-N9	7.69	117.65	113.80
35	DA	691	C	C6-N1-C2	7.69	123.38	120.30
36	BB	40	U	N1-C2-N3	7.69	119.52	114.90
35	DA	272	G	N9-C4-C5	7.69	108.48	105.40
35	DA	265	A	C5-N7-C8	-7.69	100.06	103.90
35	BA	1751	C	C6-N1-C2	7.69	123.38	120.30
35	BA	2161	C	C6-N1-C2	-7.68	117.23	120.30
35	BA	2543	G	C8-N9-C4	-7.68	103.33	106.40
1	CA	1523	G	C5-N7-C8	7.68	108.14	104.30
35	BA	343	C	N1-C2-O2	7.68	123.51	118.90
35	DA	1670	C	N1-C2-O2	-7.68	114.29	118.90
35	BA	2392	A	C2-N3-C4	-7.68	106.76	110.60
2	AB	102	LEU	CA-CB-CG	7.68	132.96	115.30
35	DA	746	A	C5-C6-N6	-7.68	117.56	123.70
35	BA	539	G	C5-N7-C8	7.67	108.14	104.30
1	AA	766	A	N1-C6-N6	7.67	123.20	118.60
35	BA	1312	U	N1-C2-N3	7.67	119.50	114.90
1	AA	1202	G	N3-C4-N9	7.67	130.60	126.00
35	DA	1278	A	C2-N3-C4	-7.67	106.77	110.60
35	DA	1902	C	N1-C2-O2	7.67	123.50	118.90
35	BA	539	G	C4-C5-N7	-7.67	107.73	110.80
35	DA	798	G	N1-C6-O6	7.67	124.50	119.90
35	DA	2559	C	N1-C2-O2	7.67	123.50	118.90
35	BA	676	A	C2-N3-C4	-7.67	106.77	110.60
35	BA	2402	C	C5-C6-N1	7.67	124.83	121.00
1	AA	1414	U	C5-C4-O4	7.66	130.50	125.90
35	BA	141	A	C4-C5-N7	7.66	114.53	110.70
1	CA	1434	A	C8-N9-C4	7.66	108.86	105.80
35	BA	1932	A	O5'-P-OP2	7.66	119.89	110.70
1	AA	901	A	O5'-P-OP1	-7.66	98.81	105.70
35	BA	105	C	C5-C4-N4	-7.66	114.84	120.20
35	BA	481	G	O4'-C1'-N9	7.66	114.33	108.20
35	DA	314	A	N1-C6-N6	7.66	123.19	118.60
35	DA	1942	C	C5-C4-N4	-7.66	114.84	120.20
35	BA	1125	G	C4-C5-N7	-7.65	107.74	110.80
1	AA	186	C	C6-N1-C2	-7.65	117.24	120.30
35	DA	591	C	N1-C2-O2	-7.65	114.31	118.90
35	BA	1021	A	N7-C8-N9	7.65	117.62	113.80
35	DA	1653	G	P-O3'-C3'	7.65	128.88	119.70
1	AA	1115	C	N3-C4-N4	-7.65	112.65	118.00
35	DA	1529	G	C8-N9-C4	-7.65	103.34	106.40
35	DA	1779	U	N3-C4-O4	-7.65	114.05	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	1416	G	O5'-P-OP2	-7.65	98.82	105.70
35	DA	1459	G	C8-N9-C4	-7.65	103.34	106.40
35	BA	2329	G	C8-N9-C4	7.64	109.46	106.40
35	DA	58	G	C6-C5-N7	-7.64	125.81	130.40
35	BA	146	G	N1-C6-O6	7.64	124.49	119.90
35	BA	593	G	N1-C6-O6	7.64	124.48	119.90
35	BA	2644	G	N9-C4-C5	7.64	108.46	105.40
35	DA	117	G	N9-C4-C5	-7.64	102.34	105.40
35	DA	693	C	OP1-P-OP2	7.64	131.06	119.60
35	DA	2233	U	N1-C2-O2	-7.64	117.45	122.80
35	DA	1819	A	C2-N3-C4	-7.64	106.78	110.60
1	CA	1491	G	N1-C6-O6	-7.64	115.32	119.90
35	BA	552	G	C4-C5-N7	7.64	113.86	110.80
35	BA	1462	C	C6-N1-C2	-7.64	117.25	120.30
35	BA	2161	C	N3-C2-O2	-7.64	116.55	121.90
35	DA	930	U	C5-C4-O4	7.64	130.48	125.90
35	DA	2271	G	N3-C4-N9	7.64	130.58	126.00
35	DA	1332	G	N7-C8-N9	7.63	116.92	113.10
35	DA	2313	C	C6-N1-C2	-7.63	117.25	120.30
35	DA	1021	A	N3-C4-C5	7.63	132.14	126.80
38	DD	131	LEU	CB-CG-CD2	-7.63	98.03	111.00
1	AA	516	U	N1-C2-N3	7.63	119.48	114.90
35	BA	656	G	O4'-C1'-N9	-7.62	102.10	108.20
35	DA	2554	U	N3-C2-O2	7.62	127.54	122.20
35	BA	129	C	N3-C4-C5	7.62	124.95	121.90
35	DA	2405	G	O5'-P-OP2	-7.62	98.84	105.70
35	BA	132	G	N3-C4-N9	7.62	130.57	126.00
35	DA	658	C	N1-C2-O2	-7.62	114.33	118.90
35	DA	1497	U	N3-C4-O4	-7.62	114.07	119.40
1	AA	1502	A	C5-N7-C8	-7.61	100.09	103.90
35	BA	1203	G	C5-N7-C8	7.61	108.11	104.30
1	AA	159	G	C8-N9-C1'	7.61	136.90	127.00
1	AA	189(I)	G	N3-C4-N9	7.61	130.57	126.00
35	DA	265	A	C8-N9-C4	-7.61	102.75	105.80
35	BA	682	G	O5'-P-OP2	-7.61	98.85	105.70
49	BQ	41	TRP	CA-CB-CG	7.61	128.16	113.70
35	DA	1268	A	C5-C6-N6	7.61	129.79	123.70
35	BA	210	C	N3-C4-C5	-7.60	118.86	121.90
35	BA	1083	U	OP1-P-OP2	7.60	131.01	119.60
35	DA	40	C	C5-C6-N1	-7.60	117.20	121.00
35	DA	1983	C	C5-C6-N1	-7.60	117.20	121.00
35	DA	2363	C	C2-N1-C1'	-7.60	110.44	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	210	C	C5-C4-N4	7.60	125.52	120.20
35	BA	446	G	C4-C5-N7	7.60	113.84	110.80
23	CY	37	A	N1-C2-N3	-7.60	125.50	129.30
1	AA	615	C	N3-C2-O2	-7.59	116.58	121.90
35	BA	866	A	N9-C4-C5	-7.59	102.76	105.80
36	BB	115	G	C8-N9-C4	7.59	109.44	106.40
35	BA	1606	G	O5'-P-OP2	-7.59	98.87	105.70
35	BA	2286	A	C2-N3-C4	-7.59	106.81	110.60
35	DA	1190	G	N9-C4-C5	-7.59	102.36	105.40
35	DA	2376	A	C8-N9-C4	7.59	108.83	105.80
35	BA	1633	G	N1-C6-O6	7.59	124.45	119.90
50	BR	4	LEU	CA-CB-CG	7.59	132.75	115.30
1	CA	738	C	C6-N1-C2	-7.59	117.27	120.30
35	DA	807	U	C5-C4-O4	-7.59	121.35	125.90
35	DA	1011	G	N1-C6-O6	-7.59	115.35	119.90
35	BA	2003	G	C5-C6-O6	-7.58	124.05	128.60
35	BA	2698	U	O4'-C1'-N1	7.58	114.27	108.20
1	AA	1336	C	C2-N1-C1'	7.58	127.14	118.80
35	BA	2679	A	O5'-P-OP2	-7.58	98.88	105.70
35	DA	651	G	C5-C6-O6	-7.58	124.05	128.60
32	B7	42	LEU	CA-CB-CG	7.58	132.73	115.30
35	BA	48	G	C5-C6-N1	-7.58	107.71	111.50
35	BA	674	G	N1-C6-O6	-7.58	115.35	119.90
35	BA	2697	G	C2-N3-C4	7.58	115.69	111.90
35	DA	692	C	C6-N1-C2	7.58	123.33	120.30
35	DA	2617	C	C6-N1-C2	7.58	123.33	120.30
35	BA	141	A	N1-C6-N6	7.57	123.14	118.60
35	BA	1021	A	C8-N9-C4	-7.57	102.77	105.80
23	CY	37	A	C2-N3-C4	7.57	114.39	110.60
35	BA	1140	C	C6-N1-C2	-7.57	117.27	120.30
40	DF	67	GLN	C-N-CA	-7.57	102.77	121.70
35	BA	581	C	O5'-P-OP2	-7.57	98.89	105.70
35	BA	510	C	O5'-P-OP2	-7.57	98.89	105.70
35	BA	1898	U	C5-C4-O4	7.57	130.44	125.90
1	AA	797	C	N1-C2-O2	-7.57	114.36	118.90
35	BA	1496	A	C5-C6-N1	-7.57	113.92	117.70
1	AA	481	G	C4-N9-C1'	7.56	136.33	126.50
35	DA	139	G	C5-C6-O6	-7.56	124.06	128.60
35	DA	2510	C	C2-N3-C4	-7.56	116.12	119.90
1	AA	834	C	O5'-P-OP2	-7.56	98.89	105.70
33	B8	61	LEU	CB-CG-CD2	-7.56	98.15	111.00
35	DA	979	G	C5-C6-O6	-7.56	124.06	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	2207	G	C2-N3-C4	7.56	115.68	111.90
1	AA	981	U	C2-N1-C1'	7.56	126.77	117.70
40	DF	24	LEU	CA-CB-CG	7.56	132.68	115.30
35	BA	1842	G	C8-N9-C4	7.55	109.42	106.40
35	DA	658	C	C5-C6-N1	-7.55	117.22	121.00
35	DA	1543	C	C5-C6-N1	7.55	124.78	121.00
48	DP	33	ARG	NE-CZ-NH1	7.55	124.08	120.30
35	DA	1933	G	C8-N9-C4	-7.55	103.38	106.40
35	DA	2520	C	C2-N3-C4	-7.55	116.13	119.90
35	DA	271(Q)	G	O4'-C1'-N9	7.55	114.24	108.20
35	BA	807	U	OP2-P-O3'	7.54	121.80	105.20
35	DA	738	G	O5'-P-OP2	-7.54	98.91	105.70
35	DA	1936	A	N9-C4-C5	-7.54	102.78	105.80
35	DA	1269	A	C2-N3-C4	-7.54	106.83	110.60
35	BA	1547	C	C5-C4-N4	7.54	125.48	120.20
35	DA	2449	U	N1-C2-O2	-7.54	117.52	122.80
35	DA	1786	A	C5-C6-N1	-7.54	113.93	117.70
35	DA	2712(A)	A	N7-C8-N9	7.54	117.57	113.80
35	BA	552	G	C5-C6-O6	-7.53	124.08	128.60
35	BA	1785	A	C5-C6-N1	-7.53	113.94	117.70
35	DA	1813	G	C5-N7-C8	7.53	108.07	104.30
35	BA	530	G	C5-C6-O6	7.53	133.12	128.60
35	BA	1931	U	C5-C6-N1	7.53	126.46	122.70
35	BA	1932	A	C8-N9-C4	7.53	108.81	105.80
1	CA	395	C	C6-N1-C2	7.53	123.31	120.30
35	BA	1921	G	N1-C6-O6	7.52	124.41	119.90
22	CV	76	A	C5-C6-N6	-7.52	117.68	123.70
35	DA	2313	C	C5-C6-N1	7.52	124.76	121.00
1	AA	159	G	C6-C5-N7	7.52	134.91	130.40
35	BA	129	C	C6-N1-C2	7.52	123.31	120.30
35	BA	1629	U	N3-C2-O2	-7.52	116.94	122.20
35	DA	810	U	C5-C4-O4	-7.52	121.39	125.90
35	DA	2439	A	N1-C6-N6	7.52	123.11	118.60
35	DA	11	G	N3-C4-C5	7.51	132.36	128.60
1	AA	1499	A	C4-C5-N7	7.51	114.46	110.70
35	DA	2712(A)	A	C6-C5-N7	-7.51	127.04	132.30
35	BA	933	A	C5-N7-C8	-7.51	100.14	103.90
35	BA	1239	G	N3-C4-C5	7.51	132.36	128.60
1	CA	117	G	C6-C5-N7	-7.51	125.89	130.40
35	DA	1671	U	N1-C2-O2	-7.51	117.54	122.80
35	DA	651	G	N3-C4-C5	-7.51	124.85	128.60
35	DA	2810	A	N1-C6-N6	7.51	123.10	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2606	C	N3-C4-C5	7.50	124.90	121.90
35	DA	652	C	P-O3'-C3'	7.50	128.71	119.70
35	DA	1656	C	C6-N1-C2	7.50	123.30	120.30
1	AA	1456	G	N7-C8-N9	7.50	116.85	113.10
35	BA	1251	C	C6-N1-C2	7.50	123.30	120.30
35	BA	2306	C	N1-C2-O2	7.50	123.40	118.90
35	DA	729	G	N1-C6-O6	7.49	124.40	119.90
1	CA	690	G	C5-C6-N1	7.49	115.25	111.50
35	BA	1841	U	N3-C4-O4	7.49	124.64	119.40
35	DA	1974	C	C6-N1-C2	-7.49	117.30	120.30
35	DA	836	G	C8-N9-C4	-7.49	103.41	106.40
35	BA	1297	C	N1-C2-O2	-7.49	114.41	118.90
35	BA	2713	A	O4'-C1'-N9	-7.49	102.21	108.20
35	DA	1698	A	C5-N7-C8	-7.49	100.16	103.90
23	AY	42	C	C2-N3-C4	-7.48	116.16	119.90
35	BA	733	G	C4-C5-N7	7.48	113.79	110.80
35	BA	1763	G	C6-C5-N7	-7.48	125.91	130.40
35	DA	249	C	OP2-P-O3'	-7.48	88.74	105.20
1	AA	1022	G	N9-C4-C5	-7.48	102.41	105.40
36	DB	44	G	C4-N9-C1'	-7.48	116.78	126.50
35	DA	2407	G	C4-N9-C1'	7.48	136.22	126.50
1	AA	1336	C	O5'-P-OP1	7.47	119.67	110.70
35	BA	1768	U	C6-N1-C2	-7.47	116.52	121.00
35	BA	587	C	N3-C4-C5	-7.47	118.91	121.90
35	DA	799	G	C5-N7-C8	7.47	108.04	104.30
35	DA	2069	G	N3-C4-C5	-7.47	124.86	128.60
35	BA	1767	C	N3-C4-N4	-7.47	112.77	118.00
35	BA	84	A	N7-C8-N9	7.47	117.53	113.80
35	BA	1754	C	N1-C2-O2	7.47	123.38	118.90
35	BA	1928	A	C8-N9-C4	7.47	108.79	105.80
35	DA	1279	G	N3-C4-C5	-7.47	124.86	128.60
35	BA	777	A	N1-C2-N3	7.47	133.03	129.30
35	DA	2084	C	C5-C6-N1	-7.47	117.27	121.00
35	DA	1647	G	O4'-C1'-N9	-7.46	102.23	108.20
35	BA	793	A	C8-N9-C4	7.46	108.78	105.80
35	BA	1142(A)	A	C5-N7-C8	-7.46	100.17	103.90
35	DA	1061	U	C2-N1-C1'	7.46	126.65	117.70
8	AH	104	ARG	CD-NE-CZ	7.46	134.04	123.60
35	BA	982	C	N3-C4-C5	-7.46	118.92	121.90
35	BA	1575	C	C5-C6-N1	7.46	124.73	121.00
35	DA	1325	G	N3-C4-N9	7.46	130.47	126.00
35	BA	1594	G	N3-C4-C5	-7.46	124.87	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	110	C	C6-N1-C2	7.45	123.28	120.30
35	BA	2566	A	C5-C6-N6	-7.45	117.74	123.70
35	DA	1496	A	C8-N9-C4	-7.45	102.82	105.80
1	AA	977	A	N1-C6-N6	7.45	123.07	118.60
35	BA	1447	G	N3-C4-N9	7.45	130.47	126.00
1	CA	960	U	N1-C2-O2	7.45	128.01	122.80
35	DA	1235	G	C5-C6-N1	-7.45	107.78	111.50
35	DA	2553	G	C4-C5-N7	-7.45	107.82	110.80
35	BA	1355	G	N3-C4-C5	-7.45	124.88	128.60
31	B6	36	LEU	CA-CB-CG	7.45	132.43	115.30
1	CA	807	A	C8-N9-C4	-7.45	102.82	105.80
2	AB	178	ARG	NE-CZ-NH1	-7.44	116.58	120.30
35	DA	2394	C	N3-C4-C5	-7.44	118.92	121.90
1	AA	362	G	N3-C4-C5	7.44	132.32	128.60
35	BA	2702	U	O4'-C1'-N1	7.44	114.15	108.20
35	DA	2485	G	C8-N9-C4	7.44	109.38	106.40
1	CA	566	G	O5'-P-OP2	-7.44	99.00	105.70
35	BA	1268	A	O5'-P-OP2	-7.44	99.01	105.70
1	AA	697	U	C5-C6-N1	-7.43	118.98	122.70
35	DA	2838	G	N1-C6-O6	-7.43	115.44	119.90
1	AA	1499	A	C5-N7-C8	-7.43	100.18	103.90
35	BA	1449	A	C8-N9-C4	7.43	108.77	105.80
35	BA	2518	A	C4-C5-N7	7.43	114.42	110.70
1	CA	733	A	C8-N9-C4	7.43	108.77	105.80
56	DX	70	LEU	CA-CB-CG	7.43	132.39	115.30
35	DA	830	G	C8-N9-C4	-7.43	103.43	106.40
1	AA	536	C	C6-N1-C2	-7.43	117.33	120.30
1	AA	1441	G	C5-C6-N1	-7.43	107.78	111.50
35	BA	1276	A	N1-C6-N6	7.43	123.06	118.60
35	DA	226	G	C5-C6-O6	-7.43	124.14	128.60
35	BA	539	G	N3-C4-N9	7.43	130.46	126.00
35	BA	2318	G	N3-C2-N2	-7.43	114.70	119.90
1	CA	428	G	C8-N9-C1'	7.43	136.66	127.00
35	DA	2436	G	N9-C4-C5	7.42	108.37	105.40
1	AA	451	A	N1-C2-N3	7.42	133.01	129.30
35	DA	446	G	C5-C6-N1	-7.42	107.79	111.50
35	BA	2218	U	C6-N1-C2	-7.42	116.55	121.00
1	AA	715	A	C2-N3-C4	-7.42	106.89	110.60
35	BA	602	G	N3-C4-N9	7.42	130.45	126.00
35	BA	2430	A	N1-C2-N3	7.41	133.00	129.30
35	DA	126	A	N9-C4-C5	7.41	108.76	105.80
35	DA	842	G	C8-N9-C4	7.41	109.36	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	453	C	C2-N1-C1'	-7.41	110.65	118.80
36	DB	80	U	C5-C4-O4	7.41	130.34	125.90
54	DV	40	LEU	CA-CB-CG	7.40	132.33	115.30
35	BA	1799	G	N3-C4-C5	-7.40	124.90	128.60
35	DA	1355	G	C5-C6-O6	-7.40	124.16	128.60
35	DA	2413	G	C8-N9-C4	7.40	109.36	106.40
1	AA	897	C	C6-N1-C2	7.40	123.26	120.30
35	BA	1667	G	N1-C6-O6	7.40	124.34	119.90
35	DA	945	A	O4'-C1'-N9	7.40	114.12	108.20
35	DA	1204	A	O4'-C1'-N9	7.40	114.12	108.20
35	DA	1997	G	C2-N3-C4	-7.40	108.20	111.90
35	DA	2782	G	C4-C5-N7	7.40	113.76	110.80
35	BA	387	U	P-O3'-C3'	7.39	128.57	119.70
35	BA	1992	G	C8-N9-C4	-7.39	103.44	106.40
35	BA	1760	A	C8-N9-C4	-7.39	102.84	105.80
35	BA	2724	C	N1-C2-O2	-7.39	114.47	118.90
35	BA	2584	U	N3-C2-O2	-7.39	117.03	122.20
35	DA	2069	G	C6-N1-C2	-7.39	120.67	125.10
1	AA	561	U	N1-C2-O2	7.38	127.97	122.80
38	BD	214	TRP	CA-CB-CG	7.38	127.73	113.70
35	DA	586	A	O5'-P-OP2	-7.38	99.06	105.70
35	DA	211	A	N1-C2-N3	7.38	132.99	129.30
1	CA	1135	U	C6-N1-C1'	-7.37	110.88	121.20
35	DA	2407	G	C6-C5-N7	-7.37	125.98	130.40
36	DB	21	G	C8-N9-C4	-7.37	103.45	106.40
35	BA	1963	U	N1-C2-O2	7.37	127.96	122.80
35	BA	2092	U	C5-C4-O4	7.37	130.32	125.90
35	DA	670	A	N9-C4-C5	-7.37	102.85	105.80
35	BA	136	G	C5-C6-O6	-7.37	124.18	128.60
1	CA	629	G	N7-C8-N9	7.37	116.78	113.10
35	DA	860	U	O5'-P-OP2	-7.37	99.07	105.70
35	DA	1190	G	C5-N7-C8	-7.37	100.62	104.30
1	CA	904	C	N3-C4-C5	7.37	124.85	121.90
35	BA	566	U	C5-C6-N1	-7.36	119.02	122.70
35	BA	1968	G	C5-C6-O6	-7.36	124.18	128.60
1	CA	690	G	N9-C4-C5	-7.36	102.45	105.40
35	DA	1306	C	N1-C2-O2	-7.36	114.48	118.90
35	DA	264	C	O5'-P-OP2	-7.36	99.07	105.70
35	BA	2430	A	N1-C6-N6	7.36	123.02	118.60
35	BA	136	G	N1-C6-O6	7.36	124.31	119.90
47	BO	25	LEU	CA-CB-CG	7.36	132.22	115.30
35	DA	995	C	C6-N1-C2	-7.36	117.36	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	795	C	C4-C5-C6	7.36	121.08	117.40
35	DA	1250	G	N3-C4-C5	-7.36	124.92	128.60
22	CV	13	C	C6-N1-C2	-7.35	117.36	120.30
35	BA	363(B)	G	N3-C4-N9	7.35	130.41	126.00
35	BA	752	A	P-O3'-C3'	7.35	128.52	119.70
35	BA	1276	A	N9-C4-C5	-7.35	102.86	105.80
35	DA	624	C	C6-N1-C2	7.35	123.24	120.30
35	BA	1906	G	C5-C6-O6	-7.35	124.19	128.60
35	DA	176	G	N1-C2-N3	7.34	128.31	123.90
35	BA	1703	G	C8-N9-C4	7.34	109.34	106.40
35	DA	1997	G	N7-C8-N9	-7.34	109.43	113.10
35	DA	656	G	N3-C4-C5	-7.34	124.93	128.60
35	DA	813	U	OP1-P-OP2	7.34	130.61	119.60
35	BA	1210	A	C6-C5-N7	-7.34	127.16	132.30
35	BA	1979	C	C6-N1-C2	-7.34	117.36	120.30
35	DA	2602	A	C8-N9-C4	-7.34	102.86	105.80
35	DA	1049	C	C5-C6-N1	7.34	124.67	121.00
35	DA	2476	A	C5-C6-N6	-7.34	117.83	123.70
35	DA	613	G	N1-C6-O6	7.33	124.30	119.90
35	DA	1986	A	C4-C5-C6	7.33	120.67	117.00
35	DA	2091	U	C4-C5-C6	7.33	124.10	119.70
35	DA	2501	C	C2-N1-C1'	-7.33	110.73	118.80
1	AA	68	G	OP1-P-OP2	7.33	130.60	119.60
35	DA	1881	C	C6-N1-C2	-7.33	117.37	120.30
35	DA	792	G	O5'-P-OP2	-7.33	99.10	105.70
35	DA	1982	C	O5'-P-OP2	-7.33	99.11	105.70
1	CA	1054	C	N1-C2-O2	7.33	123.30	118.90
22	CV	76	A	C4-C5-C6	-7.33	113.34	117.00
35	DA	1459	G	C4-N9-C1'	7.33	136.02	126.50
35	DA	933	A	C2-N3-C4	-7.32	106.94	110.60
1	AA	449	C	N1-C2-O2	7.32	123.29	118.90
23	AY	38	A	N1-C6-N6	7.32	122.99	118.60
35	DA	1695	G	OP1-P-OP2	7.32	130.58	119.60
35	BA	651	G	O5'-P-OP1	7.32	119.48	110.70
35	DA	668	G	N3-C4-N9	7.32	130.39	126.00
35	DA	731	C	C5-C6-N1	-7.32	117.34	121.00
1	CA	690	G	N3-C2-N2	7.32	125.02	119.90
1	CA	811	C	N1-C2-O2	-7.32	114.51	118.90
1	CA	328	C	N1-C2-O2	7.32	123.29	118.90
35	BA	1256	G	N3-C4-C5	-7.31	124.94	128.60
35	DA	1963	U	C2-N1-C1'	7.31	126.48	117.70
35	DA	2444	G	N3-C2-N2	-7.31	114.78	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	189	G	C8-N9-C4	7.31	109.32	106.40
35	DA	1049	C	C6-N1-C2	-7.31	117.38	120.30
35	DA	2447	G	C5-C6-O6	-7.31	124.22	128.60
35	DA	621	A	C6-C5-N7	-7.31	127.19	132.30
35	DA	1021	A	C5-C6-N1	-7.31	114.05	117.70
35	DA	2003	G	C4-C5-N7	7.31	113.72	110.80
1	AA	1161	C	N1-C2-O2	7.31	123.28	118.90
35	DA	1762	A	N7-C8-N9	7.31	117.45	113.80
35	DA	2049	G	N7-C8-N9	-7.31	109.45	113.10
1	CA	29	G	N1-C6-O6	7.30	124.28	119.90
1	CA	1190	G	O5'-P-OP1	-7.30	99.13	105.70
35	DA	1570	A	C8-N9-C4	7.30	108.72	105.80
35	BA	1782	C	N3-C2-O2	7.30	127.01	121.90
23	CW	13	C	C6-N1-C2	-7.30	117.38	120.30
1	AA	862	C	C6-N1-C2	-7.30	117.38	120.30
35	BA	1963	U	C2-N1-C1'	7.30	126.46	117.70
35	BA	1955	U	O4'-C1'-N1	7.30	114.04	108.20
35	DA	1367	A	C5-C6-N6	-7.30	117.86	123.70
35	BA	975	C	N3-C4-N4	7.29	123.11	118.00
35	BA	805	G	C5-C6-O6	-7.29	124.22	128.60
35	BA	866	A	N1-C6-N6	7.29	122.97	118.60
35	DA	971	C	C6-N1-C2	-7.29	117.38	120.30
1	CA	783	C	C6-N1-C2	7.29	123.22	120.30
35	DA	1528	A	C5-N7-C8	-7.29	100.25	103.90
35	DA	1779	U	C6-N1-C2	7.29	125.37	121.00
35	BA	2504	U	O5'-P-OP2	7.29	119.44	110.70
35	DA	615	G	N1-C6-O6	-7.29	115.53	119.90
35	DA	1271	G	C8-N9-C4	7.29	109.31	106.40
35	DA	2253	G	C4-N9-C1'	-7.29	117.03	126.50
35	BA	1243	G	C8-N9-C4	7.29	109.31	106.40
1	AA	1503	A	O4'-C1'-N9	7.29	114.03	108.20
35	DA	1983	C	C2-N3-C4	-7.29	116.26	119.90
35	DA	836	G	C5-N7-C8	-7.28	100.66	104.30
35	BA	2575	C	C6-N1-C2	7.28	123.21	120.30
35	DA	395	U	C5-C4-O4	-7.28	121.53	125.90
35	DA	1295	C	N3-C4-C5	7.28	124.81	121.90
35	DA	188	G	C6-N1-C2	-7.28	120.73	125.10
35	BA	672	C	C4-C5-C6	7.28	121.04	117.40
36	BB	40	U	O4'-C1'-N1	7.28	114.02	108.20
1	CA	1520	G	N1-C6-O6	7.28	124.27	119.90
35	BA	201	C	C6-N1-C2	7.27	123.21	120.30
35	DA	17	G	O5'-P-OP2	-7.27	99.15	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	1622	G	N1-C2-N3	7.27	128.26	123.90
35	BA	1355	G	C8-N9-C1'	-7.27	117.55	127.00
35	DA	298	G	N1-C6-O6	7.27	124.26	119.90
35	DA	2223	G	C5-C6-O6	-7.27	124.24	128.60
35	BA	1258	C	C5-C4-N4	-7.27	115.11	120.20
35	BA	2005	A	C8-N9-C4	7.27	108.71	105.80
35	BA	2851	A	N1-C2-N3	7.27	132.93	129.30
1	CA	1126	U	N1-C2-O2	7.27	127.89	122.80
35	DA	171	G	N3-C4-C5	-7.27	124.97	128.60
35	DA	2244	U	N1-C2-N3	7.27	119.26	114.90
35	DA	72	U	O5'-P-OP2	-7.26	99.16	105.70
35	DA	2451	A	C8-N9-C4	-7.26	102.89	105.80
35	DA	941	A	C4-C5-C6	7.26	120.63	117.00
36	BB	40	U	C2-N1-C1'	-7.26	108.99	117.70
35	BA	1324	G	C5-C6-N1	-7.26	107.87	111.50
35	DA	37	C	N3-C4-C5	-7.26	119.00	121.90
1	AA	579	G	C4-N9-C1'	7.25	135.93	126.50
35	DA	774	A	N1-C2-N3	7.25	132.93	129.30
35	DA	2476	A	N3-C4-C5	-7.25	121.72	126.80
1	CA	731	G	OP1-P-O3'	7.25	121.16	105.20
22	CV	76	A	N1-C6-N6	7.25	122.95	118.60
35	DA	805	G	C8-N9-C4	-7.25	103.50	106.40
56	DX	30	VAL	C-N-CA	-7.25	103.57	121.70
35	BA	1307	A	C2-N3-C4	-7.25	106.97	110.60
35	DA	859	G	C8-N9-C4	7.25	109.30	106.40
35	DA	1022	G	N3-C2-N2	-7.25	114.82	119.90
35	DA	2639	A	C2-N3-C4	-7.25	106.97	110.60
1	AA	1158	C	O4'-C1'-N1	7.25	114.00	108.20
35	BA	1332	G	N1-C2-N3	7.25	128.25	123.90
35	DA	974	G	O5'-P-OP2	-7.25	99.17	105.70
35	DA	1345	C	C6-N1-C2	7.25	123.20	120.30
1	AA	186	C	C2-N1-C1'	7.25	126.77	118.80
1	AA	1442(A)	G	N3-C4-N9	7.25	130.35	126.00
1	AA	1489	G	C8-N9-C4	7.25	109.30	106.40
35	BA	2711	A	C2-N3-C4	-7.25	106.98	110.60
35	DA	208	C	N3-C4-C5	7.25	124.80	121.90
35	BA	1323	U	C6-N1-C1'	-7.25	111.06	121.20
35	BA	1619	G	C4-C5-N7	7.25	113.70	110.80
35	BA	1204	A	C5-C6-N1	-7.24	114.08	117.70
35	DA	1825	A	C5-C6-N1	7.24	121.32	117.70
35	DA	2821	A	N1-C6-N6	7.24	122.95	118.60
35	BA	1804	C	C5-C4-N4	-7.24	115.13	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	465	G	C5-C6-N1	-7.24	107.88	111.50
35	BA	1963	U	N3-C2-O2	-7.24	117.13	122.20
35	DA	920	G	C8-N9-C4	7.24	109.30	106.40
48	DP	67	MET	CG-SD-CE	-7.24	88.62	100.20
35	BA	729	G	C5-N7-C8	-7.24	100.68	104.30
35	DA	1559	G	N3-C4-N9	-7.24	121.66	126.00
1	AA	1402	C	C4-C5-C6	7.24	121.02	117.40
35	BA	1547	C	N3-C4-N4	-7.24	112.94	118.00
1	AA	1502	A	C2-N3-C4	-7.23	106.98	110.60
1	AA	162	A	C4-C5-N7	7.23	114.32	110.70
35	DA	961	C	N1-C2-O2	7.23	123.24	118.90
35	BA	282	A	O5'-P-OP1	-7.23	99.19	105.70
35	DA	265	A	O4'-C1'-N9	7.23	113.98	108.20
35	DA	975	C	N1-C2-O2	7.23	123.24	118.90
35	DA	706	A	C8-N9-C4	7.23	108.69	105.80
35	BA	813	U	O5'-P-OP2	-7.23	99.20	105.70
1	AA	328	C	C6-N1-C2	-7.23	117.41	120.30
35	DA	1544	A	C4-C5-C6	-7.23	113.39	117.00
35	DA	127	A	C5-C6-N6	-7.22	117.92	123.70
35	BA	552	G	N1-C6-O6	7.22	124.23	119.90
35	BA	1908	C	C6-N1-C2	-7.22	117.41	120.30
1	CA	1520	G	N9-C4-C5	-7.22	102.51	105.40
35	DA	863	A	OP2-P-O3'	7.22	121.09	105.20
35	BA	1496	A	C4-C5-C6	7.22	120.61	117.00
35	BA	2616	C	C6-N1-C2	7.22	123.19	120.30
35	DA	1776	G	C5-C6-N1	7.22	115.11	111.50
54	DV	81	TYR	CA-CB-CG	-7.22	99.69	113.40
1	AA	159	G	C4-C5-N7	-7.22	107.91	110.80
35	BA	303	U	O5'-P-OP2	-7.22	99.20	105.70
48	BP	59	LEU	CB-CG-CD2	7.22	123.27	111.00
35	DA	933	A	O4'-C1'-N9	7.22	113.97	108.20
35	DA	2040	C	O5'-P-OP1	-7.22	99.20	105.70
1	AA	189(A)	C	C2-N1-C1'	-7.21	110.86	118.80
35	BA	1786	A	C5-C6-N1	-7.21	114.09	117.70
35	BA	2458	G	C4-C5-C6	7.21	123.13	118.80
35	DA	330	A	N1-C2-N3	7.21	132.91	129.30
35	DA	675	A	C5-C6-N6	-7.21	117.93	123.70
35	DA	1804	C	C5-C6-N1	-7.21	117.39	121.00
35	DA	2054	A	N1-C2-N3	7.21	132.91	129.30
35	BA	80	G	N3-C4-C5	-7.21	124.99	128.60
35	DA	1695	G	O5'-P-OP2	-7.21	99.21	105.70
35	DA	1813	G	C4-C5-N7	-7.21	107.92	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	2553	G	N9-C4-C5	7.21	108.28	105.40
1	AA	186	C	N1-C2-O2	7.21	123.23	118.90
35	BA	136	G	C6-C5-N7	-7.21	126.07	130.40
35	BA	2549	G	O5'-P-OP2	-7.21	99.21	105.70
35	DA	2328	A	N1-C2-N3	7.21	132.91	129.30
1	AA	869	G	N3-C4-C5	7.21	132.20	128.60
35	DA	1680	U	C2-N1-C1'	-7.21	109.05	117.70
35	DA	1973	G	N1-C6-O6	-7.21	115.57	119.90
35	BA	1276	A	O5'-P-OP2	-7.21	99.22	105.70
35	BA	1322	A	N7-C8-N9	-7.21	110.20	113.80
35	DA	208	C	C5-C6-N1	-7.21	117.40	121.00
35	DA	562	U	N3-C2-O2	-7.21	117.16	122.20
35	BA	2419	U	C4-C5-C6	7.21	124.02	119.70
35	DA	1363	C	C5-C6-N1	-7.21	117.40	121.00
1	AA	1456	G	N3-C4-N9	7.20	130.32	126.00
38	BD	221	VAL	CG1-CB-CG2	-7.20	99.38	110.90
35	DA	807	U	N3-C4-O4	7.20	124.44	119.40
35	DA	2222	G	C8-N9-C4	7.20	109.28	106.40
1	AA	1022	G	C5-C6-O6	-7.20	124.28	128.60
35	BA	74	A	C5-C6-N6	7.20	129.46	123.70
35	BA	2439	A	OP1-P-O3'	7.20	121.04	105.20
35	BA	1322	A	C5-N7-C8	7.20	107.50	103.90
35	DA	2595	G	C5-N7-C8	-7.20	100.70	104.30
35	BA	1784	A	N1-C6-N6	7.20	122.92	118.60
35	DA	670	A	C5-C6-N6	-7.19	117.94	123.70
35	BA	1187	G	C4-C5-C6	7.19	123.11	118.80
35	DA	2660	A	C8-N9-C4	-7.19	102.92	105.80
35	BA	2458	G	C6-C5-N7	-7.19	126.09	130.40
35	BA	1528(A)	A	C4-N9-C1'	7.19	139.24	126.30
1	AA	44	G	N3-C4-N9	7.18	130.31	126.00
1	CA	422	C	N1-C2-O2	7.18	123.21	118.90
35	DA	2427	C	C6-N1-C2	7.18	123.17	120.30
35	BA	955	C	C6-N1-C2	-7.18	117.43	120.30
35	DA	1881	C	C2-N1-C1'	7.18	126.70	118.80
35	DA	794	G	O5'-P-OP2	7.18	119.32	110.70
35	DA	1983	C	N3-C4-C5	7.18	124.77	121.90
35	BA	2423	U	C6-N1-C2	7.18	125.31	121.00
35	BA	1501	C	C5-C6-N1	7.18	124.59	121.00
35	BA	2348	U	N1-C2-O2	7.18	127.82	122.80
36	DB	8	U	N3-C4-C5	-7.18	110.29	114.60
35	BA	71	A	C6-C5-N7	-7.17	127.28	132.30
35	BA	1302	A	N1-C6-N6	-7.17	114.30	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1691	C	N1-C2-O2	7.17	123.20	118.90
35	DA	1830	C	C6-N1-C2	7.17	123.17	120.30
35	DA	2864	G	C6-C5-N7	-7.17	126.10	130.40
1	CA	362	G	N3-C4-C5	7.17	132.19	128.60
23	CW	13	C	C2-N1-C1'	7.17	126.69	118.80
35	DA	2179	C	C2-N1-C1'	7.17	126.68	118.80
1	AA	702	A	C8-N9-C4	-7.17	102.93	105.80
1	CA	685	G	N3-C4-N9	-7.17	121.70	126.00
35	DA	2394	C	C5-C4-N4	7.17	125.22	120.20
23	AW	39	U	N3-C2-O2	-7.17	117.19	122.20
35	DA	385	C	C6-N1-C2	-7.17	117.43	120.30
35	DA	1204	A	C5-N7-C8	-7.17	100.32	103.90
35	BA	2787	C	C2-N1-C1'	7.16	126.68	118.80
35	DA	193	U	C6-N1-C2	-7.16	116.70	121.00
35	DA	349	G	N9-C4-C5	7.16	108.27	105.40
56	DX	65	ARG	NE-CZ-NH1	7.16	123.88	120.30
23	AY	39	U	C5-C4-O4	7.16	130.20	125.90
35	BA	1501	C	C6-N1-C2	-7.16	117.44	120.30
35	DA	741	G	C8-N9-C4	-7.16	103.54	106.40
35	DA	1051	G	C8-N9-C4	-7.16	103.54	106.40
35	DA	1334	G	C6-C5-N7	-7.16	126.10	130.40
35	BA	1677	A	C4-C5-N7	7.16	114.28	110.70
35	DA	211	A	C2-N3-C4	-7.16	107.02	110.60
35	DA	623	G	N1-C6-O6	7.16	124.19	119.90
35	DA	1010	A	C8-N9-C4	7.16	108.66	105.80
35	DA	1762	A	N3-C4-C5	-7.16	121.79	126.80
35	DA	2574	G	O5'-P-OP2	-7.16	99.26	105.70
35	BA	1283	G	N3-C4-C5	-7.16	125.02	128.60
1	CA	436	C	C6-N1-C1'	-7.16	112.21	120.80
35	DA	1395	A	C8-N9-C4	7.16	108.66	105.80
35	DA	2316	C	C6-N1-C2	-7.16	117.44	120.30
35	DA	2591	C	O5'-P-OP1	-7.16	99.26	105.70
56	DX	77	LYS	CD-CE-NZ	7.15	128.15	111.70
35	DA	2028	U	C4-C5-C6	7.15	123.99	119.70
35	DA	245	G	C4-C5-N7	7.15	113.66	110.80
1	CA	117	G	C5-C6-O6	-7.14	124.31	128.60
1	CA	306	G	N9-C4-C5	-7.14	102.54	105.40
35	DA	681	G	C8-N9-C4	7.14	109.26	106.40
35	BA	132	G	C8-N9-C4	-7.14	103.54	106.40
35	BA	2589	A	C2-N3-C4	-7.14	107.03	110.60
35	DA	1022	G	N3-C4-N9	-7.14	121.72	126.00
35	DA	1210	A	N1-C6-N6	7.14	122.88	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1005	C	C6-N1-C2	7.14	123.16	120.30
23	AY	42	C	C6-N1-C2	7.14	123.16	120.30
35	DA	1164	G	C5-C6-N1	-7.14	107.93	111.50
35	DA	2838	G	C6-C5-N7	7.14	134.68	130.40
35	DA	586	A	N1-C2-N3	-7.13	125.73	129.30
35	DA	2578	G	C5-C6-O6	-7.13	124.32	128.60
1	AA	1499	A	N9-C4-C5	-7.13	102.95	105.80
1	AA	834	C	C6-N1-C2	7.13	123.15	120.30
35	DA	1544	A	C5-N7-C8	7.13	107.47	103.90
35	DA	2199	A	C8-N9-C4	-7.13	102.95	105.80
35	DA	702	G	N9-C4-C5	-7.13	102.55	105.40
1	AA	1495	U	O5'-P-OP1	-7.13	99.28	105.70
35	DA	1531	C	C5-C6-N1	7.12	124.56	121.00
35	BA	2522	U	C5-C6-N1	-7.12	119.14	122.70
35	DA	2639	A	C5-N7-C8	-7.12	100.34	103.90
35	DA	134	C	C5-C6-N1	-7.12	117.44	121.00
35	DA	2055	C	C2-N1-C1'	7.12	126.63	118.80
35	DA	2278	A	N1-C6-N6	-7.12	114.33	118.60
35	DA	1451	C	C2-N1-C1'	7.12	126.63	118.80
35	DA	1633	G	N1-C6-O6	7.12	124.17	119.90
35	BA	2592	G	C8-N9-C4	-7.12	103.55	106.40
35	DA	2361	A	C8-N9-C4	7.12	108.65	105.80
1	AA	1504	G	O4'-C1'-N9	7.11	113.89	108.20
35	BA	84	A	C2-N3-C4	7.11	114.16	110.60
35	BA	2087	G	C6-C5-N7	-7.11	126.13	130.40
35	DA	1779	U	N1-C2-N3	7.11	119.17	114.90
35	DA	2552	U	N1-C2-O2	-7.11	117.82	122.80
35	DA	1942	C	C5-C6-N1	7.11	124.56	121.00
35	BA	2376	A	C5-C6-N1	7.11	121.25	117.70
35	DA	1961	C	C6-N1-C2	7.11	123.14	120.30
35	DA	838	C	C6-N1-C2	7.11	123.14	120.30
35	DA	2837	G	C8-N9-C4	-7.11	103.56	106.40
35	BA	2392	A	C5-C6-N1	-7.11	114.15	117.70
35	DA	57	C	C6-N1-C2	7.11	123.14	120.30
35	DA	1241	A	C6-N1-C2	7.11	122.86	118.60
39	DE	37	ARG	C-N-CA	7.11	139.47	121.70
35	BA	253	C	N3-C2-O2	-7.10	116.93	121.90
35	DA	272(B)	G	C8-N9-C1'	7.10	136.23	127.00
35	BA	1937	A	N7-C8-N9	-7.10	110.25	113.80
35	DA	568	U	O4'-C1'-N1	7.10	113.88	108.20
35	DA	1811	G	N3-C2-N2	-7.10	114.93	119.90
35	DA	812	C	C5-C6-N1	-7.10	117.45	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	1616	A	OP1-P-O3'	7.10	120.82	105.20
1	CA	1530	G	N3-C4-C5	7.10	132.15	128.60
35	BA	2592	G	O5'-P-OP2	-7.10	99.31	105.70
35	BA	1784	A	N9-C4-C5	-7.09	102.96	105.80
1	AA	702	A	N7-C8-N9	7.09	117.35	113.80
35	BA	570	G	C4-C5-N7	-7.09	107.96	110.80
35	BA	1769	G	N1-C6-O6	7.09	124.16	119.90
35	DA	1250	G	C8-N9-C4	-7.09	103.56	106.40
1	CA	685	G	N3-C4-C5	7.09	132.14	128.60
35	BA	1303	G	N1-C6-O6	7.09	124.15	119.90
35	DA	1765	C	C4-C5-C6	7.09	120.94	117.40
35	BA	16	G	C5-C6-N1	-7.09	107.96	111.50
35	DA	812	C	C2-N3-C4	-7.09	116.36	119.90
35	BA	856	C	C6-N1-C2	-7.08	117.47	120.30
35	DA	2712(A)	A	N1-C6-N6	7.08	122.85	118.60
36	DB	101	G	N9-C4-C5	-7.08	102.57	105.40
35	DA	2318	G	C5-N7-C8	-7.08	100.76	104.30
35	DA	2617	C	O5'-P-OP1	7.08	119.20	110.70
35	BA	666	G	C8-N9-C4	7.08	109.23	106.40
35	DA	2781	A	N1-C2-N3	7.08	132.84	129.30
1	AA	67	C	OP2-P-O3'	-7.08	89.63	105.20
1	AA	189(J)	G	O4'-C1'-N9	7.08	113.86	108.20
35	BA	1203	G	C8-N9-C4	7.08	109.23	106.40
26	D1	46	LEU	CA-CB-CG	-7.08	99.03	115.30
35	DA	203	C	N3-C4-C5	7.08	124.73	121.90
35	DA	330	A	C5-N7-C8	-7.08	100.36	103.90
35	DA	1605	C	O5'-P-OP1	-7.08	99.33	105.70
35	DA	1755	A	C2-N3-C4	-7.08	107.06	110.60
35	DA	1950	G	N3-C2-N2	-7.08	114.95	119.90
35	DA	2062	A	O4'-C1'-N9	7.08	113.86	108.20
35	DA	2442	C	N1-C2-N3	7.08	124.15	119.20
35	DA	1367	A	N1-C6-N6	7.07	122.84	118.60
1	CA	1189	C	N1-C2-O2	7.07	123.14	118.90
35	DA	1312	U	O5'-P-OP2	7.07	119.19	110.70
30	B5	3	LYS	C-N-CA	7.07	139.38	121.70
35	DA	2403	C	C6-N1-C2	-7.07	117.47	120.30
1	AA	1057	G	C8-N9-C4	7.07	109.23	106.40
23	AW	38	A	N7-C8-N9	7.07	117.33	113.80
35	BA	1493	C	C5-C6-N1	7.07	124.53	121.00
35	DA	458	G	N3-C4-N9	-7.07	121.76	126.00
35	BA	1698	A	N7-C8-N9	7.07	117.33	113.80
35	BA	2392	A	N7-C8-N9	7.07	117.33	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	271(B)	C	N3-C4-C5	7.06	124.73	121.90
35	DA	391	G	C4-C5-N7	7.06	113.62	110.80
35	BA	1357	U	C4-C5-C6	7.06	123.94	119.70
35	DA	2294	C	C6-N1-C2	-7.06	117.47	120.30
1	CA	671	G	N1-C6-O6	-7.06	115.67	119.90
35	DA	263	C	N3-C2-O2	-7.06	116.96	121.90
35	DA	148	C	C2-N1-C1'	-7.06	111.04	118.80
35	DA	421	U	N1-C2-O2	7.06	127.74	122.80
55	DW	51	LEU	CA-CB-CG	7.06	131.53	115.30
35	DA	2064	C	C6-N1-C2	7.06	123.12	120.30
35	BA	645	C	C6-N1-C1'	-7.05	112.33	120.80
35	BA	2508	G	N3-C4-N9	7.05	130.23	126.00
35	DA	1314	C	C2-N1-C1'	7.05	126.56	118.80
1	AA	754	C	N3-C2-O2	-7.05	116.96	121.90
35	BA	89	G	C4-C5-N7	7.05	113.62	110.80
35	BA	785	G	N3-C2-N2	-7.05	114.97	119.90
35	DA	179	G	N1-C2-N3	7.05	128.13	123.90
35	DA	492	A	O5'-P-OP2	-7.05	99.35	105.70
35	DA	1244	G	N7-C8-N9	-7.05	109.58	113.10
35	DA	527	C	N3-C4-N4	7.05	122.93	118.00
47	BO	8	LEU	CA-CB-CG	7.05	131.51	115.30
35	DA	936	C	C6-N1-C2	7.05	123.12	120.30
35	BA	55	G	C8-N9-C4	-7.04	103.58	106.40
35	BA	1678	G	C8-N9-C4	-7.04	103.58	106.40
35	BA	2697	G	N7-C8-N9	7.04	116.62	113.10
35	DA	127	A	N1-C6-N6	7.04	122.83	118.60
35	DA	1687	G	N1-C6-O6	-7.04	115.67	119.90
35	DA	242	G	O5'-P-OP2	-7.04	99.36	105.70
35	DA	651	G	C4-N9-C1'	7.04	135.66	126.50
1	AA	279	A	C4-C5-N7	7.04	114.22	110.70
35	BA	1249	U	N3-C4-O4	-7.04	114.47	119.40
35	BA	2779	U	OP1-P-OP2	7.04	130.16	119.60
35	DA	1325	G	C6-C5-N7	-7.04	126.18	130.40
35	DA	1994	C	N1-C2-O2	-7.04	114.68	118.90
35	DA	623	G	C8-N9-C4	7.04	109.22	106.40
35	BA	502	A	N1-C6-N6	-7.04	114.38	118.60
35	BA	1066	U	C6-N1-C1'	-7.04	111.35	121.20
35	DA	1900	A	C8-N9-C4	-7.03	102.99	105.80
35	DA	111	A	N1-C6-N6	7.03	122.82	118.60
35	DA	2588	G	N1-C2-N3	7.03	128.12	123.90
35	BA	733	G	C5-C6-O6	-7.03	124.38	128.60
1	CA	387	U	O5'-P-OP2	-7.03	99.37	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	1241	A	N9-C4-C5	-7.03	102.99	105.80
35	DA	2083	G	N9-C4-C5	-7.03	102.59	105.40
38	DD	65	ILE	CG1-CB-CG2	-7.03	95.94	111.40
39	DE	119	ARG	NE-CZ-NH1	-7.03	116.79	120.30
35	DA	245	G	N1-C6-O6	7.02	124.11	119.90
35	BA	2238	G	OP1-P-OP2	7.02	130.13	119.60
1	AA	5	U	O4'-C1'-N1	7.02	113.82	108.20
35	BA	139	G	O4'-C1'-N9	7.02	113.81	108.20
24	CX	23	A	O4'-C1'-N9	7.02	113.82	108.20
36	BB	21	G	N3-C4-N9	7.01	130.21	126.00
55	BW	82	LEU	CB-CG-CD1	7.01	122.92	111.00
35	DA	786	C	C5-C6-N1	-7.01	117.49	121.00
35	BA	200	U	C4-C5-C6	7.01	123.91	119.70
1	AA	756	C	C6-N1-C2	7.01	123.11	120.30
22	AV	74	A	O5'-P-OP2	-7.01	99.39	105.70
35	BA	1294	U	C5-C6-N1	-7.01	119.19	122.70
35	DA	380	U	C5-C6-N1	-7.01	119.19	122.70
35	DA	487	C	C6-N1-C2	-7.01	117.50	120.30
35	DA	2287	A	C5-C6-N1	-7.01	114.19	117.70
35	BA	1678	G	C4-C5-N7	7.01	113.60	110.80
1	CA	903	G	O5'-P-OP2	-7.01	99.39	105.70
35	DA	1824	G	C5-C6-O6	-7.01	124.39	128.60
35	BA	1239	G	C4-C5-N7	7.01	113.60	110.80
35	BA	1575	C	C6-N1-C2	-7.01	117.50	120.30
35	DA	2232	U	C5-C4-O4	7.01	130.10	125.90
1	CA	1437	C	N1-C2-O2	7.01	123.10	118.90
1	CA	301	G	O5'-P-OP2	-7.00	99.39	105.70
1	AA	365	U	C5-C4-O4	7.00	130.10	125.90
35	BA	454	A	N1-C6-N6	7.00	122.80	118.60
35	DA	790	C	C6-N1-C2	7.00	123.10	120.30
35	DA	945	A	P-O3'-C3'	7.00	128.10	119.70
35	DA	1544	A	C8-N9-C1'	7.00	140.30	127.70
35	DA	2242	G	O5'-P-OP2	-7.00	99.40	105.70
35	BA	1358	G	N3-C2-N2	7.00	124.80	119.90
35	DA	2612	C	C5-C6-N1	-7.00	117.50	121.00
32	B7	5	TRP	C-N-CA	7.00	139.19	121.70
1	AA	356	A	N9-C4-C5	6.99	108.60	105.80
35	DA	935	C	C5-C6-N1	-6.99	117.50	121.00
35	DA	1374	G	C5-C6-O6	-6.99	124.40	128.60
35	BA	1245	G	O5'-P-OP1	6.99	119.09	110.70
35	BA	1835	G	N3-C4-C5	-6.99	125.11	128.60
35	BA	589	C	O5'-P-OP1	-6.99	99.41	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	CX	14	A	O4'-C1'-N9	6.99	113.79	108.20
35	DA	1351	C	OP2-P-O3'	6.99	120.57	105.20
35	BA	804	A	C2-N3-C4	-6.99	107.11	110.60
35	BA	1332	G	N1-C2-N2	-6.99	109.91	116.20
35	BA	2430	A	N3-C4-C5	6.99	131.69	126.80
35	DA	309	G	N3-C4-N9	6.99	130.19	126.00
35	DA	2008	C	N1-C2-O2	6.99	123.09	118.90
35	DA	2724	C	N1-C2-O2	-6.99	114.71	118.90
1	CA	866	C	O5'-P-OP1	-6.98	99.41	105.70
35	DA	1804	C	C2-N1-C1'	-6.98	111.12	118.80
1	AA	190	U	N3-C4-C5	-6.98	110.41	114.60
35	BA	1322	A	C8-N9-C4	6.98	108.59	105.80
35	BA	970	C	O5'-P-OP1	-6.98	99.42	105.70
35	DA	216	A	C8-N9-C4	6.98	108.59	105.80
35	BA	2318	G	O4'-C1'-N9	6.98	113.78	108.20
1	AA	299	G	C5-C6-O6	6.97	132.78	128.60
1	AA	1289	A	N1-C6-N6	-6.97	114.42	118.60
35	BA	128	C	C5-C6-N1	6.97	124.49	121.00
35	DA	201	C	C2-N3-C4	-6.97	116.41	119.90
35	DA	1493	C	C2-N3-C4	6.97	123.39	119.90
1	AA	912	C	C6-N1-C2	6.97	123.09	120.30
35	DA	2618	G	N7-C8-N9	6.97	116.58	113.10
35	BA	1326	U	OP1-P-O3'	-6.97	89.87	105.20
35	BA	1617	C	N3-C4-C5	-6.97	119.11	121.90
35	DA	1945	G	N9-C4-C5	-6.97	102.61	105.40
1	CA	115	G	P-O3'-C3'	6.96	128.06	119.70
35	DA	1432	C	O5'-P-OP1	-6.96	99.43	105.70
35	DA	1997	G	O5'-P-OP1	-6.96	99.43	105.70
35	BA	1955	U	C6-N1-C1'	-6.96	111.45	121.20
35	DA	1495	A	C6-C5-N7	-6.96	127.43	132.30
1	AA	481	G	N3-C4-C5	-6.96	125.12	128.60
35	BA	651	G	O4'-C1'-N9	-6.96	102.63	108.20
1	AA	1027	C	C6-N1-C2	-6.96	117.52	120.30
35	BA	2763	G	N3-C4-N9	6.96	130.17	126.00
1	CA	345	C	C6-N1-C2	-6.96	117.52	120.30
35	DA	113	G	C2-N3-C4	-6.96	108.42	111.90
36	DB	47	C	N3-C4-C5	6.96	124.68	121.90
36	BB	60	C	C6-N1-C2	-6.96	117.52	120.30
35	DA	2443	C	C6-N1-C2	6.96	123.08	120.30
35	BA	785	G	N1-C6-O6	6.95	124.07	119.90
1	AA	654	G	C8-N9-C4	-6.95	103.62	106.40
35	BA	142	A	O4'-C1'-N9	6.95	113.76	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	933	A	C6-C5-N7	-6.95	127.43	132.30
35	DA	2567	G	C8-N9-C4	6.95	109.18	106.40
35	DA	1403	C	N3-C2-O2	-6.95	117.04	121.90
1	AA	780	A	OP1-P-O3'	6.95	120.48	105.20
35	BA	259	G	C6-C5-N7	-6.94	126.23	130.40
35	BA	2067	G	C5-C6-N1	6.94	114.97	111.50
23	CW	70	G	C8-N9-C4	-6.94	103.62	106.40
35	BA	1056	G	O4'-C1'-N9	6.94	113.75	108.20
35	BA	1322	A	N1-C6-N6	-6.94	114.44	118.60
35	DA	146	G	C5-C6-O6	-6.94	124.44	128.60
35	DA	1945	G	N3-C4-N9	6.94	130.16	126.00
26	B1	86	SER	C-N-CD	-6.94	105.34	120.60
35	BA	2688	U	N1-C2-O2	6.94	127.66	122.80
35	DA	11	G	N3-C2-N2	-6.94	115.04	119.90
35	DA	349	G	N3-C4-N9	-6.94	121.84	126.00
35	DA	1332	G	N9-C4-C5	6.94	108.17	105.40
1	CA	1422	G	C8-N9-C1'	-6.94	117.98	127.00
1	AA	244	U	N3-C4-C5	6.93	118.76	114.60
1	CA	538	G	N3-C4-C5	-6.93	125.13	128.60
35	DA	989	G	C4-C5-N7	6.93	113.57	110.80
35	DA	1197	G	C8-N9-C4	6.93	109.17	106.40
35	DA	2821	A	C6-C5-N7	-6.93	127.45	132.30
35	BA	1049	C	C6-N1-C2	-6.93	117.53	120.30
1	CA	537	G	C8-N9-C4	-6.93	103.63	106.40
35	DA	2569	G	O5'-P-OP2	-6.93	99.46	105.70
35	BA	1775	U	O5'-P-OP1	-6.93	99.46	105.70
35	DA	662	G	C6-C5-N7	-6.93	126.24	130.40
36	DB	53	A	C8-N9-C4	-6.93	103.03	105.80
1	AA	926	G	C5-N7-C8	-6.93	100.83	104.30
36	BB	1	U	N1-C2-O2	6.93	127.65	122.80
35	DA	792	G	N9-C4-C5	6.93	108.17	105.40
35	DA	1740	G	C8-N9-C4	6.93	109.17	106.40
35	BA	1448	G	N3-C4-N9	6.93	130.16	126.00
35	BA	2384	G	O5'-P-OP2	-6.93	99.47	105.70
35	DA	1017	G	C4-C5-N7	6.93	113.57	110.80
35	DA	1595	G	N1-C2-N3	6.92	128.05	123.90
35	DA	197	A	O5'-P-OP1	-6.92	99.47	105.70
35	DA	2271	G	N9-C4-C5	-6.92	102.63	105.40
1	AA	561	U	C6-N1-C1'	-6.92	111.51	121.20
35	BA	2549	G	N3-C4-N9	6.92	130.15	126.00
35	DA	2864	G	N7-C8-N9	6.92	116.56	113.10
35	BA	1575	C	N3-C4-C5	-6.92	119.13	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	84	A	N9-C4-C5	6.92	108.57	105.80
35	BA	993	G	N1-C6-O6	-6.92	115.75	119.90
36	BB	21	G	O4'-C1'-N9	6.92	113.73	108.20
35	DA	784	A	C2-N3-C4	-6.92	107.14	110.60
35	BA	845	G	C4-N9-C1'	6.92	135.49	126.50
35	DA	798	G	C5-C6-O6	-6.92	124.45	128.60
35	DA	1545	A	O5'-P-OP1	-6.92	99.48	105.70
35	BA	1322	A	C6-C5-N7	6.92	137.14	132.30
35	BA	145	G	C8-N9-C4	6.91	109.17	106.40
1	CA	572	A	N7-C8-N9	-6.91	110.34	113.80
35	BA	2779	U	C5-C4-O4	6.91	130.05	125.90
35	DA	397	G	C8-N9-C4	6.91	109.17	106.40
35	DA	2395	C	N1-C2-O2	6.91	123.05	118.90
35	BA	2584	U	N1-C2-O2	6.91	127.64	122.80
23	CY	38	A	N1-C6-N6	6.91	122.75	118.60
35	DA	774	A	C5-C6-N1	-6.91	114.25	117.70
35	BA	1743	C	N3-C2-O2	-6.91	117.06	121.90
35	BA	946	G	N7-C8-N9	-6.91	109.65	113.10
36	DB	76	G	C8-N9-C4	6.91	109.16	106.40
35	BA	1719	G	N3-C4-C5	-6.90	125.15	128.60
1	AA	1484	C	C6-N1-C2	6.90	123.06	120.30
35	BA	272(H)	C	P-O3'-C3'	6.90	127.98	119.70
35	BA	2358	G	N1-C6-O6	6.90	124.04	119.90
1	CA	529	G	C5-C6-N1	-6.90	108.05	111.50
35	DA	247	G	N1-C6-O6	6.90	124.04	119.90
35	DA	1776	G	N3-C4-N9	6.90	130.14	126.00
1	AA	190	U	C6-N1-C2	-6.90	116.86	121.00
35	BA	2386	C	N3-C2-O2	6.90	126.73	121.90
35	DA	572	A	N1-C6-N6	-6.90	114.46	118.60
35	DA	1652	A	N1-C6-N6	6.90	122.74	118.60
35	DA	1950	G	N1-C6-O6	6.90	124.04	119.90
35	DA	2050	C	C5-C6-N1	-6.90	117.55	121.00
1	AA	203	U	C6-N1-C2	-6.90	116.86	121.00
1	AA	49	U	C6-N1-C2	6.90	125.14	121.00
35	BA	1379	A	C4-C5-N7	6.90	114.15	110.70
35	DA	2274	A	N1-C6-N6	6.90	122.74	118.60
35	DA	2662	A	P-O3'-C3'	6.90	127.98	119.70
35	DA	2448	A	C8-N9-C1'	-6.89	115.29	127.70
35	BA	1187	G	C4-N9-C1'	6.89	135.46	126.50
35	DA	945	A	C4-C5-C6	6.89	120.45	117.00
35	BA	426	C	C5-C6-N1	-6.89	117.55	121.00
35	DA	2072	G	N1-C6-O6	6.89	124.03	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	973	A	O5'-P-OP1	-6.89	99.50	105.70
1	AA	1482	G	C8-N9-C1'	-6.89	118.05	127.00
1	AA	250	A	N7-C8-N9	6.88	117.24	113.80
35	BA	2578	G	C4-C5-N7	-6.88	108.05	110.80
1	CA	1126	U	C5-C6-N1	6.88	126.14	122.70
36	DB	82	G	O5'-P-OP2	-6.88	99.50	105.70
35	DA	2231	C	C4-C5-C6	6.88	120.84	117.40
1	AA	162	A	N3-C4-N9	6.88	132.91	127.40
1	CA	1529	G	N3-C4-C5	-6.88	125.16	128.60
1	AA	1313	U	C2-N1-C1'	6.88	125.96	117.70
35	BA	2208	A	N7-C8-N9	6.88	117.24	113.80
49	DQ	9	TYR	CB-CG-CD2	-6.88	116.87	121.00
35	DA	679	C	C2-N3-C4	-6.88	116.46	119.90
35	DA	1778	U	C6-N1-C2	6.88	125.13	121.00
1	AA	481	G	C4-C5-C6	6.88	122.93	118.80
1	CA	1108	G	C5-C6-O6	6.88	132.72	128.60
35	DA	208	C	C2-N3-C4	-6.88	116.46	119.90
35	DA	1756	G	C8-N9-C4	-6.88	103.65	106.40
23	AY	42	C	C4-C5-C6	6.88	120.84	117.40
35	BA	975	C	C6-N1-C2	-6.88	117.55	120.30
1	CA	1519	A	C8-N9-C4	-6.88	103.05	105.80
35	DA	2447	G	N1-C2-N3	6.88	128.03	123.90
1	AA	1030	C	C2-N1-C1'	6.87	126.36	118.80
35	BA	1819	A	P-O3'-C3'	6.87	127.95	119.70
35	BA	2597	G	C5-C6-O6	-6.87	124.48	128.60
22	CV	13	C	N3-C4-C5	-6.87	119.15	121.90
35	DA	2404	C	N3-C4-N4	-6.87	113.19	118.00
35	BA	612	C	C6-N1-C2	6.87	123.05	120.30
35	DA	2495	G	C8-N9-C4	6.87	109.15	106.40
35	DA	310	A	O5'-P-OP1	-6.87	99.52	105.70
35	DA	139	G	C6-C5-N7	-6.87	126.28	130.40
1	AA	234	C	O5'-P-OP1	6.87	118.94	110.70
1	CA	813	U	N3-C4-C5	6.87	118.72	114.60
35	DA	1256	G	C6-C5-N7	-6.87	126.28	130.40
35	DA	1439	A	N7-C8-N9	-6.87	110.37	113.80
35	DA	1776	G	N3-C4-C5	-6.87	125.17	128.60
35	DA	1997	G	OP1-P-OP2	6.87	129.90	119.60
35	BA	933	A	N7-C8-N9	6.86	117.23	113.80
35	DA	1314	C	C6-N1-C1'	-6.86	112.56	120.80
35	DA	2058	A	N9-C4-C5	6.86	108.55	105.80
35	DA	2252	G	N7-C8-N9	-6.86	109.67	113.10
48	DP	85	LEU	CA-CB-CG	6.86	131.08	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	242	G	O4'-C1'-N9	6.86	113.69	108.20
35	BA	742	G	C6-C5-N7	6.86	134.52	130.40
35	DA	754	C	N3-C4-C5	6.86	124.64	121.90
35	BA	1926	U	N3-C4-C5	-6.86	110.48	114.60
27	D2	35	LEU	CA-CB-CG	6.86	131.08	115.30
35	DA	513	A	N9-C4-C5	6.86	108.54	105.80
35	BA	1992	G	N3-C4-C5	-6.86	125.17	128.60
36	DB	101	G	N7-C8-N9	-6.86	109.67	113.10
1	AA	250	A	C8-N9-C4	-6.86	103.06	105.80
35	DA	770	G	C5-C6-O6	-6.86	124.49	128.60
35	BA	1355	G	N3-C4-N9	6.85	130.11	126.00
36	BB	17	C	N1-C2-O2	6.85	123.01	118.90
35	DA	1021	A	N3-C4-N9	-6.85	121.92	127.40
35	DA	1652	A	C6-C5-N7	-6.85	127.50	132.30
35	BA	1140	C	N3-C2-O2	-6.85	117.11	121.90
1	CA	1495	U	O5'-P-OP2	-6.85	99.54	105.70
1	AA	307	C	C6-N1-C2	6.85	123.04	120.30
1	AA	452	A	O5'-P-OP1	-6.85	99.54	105.70
35	BA	2351	G	C8-N9-C4	-6.85	103.66	106.40
1	CA	671	G	C5-C6-N1	6.85	114.92	111.50
35	DA	271(B)	C	C6-N1-C2	6.85	123.04	120.30
35	DA	103	A	C8-N9-C4	6.85	108.54	105.80
35	BA	1244	G	C5-C6-O6	-6.84	124.49	128.60
35	BA	2031	A	N9-C4-C5	6.84	108.54	105.80
36	BB	40	U	P-O3'-C3'	6.84	127.91	119.70
35	DA	607	U	O5'-P-OP2	6.84	118.91	110.70
35	DA	670	A	O4'-C1'-N9	-6.84	102.72	108.20
35	DA	1670	C	C6-N1-C2	-6.84	117.56	120.30
1	AA	364	A	N1-C2-N3	6.84	132.72	129.30
1	AA	819	A	C2-N3-C4	-6.84	107.18	110.60
35	BA	2438	U	C5-C6-N1	-6.84	119.28	122.70
1	AA	902	G	N1-C6-O6	6.84	124.00	119.90
35	BA	642	G	N3-C4-N9	-6.84	121.90	126.00
35	BA	1267	U	O5'-P-OP2	-6.84	99.54	105.70
35	BA	2260	C	N3-C4-C5	-6.84	119.16	121.90
1	CA	860	A	N1-C6-N6	6.84	122.70	118.60
35	DA	34	C	N3-C4-C5	-6.84	119.16	121.90
35	BA	1049	C	C2-N1-C1'	6.84	126.32	118.80
35	DA	2238	G	C2-N3-C4	6.84	115.32	111.90
35	BA	2768	C	N1-C2-O2	-6.84	114.80	118.90
35	BA	208	C	C6-N1-C2	6.83	123.03	120.30
35	BA	1960	A	N1-C6-N6	6.83	122.70	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1057	G	N3-C4-C5	6.83	132.02	128.60
35	BA	394	A	C2-N3-C4	-6.83	107.18	110.60
35	BA	1302	A	N9-C4-C5	6.83	108.53	105.80
1	AA	189(B)	C	N3-C2-O2	-6.83	117.12	121.90
35	BA	1313	U	C5-C6-N1	6.83	126.12	122.70
35	BA	1974	C	C6-N1-C2	6.83	123.03	120.30
35	BA	2540	C	N1-C2-O2	6.83	123.00	118.90
35	BA	786	C	N3-C4-C5	6.83	124.63	121.90
35	BA	786	C	C2-N1-C1'	-6.83	111.29	118.80
1	CA	313	A	N1-C6-N6	-6.83	114.50	118.60
35	DA	1989	G	N3-C2-N2	-6.83	115.12	119.90
35	DA	1301	A	OP1-P-OP2	6.83	129.84	119.60
22	AV	48	U	C5-C6-N1	6.83	126.11	122.70
35	DA	1753	G	O5'-P-OP1	-6.83	99.56	105.70
36	DB	8	U	C2-N3-C4	6.83	131.10	127.00
35	BA	470	A	O5'-P-OP1	6.82	118.89	110.70
35	BA	2817	G	N1-C6-O6	-6.82	115.81	119.90
35	DA	1022	G	C8-N9-C4	-6.82	103.67	106.40
35	DA	1911	U	N3-C2-O2	-6.82	117.42	122.20
35	BA	1787	A	O5'-P-OP1	-6.82	99.56	105.70
35	BA	518	G	C8-N9-C4	-6.82	103.67	106.40
35	BA	859	G	N1-C6-O6	6.82	123.99	119.90
35	BA	2327	A	N1-C6-N6	6.82	122.69	118.60
35	DA	2253	G	O4'-C1'-N9	6.82	113.66	108.20
35	BA	1349	A	N1-C6-N6	6.82	122.69	118.60
35	DA	2510	C	N3-C4-C5	6.82	124.63	121.90
1	AA	1512	U	O5'-P-OP2	-6.82	99.56	105.70
1	CA	621	A	N9-C4-C5	6.82	108.53	105.80
35	DA	272	G	C5-C6-N1	6.82	114.91	111.50
35	DA	1051	G	N7-C8-N9	6.82	116.51	113.10
35	BA	1031	G	N9-C4-C5	-6.82	102.67	105.40
35	DA	1782	C	O5'-P-OP2	-6.82	99.57	105.70
35	DA	2554	U	N1-C2-O2	-6.82	118.03	122.80
35	DA	525	U	C5-C6-N1	-6.81	119.29	122.70
35	BA	804	A	C8-N9-C4	6.81	108.53	105.80
35	DA	836	G	N7-C8-N9	6.81	116.51	113.10
35	DA	1353	A	C4-C5-C6	6.81	120.41	117.00
56	DX	27	THR	OG1-CB-CG2	6.81	125.67	110.00
1	AA	422	C	C2-N1-C1'	6.81	126.29	118.80
35	DA	1618	A	O5'-P-OP1	-6.81	99.57	105.70
1	AA	281	G	N1-C6-O6	6.81	123.98	119.90
36	BB	41	U	N1-C2-O2	6.81	127.56	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	812	C	C2-N1-C1'	6.81	126.29	118.80
35	DA	2199	A	O5'-P-OP1	-6.81	99.57	105.70
35	DA	548	A	N9-C4-C5	-6.80	103.08	105.80
1	AA	226	G	C8-N9-C4	6.80	109.12	106.40
35	DA	123	G	C5-C6-O6	-6.80	124.52	128.60
35	BA	1261	C	O5'-P-OP1	-6.80	99.58	105.70
35	DA	1616	A	O4'-C1'-N9	6.80	113.64	108.20
35	DA	2424	C	OP1-P-OP2	6.80	129.79	119.60
35	BA	1660	C	N3-C2-O2	-6.79	117.14	121.90
1	CA	222	U	N3-C2-O2	-6.79	117.44	122.20
35	DA	182	A	C5-C6-N6	-6.79	118.26	123.70
35	BA	1358	G	N3-C4-N9	6.79	130.08	126.00
35	BA	2031	A	P-O3'-C3'	-6.79	111.55	119.70
36	BB	1	U	C2-N1-C1'	6.79	125.85	117.70
1	CA	1400	C	N3-C2-O2	6.79	126.66	121.90
35	DA	1787	A	N1-C2-N3	6.79	132.70	129.30
35	DA	2417	C	O5'-P-OP1	6.79	118.85	110.70
48	DP	18	ARG	NE-CZ-NH1	-6.79	116.91	120.30
35	BA	528	A	C5-N7-C8	-6.79	100.50	103.90
35	BA	1638	C	C6-N1-C2	-6.79	117.58	120.30
35	DA	1779	U	C6-N1-C1'	6.79	130.70	121.20
35	BA	568	U	N1-C2-N3	6.79	118.97	114.90
1	CA	773	G	N1-C6-O6	-6.79	115.83	119.90
35	DA	656	G	C5'-C4'-C3'	6.79	126.86	116.00
1	CA	1259	C	C2-N1-C1'	6.78	126.26	118.80
35	DA	1986	A	N1-C2-N3	6.78	132.69	129.30
35	BA	445	C	C6-N1-C2	6.78	123.01	120.30
35	DA	1559	G	C2-N3-C4	-6.78	108.51	111.90
1	AA	172	A	C5-N7-C8	-6.78	100.51	103.90
1	AA	1392	G	O5'-P-OP2	-6.78	99.60	105.70
35	BA	1755	A	N1-C6-N6	-6.78	114.53	118.60
35	BA	2081	C	O5'-P-OP2	-6.78	99.60	105.70
35	DA	1784	A	C2-N3-C4	-6.78	107.21	110.60
35	DA	146	G	O5'-P-OP2	-6.78	99.60	105.70
35	BA	1332	G	N1-C6-O6	6.78	123.97	119.90
1	CA	893	C	C6-N1-C2	6.78	123.01	120.30
35	DA	1250	G	N9-C4-C5	6.78	108.11	105.40
35	BA	781	A	N1-C6-N6	6.78	122.67	118.60
35	BA	1065	U	P-O3'-C3'	6.78	127.83	119.70
35	BA	2713	A	N3-C4-C5	6.78	131.54	126.80
35	DA	2662	A	OP2-P-O3'	6.78	120.11	105.20
35	DA	772	C	N3-C4-C5	-6.77	119.19	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	793	A	C5-N7-C8	-6.77	100.51	103.90
36	BB	17	C	N3-C2-O2	-6.77	117.16	121.90
53	BU	33	ARG	NE-CZ-NH1	6.77	123.69	120.30
35	DA	1661	G	C5-C6-N1	6.77	114.89	111.50
35	DA	2650	U	C5-C6-N1	-6.77	119.31	122.70
1	CA	108	G	O4'-C1'-N9	6.77	113.62	108.20
35	DA	1779	U	O4'-C1'-N1	6.77	113.62	108.20
35	DA	385	C	N3-C4-C5	-6.77	119.19	121.90
35	BA	1528	A	N7-C8-N9	6.77	117.18	113.80
1	AA	1518	A	N7-C8-N9	6.76	117.18	113.80
35	BA	395	U	N3-C2-O2	-6.76	117.46	122.20
35	BA	530	G	N1-C6-O6	-6.76	115.84	119.90
35	BA	2386	C	C6-N1-C2	6.76	123.01	120.30
35	DA	193	U	N3-C4-O4	6.76	124.14	119.40
35	BA	2033	A	O4'-C1'-N9	6.76	113.61	108.20
35	DA	1380	G	C8-N9-C4	6.76	109.11	106.40
35	DA	1640	C	OP1-P-OP2	-6.76	109.46	119.60
35	DA	2590	A	N3-C4-C5	6.76	131.53	126.80
1	AA	977	A	C6-C5-N7	-6.76	127.57	132.30
1	AA	1456	G	C2-N3-C4	6.76	115.28	111.90
35	BA	698	C	N1-C2-O2	-6.76	114.84	118.90
35	BA	1602	U	C2-N3-C4	6.76	131.06	127.00
35	DA	189	G	C6-C5-N7	-6.76	126.34	130.40
35	BA	82	G	P-O3'-C3'	6.76	127.81	119.70
35	BA	2545	G	C4-N9-C1'	6.76	135.28	126.50
27	D2	16	LEU	CA-CB-CG	6.76	130.84	115.30
35	DA	694	U	C5-C6-N1	-6.76	119.32	122.70
35	BA	2244	U	C4-C5-C6	6.75	123.75	119.70
35	DA	1243	G	C6-C5-N7	-6.75	126.35	130.40
1	AA	977	A	C4-C5-N7	6.75	114.08	110.70
8	AH	138	TRP	CA-CB-CG	6.75	126.53	113.70
35	BA	630	G	C8-N9-C4	6.75	109.10	106.40
35	DA	126	A	C8-N9-C4	-6.75	103.10	105.80
35	DA	1142(A)	A	N1-C2-N3	6.75	132.68	129.30
35	DA	2477	C	C6-N1-C2	-6.75	117.60	120.30
35	BA	783	A	C8-N9-C4	-6.75	103.10	105.80
35	DA	446	G	C5-C6-O6	-6.75	124.55	128.60
35	DA	1661	G	N3-C4-N9	6.75	130.05	126.00
35	DA	1902	C	N3-C2-O2	-6.75	117.17	121.90
35	BA	1248	G	C5-C6-O6	-6.75	124.55	128.60
1	CA	1305	G	N3-C4-N9	-6.75	121.95	126.00
35	DA	928	G	C5-C6-N1	-6.75	108.13	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	1624	G	C8-N9-C4	6.75	109.10	106.40
1	CA	902	G	O5'-P-OP2	-6.75	99.63	105.70
35	DA	1063	G	N3-C4-C5	-6.75	125.23	128.60
35	BA	105	C	N3-C4-N4	6.74	122.72	118.00
35	BA	509	C	N3-C2-O2	-6.74	117.18	121.90
35	BA	1545	A	C2-N3-C4	6.74	113.97	110.60
35	DA	125	G	C5-C6-O6	-6.74	124.56	128.60
35	BA	2383	G	N9-C4-C5	-6.74	102.70	105.40
35	BA	1325	G	C5-C6-O6	-6.74	124.56	128.60
35	BA	1666	G	O4'-C1'-N9	6.74	113.59	108.20
32	D7	23	ARG	C-N-CA	6.74	138.55	121.70
35	DA	1407	C	N1-C2-O2	-6.74	114.86	118.90
22	AV	77	A	N9-C4-C5	-6.74	103.11	105.80
23	AY	38	A	C4-C5-N7	6.74	114.07	110.70
35	BA	74	A	C8-N9-C4	-6.74	103.11	105.80
35	BA	1779	U	C2-N1-C1'	-6.74	109.62	117.70
35	DA	975	C	N1-C1'-C2'	6.74	122.76	114.00
43	DI	38	LEU	CA-CB-CG	6.74	130.79	115.30
35	DA	58	G	N1-C6-O6	6.73	123.94	119.90
1	AA	189(J)	G	N3-C4-N9	6.73	130.04	126.00
35	BA	511	U	C6-N1-C2	-6.73	116.96	121.00
35	BA	1393	A	C5-C6-N6	-6.73	118.31	123.70
35	DA	1648	C	N3-C2-O2	6.73	126.61	121.90
1	AA	977	A	N7-C8-N9	6.73	117.17	113.80
35	BA	552	G	N9-C4-C5	-6.73	102.71	105.40
35	BA	1276	A	C6-N1-C2	6.73	122.64	118.60
35	BA	1606	G	N9-C4-C5	-6.73	102.71	105.40
1	CA	1396	A	N1-C6-N6	-6.73	114.56	118.60
35	DA	2574	G	C5-C6-O6	-6.73	124.56	128.60
35	BA	594	U	N1-C2-N3	6.73	118.94	114.90
35	BA	2070	G	N1-C2-N3	6.73	127.94	123.90
1	CA	291	C	C2-N1-C1'	-6.73	111.40	118.80
35	DA	2761	G	C8-N9-C1'	-6.73	118.25	127.00
35	DA	214	G	O4'-C1'-N9	6.73	113.58	108.20
35	BA	494	G	C5-C6-N1	-6.72	108.14	111.50
1	CA	1413	A	N1-C6-N6	-6.72	114.56	118.60
35	DA	1777	U	N3-C4-O4	6.72	124.11	119.40
35	DA	2065	C	C6-N1-C2	6.72	122.99	120.30
1	AA	708	C	C6-N1-C2	-6.72	117.61	120.30
35	BA	1239	G	C5-N7-C8	-6.72	100.94	104.30
35	DA	832	G	N1-C6-O6	-6.72	115.87	119.90
35	DA	933	A	N1-C6-N6	6.72	122.63	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
48	DP	36	LYS	CD-CE-NZ	6.72	127.16	111.70
35	BA	669	G	N3-C2-N2	-6.72	115.19	119.90
35	BA	471	A	N1-C2-N3	6.72	132.66	129.30
35	DA	1220	A	C5-C6-N6	6.72	129.08	123.70
35	DA	1742	G	N3-C4-N9	6.72	130.03	126.00
35	BA	2591	C	C6-N1-C2	-6.72	117.61	120.30
35	DA	1710	C	C6-N1-C2	6.72	122.99	120.30
35	DA	2287	A	N1-C2-N3	6.72	132.66	129.30
18	AR	31	LEU	CA-CB-CG	6.72	130.75	115.30
35	BA	804	A	N1-C6-N6	6.72	122.63	118.60
35	DA	862	G	C4-C5-N7	-6.71	108.11	110.80
35	DA	2553	G	C2-N3-C4	6.71	115.26	111.90
35	DA	2577	A	N1-C6-N6	-6.71	114.57	118.60
35	DA	746	A	N1-C6-N6	6.71	122.63	118.60
35	DA	2179	C	N1-C2-O2	6.71	122.93	118.90
1	AA	1402	C	C5-C6-N1	-6.71	117.64	121.00
35	DA	275	G	C4-N9-C1'	6.71	135.22	126.50
35	DA	1340	U	O5'-P-OP1	-6.71	99.66	105.70
35	DA	1921	G	N7-C8-N9	-6.71	109.74	113.10
1	AA	1160	G	N9-C4-C5	6.71	108.08	105.40
36	DB	112	U	C2-N1-C1'	-6.71	109.65	117.70
35	DA	298	G	N9-C4-C5	-6.71	102.72	105.40
35	DA	1594	G	N3-C2-N2	-6.71	115.20	119.90
35	DA	2207	G	N3-C4-C5	-6.71	125.25	128.60
35	BA	2078	C	O5'-P-OP1	-6.71	99.67	105.70
35	DA	139(A)	G	C4-C5-N7	6.71	113.48	110.80
1	AA	111	G	N9-C4-C5	-6.71	102.72	105.40
35	BA	952	G	N1-C6-O6	-6.71	115.88	119.90
35	BA	1138	G	N1-C6-O6	6.71	123.92	119.90
1	AA	44	G	C8-N9-C1'	-6.70	118.29	127.00
35	DA	635	C	C6-N1-C2	-6.70	117.62	120.30
35	BA	1655	A	N1-C6-N6	6.70	122.62	118.60
35	BA	94	C	C6-N1-C2	-6.70	117.62	120.30
35	BA	1258	C	N3-C2-O2	6.70	126.59	121.90
35	DA	2360	A	C5-N7-C8	-6.70	100.55	103.90
49	DQ	5	ARG	C-N-CA	6.70	138.45	121.70
36	BB	42	C	C6-N1-C2	6.70	122.98	120.30
1	CA	920	U	N1-C2-O2	6.70	127.49	122.80
35	BA	518	G	C6-C5-N7	-6.70	126.38	130.40
35	BA	2628	C	N1-C2-O2	6.70	122.92	118.90
35	BA	2791	C	N1-C2-O2	6.69	122.92	118.90
1	AA	384	G	C8-N9-C4	-6.69	103.72	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1441	G	C4-C5-C6	6.69	122.81	118.80
35	BA	1985	G	OP1-P-O3'	6.69	119.92	105.20
35	BA	2256	G	N1-C2-N2	-6.69	110.18	116.20
35	DA	372	G	C5-C6-N1	6.69	114.85	111.50
35	DA	391	G	N3-C4-N9	6.69	130.01	126.00
35	DA	452	G	N9-C4-C5	6.69	108.08	105.40
35	BA	539	G	C4'-C3'-O3'	6.69	126.38	113.00
35	BA	1239	G	C5-C6-O6	-6.69	124.58	128.60
35	BA	1957	C	C6-N1-C2	6.69	122.98	120.30
35	DA	132	G	N1-C6-O6	6.69	123.92	119.90
35	DA	652	C	O5'-P-OP1	6.69	118.73	110.70
1	AA	365	U	C6-N1-C1'	6.69	130.56	121.20
35	BA	614	U	N1-C2-N3	6.69	118.91	114.90
1	AA	897	C	C5-C6-N1	-6.69	117.66	121.00
35	BA	859	G	C2-N3-C4	-6.69	108.56	111.90
1	AA	697	U	C6-N1-C2	6.69	125.01	121.00
35	DA	2775	A	N1-C6-N6	6.69	122.61	118.60
1	AA	1159	U	C2-N1-C1'	6.68	125.72	117.70
35	BA	2763	G	N3-C4-C5	-6.68	125.26	128.60
1	CA	991	U	N1-C2-O2	6.68	127.48	122.80
35	DA	2024	G	N7-C8-N9	-6.68	109.76	113.10
35	BA	512	G	N3-C4-N9	-6.68	121.99	126.00
35	BA	2499	C	N3-C2-O2	-6.68	117.22	121.90
35	DA	782	A	N9-C4-C5	-6.68	103.13	105.80
1	CA	1054	C	N1-C1'-C2'	6.68	122.69	114.00
35	BA	446	G	C8-N9-C4	-6.68	103.73	106.40
35	BA	1330	C	C2-N1-C1'	6.68	126.15	118.80
35	BA	1448	G	O4'-C1'-N9	6.68	113.54	108.20
38	DD	95	LEU	CA-CB-CG	6.68	130.66	115.30
1	AA	1020	U	N1-C2-O2	6.68	127.47	122.80
35	BA	948	G	N1-C6-O6	6.68	123.91	119.90
35	BA	1283	G	C4-N9-C1'	6.68	135.18	126.50
35	BA	2437	U	C5-C4-O4	6.68	129.91	125.90
36	BB	56	G	N3-C4-N9	6.68	130.00	126.00
35	DA	681	G	N3-C4-N9	6.68	130.01	126.00
35	DA	1395	A	O4'-C1'-N9	6.68	113.54	108.20
35	DA	1783	A	N1-C6-N6	6.68	122.61	118.60
35	DA	2394	C	N3-C2-O2	-6.68	117.23	121.90
50	DR	75	LEU	CA-CB-CG	6.68	130.66	115.30
35	BA	1248	G	C8-N9-C4	6.67	109.07	106.40
35	BA	1276	A	C2-N3-C4	-6.67	107.26	110.60
35	DA	424	G	C6-N1-C2	-6.67	121.10	125.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	2878	U	C6-N1-C2	-6.67	117.00	121.00
35	BA	2495	G	N1-C6-O6	6.67	123.90	119.90
22	CV	67	C	C2-N1-C1'	6.67	126.14	118.80
35	BA	810	U	N1-C2-O2	-6.67	118.13	122.80
35	BA	1355	G	C4-C5-C6	6.67	122.80	118.80
35	BA	1548	C	C6-N1-C2	-6.67	117.63	120.30
1	CA	1367	C	C6-N1-C2	-6.67	117.63	120.30
35	DA	777	A	C6-N1-C2	-6.67	114.60	118.60
35	DA	2612	C	C2-N1-C1'	-6.67	111.46	118.80
35	BA	828	U	N3-C2-O2	-6.67	117.53	122.20
35	BA	1544	A	C5-N7-C8	6.67	107.23	103.90
1	CA	910	C	C6-N1-C2	6.67	122.97	120.30
35	DA	124	G	N3-C4-N9	6.67	130.00	126.00
35	DA	238	C	C5-C6-N1	-6.67	117.67	121.00
35	DA	2237	G	OP1-P-O3'	6.67	119.87	105.20
1	AA	454	C	N1-C2-O2	6.67	122.90	118.90
1	CA	523	A	N1-C6-N6	6.67	122.60	118.60
1	CA	1074	G	N9-C4-C5	-6.67	102.73	105.40
35	DA	2396	G	N3-C4-C5	6.67	131.93	128.60
35	BA	2545	G	C8-N9-C1'	-6.66	118.34	127.00
35	DA	1239	G	N3-C4-N9	-6.66	122.00	126.00
35	DA	1616	A	N7-C8-N9	6.66	117.13	113.80
35	BA	1964	G	N1-C6-O6	-6.66	115.90	119.90
35	BA	2585	U	C6-N1-C1'	-6.66	111.87	121.20
1	AA	1166	G	P-O3'-C3'	6.66	127.69	119.70
35	BA	786	C	C2-N3-C4	-6.66	116.57	119.90
35	BA	1602	U	N3-C4-O4	6.66	124.06	119.40
35	DA	384	U	N3-C4-O4	-6.66	114.74	119.40
35	DA	2609	U	N1-C2-O2	-6.66	118.14	122.80
1	AA	306	G	O5'-P-OP1	-6.66	99.71	105.70
35	DA	309	G	N3-C2-N2	6.66	124.56	119.90
35	DA	2447	G	O5'-P-OP1	-6.66	99.71	105.70
35	BA	1259	G	N1-C2-N2	-6.66	110.21	116.20
1	CA	1422	G	C4-N9-C1'	6.66	135.15	126.50
35	DA	259	G	N1-C6-O6	6.66	123.89	119.90
35	DA	2584	U	N3-C2-O2	-6.66	117.54	122.20
35	DA	1495	A	N9-C4-C5	-6.65	103.14	105.80
35	BA	2406	U	O4'-C1'-N1	-6.65	102.88	108.20
35	DA	2275	C	N1-C2-N3	6.65	123.86	119.20
35	BA	494	G	N1-C6-O6	6.65	123.89	119.90
35	BA	569	U	C6-N1-C2	6.65	124.99	121.00
35	BA	1358	G	N1-C2-N2	-6.65	110.21	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2068	U	O5'-P-OP1	-6.65	99.72	105.70
1	CA	509	A	C8-N9-C4	-6.65	103.14	105.80
35	BA	1821	A	C4-C5-C6	6.65	120.33	117.00
35	BA	1957	C	C5-C6-N1	-6.65	117.68	121.00
35	DA	1773	A	C6-N1-C2	-6.65	114.61	118.60
35	BA	847	U	C6-N1-C1'	6.65	130.50	121.20
35	DA	1695	G	C6-C5-N7	-6.65	126.41	130.40
35	DA	522	G	C4-C5-N7	6.64	113.46	110.80
35	DA	1194	A	C6-N1-C2	-6.64	114.61	118.60
35	DA	1451	C	C6-N1-C1'	-6.64	112.83	120.80
1	AA	908	A	C5-C6-N1	6.64	121.02	117.70
1	AA	1368	G	O5'-P-OP1	-6.64	99.72	105.70
1	CA	1496	C	C6-N1-C2	6.64	122.96	120.30
1	AA	873	A	N9-C4-C5	6.64	108.45	105.80
35	BA	1568	G	C4-N9-C1'	-6.64	117.87	126.50
1	CA	1464	G	C5-C6-N1	6.64	114.82	111.50
35	DA	1349	A	C4-C5-N7	6.64	114.02	110.70
35	BA	1703	G	N9-C4-C5	-6.63	102.75	105.40
35	BA	2859	G	C8-N9-C4	-6.63	103.75	106.40
35	DA	823	G	C8-N9-C4	6.63	109.05	106.40
35	DA	2513	G	N1-C6-O6	6.63	123.88	119.90
36	BB	81	G	C4-C5-N7	6.63	113.45	110.80
35	DA	2657	A	O5'-P-OP1	-6.63	99.73	105.70
35	BA	922	U	C5-C4-O4	6.63	129.88	125.90
23	CW	39	U	C2-N1-C1'	6.63	125.66	117.70
35	DA	1395	A	N7-C8-N9	-6.63	110.48	113.80
35	BA	2084	C	C6-N1-C2	6.63	122.95	120.30
1	CA	130	A	N1-C6-N6	6.63	122.58	118.60
35	BA	1235	G	N1-C6-O6	-6.63	115.92	119.90
35	BA	2553	G	O5'-P-OP2	6.63	118.65	110.70
1	CA	436	C	N3-C2-O2	6.63	126.54	121.90
35	DA	1241	A	C5-C6-N1	-6.63	114.39	117.70
35	DA	1241	A	N1-C6-N6	6.63	122.58	118.60
35	DA	1745(A)	C	C6-N1-C2	-6.63	117.65	120.30
35	DA	1791	A	N1-C6-N6	6.63	122.58	118.60
1	AA	566	G	P-O3'-C3'	6.62	127.65	119.70
1	AA	1502	A	C6-C5-N7	-6.62	127.66	132.30
1	AA	1148	U	C2-N1-C1'	6.62	125.65	117.70
35	DA	1933	G	N9-C4-C5	6.62	108.05	105.40
35	DA	1960	A	C8-N9-C4	-6.62	103.15	105.80
35	DA	2360	A	C2-N3-C4	-6.62	107.29	110.60
1	AA	277	C	C6-N1-C2	6.62	122.95	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2031	A	N3-C4-C5	-6.62	122.16	126.80
35	DA	133	C	C5-C6-N1	-6.62	117.69	121.00
35	DA	250	G	C8-N9-C4	-6.62	103.75	106.40
35	DA	1250	G	C2-N3-C4	6.62	115.21	111.90
35	DA	2318	G	C4-C5-C6	6.62	122.77	118.80
35	BA	2040	C	N3-C4-N4	6.62	122.63	118.00
35	BA	2540	C	N3-C2-O2	-6.62	117.27	121.90
7	CG	79	ARG	CA-CB-CG	6.62	127.96	113.40
35	DA	2464	C	N1-C2-O2	-6.62	114.93	118.90
35	BA	820	A	C2-N3-C4	-6.62	107.29	110.60
35	DA	1279	G	O5'-P-OP1	6.62	118.64	110.70
35	DA	942	G	N9-C4-C5	6.62	108.05	105.40
35	DA	2476	A	N3-C4-N9	6.62	132.69	127.40
35	DA	2779	U	N1-C2-N3	6.62	118.87	114.90
35	DA	2830	G	N3-C4-C5	-6.62	125.29	128.60
35	BA	2554	U	N1-C2-O2	-6.61	118.17	122.80
35	BA	2607	G	N3-C4-C5	-6.61	125.29	128.60
35	DA	530	G	C5-N7-C8	-6.61	100.99	104.30
35	DA	710	G	N3-C4-C5	6.61	131.91	128.60
35	DA	1210	A	C4-C5-N7	6.61	114.01	110.70
35	BA	1443	G	C4-N9-C1'	6.61	135.09	126.50
35	BA	2085	C	C6-N1-C2	6.61	122.94	120.30
35	DA	571	A	N1-C6-N6	6.61	122.57	118.60
1	AA	164	U	C5-C6-N1	6.61	126.01	122.70
35	DA	11	G	N1-C2-N2	6.61	122.15	116.20
35	DA	1017	G	C8-N9-C4	-6.61	103.76	106.40
35	BA	1821	A	N1-C2-N3	6.61	132.60	129.30
35	BA	2262	U	C2-N1-C1'	-6.61	109.77	117.70
1	CA	915	A	O5'-P-OP2	-6.61	99.75	105.70
35	DA	19	C	C6-N1-C2	6.61	122.94	120.30
35	DA	529	A	N9-C4-C5	-6.61	103.16	105.80
35	DA	1930	G	C8-N9-C4	6.61	109.04	106.40
35	DA	1993	U	N1-C2-O2	-6.61	118.17	122.80
35	BA	465	G	C8-N9-C4	-6.61	103.76	106.40
35	DA	1799	G	C6-C5-N7	-6.61	126.44	130.40
35	DA	2864	G	C4-C5-N7	6.61	113.44	110.80
1	AA	926	G	O4'-C1'-N9	6.60	113.48	108.20
35	DA	396	G	N3-C2-N2	-6.60	115.28	119.90
35	BA	2042	A	O5'-P-OP1	6.60	118.62	110.70
35	DA	1965	C	C6-N1-C2	6.60	122.94	120.30
35	BA	26	G	C6-C5-N7	-6.60	126.44	130.40
1	CA	1524	C	C6-N1-C2	6.60	122.94	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	799	G	C4-C5-N7	-6.60	108.16	110.80
35	DA	1017	G	N3-C2-N2	-6.60	115.28	119.90
35	BA	494	G	N3-C4-C5	6.60	131.90	128.60
35	BA	1363	C	N3-C2-O2	-6.60	117.28	121.90
35	DA	491	G	O5'-P-OP1	-6.60	99.76	105.70
35	DA	681	G	C5-N7-C8	6.60	107.60	104.30
35	DA	2002	G	C5-C6-O6	-6.60	124.64	128.60
35	BA	2620	C	C2-N3-C4	-6.60	116.60	119.90
35	DA	979	G	C4-C5-N7	6.60	113.44	110.80
35	DA	579	G	C5-C6-N1	-6.59	108.20	111.50
35	DA	2712	U	C5-C4-O4	6.59	129.86	125.90
35	BA	783	A	N3-C4-C5	6.59	131.41	126.80
35	DA	487	C	C5-C6-N1	6.59	124.30	121.00
35	DA	1781	C	C2-N1-C1'	6.59	126.05	118.80
35	DA	40	C	C6-N1-C2	6.59	122.94	120.30
35	DA	571	A	C5-C6-N6	-6.59	118.43	123.70
35	DA	1495	A	C4-C5-N7	6.59	114.00	110.70
35	BA	789	A	C5-C6-N6	-6.59	118.43	123.70
35	BA	740	U	P-O3'-C3'	6.59	127.61	119.70
1	CA	244	U	C5-C4-O4	-6.59	121.95	125.90
35	DA	176	G	C2-N3-C4	-6.59	108.61	111.90
35	DA	217	G	C8-N9-C4	6.59	109.03	106.40
35	DA	247	G	N7-C8-N9	-6.59	109.81	113.10
35	BA	1430	C	C6-N1-C2	-6.58	117.67	120.30
35	BA	2262	U	C5-C6-N1	-6.58	119.41	122.70
1	AA	481	G	C8-N9-C1'	-6.58	118.44	127.00
24	AX	13	A	O4'-C1'-N9	6.58	113.47	108.20
35	BA	614	U	C5-C4-O4	6.58	129.85	125.90
35	BA	1187	G	N7-C8-N9	6.58	116.39	113.10
35	BA	2791	C	C2-N1-C1'	6.58	126.04	118.80
35	DA	783	A	OP1-P-OP2	6.58	129.47	119.60
35	DA	1496	A	C5-N7-C8	-6.58	100.61	103.90
35	DA	1762	A	C2-N3-C4	6.58	113.89	110.60
35	DA	1824	G	N1-C6-O6	6.58	123.85	119.90
35	DA	1937	A	N1-C6-N6	6.58	122.55	118.60
35	DA	2376	A	N1-C6-N6	6.58	122.55	118.60
1	AA	1345	U	N3-C4-O4	-6.58	114.79	119.40
26	B1	85	LEU	CA-CB-CG	6.58	130.44	115.30
35	BA	16	G	N1-C6-O6	6.58	123.85	119.90
35	BA	2054	A	C8-N9-C4	-6.58	103.17	105.80
35	BA	2404	C	C6-N1-C2	6.58	122.93	120.30
35	DA	2056	G	C4-C5-N7	6.58	113.43	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	674	G	N1-C6-O6	6.58	123.85	119.90
35	DA	327	G	N1-C6-O6	6.58	123.85	119.90
35	BA	1327	C	N1-C2-O2	-6.58	114.95	118.90
35	BA	1677	A	N9-C4-C5	-6.58	103.17	105.80
35	DA	257	A	C8-N9-C4	-6.58	103.17	105.80
35	DA	738	G	O4'-C1'-N9	6.58	113.46	108.20
35	BA	804	A	C5-C6-N6	-6.58	118.44	123.70
1	CA	1397	C	C5-C4-N4	6.58	124.80	120.20
35	DA	589	C	C6-N1-C2	6.58	122.93	120.30
35	DA	1807	G	N1-C6-O6	6.58	123.85	119.90
35	BA	1616	A	C5-N7-C8	-6.58	100.61	103.90
1	CA	1504	G	C4-N9-C1'	6.58	135.05	126.50
1	AA	110	C	N1-C2-N3	-6.57	114.60	119.20
23	AW	11	C	C5-C6-N1	6.57	124.29	121.00
35	BA	82	G	C5-C6-O6	6.57	132.54	128.60
35	BA	735	A	C8-N9-C4	6.57	108.43	105.80
35	BA	785	G	C5-C6-O6	-6.57	124.66	128.60
1	CA	868	C	O5'-P-OP2	-6.57	99.78	105.70
35	DA	702	G	C5-N7-C8	6.57	107.59	104.30
35	DA	2486	G	N3-C4-C5	-6.57	125.31	128.60
35	DA	2544	G	N9-C4-C5	-6.57	102.77	105.40
35	DA	2701	C	N3-C2-O2	-6.57	117.30	121.90
35	BA	633	A	C2-N3-C4	-6.57	107.31	110.60
53	BU	33	ARG	CD-NE-CZ	6.57	132.80	123.60
35	BA	1575	C	N3-C4-N4	6.57	122.60	118.00
35	DA	691	C	N3-C4-C5	6.57	124.53	121.90
35	BA	1899	G	C8-N9-C4	-6.57	103.77	106.40
1	AA	89	C	C6-N1-C2	-6.57	117.67	120.30
1	CA	1437	C	C2-N1-C1'	6.57	126.03	118.80
23	CW	57	G	C2-N3-C4	6.57	115.18	111.90
35	DA	2376	A	C5-C6-N6	-6.57	118.44	123.70
35	DA	2877	G	C5-C6-N1	-6.57	108.22	111.50
35	BA	1313	U	C2-N1-C1'	6.57	125.58	117.70
35	BA	2545	G	N1-C6-O6	6.57	123.84	119.90
35	DA	1399	C	N1-C2-O2	-6.57	114.96	118.90
1	AA	579	G	C6-C5-N7	-6.56	126.46	130.40
1	AA	926	G	N7-C8-N9	6.56	116.38	113.10
1	AA	84	U	C5-C6-N1	6.56	125.98	122.70
35	DA	2521	C	C5-C6-N1	-6.56	117.72	121.00
35	BA	1049	C	C5-C6-N1	6.56	124.28	121.00
35	DA	543	C	N1-C2-O2	6.56	122.84	118.90
35	DA	748	G	C5-C6-N1	6.56	114.78	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	2291	U	O5'-P-OP2	-6.56	99.80	105.70
35	BA	2553	G	N1-C6-O6	-6.56	115.97	119.90
1	CA	1434	A	N7-C8-N9	-6.56	110.52	113.80
35	DA	2283	C	N3-C4-C5	6.56	124.52	121.90
35	BA	2392	A	C5-N7-C8	-6.56	100.62	103.90
35	BA	1629	U	C5-C4-O4	6.55	129.83	125.90
35	DA	15	G	N1-C6-O6	6.55	123.83	119.90
35	DA	532	A	O5'-P-OP2	-6.55	99.80	105.70
35	DA	2600	A	C2-N3-C4	-6.55	107.32	110.60
35	DA	2828	C	N1-C2-O2	-6.55	114.97	118.90
35	DA	2889	C	C2-N1-C1'	6.55	126.01	118.80
35	BA	786	C	C5-C6-N1	-6.55	117.72	121.00
35	BA	789	A	N1-C6-N6	6.55	122.53	118.60
35	BA	210	C	C5-C6-N1	-6.55	117.72	121.00
1	CA	1525	G	C8-N9-C4	6.55	109.02	106.40
35	DA	1131	G	N3-C4-C5	-6.55	125.32	128.60
35	DA	1342	A	C6-N1-C2	-6.55	114.67	118.60
1	AA	1022	G	N1-C6-O6	6.55	123.83	119.90
1	AA	1054	C	P-O3'-C3'	6.55	127.56	119.70
35	BA	402	A	C8-N9-C4	6.55	108.42	105.80
35	DA	1633	G	C6-C5-N7	-6.55	126.47	130.40
33	B8	13	ARG	CB-CG-CD	6.55	128.62	111.60
1	AA	1399	C	O5'-P-OP1	-6.55	99.81	105.70
35	BA	2595	G	N9-C4-C5	-6.55	102.78	105.40
1	CA	117	G	C5-C6-N1	-6.55	108.23	111.50
35	DA	381	G	C8-N9-C4	6.55	109.02	106.40
35	DA	787	U	C2-N3-C4	-6.55	123.07	127.00
35	DA	1139	G	N3-C4-C5	-6.55	125.33	128.60
35	DA	1509	C	N3-C2-O2	-6.55	117.32	121.90
35	DA	1699	G	OP1-P-OP2	6.54	129.42	119.60
35	DA	810	U	N3-C4-O4	6.54	123.98	119.40
35	DA	2064	C	C5-C6-N1	-6.54	117.73	121.00
35	BA	1459	G	C8-N9-C4	-6.54	103.78	106.40
35	BA	2046	G	N1-C2-N3	6.54	127.83	123.90
35	BA	2458	G	N1-C2-N2	-6.54	110.31	116.20
35	DA	1677	A	N1-C2-N3	6.54	132.57	129.30
35	DA	2439	A	O4'-C1'-N9	-6.54	102.97	108.20
1	AA	583	A	N7-C8-N9	-6.54	110.53	113.80
35	DA	1652	A	C4-C5-C6	6.54	120.27	117.00
1	AA	189(J)	G	C6-C5-N7	-6.54	126.48	130.40
35	BA	1675	C	OP2-P-O3'	6.54	119.58	105.20
35	DA	206	U	C5-C6-N1	-6.54	119.43	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	473	G	N1-C2-N2	-6.54	110.32	116.20
35	DA	1959	G	C5-C6-N1	6.54	114.77	111.50
35	BA	2361	A	C6-C5-N7	-6.54	127.72	132.30
35	DA	1201	C	N1-C2-O2	-6.54	114.98	118.90
35	BA	1493	C	C6-N1-C2	-6.54	117.69	120.30
35	BA	2681	C	C5-C6-N1	-6.54	117.73	121.00
51	BS	26	LEU	CB-CG-CD2	-6.54	99.89	111.00
35	DA	1678	G	N3-C4-C5	6.54	131.87	128.60
1	CA	328	C	P-O3'-C3'	6.53	127.54	119.70
35	DA	2542	A	P-O3'-C3'	6.53	127.54	119.70
35	DA	109	G	C4-C5-N7	-6.53	108.19	110.80
35	DA	1349	A	O5'-P-OP2	-6.53	99.82	105.70
1	AA	912	C	C5-C6-N1	-6.53	117.73	121.00
1	AA	1173	G	N3-C4-C5	-6.53	125.33	128.60
35	BA	1243	G	C5-C6-O6	-6.53	124.68	128.60
35	BA	1243	G	N9-C4-C5	-6.53	102.79	105.40
35	DA	2274	A	C5-N7-C8	-6.53	100.64	103.90
35	BA	83	G	C4-N9-C1'	6.53	134.99	126.50
35	DA	1935	G	C8-N9-C4	6.53	109.01	106.40
35	DA	2069	G	N1-C2-N3	6.53	127.82	123.90
48	DP	6	LEU	CA-CB-CG	6.53	130.32	115.30
35	DA	2623	G	N3-C4-C5	-6.53	125.34	128.60
35	DA	666	G	C2-N3-C4	-6.53	108.64	111.90
35	BA	106	C	C4-C5-C6	6.52	120.66	117.40
35	BA	1210	A	C4-C5-N7	6.52	113.96	110.70
35	BA	2311	A	O5'-P-OP1	-6.52	99.83	105.70
1	CA	575	G	O5'-P-OP2	-6.52	99.83	105.70
35	DA	676	A	N9-C4-C5	-6.52	103.19	105.80
35	DA	2296	U	N3-C4-O4	6.52	123.97	119.40
35	BA	1325	G	N3-C4-N9	6.52	129.91	126.00
35	BA	1840	G	N3-C2-N2	-6.52	115.33	119.90
35	BA	1934	C	C4-C5-C6	-6.52	114.14	117.40
35	DA	2403	C	O5'-P-OP1	-6.52	99.83	105.70
1	CA	197	A	N1-C6-N6	-6.52	114.69	118.60
1	AA	707	C	C6-N1-C2	6.52	122.91	120.30
1	AA	1487	G	N3-C4-C5	6.52	131.86	128.60
35	BA	2393	A	N1-C6-N6	6.52	122.51	118.60
35	DA	529	A	C5-C6-N6	-6.52	118.48	123.70
35	BA	454	A	C5-C6-N6	-6.52	118.48	123.70
35	BA	1138	G	C5-C6-O6	-6.52	124.69	128.60
35	BA	1677	A	C5-N7-C8	-6.52	100.64	103.90
35	BA	2597	G	C5-N7-C8	-6.52	101.04	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	1403	C	N1-C2-O2	-6.52	114.99	118.90
35	DA	802	A	N1-C2-N3	6.52	132.56	129.30
35	DA	2651	C	N3-C4-C5	6.52	124.51	121.90
35	BA	1294	U	N3-C2-O2	-6.52	117.64	122.20
35	BA	2573	C	C2-N1-C1'	6.52	125.97	118.80
35	DA	638	G	C8-N9-C4	-6.52	103.79	106.40
48	DP	47	ASP	CB-CG-OD2	6.52	124.16	118.30
1	AA	1473	A	O5'-P-OP2	-6.51	99.84	105.70
35	DA	98	G	N1-C2-N2	-6.51	110.34	116.20
35	BA	1719	G	N3-C4-N9	6.51	129.91	126.00
1	AA	1153	C	C6-N1-C2	-6.51	117.69	120.30
35	BA	1618	A	C2-N3-C4	-6.51	107.34	110.60
1	CA	1422	G	N1-C6-O6	6.51	123.81	119.90
35	DA	472	A	N1-C6-N6	6.51	122.51	118.60
1	CA	1491	G	N3-C2-N2	6.51	124.46	119.90
35	DA	512	G	N3-C4-C5	6.51	131.85	128.60
35	DA	913	U	N3-C2-O2	-6.51	117.64	122.20
35	DA	2318	G	C4-C5-N7	6.51	113.40	110.80
1	AA	258	G	N1-C6-O6	6.51	123.81	119.90
35	BA	2260	C	C4-C5-C6	6.51	120.65	117.40
1	CA	1456	G	N3-C4-N9	6.51	129.91	126.00
1	AA	189(I)	G	N3-C4-C5	-6.51	125.35	128.60
35	BA	1397	U	O5'-P-OP1	-6.51	99.84	105.70
35	BA	2092	U	N1-C2-N3	6.50	118.80	114.90
1	AA	892	A	N1-C6-N6	6.50	122.50	118.60
35	BA	204	A	C8-N9-C4	-6.50	103.20	105.80
35	BA	1614	A	O4'-C1'-N9	6.50	113.40	108.20
1	CA	108	G	N7-C8-N9	6.50	116.35	113.10
1	CA	511	C	C5-C6-N1	-6.50	117.75	121.00
35	DA	413	C	OP2-P-O3'	6.50	119.51	105.20
35	DA	2499	C	N3-C4-C5	-6.50	119.30	121.90
35	BA	2347	C	C6-N1-C2	-6.50	117.70	120.30
35	BA	2585	U	O4'-C1'-N1	6.50	113.40	108.20
35	DA	2503	A	C8-N9-C4	-6.50	103.20	105.80
35	BA	1785	A	C4-C5-C6	6.50	120.25	117.00
35	DA	1519	G	C8-N9-C4	-6.50	103.80	106.40
35	DA	560	C	O5'-P-OP1	-6.50	99.85	105.70
35	DA	1972	A	N1-C6-N6	6.50	122.50	118.60
1	AA	263	A	C8-N9-C4	6.50	108.40	105.80
1	AA	504	C	N3-C4-C5	-6.50	119.30	121.90
1	AA	691	G	N9-C4-C5	-6.50	102.80	105.40
35	BA	2031	A	C5'-C4'-C3'	-6.50	105.61	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	DB	92	C	C6-N1-C2	6.50	122.90	120.30
35	BA	113	G	N1-C6-O6	6.50	123.80	119.90
23	AW	8	U	C6-N1-C1'	-6.49	112.11	121.20
35	BA	2458	G	C4-N9-C1'	6.49	134.94	126.50
35	DA	1220	A	N9-C4-C5	6.49	108.40	105.80
35	DA	1663	C	N1-C2-O2	6.49	122.80	118.90
35	BA	1251	C	C5-C6-N1	-6.49	117.75	121.00
35	DA	1187	G	C4-N9-C1'	6.49	134.94	126.50
35	DA	1237	A	O5'-P-OP1	-6.49	99.86	105.70
35	DA	2565	A	N7-C8-N9	-6.49	110.56	113.80
35	DA	2016	U	C5-C6-N1	-6.49	119.46	122.70
35	DA	2476	A	N1-C2-N3	-6.49	126.06	129.30
1	AA	44	G	N9-C4-C5	-6.49	102.81	105.40
23	AW	11	C	C6-N1-C2	-6.49	117.70	120.30
35	BA	1024	G	C5-C6-O6	-6.49	124.71	128.60
35	BA	1799	G	C4-C5-N7	-6.49	108.20	110.80
35	DA	1148	A	N1-C6-N6	6.49	122.49	118.60
35	BA	148	C	C6-N1-C2	6.49	122.89	120.30
39	BE	145	LYS	C-N-CA	-6.49	105.48	121.70
1	CA	1067	A	O4'-C1'-N9	-6.49	103.01	108.20
35	DA	2395	C	C6-N1-C2	6.49	122.89	120.30
1	CA	5	U	C2-N1-C1'	6.48	125.48	117.70
1	AA	1298	C	C6-N1-C1'	6.48	128.58	120.80
35	BA	1238	G	C8-N9-C4	6.48	108.99	106.40
35	DA	1929	G	O5'-P-OP2	-6.48	99.86	105.70
35	DA	2316	C	C5-C6-N1	6.48	124.24	121.00
36	BB	40	U	C5-C4-O4	6.48	129.79	125.90
35	DA	1790	C	C5-C4-N4	-6.48	115.66	120.20
35	DA	2067	G	C4-C5-N7	-6.48	108.21	110.80
35	BA	371	A	C8-N9-C4	6.48	108.39	105.80
35	DA	204	A	C2-N3-C4	6.48	113.84	110.60
42	DH	105	LEU	CA-CB-CG	6.48	130.20	115.30
1	AA	1303	C	C6-N1-C2	-6.48	117.71	120.30
1	AA	1314	C	C6-N1-C2	-6.48	117.71	120.30
35	BA	210	C	N1-C2-N3	6.48	123.73	119.20
35	BA	1481	U	C6-N1-C1'	6.48	130.27	121.20
35	BA	2597	G	O4'-C1'-N9	-6.48	103.02	108.20
1	AA	874	G	N1-C6-O6	-6.47	116.02	119.90
35	BA	463	G	OP2-P-O3'	6.47	119.44	105.20
35	DA	119	A	N1-C2-N3	6.47	132.54	129.30
35	BA	1843	C	C6-N1-C2	6.47	122.89	120.30
56	BX	29	TRP	CA-CB-CG	-6.47	101.40	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	918	A	O5'-P-OP1	-6.47	99.88	105.70
1	CA	896	C	C2-N1-C1'	-6.47	111.68	118.80
35	DA	921	G	C6-C5-N7	-6.47	126.52	130.40
35	BA	2019	A	C8-N9-C4	6.47	108.39	105.80
35	BA	2447	G	N3-C4-N9	-6.47	122.12	126.00
35	BA	2331	G	N1-C2-N3	6.47	127.78	123.90
32	D7	1	MET	N-CA-C	6.47	128.46	111.00
35	DA	1840	G	C4-C5-C6	6.47	122.68	118.80
35	DA	2553	G	C5-C6-O6	6.47	132.48	128.60
1	AA	561	U	C2-N1-C1'	6.47	125.46	117.70
1	CA	1397	C	N3-C2-O2	-6.47	117.37	121.90
35	DA	1617	C	N1-C2-O2	-6.47	115.02	118.90
1	AA	873	A	C8-N9-C4	-6.46	103.21	105.80
1	CA	1491	G	N3-C4-C5	-6.46	125.37	128.60
35	DA	530	G	C4-C5-N7	6.46	113.39	110.80
35	DA	607	U	C2-N1-C1'	-6.46	109.94	117.70
1	AA	186	C	N3-C2-O2	-6.46	117.38	121.90
1	AA	1140	C	C2-N1-C1'	6.46	125.91	118.80
35	DA	1428	C	C6-N1-C2	6.46	122.88	120.30
35	DA	2072	G	C4-C5-N7	6.46	113.38	110.80
1	AA	622	A	N1-C6-N6	-6.46	114.72	118.60
1	AA	817	C	C5-C6-N1	-6.46	117.77	121.00
1	CA	1195	C	N3-C2-O2	-6.46	117.38	121.90
35	DA	1188	U	OP2-P-O3'	6.46	119.41	105.20
35	DA	1843	C	C6-N1-C2	6.46	122.88	120.30
35	DA	2824	C	C4-C5-C6	-6.46	114.17	117.40
1	AA	1416	G	O5'-P-OP1	6.46	118.45	110.70
35	BA	2065	C	C5-C4-N4	-6.46	115.68	120.20
35	DA	245	G	C5-C6-O6	-6.46	124.73	128.60
35	DA	2618	G	N1-C2-N3	6.46	127.77	123.90
35	DA	2681	C	C4-C5-C6	6.45	120.63	117.40
1	AA	269	C	C5-C6-N1	6.45	124.23	121.00
35	BA	89	G	O4'-C1'-N9	6.45	113.36	108.20
35	BA	1323	U	O4'-C1'-N1	6.45	113.36	108.20
35	BA	1788	C	C5-C6-N1	-6.45	117.77	121.00
35	BA	2818	G	N3-C4-N9	6.45	129.87	126.00
1	AA	1008	C	C5-C6-N1	6.45	124.23	121.00
35	BA	272	G	N9-C4-C5	6.45	107.98	105.40
35	BA	2689	U	N3-C4-C5	6.45	118.47	114.60
1	CA	1404	C	C5-C6-N1	6.45	124.22	121.00
35	DA	552	G	N1-C6-O6	6.45	123.77	119.90
1	AA	861	G	N7-C8-N9	6.45	116.32	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	143	G	C4-C5-N7	-6.45	108.22	110.80
35	BA	786	C	C6-N1-C2	6.45	122.88	120.30
35	BA	1261	C	N3-C4-C5	6.45	124.48	121.90
35	BA	1898	U	C4-C5-C6	6.45	123.57	119.70
35	BA	2544	G	N1-C6-O6	6.45	123.77	119.90
35	DA	271(C)	C	C6-N1-C2	-6.45	117.72	120.30
35	DA	1567	A	N1-C6-N6	-6.45	114.73	118.60
35	DA	1614	A	O4'-C1'-N9	6.45	113.36	108.20
1	AA	111	G	N1-C6-O6	6.45	123.77	119.90
35	DA	2239	G	C5-C6-O6	-6.45	124.73	128.60
1	AA	754	C	C6-N1-C1'	-6.45	113.07	120.80
35	DA	1186	G	OP2-P-O3'	6.45	119.38	105.20
35	DA	2028	U	N3-C4-O4	6.45	123.91	119.40
35	DA	2239	G	C8-N9-C4	6.45	108.98	106.40
35	DA	2436	G	C6-N1-C2	-6.45	121.23	125.10
35	DA	2443	C	C5-C6-N1	-6.45	117.78	121.00
35	DA	2681	C	N3-C4-N4	-6.45	113.49	118.00
35	DA	335	C	C5-C6-N1	6.44	124.22	121.00
35	DA	1528	A	C6-C5-N7	-6.44	127.79	132.30
35	DA	2420	C	C6-N1-C2	6.44	122.88	120.30
35	BA	2003	G	N1-C6-O6	6.44	123.76	119.90
1	CA	729	A	N1-C6-N6	6.44	122.46	118.60
35	DA	557	U	N3-C2-O2	-6.44	117.69	122.20
35	DA	2821	A	C5-C6-N6	-6.44	118.55	123.70
43	DI	77	LEU	CA-CB-CG	6.44	130.12	115.30
1	CA	1259	C	C6-N1-C2	-6.44	117.72	120.30
1	AA	232	G	C4-N9-C1'	6.44	134.87	126.50
35	BA	570	G	N9-C4-C5	6.44	107.97	105.40
35	BA	2711	A	N3-C4-C5	6.44	131.31	126.80
22	CV	39	C	O5'-P-OP1	-6.44	99.91	105.70
35	DA	1695	G	C4-N9-C1'	6.44	134.87	126.50
35	DA	1899	G	N1-C2-N2	6.44	121.99	116.20
35	BA	1568	G	C5-N7-C8	-6.43	101.08	104.30
35	BA	2019	A	N7-C8-N9	-6.43	110.58	113.80
35	DA	948	G	N1-C6-O6	6.43	123.76	119.90
1	AA	108	G	N3-C4-C5	6.43	131.82	128.60
1	CA	789	U	C6-N1-C2	-6.43	117.14	121.00
35	DA	1780	A	N9-C4-C5	6.43	108.37	105.80
35	DA	2710	C	O5'-P-OP1	-6.43	99.91	105.70
1	AA	79	G	P-O3'-C3'	6.43	127.42	119.70
35	BA	2712(A)	A	N7-C8-N9	6.43	117.02	113.80
35	DA	2641	G	C8-N9-C4	-6.43	103.83	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	271(U)	G	C4-N9-C1'	6.43	134.86	126.50
35	BA	818	G	O5'-P-OP1	-6.43	99.91	105.70
35	BA	1953	A	O5'-P-OP2	6.43	118.41	110.70
35	BA	2508	G	C8-N9-C1'	-6.43	118.64	127.00
35	DA	529	A	C6-C5-N7	-6.43	127.80	132.30
35	DA	1114	G	N3-C4-N9	-6.43	122.14	126.00
35	DA	1197	G	N7-C8-N9	-6.43	109.89	113.10
40	DF	82	ILE	CG1-CB-CG2	-6.43	97.26	111.40
35	BA	1348	G	O5'-P-OP1	-6.43	99.92	105.70
35	BA	2242	G	C6-C5-N7	-6.43	126.54	130.40
1	AA	656	C	C5-C6-N1	6.43	124.21	121.00
35	BA	845	G	N7-C8-N9	6.43	116.31	113.10
35	BA	1379	A	N3-C4-C5	6.43	131.30	126.80
23	CW	61	C	C6-N1-C2	-6.43	117.73	120.30
35	DA	71	A	C4-C5-C6	6.43	120.21	117.00
35	DA	615	G	C8-N9-C4	6.43	108.97	106.40
35	DA	1741	A	O5'-P-OP1	-6.43	99.92	105.70
35	DA	2287	A	C4-C5-N7	6.43	113.91	110.70
35	BA	271(W)	G	C5-C6-N1	-6.42	108.29	111.50
1	CA	354	G	O5'-P-OP2	-6.42	99.92	105.70
35	DA	1277	G	C8-N9-C4	6.42	108.97	106.40
1	CA	900	A	C8-N9-C4	6.42	108.37	105.80
35	DA	226	G	C4-C5-C6	6.42	122.65	118.80
35	DA	2662	A	C4-C5-C6	-6.42	113.79	117.00
35	BA	771	G	C8-N9-C4	6.42	108.97	106.40
35	BA	1604	C	C6-N1-C2	-6.42	117.73	120.30
38	BD	206	LEU	CA-CB-CG	-6.42	100.54	115.30
35	DA	404	C	C6-N1-C1'	6.42	128.50	120.80
35	DA	777	A	C2-N3-C4	-6.42	107.39	110.60
35	DA	2552	U	N3-C2-O2	6.42	126.69	122.20
35	BA	685	A	O4'-C1'-N9	6.42	113.33	108.20
35	BA	1359	A	C4-C5-C6	-6.42	113.79	117.00
1	CA	991	U	C2-N1-C1'	6.42	125.40	117.70
1	AA	244	U	C5-C4-O4	-6.42	122.05	125.90
35	DA	1398	C	O5'-P-OP1	-6.42	99.93	105.70
35	BA	174	C	C5-C6-N1	6.41	124.21	121.00
35	BA	676	A	N1-C6-N6	6.41	122.45	118.60
35	BA	870	A	C8-N9-C4	6.41	108.37	105.80
1	CA	970	C	N1-C2-O2	6.41	122.75	118.90
1	CA	1504	G	C8-N9-C1'	-6.41	118.66	127.00
35	DA	2507	C	N3-C4-C5	-6.41	119.33	121.90
35	BA	2537	U	C5-C4-O4	6.41	129.75	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	1581	G	N3-C4-C5	-6.41	125.39	128.60
35	DA	2500	U	C4-C5-C6	6.41	123.55	119.70
1	AA	342	C	C6-N1-C2	-6.41	117.74	120.30
35	BA	1397	U	N3-C2-O2	-6.41	117.71	122.20
35	BA	2031	A	C4-C5-C6	6.41	120.20	117.00
1	CA	1305	G	N3-C2-N2	-6.41	115.41	119.90
48	DP	47	ASP	C-N-CA	6.41	148.92	122.00
1	AA	1244	C	N3-C2-O2	-6.41	117.41	121.90
35	BA	674	G	N3-C4-C5	-6.41	125.40	128.60
35	BA	859	G	N3-C4-C5	6.41	131.80	128.60
35	BA	1821	A	C6-N1-C2	-6.41	114.75	118.60
35	BA	2683	C	N3-C4-C5	-6.41	119.34	121.90
35	DA	623	G	C4-C5-N7	6.41	113.36	110.80
35	DA	1209	G	N1-C6-O6	-6.41	116.06	119.90
22	AV	77	A	C4-C5-C6	-6.41	113.80	117.00
35	BA	388	G	N3-C4-N9	-6.41	122.16	126.00
35	BA	651	G	N3-C4-C5	-6.41	125.40	128.60
35	BA	1820	U	O5'-P-OP2	6.41	118.39	110.70
35	DA	2778	A	O5'-P-OP2	-6.41	99.94	105.70
35	BA	1256	G	C8-N9-C4	-6.40	103.84	106.40
35	DA	690	G	C5-N7-C8	6.40	107.50	104.30
35	BA	453	C	N1-C2-O2	-6.40	115.06	118.90
35	BA	1930	G	N7-C8-N9	-6.40	109.90	113.10
35	DA	1006	C	C4-C5-C6	6.40	120.60	117.40
35	DA	1204	A	N9-C4-C5	-6.40	103.24	105.80
35	DA	1997	G	N1-C2-N3	6.40	127.74	123.90
35	DA	2014	A	O5'-P-OP2	6.40	118.38	110.70
35	DA	2435	A	N1-C2-N3	6.40	132.50	129.30
1	AA	1300	G	C4-C5-N7	6.40	113.36	110.80
1	AA	1518	A	O5'-P-OP1	-6.40	99.94	105.70
35	DA	734	A	C2-N3-C4	-6.40	107.40	110.60
35	DA	1255	U	N3-C4-O4	6.40	123.88	119.40
35	BA	1953	A	O5'-P-OP1	-6.40	99.94	105.70
53	BU	33	ARG	NE-CZ-NH2	-6.40	117.10	120.30
35	BA	614	U	C6-N1-C2	-6.39	117.16	121.00
35	DA	597	U	C5-C4-O4	6.39	129.74	125.90
35	DA	845	G	C4-C5-N7	6.39	113.36	110.80
35	DA	1791	A	N9-C4-C5	-6.39	103.24	105.80
35	DA	2007	C	C4-C5-C6	6.39	120.60	117.40
38	DD	49	ILE	CG1-CB-CG2	-6.39	97.33	111.40
1	AA	162	A	C6-C5-N7	-6.39	127.83	132.30
1	AA	330	C	N1-C2-O2	6.39	122.73	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	729	G	C6-C5-N7	-6.39	126.56	130.40
35	BA	1813	G	N7-C8-N9	-6.39	109.90	113.10
35	BA	2072	G	C4-C5-N7	6.39	113.36	110.80
35	BA	2499	C	N1-C2-O2	6.39	122.74	118.90
35	DA	210	C	C2-N3-C4	-6.39	116.70	119.90
35	DA	1268	A	N3-C4-N9	-6.39	122.28	127.40
35	DA	1961	C	C5-C6-N1	-6.39	117.80	121.00
35	BA	1756	G	N1-C6-O6	6.39	123.73	119.90
1	CA	919	A	N1-C2-N3	-6.39	126.10	129.30
35	DA	1210	A	C2-N3-C4	-6.39	107.41	110.60
36	DB	85	G	N1-C6-O6	6.39	123.73	119.90
1	AA	1258	G	C8-N9-C4	-6.39	103.84	106.40
35	BA	2819	G	N3-C4-C5	-6.39	125.41	128.60
1	AA	232	G	C6-C5-N7	-6.39	126.57	130.40
35	BA	782	A	N1-C2-N3	6.39	132.49	129.30
1	CA	518	C	O5'-P-OP2	6.39	118.36	110.70
23	AW	44	G	N3-C4-N9	6.38	129.83	126.00
35	BA	446	G	N1-C6-O6	6.38	123.73	119.90
35	BA	1655	A	OP1-P-OP2	-6.38	110.02	119.60
35	DA	199	A	C8-N9-C4	6.38	108.35	105.80
35	BA	456	C	C2-N1-C1'	-6.38	111.78	118.80
35	BA	954	G	N3-C4-C5	-6.38	125.41	128.60
35	BA	1908	C	N3-C4-C5	-6.38	119.35	121.90
1	CA	807	A	N1-C6-N6	-6.38	114.77	118.60
35	DA	2367	G	O5'-P-OP2	6.38	118.36	110.70
1	AA	111	G	C5-C6-O6	-6.38	124.77	128.60
1	CA	306	G	C4-C5-N7	6.38	113.35	110.80
35	DA	1951	U	N3-C4-C5	-6.38	110.77	114.60
1	CA	239	U	C4-C5-C6	6.38	123.53	119.70
35	DA	1671	U	N3-C2-O2	6.38	126.66	122.20
1	AA	356	A	C8-N9-C4	-6.38	103.25	105.80
35	BA	1261	C	C5-C6-N1	-6.38	117.81	121.00
1	CA	422	C	N3-C2-O2	-6.37	117.44	121.90
35	DA	693	C	O5'-P-OP1	-6.37	99.96	105.70
35	DA	739	G	N9-C4-C5	-6.37	102.85	105.40
35	DA	2424	C	O5'-P-OP1	-6.37	99.97	105.70
1	AA	1126	U	C5-C6-N1	6.37	125.89	122.70
35	BA	2417	C	N1-C2-O2	-6.37	115.08	118.90
36	BB	11	C	C6-N1-C2	-6.37	117.75	120.30
1	CA	816	A	N9-C4-C5	6.37	108.35	105.80
35	DA	1487	G	C8-N9-C4	-6.37	103.85	106.40
35	BA	1799	G	P-O3'-C3'	6.37	127.34	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	858	U	O5'-P-OP2	-6.37	99.97	105.70
35	DA	2287	A	N9-C4-C5	-6.37	103.25	105.80
35	DA	2864	G	C4-N9-C1'	6.37	134.78	126.50
42	DH	53	GLU	C-N-CA	-6.37	105.79	121.70
23	AW	55	U	C2-N1-C1'	6.36	125.34	117.70
35	BA	425	G	C5-C6-O6	-6.36	124.78	128.60
35	BA	1971	A	C8-N9-C4	6.36	108.34	105.80
35	BA	2335	A	O4'-C1'-N9	6.36	113.29	108.20
35	DA	603	A	C5-C6-N6	6.36	128.79	123.70
35	DA	1558	A	C2-N3-C4	-6.36	107.42	110.60
35	BA	456	C	N3-C2-O2	6.36	126.35	121.90
35	BA	2287	A	N3-C4-N9	-6.36	122.31	127.40
35	BA	1258	C	C4-C5-C6	-6.36	114.22	117.40
35	BA	1480	G	C6-C5-N7	-6.36	126.58	130.40
35	BA	2873	A	C6-N1-C2	-6.36	114.78	118.60
35	DA	1133	U	N3-C2-O2	6.36	126.65	122.20
35	DA	1220	A	O5'-P-OP1	-6.36	99.97	105.70
35	DA	2008	C	N3-C2-O2	-6.36	117.45	121.90
35	BA	1528	A	C8-N9-C4	-6.36	103.26	105.80
35	BA	1607	C	N3-C4-C5	6.36	124.44	121.90
35	BA	2383	G	N3-C4-N9	6.36	129.81	126.00
1	CA	519	C	C6-N1-C2	6.36	122.84	120.30
35	DA	1270	C	C5-C6-N1	-6.36	117.82	121.00
1	AA	1487	G	C4-N9-C1'	-6.36	118.23	126.50
35	BA	236	C	C6-N1-C2	6.36	122.84	120.30
35	BA	2387	U	C5-C4-O4	-6.36	122.09	125.90
35	BA	2698	U	N3-C4-O4	6.36	123.85	119.40
35	DA	212	G	N1-C6-O6	6.36	123.71	119.90
35	DA	391	G	C4-N9-C1'	6.36	134.76	126.50
35	DA	2591	C	O5'-P-OP2	6.36	118.33	110.70
35	BA	2278	A	C6-N1-C2	-6.36	114.79	118.60
35	BA	2361	A	C2-N3-C4	-6.36	107.42	110.60
35	DA	203	C	N1-C2-O2	-6.35	115.09	118.90
35	DA	1495	A	C5-C6-N6	-6.35	118.62	123.70
35	DA	1790	C	N3-C4-C5	6.35	124.44	121.90
35	BA	1161	C	C6-N1-C2	-6.35	117.76	120.30
55	BW	65	LEU	CA-CB-CG	6.35	129.91	115.30
1	CA	1422	G	C6-C5-N7	-6.35	126.59	130.40
35	BA	2618	G	N3-C4-C5	-6.35	125.42	128.60
35	DA	1187	G	N1-C2-N3	6.35	127.71	123.90
35	BA	675	A	N9-C4-C5	-6.35	103.26	105.80
35	BA	1616	A	C2-N3-C4	-6.35	107.43	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1961	C	N3-C4-C5	6.35	124.44	121.90
35	BA	2688	U	N1-C2-N3	6.35	118.71	114.90
1	CA	538	G	N3-C4-N9	6.35	129.81	126.00
1	CA	1277	C	C5-C6-N1	6.35	124.17	121.00
1	AA	300	A	C2-N3-C4	-6.35	107.43	110.60
34	B9	11	CYS	CA-CB-SG	6.35	125.43	114.00
35	DA	2267	A	O4'-C1'-N9	-6.35	103.12	108.20
1	AA	1397	C	C5-C6-N1	6.34	124.17	121.00
35	BA	133	C	N1-C1'-C2'	-6.34	105.02	112.00
35	BA	861	A	N1-C6-N6	-6.34	114.79	118.60
35	BA	1933	G	C8-N9-C4	6.34	108.94	106.40
52	BT	99	LEU	CB-CG-CD2	-6.34	100.21	111.00
1	CA	576	G	O5'-P-OP1	6.34	118.31	110.70
35	DA	410	G	C8-N9-C4	6.34	108.94	106.40
35	DA	1224	C	OP1-P-O3'	6.34	119.16	105.20
1	AA	598	U	C5-C4-O4	6.34	129.71	125.90
1	AA	898	G	C8-N9-C4	6.34	108.94	106.40
35	BA	1830	C	C6-N1-C2	6.34	122.84	120.30
35	DA	928	G	C5-C6-O6	-6.34	124.79	128.60
35	DA	1674	G	C4-N9-C1'	6.34	134.75	126.50
35	DA	2568	C	C6-N1-C2	6.34	122.84	120.30
50	DR	4	LEU	CB-CG-CD1	6.34	121.78	111.00
1	AA	572	A	C4-N9-C1'	-6.34	114.89	126.30
35	BA	82	G	OP2-P-O3'	6.34	119.15	105.20
1	CA	1504	G	P-O3'-C3'	6.34	127.31	119.70
35	DA	391	G	C8-N9-C1'	-6.34	118.76	127.00
35	DA	1331	A	C2-N3-C4	-6.34	107.43	110.60
35	DA	1581	G	N1-C6-O6	-6.34	116.09	119.90
35	BA	798	G	N1-C2-N3	6.34	127.70	123.90
35	DA	571	A	O5'-P-OP1	6.34	118.31	110.70
35	DA	687	C	C4-C5-C6	-6.34	114.23	117.40
35	BA	194	G	O5'-P-OP2	6.34	118.31	110.70
1	CA	1471	G	N3-C4-C5	6.34	131.77	128.60
35	DA	247	G	C4-C5-N7	6.34	113.33	110.80
35	DA	2718	G	C8-N9-C4	6.34	108.94	106.40
35	DA	2781	A	C2-N3-C4	-6.34	107.43	110.60
36	DB	109	C	C6-N1-C2	6.34	122.83	120.30
1	CA	930	C	C6-N1-C2	6.34	122.83	120.30
35	DA	203	C	C2-N3-C4	-6.34	116.73	119.90
35	DA	1076	C	C6-N1-C2	-6.34	117.77	120.30
35	DA	1984	G	O5'-P-OP2	-6.34	100.00	105.70
35	BA	991	C	C6-N1-C2	-6.33	117.77	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	141	A	C2-N3-C4	-6.33	107.43	110.60
40	DF	74	ARG	NE-CZ-NH2	-6.33	117.13	120.30
1	AA	838	G	C6-C5-N7	6.33	134.20	130.40
35	BA	146	G	C5-C6-O6	-6.33	124.80	128.60
1	CA	1417	G	C8-N9-C4	-6.33	103.87	106.40
23	CW	57	G	N3-C4-N9	6.33	129.80	126.00
1	AA	279	A	N7-C8-N9	6.33	116.97	113.80
35	BA	1322	A	C2-N3-C4	6.33	113.77	110.60
35	BA	2731	G	N3-C4-C5	-6.33	125.44	128.60
35	DA	22	C	C2-N3-C4	-6.33	116.73	119.90
35	DA	1677	A	C2-N3-C4	-6.33	107.44	110.60
35	DA	2597	G	C8-N9-C4	-6.33	103.87	106.40
35	DA	2447	G	N1-C6-O6	6.33	123.70	119.90
1	AA	56	U	C5-C6-N1	6.33	125.86	122.70
1	AA	117	G	N3-C4-N9	6.33	129.80	126.00
35	BA	253	C	C5-C6-N1	-6.33	117.84	121.00
35	BA	513	A	C5-N7-C8	-6.33	100.74	103.90
35	BA	1983	C	N1-C2-O2	-6.33	115.10	118.90
22	CV	72	A	O5'-P-OP2	-6.33	100.00	105.70
35	BA	2599	G	N1-C6-O6	-6.33	116.10	119.90
35	BA	1946	U	C5-C4-O4	-6.33	122.11	125.90
1	CA	816	A	N1-C6-N6	-6.33	114.81	118.60
1	AA	775	G	N9-C4-C5	-6.32	102.87	105.40
35	BA	259	G	C4-C5-N7	6.32	113.33	110.80
35	DA	1524	G	C5-C6-O6	-6.32	124.81	128.60
35	DA	2388	A	O5'-P-OP2	-6.32	100.01	105.70
35	DA	2486	G	N3-C4-N9	6.32	129.79	126.00
35	DA	829	A	N9-C4-C5	-6.32	103.27	105.80
35	DA	1972	A	C5-C6-N6	-6.32	118.64	123.70
1	AA	838	G	N3-C4-N9	-6.32	122.21	126.00
35	BA	259	G	N7-C8-N9	6.32	116.26	113.10
35	BA	2510	C	N1-C2-N3	6.32	123.62	119.20
35	BA	2585	U	N3-C4-O4	6.32	123.83	119.40
1	CA	399	G	N1-C6-O6	-6.32	116.11	119.90
35	DA	96	G	N3-C2-N2	-6.32	115.47	119.90
35	DA	1140	C	C6-N1-C2	-6.32	117.77	120.30
35	DA	187	G	C4-N9-C1'	6.32	134.71	126.50
1	AA	1415	G	O5'-P-OP2	-6.32	100.01	105.70
35	BA	941	A	N9-C4-C5	6.32	108.33	105.80
35	BA	2697	G	N9-C4-C5	6.32	107.93	105.40
35	DA	803	U	OP1-P-O3'	6.32	119.10	105.20
1	AA	606	G	C4-N9-C1'	6.32	134.71	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	755	G	N9-C4-C5	-6.32	102.87	105.40
1	AA	922	G	C4-N9-C1'	6.32	134.71	126.50
35	BA	253	C	N1-C2-N3	6.32	123.62	119.20
35	DA	2056	G	C6-C5-N7	-6.32	126.61	130.40
8	AH	104	ARG	NE-CZ-NH1	-6.31	117.14	120.30
35	BA	2056	G	C6-C5-N7	-6.31	126.61	130.40
35	BA	2560	C	C2-N3-C4	-6.31	116.74	119.90
35	BA	2597	G	N9-C4-C5	-6.31	102.88	105.40
35	BA	2678	C	OP2-P-O3'	6.31	119.09	105.20
1	AA	1302	U	N3-C2-O2	-6.31	117.78	122.20
35	BA	2558	C	C6-N1-C2	6.31	122.82	120.30
1	CA	771	G	OP1-P-OP2	-6.31	110.13	119.60
24	CX	23	A	C2-N3-C4	-6.31	107.44	110.60
35	DA	1355	G	N1-C6-O6	6.31	123.69	119.90
1	AA	1508	G	C8-N9-C4	6.31	108.92	106.40
35	BA	1767	C	C5-C4-N4	6.31	124.62	120.20
35	DA	416	C	N1-C2-O2	6.31	122.69	118.90
35	DA	928	G	N9-C4-C5	-6.31	102.88	105.40
35	DA	247	G	N3-C4-N9	6.31	129.78	126.00
56	BX	9	LEU	CA-CB-CG	6.31	129.80	115.30
35	DA	139(A)	G	C5-N7-C8	-6.31	101.15	104.30
35	BA	1304	C	C5-C6-N1	-6.30	117.85	121.00
35	DA	1459	G	C6-C5-N7	-6.30	126.62	130.40
35	BA	1443	G	C6-C5-N7	-6.30	126.62	130.40
35	DA	2032	G	C6-C5-N7	-6.30	126.62	130.40
35	BA	104	U	N3-C2-O2	-6.30	117.79	122.20
35	BA	1312	U	C4-C5-C6	6.30	123.48	119.70
35	BA	1838	C	C6-N1-C2	6.30	122.82	120.30
35	BA	2102	U	N3-C2-O2	-6.30	117.79	122.20
1	CA	873	A	N1-C6-N6	-6.30	114.82	118.60
35	DA	213	A	C4-C5-C6	-6.30	113.85	117.00
35	DA	2035	G	O5'-P-OP2	-6.30	100.03	105.70
35	BA	2542	A	C8-N9-C4	6.30	108.32	105.80
35	BA	804	A	N9-C4-C5	-6.30	103.28	105.80
35	BA	1667	G	C6-C5-N7	-6.30	126.62	130.40
35	DA	1881	C	C5-C6-N1	6.30	124.15	121.00
1	CA	1068	G	O5'-P-OP2	-6.29	100.03	105.70
35	DA	543	C	C6-N1-C2	6.29	122.82	120.30
35	DA	1312	U	N1-C2-N3	6.29	118.68	114.90
35	BA	785	G	N1-C2-N2	6.29	121.86	116.20
35	BA	2387	U	OP2-P-O3'	6.29	119.05	105.20
35	BA	2713	A	N9-C4-C5	-6.29	103.28	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
48	BP	33	ARG	NE-CZ-NH2	6.29	123.45	120.30
35	DA	1334	G	N1-C6-O6	6.29	123.68	119.90
35	DA	2713	A	C8-N9-C4	-6.29	103.28	105.80
1	AA	926	G	C4-C5-N7	6.29	113.32	110.80
35	BA	1653	G	C5-C6-O6	6.29	132.38	128.60
54	BV	39	LEU	CB-CG-CD2	6.29	121.70	111.00
35	DA	2246	G	N7-C8-N9	-6.29	109.95	113.10
36	DB	11	C	N3-C2-O2	-6.29	117.50	121.90
35	BA	2689	U	C5-C6-N1	-6.29	119.56	122.70
35	DA	1759	A	O5'-P-OP1	-6.29	100.04	105.70
35	DA	2392	A	C4-C5-N7	6.29	113.84	110.70
35	BA	1459	G	N7-C8-N9	6.29	116.24	113.10
35	DA	199	A	C4-C5-C6	-6.29	113.86	117.00
35	DA	272(B)	G	N1-C6-O6	-6.29	116.13	119.90
35	DA	1308	A	N1-C2-N3	6.29	132.44	129.30
41	DG	3	LEU	CA-CB-CG	6.29	129.75	115.30
35	BA	2681	C	N3-C4-N4	-6.28	113.60	118.00
35	DA	2071	A	C4-C5-C6	6.28	120.14	117.00
1	AA	781	A	OP2-P-O3'	6.28	119.02	105.20
35	BA	271(U)	G	C8-N9-C1'	-6.28	118.83	127.00
35	BA	570	G	C5-C6-O6	6.28	132.37	128.60
35	BA	2864	G	N3-C4-N9	6.28	129.77	126.00
35	DA	1209	G	C5-C6-N1	6.28	114.64	111.50
35	DA	1634	A	N1-C6-N6	6.28	122.37	118.60
35	DA	1757	U	C5-C6-N1	-6.28	119.56	122.70
35	DA	1784	A	N7-C8-N9	-6.28	110.66	113.80
35	DA	2549	G	C5-C6-O6	-6.28	124.83	128.60
35	BA	16	G	C4-C5-C6	6.28	122.57	118.80
35	BA	2721	A	C2-N3-C4	-6.28	107.46	110.60
35	DA	266	G	N1-C6-O6	6.28	123.67	119.90
35	DA	829	A	C2-N3-C4	-6.28	107.46	110.60
22	AV	33	C	O5'-P-OP1	-6.28	100.05	105.70
35	BA	1955	U	C6-N1-C2	-6.28	117.23	121.00
35	DA	2287	A	O5'-P-OP2	-6.28	100.05	105.70
1	AA	115	G	C8-N9-C4	-6.28	103.89	106.40
1	CA	1125	U	N1-C2-O2	6.27	127.19	122.80
1	AA	1249	C	N1-C2-O2	-6.27	115.14	118.90
35	BA	2734	A	C8-N9-C4	-6.27	103.29	105.80
35	DA	2427	C	N3-C4-C5	6.27	124.41	121.90
35	BA	638	G	N1-C6-O6	6.27	123.66	119.90
35	BA	1310	G	N1-C6-O6	6.27	123.66	119.90
35	DA	271(W)	G	N9-C4-C5	6.27	107.91	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	449	C	N3-C2-O2	-6.27	117.51	121.90
35	BA	1839	G	N3-C4-C5	6.27	131.73	128.60
1	CA	577	G	C8-N9-C4	6.27	108.91	106.40
1	AA	281	G	C6-C5-N7	-6.27	126.64	130.40
1	AA	527	G	N1-C6-O6	-6.27	116.14	119.90
35	BA	272(H)	C	O4'-C1'-N1	-6.27	103.19	108.20
35	BA	621	A	N1-C6-N6	6.27	122.36	118.60
35	BA	2695	C	C6-N1-C2	6.27	122.81	120.30
35	DA	691	C	OP2-P-O3'	6.27	118.99	105.20
35	DA	1007	C	C5-C6-N1	-6.27	117.87	121.00
35	DA	2765	A	OP1-P-OP2	6.27	129.00	119.60
1	AA	115	G	P-O3'-C3'	6.27	127.22	119.70
1	CA	1523	G	C4-C5-N7	-6.27	108.29	110.80
35	DA	98	G	N3-C2-N2	6.27	124.29	119.90
35	DA	2392	A	C5-N7-C8	-6.27	100.77	103.90
35	BA	27	G	N3-C4-N9	-6.26	122.24	126.00
35	BA	593	G	C2-N3-C4	-6.26	108.77	111.90
35	BA	1544	A	N7-C8-N9	-6.26	110.67	113.80
35	BA	1906	G	C4-C5-N7	6.26	113.31	110.80
35	DA	19	C	C5-C6-N1	-6.26	117.87	121.00
35	DA	1680	U	O5'-P-OP1	-6.26	100.06	105.70
35	DA	2027	G	O5'-P-OP2	-6.26	100.06	105.70
35	BA	593	G	C6-C5-N7	-6.26	126.64	130.40
35	BA	2172	U	C2-N1-C1'	6.26	125.21	117.70
35	DA	145	G	O5'-P-OP2	-6.26	100.06	105.70
35	DA	1327	C	N3-C4-C5	-6.26	119.39	121.90
35	DA	729	G	C4-N9-C1'	6.26	134.64	126.50
35	DA	1320	C	N3-C4-N4	-6.26	113.62	118.00
35	BA	177	G	O5'-P-OP1	-6.26	100.07	105.70
35	BA	2485	G	N3-C2-N2	-6.26	115.52	119.90
23	AY	37	A	N1-C2-N3	-6.26	126.17	129.30
35	BA	587	C	C2-N3-C4	6.26	123.03	119.90
35	BA	658	C	N1-C2-O2	-6.26	115.15	118.90
35	BA	1423	G	N9-C4-C5	-6.26	102.90	105.40
35	DA	1777	U	C5-C4-O4	-6.26	122.15	125.90
35	DA	2665	A	C5-N7-C8	-6.26	100.77	103.90
36	DB	109	C	C5-C6-N1	-6.26	117.87	121.00
1	AA	352	C	N3-C4-C5	-6.25	119.40	121.90
35	BA	204	A	N1-C2-N3	6.25	132.43	129.30
35	BA	1480	G	C4-N9-C1'	6.25	134.63	126.50
1	CA	1300	G	P-O3'-C3'	6.25	127.20	119.70
35	DA	197	A	N1-C6-N6	6.25	122.35	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	2373	G	N1-C2-N3	6.25	127.65	123.90
35	DA	257	A	N7-C8-N9	6.25	116.93	113.80
35	DA	1313	U	C6-N1-C2	-6.25	117.25	121.00
35	DA	1657	C	OP1-P-O3'	6.25	118.96	105.20
35	BA	588	U	C2-N1-C1'	6.25	125.20	117.70
35	BA	802	A	O5'-P-OP2	-6.25	100.07	105.70
35	BA	2730	C	N3-C2-O2	-6.25	117.52	121.90
35	DA	814	C	O5'-P-OP2	-6.25	100.07	105.70
35	DA	1628	G	N3-C4-N9	6.25	129.75	126.00
35	DA	2447	G	C4-C5-N7	6.25	113.30	110.80
35	BA	1956	U	N3-C2-O2	-6.25	117.83	122.20
35	BA	975	C	N1-C1'-C2'	6.25	122.12	114.00
35	DA	2253	G	C5-C6-N1	6.25	114.62	111.50
35	BA	505	A	O5'-P-OP1	-6.25	100.08	105.70
35	BA	856	C	C2'-C3'-O3'	6.25	123.69	113.70
35	BA	1284	A	C4-C5-N7	6.25	113.82	110.70
35	BA	1288	U	O5'-P-OP2	-6.25	100.08	105.70
35	BA	1546	C	P-O3'-C3'	6.25	127.19	119.70
35	BA	2452	C	N3-C4-C5	-6.25	119.40	121.90
35	BA	2551	C	N3-C4-C5	-6.25	119.40	121.90
1	CA	1054	C	C4-C5-C6	-6.25	114.28	117.40
35	DA	250	G	N3-C2-N2	-6.25	115.53	119.90
35	DA	463	G	N1-C6-O6	-6.25	116.15	119.90
35	BA	1235	G	N3-C4-C5	-6.25	125.48	128.60
35	BA	1968	G	C4-C5-N7	6.25	113.30	110.80
9	CI	96	LEU	CA-CB-CG	6.25	129.66	115.30
35	DA	2643	G	N1-C2-N3	6.25	127.65	123.90
23	AW	13	C	N1-C2-O2	6.24	122.65	118.90
35	BA	774	A	C5-C6-N1	-6.24	114.58	117.70
35	BA	954	G	N1-C6-O6	-6.24	116.15	119.90
35	BA	1546	C	N1-C2-O2	6.24	122.65	118.90
35	BA	1770	G	N1-C2-N3	6.24	127.65	123.90
35	BA	2610	C	P-O3'-C3'	6.24	127.19	119.70
55	BW	44	ALA	C-N-CA	-6.24	106.09	121.70
35	BA	1616	A	O4'-C1'-N9	6.24	113.19	108.20
35	BA	1813	G	C8-N9-C4	6.24	108.90	106.40
35	DA	1308	A	N9-C4-C5	6.24	108.30	105.80
22	CV	76	A	N3-C4-C5	6.24	131.17	126.80
35	DA	34	C	OP1-P-OP2	6.24	128.96	119.60
35	DA	979	G	C2-N3-C4	-6.24	108.78	111.90
35	BA	1304	C	C6-N1-C2	6.24	122.80	120.30
1	CA	836	G	N9-C4-C5	-6.24	102.91	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	1437	C	N3-C2-O2	-6.24	117.53	121.90
35	DA	1771	C	N3-C4-C5	6.24	124.40	121.90
35	DA	1988	C	C6-N1-C2	6.24	122.80	120.30
35	DA	2346	A	C4-C5-C6	6.24	120.12	117.00
1	AA	529	G	N1-C6-O6	6.24	123.64	119.90
35	BA	656	G	OP1-P-O3'	6.24	118.92	105.20
35	DA	1459	G	N7-C8-N9	6.24	116.22	113.10
35	BA	1332	G	C4-C5-C6	6.23	122.54	118.80
35	BA	1942	C	N3-C2-O2	-6.23	117.54	121.90
35	BA	2329	G	C5-C6-O6	-6.23	124.86	128.60
35	DA	472	A	C5-C6-N6	-6.23	118.71	123.70
35	DA	1308	A	C4-C5-C6	6.23	120.12	117.00
1	AA	1482	G	N3-C4-N9	6.23	129.74	126.00
35	DA	227	A	C4-C5-C6	6.23	120.12	117.00
35	DA	1374	G	C6-C5-N7	-6.23	126.66	130.40
1	AA	396	G	C2-N3-C4	6.23	115.02	111.90
1	CA	920	U	N3-C2-O2	-6.23	117.84	122.20
35	DA	330	A	C4-C5-N7	6.23	113.81	110.70
35	DA	1320	C	C5-C4-N4	6.23	124.56	120.20
1	AA	481	G	N3-C4-N9	6.23	129.74	126.00
35	BA	1642	G	N1-C6-O6	-6.23	116.16	119.90
35	DA	2844	G	C5-C6-O6	-6.23	124.86	128.60
35	BA	272(G)	C	C6-N1-C2	-6.23	117.81	120.30
35	BA	1788	C	N3-C2-O2	-6.23	117.54	121.90
1	CA	1515	C	C6-N1-C2	6.23	122.79	120.30
35	DA	272	G	C2-N3-C4	6.23	115.01	111.90
35	DA	510	C	O5'-P-OP1	-6.23	100.09	105.70
35	DA	1840	G	C2-N3-C4	-6.23	108.79	111.90
35	DA	1963	U	O4'-C1'-N1	-6.23	103.22	108.20
56	DX	44	GLU	CA-CB-CG	6.23	127.10	113.40
1	AA	45	U	C5-C6-N1	-6.23	119.59	122.70
35	DA	2360	A	C4-C5-N7	6.23	113.81	110.70
1	AA	229	U	O5'-P-OP1	-6.22	100.10	105.70
1	AA	815	A	C8-N9-C4	6.22	108.29	105.80
35	BA	1677	A	C6-C5-N7	-6.22	127.94	132.30
1	CA	813	U	O5'-P-OP1	6.22	118.17	110.70
35	DA	766	C	C6-N1-C2	6.22	122.79	120.30
35	DA	1865	G	C8-N9-C4	-6.22	103.91	106.40
35	BA	975	C	N1-C2-N3	-6.22	114.84	119.20
35	BA	2413	G	C5-C6-O6	-6.22	124.87	128.60
35	DA	2271	G	N3-C2-N2	6.22	124.25	119.90
35	BA	1448	G	C4-N9-C1'	6.22	134.59	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	1683	C	C5-C6-N1	-6.22	117.89	121.00
35	DA	1942	C	C4-C5-C6	-6.22	114.29	117.40
1	AA	1482	G	C6-C5-N7	-6.22	126.67	130.40
35	BA	132	G	C4-N9-C1'	6.22	134.59	126.50
35	BA	2244	U	N1-C2-O2	-6.22	118.45	122.80
35	BA	958	U	OP2-P-O3'	6.22	118.88	105.20
35	BA	2493	U	N1-C2-N3	6.22	118.63	114.90
35	BA	2595	G	N1-C6-O6	6.22	123.63	119.90
1	CA	792	A	O4'-C1'-N9	6.22	113.17	108.20
35	DA	2565	A	C8-N9-C4	6.22	108.29	105.80
35	BA	2234	G	N3-C4-C5	-6.22	125.49	128.60
35	DA	1349	A	N1-C6-N6	6.22	122.33	118.60
35	BA	481	G	C6-C5-N7	-6.21	126.67	130.40
35	BA	820	A	N1-C2-N3	6.21	132.41	129.30
52	BT	78	LEU	CA-CB-CG	6.21	129.59	115.30
35	DA	437	G	N3-C2-N2	6.21	124.25	119.90
35	DA	458	G	N3-C2-N2	-6.21	115.55	119.90
35	DA	1813	G	N7-C8-N9	-6.21	109.99	113.10
35	BA	83	G	O4'-C1'-N9	6.21	113.17	108.20
1	CA	897	C	C5-C6-N1	-6.21	117.89	121.00
35	DA	2000	G	C4-C5-N7	6.21	113.28	110.80
1	AA	786	G	C8-N9-C4	6.21	108.89	106.40
35	BA	811	U	N3-C2-O2	-6.21	117.85	122.20
1	CA	768	A	C8-N9-C4	6.21	108.28	105.80
35	DA	1565	C	C6-N1-C2	6.21	122.78	120.30
1	AA	189(G)	G	C8-N9-C4	-6.21	103.92	106.40
1	AA	244	U	C6-N1-C1'	-6.21	112.51	121.20
35	DA	213	A	N1-C2-N3	-6.21	126.19	129.30
35	DA	2074	U	N3-C4-O4	6.21	123.75	119.40
35	DA	75	G	C8-N9-C4	-6.21	103.92	106.40
35	DA	2864	G	C5-N7-C8	-6.21	101.19	104.30
35	BA	860	U	C5-C4-O4	6.21	129.62	125.90
35	DA	651	G	N1-C6-O6	6.21	123.62	119.90
35	DA	773	U	N3-C4-O4	-6.21	115.06	119.40
35	DA	1578	U	N3-C2-O2	-6.21	117.86	122.20
35	DA	2436	G	C8-N9-C4	-6.21	103.92	106.40
1	AA	107	G	N1-C6-O6	6.21	123.62	119.90
1	AA	748	C	P-O3'-C3'	6.20	127.14	119.70
1	AA	1519	A	C5-C6-N6	6.20	128.66	123.70
35	DA	729	G	C4-C5-N7	6.20	113.28	110.80
35	DA	2091	U	C5-C6-N1	-6.20	119.60	122.70
1	CA	621	A	N1-C2-N3	6.20	132.40	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	337	C	C6-N1-C2	6.20	122.78	120.30
35	DA	1506	C	C2-N1-C1'	6.20	125.62	118.80
1	AA	279	A	C6-C5-N7	-6.20	127.96	132.30
1	AA	853	G	O5'-P-OP2	-6.20	100.12	105.70
1	AA	1238	A	O5'-P-OP1	-6.20	100.12	105.70
36	BB	41	U	C6-N1-C1'	-6.20	112.52	121.20
35	DA	549	G	C6-C5-N7	-6.20	126.68	130.40
35	DA	2032	G	N3-C2-N2	-6.20	115.56	119.90
1	AA	1022	G	C4-C5-N7	6.20	113.28	110.80
35	BA	27	G	C8-N9-C1'	6.20	135.06	127.00
35	DA	2723	C	C2-N3-C4	-6.20	116.80	119.90
1	AA	117	G	C8-N9-C1'	-6.20	118.94	127.00
35	BA	651	G	N3-C4-N9	6.20	129.72	126.00
35	DA	1412	A	O5'-P-OP1	6.20	118.14	110.70
35	DA	1619	G	C5-N7-C8	-6.20	101.20	104.30
35	DA	1841	U	C2-N1-C1'	-6.20	110.26	117.70
54	DV	81	TYR	CB-CA-C	6.20	122.79	110.40
35	BA	320	A	N1-C6-N6	-6.20	114.88	118.60
35	BA	1253	A	C5-C6-N1	6.20	120.80	117.70
35	BA	2447	G	N3-C2-N2	-6.20	115.56	119.90
35	DA	57	C	N1-C2-N3	-6.20	114.86	119.20
35	DA	75	G	N3-C4-N9	-6.20	122.28	126.00
35	DA	1668	A	C4-C5-C6	6.20	120.10	117.00
35	DA	2476	A	N7-C8-N9	6.20	116.90	113.80
35	DA	130	C	C5-C4-N4	-6.19	115.86	120.20
35	DA	1813	G	N3-C2-N2	-6.19	115.56	119.90
35	DA	2838	G	C8-N9-C1'	6.19	135.05	127.00
35	BA	1801	G	C6-N1-C2	-6.19	121.39	125.10
35	BA	2381	C	C6-N1-C2	6.19	122.78	120.30
35	BA	2444	G	C8-N9-C4	6.19	108.88	106.40
50	BR	83	ILE	CG1-CB-CG2	-6.19	97.78	111.40
1	AA	1244	C	C6-N1-C2	-6.19	117.82	120.30
35	DA	30	G	C6-C5-N7	-6.19	126.69	130.40
35	DA	447	A	O5'-P-OP1	-6.19	100.13	105.70
35	DA	1321	A	C4-C5-N7	-6.19	107.61	110.70
35	DA	2407	G	C8-N9-C1'	-6.19	118.95	127.00
35	DA	2448	A	N3-C4-N9	6.19	132.35	127.40
1	CA	186	C	C6-N1-C2	-6.19	117.82	120.30
35	DA	847	U	C5-C6-N1	-6.19	119.61	122.70
35	DA	2289	G	C6-C5-N7	6.19	134.11	130.40
35	DA	2545	G	N3-C2-N2	-6.19	115.57	119.90
1	AA	1199	U	C5-C4-O4	6.19	129.61	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	124	G	O5'-P-OP1	6.19	118.13	110.70
35	BA	466	A	C4-C5-C6	6.19	120.09	117.00
35	BA	568	U	C6-N1-C1'	6.19	129.86	121.20
1	CA	561	U	N3-C2-O2	-6.19	117.87	122.20
35	DA	815	C	C6-N1-C2	6.19	122.78	120.30
35	DA	1595	G	N1-C2-N2	-6.19	110.63	116.20
24	AX	13	A	C5'-C4'-O4'	6.19	116.52	109.10
35	DA	52	A	C5-C6-N6	-6.19	118.75	123.70
1	AA	7	G	C8-N9-C4	6.18	108.87	106.40
35	DA	865	C	C6-N1-C2	6.18	122.77	120.30
35	BA	27	G	C4-N9-C1'	-6.18	118.46	126.50
35	BA	1259	G	N3-C4-N9	6.18	129.71	126.00
1	CA	1279	A	N7-C8-N9	6.18	116.89	113.80
35	DA	2549	G	N1-C6-O6	6.18	123.61	119.90
35	DA	548	A	C8-N9-C4	6.18	108.27	105.80
35	DA	2036	C	C2-N3-C4	-6.18	116.81	119.90
35	DA	2275	C	C6-N1-C2	-6.18	117.83	120.30
1	AA	80	G	C5-C6-O6	-6.18	124.89	128.60
1	AA	281	G	N9-C4-C5	-6.18	102.93	105.40
1	AA	721	G	C6-C5-N7	-6.18	126.69	130.40
35	BA	1381	G	C8-N9-C4	6.18	108.87	106.40
35	BA	1740	G	N3-C4-N9	6.18	129.71	126.00
48	BP	18	ARG	NE-CZ-NH1	-6.18	117.21	120.30
35	DA	260	G	C2-N3-C4	6.18	114.99	111.90
35	DA	818	G	N9-C4-C5	6.18	107.87	105.40
36	DB	112	U	C6-N1-C1'	6.18	129.85	121.20
35	BA	2553	G	O5'-P-OP1	-6.18	100.14	105.70
35	DA	109	G	C5-C6-N1	6.18	114.59	111.50
35	DA	528	A	C5-C6-N1	-6.18	114.61	117.70
35	DA	799	G	N3-C2-N2	-6.18	115.58	119.90
35	DA	1983	C	N3-C4-N4	-6.18	113.68	118.00
1	CA	980	C	C5-C4-N4	6.17	124.52	120.20
35	DA	234	C	N1-C2-O2	6.17	122.60	118.90
35	DA	624	C	N3-C4-C5	6.17	124.37	121.90
35	DA	705	A	N7-C8-N9	-6.17	110.71	113.80
35	DA	2496	C	C4-C5-C6	6.17	120.49	117.40
1	AA	765	G	C8-N9-C4	6.17	108.87	106.40
35	BA	679	C	C6-N1-C2	6.17	122.77	120.30
35	DA	1601	G	N7-C8-N9	-6.17	110.01	113.10
35	BA	2420	C	N3-C4-C5	6.17	124.37	121.90
35	BA	2454	G	N1-C6-O6	-6.17	116.20	119.90
1	CA	516	U	OP2-P-O3'	6.17	118.78	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	77	C	C6-N1-C2	-6.17	117.83	120.30
35	DA	1187	G	C4-C5-N7	-6.17	108.33	110.80
35	DA	2003	G	C5-C6-O6	-6.17	124.90	128.60
35	DA	2544	G	C2-N3-C4	-6.17	108.81	111.90
36	DB	21	G	N7-C8-N9	6.17	116.19	113.10
1	AA	423	G	C4-C5-N7	6.17	113.27	110.80
35	DA	827	U	P-O3'-C3'	6.17	127.10	119.70
35	DA	1452	A	C8-N9-C4	6.17	108.27	105.80
35	DA	2032	G	N3-C4-C5	6.17	131.69	128.60
35	DA	2059	A	O4'-C1'-N9	6.17	113.14	108.20
35	DA	2603	G	OP1-P-O3'	6.17	118.77	105.20
35	DA	860	U	O5'-P-OP1	6.17	118.10	110.70
35	DA	1641	A	N1-C2-N3	6.17	132.38	129.30
35	DA	2844	G	C2-N3-C4	-6.17	108.82	111.90
35	DA	1789	A	C8-N9-C4	6.17	108.27	105.80
35	DA	2050	C	C2-N3-C4	-6.17	116.82	119.90
35	BA	1918	A	N9-C4-C5	-6.17	103.33	105.80
35	DA	1330	C	N3-C4-C5	-6.17	119.43	121.90
35	DA	1786	A	C4-N9-C1'	6.17	137.40	126.30
35	DA	2869	G	N7-C8-N9	6.17	116.18	113.10
22	AV	21	U	O4'-C1'-N1	6.16	113.13	108.20
35	BA	446	G	C2-N3-C4	6.16	114.98	111.90
35	BA	752	A	C5-N7-C8	-6.16	100.82	103.90
35	BA	804	A	N1-C2-N3	6.16	132.38	129.30
35	DA	646	A	C6-C5-N7	-6.16	127.98	132.30
35	DA	798	G	N9-C4-C5	-6.16	102.94	105.40
35	BA	682	G	C5-N7-C8	6.16	107.38	104.30
22	AV	17	C	C6-N1-C1'	-6.16	113.41	120.80
1	CA	108	G	C4-N9-C1'	6.16	134.51	126.50
1	AA	549	C	N3-C2-O2	6.16	126.21	121.90
35	BA	808	G	O5'-P-OP2	-6.16	100.16	105.70
35	BA	2618	G	C4-C5-N7	-6.16	108.34	110.80
35	DA	125	G	C4-C5-N7	6.16	113.26	110.80
35	DA	271(W)	G	C5-C6-O6	6.16	132.29	128.60
35	DA	973	A	C2-N3-C4	-6.16	107.52	110.60
35	DA	640	C	O5'-P-OP2	-6.16	100.16	105.70
35	DA	1310	G	C5-C6-O6	-6.16	124.91	128.60
35	BA	541	C	O5'-P-OP1	-6.16	100.16	105.70
35	BA	576	U	N1-C2-N3	6.16	118.59	114.90
1	CA	366	C	C6-N1-C2	-6.16	117.84	120.30
35	DA	1292	U	N3-C4-C5	6.16	118.29	114.60
35	DA	1627	G	C5-C6-N1	-6.16	108.42	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1329	U	N1-C2-O2	-6.15	118.49	122.80
35	BA	2689	U	C6-N1-C2	6.15	124.69	121.00
35	BA	2773	C	C6-N1-C2	6.15	122.76	120.30
1	CA	557	G	C6-C5-N7	-6.15	126.71	130.40
35	DA	862	G	C5-C6-O6	6.15	132.29	128.60
35	DA	2063	C	O5'-P-OP2	-6.15	100.16	105.70
35	DA	2585	U	O4'-C1'-N1	6.15	113.12	108.20
35	BA	2249	U	N3-C4-C5	-6.15	110.91	114.60
35	BA	2678	C	C5-C6-N1	-6.15	117.92	121.00
1	CA	883	C	N3-C2-O2	-6.15	117.59	121.90
35	DA	2494	G	C2-N3-C4	-6.15	108.82	111.90
35	DA	2584	U	O5'-P-OP2	-6.15	100.16	105.70
1	AA	817	C	N3-C4-C5	6.15	124.36	121.90
35	BA	835	A	C6-N1-C2	-6.15	114.91	118.60
35	BA	1528(A)	A	C6-C5-N7	-6.15	127.99	132.30
35	BA	2030	A	C5-C6-N1	6.15	120.78	117.70
1	CA	103	C	N3-C2-O2	-6.15	117.59	121.90
1	CA	898	G	C5-C6-O6	-6.15	124.91	128.60
35	DA	1398	C	C2-N1-C1'	6.15	125.56	118.80
35	DA	2578	G	C8-N9-C4	6.15	108.86	106.40
35	DA	2837	G	N7-C8-N9	6.15	116.18	113.10
35	BA	930	U	N3-C4-O4	-6.15	115.10	119.40
35	DA	1677	A	C4-C5-C6	6.15	120.08	117.00
35	BA	1897	G	N1-C6-O6	6.15	123.59	119.90
35	DA	956	G	C8-N9-C4	6.15	108.86	106.40
35	DA	971	C	C2-N1-C1'	6.15	125.56	118.80
35	DA	1795	C	N1-C2-O2	-6.15	115.21	118.90
35	DA	2622	C	C6-N1-C2	6.15	122.76	120.30
35	BA	139(A)	G	N3-C4-C5	-6.15	125.53	128.60
35	DA	1184	G	C5-C6-N1	-6.15	108.43	111.50
35	DA	1312	U	C4-C5-C6	6.15	123.39	119.70
35	DA	1363	C	N3-C2-O2	-6.15	117.60	121.90
1	AA	373	A	C8-N9-C4	6.14	108.26	105.80
35	BA	725	G	C5-C6-N1	-6.14	108.43	111.50
35	BA	2619	C	C5-C6-N1	-6.14	117.93	121.00
35	DA	2553	G	C8-N9-C4	-6.14	103.94	106.40
35	DA	2878	U	N3-C2-O2	-6.14	117.90	122.20
1	AA	1482	G	C4-N9-C1'	6.14	134.49	126.50
35	BA	2040	C	C2-N1-C1'	6.14	125.56	118.80
35	DA	1261	C	C4-C5-C6	6.14	120.47	117.40
35	DA	1353	A	N1-C2-N3	6.14	132.37	129.30
35	DA	1978	A	C2-N3-C4	-6.14	107.53	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	574	C	C6-N1-C2	6.14	122.75	120.30
35	BA	1443	G	C8-N9-C1'	-6.14	119.02	127.00
35	BA	1655	A	O5'-P-OP1	6.14	118.07	110.70
35	DA	219	G	C5-C6-N1	6.14	114.57	111.50
35	DA	818	G	C5-C6-O6	6.14	132.28	128.60
35	DA	2564	A	C6-C5-N7	-6.14	128.00	132.30
36	DB	108	U	O5'-P-OP2	-6.14	100.18	105.70
1	AA	189(J)	G	N3-C4-C5	-6.14	125.53	128.60
35	DA	271(F)	C	C6-N1-C2	-6.14	117.85	120.30
35	DA	1100	C	N3-C2-O2	-6.14	117.61	121.90
1	AA	281	G	C4-C5-N7	6.13	113.25	110.80
1	AA	1160	G	C8-N9-C4	-6.13	103.95	106.40
1	AA	1336	C	C6-N1-C2	-6.13	117.85	120.30
35	BA	668	G	C2-N3-C4	-6.13	108.83	111.90
35	BA	733	G	C6-C5-N7	-6.13	126.72	130.40
35	BA	2736	G	N3-C4-C5	6.13	131.67	128.60
38	BD	14	ARG	NE-CZ-NH1	-6.13	117.23	120.30
1	CA	1473	A	C8-N9-C4	6.13	108.25	105.80
35	DA	124	G	C8-N9-C1'	-6.13	119.03	127.00
35	DA	662	G	C6-N1-C2	-6.13	121.42	125.10
35	BA	1780	A	N7-C8-N9	6.13	116.87	113.80
35	DA	2404	C	C5-C4-N4	6.13	124.49	120.20
1	AA	422	C	C6-N1-C2	-6.13	117.85	120.30
1	AA	1161	C	C3'-C2'-C1'	-6.13	96.59	101.50
17	AQ	98	LEU	CA-CB-CG	6.13	129.40	115.30
35	BA	414	C	C5-C6-N1	-6.13	117.93	121.00
35	BA	455	C	N3-C2-O2	-6.13	117.61	121.90
35	BA	1532	C	N1-C2-O2	6.13	122.58	118.90
35	BA	2059	A	C8-N9-C4	6.13	108.25	105.80
35	BA	2713	A	C6-C5-N7	-6.13	128.01	132.30
22	CV	17	C	C6-N1-C2	-6.13	117.85	120.30
35	DA	1678	G	C6-C5-N7	-6.13	126.72	130.40
35	BA	59	U	O5'-P-OP2	-6.13	100.18	105.70
35	BA	2232	U	N3-C4-C5	-6.13	110.92	114.60
35	DA	2712(A)	A	C4-N9-C1'	6.13	137.33	126.30
35	BA	221	A	O4'-C1'-N9	6.13	113.10	108.20
35	BA	2235	G	N1-C6-O6	6.13	123.58	119.90
35	BA	2502	G	C8-N9-C4	-6.13	103.95	106.40
38	BD	49	ILE	CG1-CB-CG2	-6.13	97.92	111.40
1	CA	899	C	C6-N1-C2	6.13	122.75	120.30
35	DA	381	G	C5-C6-O6	-6.13	124.92	128.60
35	DA	1131	G	C6-C5-N7	-6.13	126.72	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	1783	A	C4-C5-N7	6.13	113.76	110.70
23	AW	48	C	O4'-C1'-N1	6.13	113.10	108.20
35	DA	72	U	C2-N1-C1'	-6.13	110.35	117.70
35	DA	382	G	C8-N9-C4	6.13	108.85	106.40
35	BA	31	C	C6-N1-C2	6.12	122.75	120.30
35	BA	1546	C	O4'-C1'-N1	-6.12	103.30	108.20
35	DA	972	G	C2-N3-C4	-6.12	108.84	111.90
35	BA	113	G	C5-C6-O6	-6.12	124.92	128.60
1	CA	766	A	C8-N9-C4	6.12	108.25	105.80
35	DA	250	G	N9-C4-C5	6.12	107.85	105.40
35	BA	272(I)	U	C5-C6-N1	6.12	125.76	122.70
35	DA	134	C	C6-N1-C2	6.12	122.75	120.30
35	DA	1008	C	N3-C4-C5	6.12	124.35	121.90
35	BA	1060	U	P-O3'-C3'	6.12	127.04	119.70
42	DH	7	LEU	CA-CB-CG	6.12	129.38	115.30
1	AA	356	A	C5-C6-N6	6.12	128.59	123.70
35	BA	426	C	C6-N1-C2	6.12	122.75	120.30
35	BA	1349	A	C4-C5-N7	6.12	113.76	110.70
1	CA	1519	A	C5-C6-N1	-6.12	114.64	117.70
1	CA	1523	G	N7-C8-N9	-6.12	110.04	113.10
22	CV	52	G	O4'-C1'-N9	6.12	113.09	108.20
35	DA	767	U	C2-N3-C4	6.12	130.67	127.00
48	DP	29	LYS	CD-CE-NZ	6.12	125.77	111.70
1	AA	981	U	N3-C4-O4	6.12	123.68	119.40
35	BA	782	A	C6-N1-C2	-6.12	114.93	118.60
1	CA	239	U	N3-C4-C5	-6.12	110.93	114.60
35	DA	1756	G	N1-C2-N3	6.12	127.57	123.90
35	DA	1899	G	C5-C6-O6	-6.12	124.93	128.60
35	BA	1529	G	C4-C5-N7	-6.11	108.36	110.80
1	CA	1529	G	C6-N1-C2	-6.11	121.43	125.10
35	DA	437	G	N3-C4-N9	6.11	129.67	126.00
35	DA	2639	A	C4-C5-N7	6.11	113.76	110.70
35	BA	2392	A	C8-N9-C4	-6.11	103.36	105.80
35	BA	848	G	C4-N9-C1'	6.11	134.44	126.50
35	BA	2721	A	N1-C2-N3	6.11	132.35	129.30
35	DA	1661	G	C6-N1-C2	-6.11	121.43	125.10
35	BA	2715	C	N3-C4-C5	6.11	124.34	121.90
35	DA	187	G	N3-C4-N9	6.11	129.66	126.00
35	DA	735	A	N1-C2-N3	6.11	132.35	129.30
35	DA	784	A	N1-C6-N6	-6.11	114.94	118.60
35	DA	794	G	N1-C2-N2	-6.11	110.70	116.20
35	DA	2312	U	O5'-P-OP1	-6.11	100.20	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2688	U	C2-N3-C4	-6.11	123.34	127.00
35	DA	1011	G	N3-C4-C5	-6.11	125.55	128.60
35	DA	1333	C	C6-N1-C2	-6.10	117.86	120.30
35	DA	1628	G	C8-N9-C1'	-6.10	119.06	127.00
1	AA	285	G	N1-C6-O6	-6.10	116.24	119.90
1	AA	890	G	N7-C8-N9	-6.10	110.05	113.10
35	BA	1284	A	C5-N7-C8	-6.10	100.85	103.90
35	BA	2466	C	C5-C6-N1	6.10	124.05	121.00
35	BA	2589	A	N7-C8-N9	-6.10	110.75	113.80
35	DA	235	U	C5-C6-N1	-6.10	119.65	122.70
35	DA	1320	C	C2-N1-C1'	-6.10	112.09	118.80
35	DA	1407	C	N3-C2-O2	6.10	126.17	121.90
35	DA	1509	C	C6-N1-C1'	-6.10	113.48	120.80
35	DA	1698	A	N9-C4-C5	-6.10	103.36	105.80
35	DA	2252	G	N9-C4-C5	-6.10	102.96	105.40
35	DA	2329	G	N3-C4-N9	-6.10	122.34	126.00
35	DA	2464	C	N3-C4-N4	6.10	122.27	118.00
35	DA	2844	G	N3-C2-N2	-6.10	115.63	119.90
1	AA	902	G	C5-C6-O6	-6.10	124.94	128.60
35	DA	2419	U	N3-C4-C5	6.10	118.26	114.60
35	DA	2600	A	N1-C2-N3	6.10	132.35	129.30
1	AA	1084	G	N3-C4-C5	-6.10	125.55	128.60
35	BA	233	A	O5'-P-OP1	-6.10	100.21	105.70
35	BA	651	G	N1-C2-N3	-6.10	120.24	123.90
35	BA	2361	A	C5-C6-N1	-6.10	114.65	117.70
1	CA	1337	G	N3-C4-C5	6.10	131.65	128.60
35	DA	98	G	N3-C4-N9	6.10	129.66	126.00
35	DA	2577	A	C6-N1-C2	-6.10	114.94	118.60
35	DA	2614	A	C8-N9-C4	6.10	108.24	105.80
1	AA	1303	C	O5'-P-OP2	-6.10	100.21	105.70
1	CA	585	G	O5'-P-OP2	-6.10	100.21	105.70
35	DA	2275	C	C4-C5-C6	6.10	120.45	117.40
35	DA	2473	U	C6-N1-C2	-6.10	117.34	121.00
35	DA	1159	U	C4-C5-C6	6.10	123.36	119.70
1	AA	1303	C	C5-C6-N1	6.09	124.05	121.00
2	AB	221	LEU	CA-CB-CG	6.09	129.32	115.30
35	BA	810	U	N3-C2-O2	6.09	126.47	122.20
35	BA	942	G	C8-N9-C4	6.09	108.84	106.40
50	BR	22	ARG	NE-CZ-NH1	6.09	123.35	120.30
22	CV	73	A	N1-C6-N6	6.09	122.26	118.60
35	DA	652	C	C2-N3-C4	6.09	122.95	119.90
1	AA	1513	A	N1-C6-N6	6.09	122.26	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	130	C	C6-N1-C2	6.09	122.74	120.30
35	BA	2062	A	C2-N3-C4	6.09	113.65	110.60
35	DA	614(B)	G	N3-C4-N9	6.09	129.66	126.00
35	DA	646	A	N7-C8-N9	6.09	116.84	113.80
35	DA	1687	G	C5-C6-O6	6.09	132.25	128.60
35	BA	103	A	C6-C5-N7	-6.09	128.04	132.30
35	BA	1080	C	C5-C6-N1	6.09	124.05	121.00
35	DA	1688	U	N1-C2-O2	-6.09	118.54	122.80
35	DA	2592	G	C4-C5-N7	-6.09	108.36	110.80
35	DA	309	G	N1-C2-N2	-6.09	110.72	116.20
35	DA	973	A	OP1-P-OP2	6.09	128.73	119.60
1	AA	1020	U	C6-N1-C1'	-6.09	112.68	121.20
1	CA	109	A	C8-N9-C4	6.09	108.23	105.80
35	DA	2407	G	O5'-P-OP2	-6.09	100.22	105.70
1	AA	365	U	C4-C5-C6	6.08	123.35	119.70
1	AA	1030	C	O4'-C1'-N1	6.08	113.07	108.20
35	DA	738	G	C8-N9-C4	-6.08	103.97	106.40
35	DA	945	A	C4-N9-C1'	6.08	137.25	126.30
35	DA	1544	A	C5-C6-N6	6.08	128.57	123.70
1	AA	1067	A	C8-N9-C4	-6.08	103.37	105.80
35	BA	81	G	P-O3'-C3'	6.08	127.00	119.70
1	CA	1497	G	C8-N9-C4	-6.08	103.97	106.40
25	D0	66	VAL	CG1-CB-CG2	-6.08	101.17	110.90
35	DA	2582	G	C8-N9-C4	-6.08	103.97	106.40
1	AA	766	A	C5-C6-N6	-6.08	118.84	123.70
35	BA	1330	C	N3-C4-C5	-6.08	119.47	121.90
1	AA	108	G	C5-N7-C8	-6.08	101.26	104.30
1	AA	898	G	N9-C1'-C2'	-6.08	105.31	112.00
1	AA	1499	A	N1-C6-N6	6.08	122.25	118.60
35	BA	446	G	C8-N9-C1'	-6.08	119.10	127.00
35	BA	1680	U	C5-C4-O4	6.08	129.55	125.90
35	BA	1780	A	C8-N9-C4	-6.08	103.37	105.80
35	BA	2572	A	C8-N9-C4	6.08	108.23	105.80
35	DA	139(A)	G	N7-C8-N9	6.08	116.14	113.10
35	DA	1773	A	C4-C5-C6	6.08	120.04	117.00
35	DA	2655	G	N1-C6-O6	-6.08	116.25	119.90
1	AA	653	A	C8-N9-C4	6.08	108.23	105.80
1	CA	529	G	C2-N3-C4	-6.08	108.86	111.90
1	CA	880	C	C5-C6-N1	-6.08	117.96	121.00
35	BA	662	G	N1-C6-O6	6.07	123.55	119.90
35	BA	1246	A	C8-N9-C4	6.07	108.23	105.80
35	BA	1404	C	C6-N1-C2	-6.07	117.87	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2015	A	C8-N9-C4	6.07	108.23	105.80
38	BD	234	GLY	N-CA-C	-6.07	97.92	113.10
35	DA	459	U	O5'-P-OP2	-6.07	100.23	105.70
35	DA	826	U	C4-C5-C6	6.07	123.34	119.70
35	DA	2686	G	N3-C4-N9	6.07	129.64	126.00
35	BA	2070	G	C5-N7-C8	6.07	107.34	104.30
35	DA	330	A	N3-C4-C5	6.07	131.05	126.80
35	DA	608	A	N1-C6-N6	6.07	122.24	118.60
1	AA	615	C	C5-C4-N4	6.07	124.45	120.20
35	DA	191	A	N1-C2-N3	6.07	132.34	129.30
35	DA	2067	G	N3-C4-C5	-6.07	125.56	128.60
35	BA	787	U	O5'-P-OP1	6.07	117.98	110.70
35	DA	1698	A	O4'-C1'-N9	6.07	113.06	108.20
35	BA	443	A	C5-C6-N1	-6.07	114.67	117.70
35	DA	1251	C	C6-N1-C2	6.07	122.73	120.30
49	DQ	109	VAL	CG1-CB-CG2	-6.07	101.19	110.90
1	AA	702	A	P-O3'-C3'	6.07	126.98	119.70
1	AA	1139	G	N3-C4-C5	6.07	131.63	128.60
35	BA	139	G	C4-N9-C1'	6.07	134.38	126.50
35	BA	933	A	C4-C5-N7	6.07	113.73	110.70
35	BA	1594	G	N3-C4-N9	6.07	129.64	126.00
35	DA	739	G	C6-C5-N7	-6.07	126.76	130.40
35	DA	2369	A	C5-C6-N6	6.07	128.55	123.70
23	AY	38	A	C5-N7-C8	-6.06	100.87	103.90
1	AA	1161	C	N3-C2-O2	-6.06	117.66	121.90
35	BA	539	G	C6-C5-N7	6.06	134.04	130.40
35	BA	1602	U	C6-N1-C2	-6.06	117.36	121.00
48	BP	39	LYS	CD-CE-NZ	-6.06	97.76	111.70
1	CA	925	G	C8-N9-C4	6.06	108.83	106.40
35	DA	189	G	N3-C4-N9	6.06	129.64	126.00
35	DA	338	G	C8-N9-C4	6.06	108.83	106.40
35	DA	536	A	N1-C6-N6	-6.06	114.96	118.60
35	BA	1629	U	N1-C2-N3	6.06	118.54	114.90
35	BA	1453	U	C5-C6-N1	6.06	125.73	122.70
35	BA	1826	G	N3-C4-C5	-6.06	125.57	128.60
1	CA	980	C	N3-C2-O2	-6.06	117.66	121.90
35	DA	188	G	N3-C4-C5	-6.06	125.57	128.60
35	DA	461	C	N3-C2-O2	6.06	126.14	121.90
35	DA	785	G	N1-C6-O6	-6.06	116.26	119.90
1	AA	864	A	N1-C2-N3	-6.06	126.27	129.30
35	BA	1696	G	N1-C6-O6	-6.06	116.27	119.90
35	BA	2440	C	O5'-P-OP1	-6.06	100.25	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	171	G	N3-C4-N9	6.06	129.63	126.00
1	AA	1368	G	N3-C4-C5	-6.05	125.57	128.60
35	BA	613	G	C4-C5-N7	-6.05	108.38	110.80
1	CA	47	C	C5-C6-N1	-6.05	117.97	121.00
1	CA	738	C	C2-N1-C1'	6.05	125.46	118.80
35	DA	1295	C	C6-N1-C2	6.05	122.72	120.30
1	AA	7	G	N1-C6-O6	6.05	123.53	119.90
1	AA	117	G	C4-C5-N7	6.05	113.22	110.80
35	BA	2573	C	C6-N1-C1'	-6.05	113.54	120.80
36	BB	81	G	C5-N7-C8	-6.05	101.27	104.30
35	DA	452	G	C8-N9-C4	-6.05	103.98	106.40
1	AA	1483	A	C8-N9-C4	6.05	108.22	105.80
1	AA	1503	A	N1-C6-N6	-6.05	114.97	118.60
35	DA	77	C	N3-C2-O2	-6.05	117.67	121.90
35	DA	139(A)	G	C5-C6-O6	-6.05	124.97	128.60
35	DA	1660	C	C5-C6-N1	-6.05	117.97	121.00
35	DA	2611	U	O5'-P-OP2	-6.05	100.26	105.70
35	BA	1661	G	C8-N9-C4	6.05	108.82	106.40
1	CA	886	G	N1-C6-O6	6.05	123.53	119.90
35	DA	1259	G	C4-C5-N7	6.05	113.22	110.80
1	AA	583	A	N3-C4-C5	6.05	131.03	126.80
35	DA	481	G	P-O3'-C3'	6.05	126.96	119.70
35	DA	1830	C	N3-C4-C5	6.05	124.32	121.90
23	AW	75	C	C6-N1-C2	-6.04	117.88	120.30
35	DA	2300	G	C6-C5-N7	-6.04	126.77	130.40
35	BA	1763	G	P-O3'-C3'	6.04	126.95	119.70
35	DA	908	C	O5'-P-OP2	-6.04	100.26	105.70
35	DA	1680	U	C6-N1-C1'	6.04	129.66	121.20
35	DA	1818	U	C5-C6-N1	-6.04	119.68	122.70
35	BA	448	U	O5'-P-OP1	-6.04	100.26	105.70
1	CA	810	C	C6-N1-C1'	-6.04	113.55	120.80
35	DA	283	A	N1-C6-N6	-6.04	114.97	118.60
35	DA	670	A	C8-N9-C4	6.04	108.22	105.80
35	DA	1673	U	C5-C6-N1	-6.04	119.68	122.70
35	DA	1933	G	N1-C6-O6	-6.04	116.28	119.90
35	DA	1451	C	N1-C2-O2	6.04	122.52	118.90
1	AA	1260	C	C5-C6-N1	6.04	124.02	121.00
1	CA	690	G	C8-N9-C1'	-6.04	119.15	127.00
1	AA	913	A	P-O3'-C3'	6.04	126.94	119.70
35	DA	651	G	C6-C5-N7	-6.04	126.78	130.40
35	DA	2660	A	C2-N3-C4	6.04	113.62	110.60
35	BA	25	U	C6-N1-C1'	6.04	129.65	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	2393	A	C2-N3-C4	-6.04	107.58	110.60
35	DA	2653	U	N1-C2-O2	-6.04	118.58	122.80
48	DP	18	ARG	NE-CZ-NH2	6.04	123.32	120.30
27	B2	53	LEU	CA-CB-CG	6.03	129.18	115.30
35	BA	119	A	N1-C6-N6	-6.03	114.98	118.60
1	CA	964	A	C5-C6-N1	-6.03	114.68	117.70
35	DA	1363	C	C2-N3-C4	-6.03	116.88	119.90
35	DA	2609	U	C4-C5-C6	6.03	123.32	119.70
1	CA	1201	A	P-O3'-C3'	6.03	126.94	119.70
35	BA	2205	C	C6-N1-C2	6.03	122.71	120.30
52	BT	99	LEU	CA-CB-CG	6.03	129.17	115.30
1	CA	1145	C	C6-N1-C2	-6.03	117.89	120.30
36	DB	83	G	C4-C5-N7	-6.03	108.39	110.80
35	BA	139	G	N7-C8-N9	6.03	116.11	113.10
35	BA	1198	U	N1-C2-N3	6.03	118.52	114.90
35	BA	1607	C	N1-C2-N3	-6.03	114.98	119.20
35	DA	2058	A	C2-N3-C4	-6.03	107.59	110.60
1	AA	36	C	N3-C4-C5	-6.03	119.49	121.90
35	BA	1447	G	N3-C4-C5	-6.03	125.59	128.60
35	BA	1926	U	C4-C5-C6	6.03	123.32	119.70
36	BB	120	A	C2-N3-C4	6.03	113.61	110.60
35	DA	1021	A	C5-N7-C8	-6.03	100.89	103.90
35	DA	2243	U	O5'-P-OP1	-6.03	100.28	105.70
35	DA	2340	G	C8-N9-C4	6.03	108.81	106.40
35	DA	2356	C	OP2-P-O3'	6.03	118.46	105.20
35	DA	2422	A	OP1-P-O3'	6.03	118.46	105.20
1	AA	1202	G	C8-N9-C1'	-6.03	119.17	127.00
35	BA	1826	G	C6-N1-C2	-6.03	121.48	125.10
35	DA	581	C	O5'-P-OP2	-6.03	100.28	105.70
48	BP	22	GLY	C-N-CD	-6.02	107.35	120.60
1	AA	1487	G	N3-C4-N9	-6.02	122.39	126.00
35	BA	1633	G	C6-C5-N7	-6.02	126.79	130.40
1	AA	1452	C	C6-N1-C1'	-6.02	113.58	120.80
35	BA	973	A	O5'-P-OP1	-6.02	100.28	105.70
35	BA	1801	G	N3-C4-N9	6.02	129.61	126.00
35	DA	782	A	C2-N3-C4	-6.02	107.59	110.60
35	BA	1313	U	C6-N1-C2	-6.02	117.39	121.00
35	BA	2589	A	O5'-P-OP1	6.02	117.92	110.70
35	BA	2818	G	N9-C1'-C2'	-6.02	105.38	112.00
35	DA	182	A	C4-C5-N7	6.02	113.71	110.70
35	BA	2434	A	N1-C6-N6	6.02	122.21	118.60
35	BA	2601	C	C4-C5-C6	6.02	120.41	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	1259	G	N1-C6-O6	6.02	123.51	119.90
35	DA	2318	G	N3-C4-C5	-6.02	125.59	128.60
1	AA	1298	C	N1-C2-O2	6.01	122.51	118.90
32	B7	19	ARG	NE-CZ-NH2	-6.01	117.29	120.30
35	BA	540	C	O5'-P-OP1	6.01	117.92	110.70
35	BA	1449	A	O5'-P-OP1	6.01	117.92	110.70
35	BA	1653	G	C4-C5-N7	-6.01	108.39	110.80
35	BA	2413	G	N9-C4-C5	-6.01	102.99	105.40
7	CG	79	ARG	NE-CZ-NH2	-6.01	117.29	120.30
35	DA	1865	G	N7-C8-N9	6.01	116.11	113.10
35	DA	2352	A	N9-C4-C5	-6.01	103.39	105.80
35	DA	2361	A	OP1-P-OP2	6.01	128.62	119.60
35	DA	2500	U	C5-C6-N1	-6.01	119.69	122.70
35	DA	1111	A	N1-C2-N3	-6.01	126.29	129.30
35	DA	1777	U	C5-C6-N1	-6.01	119.69	122.70
56	DX	80	ILE	CG1-CB-CG2	-6.01	98.17	111.40
35	BA	742	G	C4-C5-N7	-6.01	108.39	110.80
35	BA	1678	G	N1-C6-O6	6.01	123.51	119.90
1	CA	108	G	C4-C5-N7	6.01	113.20	110.80
1	CA	794	A	N3-C4-N9	-6.01	122.59	127.40
35	DA	1321	A	C5-N7-C8	6.01	106.91	103.90
35	DA	1816	G	O5'-P-OP1	-6.01	100.29	105.70
35	DA	2359	C	C5-C6-N1	-6.01	117.99	121.00
35	DA	2546	U	O5'-P-OP1	6.01	117.91	110.70
35	BA	25	U	C2-N1-C1'	-6.01	110.49	117.70
35	BA	2418	A	N1-C6-N6	6.01	122.21	118.60
35	BA	2607	G	N3-C4-N9	6.01	129.60	126.00
35	DA	786	C	C6-N1-C2	6.01	122.70	120.30
35	DA	861	A	C8-N9-C4	-6.01	103.40	105.80
35	DA	2241	A	N1-C2-N3	6.01	132.31	129.30
35	DA	2704	C	C6-N1-C2	-6.01	117.90	120.30
22	AV	27	G	N9-C4-C5	-6.01	103.00	105.40
35	BA	82	G	O5'-P-OP1	-6.01	100.29	105.70
35	BA	941	A	N1-C6-N6	-6.01	115.00	118.60
35	BA	974	G	C2-N3-C4	6.01	114.90	111.90
35	BA	1603	A	C2-N3-C4	-6.01	107.60	110.60
1	CA	263	A	O5'-P-OP2	6.01	117.91	110.70
22	CV	1	C	C6-N1-C2	-6.01	117.90	120.30
35	DA	1007	C	C6-N1-C2	6.01	122.70	120.30
35	DA	1544	A	C4-C5-N7	-6.01	107.70	110.70
35	DA	127	A	C4-C5-N7	6.00	113.70	110.70
35	DA	611	C	O5'-P-OP2	-6.00	100.30	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	1501	C	O5'-P-OP2	-6.00	100.30	105.70
35	DA	1822	G	N1-C2-N2	-6.00	110.80	116.20
35	DA	1978	A	N1-C6-N6	6.00	122.20	118.60
35	DA	2681	C	O4'-C1'-N1	6.00	113.00	108.20
35	BA	200	U	C5-C6-N1	-6.00	119.70	122.70
35	BA	472	A	N1-C6-N6	6.00	122.20	118.60
35	BA	1187	G	N9-C4-C5	6.00	107.80	105.40
35	BA	1841	U	N3-C4-C5	-6.00	111.00	114.60
35	DA	424	G	C5-C6-N1	6.00	114.50	111.50
35	DA	972	G	N1-C2-N3	6.00	127.50	123.90
35	DA	1615	C	C6-N1-C2	6.00	122.70	120.30
35	DA	2506	U	C2-N3-C4	6.00	130.60	127.00
35	DA	2587	A	N1-C2-N3	6.00	132.30	129.30
1	AA	106	C	N3-C4-C5	-6.00	119.50	121.90
23	AW	38	A	C4-C5-N7	6.00	113.70	110.70
35	BA	494	G	C2-N3-C4	-6.00	108.90	111.90
35	BA	728	G	C8-N9-C4	6.00	108.80	106.40
35	BA	936	C	C5-C6-N1	-6.00	118.00	121.00
35	BA	1066	U	C5-C6-N1	6.00	125.70	122.70
35	BA	1551	C	N3-C4-C5	-6.00	119.50	121.90
1	CA	266	G	O4'-C1'-N9	-6.00	103.40	108.20
35	DA	746	A	O4'-C1'-N9	6.00	113.00	108.20
35	DA	1394	U	N3-C4-C5	-6.00	111.00	114.60
35	DA	1773	A	N1-C2-N3	6.00	132.30	129.30
1	AA	161	A	N7-C8-N9	6.00	116.80	113.80
1	CA	1523	G	C4-C5-C6	6.00	122.40	118.80
35	DA	1764	G	N1-C6-O6	-6.00	116.30	119.90
36	DB	22	U	C5-C6-N1	6.00	125.70	122.70
1	AA	881	G	N1-C6-O6	6.00	123.50	119.90
35	BA	2413	G	C8-N9-C4	6.00	108.80	106.40
35	BA	2751	G	C4-N9-C1'	6.00	134.30	126.50
35	DA	71	A	O5'-P-OP2	6.00	117.90	110.70
35	DA	2339	G	C8-N9-C4	6.00	108.80	106.40
35	BA	2483	C	C6-N1-C1'	-6.00	113.61	120.80
35	DA	271(W)	G	C8-N9-C4	-6.00	104.00	106.40
35	DA	2544	G	N3-C2-N2	-6.00	115.70	119.90
35	BA	2594	C	C5-C6-N1	-6.00	118.00	121.00
35	BA	184	C	C6-N1-C2	5.99	122.70	120.30
35	BA	300	A	N1-C6-N6	5.99	122.20	118.60
35	BA	571	A	C8-N9-C4	5.99	108.20	105.80
35	BA	595	C	N3-C2-O2	5.99	126.09	121.90
35	BA	1864	U	C5-C4-O4	5.99	129.50	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	1279	A	C8-N9-C4	-5.99	103.40	105.80
35	DA	1761	C	C6-N1-C2	5.99	122.70	120.30
35	DA	2073	C	C2-N3-C4	-5.99	116.90	119.90
35	BA	989	G	N7-C8-N9	-5.99	110.10	113.10
35	BA	1659	U	O5'-P-OP2	-5.99	100.31	105.70
35	BA	389	G	N9-C4-C5	-5.99	103.00	105.40
35	BA	830	G	N9-C4-C5	-5.99	103.00	105.40
35	DA	488	G	C5-C6-N1	-5.99	108.50	111.50
35	DA	563	G	O5'-P-OP2	5.99	117.89	110.70
35	DA	1158	C	N1-C2-N3	5.99	123.39	119.20
35	DA	2380	C	C5-C6-N1	-5.99	118.00	121.00
35	DA	2477	C	N3-C2-O2	-5.99	117.71	121.90
35	DA	2593	U	OP1-P-O3'	5.99	118.38	105.20
35	BA	835	A	O5'-P-OP2	-5.99	100.31	105.70
35	BA	1568	G	C8-N9-C1'	5.99	134.79	127.00
35	BA	2689	U	C2-N3-C4	-5.99	123.41	127.00
35	DA	53	A	C5-N7-C8	5.99	106.89	103.90
35	DA	391	G	N9-C4-C5	-5.99	103.00	105.40
35	DA	675	A	C6-C5-N7	-5.99	128.11	132.30
35	DA	683	C	N3-C4-C5	5.99	124.30	121.90
35	DA	1326	U	C5-C6-N1	-5.99	119.71	122.70
35	DA	1506	C	N1-C2-O2	5.99	122.49	118.90
1	CA	108	G	C5-N7-C8	-5.99	101.31	104.30
35	DA	1245	G	N1-C6-O6	-5.99	116.31	119.90
35	DA	1433	U	C6-N1-C2	-5.99	117.41	121.00
35	BA	446	G	N3-C4-C5	-5.99	125.61	128.60
35	BA	2052	G	N3-C4-N9	5.99	129.59	126.00
35	DA	719	C	C6-N1-C2	-5.99	117.91	120.30
35	DA	1158	C	C4-C5-C6	5.99	120.39	117.40
1	AA	423	G	N1-C6-O6	5.98	123.49	119.90
49	BQ	123	HIS	O-C-N	5.98	132.28	122.70
1	CA	801	U	C6-N1-C2	5.98	124.59	121.00
35	BA	174	C	C2-N1-C1'	5.98	125.38	118.80
35	DA	187	G	C8-N9-C1'	-5.98	119.22	127.00
35	DA	458	G	C8-N9-C1'	5.98	134.78	127.00
35	DA	827	U	O5'-P-OP2	-5.98	100.32	105.70
35	DA	2436	G	N3-C4-C5	-5.98	125.61	128.60
35	BA	2008	C	O5'-P-OP2	-5.98	100.32	105.70
35	BA	2249	U	C6-N1-C2	-5.98	117.41	121.00
35	BA	2313	C	N3-C4-C5	-5.98	119.51	121.90
35	DA	1003	G	N3-C4-N9	5.98	129.59	126.00
1	AA	867	G	N9-C4-C5	-5.98	103.01	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	CY	34	G	N7-C8-N9	5.98	116.09	113.10
35	DA	1674	G	C8-N9-C1'	-5.98	119.23	127.00
1	AA	250	A	C4-C5-C6	5.98	119.99	117.00
22	AV	48	U	C6-N1-C2	-5.98	117.41	121.00
35	BA	860	U	C4-C5-C6	5.98	123.29	119.70
35	BA	1607	C	C6-N1-C2	5.98	122.69	120.30
1	CA	1369	C	N3-C2-O2	-5.98	117.72	121.90
35	DA	1131	G	C5-C6-O6	-5.98	125.01	128.60
35	DA	30	G	N3-C4-N9	5.98	129.59	126.00
35	DA	744	G	N1-C2-N3	5.98	127.49	123.90
1	AA	1414	U	OP2-P-O3'	5.97	118.34	105.20
35	BA	613	G	N9-C4-C5	5.97	107.79	105.40
35	BA	809	G	OP1-P-O3'	5.97	118.35	105.20
35	BA	2035	G	N7-C8-N9	-5.97	110.11	113.10
35	BA	2543	G	N7-C8-N9	5.97	116.09	113.10
35	DA	783	A	C5-C6-N6	-5.97	118.92	123.70
35	DA	1064	C	C6-N1-C2	-5.97	117.91	120.30
35	DA	2789	C	C2-N3-C4	5.97	122.89	119.90
35	BA	2031	A	C6-N1-C2	-5.97	115.02	118.60
35	BA	2287	A	N3-C4-C5	5.97	130.98	126.80
1	CA	1503	A	N1-C6-N6	-5.97	115.02	118.60
35	DA	630	G	C5-C6-O6	-5.97	125.02	128.60
35	DA	662	G	N1-C2-N3	5.97	127.48	123.90
35	DA	735	A	C4-C5-C6	5.97	119.99	117.00
35	DA	770	G	C4-C5-N7	5.97	113.19	110.80
35	DA	998	C	C6-N1-C2	-5.97	117.91	120.30
35	DA	1260	G	O5'-P-OP2	-5.97	100.32	105.70
35	DA	2201	C	N3-C2-O2	-5.97	117.72	121.90
35	BA	1005	C	C5-C6-N1	-5.97	118.02	121.00
35	BA	2070	G	N1-C2-N2	-5.97	110.83	116.20
35	DA	1662	C	C4-C5-C6	5.97	120.39	117.40
35	BA	1052	C	C2-N1-C1'	5.97	125.37	118.80
35	BA	1249	U	C5-C6-N1	-5.97	119.72	122.70
35	BA	1786	A	C5-C6-N6	-5.97	118.92	123.70
1	CA	1064	G	P-O3'-C3'	5.97	126.86	119.70
35	DA	2709	G	C8-N9-C4	-5.97	104.01	106.40
35	BA	15	G	N3-C4-C5	5.97	131.58	128.60
35	BA	2049	G	C5-C6-O6	5.97	132.18	128.60
35	BA	2889	C	C2-N1-C1'	5.97	125.36	118.80
1	CA	902	G	C5-C6-O6	-5.97	125.02	128.60
35	DA	213	A	C8-N9-C4	5.97	108.19	105.80
35	DA	1619	G	C6-N1-C2	-5.97	121.52	125.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	1794	U	C5-C6-N1	-5.97	119.72	122.70
35	DA	2283	C	C6-N1-C2	5.97	122.69	120.30
35	DA	582	G	N1-C6-O6	5.97	123.48	119.90
35	DA	1908	C	C6-N1-C2	-5.97	117.91	120.30
36	DB	41	U	C2-N1-C1'	5.97	124.86	117.70
35	BA	621	A	O4'-C1'-N9	5.96	112.97	108.20
35	BA	796	C	OP1-P-OP2	5.96	128.54	119.60
35	BA	1924	C	C6-N1-C2	-5.96	117.91	120.30
35	BA	2518	A	N1-C6-N6	5.96	122.18	118.60
35	BA	2595	G	C5-C6-O6	-5.96	125.02	128.60
35	DA	203	C	C6-N1-C2	5.96	122.69	120.30
35	DA	787	U	C5-C6-N1	-5.96	119.72	122.70
35	DA	2648	C	C5-C6-N1	-5.96	118.02	121.00
1	AA	579	G	C8-N9-C1'	-5.96	119.25	127.00
35	BA	29	U	C6-N1-C2	-5.96	117.42	121.00
35	BA	1256	G	C4-N9-C1'	5.96	134.25	126.50
35	BA	1843	C	O5'-P-OP2	-5.96	100.33	105.70
36	BB	40	U	N3-C4-C5	-5.96	111.02	114.60
35	DA	271(X)	G	C5-C6-N1	-5.96	108.52	111.50
35	BA	31	C	N1-C2-O2	-5.96	115.32	118.90
35	BA	1266	G	C8-N9-C4	5.96	108.78	106.40
35	BA	2359	C	N3-C2-O2	-5.96	117.73	121.90
35	DA	1210	A	P-O3'-C3'	5.96	126.85	119.70
35	BA	1576	U	C6-N1-C2	-5.96	117.42	121.00
35	BA	2889	C	C5-C6-N1	5.96	123.98	121.00
35	DA	2010	G	O5'-P-OP1	-5.96	100.34	105.70
35	DA	2540	C	C6-N1-C2	5.96	122.68	120.30
1	AA	175	C	N1-C2-O2	-5.96	115.33	118.90
1	AA	348	G	C4-C5-N7	5.96	113.18	110.80
35	DA	58	G	C4-N9-C1'	5.96	134.24	126.50
35	DA	1840	G	N3-C2-N2	-5.96	115.73	119.90
35	DA	2848	G	N9-C4-C5	5.96	107.78	105.40
35	BA	1480	G	N3-C4-N9	5.96	129.57	126.00
35	BA	1906	G	N1-C6-O6	5.96	123.47	119.90
35	DA	670	A	C6-C5-N7	-5.96	128.13	132.30
35	DA	536	A	N9-C4-C5	5.95	108.18	105.80
35	DA	2005	A	C4-C5-C6	-5.95	114.02	117.00
35	BA	2068	U	N3-C2-O2	5.95	126.37	122.20
35	DA	2496	C	C5-C6-N1	-5.95	118.02	121.00
35	DA	2657	A	C6-C5-N7	-5.95	128.13	132.30
1	AA	494	U	C2-N1-C1'	5.95	124.84	117.70
1	AA	1414	U	N3-C4-C5	-5.95	111.03	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	675	A	C4-C5-N7	5.95	113.67	110.70
35	BA	2791	C	C6-N1-C1'	-5.95	113.66	120.80
35	DA	443	A	OP1-P-O3'	5.95	118.29	105.20
35	DA	1786	A	N9-C1'-C2'	5.95	121.73	114.00
35	DA	1801	G	O5'-P-OP1	-5.95	100.34	105.70
35	BA	640	C	N1-C2-O2	-5.95	115.33	118.90
36	BB	21	G	N3-C4-C5	-5.95	125.63	128.60
35	DA	473	G	C5-N7-C8	5.95	107.28	104.30
35	DA	766	C	C5-C6-N1	-5.95	118.03	121.00
35	DA	1659	U	N1-C2-O2	-5.95	118.64	122.80
35	DA	1661	G	N3-C4-C5	-5.95	125.63	128.60
35	DA	1666	G	C5-C6-N1	-5.95	108.53	111.50
35	DA	2699	C	N1-C2-O2	-5.95	115.33	118.90
35	BA	945	A	O5'-P-OP2	5.95	117.84	110.70
1	CA	836	G	N1-C6-O6	5.95	123.47	119.90
1	CA	896	C	C5-C6-N1	-5.95	118.03	121.00
35	DA	1784	A	C4-C5-N7	-5.95	107.73	110.70
35	DA	2608	G	C5-C6-N1	5.95	114.47	111.50
1	AA	191	G	C8-N9-C4	-5.95	104.02	106.40
35	BA	1326	U	N1-C2-N3	5.95	118.47	114.90
35	DA	144	C	C5-C6-N1	-5.95	118.03	121.00
35	DA	775	G	O4'-C1'-N9	5.95	112.96	108.20
35	BA	621	A	C4-C5-N7	5.94	113.67	110.70
35	BA	1322	A	C4-C5-N7	-5.94	107.73	110.70
1	CA	976	G	N1-C6-O6	5.94	123.47	119.90
35	DA	1243	G	C5-C6-O6	-5.94	125.03	128.60
35	DA	1635	G	OP2-P-O3'	5.94	118.28	105.20
35	BA	950	G	N1-C6-O6	-5.94	116.33	119.90
35	DA	938	G	O5'-P-OP1	5.94	117.83	110.70
35	DA	2373	G	N3-C4-N9	5.94	129.57	126.00
35	DA	2543	G	N3-C4-N9	5.94	129.56	126.00
1	AA	507	C	C6-N1-C2	-5.94	117.92	120.30
35	BA	2572	A	C2-N3-C4	-5.94	107.63	110.60
35	DA	847	U	N3-C4-O4	-5.94	115.24	119.40
35	DA	1321	A	N7-C8-N9	-5.94	110.83	113.80
35	DA	1818	U	N3-C4-O4	-5.94	115.24	119.40
1	AA	1202	G	C4-N9-C1'	5.94	134.22	126.50
35	BA	1294	U	C4-C5-C6	5.94	123.26	119.70
35	BA	1955	U	N1-C2-N3	5.94	118.46	114.90
35	BA	2298	A	C8-N9-C4	5.94	108.18	105.80
35	DA	25	U	N3-C2-O2	5.94	126.36	122.20
35	DA	921	G	C8-N9-C4	-5.94	104.03	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	1264	G	OP2-P-O3'	5.94	118.27	105.20
35	DA	1698	A	C6-N1-C2	5.94	122.16	118.60
1	AA	347	G	N3-C4-C5	5.94	131.57	128.60
35	BA	448	U	N1-C2-O2	5.94	126.96	122.80
35	BA	872	A	C8-N9-C4	5.94	108.17	105.80
35	BA	2019	A	C2-N3-C4	-5.94	107.63	110.60
1	CA	1528	U	N3-C4-O4	-5.94	115.24	119.40
22	CV	37	A	C5-C6-N6	-5.94	118.95	123.70
35	DA	739	G	C8-N9-C1'	-5.94	119.28	127.00
35	DA	1627	G	OP2-P-O3'	5.94	118.27	105.20
35	DA	2014	A	C8-N9-C4	5.94	108.17	105.80
35	DA	1216	G	N9-C4-C5	-5.94	103.03	105.40
35	DA	1968	G	OP1-P-OP2	-5.94	110.70	119.60
35	DA	1493	C	C6-N1-C1'	-5.93	113.68	120.80
35	DA	1836	C	C6-N1-C2	5.93	122.67	120.30
35	DA	2521	C	C6-N1-C2	5.93	122.67	120.30
35	DA	2527	C	C5-C6-N1	5.93	123.97	121.00
1	AA	300	A	N3-C4-N9	-5.93	122.65	127.40
1	AA	481	G	C6-C5-N7	-5.93	126.84	130.40
35	BA	185	U	C5-C6-N1	-5.93	119.73	122.70
35	BA	2011	U	N3-C4-C5	-5.93	111.04	114.60
35	BA	2864	G	C6-C5-N7	-5.93	126.84	130.40
35	DA	579	G	N1-C2-N2	5.93	121.54	116.20
35	DA	661	C	C5-C4-N4	-5.93	116.05	120.20
35	DA	2050	C	C4-C5-C6	5.93	120.37	117.40
36	DB	113	G	N9-C4-C5	-5.93	103.03	105.40
1	AA	1030	C	C6-N1-C2	-5.93	117.93	120.30
1	AA	617	G	C4-C5-N7	5.93	113.17	110.80
35	BA	1007	C	N3-C4-C5	5.93	124.27	121.90
35	DA	700	G	N3-C2-N2	-5.93	115.75	119.90
35	DA	995	C	N1-C2-N3	5.93	123.35	119.20
35	DA	1132	A	OP2-P-O3'	5.93	118.25	105.20
35	DA	1778	U	N1-C2-N3	-5.93	111.34	114.90
35	DA	1794	U	C6-N1-C2	5.93	124.56	121.00
1	CA	1293	G	O4'-C1'-N9	5.93	112.94	108.20
35	DA	749	C	C6-N1-C2	5.93	122.67	120.30
35	BA	602	G	N3-C4-C5	-5.93	125.64	128.60
35	BA	738	G	N1-C2-N2	-5.93	110.87	116.20
1	AA	1045	C	C2-N1-C1'	5.92	125.32	118.80
35	BA	2348	U	N3-C2-O2	-5.92	118.05	122.20
1	CA	687	A	P-O3'-C3'	5.92	126.81	119.70
35	DA	1841	U	N3-C4-O4	-5.92	115.25	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	1961	C	C2-N3-C4	-5.92	116.94	119.90
1	AA	804	U	C5-C4-O4	5.92	129.45	125.90
1	CA	816	A	C8-N9-C4	-5.92	103.43	105.80
9	CI	79	LEU	CB-CG-CD1	-5.92	100.93	111.00
35	DA	1131	G	N9-C4-C5	-5.92	103.03	105.40
1	AA	56	U	C5-C4-O4	-5.92	122.35	125.90
1	AA	61	G	C8-N9-C4	-5.92	104.03	106.40
35	BA	71	A	C8-N9-C4	-5.92	103.43	105.80
35	BA	1450	G	N3-C4-C5	-5.92	125.64	128.60
35	DA	608	A	C6-C5-N7	-5.92	128.16	132.30
35	DA	729	G	C6-N1-C2	-5.92	121.55	125.10
35	DA	1437	C	C2-N1-C1'	5.92	125.31	118.80
35	DA	1915	U	N3-C2-O2	-5.92	118.05	122.20
35	DA	2420	C	C4-C5-C6	-5.92	114.44	117.40
35	BA	1283	G	N3-C4-N9	5.92	129.55	126.00
35	BA	2724	C	C2-N1-C1'	-5.92	112.29	118.80
35	DA	991	C	C6-N1-C2	-5.92	117.93	120.30
1	AA	766	A	N9-C4-C5	-5.92	103.43	105.80
1	AA	1039	C	C6-N1-C1'	-5.92	113.70	120.80
35	BA	240	G	N3-C4-C5	5.92	131.56	128.60
35	BA	503	A	N1-C6-N6	-5.92	115.05	118.60
35	BA	2048	G	C8-N9-C4	-5.92	104.03	106.40
33	D8	30	ARG	CG-CD-NE	5.92	124.23	111.80
35	DA	966	G	O5'-P-OP2	-5.92	100.37	105.70
35	DA	1392	A	N1-C6-N6	5.92	122.15	118.60
35	DA	1619	G	N7-C8-N9	5.92	116.06	113.10
35	DA	1841	U	C5-C6-N1	-5.92	119.74	122.70
35	DA	2589	A	C2-N3-C4	-5.92	107.64	110.60
22	AV	20	G	C6-C5-N7	-5.92	126.85	130.40
35	BA	2880	C	N3-C4-C5	-5.92	119.53	121.90
35	DA	522	G	N1-C6-O6	5.92	123.45	119.90
35	DA	2665	A	N1-C2-N3	5.92	132.26	129.30
35	DA	2821	A	C4-C5-C6	5.92	119.96	117.00
36	DB	14	U	C6-N1-C1'	-5.92	112.92	121.20
35	BA	2091	U	C2-N1-C1'	-5.92	110.60	117.70
35	DA	437	G	N1-C2-N2	-5.92	110.88	116.20
35	DA	964	C	C6-N1-C2	-5.91	117.93	120.30
35	DA	1332	G	N1-C6-O6	5.91	123.45	119.90
35	BA	362	U	O4'-C1'-N1	5.91	112.93	108.20
35	BA	2578	G	N3-C2-N2	-5.91	115.76	119.90
35	DA	1555	G	N1-C6-O6	5.91	123.45	119.90
35	BA	2657	A	O4'-C1'-N9	5.91	112.93	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	1251	C	N1-C2-O2	-5.91	115.36	118.90
36	DB	30	C	C6-N1-C2	-5.91	117.94	120.30
35	BA	1614	A	C8-N9-C4	-5.91	103.44	105.80
35	DA	97	C	N3-C2-O2	-5.91	117.77	121.90
35	DA	420	C	C6-N1-C2	5.91	122.66	120.30
1	AA	697	U	O5'-P-OP2	-5.91	100.39	105.70
35	BA	410	G	OP1-P-O3'	5.91	118.19	105.20
35	BA	1610	A	N1-C6-N6	5.91	122.14	118.60
35	BA	1678	G	C6-C5-N7	-5.91	126.86	130.40
1	CA	1519	A	C4-C5-C6	5.91	119.95	117.00
35	DA	395	U	C6-N1-C2	5.91	124.54	121.00
35	DA	652	C	P-O5'-C5'	5.91	130.35	120.90
35	DA	2438	U	C6-N1-C2	5.91	124.54	121.00
35	BA	2234	G	N3-C4-N9	5.90	129.54	126.00
35	BA	1789	A	N1-C6-N6	-5.90	115.06	118.60
35	DA	1408	C	N1-C2-O2	-5.90	115.36	118.90
35	DA	1646	C	N3-C4-C5	-5.90	119.54	121.90
35	DA	2483	C	C5-C4-N4	-5.90	116.07	120.20
35	DA	2838	G	N9-C4-C5	5.90	107.76	105.40
35	BA	1265	A	O5'-P-OP2	-5.90	100.39	105.70
35	BA	1374	G	C6-C5-N7	-5.90	126.86	130.40
35	DA	221	A	C8-N9-C4	-5.90	103.44	105.80
35	DA	376	C	C4-C5-C6	5.90	120.35	117.40
1	AA	279	A	N1-C6-N6	5.90	122.14	118.60
23	AW	38	A	C2-N3-C4	-5.90	107.65	110.60
35	DA	859	G	N3-C4-N9	-5.90	122.46	126.00
35	BA	265	A	C2-N3-C4	-5.90	107.65	110.60
35	BA	2430	A	N3-C4-N9	-5.90	122.68	127.40
35	DA	2054	A	C4-C5-C6	5.90	119.95	117.00
35	DA	2518	A	C2-N3-C4	-5.90	107.65	110.60
16	AP	55	ARG	NE-CZ-NH1	-5.90	117.35	120.30
35	DA	2723	C	C5-C6-N1	-5.90	118.05	121.00
35	DA	379	G	N1-C2-N3	5.89	127.44	123.90
35	DA	389	G	N3-C4-N9	-5.89	122.46	126.00
35	DA	1496	A	C5-C6-N1	-5.89	114.75	117.70
35	DA	1677	A	C5-C6-N1	-5.89	114.75	117.70
35	DA	2274	A	C4-C5-N7	5.89	113.65	110.70
35	DA	2618	G	O5'-P-OP2	5.89	117.77	110.70
35	BA	1649	G	N3-C4-C5	-5.89	125.65	128.60
35	BA	2591	C	N3-C4-C5	-5.89	119.54	121.90
35	DA	139(A)	G	C5-C6-N1	5.89	114.45	111.50
35	DA	1818	U	C2-N3-C4	-5.89	123.47	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	2602	A	O4'-C1'-N9	-5.89	103.48	108.20
35	DA	2895	U	O4'-C1'-N1	5.89	112.91	108.20
35	BA	697	C	N1-C2-O2	-5.89	115.36	118.90
35	BA	863	A	N1-C6-N6	5.89	122.14	118.60
35	BA	1528(A)	A	C4-C5-C6	5.89	119.95	117.00
1	CA	522	C	O5'-P-OP2	-5.89	100.40	105.70
1	CA	586	C	N3-C4-C5	5.89	124.26	121.90
35	DA	536	A	C4-C5-N7	-5.89	107.75	110.70
35	DA	863	A	C5-C6-N1	5.89	120.64	117.70
35	DA	2258	C	C5-C4-N4	-5.89	116.08	120.20
35	DA	2688	U	N3-C4-C5	-5.89	111.07	114.60
35	BA	630	G	N1-C6-O6	5.89	123.43	119.90
35	BA	945	A	N9-C1'-C2'	5.89	121.66	114.00
35	DA	554	U	OP2-P-O3'	5.89	118.16	105.20
35	BA	1740	G	N3-C4-C5	-5.89	125.66	128.60
35	DA	656	G	C4-C5-C6	5.89	122.33	118.80
35	BA	728	G	N7-C8-N9	-5.89	110.16	113.10
35	BA	2458	G	C8-N9-C1'	-5.89	119.35	127.00
35	DA	691	C	O5'-P-OP2	-5.89	100.40	105.70
35	DA	792	G	OP2-P-O3'	5.89	118.15	105.20
35	DA	2005	A	C8-N9-C4	5.89	108.15	105.80
35	DA	2864	G	C8-N9-C4	-5.89	104.05	106.40
35	BA	379	G	N3-C2-N2	-5.88	115.78	119.90
35	BA	1307	A	N3-C4-C5	5.88	130.92	126.80
35	BA	1450	G	C8-N9-C4	-5.88	104.05	106.40
35	BA	2638	G	C5-C6-O6	5.88	132.13	128.60
35	DA	30	G	N9-C4-C5	-5.88	103.05	105.40
35	DA	2201	C	C2-N1-C1'	5.88	125.27	118.80
35	BA	48	G	C4-C5-C6	5.88	122.33	118.80
35	BA	512	G	P-O3'-C3'	5.88	126.76	119.70
35	BA	1444	G	C8-N9-C4	5.88	108.75	106.40
1	AA	351	G	OP2-P-O3'	5.88	118.14	105.20
35	BA	1606	G	C4-C5-N7	5.88	113.15	110.80
35	DA	2534	A	N1-C6-N6	5.88	122.13	118.60
36	DB	76	G	N3-C4-N9	5.88	129.53	126.00
35	BA	2779	U	N3-C4-O4	-5.88	115.28	119.40
36	BB	60	C	C5-C6-N1	5.88	123.94	121.00
1	AA	1139	G	N3-C4-N9	-5.88	122.47	126.00
35	BA	459	U	N3-C2-O2	-5.88	118.08	122.20
23	CW	54	U	O4'-C1'-N1	5.88	112.90	108.20
35	DA	1695	G	N7-C8-N9	5.88	116.04	113.10
35	DA	2408	U	OP2-P-O3'	5.88	118.13	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2432	A	C6-N1-C2	5.88	122.12	118.60
49	BQ	6	ARG	N-CA-C	5.88	126.87	111.00
35	DA	760	G	N3-C4-N9	5.88	129.53	126.00
35	DA	2373	G	C8-N9-C1'	-5.88	119.36	127.00
35	BA	28	A	N1-C6-N6	5.88	122.12	118.60
35	BA	259	G	C4-N9-C1'	5.88	134.14	126.50
35	BA	740	U	OP2-P-O3'	5.88	118.13	105.20
35	BA	259	G	N3-C4-N9	5.87	129.52	126.00
35	DA	196	A	O4'-C1'-N9	5.87	112.90	108.20
35	DA	729	G	C8-N9-C1'	-5.87	119.36	127.00
35	DA	2406	U	O4'-C1'-N1	-5.87	103.50	108.20
35	BA	28	A	C5-C6-N6	-5.87	119.00	123.70
35	BA	104	U	C5-C4-O4	5.87	129.42	125.90
35	BA	453	C	C5-C6-N1	-5.87	118.06	121.00
35	BA	854	G	C8-N9-C4	-5.87	104.05	106.40
35	DA	799	G	C8-N9-C4	5.87	108.75	106.40
35	DA	2068	U	C5-C6-N1	-5.87	119.77	122.70
35	BA	184	C	C5-C6-N1	-5.87	118.06	121.00
35	BA	2390	U	N3-C4-C5	-5.87	111.08	114.60
35	DA	836	G	C4-C5-N7	5.87	113.15	110.80
35	DA	2242	G	N3-C2-N2	-5.87	115.79	119.90
35	BA	1610	A	O5'-P-OP2	-5.87	100.42	105.70
39	BE	61	ARG	NE-CZ-NH1	5.87	123.23	120.30
1	CA	297	G	C8-N9-C4	5.87	108.75	106.40
35	DA	1164	G	C4-C5-N7	-5.87	108.45	110.80
35	DA	1313	U	C2-N1-C1'	5.87	124.74	117.70
35	BA	1324	G	N1-C6-O6	5.87	123.42	119.90
35	DA	1210	A	N1-C2-N3	5.87	132.23	129.30
35	DA	1212	G	N3-C4-C5	-5.87	125.67	128.60
27	D2	21	LEU	CA-CB-CG	-5.87	101.81	115.30
35	DA	1487	G	N7-C8-N9	5.87	116.03	113.10
1	AA	1171	G	C8-N9-C4	-5.86	104.06	106.40
35	DA	238	C	C6-N1-C2	5.86	122.64	120.30
35	DA	2726	U	C5-C6-N1	-5.86	119.77	122.70
35	BA	2002	G	N1-C2-N3	5.86	127.42	123.90
35	BA	2196	C	N1-C2-O2	-5.86	115.38	118.90
35	DA	668	G	C6-C5-N7	-5.86	126.88	130.40
1	AA	1160	G	N1-C6-O6	-5.86	116.38	119.90
35	BA	2054	A	N1-C2-N3	5.86	132.23	129.30
1	CA	1498	U	N1-C2-N3	5.86	118.42	114.90
35	DA	1201	C	C5-C4-N4	-5.86	116.10	120.20
35	DA	2222	G	N7-C8-N9	-5.86	110.17	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	549	C	N1-C2-O2	-5.86	115.38	118.90
35	DA	2643	G	C6-C5-N7	-5.86	126.89	130.40
35	DA	272	G	C6-N1-C2	-5.86	121.58	125.10
35	DA	400	G	N1-C6-O6	5.86	123.41	119.90
35	DA	518	G	O5'-P-OP2	-5.86	100.43	105.70
35	DA	574	C	C6-N1-C2	5.86	122.64	120.30
35	DA	1440	G	C5-N7-C8	5.86	107.23	104.30
35	DA	1804	C	C2-N3-C4	-5.86	116.97	119.90
35	DA	2686	G	N3-C4-C5	-5.86	125.67	128.60
1	AA	426	G	O5'-P-OP2	-5.85	100.43	105.70
1	AA	1424	C	N3-C4-C5	5.85	124.24	121.90
35	BA	1951	U	N3-C4-C5	-5.85	111.09	114.60
1	AA	545	C	C6-N1-C2	-5.85	117.96	120.30
1	AA	819	A	N1-C6-N6	5.85	122.11	118.60
35	BA	701	G	N1-C2-N3	5.85	127.41	123.90
35	BA	1647	G	N3-C4-N9	-5.85	122.49	126.00
1	CA	1225	A	O4'-C1'-N9	5.85	112.88	108.20
35	DA	2087	G	O5'-P-OP1	5.85	117.72	110.70
35	BA	1354	A	C8-N9-C4	5.85	108.14	105.80
35	DA	1368	G	N1-C6-O6	-5.85	116.39	119.90
35	BA	917	A	N7-C8-N9	-5.85	110.88	113.80
35	BA	2644	G	C4-C5-N7	-5.85	108.46	110.80
35	BA	2827	C	C5-C6-N1	-5.85	118.08	121.00
35	DA	143	G	C5-C6-O6	-5.85	125.09	128.60
35	DA	1961	C	N3-C4-C5	5.85	124.24	121.90
36	DB	81	G	OP1-P-OP2	5.85	128.38	119.60
1	AA	722	A	N1-C6-N6	5.85	122.11	118.60
1	AA	1313	U	C5-C6-N1	5.85	125.62	122.70
35	BA	1612	C	C2-N3-C4	-5.85	116.98	119.90
35	BA	1616	A	N7-C8-N9	5.85	116.72	113.80
35	DA	1797	C	C6-N1-C2	5.85	122.64	120.30
35	DA	1958	C	C6-N1-C2	5.85	122.64	120.30
1	AA	452	A	OP1-P-O3'	5.85	118.06	105.20
1	CA	16	A	N1-C6-N6	-5.85	115.09	118.60
35	BA	1767	C	C5-C6-N1	-5.84	118.08	121.00
35	BA	1992	G	N1-C6-O6	-5.84	116.39	119.90
35	BA	2509	G	C4-C5-C6	5.84	122.31	118.80
1	CA	362	G	C8-N9-C1'	5.84	134.60	127.00
36	DB	81	G	C5-C6-N1	5.84	114.42	111.50
1	AA	310	G	N3-C4-C5	5.84	131.52	128.60
35	BA	174	C	C2-N3-C4	5.84	122.82	119.90
22	AV	68	C	C2-N1-C1'	5.84	125.22	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	513	A	N7-C8-N9	5.84	116.72	113.80
35	BA	518	G	C8-N9-C1'	-5.84	119.41	127.00
35	BA	915	C	C2-N1-C1'	5.84	125.22	118.80
35	BA	2235	G	C5-C6-O6	-5.84	125.09	128.60
35	DA	358	U	C2-N1-C1'	5.84	124.71	117.70
1	AA	299	G	N9-C4-C5	5.84	107.74	105.40
1	AA	1424	C	N1-C2-O2	5.84	122.40	118.90
35	BA	142(A)	C	N1-C2-N3	5.84	123.29	119.20
35	DA	2714	G	O5'-P-OP2	5.84	117.71	110.70
1	AA	721	G	N1-C6-O6	5.84	123.40	119.90
35	BA	1249	U	C4-C5-C6	5.84	123.20	119.70
35	BA	2611	U	O5'-P-OP1	-5.84	100.45	105.70
35	DA	1619	G	C5-C6-N1	5.84	114.42	111.50
35	DA	2438	U	C5-C6-N1	-5.84	119.78	122.70
1	AA	299	G	C4-C5-C6	5.84	122.30	118.80
1	AA	768	A	N3-C4-C5	5.84	130.88	126.80
35	BA	1378	A	C2-N3-C4	5.84	113.52	110.60
35	BA	1606	G	N3-C2-N2	5.84	123.99	119.90
35	DA	270	A	C8-N9-C4	5.84	108.13	105.80
35	DA	357	A	N1-C6-N6	5.84	122.10	118.60
35	DA	1020	A	C8-N9-C4	-5.84	103.47	105.80
35	DA	1905	C	P-O3'-C3'	5.84	126.70	119.70
35	DA	2207	G	N3-C4-N9	5.84	129.50	126.00
35	DA	2680	C	O5'-P-OP2	-5.84	100.45	105.70
35	DA	2772	C	C6-N1-C2	5.84	122.63	120.30
36	DB	1	U	C2-N1-C1'	5.84	124.70	117.70
35	BA	388	G	C4-N9-C1'	-5.83	118.91	126.50
35	DA	950	G	C8-N9-C4	-5.83	104.07	106.40
35	DA	1838	C	O4'-C1'-N1	-5.83	103.53	108.20
35	BA	532	A	O4'-C1'-N9	5.83	112.87	108.20
35	BA	651	G	P-O3'-C3'	5.83	126.70	119.70
35	BA	781	A	C6-C5-N7	-5.83	128.22	132.30
1	CA	919	A	C5-C6-N1	5.83	120.62	117.70
35	DA	1336	A	C6-N1-C2	-5.83	115.10	118.60
35	DA	2225	A	P-O3'-C3'	5.83	126.70	119.70
35	DA	2830	G	C8-N9-C4	-5.83	104.07	106.40
35	BA	1835	G	N1-C2-N3	5.83	127.40	123.90
35	DA	2387	U	C2-N1-C1'	-5.83	110.70	117.70
35	DA	2660	A	N3-C4-C5	-5.83	122.72	126.80
35	DA	2767	C	C2-N1-C1'	5.83	125.22	118.80
35	BA	520	G	C8-N9-C4	5.83	108.73	106.40
35	DA	266	G	N9-C4-C5	-5.83	103.07	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	DV	95	LEU	CB-CG-CD2	-5.83	101.09	111.00
35	BA	742	G	N3-C2-N2	-5.83	115.82	119.90
35	BA	1023	U	N3-C4-O4	-5.83	115.32	119.40
35	BA	2584	U	C6-N1-C1'	-5.83	113.04	121.20
35	DA	109	G	C6-N1-C2	-5.83	121.60	125.10
35	DA	656	G	OP2-P-O3'	5.83	118.02	105.20
35	DA	707	G	OP2-P-O3'	5.83	118.02	105.20
35	DA	1049	C	C6-N1-C1'	-5.83	113.81	120.80
35	DA	1601	G	C8-N9-C4	5.83	108.73	106.40
35	DA	2070	G	OP2-P-O3'	5.83	118.02	105.20
35	BA	2003	G	C6-C5-N7	-5.83	126.90	130.40
35	BA	2545	G	N3-C4-N9	5.83	129.50	126.00
35	BA	1196	C	C6-N1-C2	-5.83	117.97	120.30
35	BA	1625	C	N3-C2-O2	-5.83	117.82	121.90
35	BA	2679	A	N7-C8-N9	-5.83	110.89	113.80
35	DA	1038	C	N1-C2-O2	5.83	122.39	118.90
35	DA	1261	C	C6-N1-C2	5.83	122.63	120.30
1	AA	606	G	N3-C4-C5	-5.82	125.69	128.60
35	BA	513	A	N1-C6-N6	5.82	122.09	118.60
35	BA	1379	A	N9-C4-C5	-5.82	103.47	105.80
35	BA	2376	A	C4-C5-C6	-5.82	114.09	117.00
49	BQ	56	ARG	NE-CZ-NH2	-5.82	117.39	120.30
35	DA	119	A	C6-N1-C2	-5.82	115.11	118.60
35	DA	400	G	O5'-P-OP2	-5.82	100.46	105.70
35	DA	847	U	C5-C4-O4	5.82	129.40	125.90
1	AA	93	G	N3-C4-N9	5.82	129.49	126.00
35	BA	2032	G	C4-C5-N7	5.82	113.13	110.80
35	BA	2751	G	C8-N9-C1'	-5.82	119.43	127.00
35	DA	203	C	C5-C6-N1	-5.82	118.09	121.00
35	DA	1181	C	C6-N1-C2	5.82	122.63	120.30
36	DB	64	C	C5-C6-N1	-5.82	118.09	121.00
35	BA	566	U	N3-C2-O2	5.82	126.27	122.20
35	BA	1914	C	N3-C2-O2	-5.82	117.83	121.90
35	BA	2469	A	N1-C2-N3	5.82	132.21	129.30
35	BA	2589	A	N3-C4-C5	5.82	130.87	126.80
1	CA	577	G	N9-C4-C5	-5.82	103.07	105.40
1	CA	595	G	O5'-P-OP2	-5.82	100.46	105.70
35	DA	1695	G	C4-C5-N7	5.82	113.13	110.80
35	BA	2262	U	N1-C2-O2	-5.82	118.73	122.80
35	DA	271(G)	C	C6-N1-C2	-5.82	117.97	120.30
35	BA	1545	A	N3-C4-C5	-5.82	122.73	126.80
35	BA	2447	G	C8-N9-C1'	5.82	134.56	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	CV	59	A	N1-C6-N6	5.82	122.09	118.60
35	DA	589	C	C5-C6-N1	-5.82	118.09	121.00
35	DA	700	G	C4-C5-N7	-5.82	108.47	110.80
35	DA	1241	A	C2-N3-C4	-5.82	107.69	110.60
35	DA	1392	A	C5-C6-N6	-5.82	119.05	123.70
35	DA	2007	C	C5-C6-N1	-5.82	118.09	121.00
35	BA	71	A	P-O3'-C3'	5.82	126.68	119.70
35	BA	1332	G	C2-N3-C4	-5.82	108.99	111.90
35	BA	1380	G	N3-C4-C5	5.82	131.51	128.60
35	BA	1634	A	OP1-P-O3'	5.82	118.00	105.20
35	BA	1838	C	C2-N1-C1'	-5.82	112.40	118.80
1	CA	1405	G	N3-C4-C5	-5.82	125.69	128.60
35	DA	624	C	N3-C4-N4	-5.82	113.93	118.00
35	DA	706	A	N9-C4-C5	-5.82	103.47	105.80
35	DA	1241	A	C4-C5-N7	5.82	113.61	110.70
35	DA	2446	G	OP2-P-O3'	5.82	118.00	105.20
1	AA	558	G	O5'-P-OP1	5.81	117.68	110.70
35	BA	212	G	O5'-P-OP2	-5.81	100.47	105.70
1	AA	474	G	O4'-C1'-N9	-5.81	103.55	108.20
35	BA	1261	C	C6-N1-C2	5.81	122.62	120.30
35	BA	2383	G	C4-C5-N7	5.81	113.12	110.80
1	CA	934	C	O4'-C1'-N1	5.81	112.85	108.20
35	DA	768	G	N9-C4-C5	-5.81	103.08	105.40
35	DA	1111	A	C4-C5-C6	-5.81	114.09	117.00
23	AW	28	G	C4-N9-C1'	5.81	134.05	126.50
35	BA	1314	C	O5'-P-OP2	-5.81	100.47	105.70
35	BA	2383	G	C8-N9-C1'	-5.81	119.45	127.00
48	BP	65	ARG	NE-CZ-NH2	5.81	123.20	120.30
35	DA	248	G	C8-N9-C4	5.81	108.72	106.40
35	DA	522	G	C5-C6-O6	-5.81	125.11	128.60
35	DA	656	G	N1-C2-N2	-5.81	110.97	116.20
35	DA	1808	U	C4-C5-C6	5.81	123.19	119.70
35	DA	2839	G	C8-N9-C1'	-5.81	119.45	127.00
36	DB	113	G	N1-C6-O6	5.81	123.39	119.90
1	AA	354	G	O5'-P-OP2	-5.81	100.47	105.70
35	BA	105	C	OP2-P-O3'	5.81	117.98	105.20
35	BA	2429	G	OP2-P-O3'	5.81	117.98	105.20
35	BA	2595	G	N3-C4-C5	5.81	131.50	128.60
35	DA	628	G	N1-C6-O6	5.81	123.38	119.90
35	DA	774	A	C4-C5-N7	5.81	113.60	110.70
35	DA	1038	C	C2-N1-C1'	5.81	125.19	118.80
35	DA	2501	C	C6-N1-C1'	5.81	127.77	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	2567	G	N9-C4-C5	-5.81	103.08	105.40
36	DB	101	G	C8-N9-C1'	-5.81	119.45	127.00
1	AA	189(I)	G	C8-N9-C1'	-5.81	119.45	127.00
35	DA	27	G	O4'-C1'-N9	5.81	112.84	108.20
35	DA	505	A	N1-C6-N6	5.81	122.08	118.60
35	BA	1187	G	OP1-P-OP2	-5.80	110.89	119.60
35	DA	2060	A	O5'-P-OP2	-5.80	100.48	105.70
35	DA	2499	C	N1-C2-O2	-5.80	115.42	118.90
35	BA	1532	C	N3-C2-O2	-5.80	117.84	121.90
35	DA	1373	A	N7-C8-N9	-5.80	110.90	113.80
35	DA	1512	U	C5-C6-N1	5.80	125.60	122.70
1	AA	1199	U	N3-C4-C5	-5.80	111.12	114.60
35	DA	527	C	N3-C2-O2	5.80	125.96	121.90
35	DA	1376	C	C6-N1-C2	-5.80	117.98	120.30
35	DA	1792	G	C5-N7-C8	5.80	107.20	104.30
1	AA	476	G	O4'-C1'-N9	5.80	112.84	108.20
1	AA	1126	U	N1-C1'-C2'	-5.80	105.62	112.00
35	DA	777	A	C4-C5-C6	5.80	119.90	117.00
35	DA	1982	C	N1-C2-O2	-5.80	115.42	118.90
35	DA	2775	A	N9-C4-C5	-5.80	103.48	105.80
35	BA	2506	U	N3-C2-O2	-5.80	118.14	122.20
35	DA	174	C	N1-C2-O2	5.80	122.38	118.90
35	DA	1675	C	OP2-P-O3'	5.80	117.95	105.20
35	BA	143	G	N9-C4-C5	5.80	107.72	105.40
35	BA	915	C	C5-C6-N1	5.80	123.90	121.00
35	BA	2509	G	C6-C5-N7	-5.80	126.92	130.40
35	BA	2697	G	C4-C5-N7	-5.80	108.48	110.80
1	CA	1488	G	N3-C4-N9	5.80	129.48	126.00
35	DA	462	C	C5-C4-N4	5.80	124.26	120.20
1	AA	160	A	C4-N9-C1'	-5.79	115.87	126.30
35	BA	630	G	O5'-P-OP2	-5.79	100.48	105.70
35	BA	2873	A	N3-C4-C5	-5.79	122.74	126.80
35	DA	465	G	C2-N3-C4	-5.79	109.00	111.90
35	DA	1663	C	C4-C5-C6	5.79	120.30	117.40
35	DA	1792	G	N7-C8-N9	-5.79	110.20	113.10
35	BA	539	G	N1-C2-N3	-5.79	120.42	123.90
35	BA	1826	G	N1-C2-N3	5.79	127.38	123.90
35	BA	1959	G	C6-N1-C2	-5.79	121.62	125.10
35	BA	2005	A	N9-C4-C5	-5.79	103.48	105.80
35	BA	2458	G	C6-N1-C2	-5.79	121.62	125.10
35	DA	1804	C	N3-C4-N4	-5.79	113.94	118.00
16	AP	55	ARG	NE-CZ-NH2	5.79	123.20	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	272(B)	G	O5'-P-OP2	-5.79	100.49	105.70
35	BA	1024	G	N7-C8-N9	5.79	116.00	113.10
35	BA	1545	A	P-O3'-C3'	5.79	126.65	119.70
1	CA	792	A	C8-N9-C4	5.79	108.12	105.80
35	DA	1040	C	O4'-C1'-N1	5.79	112.83	108.20
35	DA	2456	C	C6-N1-C2	5.79	122.62	120.30
35	DA	2780	G	N3-C4-C5	-5.79	125.70	128.60
1	AA	532	A	N1-C2-N3	5.79	132.19	129.30
35	BA	146	G	C5-N7-C8	-5.79	101.41	104.30
1	CA	781	A	N1-C6-N6	5.79	122.07	118.60
35	DA	1936	A	C5-C6-N6	-5.79	119.07	123.70
1	AA	493	G	C6-C5-N7	-5.79	126.93	130.40
23	AW	55	U	N1-C2-O2	5.79	126.85	122.80
35	BA	259	G	N1-C2-N2	-5.79	110.99	116.20
35	BA	512	G	C5-N7-C8	-5.79	101.41	104.30
35	BA	513	A	C6-C5-N7	-5.79	128.25	132.30
35	BA	742	G	N7-C8-N9	-5.79	110.20	113.10
35	BA	852	G	N1-C6-O6	-5.79	116.43	119.90
35	BA	1659	U	OP1-P-OP2	5.79	128.28	119.60
35	BA	2228	G	C4-C5-N7	5.79	113.12	110.80
35	DA	1674	G	N3-C4-N9	5.79	129.47	126.00
35	BA	1366	A	N1-C6-N6	5.79	122.07	118.60
35	DA	2451	A	N1-C6-N6	-5.79	115.13	118.60
35	DA	2661	G	C4-C5-C6	5.79	122.27	118.80
35	BA	240	G	N3-C2-N2	-5.79	115.85	119.90
1	CA	1403	C	N3-C2-O2	5.79	125.95	121.90
35	DA	811	U	C5-C6-N1	-5.79	119.81	122.70
35	DA	2766	G	C8-N9-C1'	-5.79	119.48	127.00
1	AA	460	G	C2-N3-C4	5.78	114.79	111.90
1	AA	857	C	C6-N1-C2	5.78	122.61	120.30
35	BA	2557	G	N3-C4-N9	5.78	129.47	126.00
35	DA	30	G	N1-C6-O6	5.78	123.37	119.90
35	DA	188	G	N1-C2-N3	5.78	127.37	123.90
35	DA	1273	U	C5-C4-O4	5.78	129.37	125.90
35	DA	1300	U	C5-C4-O4	5.78	129.37	125.90
35	DA	2353	G	N1-C6-O6	5.78	123.37	119.90
35	DA	2499	C	C5-C6-N1	5.78	123.89	121.00
35	BA	2731	G	C4-N9-C1'	5.78	134.02	126.50
35	DA	2313	C	C2-N1-C1'	5.78	125.16	118.80
35	DA	2469	A	C5-C6-N1	-5.78	114.81	117.70
35	BA	469	G	N1-C6-O6	5.78	123.37	119.90
35	BA	666	G	N3-C4-C5	5.78	131.49	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	CW	75	C	N3-C4-C5	-5.78	119.59	121.90
35	DA	204	A	C5-C6-N1	5.78	120.59	117.70
35	DA	768	G	O5'-P-OP1	5.78	117.64	110.70
35	DA	1332	G	C5-C6-N1	-5.78	108.61	111.50
35	DA	2253	G	C8-N9-C1'	5.78	134.51	127.00
35	DA	2863	C	C6-N1-C2	5.78	122.61	120.30
35	DA	376	C	N1-C2-N3	5.78	123.25	119.20
35	BA	778	G	C6-N1-C2	-5.78	121.63	125.10
22	CV	76	A	C4-C5-N7	5.78	113.59	110.70
35	DA	359	A	N1-C6-N6	-5.78	115.13	118.60
35	DA	446	G	C6-N1-C2	5.78	128.57	125.10
35	DA	2629	A	C2-N3-C4	5.78	113.49	110.60
23	AW	67	C	C6-N1-C2	-5.78	117.99	120.30
35	DA	838	C	C5-C6-N1	-5.78	118.11	121.00
35	DA	1306	C	N3-C2-O2	5.78	125.94	121.90
35	BA	2681	C	C5-C4-N4	5.77	124.24	120.20
35	DA	828	U	N1-C2-O2	5.77	126.84	122.80
35	DA	2448	A	C8-N9-C4	5.77	108.11	105.80
1	AA	305	G	C5-C6-O6	5.77	132.06	128.60
22	AV	64	G	C4-N9-C1'	5.77	134.00	126.50
1	CA	14	U	O5'-P-OP1	-5.77	100.50	105.70
1	CA	1305	G	N9-C4-C5	5.77	107.71	105.40
35	DA	96	G	C8-N9-C4	5.77	108.71	106.40
35	DA	833	U	N3-C4-O4	5.77	123.44	119.40
35	DA	1790	C	C2-N3-C4	-5.77	117.01	119.90
36	DB	104	U	C2-N1-C1'	-5.77	110.77	117.70
1	AA	1503	A	C2-N3-C4	5.77	113.48	110.60
35	DA	2073	C	N3-C4-C5	-5.77	119.59	121.90
35	BA	1480	G	N3-C4-C5	-5.77	125.72	128.60
35	DA	998	C	N3-C4-N4	5.77	122.04	118.00
36	DB	6	C	C6-N1-C2	5.77	122.61	120.30
1	AA	438	G	N3-C4-N9	5.77	129.46	126.00
1	AA	849	C	C6-N1-C2	-5.77	117.99	120.30
1	AA	1345	U	C5-C4-O4	5.77	129.36	125.90
35	DA	1504	C	C2-N1-C1'	5.77	125.14	118.80
35	DA	2779	U	OP2-P-O3'	5.77	117.89	105.20
1	AA	1503	A	N3-C4-C5	-5.76	122.76	126.80
35	BA	659	C	C6-N1-C2	5.76	122.61	120.30
35	BA	1677	A	C5-C6-N6	-5.76	119.09	123.70
35	DA	1327	C	N1-C2-O2	-5.76	115.44	118.90
35	DA	1632	A	C5-N7-C8	-5.76	101.02	103.90
35	DA	2566	A	N1-C2-N3	-5.76	126.42	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	450	G	C8-N9-C4	-5.76	104.09	106.40
35	DA	2373	G	N3-C4-C5	-5.76	125.72	128.60
35	DA	2889	C	N1-C2-O2	5.76	122.36	118.90
35	BA	1628	G	N1-C6-O6	5.76	123.36	119.90
26	D1	46	LEU	CB-CG-CD1	5.76	120.79	111.00
35	DA	103	A	N9-C4-C5	-5.76	103.50	105.80
35	DA	2518	A	N9-C4-C5	-5.76	103.50	105.80
35	DA	2681	C	N3-C4-C5	-5.76	119.60	121.90
1	AA	1209	C	N1-C2-O2	5.76	122.36	118.90
1	AA	1231	G	N1-C6-O6	5.76	123.36	119.90
23	AY	37	A	N1-C6-N6	5.76	122.06	118.60
35	BA	512	G	N3-C4-C5	5.76	131.48	128.60
35	BA	669	G	N3-C4-N9	-5.76	122.55	126.00
35	BA	1895	C	O5'-P-OP2	5.76	117.61	110.70
35	DA	827	U	N3-C2-O2	-5.76	118.17	122.20
35	DA	2601	C	O5'-P-OP1	-5.76	100.52	105.70
1	AA	410	G	N3-C4-N9	-5.76	122.55	126.00
22	AV	60	A	N7-C8-N9	5.76	116.68	113.80
23	AW	13	C	C2-N1-C1'	5.76	125.13	118.80
35	BA	271(U)	G	C6-C5-N7	-5.76	126.95	130.40
35	BA	694	U	N1-C2-O2	5.76	126.83	122.80
35	DA	2419	U	N3-C2-O2	5.76	126.23	122.20
35	DA	2623	G	N3-C4-N9	5.76	129.45	126.00
35	DA	2657	A	C2-N3-C4	-5.76	107.72	110.60
35	BA	665	C	N3-C4-N4	-5.75	113.97	118.00
35	BA	2280	G	O5'-P-OP2	-5.75	100.52	105.70
35	BA	2643	G	N1-C6-O6	5.75	123.35	119.90
1	AA	527	G	OP2-P-O3'	5.75	117.86	105.20
1	AA	540	G	C5-C6-O6	-5.75	125.15	128.60
1	AA	811	C	N3-C2-O2	5.75	125.93	121.90
35	BA	1393	A	N1-C6-N6	5.75	122.05	118.60
35	DA	1212	G	C4-C5-N7	-5.75	108.50	110.80
35	DA	2267	A	O5'-P-OP1	-5.75	100.52	105.70
1	AA	423	G	C5-C6-O6	-5.75	125.15	128.60
35	BA	774	A	C8-N9-C4	-5.75	103.50	105.80
35	BA	1968	G	C8-N9-C4	5.75	108.70	106.40
35	DA	2578	G	C6-N1-C2	-5.75	121.65	125.10
35	BA	696	G	N3-C4-C5	-5.75	125.72	128.60
1	CA	1074	G	N1-C6-O6	5.75	123.35	119.90
35	DA	186	G	C8-N9-C4	5.75	108.70	106.40
35	DA	396	G	C5-C6-O6	-5.75	125.15	128.60
1	AA	885	G	O5'-P-OP1	-5.75	100.53	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1065	U	P-O3'-C3'	5.75	126.60	119.70
35	BA	667	U	N3-C2-O2	5.75	126.22	122.20
35	BA	1098	A	O4'-C1'-N9	5.75	112.80	108.20
35	BA	2059	A	N7-C8-N9	-5.75	110.93	113.80
35	BA	2548	G	N1-C6-O6	5.75	123.35	119.90
36	BB	81	G	N7-C8-N9	5.75	115.97	113.10
1	CA	754	C	C2-N1-C1'	5.75	125.12	118.80
24	CX	19	U	C2-N1-C1'	5.75	124.60	117.70
35	DA	1567	A	C6-N1-C2	-5.75	115.15	118.60
35	DA	2441	C	C5-C6-N1	-5.75	118.13	121.00
35	DA	2463	C	C2-N1-C1'	-5.75	112.48	118.80
35	BA	1594	G	C4-N9-C1'	5.75	133.97	126.50
35	DA	2318	G	N3-C4-N9	5.75	129.45	126.00
35	DA	933	A	C5-C6-N6	-5.75	119.10	123.70
1	AA	333	G	C8-N9-C4	5.74	108.70	106.40
35	BA	396	G	OP1-P-O3'	5.74	117.84	105.20
35	BA	1122	G	N9-C4-C5	-5.74	103.10	105.40
35	BA	1493	C	C6-N1-C1'	-5.74	113.91	120.80
35	DA	2458	G	C8-N9-C4	-5.74	104.10	106.40
35	DA	2612	C	C5-C4-N4	5.74	124.22	120.20
1	AA	1512	U	O5'-P-OP1	5.74	117.59	110.70
35	BA	2724	C	C6-N1-C1'	5.74	127.69	120.80
35	DA	570	G	C4-C5-N7	-5.74	108.50	110.80
35	DA	718	A	C2-N3-C4	-5.74	107.73	110.60
35	DA	1666	G	C4-C5-N7	-5.74	108.50	110.80
35	DA	1774	C	N3-C2-O2	-5.74	117.88	121.90
35	DA	2594	C	C5-C4-N4	-5.74	116.18	120.20
35	DA	2284	C	OP2-P-O3'	5.74	117.83	105.20
35	DA	2567	G	N3-C4-N9	5.74	129.44	126.00
36	DB	44	G	C8-N9-C1'	5.74	134.46	127.00
35	BA	811	U	N1-C2-N3	5.74	118.34	114.90
1	CA	644	G	O5'-P-OP2	-5.74	100.54	105.70
35	DA	527	C	N3-C4-C5	5.74	124.19	121.90
35	BA	442	G	N3-C4-N9	-5.74	122.56	126.00
35	BA	2454	G	C4-C5-N7	-5.74	108.51	110.80
35	DA	2029	G	N9-C4-C5	5.74	107.69	105.40
35	BA	952	G	C6-C5-N7	5.73	133.84	130.40
35	DA	656	G	N3-C4-N9	5.73	129.44	126.00
35	DA	2435	A	C6-N1-C2	-5.73	115.16	118.60
35	BA	2056	G	N3-C4-N9	5.73	129.44	126.00
35	BA	2598	A	P-O3'-C3'	5.73	126.58	119.70
35	BA	2841	C	N3-C4-C5	5.73	124.19	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	DY	56	PRO	N-CA-C	5.73	127.00	112.10
1	AA	881	G	C2-N3-C4	-5.73	109.03	111.90
1	AA	1269	A	N1-C6-N6	-5.73	115.16	118.60
35	DA	555	U	C2-N1-C1'	-5.73	110.82	117.70
35	DA	729	G	N1-C2-N3	5.73	127.34	123.90
35	DA	2407	G	N7-C8-N9	5.73	115.97	113.10
1	AA	516	U	N1-C2-O2	-5.73	118.79	122.80
1	AA	1018	C	C6-N1-C2	-5.73	118.01	120.30
35	BA	1566	A	P-O3'-C3'	5.73	126.58	119.70
35	DA	142	A	C6-C5-N7	-5.73	128.29	132.30
1	AA	476	G	N3-C4-C5	-5.73	125.74	128.60
1	AA	702	A	C5-N7-C8	-5.73	101.04	103.90
1	AA	1417	G	C8-N9-C1'	-5.73	119.55	127.00
35	BA	465	G	C5-C6-O6	5.73	132.04	128.60
35	BA	2537	U	N3-C4-C5	-5.73	111.16	114.60
35	BA	2786	U	C5-C6-N1	5.73	125.56	122.70
1	CA	1530	G	N3-C4-N9	-5.73	122.56	126.00
35	DA	144	C	C6-N1-C2	5.73	122.59	120.30
35	DA	1428	C	O5'-P-OP2	5.73	117.57	110.70
55	DW	23	LEU	CB-CG-CD2	-5.73	101.26	111.00
1	AA	49	U	C5-C6-N1	-5.73	119.84	122.70
35	BA	2819	G	C4-N9-C1'	5.73	133.94	126.50
35	DA	570	G	OP2-P-O3'	5.73	117.80	105.20
35	DA	675	A	OP2-P-O3'	5.73	117.80	105.20
38	DD	64	ILE	CG1-CB-CG2	-5.73	98.80	111.40
15	AO	43	LEU	CB-CG-CD2	-5.72	101.27	111.00
35	BA	974	G	N3-C4-N9	5.72	129.44	126.00
35	BA	1256	G	C2-N3-C4	5.72	114.76	111.90
35	BA	1366	A	C5-C6-N6	-5.72	119.12	123.70
35	BA	1609	A	O5'-P-OP2	-5.72	100.55	105.70
35	BA	1835	G	C6-N1-C2	-5.72	121.67	125.10
35	DA	1165	U	C5-C4-O4	5.72	129.34	125.90
35	DA	1443	G	P-O3'-C3'	-5.72	112.83	119.70
35	DA	2391	G	O5'-P-OP2	-5.72	100.55	105.70
35	BA	1404	C	O5'-P-OP2	-5.72	100.55	105.70
35	BA	1940	U	N3-C2-O2	-5.72	118.19	122.20
23	CW	74	C	C2-N1-C1'	5.72	125.09	118.80
35	DA	391	G	N1-C2-N2	-5.72	111.05	116.20
35	DA	503	A	C8-N9-C4	5.72	108.09	105.80
35	DA	536	A	C5-N7-C8	5.72	106.76	103.90
35	DA	2082	A	N1-C6-N6	5.72	122.03	118.60
35	DA	2320	A	N1-C6-N6	5.72	122.03	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	2717	G	N9-C4-C5	5.72	107.69	105.40
35	BA	41	C	C6-N1-C2	5.72	122.59	120.30
35	BA	2592	G	N7-C8-N9	5.72	115.96	113.10
35	BA	2651	C	C6-N1-C2	5.72	122.59	120.30
35	DA	2062	A	O5'-P-OP2	-5.72	100.55	105.70
1	AA	1456	G	C8-N9-C1'	-5.72	119.56	127.00
1	AA	1529	G	O5'-P-OP2	-5.72	100.55	105.70
33	B8	61	LEU	CA-CB-CG	-5.72	102.14	115.30
35	BA	27	G	N9-C4-C5	5.72	107.69	105.40
35	DA	800	A	C5-C6-N1	5.72	120.56	117.70
35	DA	2003	G	N3-C4-N9	5.72	129.43	126.00
36	DB	59	A	O5'-P-OP1	5.72	117.56	110.70
1	AA	203	U	C5-C6-N1	5.72	125.56	122.70
1	AA	1510	U	C5-C6-N1	-5.72	119.84	122.70
1	CA	690	G	N1-C2-N2	-5.72	111.05	116.20
1	AA	1124	G	C8-N9-C4	-5.72	104.11	106.40
35	BA	145	G	N3-C4-C5	5.72	131.46	128.60
35	BA	859	G	C5-C6-N1	-5.72	108.64	111.50
35	BA	2048	G	C6-C5-N7	-5.72	126.97	130.40
35	BA	2544	G	C5-C6-O6	-5.72	125.17	128.60
1	CA	291	C	N1-C2-O2	-5.72	115.47	118.90
35	DA	646	A	C8-N9-C4	-5.72	103.51	105.80
36	DB	104	U	C5-C6-N1	-5.72	119.84	122.70
23	AW	68	C	O4'-C1'-N1	5.71	112.77	108.20
35	BA	81	G	OP2-P-O3'	5.71	117.77	105.20
35	BA	493	G	OP1-P-O3'	5.71	117.77	105.20
35	BA	1656	C	OP2-P-O3'	5.71	117.77	105.20
35	BA	1986	A	C2-N3-C4	-5.71	107.74	110.60
35	BA	2551	C	OP2-P-O3'	5.71	117.77	105.20
1	CA	538	G	N1-C2-N2	-5.71	111.06	116.20
35	DA	1807	G	C6-N1-C2	-5.71	121.67	125.10
35	DA	2073	C	N1-C2-N3	5.71	123.20	119.20
35	DA	2755	C	N1-C2-O2	5.71	122.33	118.90
1	CA	691	G	C8-N9-C4	5.71	108.69	106.40
1	AA	832	C	N1-C1'-C2'	-5.71	105.72	112.00
35	BA	785	G	O5'-P-OP2	5.71	117.55	110.70
1	CA	720	C	N3-C2-O2	-5.71	117.90	121.90
1	CA	810	C	C2-N1-C1'	5.71	125.08	118.80
35	DA	203	C	OP1-P-OP2	5.71	128.17	119.60
35	DA	1216	G	N3-C4-N9	5.71	129.43	126.00
35	DA	1431	U	N3-C4-O4	5.71	123.40	119.40
35	DA	1814	G	C5-C6-N1	-5.71	108.64	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	2280	G	OP1-P-OP2	-5.71	111.03	119.60
1	AA	380	G	C8-N9-C4	-5.71	104.12	106.40
1	AA	501	C	OP2-P-O3'	5.71	117.76	105.20
8	AH	2	LEU	CA-CB-CG	5.71	128.43	115.30
35	DA	2242	G	O5'-P-OP1	5.71	117.55	110.70
35	BA	865	C	N3-C4-C5	5.71	124.18	121.90
35	BA	2483	C	N1-C2-O2	5.71	122.33	118.90
35	DA	272	G	P-O3'-C3'	5.71	126.55	119.70
35	DA	621	A	N3-C4-C5	5.71	130.80	126.80
35	DA	724	U	C2-N1-C1'	-5.71	110.85	117.70
35	DA	2369	A	N9-C4-C5	5.71	108.08	105.80
35	BA	587	C	C5'-C4'-O4'	-5.71	102.25	109.10
35	BA	595	C	N3-C4-N4	5.71	122.00	118.00
35	BA	707	G	C8-N9-C1'	-5.71	119.58	127.00
35	DA	220	G	C4-C5-C6	5.71	122.22	118.80
35	DA	2043	C	OP1-P-OP2	5.71	128.16	119.60
1	AA	384	G	N3-C4-C5	-5.71	125.75	128.60
35	BA	133	C	P-O5'-C5'	5.71	130.03	120.90
35	BA	945	A	O5'-P-OP1	-5.71	100.57	105.70
35	BA	2447	G	N9-C4-C5	5.71	107.68	105.40
35	DA	1493	C	C6-N1-C2	-5.71	118.02	120.30
1	AA	80	G	N1-C6-O6	5.70	123.32	119.90
1	AA	1417	G	C4-N9-C1'	5.70	133.91	126.50
35	BA	1655	A	N9-C4-C5	-5.70	103.52	105.80
1	CA	671	G	C2-N3-C4	5.70	114.75	111.90
36	DB	44	G	C8-N9-C4	5.70	108.68	106.40
36	DB	112	U	C5-C6-N1	-5.70	119.85	122.70
1	AA	1499	A	C8-N9-C4	5.70	108.08	105.80
35	BA	1616	A	C6-C5-N7	-5.70	128.31	132.30
35	BA	2281	C	N3-C4-N4	5.70	121.99	118.00
35	BA	2552	U	C5-C4-O4	-5.70	122.48	125.90
22	CV	17(A)	U	N1-C2-O2	5.70	126.79	122.80
35	DA	393	C	N1-C2-O2	-5.70	115.48	118.90
35	DA	458	G	C4-N9-C1'	-5.70	119.09	126.50
1	AA	738	C	N3-C4-C5	-5.70	119.62	121.90
35	BA	123	G	C8-N9-C4	5.70	108.68	106.40
35	BA	142(A)	C	O5'-P-OP2	-5.70	100.57	105.70
35	BA	1810	A	N1-C6-N6	5.70	122.02	118.60
35	BA	1814	G	C2-N3-C4	-5.70	109.05	111.90
36	BB	1	U	N3-C2-O2	-5.70	118.21	122.20
35	DA	807	U	OP2-P-O3'	5.70	117.74	105.20
35	DA	1374	G	N9-C4-C5	-5.70	103.12	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	1767	C	C6-N1-C2	5.70	122.58	120.30
1	AA	299	G	C2-N3-C4	-5.70	109.05	111.90
1	AA	534	U	O5'-P-OP1	5.70	117.54	110.70
35	BA	1601	G	C8-N9-C4	5.70	108.68	106.40
1	CA	1520	G	N7-C8-N9	-5.70	110.25	113.10
35	DA	694	U	N1-C2-O2	5.70	126.79	122.80
35	DA	743	G	C5-N7-C8	5.70	107.15	104.30
35	DA	2589	A	N7-C8-N9	-5.70	110.95	113.80
35	DA	2661	G	C4-N9-C1'	5.70	133.91	126.50
35	DA	2783	G	N3-C4-N9	5.70	129.42	126.00
1	AA	1508	G	O5'-P-OP2	-5.70	100.57	105.70
35	BA	1815	A	N1-C2-N3	5.70	132.15	129.30
35	DA	1239	G	N9-C4-C5	5.70	107.68	105.40
35	DA	1251	C	O5'-P-OP2	-5.70	100.57	105.70
35	DA	2069	G	O5'-P-OP2	-5.70	100.57	105.70
1	AA	726	C	O5'-P-OP1	-5.70	100.57	105.70
1	AA	1081	G	N1-C6-O6	-5.70	116.48	119.90
35	BA	388	G	C8-N9-C1'	5.70	134.41	127.00
1	CA	507	C	C6-N1-C2	-5.70	118.02	120.30
1	CA	1277	C	C6-N1-C2	-5.70	118.02	120.30
35	DA	376	C	N3-C2-O2	-5.70	117.91	121.90
35	DA	576	U	O5'-P-OP2	-5.70	100.58	105.70
35	DA	1287	A	N1-C2-N3	5.70	132.15	129.30
35	BA	2040	C	C5-C4-N4	-5.69	116.21	120.20
35	DA	216	A	N1-C2-N3	-5.69	126.45	129.30
35	DA	2643	G	N1-C2-N2	-5.69	111.08	116.20
1	AA	424	G	N1-C6-O6	5.69	123.31	119.90
1	AA	838	G	C4-N9-C1'	-5.69	119.10	126.50
1	AA	1055	A	O5'-P-OP1	-5.69	100.58	105.70
1	AA	1115	C	C5-C6-N1	-5.69	118.15	121.00
35	BA	567	A	O5'-P-OP2	-5.69	100.58	105.70
35	BA	1547	C	N3-C2-O2	-5.69	117.92	121.90
35	BA	1597	A	O5'-P-OP2	-5.69	100.58	105.70
35	BA	2248	C	C6-N1-C2	5.69	122.58	120.30
1	CA	807	A	N9-C4-C5	5.69	108.08	105.80
35	DA	2551	C	C5-C6-N1	-5.69	118.15	121.00
43	DI	75	LEU	CA-CB-CG	5.69	128.39	115.30
1	AA	91	C	C6-N1-C2	-5.69	118.02	120.30
1	AA	175	C	N3-C2-O2	5.69	125.88	121.90
31	B6	15	GLU	OE1-CD-OE2	-5.69	116.47	123.30
35	BA	272(H)	C	C2-N3-C4	5.69	122.75	119.90
35	BA	511	U	N3-C2-O2	-5.69	118.22	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	779	U	C5-C6-N1	-5.69	119.86	122.70
35	BA	809	G	N3-C4-C5	-5.69	125.75	128.60
1	CA	968	A	C8-N9-C4	5.69	108.08	105.80
52	DT	13	ARG	O-C-N	-5.69	113.59	122.70
1	AA	615	C	N1-C2-O2	5.69	122.31	118.90
35	BA	133	C	C4'-C3'-O3'	5.69	124.38	113.00
35	BA	1276	A	C5-C6-N1	-5.69	114.86	117.70
1	CA	1417	G	C4-N9-C1'	5.69	133.90	126.50
35	DA	1558	A	C5-C6-N1	-5.69	114.86	117.70
1	AA	78	G	C2-N3-C4	5.69	114.74	111.90
35	BA	95	G	C6-C5-N7	-5.69	126.99	130.40
35	BA	636	G	O5'-P-OP1	-5.69	100.58	105.70
35	BA	1784	A	C6-C5-N7	-5.69	128.32	132.30
35	BA	2549	G	N3-C4-C5	-5.69	125.76	128.60
35	DA	189	G	C8-N9-C1'	-5.69	119.61	127.00
35	DA	915	C	C6-N1-C2	-5.69	118.03	120.30
35	DA	1951	U	C6-N1-C2	-5.69	117.59	121.00
35	DA	2029	G	N3-C4-N9	-5.69	122.59	126.00
35	DA	2712(A)	A	N3-C4-C5	-5.69	122.82	126.80
1	AA	1277	C	C4-C5-C6	-5.69	114.56	117.40
35	DA	2548	G	N7-C8-N9	-5.69	110.26	113.10
54	DV	82	ARG	NE-CZ-NH2	-5.69	117.46	120.30
1	AA	44	G	C8-N9-C4	5.68	108.67	106.40
1	AA	79	G	C4-C5-N7	5.68	113.07	110.80
1	AA	904	C	N3-C4-C5	5.68	124.17	121.90
22	AV	64	G	N3-C4-C5	-5.68	125.76	128.60
35	BA	1968	G	N3-C4-C5	5.68	131.44	128.60
35	DA	678	C	C6-N1-C2	5.68	122.57	120.30
35	DA	740	U	OP1-P-OP2	-5.68	111.07	119.60
35	DA	2426	A	N1-C6-N6	-5.68	115.19	118.60
1	AA	1039	C	C2-N1-C1'	5.68	125.05	118.80
1	AA	1298	C	C2-N1-C1'	-5.68	112.55	118.80
35	BA	1532	C	C6-N1-C2	-5.68	118.03	120.30
1	CA	537	G	N7-C8-N9	5.68	115.94	113.10
35	DA	464	U	OP1-P-OP2	-5.68	111.08	119.60
35	DA	1304	C	N3-C4-C5	5.68	124.17	121.90
35	DA	2036	C	OP1-P-OP2	-5.68	111.08	119.60
35	DA	2255	G	N7-C8-N9	-5.68	110.26	113.10
35	BA	707	G	C4-C5-C6	5.68	122.21	118.80
35	BA	2438	U	OP2-P-O3'	5.68	117.70	105.20
35	DA	1312	U	N3-C4-C5	-5.68	111.19	114.60
1	AA	1055	A	C8-N9-C4	-5.68	103.53	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	AY	33	U	O5'-P-OP1	-5.68	100.59	105.70
35	BA	667	U	N1-C2-O2	-5.68	118.82	122.80
35	BA	1348	G	C5-C6-O6	-5.68	125.19	128.60
35	BA	1799	G	C5-C6-O6	5.68	132.01	128.60
35	BA	1845	G	O5'-P-OP2	5.68	117.52	110.70
35	BA	2065	C	N3-C4-N4	5.68	121.98	118.00
35	BA	2538	C	C6-N1-C2	5.68	122.57	120.30
1	CA	21	G	O5'-P-OP2	-5.68	100.59	105.70
35	DA	474	G	N9-C4-C5	5.68	107.67	105.40
35	DA	1566	A	C4-C5-C6	-5.68	114.16	117.00
35	DA	1689	A	N1-C6-N6	-5.68	115.19	118.60
35	DA	1905	C	O5'-P-OP2	-5.68	100.59	105.70
35	DA	1951	U	C5-C6-N1	5.68	125.54	122.70
35	DA	2021	C	N3-C2-O2	5.68	125.88	121.90
35	DA	2821	A	O5'-P-OP2	-5.68	100.59	105.70
35	BA	1493	C	N3-C2-O2	-5.68	117.92	121.90
35	BA	2598	A	N1-C2-N3	5.68	132.14	129.30
35	DA	2289	G	C8-N9-C4	5.68	108.67	106.40
1	AA	553	A	O5'-P-OP1	5.68	117.51	110.70
35	BA	1659	U	C6-N1-C2	5.68	124.41	121.00
35	BA	2081	C	C2-N3-C4	-5.68	117.06	119.90
51	BS	20	ARG	CA-CB-CG	-5.68	100.91	113.40
35	DA	813	U	N3-C2-O2	-5.68	118.23	122.20
35	DA	1838	C	N1-C2-N3	-5.68	115.23	119.20
35	DA	2773	C	C6-N1-C2	5.68	122.57	120.30
22	AV	64	G	N3-C4-N9	5.67	129.41	126.00
35	BA	2341	G	C8-N9-C4	5.67	108.67	106.40
35	BA	2679	A	OP2-P-O3'	5.67	117.68	105.20
1	CA	529	G	N3-C2-N2	-5.67	115.93	119.90
1	CA	1491	G	N3-C4-N9	5.67	129.41	126.00
35	DA	950	G	C5-N7-C8	-5.67	101.46	104.30
35	DA	1492	G	C8-N9-C4	5.67	108.67	106.40
35	DA	2124	G	C4-N9-C1'	5.67	133.88	126.50
35	DA	2641	G	N7-C8-N9	5.67	115.94	113.10
23	AW	67	C	C5-C6-N1	5.67	123.84	121.00
35	DA	1214	A	N1-C2-N3	5.67	132.14	129.30
1	AA	108	G	C4-C5-N7	5.67	113.07	110.80
1	AA	654	G	N9-C4-C5	5.67	107.67	105.40
35	BA	116	C	C6-N1-C2	-5.67	118.03	120.30
35	BA	2624	G	N3-C4-C5	-5.67	125.76	128.60
35	BA	2791	C	O4'-C1'-N1	5.67	112.74	108.20
1	CA	969	A	O5'-P-OP2	-5.67	100.60	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	133	C	N3-C2-O2	-5.67	117.93	121.90
1	AA	1235	U	C6-N1-C2	-5.67	117.60	121.00
35	BA	1276	A	C4-C5-N7	5.67	113.53	110.70
35	BA	2395	C	C5-C6-N1	5.67	123.83	121.00
35	BA	2490	G	O5'-P-OP1	-5.67	100.60	105.70
1	CA	117	G	N3-C2-N2	-5.67	115.93	119.90
35	DA	1605	C	C6-N1-C2	-5.67	118.03	120.30
35	DA	1662	C	C5-C6-N1	-5.67	118.17	121.00
35	DA	2447	G	C6-N1-C2	-5.67	121.70	125.10
1	AA	529	G	C5-C6-O6	-5.67	125.20	128.60
35	BA	89	G	C6-C5-N7	-5.67	127.00	130.40
35	BA	1052	C	N1-C2-O2	5.67	122.30	118.90
35	BA	2567	G	N1-C6-O6	5.67	123.30	119.90
35	DA	212	G	C5-C6-O6	-5.67	125.20	128.60
35	DA	528	A	O4'-C1'-N9	-5.67	103.67	108.20
35	DA	587	C	N3-C2-O2	-5.67	117.93	121.90
35	DA	600	G	C4-C5-N7	-5.67	108.53	110.80
35	DA	1266	G	C5-C6-O6	-5.67	125.20	128.60
35	DA	2607	G	C8-N9-C4	-5.67	104.13	106.40
35	DA	2625	G	C6-N1-C2	-5.67	121.70	125.10
35	BA	149	A	C4-C5-C6	5.67	119.83	117.00
35	BA	458	G	O5'-P-OP2	-5.67	100.60	105.70
35	BA	1764	G	O5'-P-OP2	-5.67	100.60	105.70
35	BA	2571	C	C4-C5-C6	5.67	120.23	117.40
35	DA	549	G	C4-N9-C1'	5.67	133.87	126.50
35	DA	1333	C	C5-C6-N1	5.67	123.83	121.00
35	DA	1564	C	C4-C5-C6	5.67	120.23	117.40
1	AA	755	G	C4-C5-N7	5.67	113.07	110.80
35	BA	1501	C	C2-N3-C4	5.67	122.73	119.90
1	AA	277	C	C5-C6-N1	-5.66	118.17	121.00
1	AA	694	A	N7-C8-N9	5.66	116.63	113.80
1	CA	357	G	C4-C5-N7	-5.66	108.53	110.80
35	DA	1349	A	C6-C5-N7	-5.66	128.34	132.30
35	DA	2601	C	N1-C2-O2	-5.66	115.50	118.90
23	AW	71	G	O4'-C1'-N9	5.66	112.73	108.20
35	BA	1992	G	N7-C8-N9	5.66	115.93	113.10
35	DA	2287	A	C5-N7-C8	-5.66	101.07	103.90
35	DA	2426	A	N9-C4-C5	5.66	108.06	105.80
1	AA	519	C	N1-C2-O2	5.66	122.30	118.90
1	AA	713	G	C6-C5-N7	-5.66	127.00	130.40
35	BA	220	G	P-O3'-C3'	5.66	126.49	119.70
35	BA	1961	C	C2-N3-C4	-5.66	117.07	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	297	G	N3-C4-C5	5.66	131.43	128.60
1	AA	694	A	O4'-C1'-N9	5.66	112.73	108.20
35	BA	579	G	O5'-P-OP2	-5.66	100.61	105.70
35	BA	1433	U	C5-C4-O4	-5.66	122.50	125.90
35	BA	1763	G	N1-C6-O6	5.66	123.30	119.90
1	CA	28	G	N3-C2-N2	-5.66	115.94	119.90
1	CA	1435	G	N3-C2-N2	-5.66	115.94	119.90
35	DA	74	A	N1-C6-N6	-5.66	115.20	118.60
35	DA	678	C	C2-N3-C4	-5.66	117.07	119.90
35	DA	788	A	C5-C6-N6	-5.66	119.17	123.70
35	DA	1158	C	C2-N3-C4	-5.66	117.07	119.90
1	AA	969	A	O5'-P-OP2	-5.66	100.61	105.70
1	AA	1260	C	C6-N1-C2	-5.66	118.04	120.30
35	BA	142	A	O5'-P-OP2	-5.66	100.61	105.70
35	DA	542	C	OP1-P-O3'	5.66	117.64	105.20
35	DA	2271	G	C8-N9-C1'	-5.66	119.64	127.00
1	AA	25	C	C6-N1-C2	5.66	122.56	120.30
35	BA	48	G	C4-C5-N7	-5.66	108.54	110.80
35	BA	798	G	C2-N3-C4	-5.66	109.07	111.90
35	BA	2339	G	C8-N9-C4	5.66	108.66	106.40
1	CA	875	C	C6-N1-C2	5.66	122.56	120.30
35	DA	71	A	C4-N9-C1'	5.66	136.48	126.30
35	DA	646	A	O4'-C1'-N9	5.66	112.72	108.20
35	DA	1321	A	N1-C6-N6	-5.66	115.21	118.60
35	DA	2286	A	C4-C5-C6	5.66	119.83	117.00
35	DA	2286	A	C6-C5-N7	-5.66	128.34	132.30
35	BA	1343	G	N1-C6-O6	-5.65	116.51	119.90
35	BA	2454	G	N9-C4-C5	5.65	107.66	105.40
35	BA	2688	U	C4-C5-C6	5.65	123.09	119.70
47	BO	91	LEU	C-N-CA	-5.65	107.57	121.70
35	DA	621	A	N9-C4-C5	-5.65	103.54	105.80
35	DA	1320	C	C5-C6-N1	-5.65	118.17	121.00
35	DA	2022	U	C2-N1-C1'	5.65	124.48	117.70
1	AA	51	A	O5'-P-OP1	-5.65	100.61	105.70
1	AA	1126	U	C6-N1-C1'	-5.65	113.29	121.20
35	BA	272	G	N9-C1'-C2'	5.65	121.35	114.00
35	BA	388	G	N3-C2-N2	-5.65	115.94	119.90
35	BA	1355	G	N1-C2-N3	5.65	127.29	123.90
35	BA	1568	G	N1-C6-O6	5.65	123.29	119.90
35	BA	1849	G	C2-N3-C4	5.65	114.72	111.90
1	CA	557	G	N3-C4-N9	5.65	129.39	126.00
35	DA	805	G	C5-N7-C8	-5.65	101.47	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	1658	C	N1-C2-O2	-5.65	115.51	118.90
35	DA	2848	G	C8-N9-C4	-5.65	104.14	106.40
35	BA	1695	G	N3-C4-C5	-5.65	125.78	128.60
35	DA	681	G	N7-C8-N9	-5.65	110.28	113.10
35	DA	2010	G	C5-C6-O6	-5.65	125.21	128.60
36	DB	112	U	C4-C5-C6	5.65	123.09	119.70
35	DA	294	A	N1-C6-N6	-5.65	115.21	118.60
35	DA	784	A	C5-C6-N6	5.65	128.22	123.70
35	DA	1620	G	C8-N9-C4	5.65	108.66	106.40
35	DA	2381	C	C5-C6-N1	-5.65	118.18	121.00
36	DB	96	U	N1-C2-N3	5.65	118.29	114.90
1	AA	78	G	N3-C4-N9	5.64	129.39	126.00
35	BA	1435	G	C5-C6-O6	-5.64	125.21	128.60
35	BA	2256	G	N3-C2-N2	5.64	123.85	119.90
1	CA	1140	C	O4'-C1'-N1	5.64	112.72	108.20
6	CF	43	LEU	CA-CB-CG	-5.64	102.32	115.30
22	CV	6	G	C5-C6-O6	-5.64	125.21	128.60
35	DA	404	C	C2-N1-C1'	-5.64	112.59	118.80
35	DA	511	U	N3-C4-O4	-5.64	115.45	119.40
35	DA	1462	C	C2-N1-C1'	5.64	125.01	118.80
35	DA	1720	U	C5-C4-O4	5.64	129.29	125.90
35	DA	2003	G	C4-N9-C1'	5.64	133.84	126.50
35	DA	2271	G	C6-C5-N7	-5.64	127.01	130.40
35	DA	2707	G	N1-C6-O6	5.64	123.29	119.90
1	AA	981	U	C5-C4-O4	-5.64	122.52	125.90
35	BA	146	G	C4-N9-C1'	5.64	133.84	126.50
35	BA	845	G	C6-C5-N7	-5.64	127.01	130.40
35	BA	1630	G	N1-C6-O6	5.64	123.28	119.90
35	BA	2196	C	N3-C2-O2	5.64	125.85	121.90
35	BA	2712(A)	A	P-O3'-C3'	5.64	126.47	119.70
35	DA	297	C	N3-C4-C5	-5.64	119.64	121.90
35	DA	311	A	C2-N3-C4	-5.64	107.78	110.60
35	DA	2124	G	N3-C4-N9	5.64	129.38	126.00
54	DV	75	PHE	CB-CG-CD1	-5.64	116.85	120.80
22	AV	34	U	OP1-P-OP2	5.64	128.06	119.60
1	CA	527	G	N3-C4-N9	-5.64	122.62	126.00
35	DA	1637	A	N1-C2-N3	5.64	132.12	129.30
35	DA	2523	G	C8-N9-C4	-5.64	104.14	106.40
35	DA	2824	C	C5-C6-N1	5.64	123.82	121.00
35	DA	2848	G	C5-C6-O6	5.64	131.98	128.60
35	BA	1839	G	N3-C4-N9	-5.64	122.62	126.00
35	DA	1637	A	C2-N3-C4	-5.64	107.78	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	2075	U	C5-C6-N1	-5.64	119.88	122.70
35	DA	2208	A	O4'-C1'-N9	5.64	112.71	108.20
35	BA	89	G	C5-C6-O6	-5.64	125.22	128.60
35	DA	1212	G	C5-N7-C8	5.64	107.12	104.30
35	DA	1214	A	C8-N9-C4	-5.64	103.55	105.80
35	DA	2579	C	N3-C4-C5	5.64	124.16	121.90
35	BA	83	G	N7-C8-N9	5.63	115.92	113.10
35	BA	917	A	C8-N9-C4	5.63	108.05	105.80
35	BA	1269	A	C2-N3-C4	-5.63	107.78	110.60
35	BA	1754	C	N3-C2-O2	-5.63	117.96	121.90
1	CA	1256	A	C8-N9-C4	5.63	108.05	105.80
1	CA	1305	G	O4'-C1'-N9	5.63	112.71	108.20
35	DA	1250	G	C4-C5-N7	-5.63	108.55	110.80
35	DA	1404	C	C6-N1-C2	5.63	122.55	120.30
35	DA	2457	U	OP2-P-O3'	5.63	117.59	105.20
35	DA	2543	G	N3-C4-C5	-5.63	125.78	128.60
35	DA	824	A	C8-N9-C4	5.63	108.05	105.80
1	AA	577	G	N7-C8-N9	-5.63	110.28	113.10
35	BA	2543	G	N3-C4-C5	-5.63	125.78	128.60
1	CA	266	G	P-O3'-C3'	5.63	126.46	119.70
35	DA	1184	G	C4-C5-C6	5.63	122.18	118.80
35	DA	2003	G	N1-C6-O6	5.63	123.28	119.90
35	DA	2025	C	N3-C4-C5	-5.63	119.65	121.90
1	AA	189(A)	C	C6-N1-C1'	5.63	127.56	120.80
35	BA	147	U	N1-C2-O2	5.63	126.74	122.80
35	BA	200	U	C5-C4-O4	5.63	129.28	125.90
35	BA	1021	A	C5-C6-N1	-5.63	114.89	117.70
1	CA	858	G	C8-N9-C4	-5.63	104.15	106.40
1	AA	1023	G	O4'-C1'-N9	5.63	112.70	108.20
1	AA	1489	G	C2-N3-C4	-5.63	109.08	111.90
35	DA	1278	A	N1-C2-N3	5.63	132.11	129.30
35	DA	2847	U	C5-C4-O4	5.63	129.28	125.90
35	BA	1125	G	C5-C6-O6	5.63	131.98	128.60
35	BA	2495	G	C5-C6-N1	-5.63	108.69	111.50
1	CA	1417	G	C4-C5-C6	5.63	122.17	118.80
24	CX	21	C	C4-C5-C6	5.63	120.21	117.40
35	DA	332	A	N9-C4-C5	5.63	108.05	105.80
35	DA	1386	C	C6-N1-C2	-5.63	118.05	120.30
35	DA	1693	U	C5-C6-N1	-5.63	119.89	122.70
35	DA	2226	C	C5-C4-N4	-5.63	116.26	120.20
35	DA	2432	A	C5-C6-N1	-5.63	114.89	117.70
35	BA	595	C	C5-C4-N4	-5.62	116.26	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1629	U	N3-C4-C5	-5.62	111.22	114.60
35	BA	2478	A	C8-N9-C4	5.62	108.05	105.80
1	CA	545	C	C6-N1-C2	5.62	122.55	120.30
35	DA	1101	U	C5-C4-O4	5.62	129.28	125.90
35	BA	658	C	O5'-P-OP2	-5.62	100.64	105.70
1	CA	656	C	C2-N3-C4	5.62	122.71	119.90
35	DA	211	A	N1-C6-N6	5.62	121.97	118.60
35	DA	1063	G	C2-N3-C4	5.62	114.71	111.90
35	DA	1250	G	N3-C2-N2	-5.62	115.96	119.90
35	DA	1543	C	C2-N3-C4	5.62	122.71	119.90
35	DA	1615	C	C6-N1-C1'	-5.62	114.05	120.80
35	DA	2490	G	O5'-P-OP2	-5.62	100.64	105.70
1	AA	162	A	C5-C6-N1	5.62	120.51	117.70
1	AA	836	G	C5-C6-O6	-5.62	125.23	128.60
35	BA	133	C	C5-C6-N1	5.62	123.81	121.00
35	BA	147	U	N3-C2-O2	-5.62	118.27	122.20
36	BB	43	C	C6-N1-C2	-5.62	118.05	120.30
24	CX	19	U	N3-C2-O2	-5.62	118.27	122.20
1	AA	1209	C	N3-C2-O2	-5.62	117.97	121.90
35	DA	630	G	N1-C6-O6	5.62	123.27	119.90
35	DA	1501	C	C5-C6-N1	5.62	123.81	121.00
35	DA	2320	A	C5-C6-N6	-5.62	119.20	123.70
1	AA	225	C	C6-N1-C2	5.62	122.55	120.30
1	AA	1140	C	O4'-C1'-N1	5.62	112.69	108.20
35	BA	2286	A	C5-N7-C8	-5.62	101.09	103.90
35	DA	1385	G	N3-C4-C5	5.62	131.41	128.60
35	DA	2448	A	C4-N9-C1'	5.62	136.41	126.30
35	DA	2824	C	N3-C2-O2	5.62	125.83	121.90
35	BA	2837	G	C5-N7-C8	-5.62	101.49	104.30
1	CA	251	G	C5-N7-C8	-5.62	101.49	104.30
35	DA	385	C	C5-C4-N4	5.62	124.13	120.20
35	DA	614	U	C5-C4-O4	5.62	129.27	125.90
58	DZ	18	LEU	CA-CB-CG	5.62	128.22	115.30
35	BA	89	G	N7-C8-N9	5.62	115.91	113.10
35	BA	105	C	O4'-C1'-N1	5.62	112.69	108.20
35	BA	759	G	N7-C8-N9	-5.62	110.29	113.10
35	BA	1024	G	C4-N9-C1'	5.62	133.80	126.50
1	CA	1381	U	C2-N1-C1'	5.62	124.44	117.70
28	D3	28	LEU	CA-CB-CG	-5.62	102.38	115.30
35	DA	503	A	N1-C2-N3	5.62	132.11	129.30
35	DA	955	C	C2-N1-C1'	-5.62	112.62	118.80
35	DA	1185	C	C6-N1-C2	5.62	122.55	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	1543	C	N3-C4-C5	-5.62	119.65	121.90
35	DA	2848	G	C4-C5-N7	-5.62	108.55	110.80
1	AA	1057	G	C2-N3-C4	-5.61	109.09	111.90
35	BA	103	A	C5-N7-C8	-5.61	101.09	103.90
35	BA	742	G	C4-N9-C1'	-5.61	119.20	126.50
35	BA	1480	G	N7-C8-N9	5.61	115.91	113.10
35	BA	1933	G	N7-C8-N9	-5.61	110.29	113.10
35	BA	2835	A	O5'-P-OP2	-5.61	100.65	105.70
35	DA	146	G	C4-C5-N7	5.61	113.05	110.80
35	DA	652	C	O3'-P-O5'	5.61	114.67	104.00
35	DA	385	C	O5'-P-OP1	-5.61	100.65	105.70
35	BA	612	C	C2-N1-C1'	-5.61	112.63	118.80
35	BA	848	G	C8-N9-C1'	-5.61	119.71	127.00
26	D1	95	LEU	CA-CB-CG	5.61	128.21	115.30
35	DA	951	C	N3-C2-O2	-5.61	117.97	121.90
35	DA	1742	G	N3-C4-C5	-5.61	125.80	128.60
35	BA	2587	A	N1-C6-N6	5.61	121.97	118.60
35	BA	2675	A	C8-N9-C4	-5.61	103.56	105.80
26	B1	55	GLY	N-CA-C	-5.61	99.08	113.10
35	BA	509	C	C6-N1-C2	-5.61	118.06	120.30
35	DA	2486	G	C5-C6-N1	5.61	114.30	111.50
1	AA	1190	G	C4-N9-C1'	5.61	133.79	126.50
35	BA	651	G	OP1-P-OP2	-5.61	111.19	119.60
35	BA	1799	G	C5-N7-C8	5.61	107.10	104.30
35	DA	621	A	O4'-C1'-N9	5.61	112.68	108.20
35	DA	970	C	C5-C4-N4	-5.61	116.28	120.20
35	DA	1814	G	N3-C2-N2	-5.61	115.98	119.90
35	DA	2413	G	N7-C8-N9	-5.61	110.30	113.10
36	BB	40	U	C4-C5-C6	5.60	123.06	119.70
35	DA	1629	U	C2-N1-C1'	5.60	124.42	117.70
35	BA	1187	G	C4-C5-N7	-5.60	108.56	110.80
1	CA	887	G	O5'-P-OP2	-5.60	100.66	105.70
35	DA	1992	G	N7-C8-N9	-5.60	110.30	113.10
35	DA	2435	A	O4'-C1'-N9	-5.60	103.72	108.20
35	DA	2468	G	N3-C4-C5	5.60	131.40	128.60
36	DB	89	G	O4'-C1'-N9	5.60	112.68	108.20
35	BA	2020	A	N1-C6-N6	-5.60	115.24	118.60
1	CA	103	C	C6-N1-C2	-5.60	118.06	120.30
1	CA	793	U	O5'-P-OP2	-5.60	100.66	105.70
35	DA	238	C	C4-C5-C6	5.60	120.20	117.40
1	AA	572	A	N7-C8-N9	-5.60	111.00	113.80
1	AA	1235	U	C5-C6-N1	5.60	125.50	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1346	G	C2-N3-C4	5.60	114.70	111.90
35	BA	1671	U	OP1-P-O3'	5.60	117.52	105.20
35	BA	2606	C	C6-N1-C2	5.60	122.54	120.30
35	BA	2644	G	C5-C6-O6	5.60	131.96	128.60
35	BA	2770	G	C8-N9-C4	5.60	108.64	106.40
35	DA	45	C	N1-C2-O2	-5.60	115.54	118.90
35	DA	148	C	C2-N3-C4	-5.60	117.10	119.90
35	DA	679	C	N3-C4-N4	-5.60	114.08	118.00
35	DA	911	A	C6-C5-N7	-5.60	128.38	132.30
35	DA	1214	A	N9-C4-C5	5.60	108.04	105.80
35	DA	1799	G	C4-N9-C1'	5.60	133.78	126.50
35	DA	1908	C	C2-N1-C1'	5.60	124.96	118.80
35	DA	2544	G	C4-C5-N7	5.60	113.04	110.80
35	DA	2838	G	C4-N9-C1'	-5.60	119.22	126.50
1	AA	924	C	N1-C2-O2	-5.60	115.54	118.90
35	BA	941	A	C8-N9-C4	-5.60	103.56	105.80
35	BA	2815	C	C5-C6-N1	-5.60	118.20	121.00
35	DA	2088	G	N3-C2-N2	-5.60	115.98	119.90
1	AA	1300	G	C4-N9-C1'	5.60	133.78	126.50
35	BA	2063	C	C2-N1-C1'	5.60	124.95	118.80
1	CA	1498	U	OP1-P-OP2	-5.60	111.20	119.60
35	DA	1942	C	N3-C4-N4	5.60	121.92	118.00
35	DA	2241	A	C6-N1-C2	-5.60	115.24	118.60
1	AA	1087	G	C8-N9-C4	-5.59	104.16	106.40
35	BA	1294	U	C5-C4-O4	5.59	129.26	125.90
35	DA	261	G	N1-C6-O6	5.59	123.26	119.90
35	DA	472	A	C6-N1-C2	-5.59	115.24	118.60
35	DA	938	G	C4-N9-C1'	-5.59	119.23	126.50
35	DA	1561	G	C2-N3-C4	5.59	114.70	111.90
35	DA	2442	C	N3-C4-C5	5.59	124.14	121.90
35	DA	968	G	N1-C2-N3	5.59	127.26	123.90
35	DA	1315	C	N1-C2-O2	-5.59	115.54	118.90
1	AA	981	U	C6-N1-C1'	-5.59	113.37	121.20
35	BA	181	A	C8-N9-C4	5.59	108.04	105.80
35	BA	1352	U	O5'-P-OP2	-5.59	100.67	105.70
1	CA	919	A	C2-N3-C4	5.59	113.40	110.60
1	CA	1464	G	N1-C6-O6	-5.59	116.55	119.90
35	DA	111	A	C6-C5-N7	-5.59	128.39	132.30
35	DA	115	C	C6-N1-C1'	-5.59	114.09	120.80
35	DA	1051	G	OP1-P-OP2	-5.59	111.21	119.60
53	DU	95	LEU	CB-CG-CD2	-5.59	101.49	111.00
1	AA	231	G	N3-C2-N2	-5.59	115.99	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1286	A	C2-N3-C4	5.59	113.39	110.60
35	BA	1267	U	OP2-P-O3'	5.59	117.50	105.20
35	DA	1935	G	N7-C8-N9	-5.59	110.31	113.10
35	BA	185	U	C5-C4-O4	5.59	129.25	125.90
35	BA	188	G	C5-C6-O6	-5.59	125.25	128.60
35	BA	1162	G	O5'-P-OP1	-5.59	100.67	105.70
22	AV	27	G	C8-N9-C4	5.59	108.64	106.40
35	BA	1352	U	O5'-P-OP1	5.59	117.41	110.70
35	BA	2040	C	C6-N1-C1'	-5.59	114.09	120.80
1	CA	1226	C	N3-C2-O2	5.59	125.81	121.90
1	CA	1519	A	N7-C8-N9	5.59	116.59	113.80
35	DA	38	A	C5-C6-N1	5.59	120.49	117.70
35	DA	462	C	C2-N1-C1'	-5.59	112.66	118.80
35	DA	600	G	C8-N9-C4	5.59	108.64	106.40
35	DA	676	A	N1-C2-N3	5.59	132.09	129.30
35	DA	1416	G	C8-N9-C4	5.59	108.63	106.40
35	BA	2073	C	N1-C2-O2	-5.58	115.55	118.90
35	BA	2678	C	C6-N1-C2	5.58	122.53	120.30
1	CA	1499	A	O5'-P-OP2	5.58	117.40	110.70
35	DA	213	A	N9-C4-C5	-5.58	103.57	105.80
35	DA	767	U	N3-C4-C5	-5.58	111.25	114.60
35	DA	1984	G	C2-N3-C4	-5.58	109.11	111.90
1	AA	454	C	N3-C2-O2	-5.58	117.99	121.90
1	AA	976	G	C5-C6-N1	-5.58	108.71	111.50
35	BA	679	C	N3-C2-O2	5.58	125.81	121.90
35	DA	1011	G	C6-N1-C2	-5.58	121.75	125.10
35	BA	1699	G	C4-C5-N7	-5.58	108.57	110.80
35	BA	2074	U	C4-C5-C6	5.58	123.05	119.70
35	BA	2465	C	C6-N1-C2	-5.58	118.07	120.30
1	CA	111	G	C6-C5-N7	5.58	133.75	130.40
35	DA	206	U	C6-N1-C2	5.58	124.35	121.00
35	DA	768	G	C5-C6-O6	-5.58	125.25	128.60
35	DA	1148	A	C5-C6-N1	-5.58	114.91	117.70
35	DA	2085	C	C6-N1-C2	5.58	122.53	120.30
35	DA	2516	G	C2-N3-C4	5.58	114.69	111.90
35	BA	621	A	C6-C5-N7	-5.58	128.39	132.30
35	DA	1355	G	C6-N1-C2	-5.58	121.75	125.10
35	DA	2643	G	C8-N9-C1'	-5.58	119.75	127.00
1	AA	777	A	C8-N9-C4	-5.58	103.57	105.80
35	BA	253	C	C6-N1-C2	-5.58	118.07	120.30
35	BA	2058	A	OP2-P-O3'	5.58	117.47	105.20
35	BA	2248	C	N1-C2-O2	5.58	122.25	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2885	C	C2-N3-C4	5.58	122.69	119.90
1	CA	281	G	N3-C4-N9	-5.58	122.65	126.00
35	DA	114	U	N3-C4-C5	5.58	117.95	114.60
35	DA	1676	A	N1-C6-N6	-5.58	115.25	118.60
35	DA	2234	G	N1-C6-O6	5.58	123.25	119.90
35	DA	2584	U	C4-C5-C6	5.58	123.05	119.70
1	AA	1079	G	N3-C4-C5	-5.58	125.81	128.60
35	BA	1989	G	N3-C4-N9	-5.58	122.65	126.00
35	BA	2232	U	C5-C4-O4	5.58	129.25	125.90
22	CV	73	A	C5-C6-N1	-5.58	114.91	117.70
23	CW	71	G	N3-C4-N9	5.58	129.35	126.00
35	DA	2244	U	C6-N1-C2	-5.58	117.65	121.00
35	BA	607	U	O5'-P-OP2	-5.58	100.68	105.70
35	BA	1769	G	C6-C5-N7	-5.58	127.05	130.40
35	BA	2361	A	C4-C5-C6	5.58	119.79	117.00
35	DA	1038	C	C6-N1-C1'	-5.58	114.11	120.80
35	DA	1652	A	C4-N9-C1'	5.58	136.34	126.30
35	DA	2011	U	C2-N1-C1'	-5.58	111.01	117.70
36	DB	81	G	N7-C8-N9	5.58	115.89	113.10
1	AA	44	G	C6-C5-N7	-5.57	127.06	130.40
1	AA	232	G	C8-N9-C1'	-5.57	119.75	127.00
35	BA	1695	G	C8-N9-C1'	-5.57	119.75	127.00
55	BW	45	TYR	CA-CB-CG	5.57	123.99	113.40
1	CA	1227	A	C5-N7-C8	-5.57	101.11	103.90
35	DA	115	C	C5-C4-N4	-5.57	116.30	120.20
35	DA	475	U	C5-C4-O4	5.57	129.25	125.90
35	DA	1314	C	OP2-P-O3'	5.57	117.46	105.20
35	DA	2763	G	O5'-P-OP1	5.57	117.39	110.70
1	AA	1502	A	C8-N9-C4	-5.57	103.57	105.80
22	AV	33	C	C6-N1-C2	5.57	122.53	120.30
35	BA	528	A	N7-C8-N9	5.57	116.59	113.80
35	BA	1544	A	C8-N9-C4	5.57	108.03	105.80
1	CA	1371	G	O5'-P-OP1	-5.57	100.69	105.70
35	DA	271	A	O5'-P-OP2	-5.57	100.69	105.70
1	AA	191	G	N7-C8-N9	5.57	115.89	113.10
1	AA	299	G	N1-C2-N3	5.57	127.24	123.90
35	BA	1189	A	C5-C6-N1	-5.57	114.91	117.70
35	BA	1241	A	C4-C5-C6	5.57	119.78	117.00
35	DA	142	A	C4-C5-N7	5.57	113.48	110.70
35	DA	317	G	C4-C5-N7	5.57	113.03	110.80
35	DA	1235	G	C5-N7-C8	-5.57	101.52	104.30
35	DA	2023	G	O5'-P-OP1	-5.57	100.69	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	2083	G	C8-N9-C4	5.57	108.63	106.40
35	DA	2843	G	N1-C6-O6	5.57	123.24	119.90
1	AA	1392	G	O5'-P-OP1	5.57	117.38	110.70
35	BA	105	C	N3-C2-O2	-5.57	118.00	121.90
35	DA	691	C	C2-N3-C4	-5.57	117.12	119.90
35	DA	1346	G	C8-N9-C4	5.57	108.63	106.40
35	DA	2428	G	O5'-P-OP2	-5.57	100.69	105.70
1	CA	329	A	N1-C6-N6	5.57	121.94	118.60
35	DA	1163	G	C8-N9-C1'	5.57	134.24	127.00
35	DA	1558	A	P-O3'-C3'	5.57	126.38	119.70
35	DA	2070	G	N1-C2-N3	5.57	127.24	123.90
35	DA	2249	U	C5-C6-N1	5.57	125.48	122.70
35	BA	1031	G	N7-C8-N9	-5.57	110.32	113.10
35	BA	1192	G	C8-N9-C4	5.57	108.63	106.40
35	BA	2243	U	OP2-P-O3'	5.57	117.44	105.20
35	BA	2624	G	N3-C4-N9	5.57	129.34	126.00
1	CA	1405	G	N3-C4-N9	5.57	129.34	126.00
33	D8	16	ILE	CG1-CB-CG2	-5.57	99.16	111.40
35	DA	909	A	N1-C6-N6	-5.57	115.26	118.60
35	DA	958	U	N3-C2-O2	-5.57	118.31	122.20
35	DA	2508	G	N3-C2-N2	-5.57	116.00	119.90
1	AA	202	U	O4'-C1'-N1	5.56	112.65	108.20
1	AA	1298	C	C1'-O4'-C4'	-5.56	105.45	109.90
35	BA	1478	G	O4'-C1'-N9	5.56	112.65	108.20
23	CW	39	U	C6-N1-C2	-5.56	117.66	121.00
35	DA	1765	C	O5'-P-OP2	-5.56	100.69	105.70
36	DB	14	U	N1-C2-O2	5.56	126.69	122.80
1	AA	1265	G	N3-C4-C5	5.56	131.38	128.60
1	AA	1300	G	N3-C4-N9	5.56	129.34	126.00
1	AA	1434	A	C8-N9-C4	5.56	108.03	105.80
35	BA	481	G	N3-C4-N9	5.56	129.34	126.00
35	BA	1299	G	N1-C6-O6	5.56	123.24	119.90
35	BA	1630	G	N3-C2-N2	-5.56	116.01	119.90
35	BA	2052	G	C6-C5-N7	-5.56	127.06	130.40
24	CX	13	A	C8-N9-C4	5.56	108.03	105.80
35	DA	259	G	C6-C5-N7	-5.56	127.06	130.40
35	BA	2035	G	C8-N9-C4	5.56	108.62	106.40
35	BA	2534	A	C8-N9-C4	-5.56	103.58	105.80
35	DA	260	G	N3-C4-C5	-5.56	125.82	128.60
35	DA	857	C	O5'-P-OP1	-5.56	100.69	105.70
35	BA	1312	U	C6-N1-C2	-5.56	117.66	121.00
35	BA	1605	C	C4-C5-C6	5.56	120.18	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2441	C	C6-N1-C2	5.56	122.52	120.30
35	DA	2124	G	N3-C4-C5	-5.56	125.82	128.60
1	AA	915	A	C8-N9-C4	5.56	108.02	105.80
35	BA	1496	A	C5-N7-C8	-5.56	101.12	103.90
35	BA	2318	G	N9-C4-C5	5.56	107.62	105.40
48	BP	135	LEU	CB-CG-CD1	-5.56	101.55	111.00
1	CA	545	C	O5'-P-OP2	-5.56	100.70	105.70
35	DA	59	U	OP2-P-O3'	5.56	117.43	105.20
35	DA	1310	G	N9-C4-C5	-5.56	103.18	105.40
35	DA	1814	G	N1-C2-N3	5.56	127.23	123.90
35	DA	2300	G	O5'-P-OP2	5.56	117.37	110.70
1	AA	540	G	N1-C6-O6	5.56	123.23	119.90
35	BA	1799	G	N3-C4-N9	5.56	129.33	126.00
35	BA	2430	A	C5-N7-C8	-5.56	101.12	103.90
35	BA	2067	G	C6-N1-C2	-5.55	121.77	125.10
1	CA	5	U	O4'-C1'-N1	5.55	112.64	108.20
35	DA	2036	C	N1-C2-N3	5.55	123.09	119.20
35	BA	1605	C	O5'-P-OP1	-5.55	100.70	105.70
35	BA	1633	G	C5-C6-N1	-5.55	108.72	111.50
35	BA	2715	C	C6-N1-C2	5.55	122.52	120.30
1	CA	297	G	C2-N3-C4	-5.55	109.12	111.90
1	AA	598	U	N1-C2-N3	5.55	118.23	114.90
35	BA	26	G	N1-C6-O6	5.55	123.23	119.90
35	BA	954	G	C4-C5-N7	-5.55	108.58	110.80
35	BA	2082	A	N1-C6-N6	5.55	121.93	118.60
1	CA	1432	G	N7-C8-N9	5.55	115.88	113.10
35	DA	517	C	OP2-P-O3'	5.55	117.41	105.20
35	DA	675	A	C4-C5-N7	5.55	113.48	110.70
35	DA	680	G	N1-C2-N3	5.55	127.23	123.90
35	DA	931	G	N3-C4-N9	5.55	129.33	126.00
35	BA	1576	U	C4-C5-C6	5.55	123.03	119.70
35	BA	1940	U	N1-C2-N3	5.55	118.23	114.90
35	BA	2439	A	N7-C8-N9	5.55	116.57	113.80
35	BA	2510	C	N3-C2-O2	-5.55	118.02	121.90
35	DA	463	G	C5-C6-N1	5.55	114.28	111.50
35	DA	692	C	OP1-P-O3'	-5.55	92.99	105.20
35	DA	1489	U	C5-C4-O4	5.55	129.23	125.90
35	DA	1495	A	O5'-P-OP2	-5.55	100.70	105.70
35	DA	2287	A	C8-N9-C4	5.55	108.02	105.80
35	DA	2859	G	C6-C5-N7	-5.55	127.07	130.40
1	AA	156	G	N3-C4-N9	5.55	129.33	126.00
35	DA	2072	G	C6-C5-N7	-5.55	127.07	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1166	G	N3-C4-C5	-5.55	125.83	128.60
35	BA	210	C	C6-N1-C2	-5.55	118.08	120.30
35	BA	2384	G	N3-C4-C5	-5.55	125.83	128.60
35	BA	2597	G	C6-C5-N7	-5.55	127.07	130.40
35	DA	800	A	C6-N1-C2	-5.55	115.27	118.60
35	DA	2423	U	O5'-P-OP2	-5.55	100.71	105.70
35	DA	396	G	N1-C6-O6	5.54	123.23	119.90
35	DA	570	G	O5'-P-OP1	5.54	117.35	110.70
35	DA	1007	C	C2-N3-C4	-5.54	117.13	119.90
35	DA	1371	G	O4'-C1'-N9	-5.54	103.76	108.20
1	AA	1359	C	O4'-C1'-N1	5.54	112.63	108.20
23	AW	44	G	C4-N9-C1'	5.54	133.71	126.50
35	BA	97	C	N3-C2-O2	-5.54	118.02	121.90
35	BA	704	G	OP1-P-OP2	5.54	127.92	119.60
1	CA	122	G	N3-C4-C5	5.54	131.37	128.60
1	CA	730	G	N1-C6-O6	-5.54	116.57	119.90
35	DA	75	G	N9-C4-C5	5.54	107.62	105.40
35	DA	400	G	C5-C6-O6	-5.54	125.27	128.60
35	DA	428	A	N1-C6-N6	5.54	121.93	118.60
35	DA	1563	G	C8-N9-C4	5.54	108.62	106.40
35	BA	1807	G	C8-N9-C4	5.54	108.62	106.40
1	CA	332	G	N1-C6-O6	5.54	123.22	119.90
1	CA	403	C	C6-N1-C2	-5.54	118.08	120.30
35	DA	1742	G	C4-N9-C1'	5.54	133.70	126.50
35	DA	2464	C	C5-C4-N4	-5.54	116.32	120.20
1	AA	1173	G	C8-N9-C4	-5.54	104.18	106.40
35	BA	2448	A	O5'-P-OP1	-5.54	100.71	105.70
1	CA	1141	C	C5-C6-N1	5.54	123.77	121.00
35	DA	2487	G	OP1-P-O3'	5.54	117.39	105.20
35	DA	2566	A	C5-C6-N6	-5.54	119.27	123.70
35	BA	73	A	C4-C5-C6	5.54	119.77	117.00
35	BA	975	C	N1-C2-O2	5.54	122.22	118.90
35	BA	1378	A	C5-C6-N1	5.54	120.47	117.70
35	BA	2318	G	N1-C2-N3	5.54	127.22	123.90
41	BG	87	PRO	N-CA-C	5.54	126.50	112.10
1	CA	1410	G	C8-N9-C1'	-5.54	119.80	127.00
35	DA	921	G	N1-C6-O6	5.54	123.22	119.90
35	DA	1268	A	N1-C6-N6	-5.54	115.28	118.60
35	DA	2578	G	N7-C8-N9	-5.54	110.33	113.10
1	AA	299	G	N3-C2-N2	-5.54	116.03	119.90
1	AA	1045	C	C6-N1-C1'	-5.54	114.16	120.80
1	AA	1067	A	C2-N3-C4	5.54	113.37	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	AW	44	G	C8-N9-C1'	-5.54	119.80	127.00
35	BA	613	G	C8-N9-C4	-5.54	104.19	106.40
35	BA	1777	U	N1-C2-O2	5.54	126.67	122.80
35	DA	366	C	C6-N1-C2	-5.54	118.09	120.30
35	DA	746	A	C6-N1-C2	-5.54	115.28	118.60
35	DA	1612	C	C4-C5-C6	5.54	120.17	117.40
35	DA	2777	G	N7-C8-N9	5.54	115.87	113.10
35	BA	216	A	OP2-P-O3'	5.53	117.37	105.20
35	BA	733	G	C5-N7-C8	-5.53	101.53	104.30
35	BA	1318	C	N3-C4-N4	5.53	121.87	118.00
1	CA	1126	U	N3-C2-O2	-5.53	118.33	122.20
35	DA	584	C	C5-C4-N4	-5.53	116.33	120.20
35	DA	818	G	C4-C5-N7	-5.53	108.59	110.80
35	DA	832	G	C5-C6-O6	5.53	131.92	128.60
35	DA	2231	C	C5-C6-N1	-5.53	118.23	121.00
35	DA	2354	G	C4-N9-C1'	5.53	133.69	126.50
1	AA	1275	A	C8-N9-C4	-5.53	103.59	105.80
1	CA	644	G	N3-C4-C5	5.53	131.37	128.60
1	CA	1240	U	O4'-C1'-N1	5.53	112.62	108.20
35	DA	2279	G	N1-C6-O6	5.53	123.22	119.90
1	AA	139	G	N3-C4-C5	5.53	131.37	128.60
1	CA	555	C	N3-C4-N4	5.53	121.87	118.00
35	DA	40	C	C2-N3-C4	-5.53	117.14	119.90
35	DA	527	C	N1-C1'-C2'	5.53	121.19	114.00
35	DA	1007	C	N3-C4-C5	5.53	124.11	121.90
35	DA	2625	G	N7-C8-N9	-5.53	110.33	113.10
35	DA	2852	G	C5-N7-C8	5.53	107.07	104.30
1	CA	325	A	C2-N3-C4	-5.53	107.83	110.60
35	DA	53	A	C4-C5-N7	-5.53	107.94	110.70
35	DA	2517	C	OP2-P-O3'	5.53	117.36	105.20
2	AB	142	LEU	CB-CG-CD2	-5.53	101.60	111.00
35	BA	28	A	C4-C5-C6	5.53	119.76	117.00
35	BA	29	U	C5-C4-O4	-5.53	122.58	125.90
35	BA	511	U	C2-N1-C1'	5.53	124.33	117.70
35	BA	512	G	C8-N9-C1'	5.53	134.19	127.00
35	BA	1235	G	C8-N9-C4	-5.53	104.19	106.40
35	BA	2854	G	N1-C6-O6	-5.53	116.58	119.90
1	CA	794	A	N3-C4-C5	5.53	130.67	126.80
1	CA	1054	C	C5-C4-N4	-5.53	116.33	120.20
24	CX	18	G	P-O3'-C3'	5.53	126.33	119.70
35	DA	294	A	C5-C6-N6	5.53	128.12	123.70
35	DA	337	C	C5-C6-N1	-5.53	118.24	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	678	C	N1-C2-O2	-5.53	115.58	118.90
35	DA	771	G	OP2-P-O3'	5.53	117.36	105.20
35	DA	1003	G	N3-C4-C5	-5.53	125.84	128.60
35	DA	1775	U	O5'-P-OP1	-5.53	100.73	105.70
35	DA	1936	A	C8-N9-C4	5.53	108.01	105.80
1	AA	1224	G	O5'-P-OP1	5.53	117.33	110.70
22	AV	16	C	C6-N1-C2	5.53	122.51	120.30
35	BA	1273	U	N3-C4-O4	-5.53	115.53	119.40
1	CA	541	G	C5-C6-O6	-5.53	125.28	128.60
35	DA	1153	C	N3-C4-C5	-5.53	119.69	121.90
35	DA	1268	A	C5-C6-N1	-5.53	114.94	117.70
35	DA	2555	U	C2-N1-C1'	-5.53	111.07	117.70
35	BA	202	U	C4-C5-C6	5.52	123.01	119.70
35	BA	879	G	N3-C4-N9	5.52	129.31	126.00
35	BA	1628	G	N1-C2-N2	5.52	121.17	116.20
35	BA	2031	A	N1-C2-N3	5.52	132.06	129.30
1	CA	22	G	N3-C4-C5	5.52	131.36	128.60
2	CB	158	LEU	CA-CB-CG	5.52	128.00	115.30
35	DA	2039	C	O5'-P-OP2	-5.52	100.73	105.70
35	BA	1094	U	C5-C6-N1	5.52	125.46	122.70
35	BA	1259	G	C6-C5-N7	-5.52	127.09	130.40
35	BA	1742	G	N3-C4-N9	5.52	129.31	126.00
35	DA	845	G	C8-N9-C1'	5.52	134.18	127.00
35	DA	1251	C	N3-C2-O2	5.52	125.77	121.90
35	DA	2287	A	O4'-C1'-N9	-5.52	103.78	108.20
35	DA	2416	C	N1-C2-O2	-5.52	115.59	118.90
1	AA	171	A	C3'-C2'-C1'	-5.52	97.08	101.50
35	BA	174	C	N1-C2-O2	5.52	122.21	118.90
35	DA	1829	A	OP1-P-OP2	5.52	127.88	119.60
35	DA	2409	G	O5'-P-OP2	-5.52	100.73	105.70
23	AW	63	G	C8-N9-C4	-5.52	104.19	106.40
35	BA	2585	U	C5-C4-O4	-5.52	122.59	125.90
35	BA	2628	C	C6-N1-C2	5.52	122.51	120.30
35	DA	1050	A	N3-C4-C5	-5.52	122.94	126.80
35	DA	1356	G	OP2-P-O3'	5.52	117.34	105.20
35	DA	2489	G	C8-N9-C1'	-5.52	119.83	127.00
35	DA	2676	C	N1-C2-O2	5.52	122.21	118.90
36	DB	78	A	N1-C2-N3	5.52	132.06	129.30
1	AA	437	U	C4-C5-C6	5.52	123.01	119.70
1	AA	977	A	C2-N3-C4	-5.52	107.84	110.60
35	BA	262	A	O5'-P-OP1	-5.52	100.73	105.70
35	BA	1123	C	C6-N1-C2	5.52	122.51	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1430	C	C5-C6-N1	5.52	123.76	121.00
35	BA	2512	C	C6-N1-C2	5.52	122.51	120.30
35	BA	2518	A	N7-C8-N9	5.52	116.56	113.80
35	DA	1017	G	C5-C6-O6	-5.52	125.29	128.60
1	AA	1163	C	N1-C2-O2	5.52	122.21	118.90
35	BA	1021	A	N3-C4-N9	-5.52	122.99	127.40
1	CA	690	G	N7-C8-N9	-5.52	110.34	113.10
1	CA	1235	U	C5-C6-N1	5.52	125.46	122.70
35	DA	1250	G	C5-C6-N1	5.52	114.26	111.50
52	DT	99	LEU	CA-CB-CG	5.52	127.99	115.30
35	BA	1359	A	C6-C5-N7	5.51	136.16	132.30
36	BB	86	G	C8-N9-C4	-5.51	104.19	106.40
1	CA	758	G	N3-C4-N9	-5.51	122.69	126.00
35	DA	1669	A	N1-C2-N3	5.51	132.06	129.30
35	DA	1835	G	C5-C6-O6	-5.51	125.29	128.60
35	DA	1838	C	N3-C2-O2	5.51	125.76	121.90
35	DA	2477	C	C4-C5-C6	5.51	120.16	117.40
35	BA	220	G	OP2-P-O3'	5.51	117.33	105.20
35	BA	1496	A	N9-C4-C5	-5.51	103.59	105.80
35	BA	2029	G	N9-C4-C5	5.51	107.61	105.40
35	BA	2578	G	N9-C4-C5	5.51	107.61	105.40
1	CA	1433	A	C8-N9-C4	-5.51	103.59	105.80
35	DA	431	U	O5'-P-OP2	5.51	117.32	110.70
35	DA	1006	C	C5-C6-N1	-5.51	118.24	121.00
35	DA	1145	C	N3-C4-C5	-5.51	119.69	121.90
35	DA	1784	A	C4-C5-C6	5.51	119.76	117.00
35	DA	2603	G	C5-C6-O6	-5.51	125.29	128.60
1	AA	656	C	C6-N1-C2	-5.51	118.09	120.30
35	BA	13	A	N1-C6-N6	-5.51	115.29	118.60
35	BA	122	G	C5-C6-O6	-5.51	125.29	128.60
35	BA	1293	C	C6-N1-C2	5.51	122.50	120.30
1	CA	780	A	C6-N1-C2	-5.51	115.29	118.60
35	DA	512	G	N3-C4-N9	-5.51	122.69	126.00
35	DA	1349	A	C5-N7-C8	-5.51	101.14	103.90
35	DA	2376	A	C4-C5-N7	5.51	113.46	110.70
35	BA	540	C	N1-C2-O2	5.51	122.21	118.90
35	DA	124	G	N3-C4-C5	-5.51	125.84	128.60
35	DA	1612	C	N3-C4-N4	5.51	121.86	118.00
35	DA	1665	A	C5-C6-N6	-5.51	119.29	123.70
1	AA	172	A	O4'-C1'-N9	5.51	112.61	108.20
1	CA	368	U	O4'-C1'-N1	5.51	112.61	108.20
3	CC	196	LEU	CA-CB-CG	5.51	127.97	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	247	G	N3-C2-N2	5.51	123.76	119.90
35	DA	615	G	C6-C5-N7	5.51	133.71	130.40
35	DA	686	G	C5-C6-O6	-5.51	125.30	128.60
35	DA	858	U	N1-C2-N3	5.51	118.20	114.90
35	DA	1451	C	C5-C6-N1	5.51	123.75	121.00
35	DA	1806	C	O5'-P-OP2	-5.51	100.74	105.70
35	DA	1938	A	N1-C6-N6	5.51	121.91	118.60
35	BA	1448	G	N1-C6-O6	-5.51	116.60	119.90
35	BA	1839	G	OP1-P-OP2	5.50	127.86	119.60
1	CA	1404	C	C4-C5-C6	-5.50	114.65	117.40
23	CW	66	U	N1-C2-O2	5.50	126.65	122.80
35	DA	1021	A	N1-C2-N3	5.50	132.05	129.30
1	AA	1300	G	C5-C6-O6	-5.50	125.30	128.60
35	BA	1198	U	C6-N1-C2	-5.50	117.70	121.00
51	BS	20	ARG	CB-CG-CD	5.50	125.91	111.60
35	DA	465	G	C4-C5-C6	5.50	122.10	118.80
35	DA	509	C	N1-C2-N3	5.50	123.05	119.20
35	DA	845	G	C4-C5-C6	-5.50	115.50	118.80
35	DA	1340	U	C5-C4-O4	-5.50	122.60	125.90
35	DA	2067	G	C5-N7-C8	5.50	107.05	104.30
1	AA	924	C	C4-C5-C6	5.50	120.15	117.40
35	BA	146	G	N3-C4-N9	5.50	129.30	126.00
35	BA	568	U	C2-N3-C4	5.50	130.30	127.00
35	BA	1355	G	C6-C5-N7	-5.50	127.10	130.40
35	DA	128	C	C2'-C3'-O3'	5.50	122.50	113.70
35	DA	259	G	C5-C6-O6	-5.50	125.30	128.60
35	DA	1604	C	O5'-P-OP2	5.50	117.30	110.70
35	DA	1853	A	N1-C6-N6	-5.50	115.30	118.60
35	DA	2468	G	N3-C2-N2	-5.50	116.05	119.90
35	DA	2513	G	C5-C6-O6	-5.50	125.30	128.60
1	AA	166	G	C6-C5-N7	-5.50	127.10	130.40
35	BA	1631(A)	A	C8-N9-C4	5.50	108.00	105.80
22	CV	67	C	N1-C2-O2	5.50	122.20	118.90
35	DA	1800	C	C2-N1-C1'	-5.50	112.75	118.80
35	BA	1284	A	C5-C6-N6	-5.50	119.30	123.70
35	BA	1423	G	C6-C5-N7	-5.50	127.10	130.40
1	CA	490	G	C8-N9-C4	5.50	108.60	106.40
1	CA	545	C	C5-C6-N1	-5.50	118.25	121.00
35	DA	871	U	O5'-P-OP2	5.50	117.30	110.70
1	AA	422	C	C5-C6-N1	5.50	123.75	121.00
35	BA	530	G	N3-C2-N2	-5.50	116.05	119.90
35	BA	1696	G	C2-N3-C4	5.50	114.65	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1769	G	N3-C2-N2	-5.50	116.05	119.90
35	BA	1779	U	C2-N3-C4	-5.50	123.70	127.00
35	DA	488	G	C4-C5-N7	-5.50	108.60	110.80
35	DA	1190	G	C2-N3-C4	-5.50	109.15	111.90
35	DA	1314	C	C5-C4-N4	-5.50	116.35	120.20
1	AA	171	A	P-O3'-C3'	-5.50	113.11	119.70
35	BA	15	G	C2-N3-C4	-5.50	109.15	111.90
35	BA	302	C	N1-C2-O2	5.50	122.20	118.90
35	BA	1481	U	N1-C2-N3	5.50	118.20	114.90
35	DA	1268	A	N3-C4-C5	5.50	130.65	126.80
32	B7	11	LYS	CA-CB-CG	5.49	125.49	113.40
35	BA	199	A	C8-N9-C4	-5.49	103.60	105.80
35	BA	577	G	N1-C6-O6	5.49	123.20	119.90
35	DA	628	G	N3-C2-N2	-5.49	116.06	119.90
1	CA	331	G	N3-C4-C5	5.49	131.35	128.60
35	DA	1663	C	C5-C6-N1	-5.49	118.25	121.00
35	DA	2252	G	N1-C6-O6	5.49	123.19	119.90
32	B7	42	LEU	CB-CG-CD1	-5.49	101.67	111.00
35	BA	1258	C	N1-C2-O2	-5.49	115.61	118.90
35	BA	1481	U	C2-N1-C1'	-5.49	111.11	117.70
35	BA	1783	A	N3-C4-N9	-5.49	123.01	127.40
35	BA	1985	G	O5'-P-OP2	-5.49	100.76	105.70
35	BA	2313	C	C6-N1-C2	-5.49	118.10	120.30
35	DA	1379	A	P-O3'-C3'	5.49	126.29	119.70
35	BA	1362	C	N3-C4-N4	-5.49	114.16	118.00
35	BA	1424	G	C5-C6-O6	-5.49	125.31	128.60
35	BA	1594	G	C8-N9-C4	-5.49	104.20	106.40
36	BB	86	G	N7-C8-N9	5.49	115.84	113.10
35	DA	34	C	C6-N1-C2	-5.49	118.11	120.30
35	DA	1493	C	N1-C2-O2	5.49	122.19	118.90
35	DA	1977	A	C8-N9-C4	5.49	108.00	105.80
36	DB	81	G	N1-C6-O6	5.49	123.19	119.90
35	BA	31	C	C5-C6-N1	-5.49	118.26	121.00
48	BP	61	ARG	NE-CZ-NH2	-5.49	117.56	120.30
1	CA	109	A	N9-C4-C5	-5.49	103.61	105.80
1	CA	685	G	C4-N9-C1'	-5.49	119.37	126.50
35	BA	325	G	C5-C6-O6	-5.49	125.31	128.60
35	BA	1889	A	C8-N9-C4	-5.49	103.61	105.80
48	BP	62	LEU	CA-CB-CG	-5.49	102.69	115.30
35	DA	116	C	O5'-P-OP2	-5.49	100.76	105.70
35	DA	462	C	C6-N1-C1'	5.49	127.38	120.80
35	DA	1332	G	N1-C2-N3	5.49	127.19	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	2655	G	P-O3'-C3'	5.49	126.28	119.70
1	AA	45	U	C2-N1-C1'	-5.48	111.12	117.70
1	AA	156	G	C8-N9-C4	5.48	108.59	106.40
4	AD	78	LEU	CA-CB-CG	-5.48	102.69	115.30
35	BA	146	G	N7-C8-N9	5.48	115.84	113.10
35	BA	2549	G	C5-C6-O6	-5.48	125.31	128.60
35	DA	2866	U	N3-C4-C5	-5.48	111.31	114.60
1	AA	47	C	O4'-C1'-N1	-5.48	103.81	108.20
1	AA	547	A	OP1-P-O3'	5.48	117.26	105.20
35	BA	2620	C	N3-C2-O2	-5.48	118.06	121.90
35	DA	19	C	C4-C5-C6	5.48	120.14	117.40
35	DA	2506	U	O4'-C1'-N1	-5.48	103.81	108.20
36	DB	90	A	N9-C4-C5	5.48	107.99	105.80
1	AA	297	G	C5-C6-O6	-5.48	125.31	128.60
1	AA	369	C	C2-N1-C1'	5.48	124.83	118.80
35	DA	80	G	O5'-P-OP2	5.48	117.28	110.70
35	DA	1204	A	C5-C6-N1	-5.48	114.96	117.70
35	DA	2002	G	C4-C5-N7	5.48	112.99	110.80
35	DA	2206	G	N3-C4-N9	5.48	129.29	126.00
35	BA	71	A	C5-C6-N6	-5.48	119.32	123.70
35	BA	509	C	N1-C2-O2	5.48	122.19	118.90
35	BA	1779	U	O4'-C1'-N1	5.48	112.58	108.20
35	DA	2014	A	O5'-P-OP1	-5.48	100.77	105.70
35	BA	179	G	C8-N9-C4	5.48	108.59	106.40
35	DA	326	G	N3-C4-C5	5.48	131.34	128.60
35	DA	1099	G	C4-N9-C1'	5.48	133.62	126.50
35	DA	1256	G	C5-C6-O6	-5.48	125.31	128.60
35	DA	2271	G	C8-N9-C4	5.48	108.59	106.40
35	DA	2828	C	C2-N1-C1'	-5.48	112.77	118.80
1	AA	1300	G	C6-C5-N7	-5.48	127.11	130.40
35	BA	2493	U	C5-C4-O4	5.48	129.19	125.90
1	CA	576	G	O5'-P-OP2	-5.48	100.77	105.70
22	CV	8	U	N3-C4-C5	-5.48	111.31	114.60
35	DA	226	G	N3-C4-N9	5.48	129.29	126.00
35	DA	2037	G	C8-N9-C4	5.48	108.59	106.40
1	AA	159	G	N3-C4-N9	-5.47	122.72	126.00
1	AA	551	U	C5-C6-N1	5.47	125.44	122.70
22	AV	77	A	C2-N3-C4	-5.47	107.86	110.60
35	BA	581	C	C4-C5-C6	5.47	120.14	117.40
35	BA	627	A	OP1-P-O3'	5.47	117.25	105.20
35	BA	645	C	O4'-C1'-N1	-5.47	103.82	108.20
35	BA	856	C	C5'-C4'-O4'	5.47	115.67	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	915	C	N3-C4-N4	5.47	121.83	118.00
35	BA	1915	U	N3-C4-C5	5.47	117.89	114.60
35	BA	1974	C	N3-C4-C5	5.47	124.09	121.90
35	DA	1680	U	N3-C4-O4	-5.47	115.57	119.40
35	DA	1839	G	N9-C4-C5	-5.47	103.21	105.40
35	DA	2518	A	O5'-P-OP2	-5.47	100.77	105.70
35	DA	2763	G	N9-C4-C5	-5.47	103.21	105.40
36	DB	98	G	N1-C6-O6	5.47	123.19	119.90
57	DY	106	LEU	CB-CG-CD2	5.47	120.31	111.00
1	AA	300	A	N3-C4-C5	5.47	130.63	126.80
35	BA	1632	A	C5-N7-C8	-5.47	101.16	103.90
35	BA	2402	C	N3-C2-O2	-5.47	118.07	121.90
1	CA	118	U	N1-C2-N3	5.47	118.18	114.90
1	CA	939	G	N1-C6-O6	5.47	123.18	119.90
35	DA	467	G	C5-N7-C8	5.47	107.04	104.30
35	DA	1382	G	N1-C6-O6	5.47	123.18	119.90
35	DA	1399	C	N1-C2-N3	5.47	123.03	119.20
35	DA	2352	A	N7-C8-N9	-5.47	111.06	113.80
35	BA	1364	G	N3-C4-N9	-5.47	122.72	126.00
1	CA	656	C	C5-C6-N1	5.47	123.73	121.00
22	AV	22	A	O4'-C1'-N9	5.47	112.58	108.20
1	CA	1195	C	N1-C2-O2	5.47	122.18	118.90
35	DA	235	U	C5-C4-O4	5.47	129.18	125.90
35	DA	1373	A	C8-N9-C4	5.47	107.99	105.80
35	DA	1403	C	C2-N3-C4	-5.47	117.17	119.90
36	DB	5	C	C2-N1-C1'	-5.47	112.78	118.80
35	BA	1692	U	N3-C4-C5	-5.47	111.32	114.60
1	CA	594	G	N3-C4-N9	5.47	129.28	126.00
1	AA	165	C	C6-N1-C2	-5.47	118.11	120.30
35	BA	1002	G	O5'-P-OP2	5.47	117.26	110.70
35	BA	1122	G	N3-C4-N9	5.47	129.28	126.00
35	BA	1648	C	OP2-P-O3'	5.47	117.22	105.20
35	DA	749	C	N1-C2-O2	5.47	122.18	118.90
23	AW	37	A	P-O3'-C3'	5.46	126.26	119.70
35	BA	2297	C	OP1-P-O3'	5.46	117.22	105.20
35	DA	148	C	C4-C5-C6	5.46	120.13	117.40
35	DA	1565	C	N3-C4-C5	5.46	124.09	121.90
35	DA	2281	C	C6-N1-C2	5.46	122.49	120.30
1	CA	921	U	O5'-P-OP1	5.46	117.25	110.70
35	DA	792	G	C8-N9-C4	-5.46	104.22	106.40
35	DA	1986	A	N3-C4-C5	-5.46	122.98	126.80
35	DA	2016	U	C4-C5-C6	5.46	122.98	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
49	DQ	80	GLU	C-N-CA	5.46	135.35	121.70
35	BA	389	G	C8-N9-C4	5.46	108.58	106.40
35	BA	879	G	C8-N9-C1'	-5.46	119.90	127.00
35	DA	2006	C	OP2-P-O3'	5.46	117.21	105.20
35	DA	2260	C	C5-C6-N1	-5.46	118.27	121.00
35	DA	2426	A	N7-C8-N9	5.46	116.53	113.80
1	AA	312	C	N3-C4-N4	5.46	121.82	118.00
35	BA	389	G	C4-C5-N7	5.46	112.98	110.80
35	BA	1027	A	C5-C6-N6	-5.46	119.33	123.70
1	CA	960	U	C6-N1-C1'	-5.46	113.56	121.20
35	DA	767	U	N3-C2-O2	5.46	126.02	122.20
35	DA	1614	A	C6-C5-N7	-5.46	128.48	132.30
35	DA	1792	G	N1-C6-O6	-5.46	116.62	119.90
35	DA	1985	G	C5-N7-C8	5.46	107.03	104.30
35	DA	2388	A	C5-C6-N1	-5.46	114.97	117.70
35	DA	2448	A	C4-C5-N7	5.46	113.43	110.70
1	AA	579	G	N7-C8-N9	5.46	115.83	113.10
35	BA	748	G	O5'-P-OP1	-5.46	100.79	105.70
35	BA	1965	C	N1-C2-O2	-5.46	115.63	118.90
1	CA	538	G	C4-N9-C1'	5.46	133.59	126.50
1	CA	576	G	N3-C4-N9	5.46	129.27	126.00
1	CA	1417	G	N3-C4-N9	5.46	129.27	126.00
35	DA	151	C	N3-C2-O2	5.46	125.72	121.90
1	AA	581	G	C5-C6-O6	-5.46	125.33	128.60
35	BA	781	A	N9-C4-C5	-5.46	103.62	105.80
35	BA	824	A	N7-C8-N9	-5.46	111.07	113.80
35	BA	1030	G	C5-C6-N1	5.46	114.23	111.50
35	DA	1799	G	C8-N9-C1'	-5.46	119.91	127.00
1	AA	729	A	C8-N9-C4	-5.45	103.62	105.80
20	AT	10	LEU	CA-CB-CG	5.45	127.84	115.30
35	BA	373	U	C5-C6-N1	-5.45	119.97	122.70
35	BA	2832	U	C2-N1-C1'	-5.45	111.16	117.70
36	DB	113	G	C8-N9-C4	5.45	108.58	106.40
56	DX	76	ARG	NE-CZ-NH1	-5.45	117.57	120.30
35	BA	2007	C	N1-C2-O2	-5.45	115.63	118.90
35	BA	668	G	OP1-P-O3'	-5.45	93.21	105.20
1	CA	1064	G	N3-C2-N2	-5.45	116.08	119.90
35	DA	338	G	N3-C4-N9	5.45	129.27	126.00
35	DA	1932	A	O5'-P-OP1	-5.45	100.80	105.70
1	AA	740	U	N3-C2-O2	-5.45	118.39	122.20
1	AA	1313	U	C5-C4-O4	-5.45	122.63	125.90
35	BA	1444	G	N3-C4-C5	5.45	131.32	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1835	G	N3-C2-N2	5.45	123.72	119.90
35	BA	2598	A	C2-N3-C4	-5.45	107.88	110.60
1	CA	1482	G	O5'-P-OP2	-5.45	100.80	105.70
35	DA	774	A	C6-C5-N7	-5.45	128.49	132.30
35	DA	2102	U	N3-C2-O2	-5.45	118.39	122.20
35	DA	2542	A	C5-C6-N1	-5.45	114.98	117.70
1	AA	190	U	N3-C4-O4	5.45	123.21	119.40
35	DA	1050	A	C5-N7-C8	5.45	106.62	103.90
35	DA	2451	A	C5-C6-N6	5.45	128.06	123.70
58	DZ	81	ARG	NE-CZ-NH1	5.45	123.02	120.30
35	BA	104	U	N3-C4-O4	-5.45	115.59	119.40
35	BA	451	C	N3-C4-C5	5.45	124.08	121.90
1	CA	1108	G	C6-N1-C2	5.45	128.37	125.10
35	DA	241	A	C2-N3-C4	-5.45	107.88	110.60
35	DA	557	U	N1-C2-N3	5.45	118.17	114.90
35	DA	616	G	O5'-P-OP2	-5.45	100.80	105.70
35	DA	2442	C	C4-C5-C6	5.45	120.12	117.40
1	AA	1101	A	C8-N9-C4	5.44	107.98	105.80
35	BA	1930	G	C8-N9-C4	5.44	108.58	106.40
35	BA	2360	A	C8-N9-C4	5.44	107.98	105.80
1	CA	112	G	C4-N9-C1'	-5.44	119.42	126.50
1	CA	791	G	C5-N7-C8	5.44	107.02	104.30
24	CX	16	A	N1-C2-N3	5.44	132.02	129.30
35	DA	2684	U	C5-C6-N1	-5.44	119.98	122.70
1	AA	420	U	C5-C4-O4	5.44	129.16	125.90
35	BA	1698	A	O4'-C1'-N9	5.44	112.55	108.20
35	BA	2597	G	N3-C4-C5	5.44	131.32	128.60
1	CA	812	C	C6-N1-C1'	-5.44	114.27	120.80
35	DA	72	U	C5-C6-N1	-5.44	119.98	122.70
1	AA	821	G	N3-C4-N9	5.44	129.26	126.00
1	CA	1019	C	C6-N1-C2	-5.44	118.12	120.30
35	DA	1337	G	N1-C6-O6	5.44	123.17	119.90
35	DA	1972	A	OP2-P-O3'	5.44	117.17	105.20
35	DA	1986	A	C6-N1-C2	-5.44	115.34	118.60
35	DA	2886	G	C4-N9-C1'	5.44	133.57	126.50
35	BA	1820	U	N1-C2-O2	-5.44	118.99	122.80
35	DA	1543	C	N1-C2-O2	-5.44	115.64	118.90
51	DS	89	ARG	CB-CA-C	-5.44	99.52	110.40
1	AA	1205	U	C6-N1-C2	-5.44	117.74	121.00
1	AA	1506	U	N3-C2-O2	5.44	126.01	122.20
35	BA	2285	C	N3-C2-O2	-5.44	118.09	121.90
35	DA	581	C	C2-N3-C4	5.44	122.62	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	670	A	C4-C5-N7	5.44	113.42	110.70
35	DA	1687	G	O5'-P-OP2	5.44	117.22	110.70
35	DA	1936	A	C6-C5-N7	-5.44	128.49	132.30
35	DA	1940	U	O5'-P-OP1	5.44	117.22	110.70
35	DA	2692	C	O5'-P-OP2	5.44	117.23	110.70
35	BA	2669	G	C8-N9-C4	5.44	108.57	106.40
35	DA	1284	A	N1-C6-N6	5.44	121.86	118.60
35	DA	2476	A	N1-C6-N6	5.44	121.86	118.60
1	AA	654	G	N1-C6-O6	-5.43	116.64	119.90
35	BA	729	G	C4-N9-C1'	5.43	133.56	126.50
35	BA	1373	A	N7-C8-N9	-5.43	111.08	113.80
35	BA	1765	C	C4-C5-C6	5.43	120.12	117.40
35	BA	1898	U	N1-C2-N3	5.43	118.16	114.90
35	BA	2734	A	C4-C5-C6	5.43	119.72	117.00
35	DA	474	G	N7-C8-N9	5.43	115.82	113.10
35	DA	2462	U	N1-C2-N3	-5.43	111.64	114.90
35	DA	2699	C	C6-N1-C2	5.43	122.47	120.30
1	AA	80	G	C4-C5-N7	5.43	112.97	110.80
1	AA	997	U	O4'-C1'-N1	5.43	112.55	108.20
35	BA	139(A)	G	O4'-C1'-N9	5.43	112.55	108.20
35	BA	732	C	N3-C4-N4	5.43	121.80	118.00
35	BA	1241	A	C5-C6-N1	-5.43	114.98	117.70
35	BA	2265	U	C5-C4-O4	-5.43	122.64	125.90
1	CA	1117	G	N7-C8-N9	5.43	115.82	113.10
35	DA	187	G	N3-C4-C5	-5.43	125.88	128.60
35	DA	216	A	N3-C4-C5	5.43	130.60	126.80
35	DA	2726	U	N1-C2-O2	5.43	126.60	122.80
35	DA	2853	C	O5'-P-OP2	-5.43	100.81	105.70
1	CA	685	G	C8-N9-C1'	5.43	134.06	127.00
35	BA	1371	G	C8-N9-C4	5.43	108.57	106.40
35	BA	2160	G	C4-N9-C1'	-5.43	119.44	126.50
1	CA	1227	A	N7-C8-N9	5.43	116.52	113.80
35	DA	226	G	O4'-C1'-N9	5.43	112.54	108.20
1	AA	189	G	C4-C5-N7	5.43	112.97	110.80
35	DA	1188	U	C4-C5-C6	5.43	122.96	119.70
1	AA	243	A	O5'-P-OP2	-5.43	100.82	105.70
35	BA	518	G	N7-C8-N9	5.43	115.81	113.10
35	BA	1427	A	P-O3'-C3'	5.43	126.21	119.70
35	BA	1673	U	C5-C6-N1	-5.43	119.99	122.70
35	BA	2450	A	C8-N9-C4	-5.43	103.63	105.80
35	DA	518	G	N1-C2-N2	-5.43	111.32	116.20
35	DA	729	G	N3-C4-N9	5.43	129.26	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	2328	A	C6-N1-C2	-5.43	115.34	118.60
35	DA	2548	G	O5'-P-OP2	5.43	117.21	110.70
35	BA	184	C	C2-N3-C4	-5.42	117.19	119.90
35	BA	2005	A	O5'-P-OP2	-5.42	100.82	105.70
38	BD	14	ARG	NE-CZ-NH2	5.42	123.01	120.30
35	DA	189	G	N1-C6-O6	5.42	123.16	119.90
35	DA	726	G	N1-C2-N3	5.42	127.15	123.90
35	DA	1183	G	N7-C8-N9	5.42	115.81	113.10
35	DA	1271	G	C5-C6-O6	-5.42	125.34	128.60
35	DA	1927	A	C8-N9-C4	5.42	107.97	105.80
39	DE	119	ARG	NE-CZ-NH2	5.42	123.01	120.30
35	BA	202	U	C5-C6-N1	-5.42	119.99	122.70
35	DA	596	G	C5-C6-O6	-5.42	125.35	128.60
35	DA	2003	G	C8-N9-C1'	-5.42	119.95	127.00
1	AA	736	C	C6-N1-C2	5.42	122.47	120.30
35	BA	801	G	N1-C6-O6	-5.42	116.65	119.90
35	BA	812	C	C5-C6-N1	-5.42	118.29	121.00
35	BA	908	C	C6-N1-C1'	5.42	127.31	120.80
35	BA	1694	C	C2-N3-C4	-5.42	117.19	119.90
35	BA	1852	C	OP1-P-O3'	5.42	117.12	105.20
35	BA	2378	A	N7-C8-N9	-5.42	111.09	113.80
22	CV	47	U	C5-C6-N1	5.42	125.41	122.70
35	DA	800	A	N1-C6-N6	-5.42	115.35	118.60
35	DA	1653	G	O3'-P-O5'	5.42	114.30	104.00
1	AA	534	U	C5-C4-O4	5.42	129.15	125.90
35	BA	2698	U	N1-C1'-C2'	-5.42	106.04	112.00
35	DA	308	G	C4-C5-N7	5.42	112.97	110.80
35	DA	2055	C	C5-C6-N1	5.42	123.71	121.00
1	AA	413	G	N1-C6-O6	-5.42	116.65	119.90
35	BA	1340	U	C5-C4-O4	-5.42	122.65	125.90
35	BA	1550	C	O5'-P-OP1	-5.42	100.82	105.70
35	BA	2545	G	C5-C6-O6	-5.42	125.35	128.60
27	D2	10	LEU	CB-CG-CD2	5.42	120.21	111.00
35	DA	111	A	C5-C6-N6	-5.42	119.36	123.70
35	DA	179	G	N1-C6-O6	5.42	123.15	119.90
35	DA	1255	U	C6-N1-C2	-5.42	117.75	121.00
1	AA	189(F)	U	N3-C2-O2	-5.42	118.41	122.20
35	BA	28	A	C6-N1-C2	-5.42	115.35	118.60
35	BA	283	A	O5'-P-OP2	-5.42	100.83	105.70
35	BA	729	G	C4-C5-N7	5.42	112.97	110.80
35	BA	869	G	C4-C5-C6	5.42	122.05	118.80
35	BA	1241	A	O4'-C1'-N9	5.42	112.53	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1840	G	C2-N3-C4	-5.42	109.19	111.90
35	BA	2392	A	C6-C5-N7	-5.42	128.51	132.30
36	BB	21	G	C5-C6-O6	-5.42	125.35	128.60
49	BQ	87	LYS	CA-CB-CG	5.42	125.31	113.40
50	BR	10	LEU	CA-CB-CG	5.42	127.76	115.30
1	CA	773	G	C5-C6-O6	5.42	131.85	128.60
35	DA	116	C	N3-C4-C5	-5.42	119.73	121.90
35	DA	568	U	C5-C6-N1	5.42	125.41	122.70
35	DA	1035	U	C4-C5-C6	5.42	122.95	119.70
35	DA	1108	U	C5-C6-N1	5.42	125.41	122.70
35	DA	1236	G	C8-N9-C4	5.42	108.57	106.40
36	DB	101	G	N3-C4-N9	5.42	129.25	126.00
53	DU	92	ARG	NE-CZ-NH2	5.42	123.01	120.30
35	BA	845	G	C8-N9-C4	-5.42	104.23	106.40
1	CA	263	A	O5'-P-OP1	-5.42	100.83	105.70
35	DA	1250	G	C6-N1-C2	-5.42	121.85	125.10
35	BA	76	C	O5'-P-OP1	-5.41	100.83	105.70
1	CA	442	C	C5-C6-N1	5.41	123.71	121.00
35	DA	1984	G	N9-C4-C5	-5.41	103.23	105.40
36	DB	96	U	C6-N1-C1'	5.41	128.78	121.20
35	DA	193	U	N3-C4-C5	-5.41	111.35	114.60
35	DA	1283	G	C5-C6-O6	-5.41	125.35	128.60
35	DA	2485	G	N7-C8-N9	-5.41	110.39	113.10
26	B1	43	TYR	CA-CB-CG	5.41	123.68	113.40
35	BA	539	G	C8-N9-C4	-5.41	104.24	106.40
35	BA	552	G	N3-C4-C5	5.41	131.31	128.60
1	CA	754	C	C6-N1-C1'	-5.41	114.31	120.80
8	CH	55	GLY	C-N-CA	5.41	135.23	121.70
35	DA	1202	C	C4-C5-C6	5.41	120.11	117.40
35	DA	2821	A	C6-N1-C2	-5.41	115.35	118.60
22	AV	23	G	C5-C6-O6	-5.41	125.36	128.60
35	BA	14	A	C6-C5-N7	-5.41	128.51	132.30
35	BA	2674	G	C8-N9-C4	5.41	108.56	106.40
35	BA	2866	U	N3-C2-O2	-5.41	118.42	122.20
35	DA	2486	G	C2-N3-C4	5.41	114.60	111.90
35	BA	300	A	N9-C4-C5	-5.41	103.64	105.80
35	BA	1496	A	C4-C5-N7	5.41	113.40	110.70
35	BA	530	G	N7-C8-N9	5.41	115.80	113.10
35	BA	784	A	P-O3'-C3'	5.41	126.19	119.70
35	BA	866	A	C5-C6-N6	-5.41	119.38	123.70
35	BA	2503	A	C2-N3-C4	5.41	113.30	110.60
35	DA	646	A	N1-C6-N6	5.41	121.84	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	682	G	N1-C6-O6	-5.41	116.66	119.90
35	DA	1130	U	C5-C6-N1	-5.41	120.00	122.70
35	DA	2259	G	C2-N3-C4	-5.41	109.20	111.90
35	DA	2762	G	C2-N3-C4	-5.41	109.20	111.90
35	BA	783	A	C5-C6-N6	-5.40	119.38	123.70
35	BA	2286	A	N1-C2-N3	5.40	132.00	129.30
35	DA	525	U	N3-C4-O4	-5.40	115.62	119.40
35	DA	765	G	C5-C6-N1	-5.40	108.80	111.50
35	DA	1061	U	C6-N1-C1'	-5.40	113.64	121.20
1	AA	1487	G	C8-N9-C1'	5.40	134.02	127.00
35	BA	25	U	N1-C2-N3	5.40	118.14	114.90
35	BA	82	G	N1-C6-O6	-5.40	116.66	119.90
35	BA	365	C	C6-N1-C2	-5.40	118.14	120.30
35	BA	1842	G	N7-C8-N9	-5.40	110.40	113.10
35	BA	2452	C	N3-C4-N4	5.40	121.78	118.00
1	CA	1026	G	N3-C4-C5	-5.40	125.90	128.60
35	DA	450	G	N1-C6-O6	5.40	123.14	119.90
35	DA	2266	A	C2-N3-C4	-5.40	107.90	110.60
35	DA	2519	U	O5'-P-OP2	-5.40	100.84	105.70
1	AA	755	G	N3-C4-N9	5.40	129.24	126.00
1	AA	1126	U	C6-N1-C2	-5.40	117.76	121.00
1	AA	1160	G	C5-C6-O6	5.40	131.84	128.60
1	AA	1231	G	C6-C5-N7	-5.40	127.16	130.40
35	BA	141	A	OP2-P-O3'	5.40	117.08	105.20
35	BA	363(B)	G	N3-C4-C5	-5.40	125.90	128.60
35	BA	2435	A	C8-N9-C4	-5.40	103.64	105.80
35	DA	1559	G	N3-C2-N2	-5.40	116.12	119.90
35	DA	2079	U	N1-C2-N3	5.40	118.14	114.90
35	DA	275	G	C8-N9-C1'	-5.40	119.98	127.00
35	DA	2544	G	C4-C5-C6	5.40	122.04	118.80
1	AA	721	G	C4-C5-C6	5.40	122.04	118.80
35	BA	57	C	C2-N3-C4	5.40	122.60	119.90
35	BA	673	C	N3-C4-N4	5.40	121.78	118.00
35	BA	879	G	C4-N9-C1'	5.40	133.52	126.50
35	BA	2675	A	N7-C8-N9	5.40	116.50	113.80
1	CA	774	G	C8-N9-C4	5.40	108.56	106.40
35	DA	1780	A	C5-C6-N6	5.40	128.02	123.70
1	AA	1231	G	C4-C5-N7	5.40	112.96	110.80
35	DA	142	A	O4'-C1'-N9	5.40	112.52	108.20
35	DA	1218	C	OP1-P-OP2	5.40	127.69	119.60
35	DA	1517	G	C4-N9-C1'	5.40	133.51	126.50
35	DA	1622	G	N3-C2-N2	-5.40	116.12	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	84	U	N1-C2-O2	5.39	126.58	122.80
55	BW	45	TYR	CB-CG-CD1	5.39	124.24	121.00
1	CA	419	C	C6-N1-C2	-5.39	118.14	120.30
1	CA	625	G	C8-N9-C4	-5.39	104.24	106.40
35	DA	182	A	C5-N7-C8	-5.39	101.20	103.90
35	DA	255	A	N1-C2-N3	5.39	132.00	129.30
35	DA	1668	A	N9-C4-C5	5.39	107.96	105.80
35	DA	1839	G	C8-N9-C4	5.39	108.56	106.40
35	DA	2506	U	N1-C2-N3	-5.39	111.66	114.90
35	BA	1764	G	N3-C4-C5	5.39	131.30	128.60
35	BA	2371	G	C4-C5-N7	-5.39	108.64	110.80
35	BA	2699	C	C5-C6-N1	-5.39	118.30	121.00
38	BD	65	ILE	CG1-CB-CG2	-5.39	99.54	111.40
35	DA	662	G	C4-N9-C1'	5.39	133.51	126.50
35	DA	2050	C	C6-N1-C2	5.39	122.46	120.30
35	DA	2301	C	C6-N1-C2	-5.39	118.14	120.30
35	BA	474	G	C8-N9-C4	-5.39	104.24	106.40
35	BA	674	G	N3-C4-N9	5.39	129.24	126.00
35	DA	807	U	OP1-P-OP2	5.39	127.69	119.60
35	DA	2688	U	C5-C6-N1	-5.39	120.00	122.70
35	BA	1198	U	C2-N1-C1'	5.39	124.17	117.70
35	BA	1798	U	C5-C6-N1	-5.39	120.00	122.70
35	BA	1958	C	N3-C2-O2	5.39	125.67	121.90
35	BA	2393	A	OP1-P-O3'	5.39	117.06	105.20
35	BA	2873	A	C2-N3-C4	5.39	113.30	110.60
1	CA	1266	G	C4-N9-C1'	-5.39	119.50	126.50
35	DA	387	U	N1-C2-O2	-5.39	119.03	122.80
35	DA	604	G	O5'-P-OP2	-5.39	100.85	105.70
35	DA	1787	A	C6-N1-C2	-5.39	115.37	118.60
35	DA	2439	A	C8-N9-C4	-5.39	103.64	105.80
1	CA	1253	G	N1-C6-O6	-5.39	116.67	119.90
35	DA	651	G	C8-N9-C1'	-5.39	120.00	127.00
35	DA	1139	G	N3-C4-N9	5.39	129.23	126.00
35	DA	2590	A	N3-C4-N9	-5.39	123.09	127.40
1	AA	272	C	N1-C2-O2	5.39	122.13	118.90
35	BA	1368	G	C5-N7-C8	5.39	106.99	104.30
1	CA	990	C	C6-N1-C2	-5.39	118.14	120.30
1	AA	922	G	C8-N9-C1'	-5.38	120.00	127.00
1	AA	1030(C)	C	O4'-C1'-N1	5.38	112.51	108.20
35	BA	209	C	C2-N1-C1'	5.38	124.72	118.80
35	BA	2818	G	N3-C4-C5	5.38	131.29	128.60
49	BQ	82	ARG	NE-CZ-NH1	-5.38	117.61	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	583	G	O5'-P-OP2	-5.38	100.85	105.70
35	DA	1445	A	O4'-C1'-N9	5.38	112.51	108.20
35	DA	1992	G	C5-C6-O6	-5.38	125.37	128.60
35	DA	2564	A	C4-C5-C6	5.38	119.69	117.00
35	DA	2643	G	C2-N3-C4	-5.38	109.21	111.90
35	BA	419	C	C6-N1-C2	5.38	122.45	120.30
36	BB	89	G	O4'-C1'-N9	5.38	112.51	108.20
26	D1	13	ILE	CG1-CB-CG2	5.38	123.24	111.40
35	DA	1795	C	C2-N3-C4	-5.38	117.21	119.90
35	DA	2608	G	C6-C5-N7	5.38	133.63	130.40
35	DA	2657	A	C5-C6-N1	-5.38	115.01	117.70
1	AA	1022	G	N9-C1'-C2'	-5.38	106.08	112.00
1	CA	357	G	N3-C4-C5	-5.38	125.91	128.60
1	CA	767	A	N1-C6-N6	-5.38	115.37	118.60
35	DA	938	G	C8-N9-C4	5.38	108.55	106.40
35	DA	1301	A	C4-C5-C6	5.38	119.69	117.00
1	AA	119	A	N1-C6-N6	-5.38	115.37	118.60
35	BA	1332	G	N3-C4-N9	5.38	129.23	126.00
35	DA	779	U	C2-N3-C4	-5.38	123.77	127.00
35	DA	1776	G	C6-N1-C2	-5.38	121.87	125.10
35	DA	1780	A	C2-N3-C4	-5.38	107.91	110.60
35	BA	142(A)	C	N3-C2-O2	-5.38	118.14	121.90
35	BA	645	C	C6-N1-C2	-5.38	118.15	120.30
35	BA	2197	U	O4'-C1'-N1	5.38	112.50	108.20
35	BA	2286	A	C5-C6-N1	-5.38	115.01	117.70
1	CA	1074	G	C8-N9-C1'	-5.38	120.01	127.00
35	DA	582	G	C5-C6-O6	-5.38	125.37	128.60
35	DA	2837	G	C5-N7-C8	-5.38	101.61	104.30
35	BA	1273	U	C5-C6-N1	-5.38	120.01	122.70
35	BA	1309	G	OP1-P-OP2	-5.38	111.54	119.60
23	CW	57	G	C5-C6-N1	5.38	114.19	111.50
35	DA	805	G	N7-C8-N9	5.38	115.79	113.10
35	DA	1797	C	N1-C2-O2	5.38	122.12	118.90
1	AA	1082	G	N1-C6-O6	5.37	123.12	119.90
35	BA	391	G	OP1-P-O3'	5.37	117.02	105.20
35	BA	455	C	N1-C2-O2	5.37	122.12	118.90
35	BA	651	G	C3'-C2'-C1'	5.37	105.80	101.50
1	CA	309	G	N3-C4-C5	5.37	131.29	128.60
35	DA	245	G	C6-C5-N7	-5.37	127.17	130.40
35	DA	1631	C	N3-C4-C5	5.37	124.05	121.90
35	DA	2312	U	N3-C2-O2	5.37	125.96	122.20
35	BA	35	G	N3-C4-N9	5.37	129.22	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1048	A	C5-C6-N1	5.37	120.39	117.70
35	BA	1810	A	C8-N9-C4	5.37	107.95	105.80
35	DA	657	U	C5-C6-N1	-5.37	120.01	122.70
35	DA	662	G	N3-C4-N9	5.37	129.22	126.00
35	DA	1269	A	P-O3'-C3'	5.37	126.14	119.70
35	DA	1398	C	N1-C2-O2	5.37	122.12	118.90
35	DA	1904	G	C5-N7-C8	5.37	106.99	104.30
35	DA	1992	G	N3-C4-C5	5.37	131.29	128.60
35	DA	2375	G	N1-C6-O6	5.37	123.12	119.90
35	DA	2586	C	C5-C4-N4	-5.37	116.44	120.20
36	DB	41	U	C5-C6-N1	5.37	125.39	122.70
1	AA	244	U	C5-C6-N1	-5.37	120.02	122.70
35	BA	1645	G	C8-N9-C4	5.37	108.55	106.40
35	DA	672	C	O5'-P-OP1	5.37	117.14	110.70
1	AA	572	A	N3-C4-N9	-5.37	123.11	127.40
35	BA	1154	G	OP2-P-O3'	5.37	117.01	105.20
35	BA	1935	G	C4-C5-N7	5.37	112.95	110.80
22	CV	54	U	N1-C2-O2	5.37	126.56	122.80
35	DA	249	C	C5-C6-N1	-5.37	118.31	121.00
35	DA	297	C	C4-C5-C6	5.37	120.08	117.40
35	DA	1615	C	C5-C4-N4	-5.37	116.44	120.20
35	DA	1992	G	O5'-P-OP1	-5.37	100.87	105.70
35	BA	793	A	N9-C4-C5	-5.37	103.65	105.80
35	DA	102	G	O5'-P-OP2	-5.37	100.87	105.70
1	AA	159	G	C5-C6-O6	5.37	131.82	128.60
1	AA	362	G	N3-C2-N2	-5.37	116.14	119.90
1	AA	364	A	O4'-C1'-N9	-5.37	103.91	108.20
1	AA	552	U	OP2-P-O3'	5.37	117.00	105.20
35	BA	453	C	C6-N1-C1'	5.37	127.24	120.80
35	BA	1532	C	C2-N1-C1'	5.37	124.70	118.80
35	BA	1563	G	O5'-P-OP1	-5.37	100.87	105.70
35	BA	1769	G	C5-C6-O6	-5.37	125.38	128.60
35	BA	2815	C	OP1-P-OP2	5.37	127.65	119.60
53	BU	95	LEU	CA-CB-CG	-5.37	102.96	115.30
35	DA	1042	G	C4-N9-C1'	5.37	133.47	126.50
35	DA	1124	C	C6-N1-C2	5.37	122.45	120.30
35	DA	1353	A	C2-N3-C4	-5.37	107.92	110.60
35	DA	1581	G	C4-C5-N7	-5.37	108.65	110.80
35	DA	1670	C	N3-C2-O2	5.37	125.66	121.90
35	DA	2665	A	C4-C5-N7	5.37	113.38	110.70
35	BA	131	G	N3-C4-N9	5.36	129.22	126.00
35	BA	265	A	C5-N7-C8	-5.36	101.22	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	388	G	N3-C4-C5	5.36	131.28	128.60
35	BA	469	G	C5-C6-N1	-5.36	108.82	111.50
35	BA	991	C	N3-C4-N4	5.36	121.75	118.00
35	BA	1432	C	N3-C4-N4	5.36	121.75	118.00
52	BT	82	LEU	CA-CB-CG	-5.36	102.96	115.30
1	CA	578	C	O5'-P-OP1	5.36	117.14	110.70
35	DA	1300	U	C2-N1-C1'	-5.36	111.26	117.70
35	DA	1322	A	N1-C6-N6	-5.36	115.38	118.60
35	DA	2179	C	N3-C2-O2	-5.36	118.14	121.90
35	DA	2413	G	OP2-P-O3'	5.36	117.00	105.20
36	DB	59	A	C8-N9-C4	-5.36	103.66	105.80
35	BA	2549	G	C6-C5-N7	-5.36	127.18	130.40
35	DA	706	A	N1-C6-N6	5.36	121.82	118.60
35	DA	2420	C	C5-C4-N4	5.36	123.95	120.20
35	BA	733	G	N7-C8-N9	5.36	115.78	113.10
1	CA	1230	C	C5-C6-N1	5.36	123.68	121.00
35	DA	2248	C	C6-N1-C2	-5.36	118.16	120.30
23	AW	38	A	N1-C6-N6	5.36	121.81	118.60
35	BA	1377	G	N3-C4-C5	-5.36	125.92	128.60
1	CA	733	A	N7-C8-N9	-5.36	111.12	113.80
1	CA	1183	A	OP1-P-O3'	5.36	116.99	105.20
35	DA	2278	A	C4-C5-N7	-5.36	108.02	110.70
35	BA	363(B)	G	C8-N9-C1'	-5.36	120.03	127.00
35	BA	458	G	O5'-P-OP1	5.36	117.13	110.70
35	BA	805	G	OP2-P-O3'	5.36	116.99	105.20
35	BA	1328	G	C8-N9-C4	5.36	108.54	106.40
35	BA	1562	A	N1-C6-N6	5.36	121.81	118.60
35	BA	2550	G	N3-C4-C5	-5.36	125.92	128.60
35	BA	2846	G	C6-C5-N7	5.36	133.61	130.40
35	BA	2851	A	C8-N9-C4	-5.36	103.66	105.80
1	CA	1442	G	N1-C6-O6	5.36	123.11	119.90
35	DA	192	C	OP1-P-O3'	5.36	116.98	105.20
35	DA	779	U	C6-N1-C2	5.36	124.21	121.00
8	AH	138	TRP	NE1-CE2-CZ2	5.36	136.29	130.40
35	BA	15	G	C8-N9-C4	5.36	108.54	106.40
35	BA	2723	C	N1-C2-O2	-5.36	115.69	118.90
1	CA	587	G	O5'-P-OP1	5.36	117.13	110.70
35	DA	2004	G	C2-N3-C4	-5.36	109.22	111.90
35	DA	2447	G	C4-C5-C6	5.36	122.01	118.80
35	DA	2726	U	N3-C2-O2	-5.36	118.45	122.20
35	BA	1969	A	OP2-P-O3'	5.35	116.98	105.20
35	BA	2061	G	OP1-P-O3'	5.35	116.98	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	546	G	C8-N9-C4	-5.35	104.26	106.40
35	DA	2046	G	N1-C6-O6	-5.35	116.69	119.90
1	AA	1161	C	N1-C1'-C2'	-5.35	106.11	112.00
35	BA	265	A	N1-C6-N6	5.35	121.81	118.60
35	BA	917	A	C5-N7-C8	5.35	106.58	103.90
35	BA	1000	A	C8-N9-C4	-5.35	103.66	105.80
35	BA	2452	C	C5-C6-N1	5.35	123.68	121.00
35	BA	2508	G	C4-N9-C1'	5.35	133.46	126.50
35	BA	2545	G	C4-C5-C6	5.35	122.01	118.80
1	CA	410	G	OP1-P-O3'	5.35	116.98	105.20
1	CA	973	G	C8-N9-C4	-5.35	104.26	106.40
35	DA	105	C	C2-N3-C4	5.35	122.58	119.90
35	DA	950	G	N7-C8-N9	5.35	115.78	113.10
35	DA	2541	A	OP1-P-O3'	5.35	116.98	105.20
35	BA	2566	A	N9-C4-C5	-5.35	103.66	105.80
35	DA	2782	G	C5-C6-O6	-5.35	125.39	128.60
1	AA	340	U	C6-N1-C2	5.35	124.21	121.00
35	BA	433	C	N1-C2-O2	5.35	122.11	118.90
35	BA	2864	G	N3-C4-C5	-5.35	125.92	128.60
35	BA	2870	C	C6-N1-C2	-5.35	118.16	120.30
36	BB	117	G	C8-N9-C4	5.35	108.54	106.40
1	CA	251	G	N1-C6-O6	5.35	123.11	119.90
1	CA	291	C	C6-N1-C1'	5.35	127.22	120.80
1	CA	417	C	O5'-P-OP2	-5.35	100.89	105.70
35	DA	86	C	N3-C2-O2	-5.35	118.16	121.90
35	DA	2198	A	O4'-C1'-N9	5.35	112.48	108.20
35	DA	2439	A	C6-C5-N7	-5.35	128.56	132.30
1	AA	494	U	C4-C5-C6	5.35	122.91	119.70
1	AA	995	C	C6-N1-C2	-5.35	118.16	120.30
26	B1	57	GLU	CA-CB-CG	5.35	125.16	113.40
35	BA	1780	A	C6-N1-C2	-5.35	115.39	118.60
35	DA	109	G	N1-C2-N3	5.35	127.11	123.90
35	DA	783	A	N9-C4-C5	-5.35	103.66	105.80
35	DA	1139	G	N1-C6-O6	-5.35	116.69	119.90
35	DA	1784	A	C5-C6-N6	5.35	127.98	123.70
1	AA	925	G	N7-C8-N9	-5.35	110.43	113.10
1	CA	318	G	C5-C6-N1	-5.35	108.83	111.50
1	CA	1140	C	C6-N1-C2	-5.35	118.16	120.30
35	DA	2054	A	N1-C6-N6	5.35	121.81	118.60
35	DA	2559	C	N3-C2-O2	-5.35	118.16	121.90
1	AA	1379	G	C8-N9-C4	5.34	108.54	106.40
35	BA	783	A	N3-C4-N9	-5.34	123.12	127.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	941	A	C5-C6-N6	5.34	127.97	123.70
35	BA	1158	C	OP1-P-O3'	5.34	116.96	105.20
35	BA	1891	G	C8-N9-C4	5.34	108.54	106.40
7	CG	79	ARG	NE-CZ-NH1	5.34	122.97	120.30
35	DA	1138	G	C8-N9-C4	5.34	108.54	106.40
35	DA	1337	G	C5-C6-O6	-5.34	125.39	128.60
35	DA	1759	A	C2-N3-C4	-5.34	107.93	110.60
35	BA	785	G	N3-C4-C5	5.34	131.27	128.60
35	DA	2427	C	C5-C6-N1	-5.34	118.33	121.00
1	AA	598	U	N3-C2-O2	-5.34	118.46	122.20
23	AW	30	G	N3-C2-N2	-5.34	116.16	119.90
7	CG	86	GLN	C-N-CA	5.34	135.05	121.70
22	CV	41	C	O5'-P-OP2	-5.34	100.89	105.70
34	D9	27	CYS	CA-CB-SG	5.34	123.61	114.00
35	DA	402	A	C8-N9-C4	-5.34	103.66	105.80
35	DA	1986	A	N9-C4-C5	5.34	107.94	105.80
35	DA	2065	C	C5-C4-N4	-5.34	116.46	120.20
35	DA	2386	C	C5-C6-N1	-5.34	118.33	121.00
35	DA	2512	C	N3-C4-N4	5.34	121.74	118.00
35	DA	2543	G	C5-C6-O6	-5.34	125.40	128.60
35	BA	1359	A	C4-N9-C1'	-5.34	116.69	126.30
35	BA	1533	G	C4-N9-C1'	5.34	133.44	126.50
35	BA	1823	G	O5'-P-OP2	5.34	117.11	110.70
35	DA	2498	C	N3-C2-O2	-5.34	118.16	121.90
35	DA	2715	C	N3-C4-C5	5.34	124.03	121.90
35	DA	1270	C	N3-C4-C5	5.34	124.03	121.90
35	DA	1779	U	N1-C2-O2	-5.34	119.06	122.80
35	BA	812	C	C4-C5-C6	5.34	120.07	117.40
1	CA	1108	G	C4-C5-N7	-5.34	108.67	110.80
35	DA	189	G	OP2-P-O3'	5.34	116.94	105.20
35	DA	437	G	C5-C6-N1	5.34	114.17	111.50
35	DA	759	G	C8-N9-C1'	-5.34	120.06	127.00
35	DA	2010	G	P-O3'-C3'	-5.34	113.30	119.70
35	DA	2397	G	C5-C6-N1	-5.34	108.83	111.50
35	DA	2534	A	C8-N9-C4	5.34	107.93	105.80
35	BA	92	A	O5'-P-OP2	-5.33	100.90	105.70
35	BA	1017	G	N1-C6-O6	5.33	123.10	119.90
35	DA	1812	A	O5'-P-OP2	-5.33	100.90	105.70
1	AA	359	U	C5-C6-N1	-5.33	120.03	122.70
35	BA	481	G	N1-C2-N2	-5.33	111.40	116.20
35	BA	621	A	N3-C4-C5	5.33	130.53	126.80
35	DA	669	G	N9-C4-C5	-5.33	103.27	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	2468	G	C4-N9-C1'	-5.33	119.57	126.50
35	DA	2773	C	C5-C6-N1	-5.33	118.33	121.00
35	BA	870	A	C2-N3-C4	-5.33	107.93	110.60
35	BA	1637	A	C5-C6-N1	-5.33	115.03	117.70
1	CA	865	A	N1-C2-N3	5.33	131.97	129.30
1	CA	873	A	N9-C4-C5	5.33	107.93	105.80
35	DA	204	A	N3-C4-C5	-5.33	123.07	126.80
35	DA	467	G	C4-C5-N7	-5.33	108.67	110.80
35	DA	1312	U	C5-C4-O4	5.33	129.10	125.90
35	DA	2335	A	O5'-P-OP2	-5.33	100.90	105.70
1	AA	474	G	C8-N9-C1'	-5.33	120.07	127.00
35	BA	827	U	C5-C6-N1	-5.33	120.03	122.70
35	BA	1819	A	C2-N3-C4	-5.33	107.94	110.60
1	CA	1413	A	C4-C5-C6	-5.33	114.33	117.00
35	DA	389	G	N3-C4-C5	5.33	131.26	128.60
1	AA	263	A	N3-C4-C5	5.33	130.53	126.80
35	BA	776	G	N3-C2-N2	-5.33	116.17	119.90
35	BA	795	C	OP1-P-OP2	5.33	127.59	119.60
35	BA	1066	U	N1-C2-O2	5.33	126.53	122.80
1	CA	1525	G	C2-N3-C4	-5.33	109.23	111.90
35	DA	1509(B)	A	N1-C6-N6	-5.33	115.40	118.60
23	AW	28	G	C8-N9-C1'	-5.33	120.07	127.00
35	BA	94(A)	G	N1-C6-O6	5.33	123.10	119.90
35	BA	729	G	N1-C6-O6	5.33	123.10	119.90
35	BA	1055	G	C4-N9-C1'	5.33	133.43	126.50
35	BA	1223	G	OP2-P-O3'	5.33	116.92	105.20
35	BA	2329	G	N7-C8-N9	-5.33	110.44	113.10
35	BA	2731	G	C8-N9-C1'	-5.33	120.07	127.00
35	DA	979	G	C6-C5-N7	-5.33	127.20	130.40
38	DD	43	ARG	NE-CZ-NH1	5.33	122.96	120.30
48	DP	33	ARG	CB-CG-CD	5.33	125.45	111.60
56	DX	65	ARG	NE-CZ-NH2	-5.33	117.64	120.30
1	AA	753	A	OP1-P-O3'	5.33	116.92	105.20
35	BA	780	G	C5-C6-O6	-5.33	125.41	128.60
35	BA	1379	A	C2-N3-C4	-5.33	107.94	110.60
35	BA	2311	A	N1-C2-N3	5.33	131.96	129.30
1	CA	1313	U	C5-C6-N1	5.33	125.36	122.70
23	CW	48	C	C2-N1-C1'	5.33	124.66	118.80
35	DA	951	C	N3-C4-C5	-5.33	119.77	121.90
35	DA	1517	G	O5'-P-OP1	-5.33	100.91	105.70
35	DA	1742	G	C8-N9-C1'	-5.33	120.08	127.00
1	AA	233	C	O5'-P-OP2	-5.32	100.91	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	89	G	C5-N7-C8	-5.32	101.64	104.30
35	BA	978	G	N1-C6-O6	5.32	123.09	119.90
35	BA	2083	G	C6-N1-C2	-5.32	121.91	125.10
35	BA	2092	U	C5-C6-N1	-5.32	120.04	122.70
35	BA	2880	C	C5-C6-N1	5.32	123.66	121.00
1	CA	576	G	N3-C4-C5	-5.32	125.94	128.60
1	CA	1066	C	C5-C4-N4	-5.32	116.47	120.20
1	CA	1485	U	C5-C6-N1	-5.32	120.04	122.70
35	DA	1024	G	O5'-P-OP1	-5.32	100.91	105.70
35	DA	1137	G	C5-C6-O6	-5.32	125.41	128.60
35	DA	1597	A	OP1-P-O3'	5.32	116.91	105.20
35	DA	1695	G	C8-N9-C1'	-5.32	120.08	127.00
36	DB	43	C	C6-N1-C2	-5.32	118.17	120.30
1	AA	606	G	C8-N9-C4	-5.32	104.27	106.40
35	DA	751	A	C2-N3-C4	-5.32	107.94	110.60
35	DA	869	G	C8-N9-C4	5.32	108.53	106.40
35	DA	1427	A	C8-N9-C4	-5.32	103.67	105.80
35	DA	1943	U	C5-C6-N1	-5.32	120.04	122.70
1	AA	804	U	N3-C4-C5	-5.32	111.41	114.60
35	BA	28	A	N3-C4-N9	5.32	131.66	127.40
35	BA	220	G	N3-C4-C5	-5.32	125.94	128.60
35	BA	2395	C	C5-C4-N4	-5.32	116.47	120.20
35	BA	2644	G	C8-N9-C4	-5.32	104.27	106.40
35	DA	759	G	N3-C4-N9	5.32	129.19	126.00
35	DA	2251	G	C4-C5-N7	-5.32	108.67	110.80
35	DA	2561	A	C6-N1-C2	-5.32	115.41	118.60
35	DA	2810	A	N9-C4-C5	-5.32	103.67	105.80
35	BA	1509	C	N1-C2-O2	5.32	122.09	118.90
1	CA	31	G	C5-C6-O6	-5.32	125.41	128.60
35	BA	361	G	C8-N9-C4	-5.32	104.27	106.40
35	BA	2772	C	C6-N1-C2	5.32	122.43	120.30
1	CA	916	G	C4-C5-N7	5.32	112.93	110.80
35	DA	1796	U	C5-C6-N1	-5.32	120.04	122.70
35	BA	127	A	C6-N1-C2	-5.32	115.41	118.60
35	BA	842	G	C8-N9-C4	5.32	108.53	106.40
35	BA	1204	A	N3-C4-C5	5.32	130.52	126.80
35	BA	1501	C	N3-C4-C5	-5.32	119.77	121.90
35	BA	2253	G	C2-N3-C4	-5.32	109.24	111.90
40	BF	24	LEU	CA-CB-CG	5.32	127.53	115.30
1	CA	969	A	N1-C6-N6	5.32	121.79	118.60
35	DA	31	C	C5-C6-N1	-5.32	118.34	121.00
35	DA	246	C	N3-C4-N4	5.32	121.72	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2523	G	C8-N9-C4	5.31	108.53	106.40
35	DA	2712	U	C5-C6-N1	-5.31	120.04	122.70
1	AA	46	G	C8-N9-C4	5.31	108.53	106.40
1	AA	1139	G	N1-C2-N2	5.31	120.98	116.20
35	BA	1691	C	N3-C4-C5	5.31	124.03	121.90
35	BA	2251	G	C6-N1-C2	-5.31	121.91	125.10
1	CA	362	G	C5-N7-C8	-5.31	101.64	104.30
23	CW	54	U	N3-C2-O2	-5.31	118.48	122.20
35	DA	1256	G	C4-N9-C1'	5.31	133.41	126.50
35	DA	1494	A	N1-C2-N3	-5.31	126.64	129.30
35	DA	1663	C	C2-N3-C4	-5.31	117.24	119.90
35	BA	1807	G	N9-C1'-C2'	-5.31	106.16	112.00
35	BA	2277	G	O5'-P-OP2	-5.31	100.92	105.70
35	BA	2506	U	C2-N1-C1'	5.31	124.07	117.70
1	CA	1504	G	N1-C2-N3	5.31	127.09	123.90
35	DA	668	G	C5-C6-O6	-5.31	125.41	128.60
35	DA	945	A	O5'-P-OP2	5.31	117.07	110.70
1	AA	412	A	O4'-C1'-N9	-5.31	103.95	108.20
1	AA	413	G	C5-C6-O6	5.31	131.79	128.60
1	AA	572	A	C8-N9-C1'	5.31	137.26	127.70
1	AA	665	A	C2-N3-C4	-5.31	107.94	110.60
1	AA	1186	G	N7-C8-N9	5.31	115.75	113.10
1	AA	1202	G	N9-C4-C5	-5.31	103.28	105.40
35	BA	49	A	O5'-P-OP2	-5.31	100.92	105.70
35	BA	300	A	C5-C6-N6	-5.31	119.45	123.70
35	BA	646	A	N1-C6-N6	5.31	121.79	118.60
35	BA	693	C	C5-C6-N1	-5.31	118.34	121.00
35	BA	1957	C	N3-C4-C5	5.31	124.02	121.90
35	BA	2518	A	N3-C4-C5	5.31	130.52	126.80
1	CA	222	U	C6-N1-C2	-5.31	117.81	121.00
35	DA	1236	G	N7-C8-N9	-5.31	110.44	113.10
35	DA	1256	G	N1-C6-O6	5.31	123.08	119.90
35	DA	1781	C	C6-N1-C1'	-5.31	114.43	120.80
35	DA	2405	G	N3-C4-N9	5.31	129.19	126.00
35	DA	2497	A	C6-N1-C2	-5.31	115.41	118.60
55	DW	29	LEU	CB-CG-CD1	-5.31	101.97	111.00
22	AV	38	A	O5'-P-OP2	-5.31	100.92	105.70
1	CA	44	G	C6-C5-N7	-5.31	127.22	130.40
1	CA	353	A	C8-N9-C4	-5.31	103.68	105.80
35	DA	475	U	OP1-P-OP2	5.31	127.56	119.60
35	DA	1645	G	N3-C4-N9	5.31	129.19	126.00
36	DB	96	U	N3-C4-C5	-5.31	111.42	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	115	C	C5-C6-N1	-5.31	118.35	121.00
35	DA	2381	C	C6-N1-C2	5.31	122.42	120.30
22	AV	68	C	C5-C6-N1	5.30	123.65	121.00
35	BA	139(A)	G	C5-N7-C8	-5.30	101.65	104.30
35	BA	209	C	N3-C4-N4	5.30	121.71	118.00
35	BA	2424	C	C5-C6-N1	-5.30	118.35	121.00
35	BA	2535	G	N3-C4-C5	-5.30	125.95	128.60
12	CL	46	LYS	C-N-CA	5.30	134.96	121.70
23	CY	43	C	C6-N1-C2	-5.30	118.18	120.30
26	D1	11	ARG	NE-CZ-NH2	-5.30	117.65	120.30
35	DA	794	G	N3-C2-N2	5.30	123.61	119.90
35	DA	1939	U	C6-N1-C2	5.30	124.18	121.00
35	DA	2049	G	N9-C4-C5	-5.30	103.28	105.40
1	CA	253	U	O5'-P-OP1	-5.30	100.93	105.70
1	CA	325	A	N3-C4-C5	5.30	130.51	126.80
1	CA	436	C	C5-C6-N1	5.30	123.65	121.00
35	DA	52	A	N3-C4-N9	5.30	131.64	127.40
35	DA	1049	C	N1-C2-O2	5.30	122.08	118.90
35	DA	2662	A	N3-C4-C5	5.30	130.51	126.80
36	DB	9	G	O5'-P-OP2	-5.30	100.93	105.70
1	AA	345	C	C5-C6-N1	5.30	123.65	121.00
35	BA	1189	A	OP1-P-OP2	-5.30	111.65	119.60
35	BA	2003	G	N3-C4-N9	5.30	129.18	126.00
35	BA	2583	G	C2-N3-C4	5.30	114.55	111.90
36	BB	22	U	C5-C6-N1	5.30	125.35	122.70
35	DA	1239	G	C5-C6-O6	5.30	131.78	128.60
35	DA	1583	A	N1-C6-N6	-5.30	115.42	118.60
35	DA	2381	C	C2-N3-C4	-5.30	117.25	119.90
35	DA	2449	U	OP2-P-O3'	5.30	116.86	105.20
35	DA	2639	A	N1-C6-N6	5.30	121.78	118.60
35	DA	2717	G	C8-N9-C4	-5.30	104.28	106.40
35	BA	1606	G	C8-N9-C4	5.30	108.52	106.40
35	BA	2064	C	N3-C2-O2	5.30	125.61	121.90
35	BA	2306	C	C5-C6-N1	5.30	123.65	121.00
1	CA	671	G	O4'-C1'-N9	5.30	112.44	108.20
35	DA	179	G	C2-N3-C4	-5.30	109.25	111.90
35	DA	2201	C	C6-N1-C1'	-5.30	114.44	120.80
35	DA	2232	U	N1-C2-N3	5.30	118.08	114.90
35	DA	2542	A	C6-C5-N7	-5.30	128.59	132.30
36	DB	98	G	C5-C6-O6	-5.30	125.42	128.60
1	AA	280	C	C4-C5-C6	5.30	120.05	117.40
1	AA	701	C	N3-C4-C5	5.30	124.02	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1277	C	C6-N1-C2	-5.30	118.18	120.30
35	BA	733	G	N3-C4-N9	5.30	129.18	126.00
1	CA	28	G	N1-C6-O6	5.30	123.08	119.90
35	DA	2713	A	N3-C4-C5	5.30	130.51	126.80
35	DA	2810	A	C5-C6-N6	-5.30	119.46	123.70
35	BA	325	G	C4-C5-N7	5.30	112.92	110.80
35	BA	684	G	C3'-C2'-C1'	-5.30	97.26	101.50
35	BA	707	G	C4-N9-C1'	5.30	133.39	126.50
35	BA	847	U	N1-C2-O2	-5.30	119.09	122.80
35	BA	1765	C	O5'-P-OP2	-5.30	100.93	105.70
35	BA	2076	U	N3-C4-C5	-5.30	111.42	114.60
1	CA	1169	A	C8-N9-C4	-5.30	103.68	105.80
35	DA	651	G	C8-N9-C4	-5.30	104.28	106.40
35	DA	989	G	C6-C5-N7	-5.30	127.22	130.40
35	DA	2003	G	C5-N7-C8	-5.30	101.65	104.30
35	DA	2825	C	O5'-P-OP1	-5.30	100.93	105.70
36	BB	11	C	N3-C2-O2	-5.29	118.19	121.90
48	DP	10	PRO	CA-N-CD	-5.29	104.09	111.50
1	AA	1483	A	N1-C6-N6	5.29	121.78	118.60
35	BA	1440	G	N3-C4-C5	-5.29	125.95	128.60
35	BA	1792	G	C6-C5-N7	-5.29	127.22	130.40
35	DA	581	C	C5-C6-N1	5.29	123.65	121.00
35	DA	958	U	C5-C6-N1	5.29	125.35	122.70
35	DA	1804	C	C6-N1-C1'	5.29	127.15	120.80
35	DA	2523	G	N7-C8-N9	5.29	115.75	113.10
1	AA	8	A	N1-C6-N6	5.29	121.78	118.60
23	AW	37	A	C8-N9-C4	-5.29	103.68	105.80
35	BA	271(U)	G	N1-C6-O6	5.29	123.07	119.90
35	BA	405	U	P-O3'-C3'	5.29	126.05	119.70
35	BA	1814	G	N3-C2-N2	-5.29	116.20	119.90
35	DA	62	C	C4-C5-C6	5.29	120.05	117.40
35	DA	1129	A	C6-N1-C2	-5.29	115.42	118.60
35	DA	1312	U	C5-C6-N1	-5.29	120.06	122.70
35	DA	1328	G	N9-C4-C5	-5.29	103.28	105.40
35	DA	1374	G	C4-C5-N7	5.29	112.92	110.80
35	DA	1555	G	C5-C6-O6	-5.29	125.43	128.60
35	DA	2003	G	N1-C2-N2	-5.29	111.44	116.20
1	AA	566	G	C8-N9-C4	-5.29	104.28	106.40
35	BA	459	U	N3-C4-O4	-5.29	115.70	119.40
35	BA	620	G	O5'-P-OP2	-5.29	100.94	105.70
35	DA	738	G	O5'-P-OP1	5.29	117.05	110.70
35	DA	2770	G	C8-N9-C4	5.29	108.52	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	2863	C	C5-C6-N1	-5.29	118.36	121.00
1	AA	1506	U	N1-C2-O2	-5.29	119.10	122.80
35	BA	1481	U	N1-C2-O2	-5.29	119.10	122.80
35	BA	2734	A	N7-C8-N9	5.29	116.44	113.80
1	CA	269	C	C4-C5-C6	5.29	120.04	117.40
1	CA	1491	G	N1-C2-N2	-5.29	111.44	116.20
35	DA	130	C	N3-C4-N4	5.29	121.70	118.00
35	DA	1838	C	C5-C4-N4	-5.29	116.50	120.20
35	DA	1955	U	N3-C4-O4	-5.29	115.70	119.40
35	DA	2083	G	C2-N3-C4	-5.29	109.25	111.90
35	DA	2339	G	C5-N7-C8	5.29	106.94	104.30
35	BA	1289	C	N1-C2-O2	-5.29	115.73	118.90
35	DA	710	G	C8-N9-C4	5.29	108.52	106.40
35	DA	1791	A	C4-C5-N7	5.29	113.34	110.70
35	BA	1804	C	N3-C4-N4	5.29	121.70	118.00
35	BA	2613	U	C6-N1-C2	5.29	124.17	121.00
35	BA	2731	G	N3-C4-N9	5.29	129.17	126.00
35	DA	240	G	C5-N7-C8	5.29	106.94	104.30
35	DA	1565	C	C5-C6-N1	-5.29	118.36	121.00
35	BA	700	G	C5-C6-O6	-5.28	125.43	128.60
35	BA	2084	C	C5-C6-N1	-5.28	118.36	121.00
1	CA	836	G	C5-C6-O6	-5.28	125.43	128.60
1	CA	971	G	O4'-C1'-N9	5.28	112.43	108.20
1	CA	1227	A	C5-C6-N1	-5.28	115.06	117.70
35	DA	15	G	N3-C2-N2	-5.28	116.20	119.90
35	DA	295	G	C8-N9-C4	5.28	108.51	106.40
35	DA	2619	C	C6-N1-C2	5.28	122.41	120.30
35	BA	1259	G	C4-C5-C6	5.28	121.97	118.80
1	CA	521	G	N1-C6-O6	-5.28	116.73	119.90
36	DB	76	G	N9-C4-C5	-5.28	103.29	105.40
1	AA	114	U	C5-C6-N1	-5.28	120.06	122.70
1	AA	189(B)	C	N1-C2-O2	5.28	122.07	118.90
1	AA	1067	A	O4'-C1'-N9	-5.28	103.97	108.20
35	BA	2820	A	N1-C2-N3	5.28	131.94	129.30
35	DA	1840	G	C5-C6-O6	-5.28	125.43	128.60
35	DA	2690	C	OP1-P-O3'	5.28	116.82	105.20
1	AA	1435	G	C2-N3-C4	-5.28	109.26	111.90
1	AA	1519	A	C8-N9-C4	-5.28	103.69	105.80
35	BA	958	U	C6-N1-C1'	-5.28	113.81	121.20
35	BA	1313	U	O4'-C1'-N1	5.28	112.42	108.20
35	BA	1544	A	N1-C6-N6	-5.28	115.43	118.60
35	BA	1769	G	N1-C2-N3	5.28	127.07	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2067	G	N3-C2-N2	-5.28	116.21	119.90
35	BA	2431	U	N1-C2-O2	-5.28	119.11	122.80
35	BA	2815	C	C4-C5-C6	5.28	120.04	117.40
36	BB	31	C	N1-C2-O2	-5.28	115.73	118.90
35	DA	406	G	C8-N9-C4	-5.28	104.29	106.40
35	DA	1424	G	C8-N9-C4	5.28	108.51	106.40
35	DA	1999	C	C6-N1-C2	5.28	122.41	120.30
35	DA	2068	U	C4-C5-C6	5.28	122.87	119.70
35	DA	2288	A	N1-C6-N6	5.28	121.77	118.60
1	AA	295	C	C6-N1-C2	5.28	122.41	120.30
1	AA	516	U	C4-C5-C6	5.28	122.86	119.70
1	AA	860	A	C8-N9-C4	-5.28	103.69	105.80
35	BA	831	G	OP1-P-OP2	-5.28	111.69	119.60
35	BA	1122	G	C5-C6-O6	-5.28	125.44	128.60
35	BA	2736	G	N3-C4-N9	-5.28	122.83	126.00
36	BB	86	G	C6-C5-N7	-5.28	127.23	130.40
1	CA	966	G	N9-C4-C5	-5.28	103.29	105.40
35	DA	127	A	N9-C4-C5	-5.28	103.69	105.80
35	DA	1647	G	C8-N9-C4	5.28	108.51	106.40
35	DA	2055	C	C6-N1-C1'	-5.28	114.47	120.80
35	DA	2674	G	N3-C4-C5	-5.28	125.96	128.60
35	BA	57	C	C6-N1-C2	-5.27	118.19	120.30
35	BA	144	C	C2-N1-C1'	5.27	124.60	118.80
35	BA	1189	A	N1-C6-N6	5.27	121.77	118.60
1	CA	791	G	C4-C5-N7	-5.27	108.69	110.80
35	DA	75	G	N7-C8-N9	5.27	115.74	113.10
35	DA	2713	A	N1-C2-N3	5.27	131.94	129.30
1	AA	189(I)	G	C4-N9-C1'	5.27	133.35	126.50
35	BA	974	G	C5-C6-N1	5.27	114.14	111.50
35	BA	2084	C	C4-C5-C6	5.27	120.04	117.40
35	BA	2404	C	N3-C4-C5	5.27	124.01	121.90
35	DA	2069	G	N3-C4-N9	5.27	129.16	126.00
35	BA	188	G	C8-N9-C4	5.27	108.51	106.40
35	BA	201	C	C5-C6-N1	-5.27	118.36	121.00
35	BA	381	G	N3-C4-C5	-5.27	125.96	128.60
35	BA	1332	G	O4'-C1'-N9	-5.27	103.98	108.20
35	BA	1656	C	O5'-P-OP2	-5.27	100.96	105.70
35	DA	782	A	C6-C5-N7	-5.27	128.61	132.30
1	AA	107	G	C5-C6-O6	-5.27	125.44	128.60
1	AA	1173	G	C4-N9-C1'	5.27	133.35	126.50
35	BA	588	U	O5'-P-OP2	5.27	117.02	110.70
1	CA	1518	A	O5'-P-OP1	-5.27	100.96	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	216	A	C4-C5-C6	-5.27	114.36	117.00
35	DA	366	C	N3-C2-O2	-5.27	118.21	121.90
35	DA	394	A	C5-N7-C8	5.27	106.53	103.90
35	DA	497	A	C8-N9-C4	5.27	107.91	105.80
35	DA	515	A	N7-C8-N9	-5.27	111.17	113.80
35	DA	672	C	O5'-P-OP2	-5.27	100.96	105.70
36	DB	14	U	C2-N1-C1'	5.27	124.02	117.70
35	BA	58	G	C6-C5-N7	-5.27	127.24	130.40
35	BA	89	G	N3-C4-N9	5.27	129.16	126.00
35	BA	2228	G	N1-C6-O6	5.27	123.06	119.90
35	BA	2356	C	C4-C5-C6	5.27	120.03	117.40
35	BA	2731	G	C4-C5-C6	5.27	121.96	118.80
23	CY	38	A	C6-C5-N7	-5.27	128.61	132.30
35	DA	88	G	N3-C4-C5	-5.27	125.97	128.60
35	DA	148	C	C6-N1-C1'	5.27	127.12	120.80
35	DA	309	G	N3-C4-C5	-5.27	125.97	128.60
35	DA	1578	U	N1-C2-O2	5.27	126.49	122.80
35	DA	1973	G	C5-C6-N1	5.27	114.13	111.50
35	DA	2226	C	C2-N3-C4	-5.27	117.27	119.90
35	DA	2266	A	C4-C5-N7	5.27	113.33	110.70
46	DN	82	LEU	CA-CB-CG	5.27	127.41	115.30
35	BA	1660	C	C5'-C4'-O4'	5.27	115.42	109.10
1	CA	262	A	O5'-P-OP2	-5.27	100.96	105.70
35	DA	696	G	N1-C6-O6	-5.27	116.74	119.90
35	DA	1701	A	C6-N1-C2	-5.27	115.44	118.60
35	DA	2588	G	C6-N1-C2	-5.27	121.94	125.10
35	BA	652	C	P-O3'-C3'	5.26	126.02	119.70
35	BA	1779	U	C6-N1-C1'	5.26	128.57	121.20
35	BA	1798	U	O5'-P-OP2	-5.26	100.96	105.70
35	BA	1964	G	OP2-P-O3'	5.26	116.78	105.20
35	BA	2324	C	C6-N1-C2	5.26	122.41	120.30
35	BA	2701	C	N1-C2-N3	5.26	122.89	119.20
48	BP	39	LYS	CB-CG-CD	-5.26	97.91	111.60
1	CA	897	C	C6-N1-C2	5.26	122.41	120.30
35	DA	117	G	C6-C5-N7	-5.26	127.24	130.40
35	DA	458	G	N3-C4-C5	5.26	131.23	128.60
35	DA	579	G	N1-C6-O6	5.26	123.06	119.90
35	DA	1288	U	C6-N1-C2	-5.26	117.84	121.00
48	DP	62	LEU	CB-CG-CD1	-5.26	102.05	111.00
24	CX	14	A	N1-C2-N3	5.26	131.93	129.30
35	DA	248	G	O5'-P-OP2	-5.26	100.96	105.70
35	DA	1158	C	C6-N1-C2	-5.26	118.19	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	2290	G	N1-C6-O6	-5.26	116.74	119.90
1	AA	1368	G	N3-C4-N9	5.26	129.16	126.00
22	AV	23	G	N1-C6-O6	5.26	123.06	119.90
35	BA	1187	G	C5-C6-O6	5.26	131.76	128.60
35	BA	2484	G	O5'-P-OP2	-5.26	100.96	105.70
35	BA	2592	G	C5-N7-C8	-5.26	101.67	104.30
35	DA	588	U	N1-C2-O2	5.26	126.48	122.80
35	DA	2237	G	C4-C5-N7	5.26	112.91	110.80
1	AA	1160	G	C4-C5-N7	-5.26	108.70	110.80
1	AA	1514	C	C6-N1-C2	-5.26	118.20	120.30
35	BA	1992	G	C2'-C3'-O3'	5.26	122.12	113.70
1	CA	1216	G	OP1-P-OP2	-5.26	111.71	119.60
35	DA	43	A	C2-N3-C4	-5.26	107.97	110.60
35	DA	127	A	C5-N7-C8	-5.26	101.27	103.90
35	DA	471	A	C2-N3-C4	-5.26	107.97	110.60
35	DA	570	G	C5-C6-O6	5.26	131.76	128.60
35	DA	620	G	OP1-P-OP2	5.26	127.49	119.60
35	DA	1613	G	C5-C6-N1	5.26	114.13	111.50
35	BA	764	A	N7-C8-N9	5.26	116.43	113.80
35	BA	2306	C	C2-N1-C1'	5.26	124.58	118.80
35	DA	226	G	C4-N9-C1'	5.26	133.34	126.50
35	DA	2268	A	N1-C2-N3	-5.26	126.67	129.30
48	DP	33	ARG	CG-CD-NE	5.26	122.84	111.80
22	AV	46	G	O5'-P-OP2	5.26	117.01	110.70
35	BA	2459	A	C8-N9-C4	-5.26	103.70	105.80
1	CA	1468	A	C6-N1-C2	-5.26	115.45	118.60
23	CW	57	G	N3-C4-C5	-5.26	125.97	128.60
35	DA	2064	C	C2-N1-C1'	-5.26	113.02	118.80
35	DA	2218	U	P-O3'-C3'	5.26	126.01	119.70
36	DB	79	C	OP2-P-O3'	5.26	116.77	105.20
35	DA	600	G	C5-C6-O6	5.25	131.75	128.60
1	AA	777	A	OP1-P-O3'	5.25	116.76	105.20
1	AA	1228	C	C6-N1-C2	-5.25	118.20	120.30
1	AA	1474	G	C5-C6-N1	-5.25	108.87	111.50
35	BA	757	U	O5'-P-OP2	-5.25	100.97	105.70
35	BA	1947	C	N1-C2-O2	5.25	122.05	118.90
35	BA	2160	G	O4'-C1'-N9	5.25	112.40	108.20
35	DA	30	G	C8-N9-C1'	-5.25	120.17	127.00
35	DA	831	G	C8-N9-C4	5.25	108.50	106.40
35	DA	1378	A	C5-N7-C8	-5.25	101.27	103.90
35	DA	2570	G	C8-N9-C4	5.25	108.50	106.40
46	DN	67	LEU	CA-CB-CG	5.25	127.38	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	DV	81	TYR	CB-CG-CD2	5.25	124.15	121.00
1	AA	511	C	O4'-C1'-N1	5.25	112.40	108.20
35	BA	139(A)	G	C5-C6-O6	-5.25	125.45	128.60
35	BA	1330	C	C6-N1-C1'	-5.25	114.50	120.80
35	BA	1968	G	C5-C6-N1	5.25	114.12	111.50
1	CA	570	G	C4-N9-C1'	5.25	133.33	126.50
35	DA	272(B)	G	OP1-P-OP2	-5.25	111.72	119.60
35	DA	787	U	O5'-P-OP2	-5.25	100.97	105.70
35	DA	1994	C	N1-C2-N3	5.25	122.88	119.20
35	DA	2250	G	N3-C4-C5	-5.25	125.97	128.60
35	DA	2656	U	OP1-P-OP2	-5.25	111.72	119.60
1	AA	586	C	O5'-P-OP2	-5.25	100.97	105.70
35	DA	58	G	C4-C5-N7	5.25	112.90	110.80
35	DA	72	U	N1-C2-O2	-5.25	119.12	122.80
35	DA	528	A	C8-N9-C1'	5.25	137.15	127.70
35	DA	1770	G	C6-N1-C2	-5.25	121.95	125.10
35	DA	2810	A	C4-C5-N7	5.25	113.33	110.70
35	DA	2823	A	N1-C2-N3	5.25	131.93	129.30
35	BA	487	C	C6-N1-C2	-5.25	118.20	120.30
35	BA	784	A	OP1-P-O3'	5.25	116.75	105.20
35	BA	1080	C	C2-N1-C1'	5.25	124.57	118.80
35	BA	1569	A	OP1-P-O3'	5.25	116.75	105.20
35	BA	1721	G	N3-C4-N9	5.25	129.15	126.00
1	CA	1468	A	C5-C6-N1	5.25	120.33	117.70
35	DA	189	G	C4-C5-N7	5.25	112.90	110.80
35	DA	872	A	OP2-P-O3'	5.25	116.75	105.20
35	DA	1977	A	C2-N3-C4	-5.25	107.98	110.60
35	DA	1987	G	N3-C4-C5	-5.25	125.98	128.60
35	DA	2466	C	OP2-P-O3'	5.25	116.75	105.20
35	BA	391	G	C8-N9-C1'	-5.25	120.18	127.00
35	BA	492	A	N1-C6-N6	-5.25	115.45	118.60
35	BA	698	C	N3-C4-C5	-5.25	119.80	121.90
36	BB	44	G	C4-C5-N7	-5.25	108.70	110.80
1	CA	1351	U	C2-N1-C1'	-5.25	111.40	117.70
35	DA	658	C	C2-N3-C4	-5.25	117.28	119.90
35	DA	951	C	OP1-P-O3'	5.25	116.74	105.20
35	DA	1142(A)	A	N7-C8-N9	5.25	116.42	113.80
35	DA	2537	U	C5-C4-O4	5.25	129.05	125.90
1	AA	851	G	C6-C5-N7	-5.25	127.25	130.40
35	DA	1271	G	N1-C6-O6	5.25	123.05	119.90
35	DA	2710	C	O5'-P-OP2	5.25	116.99	110.70
35	DA	2722	G	O5'-P-OP1	-5.25	100.98	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	449	C	C2-N1-C1'	5.24	124.57	118.80
1	AA	1374	A	C8-N9-C4	-5.24	103.70	105.80
35	BA	409	C	O5'-P-OP2	-5.24	100.98	105.70
35	BA	1619	G	OP1-P-O3'	5.24	116.74	105.20
35	BA	1831	G	N1-C2-N3	5.24	127.05	123.90
35	BA	1960	A	C5-C6-N6	-5.24	119.50	123.70
35	BA	2083	G	C6-C5-N7	-5.24	127.25	130.40
35	BA	2465	C	N3-C2-O2	-5.24	118.23	121.90
36	BB	56	G	C8-N9-C1'	-5.24	120.18	127.00
1	CA	758	G	N3-C4-C5	5.24	131.22	128.60
1	CA	930	C	O5'-P-OP2	-5.24	100.98	105.70
35	DA	1258	C	N3-C4-N4	5.24	121.67	118.00
35	DA	1509	C	C6-N1-C2	-5.24	118.20	120.30
35	DA	1903	G	O5'-P-OP1	-5.24	100.98	105.70
35	DA	2088	G	N3-C4-N9	-5.24	122.85	126.00
35	DA	2506	U	N3-C4-O4	5.24	123.07	119.40
50	DR	44	LEU	CA-CB-CG	5.24	127.36	115.30
35	BA	2371	G	C5-C6-N1	-5.24	108.88	111.50
35	DA	1619	G	N9-C4-C5	5.24	107.50	105.40
35	DA	2393	A	N1-C2-N3	5.24	131.92	129.30
1	AA	1060	C	C5-C4-N4	-5.24	116.53	120.20
35	BA	47	C	C5-C6-N1	-5.24	118.38	121.00
35	BA	150	C	C5-C6-N1	-5.24	118.38	121.00
36	BB	99	G	C8-N9-C1'	-5.24	120.19	127.00
35	DA	528	A	C6-C5-N7	-5.24	128.63	132.30
35	DA	686	G	C6-C5-N7	-5.24	127.25	130.40
35	DA	2391	G	OP1-P-OP2	5.24	127.46	119.60
35	DA	2518	A	C4-N9-C1'	5.24	135.73	126.30
35	DA	2661	G	C2-N3-C4	5.24	114.52	111.90
1	AA	16	A	N1-C6-N6	-5.24	115.46	118.60
35	BA	845	G	C8-N9-C1'	-5.24	120.19	127.00
35	BA	1161	C	OP1-P-O3'	5.24	116.72	105.20
35	BA	1423	G	N1-C6-O6	5.24	123.04	119.90
35	BA	2160	G	N3-C4-C5	5.24	131.22	128.60
1	CA	130	A	N9-C4-C5	-5.24	103.70	105.80
1	CA	1401	G	N7-C8-N9	5.24	115.72	113.10
35	DA	990	A	C6-C5-N7	-5.24	128.63	132.30
1	AA	1489	G	N1-C6-O6	5.24	123.04	119.90
35	BA	1902	C	C6-N1-C2	5.24	122.39	120.30
35	BA	2548	G	N3-C4-N9	5.24	129.14	126.00
1	CA	103	C	N1-C2-O2	5.24	122.04	118.90
35	DA	1278	A	C8-N9-C4	5.24	107.89	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	1506	C	C5-C6-N1	5.24	123.62	121.00
1	AA	250	A	C4-N9-C1'	5.24	135.72	126.30
35	BA	240	G	C2-N3-C4	-5.24	109.28	111.90
35	BA	1379	A	C5-N7-C8	-5.24	101.28	103.90
35	BA	1495	A	O4'-C1'-N9	-5.24	104.01	108.20
35	BA	2395	C	OP1-P-OP2	-5.24	111.75	119.60
35	BA	2822	G	N1-C2-N2	-5.24	111.49	116.20
1	CA	481	G	N3-C4-N9	5.24	129.14	126.00
35	DA	941	A	N1-C2-N3	5.24	131.92	129.30
35	DA	2351	G	O5'-P-OP1	-5.24	100.99	105.70
1	AA	1027	C	C6-N1-C1'	-5.23	114.52	120.80
22	CV	74	C	OP1-P-O3'	5.23	116.72	105.20
35	DA	1257	C	C5-C4-N4	5.23	123.86	120.20
35	DA	1363	C	N3-C4-C5	5.23	123.99	121.90
35	DA	1765	C	C6-N1-C2	5.23	122.39	120.30
35	BA	1897	G	C5-C6-O6	-5.23	125.46	128.60
1	CA	1066	C	N3-C4-N4	5.23	121.66	118.00
35	DA	102	G	N1-C6-O6	5.23	123.04	119.90
35	DA	2319	G	N3-C4-C5	-5.23	125.98	128.60
35	DA	2484	G	OP1-P-OP2	5.23	127.45	119.60
35	DA	2509	G	N3-C4-N9	5.23	129.14	126.00
1	AA	107	G	N9-C4-C5	-5.23	103.31	105.40
1	AA	494	U	N1-C2-O2	5.23	126.46	122.80
35	BA	414	C	C4-C5-C6	5.23	120.02	117.40
35	BA	1891	G	C5-C6-N1	-5.23	108.89	111.50
35	BA	2318	G	C5-N7-C8	-5.23	101.69	104.30
35	BA	2821	A	C5-C6-N1	-5.23	115.08	117.70
35	BA	2837	G	C4-C5-N7	5.23	112.89	110.80
35	DA	827	U	N1-C2-O2	5.23	126.46	122.80
35	DA	1821	A	C8-N9-C4	-5.23	103.71	105.80
35	DA	1960	A	OP1-P-O3'	5.23	116.70	105.20
35	DA	2096	U	C2-N1-C1'	5.23	123.98	117.70
35	DA	2454	G	C8-N9-C4	5.23	108.49	106.40
35	DA	2757	A	OP2-P-O3'	5.23	116.70	105.20
36	DB	75	G	N3-C4-N9	5.23	129.14	126.00
35	DA	860	U	N3-C2-O2	-5.23	118.54	122.20
1	AA	528	C	C6-N1-C2	-5.23	118.21	120.30
1	AA	747	C	N1-C2-O2	5.23	122.04	118.90
1	AA	1183	A	O4'-C1'-N9	5.23	112.38	108.20
35	BA	840	C	N3-C2-O2	5.23	125.56	121.90
35	BA	1589	C	C6-N1-C2	-5.23	118.21	120.30
35	BA	2434	A	C5-C6-N6	-5.23	119.52	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	980	C	C4-C5-C6	5.23	120.01	117.40
35	DA	327	G	O5'-P-OP1	5.23	116.97	110.70
35	DA	1217	C	N3-C4-N4	5.23	121.66	118.00
35	DA	2083	G	C4-C5-N7	5.23	112.89	110.80
35	DA	2411	A	N1-C6-N6	-5.23	115.46	118.60
35	DA	2544	G	C5-N7-C8	-5.23	101.69	104.30
35	BA	1302	A	C5-C6-N6	5.23	127.88	123.70
35	BA	1780	A	C5-N7-C8	-5.23	101.29	103.90
22	CV	4	G	C8-N9-C4	5.23	108.49	106.40
23	CY	44	G	C4-N9-C1'	5.23	133.29	126.50
35	DA	1262	A	N1-C2-N3	5.23	131.91	129.30
35	DA	2275	C	N3-C4-C5	-5.23	119.81	121.90
1	AA	660	G	C8-N9-C4	5.22	108.49	106.40
35	BA	142	A	N7-C8-N9	5.22	116.41	113.80
35	BA	272(I)	U	C6-N1-C2	-5.22	117.86	121.00
35	BA	379	G	N3-C4-N9	-5.22	122.86	126.00
35	BA	748	G	C8-N9-C1'	5.22	133.79	127.00
35	BA	765	G	N3-C4-C5	-5.22	125.99	128.60
35	BA	1934	C	C6-N1-C2	5.22	122.39	120.30
35	BA	1955	U	N1-C2-O2	5.22	126.46	122.80
35	BA	1999	C	C2-N3-C4	-5.22	117.29	119.90
35	BA	2002	G	C6-N1-C2	-5.22	121.97	125.10
35	BA	2892	A	O4'-C1'-N9	5.22	112.38	108.20
1	CA	32	A	C8-N9-C4	-5.22	103.71	105.80
35	DA	1581	G	C8-N9-C4	-5.22	104.31	106.40
35	DA	2602	A	N7-C8-N9	5.22	116.41	113.80
48	DP	61	ARG	NE-CZ-NH2	-5.22	117.69	120.30
1	AA	1504	G	P-O3'-C3'	5.22	125.97	119.70
35	BA	272(H)	C	OP1-P-O3'	5.22	116.69	105.20
35	BA	786	C	N1-C2-O2	-5.22	115.77	118.90
35	BA	1285	G	N3-C4-N9	5.22	129.13	126.00
35	BA	1480	G	C8-N9-C4	-5.22	104.31	106.40
35	BA	2512	C	N3-C2-O2	5.22	125.56	121.90
35	BA	2535	G	N1-C2-N3	5.22	127.03	123.90
35	BA	2864	G	C4-N9-C1'	5.22	133.29	126.50
1	CA	811	C	OP2-P-O3'	5.22	116.69	105.20
24	CX	16	A	N1-C6-N6	-5.22	115.47	118.60
35	DA	656	G	C5-N7-C8	-5.22	101.69	104.30
35	DA	741	G	N7-C8-N9	5.22	115.71	113.10
35	DA	1567	A	N9-C4-C5	5.22	107.89	105.80
35	DA	2461	C	N1-C2-O2	-5.22	115.77	118.90
35	DA	2585	U	N3-C4-O4	5.22	123.06	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	271(W)	G	C4-C5-C6	5.22	121.93	118.80
35	BA	784	A	N7-C8-N9	5.22	116.41	113.80
35	BA	834	C	N3-C4-C5	-5.22	119.81	121.90
35	DA	2056	G	N1-C6-O6	5.22	123.03	119.90
35	DA	2476	A	C4-N9-C1'	5.22	135.70	126.30
1	AA	117	G	C4-N9-C1'	5.22	133.28	126.50
1	AA	189(G)	G	N3-C2-N2	-5.22	116.25	119.90
1	AA	1432	G	C8-N9-C4	-5.22	104.31	106.40
12	AL	52	LEU	CA-CB-CG	5.22	127.30	115.30
23	AY	34	G	C4-N9-C1'	5.22	133.28	126.50
35	BA	958	U	C6-N1-C2	5.22	124.13	121.00
35	BA	1865	G	C4-C5-N7	-5.22	108.71	110.80
35	BA	2598	A	OP2-P-O3'	5.22	116.68	105.20
35	BA	2700	C	C6-N1-C2	5.22	122.39	120.30
36	BB	54	G	N1-C6-O6	5.22	123.03	119.90
38	BD	229	VAL	CG1-CB-CG2	-5.22	102.55	110.90
35	DA	2179	C	C6-N1-C2	-5.22	118.21	120.30
23	AW	40	C	N1-C2-O2	5.22	122.03	118.90
35	DA	856	C	C2-N1-C1'	5.22	124.54	118.80
35	DA	1185	C	C5-C6-N1	-5.22	118.39	121.00
35	DA	2871	C	N3-C4-C5	5.22	123.99	121.90
35	DA	615	G	OP1-P-OP2	-5.22	111.78	119.60
35	DA	724	U	C6-N1-C1'	5.22	128.50	121.20
35	DA	1020	A	N7-C8-N9	5.22	116.41	113.80
35	DA	1201	C	C2-N3-C4	-5.22	117.29	119.90
35	DA	1616	A	C4-C5-N7	5.22	113.31	110.70
35	DA	2839	G	C4-N9-C1'	5.22	133.28	126.50
1	AA	979	C	C6-N1-C2	-5.21	118.21	120.30
30	B5	25	LEU	C-N-CA	-5.21	108.66	121.70
35	BA	676	A	C6-C5-N7	-5.21	128.65	132.30
35	BA	681	G	N1-C6-O6	-5.21	116.77	119.90
35	BA	1313	U	N3-C4-C5	-5.21	111.47	114.60
35	BA	2885	C	C5-C6-N1	5.21	123.61	121.00
1	CA	139	G	C4-C5-N7	5.21	112.89	110.80
1	CA	395	C	C5-C6-N1	-5.21	118.39	121.00
1	CA	1202	G	C5-C6-O6	5.21	131.73	128.60
22	CV	75	C	OP2-P-O3'	5.21	116.67	105.20
35	DA	142	A	OP2-P-O3'	5.21	116.67	105.20
35	DA	195	A	C5-N7-C8	-5.21	101.29	103.90
35	DA	1783	A	C5-C6-N6	-5.21	119.53	123.70
35	DA	2234	G	C8-N9-C4	5.21	108.49	106.40
35	DA	2476	A	C5-C6-N1	5.21	120.31	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	2763	G	C8-N9-C4	5.21	108.48	106.40
1	AA	232	G	C4-C5-C6	5.21	121.93	118.80
35	BA	2571	C	O5'-P-OP2	-5.21	101.01	105.70
1	AA	476	G	C5-C6-N1	5.21	114.11	111.50
35	BA	696	G	C8-N9-C4	-5.21	104.32	106.40
35	BA	2439	A	C8-N9-C4	-5.21	103.72	105.80
36	BB	22	U	C6-N1-C2	-5.21	117.87	121.00
55	BW	77	ASP	CB-CG-OD1	5.21	122.99	118.30
35	DA	1032	A	C4-N9-C1'	-5.21	116.92	126.30
35	DA	1235	G	N7-C8-N9	5.21	115.70	113.10
35	DA	1905	C	OP2-P-O3'	5.21	116.67	105.20
1	AA	797	C	N3-C4-C5	-5.21	119.82	121.90
35	BA	2419	U	N1-C2-O2	-5.21	119.15	122.80
1	CA	726	C	OP1-P-O3'	5.21	116.66	105.20
35	DA	975(A)	G	O5'-P-OP2	-5.21	101.01	105.70
35	DA	2717	G	N3-C2-N2	-5.21	116.25	119.90
35	DA	2724	C	OP2-P-O3'	5.21	116.66	105.20
1	AA	362	G	C8-N9-C1'	5.21	133.77	127.00
1	AA	548	G	N3-C2-N2	-5.21	116.25	119.90
35	BA	105	C	C4-C5-C6	-5.21	114.80	117.40
35	BA	520	G	N9-C4-C5	-5.21	103.32	105.40
35	BA	1318	C	C5-C4-N4	-5.21	116.55	120.20
35	BA	1780	A	OP1-P-O3'	5.21	116.66	105.20
35	BA	1989	G	C8-N9-C1'	5.21	133.77	127.00
1	CA	868	C	C6-N1-C2	5.21	122.38	120.30
35	DA	151	C	C5-C4-N4	-5.21	116.55	120.20
35	DA	469	G	N3-C4-C5	5.21	131.20	128.60
35	DA	928	G	C2-N3-C4	-5.21	109.30	111.90
35	DA	2331	G	C8-N9-C4	5.21	108.48	106.40
35	DA	2575	C	N3-C2-O2	-5.21	118.25	121.90
35	DA	2778	A	C8-N9-C4	5.21	107.88	105.80
36	DB	8	U	N3-C4-O4	5.21	123.05	119.40
23	AW	41	C	C5-C6-N1	5.21	123.60	121.00
35	BA	58	G	C4-N9-C1'	5.21	133.27	126.50
35	BA	698	C	C5-C6-N1	-5.21	118.40	121.00
35	BA	1558	A	N3-C4-N9	-5.21	123.23	127.40
35	DA	326	G	N3-C2-N2	-5.21	116.25	119.90
35	DA	2410	G	N1-C6-O6	5.21	123.02	119.90
35	DA	2692	C	N3-C4-C5	5.21	123.98	121.90
35	DA	2889	C	C6-N1-C1'	-5.21	114.55	120.80
1	AA	189(J)	G	C4-C5-C6	5.21	121.92	118.80
1	AA	326	G	C8-N9-C4	5.21	108.48	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	74	A	N9-C4-C5	5.21	107.88	105.80
1	AA	139	G	C4-N9-C1'	-5.20	119.74	126.50
1	AA	233	C	C2-N1-C1'	-5.20	113.08	118.80
1	CA	960	U	N3-C2-O2	-5.20	118.56	122.20
35	DA	288	C	C6-N1-C2	-5.20	118.22	120.30
35	DA	1245	G	C5-C6-O6	5.20	131.72	128.60
35	DA	1799	G	N3-C4-N9	5.20	129.12	126.00
35	DA	2010	G	OP1-P-O3'	5.20	116.65	105.20
50	DR	4	LEU	CA-CB-CG	5.20	127.27	115.30
35	DA	2316	C	C2-N1-C1'	5.20	124.52	118.80
35	BA	502	A	N1-C2-N3	5.20	131.90	129.30
35	BA	738	G	N3-C2-N2	5.20	123.54	119.90
35	BA	1062	G	C2-N3-C4	5.20	114.50	111.90
35	BA	1470	G	N3-C2-N2	-5.20	116.26	119.90
35	BA	2383	G	C6-C5-N7	-5.20	127.28	130.40
35	DA	1032	A	C8-N9-C4	5.20	107.88	105.80
35	DA	1253	A	C4-C5-C6	-5.20	114.40	117.00
35	DA	1332	G	OP1-P-O3'	5.20	116.64	105.20
35	DA	1614	A	C4-C5-N7	5.20	113.30	110.70
35	DA	1674	G	C6-C5-N7	-5.20	127.28	130.40
35	DA	1674	G	N3-C4-C5	-5.20	126.00	128.60
35	DA	1795	C	C5-C6-N1	-5.20	118.40	121.00
35	DA	2329	G	N3-C4-C5	5.20	131.20	128.60
35	DA	2468	G	C5-C6-O6	-5.20	125.48	128.60
35	DA	2822	G	C5-C6-O6	-5.20	125.48	128.60
1	AA	552	U	C2-N1-C1'	-5.20	111.46	117.70
35	BA	121	G	C8-N9-C4	5.20	108.48	106.40
35	BA	570	G	C5-C6-N1	-5.20	108.90	111.50
35	BA	2292	C	C6-N1-C2	5.20	122.38	120.30
35	BA	2510	C	C6-N1-C2	-5.20	118.22	120.30
35	BA	2618	G	C5-N7-C8	5.20	106.90	104.30
1	CA	108	G	C8-N9-C1'	-5.20	120.24	127.00
27	D2	24	LEU	CA-CB-CG	5.20	127.26	115.30
35	DA	1325	G	N9-C4-C5	-5.20	103.32	105.40
35	DA	2058	A	OP2-P-O3'	5.20	116.64	105.20
35	DA	2199	A	N9-C4-C5	5.20	107.88	105.80
35	DA	2339	G	N7-C8-N9	-5.20	110.50	113.10
1	CA	980	C	N1-C2-N3	5.20	122.84	119.20
35	DA	526	A	OP1-P-O3'	5.20	116.63	105.20
35	DA	1203	G	C5-C6-N1	5.20	114.10	111.50
35	DA	1532	C	C2-N1-C1'	5.20	124.52	118.80
1	AA	244	U	N1-C2-O2	5.20	126.44	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	590	A	C2-N3-C4	-5.20	108.00	110.60
35	BA	954	G	C5-C6-O6	5.20	131.72	128.60
35	BA	2004	G	C5-C6-O6	5.20	131.72	128.60
35	BA	2787	C	C6-N1-C1'	-5.20	114.56	120.80
35	BA	2873	A	C5-C6-N1	5.20	120.30	117.70
48	BP	60	MET	CG-SD-CE	5.20	108.51	100.20
35	DA	272	G	C4-C5-N7	-5.20	108.72	110.80
35	DA	382	G	N7-C8-N9	-5.20	110.50	113.10
35	DA	1624	G	C2-N3-C4	-5.20	109.30	111.90
35	DA	2248	C	C2-N1-C1'	5.20	124.52	118.80
1	AA	1061	G	C8-N9-C4	-5.19	104.32	106.40
22	AV	77	A	C4-N9-C1'	-5.19	116.95	126.30
35	BA	588	U	C5-C4-O4	-5.19	122.78	125.90
35	DA	1202	C	N3-C4-C5	-5.19	119.82	121.90
35	DA	1528	A	N1-C6-N6	5.19	121.72	118.60
1	AA	1202	G	C4-C5-C6	5.19	121.92	118.80
35	BA	31	C	C2-N3-C4	-5.19	117.30	119.90
35	BA	773	U	C5-C6-N1	-5.19	120.10	122.70
35	BA	1397	U	C5-C4-O4	5.19	129.02	125.90
1	CA	975	A	O4'-C1'-N9	-5.19	104.05	108.20
1	CA	1076	C	OP2-P-O3'	5.19	116.62	105.20
35	DA	443	A	C8-N9-C4	-5.19	103.72	105.80
35	DA	1788	C	C2-N1-C1'	5.19	124.51	118.80
35	DA	2539	C	C6-N1-C2	5.19	122.38	120.30
35	BA	933	A	N1-C6-N6	5.19	121.71	118.60
35	BA	1028	A	OP2-P-O3'	5.19	116.62	105.20
35	BA	2019	A	C5-C6-N6	5.19	127.85	123.70
1	CA	308	C	C6-N1-C2	5.19	122.38	120.30
1	CA	1422	G	N3-C4-N9	5.19	129.12	126.00
31	D6	16	CYS	C-N-CA	5.19	134.68	121.70
35	DA	1348	G	C5-C6-N1	5.19	114.09	111.50
35	BA	271(K)	U	C6-N1-C2	-5.19	117.89	121.00
35	DA	1398	C	C5-C4-N4	-5.19	116.57	120.20
35	DA	1990	C	C4-C5-C6	5.19	120.00	117.40
35	DA	2391	G	O4'-C1'-N9	5.19	112.35	108.20
35	BA	132	G	N1-C2-N2	-5.19	111.53	116.20
35	BA	1529	G	O4'-C1'-N9	5.19	112.35	108.20
35	BA	1545	A	N3-C4-N9	5.19	131.55	127.40
1	CA	1369	C	C6-N1-C2	-5.19	118.22	120.30
35	DA	219	G	C6-N1-C2	-5.19	121.99	125.10
35	DA	684	G	C4-C5-N7	-5.19	108.72	110.80
35	DA	702	G	N3-C4-N9	5.19	129.11	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	1788	C	C2-N3-C4	-5.19	117.31	119.90
35	DA	2070	G	N1-C2-N2	-5.19	111.53	116.20
35	DA	2360	A	N9-C1'-C2'	-5.19	106.29	112.00
35	BA	271(U)	G	N3-C4-N9	5.19	129.11	126.00
1	CA	289	G	C8-N9-C4	-5.19	104.33	106.40
1	CA	884	U	C5-C6-N1	5.19	125.29	122.70
1	CA	1488	G	N3-C4-C5	-5.19	126.01	128.60
1	AA	755	G	C5-C6-O6	-5.18	125.49	128.60
1	AA	855	G	N3-C4-N9	5.18	129.11	126.00
35	BA	28	A	C6-C5-N7	-5.18	128.67	132.30
35	BA	1930	G	C5-N7-C8	5.18	106.89	104.30
35	BA	2324	C	C2-N1-C1'	-5.18	113.10	118.80
1	CA	534	U	N3-C4-O4	-5.18	115.77	119.40
35	DA	83	G	N1-C6-O6	5.18	123.01	119.90
35	DA	535	C	C5-C4-N4	5.18	123.83	120.20
35	DA	1220	A	C4-C5-N7	-5.18	108.11	110.70
35	DA	1266	G	N1-C6-O6	5.18	123.01	119.90
35	DA	1390	U	O5'-P-OP1	-5.18	101.03	105.70
35	DA	2357	U	N3-C2-O2	5.18	125.83	122.20
35	DA	2520	C	C6-N1-C2	5.18	122.37	120.30
35	DA	2685	G	N7-C8-N9	-5.18	110.51	113.10
1	AA	897	C	C4-C5-C6	5.18	119.99	117.40
35	BA	1379	A	C8-N9-C4	5.18	107.87	105.80
35	BA	1660	C	O4'-C1'-N1	5.18	112.35	108.20
35	BA	1783	A	N9-C4-C5	5.18	107.87	105.80
35	BA	1792	G	C4-C5-N7	5.18	112.87	110.80
24	CX	23	A	C4-C5-C6	5.18	119.59	117.00
33	D8	30	ARG	NE-CZ-NH1	-5.18	117.71	120.30
35	DA	740	U	C6-N1-C2	5.18	124.11	121.00
35	DA	1204	A	C4-C5-C6	5.18	119.59	117.00
35	DA	1835	G	C4-C5-N7	5.18	112.87	110.80
35	DA	2320	A	C6-C5-N7	-5.18	128.67	132.30
35	DA	2725	A	C5-C6-N6	5.18	127.84	123.70
22	AV	32	G	OP1-P-O3'	5.18	116.60	105.20
35	BA	759	G	N3-C2-N2	-5.18	116.27	119.90
35	BA	2866	U	C5-C4-O4	5.18	129.01	125.90
35	DA	1969	A	N1-C2-N3	5.18	131.89	129.30
35	DA	2495	G	N3-C2-N2	-5.18	116.27	119.90
36	DB	79	C	N3-C2-O2	-5.18	118.27	121.90
1	AA	1020	U	N3-C2-O2	-5.18	118.58	122.20
35	BA	1187	G	N3-C4-C5	-5.18	126.01	128.60
35	BA	1653	G	N9-C4-C5	5.18	107.47	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2469	A	C2-N3-C4	-5.18	108.01	110.60
35	DA	1823	G	OP2-P-O3'	5.18	116.60	105.20
35	DA	1939	U	C2-N1-C1'	-5.18	111.48	117.70
35	DA	2464	C	N1-C2-N3	-5.18	115.58	119.20
35	BA	642	G	N3-C4-C5	5.18	131.19	128.60
35	BA	1566	A	N9-C4-C5	-5.18	103.73	105.80
35	BA	1928	A	N9-C4-C5	-5.18	103.73	105.80
22	CV	31	G	N1-C2-N3	5.18	127.01	123.90
35	DA	338	G	C8-N9-C1'	-5.18	120.27	127.00
1	AA	561	U	N1-C2-N3	-5.18	111.79	114.90
35	BA	271(Q)	G	O4'-C1'-N9	5.18	112.34	108.20
35	BA	771	G	N7-C8-N9	-5.18	110.51	113.10
35	BA	1689	A	C8-N9-C4	-5.18	103.73	105.80
35	BA	1791	A	N1-C6-N6	-5.18	115.49	118.60
35	BA	1865	G	C5-C6-O6	5.18	131.71	128.60
35	DA	800	A	N9-C4-C5	5.18	107.87	105.80
35	DA	2249	U	N3-C4-C5	-5.18	111.49	114.60
50	DR	65	LEU	CA-CB-CG	5.18	127.21	115.30
1	AA	1491	G	C6-C5-N7	5.17	133.50	130.40
35	BA	2406	U	C5-C6-N1	-5.17	120.11	122.70
1	CA	1515	C	N3-C4-C5	5.17	123.97	121.90
35	DA	803	U	N1-C2-N3	5.17	118.00	114.90
35	DA	1133	U	O5'-P-OP2	-5.17	101.04	105.70
35	DA	2000	G	N1-C6-O6	5.17	123.00	119.90
35	DA	2461	C	C5-C6-N1	-5.17	118.41	121.00
35	DA	2761	G	C4-N9-C1'	5.17	133.23	126.50
1	AA	549	C	N3-C4-C5	5.17	123.97	121.90
1	AA	1158	C	C6-N1-C2	-5.17	118.23	120.30
35	BA	1972	A	C2-N3-C4	-5.17	108.01	110.60
35	BA	2032	G	C8-N9-C4	5.17	108.47	106.40
1	CA	77	G	N3-C4-N9	5.17	129.10	126.00
35	DA	314	A	C5-C6-N6	-5.17	119.56	123.70
35	DA	376	C	C2-N3-C4	-5.17	117.31	119.90
35	DA	615	G	C5-C6-O6	5.17	131.70	128.60
35	DA	1163	G	N3-C4-N9	-5.17	122.90	126.00
36	DB	53	A	N7-C8-N9	5.17	116.39	113.80
1	AA	1486	G	N7-C8-N9	-5.17	110.52	113.10
35	BA	47	C	C6-N1-C2	5.17	122.37	120.30
1	CA	771	G	O5'-P-OP1	5.17	116.90	110.70
35	DA	158	U	C2-N1-C1'	5.17	123.90	117.70
35	DA	268	C	C2-N3-C4	-5.17	117.31	119.90
35	DA	670	A	C8-N9-C1'	-5.17	118.39	127.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	1548	C	C6-N1-C1'	-5.17	114.60	120.80
35	DA	1753	G	OP1-P-O3'	5.17	116.57	105.20
35	DA	2399	G	C8-N9-C4	5.17	108.47	106.40
1	AA	738	C	C6-N1-C2	-5.17	118.23	120.30
23	AW	14	A	C3'-C2'-C1'	-5.17	97.36	101.50
25	B0	53	MET	CA-CB-CG	5.17	122.09	113.30
35	BA	36	G	N1-C6-O6	5.17	123.00	119.90
35	BA	144	C	C5-C6-N1	5.17	123.58	121.00
35	BA	450	G	N7-C8-N9	5.17	115.68	113.10
35	BA	478	A	N1-C2-N3	5.17	131.88	129.30
35	BA	788	A	C4-C5-N7	5.17	113.28	110.70
35	BA	1125	G	C5-N7-C8	5.17	106.89	104.30
1	CA	376	G	C4-N9-C1'	-5.17	119.78	126.50
35	DA	1283	G	C5-C6-N1	5.17	114.08	111.50
35	DA	1928	A	O5'-P-OP1	-5.17	101.05	105.70
35	DA	2036	C	N3-C2-O2	-5.17	118.28	121.90
35	DA	2717	G	OP1-P-O3'	5.17	116.57	105.20
36	DB	8	U	C6-N1-C2	-5.17	117.90	121.00
35	BA	1349	A	C6-C5-N7	-5.17	128.68	132.30
35	BA	1665	A	C8-N9-C4	5.17	107.87	105.80
1	CA	435	C	C5-C6-N1	5.17	123.58	121.00
22	CV	30	G	OP1-P-O3'	5.17	116.57	105.20
35	DA	197	A	C5-N7-C8	-5.17	101.32	103.90
35	DA	591	C	C6-N1-C1'	5.17	127.00	120.80
35	DA	759	G	C4-N9-C1'	5.17	133.22	126.50
35	DA	975	C	C1'-O4'-C4'	-5.17	105.77	109.90
35	DA	1269	A	OP2-P-O3'	5.17	116.56	105.20
35	DA	1409	C	C2-N1-C1'	-5.17	113.12	118.80
36	DB	85	G	N9-C4-C5	-5.17	103.33	105.40
35	BA	830	G	N7-C8-N9	-5.17	110.52	113.10
35	BA	1430	C	C2-N1-C1'	5.17	124.48	118.80
35	BA	2527	C	C6-N1-C2	-5.17	118.23	120.30
35	DA	1032	A	C4-C5-C6	-5.17	114.42	117.00
1	AA	252	U	OP2-P-O3'	5.16	116.56	105.20
24	AX	20	U	N3-C2-O2	-5.16	118.58	122.20
35	BA	146	G	C8-N9-C1'	-5.16	120.29	127.00
35	BA	982	C	C6-N1-C2	-5.16	118.23	120.30
35	BA	1992	G	OP2-P-O3'	5.16	116.56	105.20
35	BA	2251	G	C5-C6-N1	5.16	114.08	111.50
1	CA	7	G	N3-C4-N9	-5.16	122.90	126.00
1	CA	328	C	OP2-P-O3'	5.16	116.56	105.20
35	DA	188	G	OP1-P-OP2	5.16	127.34	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	332	A	N1-C6-N6	-5.16	115.50	118.60
35	DA	613	G	C5-C6-O6	-5.16	125.50	128.60
35	DA	1148	A	C2-N3-C4	-5.16	108.02	110.60
35	DA	1154	G	OP2-P-O3'	5.16	116.56	105.20
35	DA	2360	A	C6-C5-N7	-5.16	128.69	132.30
35	DA	2511	U	C4-C5-C6	5.16	122.80	119.70
36	DB	76	G	C8-N9-C1'	-5.16	120.29	127.00
35	BA	593	G	C5-C6-N1	-5.16	108.92	111.50
35	BA	2508	G	C6-C5-N7	-5.16	127.30	130.40
35	DA	543	C	N1-C2-N3	-5.16	115.59	119.20
35	DA	787	U	C2-N1-C1'	-5.16	111.50	117.70
35	DA	823	G	N3-C4-C5	5.16	131.18	128.60
35	DA	974	G	N1-C6-O6	5.16	123.00	119.90
35	DA	2071	A	C6-N1-C2	-5.16	115.50	118.60
35	DA	2785	C	N3-C4-N4	5.16	121.61	118.00
35	BA	272(G)	C	C5-C6-N1	5.16	123.58	121.00
35	BA	1835	G	C8-N9-C1'	-5.16	120.29	127.00
35	BA	2050	C	N1-C2-O2	-5.16	115.80	118.90
1	CA	331	G	N3-C2-N2	-5.16	116.29	119.90
35	DA	940	G	N3-C4-C5	-5.16	126.02	128.60
1	AA	859	A	N1-C2-N3	5.16	131.88	129.30
1	AA	915	A	N7-C8-N9	-5.16	111.22	113.80
1	AA	1480	G	N3-C4-C5	5.16	131.18	128.60
1	AA	1510	U	C6-N1-C2	5.16	124.09	121.00
35	BA	675	A	C5-N7-C8	-5.16	101.32	103.90
35	BA	1017	G	C4-C5-N7	5.16	112.86	110.80
35	BA	2199	A	N1-C6-N6	-5.16	115.50	118.60
35	BA	2447	G	C4-N9-C1'	-5.16	119.80	126.50
35	BA	2766	G	N1-C6-O6	5.16	123.00	119.90
1	CA	318	G	OP2-P-O3'	5.16	116.55	105.20
1	CA	1437	C	C6-N1-C1'	-5.16	114.61	120.80
35	DA	643	A	N9-C4-C5	5.16	107.86	105.80
35	DA	2548	G	C8-N9-C4	5.16	108.46	106.40
35	BA	213	A	N1-C6-N6	5.16	121.69	118.60
35	BA	777	A	C6-N1-C2	-5.16	115.51	118.60
35	BA	1249	U	N1-C2-O2	5.16	126.41	122.80
39	BE	144	ARG	CG-CD-NE	5.16	122.63	111.80
35	DA	400	G	C5-N7-C8	-5.16	101.72	104.30
35	DA	549	G	N7-C8-N9	5.16	115.68	113.10
35	DA	700	G	C2-N3-C4	5.16	114.48	111.90
35	DA	1970	A	OP2-P-O3'	-5.16	93.85	105.20
35	BA	502	A	C5-C6-N6	5.16	127.83	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	503	A	N1-C2-N3	5.16	131.88	129.30
35	BA	774	A	C5-C6-N6	-5.16	119.58	123.70
35	BA	936	C	C6-N1-C2	5.16	122.36	120.30
35	BA	2571	C	C5-C6-N1	-5.16	118.42	121.00
35	BA	2712(A)	A	C5-N7-C8	-5.16	101.32	103.90
1	CA	922	G	OP2-P-O3'	5.16	116.54	105.20
1	CA	1528	U	O4'-C1'-N1	5.16	112.33	108.20
35	DA	1835	G	N1-C6-O6	5.16	122.99	119.90
35	DA	1919	A	OP1-P-O3'	5.16	116.54	105.20
35	BA	2056	G	N1-C2-N2	-5.15	111.56	116.20
35	BA	2738	A	C8-N9-C4	5.15	107.86	105.80
35	DA	148	C	N3-C4-N4	-5.15	114.39	118.00
35	DA	587	C	O5'-P-OP1	-5.15	101.06	105.70
35	DA	2506	U	C2-N1-C1'	5.15	123.89	117.70
1	AA	527	G	C6-C5-N7	5.15	133.49	130.40
35	BA	989	G	N9-C4-C5	-5.15	103.34	105.40
35	BA	2082	A	C5-C6-N6	-5.15	119.58	123.70
35	BA	2293	C	C6-N1-C2	5.15	122.36	120.30
50	BR	18	LEU	CB-CG-CD2	-5.15	102.24	111.00
1	CA	720	C	C6-N1-C2	-5.15	118.24	120.30
35	DA	1698	A	C6-C5-N7	-5.15	128.69	132.30
35	DA	2643	G	C4-C5-C6	5.15	121.89	118.80
35	DA	2856	C	C6-N1-C2	-5.15	118.24	120.30
1	AA	117	G	C4-C5-C6	5.15	121.89	118.80
1	AA	352	C	C6-N1-C2	-5.15	118.24	120.30
4	AD	194	LEU	CA-CB-CG	5.15	127.15	115.30
35	BA	446	G	C5-N7-C8	-5.15	101.72	104.30
35	DA	675	A	N9-C4-C5	-5.15	103.74	105.80
35	DA	1279	G	N1-C6-O6	-5.15	116.81	119.90
35	DA	1340	U	N3-C4-C5	5.15	117.69	114.60
35	DA	1364	G	C8-N9-C4	5.15	108.46	106.40
35	DA	2353	G	C5-C6-O6	-5.15	125.51	128.60
35	DA	2438	U	O5'-P-OP2	-5.15	101.06	105.70
35	DA	2518	A	C4-C5-C6	5.15	119.58	117.00
38	DD	52	ARG	NE-CZ-NH2	5.15	122.88	120.30
35	BA	1424	G	N3-C4-N9	5.15	129.09	126.00
35	BA	1496	A	C4-N9-C1'	5.15	135.57	126.30
35	BA	1992	G	C2-N3-C4	5.15	114.47	111.90
35	DA	346	A	C8-N9-C4	-5.15	103.74	105.80
35	DA	690	G	C4-C5-N7	-5.15	108.74	110.80
1	AA	420	U	N3-C2-O2	-5.15	118.60	122.20
1	CA	807	A	C5-C6-N1	5.15	120.27	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	393	C	N3-C4-C5	5.15	123.96	121.90
35	DA	394	A	C6-N1-C2	-5.15	115.51	118.60
35	DA	938	G	N3-C4-C5	5.15	131.17	128.60
35	DA	1440	G	C4-C5-N7	-5.15	108.74	110.80
35	DA	1840	G	N7-C8-N9	5.15	115.67	113.10
35	DA	2231	C	N1-C2-N3	5.15	122.80	119.20
35	DA	2346	A	C6-C5-N7	-5.15	128.70	132.30
55	DW	92	ARG	NE-CZ-NH1	5.15	122.87	120.30
1	AA	172	A	C4-C5-C6	5.15	119.57	117.00
1	CA	1499	A	C2-N3-C4	-5.15	108.03	110.60
1	CA	1504	G	N3-C4-N9	5.15	129.09	126.00
35	DA	122	G	N1-C2-N3	5.15	126.99	123.90
35	DA	676	A	N3-C4-N9	-5.15	123.28	127.40
35	BA	2412	A	OP2-P-O3'	5.14	116.52	105.20
1	CA	1288	A	N1-C6-N6	-5.14	115.51	118.60
1	CA	1399	C	O5'-P-OP1	-5.14	101.07	105.70
35	DA	1147	C	C2-N1-C1'	-5.14	113.14	118.80
35	DA	1655	A	OP2-P-O3'	5.14	116.52	105.20
35	DA	2086	U	C5-C4-O4	5.14	128.99	125.90
35	DA	2234	G	N9-C4-C5	-5.14	103.34	105.40
35	DA	2747	G	C5-C6-O6	-5.14	125.51	128.60
1	AA	121	C	C6-N1-C1'	-5.14	114.63	120.80
1	AA	1398	A	O5'-P-OP1	-5.14	101.07	105.70
35	BA	402	A	N7-C8-N9	-5.14	111.23	113.80
1	CA	262	A	C8-N9-C4	5.14	107.86	105.80
1	CA	628	G	N1-C6-O6	5.14	122.99	119.90
35	DA	219	G	C4-N9-C1'	5.14	133.18	126.50
35	DA	668	G	N9-C4-C5	-5.14	103.34	105.40
35	DA	945	A	C8-N9-C1'	-5.14	118.44	127.70
35	DA	2641	G	C4-N9-C1'	5.14	133.19	126.50
35	DA	2689	U	C5-C6-N1	-5.14	120.13	122.70
35	BA	28	A	N3-C4-C5	-5.14	123.20	126.80
35	BA	1693	U	OP1-P-OP2	5.14	127.31	119.60
36	BB	91	C	O5'-P-OP1	-5.14	101.07	105.70
35	DA	452	G	N1-C6-O6	-5.14	116.81	119.90
35	DA	469	G	N3-C4-N9	-5.14	122.92	126.00
1	AA	1008	C	C4-C5-C6	-5.14	114.83	117.40
1	AA	1452	C	N1-C2-N3	-5.14	115.60	119.20
35	BA	642	G	C5-N7-C8	-5.14	101.73	104.30
35	BA	1024	G	C4-C5-C6	5.14	121.88	118.80
35	BA	1261	C	C2-N3-C4	-5.14	117.33	119.90
1	CA	53	A	N1-C6-N6	5.14	121.68	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	834	C	C6-N1-C2	5.14	122.36	120.30
23	CW	40	C	C5-C6-N1	5.14	123.57	121.00
35	DA	93	G	C5-C6-N1	5.14	114.07	111.50
35	DA	2683	C	N1-C2-O2	5.14	121.98	118.90
35	DA	2736	G	N3-C2-N2	-5.14	116.30	119.90
1	AA	870	U	C6-N1-C2	5.14	124.08	121.00
1	AA	1030(B)	G	C2-N3-C4	5.14	114.47	111.90
35	BA	567	A	OP1-P-OP2	5.14	127.31	119.60
1	CA	537	G	O5'-P-OP2	5.14	116.86	110.70
35	DA	1101	U	C5-C6-N1	-5.14	120.13	122.70
35	BA	331	A	OP1-P-OP2	5.14	127.30	119.60
35	BA	633	A	N1-C6-N6	5.14	121.68	118.60
35	BA	952	G	C4-C5-N7	-5.14	108.75	110.80
35	BA	978	G	C5-C6-N1	-5.14	108.93	111.50
35	BA	1423	G	C4-C5-N7	5.14	112.86	110.80
35	BA	1517	G	C6-C5-N7	-5.14	127.32	130.40
1	CA	410	G	P-O3'-C3'	5.14	125.86	119.70
22	CV	35	A	C2-N3-C4	-5.14	108.03	110.60
35	DA	580	C	N3-C4-C5	-5.14	119.85	121.90
35	DA	2587	A	OP2-P-O3'	5.14	116.50	105.20
36	DB	76	G	N1-C6-O6	5.14	122.98	119.90
1	AA	546	G	O5'-P-OP1	-5.13	101.08	105.70
1	AA	1093	A	O5'-P-OP2	-5.13	101.08	105.70
1	AA	1519	A	N1-C6-N6	-5.13	115.52	118.60
35	BA	1321	A	C8-N9-C4	-5.13	103.75	105.80
35	BA	1665	A	C6-N1-C2	-5.13	115.52	118.60
1	CA	250	A	O4'-C1'-N9	-5.13	104.09	108.20
35	DA	179	G	C8-N9-C4	5.13	108.45	106.40
35	DA	657	U	O5'-P-OP2	-5.13	101.08	105.70
35	DA	1975	G	C4-N9-C1'	5.13	133.18	126.50
35	DA	2761	G	N3-C4-N9	5.13	129.08	126.00
26	B1	37	ILE	CG1-CB-CG2	-5.13	100.11	111.40
1	CA	447	G	N3-C4-C5	-5.13	126.03	128.60
1	CA	1412	C	C5-C6-N1	-5.13	118.43	121.00
35	DA	1321	A	O5'-P-OP1	-5.13	101.08	105.70
42	DH	149	ARG	NE-CZ-NH1	5.13	122.87	120.30
1	AA	264	U	N1-C2-O2	-5.13	119.21	122.80
24	AX	17	U	N1-C2-O2	-5.13	119.21	122.80
1	CA	137	C	O5'-P-OP1	5.13	116.86	110.70
1	CA	1504	G	C6-C5-N7	-5.13	127.32	130.40
35	DA	334	C	C5-C6-N1	-5.13	118.43	121.00
35	DA	564	C	N1-C2-O2	-5.13	115.82	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	1476	C	C4-C5-C6	5.13	119.97	117.40
35	DA	1752	C	C2-N1-C1'	-5.13	113.16	118.80
35	DA	1780	A	C6-N1-C2	-5.13	115.52	118.60
35	DA	2635	C	C6-N1-C2	5.13	122.35	120.30
35	BA	774	A	N3-C4-N9	-5.13	123.30	127.40
35	BA	2352	A	O5'-P-OP1	-5.13	101.08	105.70
1	CA	532	A	N1-C2-N3	5.13	131.87	129.30
1	CA	625	G	N7-C8-N9	5.13	115.67	113.10
35	DA	2373	G	C4-N9-C1'	5.13	133.17	126.50
35	DA	2577	A	N9-C4-C5	5.13	107.85	105.80
1	AA	838	G	N1-C6-O6	-5.13	116.82	119.90
35	BA	972	G	C8-N9-C4	5.13	108.45	106.40
35	BA	1349	A	O5'-P-OP2	-5.13	101.08	105.70
35	BA	1551	C	C4-C5-C6	5.13	119.96	117.40
35	BA	1581	G	N3-C4-C5	-5.13	126.04	128.60
35	BA	2512	C	C5-C4-N4	-5.13	116.61	120.20
35	BA	2741	A	N9-C4-C5	-5.13	103.75	105.80
35	BA	2764	A	N7-C8-N9	-5.13	111.24	113.80
35	DA	226	G	C8-N9-C1'	-5.13	120.33	127.00
35	DA	240	G	C4-C5-N7	-5.13	108.75	110.80
35	DA	349	G	C8-N9-C4	-5.13	104.35	106.40
35	DA	717	G	N3-C4-N9	-5.13	122.92	126.00
35	DA	2008	C	OP2-P-O3'	5.13	116.48	105.20
35	DA	2685	G	C8-N9-C4	5.13	108.45	106.40
35	BA	789	A	C6-C5-N7	-5.13	128.71	132.30
35	BA	2047	U	N3-C4-O4	-5.13	115.81	119.40
35	BA	2487	G	C8-N9-C1'	-5.13	120.33	127.00
1	CA	1240	U	C5-C6-N1	-5.13	120.14	122.70
35	DA	1564	C	C6-N1-C2	-5.13	118.25	120.30
35	DA	2412	A	N1-C2-N3	5.13	131.86	129.30
55	DW	29	LEU	CA-CB-CG	-5.13	103.51	115.30
35	BA	83	G	N3-C4-N9	5.12	129.07	126.00
35	DA	756	C	C6-N1-C2	5.12	122.35	120.30
35	DA	1459	G	C8-N9-C1'	-5.12	120.34	127.00
35	DA	1977	A	N7-C8-N9	-5.12	111.24	113.80
35	DA	2609	U	C2-N1-C1'	-5.12	111.55	117.70
1	AA	157	G	OP1-P-O3'	5.12	116.47	105.20
35	BA	1603	A	C5-C6-N1	-5.12	115.14	117.70
35	BA	2070	G	OP2-P-O3'	5.12	116.47	105.20
1	CA	879	C	C6-N1-C2	5.12	122.35	120.30
1	CA	960	U	C2-N1-C1'	5.12	123.85	117.70
35	DA	543	C	C6-N1-C1'	-5.12	114.65	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	166	G	C4-N9-C1'	5.12	133.16	126.50
1	AA	873	A	O4'-C1'-N9	5.12	112.30	108.20
35	BA	1576	U	C5-C4-O4	5.12	128.97	125.90
35	BA	2491	U	N1-C2-O2	-5.12	119.22	122.80
35	DA	132	G	C6-C5-N7	-5.12	127.33	130.40
35	DA	1292	U	C6-N1-C2	5.12	124.07	121.00
35	DA	1839	G	N3-C4-N9	5.12	129.07	126.00
35	DA	1939	U	N3-C4-O4	-5.12	115.81	119.40
1	AA	476	G	N1-C6-O6	-5.12	116.83	119.90
35	BA	1820	U	N3-C2-O2	5.12	125.78	122.20
35	BA	2617	C	C6-N1-C2	5.12	122.35	120.30
1	CA	26	A	N1-C6-N6	-5.12	115.53	118.60
1	CA	238	G	N7-C8-N9	-5.12	110.54	113.10
35	DA	2645	G	N3-C4-C5	5.12	131.16	128.60
35	DA	2779	U	N3-C2-O2	-5.12	118.62	122.20
5	AE	60	TYR	CA-CB-CG	5.12	123.12	113.40
35	BA	695	G	O5'-P-OP2	-5.12	101.09	105.70
35	BA	988	A	C4-C5-N7	5.12	113.26	110.70
35	BA	1683	C	N3-C2-O2	5.12	125.48	121.90
35	BA	1948	G	N1-C6-O6	-5.12	116.83	119.90
35	BA	2375	G	O5'-P-OP2	-5.12	101.09	105.70
1	CA	668	G	O5'-P-OP1	-5.12	101.09	105.70
1	CA	852	G	C8-N9-C4	5.12	108.45	106.40
1	CA	1523	G	N3-C4-C5	-5.12	126.04	128.60
35	DA	121	G	C6-N1-C2	-5.12	122.03	125.10
35	DA	473	G	N3-C4-C5	-5.12	126.04	128.60
35	DA	2245	U	O4'-C1'-N1	5.12	112.29	108.20
1	AA	1008	C	C2-N3-C4	5.12	122.46	119.90
1	AA	1023	G	C5-C6-O6	-5.12	125.53	128.60
35	BA	2732	G	C5-C6-O6	-5.12	125.53	128.60
1	CA	1335	C	O5'-P-OP1	-5.12	101.09	105.70
35	DA	261	G	C5-C6-O6	-5.12	125.53	128.60
35	DA	2503	A	C2-N3-C4	5.12	113.16	110.60
36	DB	56	G	N3-C4-N9	5.12	129.07	126.00
1	AA	250	A	O4'-C1'-N9	-5.12	104.11	108.20
35	BA	2253	G	C5-C6-O6	-5.12	125.53	128.60
35	BA	2448	A	O5'-P-OP2	5.12	116.84	110.70
1	CA	495	A	N9-C4-C5	5.12	107.85	105.80
35	DA	782	A	C5-C6-N6	-5.12	119.61	123.70
35	DA	1360	A	N9-C4-C5	-5.12	103.75	105.80
35	DA	2262	U	O5'-P-OP2	5.12	116.84	110.70
35	DA	2355	C	N1-C2-O2	5.12	121.97	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1298	C	C5'-C4'-O4'	5.11	115.24	109.10
35	BA	506	G	C5-C6-O6	-5.11	125.53	128.60
35	BA	1783	A	C5-C6-N6	5.11	127.79	123.70
1	CA	1135	U	N3-C2-O2	-5.11	118.62	122.20
35	DA	147	U	C5-C4-O4	5.11	128.97	125.90
35	DA	631	A	N1-C6-N6	5.11	121.67	118.60
35	DA	1019	U	C5-C6-N1	-5.11	120.14	122.70
35	DA	1217	C	C5-C4-N4	-5.11	116.62	120.20
35	DA	1994	C	C5-C6-N1	-5.11	118.44	121.00
40	DF	49	ALA	N-CA-CB	5.11	117.26	110.10
1	AA	55	A	P-O3'-C3'	5.11	125.83	119.70
24	AX	20	U	C6-N1-C2	-5.11	117.93	121.00
35	BA	2679	A	C8-N9-C4	5.11	107.84	105.80
35	DA	113	G	N3-C4-C5	5.11	131.16	128.60
35	DA	2432	A	C6-N1-C2	5.11	121.67	118.60
35	DA	2442	C	N3-C2-O2	-5.11	118.32	121.90
35	BA	300	A	C4-C5-N7	5.11	113.25	110.70
35	BA	1443	G	N3-C4-N9	5.11	129.07	126.00
35	BA	1528	A	C5-N7-C8	-5.11	101.34	103.90
35	BA	2039	C	C6-N1-C2	-5.11	118.26	120.30
1	CA	111	G	N3-C4-N9	-5.11	122.93	126.00
1	CA	715	A	C2-N3-C4	-5.11	108.05	110.60
35	DA	512	G	C4-N9-C1'	-5.11	119.86	126.50
38	DD	233	HIS	C-N-CA	-5.11	111.57	122.30
35	BA	2241	A	C8-N9-C4	5.11	107.84	105.80
35	DA	1005	C	N1-C2-O2	5.11	121.97	118.90
35	DA	2449	U	N1-C2-N3	5.11	117.97	114.90
1	AA	420	U	C6-N1-C2	-5.11	117.94	121.00
35	BA	272(H)	C	C6-N1-C2	-5.11	118.26	120.30
35	BA	789	A	C4-C5-N7	5.11	113.25	110.70
35	BA	1986	A	C5'-C4'-C3'	-5.11	107.83	116.00
1	CA	316	G	C8-N9-C4	-5.11	104.36	106.40
1	CA	801	U	C5-C6-N1	-5.11	120.15	122.70
1	CA	966	G	N3-C4-N9	5.11	129.06	126.00
35	DA	913	U	O5'-P-OP2	-5.11	101.10	105.70
35	DA	1239	G	C5-C6-N1	-5.11	108.95	111.50
35	DA	1718	G	C8-N9-C1'	-5.11	120.36	127.00
35	DA	1963	U	C6-N1-C1'	-5.11	114.05	121.20
35	DA	2221	G	O5'-P-OP1	-5.11	101.10	105.70
35	DA	2657	A	C4-C5-C6	5.11	119.55	117.00
35	DA	2657	A	N1-C6-N6	5.11	121.67	118.60
35	DA	2856	C	C2-N1-C1'	5.11	124.42	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	DB	70	C	C6-N1-C2	-5.11	118.26	120.30
1	AA	537	G	O5'-P-OP2	5.11	116.83	110.70
1	AA	838	G	C8-N9-C1'	5.11	133.64	127.00
35	BA	479	A	N1-C6-N6	-5.11	115.54	118.60
35	BA	698	C	N1-C2-N3	5.11	122.77	119.20
35	BA	1191	G	O5'-P-OP2	-5.11	101.11	105.70
35	BA	1589	C	C2-N1-C1'	5.11	124.42	118.80
35	BA	1696	G	C4-C5-N7	-5.11	108.76	110.80
35	BA	1964	G	N3-C4-C5	-5.11	126.05	128.60
35	BA	2489	G	N1-C6-O6	5.11	122.96	119.90
35	BA	2755	C	C2-N3-C4	5.11	122.45	119.90
35	BA	2819	G	N3-C4-N9	5.11	129.06	126.00
1	CA	555	C	C6-N1-C2	-5.11	118.26	120.30
35	DA	645	C	C6-N1-C2	-5.11	118.26	120.30
35	DA	668	G	C4-C5-N7	5.11	112.84	110.80
35	DA	1990	C	C5-C6-N1	-5.11	118.45	121.00
35	DA	2372	G	N3-C4-N9	5.11	129.06	126.00
1	AA	792	A	N1-C6-N6	5.10	121.66	118.60
35	BA	438	G	O5'-P-OP2	-5.10	101.11	105.70
35	BA	656	G	C4-N9-C1'	-5.10	119.86	126.50
35	DA	674	G	C5-C6-N1	5.10	114.05	111.50
35	DA	2689	U	N3-C4-C5	5.10	117.66	114.60
1	AA	965	A	C2-N3-C4	-5.10	108.05	110.60
23	AW	8	U	C5-C6-N1	5.10	125.25	122.70
35	BA	259	G	C5-N7-C8	-5.10	101.75	104.30
35	BA	474	G	N9-C4-C5	5.10	107.44	105.40
35	BA	1573	G	N3-C4-N9	-5.10	122.94	126.00
35	DA	1346	G	N7-C8-N9	-5.10	110.55	113.10
1	AA	672	U	O4'-C1'-N1	5.10	112.28	108.20
1	AA	1432	G	N7-C8-N9	5.10	115.65	113.10
35	BA	1284	A	N9-C4-C5	-5.10	103.76	105.80
16	CP	6	LEU	CA-CB-CG	5.10	127.03	115.30
35	DA	1666	G	C2-N3-C4	-5.10	109.35	111.90
35	DA	2469	A	N1-C6-N6	5.10	121.66	118.60
1	AA	1036	G	N7-C8-N9	5.10	115.65	113.10
35	BA	2242	G	C2-N3-C4	-5.10	109.35	111.90
1	CA	766	A	N1-C6-N6	5.10	121.66	118.60
22	CV	33	U	C5-C4-O4	5.10	128.96	125.90
35	DA	143	G	C4-N9-C1'	-5.10	119.87	126.50
35	DA	220	G	P-O3'-C3'	5.10	125.82	119.70
35	DA	446	G	C8-N9-C1'	-5.10	120.37	127.00
35	DA	2392	A	N1-C2-N3	5.10	131.85	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	2566	A	N1-C6-N6	5.10	121.66	118.60
35	DA	2623	G	C6-N1-C2	-5.10	122.04	125.10
1	AA	155	C	N3-C4-C5	5.10	123.94	121.90
35	BA	651	G	N1-C6-O6	-5.10	116.84	119.90
35	BA	1628	G	C5-C6-N1	-5.10	108.95	111.50
35	BA	1665	A	C5-C6-N6	-5.10	119.62	123.70
1	CA	299	G	C5-C6-N1	-5.10	108.95	111.50
35	DA	2603	G	P-O3'-C3'	-5.10	113.58	119.70
35	DA	2775	A	C4-C5-N7	5.10	113.25	110.70
5	AE	126	ARG	NE-CZ-NH2	-5.10	117.75	120.30
35	BA	2293	C	N3-C4-C5	5.10	123.94	121.90
35	DA	2405	G	N3-C2-N2	5.10	123.47	119.90
1	AA	158	G	C5-N7-C8	-5.09	101.75	104.30
1	AA	542	G	C4-C5-N7	5.09	112.84	110.80
1	AA	1397	C	C6-N1-C2	-5.09	118.26	120.30
1	CA	738	C	N3-C4-C5	-5.09	119.86	121.90
1	CA	1529	G	C5-C6-N1	5.09	114.05	111.50
23	CW	75	C	C6-N1-C1'	5.09	126.91	120.80
35	DA	652	C	OP1-P-OP2	-5.09	111.96	119.60
35	DA	733	G	C4-C5-N7	5.09	112.84	110.80
35	DA	770	G	N1-C6-O6	5.09	122.96	119.90
35	DA	1529	G	C4-N9-C1'	5.09	133.12	126.50
35	DA	2025	C	C4-C5-C6	5.09	119.95	117.40
35	DA	2343	C	C6-N1-C2	5.09	122.34	120.30
35	DA	2438	U	OP2-P-O3'	5.09	116.41	105.20
35	BA	1853	A	N1-C6-N6	-5.09	115.54	118.60
1	CA	716	A	O5'-P-OP2	5.09	116.81	110.70
35	DA	102	G	C6-C5-N7	-5.09	127.34	130.40
35	DA	416	C	O5'-P-OP2	-5.09	101.12	105.70
35	DA	463	G	C4-N9-C1'	-5.09	119.88	126.50
35	DA	1624	G	N3-C4-C5	5.09	131.15	128.60
35	DA	1926	U	C5-C6-N1	-5.09	120.15	122.70
35	DA	1994	C	C2-N1-C1'	-5.09	113.20	118.80
1	AA	534	U	N3-C4-O4	-5.09	115.84	119.40
1	AA	584	G	N1-C6-O6	5.09	122.95	119.90
22	AV	60	A	C8-N9-C4	-5.09	103.76	105.80
35	BA	692	C	C6-N1-C2	-5.09	118.26	120.30
35	BA	1348	G	O5'-P-OP2	5.09	116.81	110.70
35	BA	1619	G	C5-C6-N1	5.09	114.05	111.50
35	BA	2535	G	C4-C5-N7	-5.09	108.76	110.80
31	D6	42	TRP	CA-CB-CG	5.09	123.37	113.70
35	DA	381	G	N1-C6-O6	5.09	122.95	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	413	C	O5'-P-OP1	-5.09	101.12	105.70
35	DA	651	G	C4-C5-N7	5.09	112.84	110.80
35	DA	1209	G	C6-N1-C2	-5.09	122.05	125.10
35	DA	2496	C	C5-C4-N4	5.09	123.76	120.20
36	DB	105	A	OP2-P-O3'	5.09	116.40	105.20
1	AA	1313	U	C6-N1-C1'	-5.09	114.08	121.20
35	BA	124	G	O5'-P-OP2	-5.09	101.12	105.70
35	BA	863	A	C4-C5-N7	5.09	113.25	110.70
35	BA	1656	C	C5-C6-N1	5.09	123.55	121.00
35	BA	1711	C	C6-N1-C2	-5.09	118.26	120.30
35	BA	2551	C	C4-C5-C6	5.09	119.94	117.40
35	BA	2727	G	C5-C6-N1	5.09	114.05	111.50
22	CV	3	C	N1-C2-O2	5.09	121.95	118.90
35	DA	109	G	N7-C8-N9	-5.09	110.56	113.10
35	DA	710	G	C5-C6-O6	-5.09	125.55	128.60
35	DA	715	G	C5-C6-O6	-5.09	125.55	128.60
35	DA	1204	A	C4-N9-C1'	5.09	135.46	126.30
35	BA	446	G	N1-C2-N3	-5.09	120.85	123.90
1	CA	900	A	N9-C4-C5	-5.09	103.77	105.80
35	DA	494	G	C2-N3-C4	-5.09	109.36	111.90
35	DA	1908	C	N3-C4-C5	-5.09	119.86	121.90
35	DA	1949	G	N1-C6-O6	5.09	122.95	119.90
35	BA	912	C	N1-C2-O2	5.09	121.95	118.90
35	BA	2318	G	C4-N9-C1'	5.09	133.11	126.50
1	CA	122	G	C8-N9-C4	5.09	108.44	106.40
1	CA	1281	U	N1-C2-O2	5.09	126.36	122.80
35	DA	811	U	N1-C2-N3	5.09	117.95	114.90
35	DA	937	U	O5'-P-OP1	5.09	116.81	110.70
35	DA	1186	G	C8-N9-C4	5.09	108.43	106.40
1	AA	362	G	C4-N9-C1'	-5.08	119.89	126.50
35	BA	1496	A	C8-N9-C4	-5.08	103.77	105.80
35	BA	1779	U	N3-C2-O2	-5.08	118.64	122.20
35	BA	1800	C	C2-N3-C4	-5.08	117.36	119.90
35	BA	1847	A	C3'-C2'-C1'	5.08	105.57	101.50
35	DA	990	A	OP2-P-O3'	5.08	116.39	105.20
35	DA	1248	G	O5'-P-OP2	-5.08	101.12	105.70
1	AA	172	A	C4-N9-C1'	5.08	135.45	126.30
1	AA	1124	G	O4'-C1'-N9	5.08	112.27	108.20
1	AA	1242	C	N3-C2-O2	5.08	125.46	121.90
26	B1	46	LEU	CA-CB-CG	-5.08	103.61	115.30
35	BA	307	G	N7-C8-N9	5.08	115.64	113.10
35	BA	630	G	N9-C4-C5	-5.08	103.37	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	778	G	N1-C2-N3	5.08	126.95	123.90
35	BA	925	C	C5-C6-N1	-5.08	118.46	121.00
35	BA	970	C	N1-C2-O2	-5.08	115.85	118.90
35	BA	1264	G	P-O3'-C3'	5.08	125.80	119.70
35	BA	1902	C	C2-N3-C4	-5.08	117.36	119.90
35	BA	2028	U	C6-N1-C2	-5.08	117.95	121.00
35	BA	2697	G	C4-N9-C1'	5.08	133.11	126.50
35	DA	265	A	C6-C5-N7	-5.08	128.74	132.30
35	DA	975(A)	G	C5-C6-O6	-5.08	125.55	128.60
35	DA	1130	U	C4-C5-C6	5.08	122.75	119.70
35	DA	1270	C	C2-N3-C4	-5.08	117.36	119.90
35	DA	1622	G	N3-C4-C5	-5.08	126.06	128.60
35	DA	1763	G	N3-C4-N9	-5.08	122.95	126.00
35	DA	2003	G	N9-C4-C5	-5.08	103.37	105.40
35	DA	2348	U	N1-C2-O2	5.08	126.36	122.80
35	DA	2422	A	P-O3'-C3'	5.08	125.80	119.70
35	DA	2431	U	C5-C6-N1	-5.08	120.16	122.70
1	AA	60	A	P-O3'-C3'	5.08	125.80	119.70
1	AA	1211	U	O4'-C1'-N1	5.08	112.27	108.20
35	BA	132	G	N7-C8-N9	5.08	115.64	113.10
35	BA	848	G	N3-C4-N9	5.08	129.05	126.00
35	BA	1402	C	C5-C6-N1	5.08	123.54	121.00
35	BA	2764	A	C8-N9-C4	5.08	107.83	105.80
1	CA	354	G	N7-C8-N9	5.08	115.64	113.10
33	D8	4	MET	CB-CG-SD	-5.08	97.16	112.40
35	DA	805	G	C4-C5-N7	5.08	112.83	110.80
35	DA	1671	U	OP1-P-O3'	5.08	116.38	105.20
35	DA	2239	G	N9-C4-C5	-5.08	103.37	105.40
35	DA	2467	C	C6-N1-C2	5.08	122.33	120.30
35	BA	1129	A	O4'-C1'-N9	5.08	112.26	108.20
35	BA	1283	G	C8-N9-C1'	-5.08	120.40	127.00
35	BA	2048	G	C4-C5-C6	5.08	121.85	118.80
1	CA	966	G	N3-C2-N2	5.08	123.45	119.90
35	DA	1264	G	C8-N9-C4	-5.08	104.37	106.40
35	DA	1821	A	C6-C5-N7	-5.08	128.75	132.30
35	DA	2505	G	N3-C4-C5	-5.08	126.06	128.60
35	DA	397	G	O5'-P-OP2	5.08	116.79	110.70
35	DA	519	U	C6-N1-C2	5.08	124.05	121.00
35	DA	2425	A	N1-C6-N6	-5.08	115.55	118.60
35	DA	2655	G	C5-C6-O6	5.08	131.65	128.60
35	DA	2742	C	C6-N1-C2	-5.08	118.27	120.30
54	DV	88	ARG	NE-CZ-NH2	-5.08	117.76	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	653	A	N1-C6-N6	5.08	121.65	118.60
1	AA	922	G	N3-C4-C5	-5.08	126.06	128.60
35	BA	420	C	C5-C4-N4	5.08	123.75	120.20
35	BA	1706	U	C6-N1-C2	5.08	124.05	121.00
35	DA	245	G	C5-N7-C8	-5.08	101.76	104.30
35	DA	681	G	N1-C2-N2	-5.08	111.63	116.20
35	DA	2297	C	N3-C4-C5	-5.08	119.87	121.90
35	DA	2490	G	P-O5'-C5'	-5.08	112.78	120.90
35	DA	2767	C	C6-N1-C1'	-5.08	114.71	120.80
1	AA	704	A	C8-N9-C4	-5.07	103.77	105.80
1	AA	1231	G	C5-C6-O6	-5.07	125.56	128.60
35	BA	588	U	C6-N1-C1'	-5.07	114.10	121.20
35	BA	1938	A	C5-C6-N1	5.07	120.24	117.70
35	BA	2345	G	C5-C6-O6	5.07	131.64	128.60
35	BA	2346	A	C5-C6-N1	-5.07	115.16	117.70
35	BA	2824	C	OP1-P-O3'	5.07	116.36	105.20
1	CA	902	G	N9-C4-C5	-5.07	103.37	105.40
35	DA	124	G	C4-N9-C1'	5.07	133.09	126.50
35	DA	1864	U	OP1-P-O3'	5.07	116.36	105.20
35	DA	2079	U	C4-C5-C6	5.07	122.75	119.70
41	DG	19	LEU	CA-CB-CG	5.07	126.97	115.30
35	BA	642	G	C5-C6-N1	-5.07	108.96	111.50
35	DA	1325	G	N3-C2-N2	5.07	123.45	119.90
35	DA	1621	U	N1-C2-O2	-5.07	119.25	122.80
35	DA	2510	C	C5-C6-N1	-5.07	118.46	121.00
35	DA	2866	U	C6-N1-C2	-5.07	117.96	121.00
1	AA	1414	U	C6-N1-C1'	5.07	128.30	121.20
35	BA	212	G	N1-C2-N3	5.07	126.94	123.90
35	BA	695	G	N3-C4-C5	5.07	131.13	128.60
35	BA	1608	A	C5'-C4'-C3'	-5.07	107.89	116.00
35	BA	2308	G	P-O3'-C3'	5.07	125.78	119.70
35	BA	2473	U	O4'-C1'-N1	-5.07	104.14	108.20
1	CA	362	G	C4-N9-C1'	-5.07	119.91	126.50
1	CA	729	A	N9-C4-C5	-5.07	103.77	105.80
1	CA	1337	G	C4-N9-C1'	-5.07	119.91	126.50
1	CA	1415	G	N1-C6-O6	5.07	122.94	119.90
1	CA	1517	G	OP1-P-O3'	5.07	116.36	105.20
35	DA	1762	A	N9-C4-C5	5.07	107.83	105.80
35	DA	2469	A	N1-C2-N3	5.07	131.84	129.30
35	DA	2539	C	C5-C6-N1	-5.07	118.47	121.00
1	AA	378	G	O5'-P-OP1	5.07	116.78	110.70
1	AA	577	G	N9-C4-C5	-5.07	103.37	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	642	G	N7-C8-N9	5.07	115.63	113.10
35	BA	2092	U	N3-C4-O4	-5.07	115.85	119.40
35	BA	2673	G	N3-C4-N9	-5.07	122.96	126.00
35	DA	1577	C	N3-C2-O2	-5.07	118.35	121.90
35	DA	2780	G	N3-C4-N9	5.07	129.04	126.00
35	BA	123	G	C5-C6-O6	-5.07	125.56	128.60
35	BA	485	C	C2-N1-C1'	-5.07	113.23	118.80
35	BA	1504	C	N3-C4-C5	5.07	123.93	121.90
35	BA	2696	U	N3-C4-C5	-5.07	111.56	114.60
49	BQ	47	ILE	CG1-CB-CG2	-5.07	100.25	111.40
1	CA	538	G	C4-C5-C6	5.07	121.84	118.80
35	DA	921	G	N7-C8-N9	5.07	115.63	113.10
35	DA	1778	U	C2-N1-C1'	-5.07	111.62	117.70
35	DA	2001	A	N1-C2-N3	5.07	131.83	129.30
35	BA	406	G	N7-C8-N9	5.07	115.63	113.10
35	BA	1283	G	N7-C8-N9	5.07	115.63	113.10
35	BA	1385	G	C4-N9-C1'	-5.07	119.91	126.50
1	CA	1465	C	C6-N1-C2	5.07	122.33	120.30
22	CV	48	C	C6-N1-C2	5.07	122.33	120.30
35	DA	450	G	C4-C5-C6	5.07	121.84	118.80
35	DA	588	U	C2-N1-C1'	5.07	123.78	117.70
35	DA	859	G	C4-N9-C1'	-5.07	119.92	126.50
35	DA	1578	U	C5-C4-O4	5.07	128.94	125.90
35	DA	2083	G	C6-C5-N7	-5.07	127.36	130.40
35	DA	2371	G	C5-C6-N1	-5.07	108.97	111.50
1	AA	921	U	O5'-P-OP1	5.06	116.78	110.70
1	AA	1065	U	OP2-P-O3'	5.06	116.34	105.20
1	AA	1336	C	C6-N1-C1'	-5.06	114.72	120.80
35	BA	666	G	C2-N3-C4	-5.06	109.37	111.90
1	CA	1401	G	C8-N9-C4	-5.06	104.37	106.40
35	DA	261	G	N3-C2-N2	-5.06	116.36	119.90
35	DA	560	C	N3-C4-C5	5.06	123.92	121.90
35	DA	646	A	C5-N7-C8	-5.06	101.37	103.90
35	DA	670	A	O5'-P-OP1	5.06	116.78	110.70
35	DA	1274	A	N9-C4-C5	-5.06	103.78	105.80
35	DA	1809	A	C8-N9-C4	-5.06	103.77	105.80
23	AW	39	U	C6-N1-C2	-5.06	117.96	121.00
35	BA	1285	G	OP1-P-OP2	5.06	127.19	119.60
35	BA	2638	G	C8-N9-C4	-5.06	104.38	106.40
1	CA	731	G	C8-N9-C4	-5.06	104.38	106.40
1	CA	1279	A	C6-C5-N7	-5.06	128.76	132.30
35	DA	451	C	C6-N1-C2	5.06	122.33	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	461	C	C6-N1-C2	5.06	122.33	120.30
35	DA	1778	U	N3-C2-O2	5.06	125.74	122.20
35	DA	2596	U	N1-C2-N3	5.06	117.94	114.90
35	DA	2651	C	C6-N1-C2	5.06	122.33	120.30
35	BA	287	C	N1-C2-O2	5.06	121.94	118.90
35	BA	552	G	C8-N9-C4	5.06	108.42	106.40
35	BA	1354	A	N1-C6-N6	5.06	121.64	118.60
35	BA	2557	G	N3-C2-N2	5.06	123.44	119.90
35	DA	1548	C	C2-N1-C1'	5.06	124.37	118.80
22	AV	48	U	N3-C2-O2	-5.06	118.66	122.20
35	BA	1481	U	N3-C4-C5	-5.06	111.56	114.60
35	BA	2228	G	C6-C5-N7	-5.06	127.36	130.40
1	CA	44	G	C8-N9-C1'	-5.06	120.42	127.00
1	CA	259	G	C8-N9-C4	5.06	108.42	106.40
1	CA	609	A	O5'-P-OP1	-5.06	101.15	105.70
1	CA	869	G	N3-C4-C5	5.06	131.13	128.60
1	CA	872	A	O4'-C1'-N9	5.06	112.25	108.20
35	DA	113	G	N1-C6-O6	5.06	122.94	119.90
35	DA	187	G	OP1-P-OP2	5.06	127.19	119.60
35	DA	1183	G	C4-N9-C1'	5.06	133.08	126.50
35	DA	1216	G	C6-C5-N7	-5.06	127.36	130.40
35	DA	1437	C	N1-C2-O2	5.06	121.94	118.90
1	AA	173	U	N1-C2-N3	-5.06	111.87	114.90
1	AA	1268	A	N1-C6-N6	-5.06	115.57	118.60
1	AA	1482	G	C4-C5-C6	5.06	121.83	118.80
35	BA	41	C	N1-C2-O2	5.06	121.94	118.90
35	BA	1309	G	N1-C6-O6	5.06	122.94	119.90
35	BA	1348	G	C4-C5-N7	5.06	112.82	110.80
35	BA	2423	U	C2-N3-C4	-5.06	123.97	127.00
35	BA	2487	G	N1-C2-N2	-5.06	111.65	116.20
1	CA	1125	U	C5-C4-O4	5.06	128.94	125.90
1	CA	1252	A	O5'-P-OP2	-5.06	101.15	105.70
35	DA	473	G	N7-C8-N9	-5.06	110.57	113.10
35	DA	727	A	OP2-P-O3'	5.06	116.33	105.20
35	DA	1347	G	C5-C6-N1	5.06	114.03	111.50
35	DA	1430	C	N1-C2-O2	-5.06	115.86	118.90
35	DA	2287	A	N3-C4-N9	-5.06	123.35	127.40
35	DA	2501	C	C5-C4-N4	5.06	123.74	120.20
35	DA	2725	A	C2-N3-C4	-5.06	108.07	110.60
35	DA	2781	A	C4-C5-N7	-5.06	108.17	110.70
51	DS	20	ARG	CG-CD-NE	5.06	122.42	111.80
1	AA	173	U	C6-N1-C2	5.06	124.03	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1473	A	C2-N3-C4	-5.06	108.07	110.60
35	BA	1048	A	C2-N3-C4	5.06	113.13	110.60
35	BA	1055	G	C8-N9-C1'	-5.06	120.43	127.00
35	BA	1184	G	C4-N9-C1'	-5.06	119.93	126.50
35	DA	1051	G	C5-N7-C8	-5.06	101.77	104.30
35	DA	1764	G	C6-C5-N7	5.06	133.43	130.40
1	AA	495	A	N9-C4-C5	5.05	107.82	105.80
35	BA	975	C	C5-C4-N4	-5.05	116.66	120.20
1	CA	111	G	C4-N9-C1'	-5.05	119.93	126.50
35	DA	139	G	N9-C4-C5	-5.05	103.38	105.40
35	DA	1495	A	C5-N7-C8	-5.05	101.37	103.90
35	DA	2373	G	N1-C2-N2	-5.05	111.65	116.20
35	BA	294	A	C8-N9-C4	5.05	107.82	105.80
35	BA	2614	A	C6-N1-C2	-5.05	115.57	118.60
35	DA	146	G	N1-C6-O6	5.05	122.93	119.90
35	DA	267	C	OP1-P-OP2	5.05	127.18	119.60
35	DA	271(G)	C	N3-C2-O2	-5.05	118.36	121.90
35	DA	1904	G	N9-C4-C5	-5.05	103.38	105.40
35	DA	2363	C	N3-C2-O2	5.05	125.44	121.90
36	DB	90	A	OP1-P-O3'	5.05	116.32	105.20
1	AA	572	A	C8-N9-C4	5.05	107.82	105.80
1	AA	890	G	OP2-P-O3'	5.05	116.31	105.20
31	B6	10	LEU	CA-CB-CG	5.05	126.92	115.30
35	BA	1193	G	N3-C4-C5	5.05	131.13	128.60
35	BA	1210	A	P-O3'-C3'	5.05	125.76	119.70
35	BA	1448	G	C8-N9-C4	-5.05	104.38	106.40
35	BA	1767	C	C2-N1-C1'	-5.05	113.24	118.80
35	BA	2644	G	N3-C4-N9	-5.05	122.97	126.00
1	CA	187	C	C6-N1-C2	-5.05	118.28	120.30
1	CA	416	G	OP2-P-O3'	5.05	116.31	105.20
1	CA	880	C	C6-N1-C2	5.05	122.32	120.30
35	DA	437	G	N9-C4-C5	-5.05	103.38	105.40
35	DA	587	C	C3'-C2'-C1'	5.05	105.54	101.50
35	DA	997	G	N7-C8-N9	-5.05	110.58	113.10
35	DA	1517	G	N7-C8-N9	5.05	115.63	113.10
35	DA	1930	G	N7-C8-N9	-5.05	110.58	113.10
35	BA	491	G	C2-N3-C4	-5.05	109.38	111.90
35	BA	2208	A	N3-C4-C5	-5.05	123.27	126.80
36	BB	42	C	N3-C2-O2	5.05	125.44	121.90
1	CA	1524	C	N3-C4-C5	5.05	123.92	121.90
35	DA	614(B)	G	N3-C4-C5	-5.05	126.08	128.60
35	DA	2027	G	C6-N1-C2	-5.05	122.07	125.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	495	A	O5'-P-OP1	-5.05	101.16	105.70
35	DA	690	G	O5'-P-OP2	-5.05	101.16	105.70
35	DA	1061	U	N1-C2-O2	5.05	126.33	122.80
35	DA	1757	U	N3-C4-O4	-5.05	115.87	119.40
35	DA	2509	G	N3-C4-C5	-5.05	126.08	128.60
35	DA	2779	U	C2-N3-C4	-5.05	123.97	127.00
1	AA	139	G	C8-N9-C1'	5.05	133.56	127.00
1	AA	299	G	C5-N7-C8	5.05	106.82	104.30
7	AG	31	MET	CG-SD-CE	5.05	108.28	100.20
23	AW	39	U	C2-N1-C1'	5.05	123.76	117.70
35	BA	602	G	C5-C6-N1	5.05	114.02	111.50
35	BA	664	C	N3-C2-O2	-5.05	118.37	121.90
35	BA	1113	U	C5-C6-N1	5.05	125.22	122.70
35	BA	1352	U	N1-C2-N3	5.05	117.93	114.90
35	BA	2014	A	N1-C6-N6	-5.05	115.57	118.60
35	BA	2032	G	N9-C4-C5	-5.05	103.38	105.40
35	BA	2102	U	N1-C2-O2	5.05	126.33	122.80
35	BA	2489	G	OP2-P-O3'	5.05	116.30	105.20
35	DA	1114	G	N3-C4-C5	5.05	131.12	128.60
35	DA	1667	G	N9-C4-C5	5.05	107.42	105.40
35	DA	2373	G	C6-N1-C2	-5.05	122.07	125.10
1	AA	1186	G	C6-C5-N7	-5.04	127.37	130.40
35	BA	2454	G	C5-C6-O6	5.04	131.63	128.60
35	DA	1088	A	C8-N9-C4	-5.04	103.78	105.80
1	AA	768	A	N1-C2-N3	5.04	131.82	129.30
1	AA	874	G	C5-C6-O6	5.04	131.63	128.60
1	AA	1138	G	C2-N3-C4	5.04	114.42	111.90
35	BA	82	G	C5-N7-C8	5.04	106.82	104.30
35	BA	444	C	OP1-P-OP2	-5.04	112.03	119.60
35	BA	1382	G	N3-C4-C5	5.04	131.12	128.60
35	BA	1655	A	C2-N3-C4	-5.04	108.08	110.60
35	BA	1698	A	P-O3'-C3'	5.04	125.75	119.70
35	BA	2713	A	C5-C6-N6	-5.04	119.67	123.70
1	CA	1471	G	N3-C4-N9	-5.04	122.97	126.00
1	CA	1491	G	C2-N3-C4	5.04	114.42	111.90
35	DA	58	G	N7-C8-N9	5.04	115.62	113.10
35	DA	147	U	N3-C2-O2	-5.04	118.67	122.20
35	DA	487	C	C5-C4-N4	-5.04	116.67	120.20
35	DA	600	G	N7-C8-N9	-5.04	110.58	113.10
35	DA	704	G	C8-N9-C4	5.04	108.42	106.40
35	DA	1216	G	C8-N9-C1'	-5.04	120.44	127.00
35	DA	2723	C	N1-C2-N3	5.04	122.73	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	2750	A	N1-C6-N6	-5.04	115.57	118.60
1	AA	189	G	N9-C4-C5	-5.04	103.38	105.40
1	AA	191	G	C4-N9-C1'	5.04	133.06	126.50
1	AA	1161	C	P-O3'-C3'	-5.04	113.65	119.70
13	AM	70	LEU	CA-CB-CG	5.04	126.90	115.30
35	BA	1390	U	N3-C2-O2	-5.04	118.67	122.20
35	BA	1683	C	N1-C2-O2	-5.04	115.88	118.90
35	BA	1951	U	N1-C2-N3	5.04	117.92	114.90
35	BA	1984	G	C8-N9-C4	-5.04	104.38	106.40
23	CW	54	U	N1-C2-O2	5.04	126.33	122.80
35	DA	272(D)	G	C8-N9-C4	5.04	108.42	106.40
35	DA	1156	A	N9-C4-C5	5.04	107.82	105.80
35	DA	1434	A	N1-C6-N6	-5.04	115.58	118.60
35	DA	1822	G	C8-N9-C4	5.04	108.42	106.40
1	AA	674	G	O5'-P-OP1	-5.04	101.16	105.70
35	BA	1389	G	C4-N9-C1'	5.04	133.05	126.50
35	DA	103	A	N1-C6-N6	5.04	121.62	118.60
35	DA	213	A	OP2-P-O3'	5.04	116.29	105.20
35	DA	2867	G	OP1-P-OP2	5.04	127.16	119.60
1	AA	116	A	OP2-P-O3'	5.04	116.28	105.20
35	BA	1509	C	C2-N1-C1'	5.04	124.34	118.80
35	DA	192	C	OP1-P-OP2	-5.04	112.04	119.60
35	DA	524	U	N3-C2-O2	-5.04	118.67	122.20
35	DA	909	A	C2-N3-C4	5.04	113.12	110.60
35	DA	1147	C	C5-C6-N1	-5.04	118.48	121.00
35	DA	1273	U	N3-C4-O4	-5.04	115.87	119.40
35	DA	1940	U	C2-N1-C1'	5.04	123.75	117.70
35	DA	2699	C	N3-C2-O2	5.04	125.43	121.90
35	DA	2821	A	N1-C2-N3	5.04	131.82	129.30
48	DP	65	ARG	NE-CZ-NH1	5.04	122.82	120.30
52	DT	6	LEU	CB-CG-CD1	5.04	119.56	111.00
35	BA	450	G	N9-C4-C5	5.04	107.42	105.40
35	BA	1763	G	O5'-P-OP2	-5.04	101.17	105.70
1	CA	1304	G	C8-N9-C1'	-5.04	120.45	127.00
23	CW	66	U	N3-C2-O2	-5.04	118.67	122.20
35	DA	1133	U	C2-N1-C1'	-5.04	111.66	117.70
35	DA	2603	G	O5'-P-OP1	-5.04	101.17	105.70
1	AA	572	A	C6-C5-N7	5.04	135.82	132.30
1	AA	715	A	C8-N9-C4	5.04	107.81	105.80
1	AA	1103	C	C6-N1-C2	-5.04	118.29	120.30
35	BA	1865	G	N9-C4-C5	5.04	107.41	105.40
35	BA	2246	G	C6-C5-N7	-5.04	127.38	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	2329	G	N9-C4-C5	-5.04	103.39	105.40
1	CA	1195	C	C6-N1-C2	-5.04	118.29	120.30
1	CA	1416	G	C8-N9-C4	5.04	108.41	106.40
35	DA	528	A	C6-N1-C2	5.04	121.62	118.60
35	DA	705	A	C2-N3-C4	-5.04	108.08	110.60
54	DV	81	TYR	CB-CG-CD1	-5.04	117.98	121.00
1	AA	720	C	N3-C4-C5	5.03	123.91	121.90
35	BA	1229	G	N9-C4-C5	-5.03	103.39	105.40
35	BA	1529	G	N9-C4-C5	5.03	107.41	105.40
35	BA	2525	G	C4-C5-N7	-5.03	108.79	110.80
1	CA	1266	G	C8-N9-C1'	5.03	133.54	127.00
1	CA	1529	G	N3-C4-N9	5.03	129.02	126.00
22	CV	67	C	C5-C6-N1	5.03	123.52	121.00
35	DA	779	U	OP1-P-O3'	5.03	116.27	105.20
35	DA	979	G	C5-N7-C8	-5.03	101.78	104.30
35	DA	1834	U	N3-C2-O2	-5.03	118.68	122.20
35	DA	2596	U	C2-N3-C4	-5.03	123.98	127.00
35	BA	1771	C	N1-C2-O2	-5.03	115.88	118.90
35	BA	2727	G	C5-C6-O6	-5.03	125.58	128.60
35	DA	30	G	C5-C6-O6	-5.03	125.58	128.60
35	DA	1572	A	O5'-P-OP2	-5.03	101.17	105.70
35	DA	2442	C	N3-C4-N4	-5.03	114.48	118.00
35	DA	2447	G	P-O3'-C3'	5.03	125.74	119.70
1	CA	240	C	C6-N1-C2	5.03	122.31	120.30
1	CA	385	C	N3-C4-N4	-5.03	114.48	118.00
1	CA	458	C	C6-N1-C2	-5.03	118.29	120.30
35	DA	1265	A	C6-N1-C2	-5.03	115.58	118.60
35	DA	1842	G	O5'-P-OP2	-5.03	101.17	105.70
35	DA	2688	U	C6-N1-C2	-5.03	117.98	121.00
1	AA	102	G	OP1-P-O3'	5.03	116.27	105.20
35	DA	1019	U	C4-C5-C6	5.03	122.72	119.70
35	DA	1984	G	O4'-C1'-N9	-5.03	104.18	108.20
1	AA	1060	C	N3-C2-O2	5.03	125.42	121.90
1	AA	1302	U	N1-C2-O2	5.03	126.32	122.80
35	BA	554	U	N3-C2-O2	-5.03	118.68	122.20
35	BA	1775	U	O5'-P-OP2	5.03	116.73	110.70
35	BA	1903	G	N1-C6-O6	-5.03	116.88	119.90
35	BA	2481	G	N1-C6-O6	5.03	122.92	119.90
35	DA	204	A	C4-C5-N7	-5.03	108.19	110.70
35	DA	607	U	N3-C2-O2	5.03	125.72	122.20
35	DA	635	C	C5-C4-N4	5.03	123.72	120.20
35	DA	970	C	N3-C4-N4	5.03	121.52	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	1689	A	C5-C6-N6	5.03	127.72	123.70
1	AA	107	G	C6-C5-N7	-5.03	127.38	130.40
1	AA	139	G	N3-C4-N9	-5.03	122.98	126.00
1	AA	561	U	C5-C4-O4	-5.03	122.89	125.90
35	BA	1204	A	N1-C6-N6	5.03	121.61	118.60
35	BA	1430	C	N1-C2-O2	5.03	121.92	118.90
1	CA	1158	C	N1-C2-O2	5.03	121.92	118.90
35	DA	250	G	N3-C4-N9	-5.03	122.98	126.00
35	DA	788	A	C6-C5-N7	-5.03	128.78	132.30
35	DA	1628	G	C8-N9-C4	5.03	108.41	106.40
35	DA	1633	G	C8-N9-C4	-5.03	104.39	106.40
35	DA	1826	G	N3-C4-C5	-5.03	126.09	128.60
23	AW	8	U	N1-C2-O2	5.02	126.32	122.80
35	BA	539	G	C4-N9-C1'	5.02	133.03	126.50
35	BA	2607	G	C8-N9-C1'	-5.02	120.47	127.00
52	DT	105	LEU	CA-CB-CG	5.02	126.85	115.30
1	AA	1126	U	C3'-C2'-C1'	-5.02	97.48	101.50
35	BA	142	A	C8-N9-C4	-5.02	103.79	105.80
35	BA	707	G	C6-C5-N7	-5.02	127.39	130.40
35	BA	2393	A	C6-C5-N7	-5.02	128.78	132.30
1	CA	1074	G	N3-C4-N9	5.02	129.01	126.00
35	DA	265	A	C4-C5-N7	5.02	113.21	110.70
35	DA	594	U	C5-C6-N1	-5.02	120.19	122.70
35	DA	896	A	C8-N9-C4	-5.02	103.79	105.80
35	DA	1332	G	C4-C5-N7	5.02	112.81	110.80
1	AA	745	C	C6-N1-C2	5.02	122.31	120.30
35	BA	1594	G	C2-N3-C4	5.02	114.41	111.90
1	CA	1517	G	C4-C5-N7	5.02	112.81	110.80
35	DA	680	G	C6-N1-C2	-5.02	122.09	125.10
35	DA	1379	A	C6-C5-N7	-5.02	128.78	132.30
35	DA	2042	A	O5'-P-OP1	5.02	116.72	110.70
22	AV	76	C	C5-C4-N4	-5.02	116.69	120.20
23	AY	38	A	C5-C6-N6	-5.02	119.68	123.70
35	BA	257	A	N1-C6-N6	5.02	121.61	118.60
35	BA	1618	A	C5-N7-C8	-5.02	101.39	103.90
55	BW	103	ILE	CG1-CB-CG2	-5.02	100.36	111.40
1	CA	817	C	C6-N1-C2	5.02	122.31	120.30
1	CA	901	A	N3-C4-C5	5.02	130.31	126.80
1	CA	905	U	OP1-P-OP2	-5.02	112.07	119.60
1	CA	1430	C	C6-N1-C2	5.02	122.31	120.30
35	DA	109	G	N1-C2-N2	-5.02	111.68	116.20
35	DA	620	G	C8-N9-C4	-5.02	104.39	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	957	A	C8-N9-C4	-5.02	103.79	105.80
35	DA	1099	G	C8-N9-C4	-5.02	104.39	106.40
35	DA	1331	A	N1-C2-N3	5.02	131.81	129.30
35	DA	1718	G	C4-N9-C1'	5.02	133.03	126.50
35	DA	2073	C	N1-C2-O2	-5.02	115.89	118.90
35	DA	2206	G	O4'-C1'-N9	-5.02	104.19	108.20
35	DA	2535	G	N1-C6-O6	-5.02	116.89	119.90
35	BA	70	G	OP1-P-O3'	5.02	116.24	105.20
35	BA	2419	U	C2-N3-C4	5.02	130.01	127.00
35	BA	2419	U	N1-C2-N3	5.02	117.91	114.90
1	CA	1115	C	N3-C4-C5	-5.02	119.89	121.90
35	DA	75	G	C5-N7-C8	-5.02	101.79	104.30
35	DA	803	U	C4-C5-C6	5.02	122.71	119.70
35	DA	1142(A)	A	C8-N9-C4	-5.02	103.79	105.80
1	AA	328	C	P-O3'-C3'	5.02	125.72	119.70
1	AA	696	A	N1-C6-N6	-5.02	115.59	118.60
35	BA	310	A	N1-C6-N6	-5.02	115.59	118.60
35	DA	143	G	N3-C4-C5	5.02	131.11	128.60
35	DA	822	U	N1-C2-O2	-5.02	119.29	122.80
35	DA	1332	G	O5'-P-OP1	5.02	116.72	110.70
35	DA	2816	C	C6-N1-C2	-5.02	118.29	120.30
23	AW	14	A	N9-C1'-C2'	-5.01	106.48	112.00
35	BA	271(W)	G	N1-C2-N3	5.01	126.91	123.90
35	BA	380	U	N3-C4-O4	5.01	122.91	119.40
35	BA	579	G	C5-C6-O6	-5.01	125.59	128.60
35	BA	1547	C	N1-C2-O2	5.01	121.91	118.90
35	BA	1660	C	N1-C2-O2	5.01	121.91	118.90
35	BA	2610	C	C4-C5-C6	5.01	119.91	117.40
1	CA	454	C	N1-C2-O2	5.01	121.91	118.90
1	CA	924	C	C5-C6-N1	5.01	123.51	121.00
35	DA	17	G	C5-C6-N1	5.01	114.01	111.50
35	DA	921	G	C4-N9-C1'	5.01	133.02	126.50
35	DA	1325	G	N1-C2-N2	-5.01	111.69	116.20
35	DA	1434	A	C8-N9-C4	5.01	107.81	105.80
35	DA	1543	C	C6-N1-C1'	5.01	126.82	120.80
35	DA	1554	A	N1-C6-N6	5.01	121.61	118.60
35	DA	2266	A	N1-C6-N6	5.01	121.61	118.60
35	DA	2609	U	C6-N1-C2	5.01	124.01	121.00
35	BA	132	G	N1-C6-O6	-5.01	116.89	119.90
35	BA	349	G	C6-C5-N7	-5.01	127.39	130.40
35	BA	754	C	N3-C4-N4	5.01	121.51	118.00
35	BA	2428	G	C8-N9-C4	-5.01	104.39	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	365	U	C2-N1-C1'	5.01	123.72	117.70
35	DA	2056	G	C5-C6-O6	-5.01	125.59	128.60
35	DA	2232	U	N3-C4-C5	-5.01	111.59	114.60
35	DA	2331	G	N7-C8-N9	-5.01	110.59	113.10
1	AA	189(A)	C	N1-C2-O2	-5.01	115.89	118.90
1	AA	509	A	C8-N9-C4	-5.01	103.80	105.80
1	AA	895	G	C6-N1-C2	-5.01	122.09	125.10
1	AA	1513	A	C5-C6-N6	-5.01	119.69	123.70
35	BA	1244	G	N3-C2-N2	-5.01	116.39	119.90
35	BA	1626	G	N3-C2-N2	-5.01	116.39	119.90
35	BA	2057	A	C4-C5-C6	-5.01	114.49	117.00
35	BA	2087	G	C4-N9-C1'	5.01	133.02	126.50
1	CA	814	A	C8-N9-C4	5.01	107.80	105.80
35	DA	62	C	C5-C6-N1	-5.01	118.49	121.00
35	DA	249	C	OP1-P-O3'	5.01	116.22	105.20
35	DA	1313	U	OP1-P-O3'	5.01	116.22	105.20
1	AA	547	A	C8-N9-C4	5.01	107.80	105.80
26	B1	13	ILE	CG1-CB-CG2	5.01	122.42	111.40
35	BA	2281	C	C5-C4-N4	-5.01	116.69	120.20
35	BA	2445	G	C4-C5-C6	5.01	121.81	118.80
35	BA	2701	C	N3-C2-O2	-5.01	118.39	121.90
23	CW	37	A	C4-N9-C1'	5.01	135.32	126.30
35	DA	467	G	C2-N3-C4	5.01	114.41	111.90
35	DA	1266	G	N9-C4-C5	-5.01	103.40	105.40
35	DA	1615	C	N1-C2-N3	-5.01	115.69	119.20
35	DA	2490	G	C5-C6-N1	-5.01	109.00	111.50
35	BA	1424	G	N1-C6-O6	5.01	122.91	119.90
35	BA	1698	A	C8-N9-C4	-5.01	103.80	105.80
35	BA	2003	G	OP2-P-O3'	5.01	116.22	105.20
35	BA	2710	C	C5-C4-N4	5.01	123.71	120.20
36	BB	66	A	C8-N9-C4	-5.01	103.80	105.80
35	DA	465	G	C5-N7-C8	5.01	106.80	104.30
35	DA	845	G	C4-N9-C1'	-5.01	119.99	126.50
35	DA	1986	A	C4-C5-N7	-5.01	108.20	110.70
1	AA	704	A	C4-N9-C1'	5.01	135.31	126.30
35	BA	271(H)	G	N3-C4-N9	5.01	129.00	126.00
35	BA	391	G	N9-C4-C5	-5.01	103.40	105.40
35	BA	618	C	N3-C2-O2	5.01	125.40	121.90
35	BA	1222	C	C6-N1-C2	5.01	122.30	120.30
35	BA	1343	G	C5-C6-N1	5.01	114.00	111.50
35	BA	2351	G	N3-C4-C5	-5.01	126.10	128.60
1	CA	573	A	OP1-P-OP2	-5.01	112.09	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	203	C	C2-N1-C1'	-5.01	113.29	118.80
35	DA	1253	A	O4'-C1'-N9	-5.01	104.19	108.20
35	DA	2587	A	C6-N1-C2	-5.01	115.60	118.60
35	DA	2673	G	N3-C2-N2	-5.01	116.40	119.90
22	AV	27	G	C4-C5-N7	5.00	112.80	110.80
35	BA	1638	C	C4-C5-C6	5.00	119.90	117.40
35	BA	2161	C	C5-C6-N1	5.00	123.50	121.00
1	CA	364	A	C2-N3-C4	-5.00	108.10	110.60
1	AA	1320	C	OP2-P-O3'	5.00	116.21	105.20
35	BA	334	C	C2-N1-C1'	-5.00	113.30	118.80
35	BA	391	G	C4-C5-N7	5.00	112.80	110.80
35	BA	975	C	C1'-O4'-C4'	-5.00	105.90	109.90
1	CA	1053	G	C8-N9-C4	5.00	108.40	106.40
1	CA	1134	G	C8-N9-C1'	-5.00	120.50	127.00
1	CA	1528	U	C2-N3-C4	-5.00	124.00	127.00
35	DA	633	A	C8-N9-C4	-5.00	103.80	105.80
35	DA	1527	G	P-O3'-C3'	5.00	125.70	119.70
35	DA	1794	U	N3-C4-C5	5.00	117.60	114.60
35	DA	2206	G	C4-N9-C1'	5.00	133.00	126.50
35	DA	2292	C	N3-C2-O2	-5.00	118.40	121.90
35	DA	2450	A	O5'-P-OP2	-5.00	101.20	105.70
35	DA	2712(A)	A	N3-C4-N9	5.00	131.40	127.40
35	DA	2886	G	O5'-P-OP1	-5.00	101.20	105.70
1	AA	402	G	O5'-P-OP2	-5.00	101.20	105.70
1	AA	476	G	C2-N3-C4	5.00	114.40	111.90
1	AA	926	G	C8-N9-C4	-5.00	104.40	106.40
1	AA	980	C	O4'-C1'-N1	5.00	112.20	108.20
35	BA	1427	A	N1-C6-N6	-5.00	115.60	118.60
35	BA	1937	A	C5-N7-C8	5.00	106.40	103.90
35	BA	2703	C	C4-C5-C6	5.00	119.90	117.40
35	BA	2768	C	O5'-P-OP2	-5.00	101.20	105.70
1	CA	40	C	O5'-P-OP2	-5.00	101.20	105.70
35	DA	242	G	O4'-C1'-N9	5.00	112.20	108.20
35	DA	807	U	C2-N1-C1'	5.00	123.70	117.70
35	DA	2199	A	N1-C6-N6	-5.00	115.60	118.60
35	DA	2724	C	O5'-P-OP2	-5.00	101.20	105.70

There are no chirality outliers.

All (209) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	AB	109	SER	Peptide

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Mol	Chain	Res	Type	Group
3	AC	161	GLU	Peptide
4	AD	31	CYS	Peptide
4	AD	32	ALA	Peptide
8	AH	23	SER	Peptide
8	AH	7	ALA	Peptide
10	AJ	3	LYS	Peptide
10	AJ	55	LYS	Peptide
10	AJ	58	ASP	Peptide
12	AL	118	SER	Peptide
12	AL	61	THR	Peptide
12	AL	75	HIS	Peptide
16	AP	13	HIS	Peptide
16	AP	3	LYS	Peptide
17	AQ	12	SER	Peptide
18	AR	29	PHE	Peptide
20	AT	11	SER	Peptide
26	B1	28	GLY	Peptide
26	B1	55	GLY	Peptide
26	B1	85	LEU	Peptide
26	B1	86	SER	Peptide
26	B1	87	PRO	Peptide
27	B2	13	ALA	Peptide
27	B2	41	ILE	Peptide
27	B2	45	SER	Peptide
30	B5	35	GLU	Peptide
30	B5	4	HIS	Peptide
31	B6	22	ALA	Peptide
31	B6	25	LYS	Peptide
31	B6	34	LEU	Peptide
31	B6	45	LYS	Peptide
32	B7	36	GLN	Peptide
32	B7	4	THR	Peptide
32	B7	46	VAL	Peptide
32	B7	6	GLN	Peptide
33	B8	27	THR	Peptide
33	B8	5	LYS	Peptide
38	BD	233	HIS	Peptide
38	BD	237	GLU	Peptide
38	BD	272	ALA	Peptide
38	BD	50	THR	Peptide
39	BE	117	MET	Peptide
39	BE	128	SER	Peptide

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Mol	Chain	Res	Type	Group
39	BE	199	ARG	Peptide
40	BF	68	LYS	Peptide
40	BF	85	GLY	Peptide
41	BG	126	ASP	Peptide
41	BG	53	LEU	Peptide
41	BG	80	PHE	Peptide
41	BG	81	LYS	Peptide
42	BH	157	TYR	Peptide
43	BI	131	LYS	Peptide
43	BI	143	SER	Peptide
46	BN	10	GLU	Peptide
46	BN	3	THR	Peptide
46	BN	77	GLY	Peptide
47	BO	111	PHE	Peptide
47	BO	115	VAL	Peptide
47	BO	80	ASP	Peptide
48	BP	108	LYS	Peptide
48	BP	11	GLY	Peptide
48	BP	31	ALA	Peptide
48	BP	36	LYS	Peptide
48	BP	38	GLN	Peptide
48	BP	40	SER	Peptide
48	BP	59	LEU	Peptide
48	BP	60	MET	Peptide
48	BP	61	ARG	Peptide
48	BP	71	VAL	Peptide
49	BQ	10	ARG	Peptide
49	BQ	137	TYR	Peptide
49	BQ	21	THR	Peptide
49	BQ	22	LYS	Peptide
49	BQ	25	ASP	Peptide
49	BQ	98	LYS	Peptide
50	BR	10	LEU	Peptide
50	BR	106	GLY	Peptide
50	BR	27	SER	Peptide
51	BS	15	ARG	Peptide
51	BS	64	GLU	Peptide
51	BS	65	VAL	Peptide
52	BT	23	ARG	Peptide
52	BT	28	VAL	Peptide
52	BT	29	ARG	Peptide
52	BT	69	GLY	Peptide

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Mol	Chain	Res	Type	Group
53	BU	28	ARG	Peptide
53	BU	95	LEU	Peptide
53	BU	96	ALA	Peptide
54	BV	47	VAL	Peptide
54	BV	52	VAL	Peptide
54	BV	74	LYS	Peptide
54	BV	80	GLN	Peptide
54	BV	87	HIS	Peptide
55	BW	44	ALA	Peptide
55	BW	51	LEU	Peptide
56	BX	12	VAL	Peptide
56	BX	52	VAL	Peptide
56	BX	73	ARG	Peptide
56	BX	77	LYS	Peptide
57	BY	49	VAL	Peptide
57	BY	63	LYS	Peptide
2	CB	109	SER	Peptide
3	CC	166	GLU	Peptide
4	CD	19	LEU	Peptide
4	CD	87	GLY	Peptide
7	CG	80	VAL	Peptide
9	CI	34	ASN	Peptide
10	CJ	54	PHE	Peptide
10	CJ	72	VAL	Peptide
12	CL	118	SER	Peptide
12	CL	27	LEU	Peptide
12	CL	41	ARG	Peptide
12	CL	53	ARG	Peptide
14	CN	15	LYS	Peptide
14	CN	2	ALA	Peptide
16	CP	74	LEU	Peptide
17	CQ	35	VAL	Peptide
17	CQ	97	SER	Peptide
18	CR	41	LYS	Peptide
19	CS	9	VAL	Peptide
20	CT	11	SER	Peptide
20	CT	73	HIS	Peptide
26	D1	15	ALA	Peptide
26	D1	25	LYS	Peptide
26	D1	30	VAL	Peptide
26	D1	54	ALA	Peptide
27	D2	11	GLU	Peptide

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Mol	Chain	Res	Type	Group
27	D2	36	ARG	Peptide
27	D2	44	LEU	Peptide
27	D2	46	GLN	Peptide
27	D2	53	LEU	Peptide
29	D4	23	GLU	Peptide
29	D4	6	HIS	Peptide
31	D6	15	GLU	Peptide
31	D6	20	ASN	Peptide
31	D6	27	LYS	Peptide
31	D6	44	ARG	Peptide
32	D7	3	ARG	Peptide
33	D8	30	ARG	Peptide
37	DC	82	LYS	Peptide
38	DD	197	GLY	Peptide
38	DD	30	GLU	Peptide
38	DD	34	VAL	Peptide
38	DD	46	GLN	Peptide
38	DD	47	GLY	Peptide
38	DD	48	ARG	Peptide
39	DE	133	LYS	Peptide
39	DE	55	ASN	Peptide
39	DE	63	LEU	Peptide
39	DE	72	VAL	Peptide
40	DF	85	GLY	Peptide
41	DG	87	PRO	Peptide
42	DH	20	ALA	Peptide
42	DH	6	ARG	Peptide
43	DI	131	LYS	Peptide
43	DI	134	PRO	Peptide
43	DI	142	VAL	Peptide
46	DN	136	GLU	Peptide
46	DN	4	TYR	Peptide
46	DN	45	ASN	Peptide
46	DN	47	ALA	Peptide
46	DN	78	TYR	Peptide
47	DO	119	PRO	Peptide
48	DP	109	GLY	Peptide
48	DP	127	ALA	Peptide
48	DP	138	LEU	Peptide
48	DP	37	GLY	Peptide
48	DP	39	LYS	Peptide
48	DP	41	ARG	Peptide

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Mol	Chain	Res	Type	Group
48	DP	52	GLU	Peptide
48	DP	54	GLY	Peptide
48	DP	58	THR	Peptide
48	DP	59	LEU	Peptide
48	DP	60	MET	Peptide
48	DP	70	GLN	Peptide
49	DQ	137	TYR	Peptide
49	DQ	22	LYS	Peptide
49	DQ	86	GLY	Peptide
49	DQ	88	GLY	Peptide
49	DQ	9	TYR	Peptide
50	DR	8	ARG	Peptide
51	DS	10	ARG	Peptide
51	DS	106	ARG	Peptide
51	DS	14	VAL	Peptide
51	DS	16	ASN	Peptide
51	DS	21	THR	Peptide
52	DT	107	ASP	Peptide
52	DT	12	SER	Peptide
52	DT	43	GLN	Peptide
52	DT	5	ALA	Peptide
52	DT	90	GLN	Peptide
52	DT	93	ARG	Peptide
53	DU	91	ASP	Peptide
53	DU	96	ALA	Peptide
53	DU	97	ASP	Peptide
54	DV	22	VAL	Peptide
54	DV	28	GLU	Peptide
54	DV	31	ALA	Peptide
54	DV	69	LYS	Peptide
54	DV	86	GLY	Peptide
56	DX	24	GLY	Peptide
56	DX	38	GLU	Peptide
56	DX	61	GLY	Peptide
56	DX	64	LYS	Peptide
56	DX	73	ARG	Peptide
57	DY	31	LEU	Peptide
57	DY	56	PRO	Peptide
57	DY	6	HIS	Peptide
58	DZ	75	ASN	Peptide

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	32329	0	16318	1281	0
1	CA	32332	0	16317	1094	0
2	AB	1784	0	1833	164	0
2	CB	1900	0	1951	148	0
3	AC	1612	0	1677	106	0
3	CC	1620	0	1689	122	0
4	AD	1703	0	1763	150	0
4	CD	1703	0	1763	120	0
5	AE	1146	0	1207	77	0
5	CE	1155	0	1213	84	0
6	AF	843	0	857	45	0
6	CF	843	0	857	43	0
7	AG	1257	0	1296	98	0
7	CG	1257	0	1296	76	0
8	AH	1116	0	1177	114	0
8	CH	1116	0	1177	70	0
9	AI	947	0	979	93	0
9	CI	1010	0	1037	86	0
10	AJ	794	0	840	88	0
10	CJ	794	0	840	73	0
11	AK	885	0	904	46	0
11	CK	885	0	904	50	0
12	AL	956	0	1046	89	0
12	CL	970	0	1057	59	0
13	AM	922	0	979	95	0
13	CM	946	0	1008	81	0
14	AN	491	0	529	71	0
14	CN	492	0	530	57	0
15	AO	734	0	771	59	0
15	CO	734	0	771	42	0
16	AP	700	0	720	40	0
16	CP	700	0	720	53	0
17	AQ	823	0	891	53	0
17	CQ	823	0	889	66	0
18	AR	574	0	642	37	0
18	CR	574	0	644	56	0
19	AS	629	0	652	79	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
19	CS	629	0	652	62	0
20	AT	763	0	861	52	0
20	CT	763	0	861	63	0
21	AU	208	0	221	14	0
21	CU	217	0	234	19	0
22	AV	1622	0	825	36	0
22	CV	1643	0	836	49	0
23	AW	1623	0	820	46	0
23	AY	410	0	207	18	0
23	CW	1623	0	821	65	0
23	CY	453	0	229	10	0
24	AX	255	0	129	6	0
24	CX	255	0	129	10	0
25	B0	607	0	628	51	0
25	D0	645	0	673	44	0
26	B1	692	0	764	108	0
26	D1	692	0	764	100	0
27	B2	420	0	461	70	0
27	D2	446	0	486	88	0
28	B3	459	0	512	25	0
28	D3	476	0	529	31	0
29	B4	222	0	91	4	0
29	D4	241	0	103	7	0
30	B5	418	0	432	43	0
30	D5	467	0	492	48	0
31	B6	398	0	417	60	0
31	D6	408	0	426	53	0
32	B7	418	0	467	38	0
32	D7	418	0	467	30	0
33	B8	507	0	576	93	0
33	D8	495	0	567	93	0
34	B9	307	0	336	31	0
34	D9	307	0	335	17	0
35	BA	60821	0	30654	2020	0
35	DA	60821	0	30655	1774	0
36	BB	2576	0	1305	111	0
36	DB	2551	0	1295	90	0
37	BC	1141	0	865	41	0
37	DC	1141	0	865	57	0
38	BD	2126	0	2208	194	0
38	DD	2144	0	2234	185	0
39	BE	1563	0	1629	144	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
39	DE	1563	0	1629	133	0
40	BF	1615	0	1665	165	0
40	DF	1627	0	1679	125	0
41	BG	1449	0	1503	110	0
41	DG	1474	0	1535	115	0
42	BH	1222	0	1282	88	0
42	DH	1270	0	1339	95	0
43	BI	1131	0	1218	97	0
43	DI	1124	0	1209	72	0
44	BJ	651	0	171	9	0
44	DJ	651	0	163	4	0
45	BK	700	0	166	0	0
45	DK	700	0	179	5	0
46	BN	1096	0	1168	101	0
46	DN	1120	0	1195	111	0
47	BO	933	0	996	72	0
47	DO	933	0	996	57	0
48	BP	1099	0	1176	221	0
48	DP	1114	0	1187	201	0
49	BQ	1074	0	1129	114	0
49	DQ	1083	0	1135	110	0
50	BR	949	0	1008	113	0
50	DR	960	0	1021	90	0
51	BS	813	0	873	115	0
51	DS	781	0	845	87	0
52	BT	1100	0	1164	127	0
52	DT	1141	0	1202	125	0
53	BU	964	0	1022	113	0
53	DU	964	0	1022	108	0
54	BV	779	0	852	122	0
54	DV	779	0	852	108	0
55	BW	886	0	948	89	0
55	DW	886	0	948	53	0
56	BX	704	0	758	103	0
56	DX	742	0	801	126	0
57	BY	775	0	870	91	0
57	DY	835	0	920	127	0
58	BZ	1403	0	1432	118	0
58	DZ	1403	0	1432	91	0
59	AA	209	0	0	0	0
59	AC	1	0	0	0	0
59	AD	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	AE	1	0	0	0	0
59	AL	1	0	0	0	0
59	AT	1	0	0	0	0
59	AV	7	0	0	0	0
59	AW	20	0	0	0	0
59	AX	3	0	0	0	0
59	B0	1	0	0	0	0
59	B1	2	0	0	0	0
59	B2	1	0	0	0	0
59	B5	1	0	0	0	0
59	B7	1	0	0	0	0
59	B8	2	0	0	0	0
59	BA	457	0	0	0	0
59	BB	17	0	0	0	0
59	BC	2	0	0	0	0
59	BE	2	0	0	0	0
59	BF	3	0	0	0	0
59	BQ	1	0	0	0	0
59	BS	1	0	0	0	0
59	BU	5	0	0	0	0
59	BV	1	0	0	0	0
59	BX	2	0	0	0	0
59	CA	195	0	0	0	0
59	CE	1	0	0	0	0
59	CF	1	0	0	0	0
59	CG	1	0	0	0	0
59	CI	1	0	0	0	0
59	CU	1	0	0	0	0
59	CV	4	0	0	0	0
59	CW	13	0	0	0	0
59	CX	2	0	0	0	0
59	D2	2	0	0	0	0
59	D5	1	0	0	0	0
59	DA	392	0	0	0	0
59	DB	12	0	0	0	0
59	DE	1	0	0	0	0
59	DF	2	0	0	0	0
59	DN	1	0	0	0	0
59	DO	2	0	0	0	0
59	DV	1	0	0	0	0
60	AA	41	0	0	2	0
60	CA	41	0	0	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
61	AD	1	0	0	0	0
61	AN	1	0	0	0	0
61	B9	1	0	0	0	0
61	CD	1	0	0	0	0
61	CN	1	0	0	0	0
61	D9	1	0	0	0	0
62	AA	2	0	0	1	0
All	All	296449	0	198495	13485	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 28.

All (13485) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:142:LEU:CD2	2:AB:142:LEU:CG	1.77	1.58
4:AD:122:ARG:HH12	4:AD:136:PRO:CD	1.22	1.50
4:AD:122:ARG:NH1	4:AD:136:PRO:HD3	1.27	1.48
8:AH:104:ARG:CD	8:AH:104:ARG:CG	1.95	1.43
58:DZ:61:LEU:HD12	58:DZ:62:PRO:CD	1.52	1.35
56:DX:65:ARG:O	56:DX:65:ARG:NH1	1.57	1.34
58:DZ:61:LEU:CD1	58:DZ:62:PRO:CD	2.08	1.32
11:AK:92:GLU:OE2	18:AR:88:LYS:NZ	1.59	1.30
54:DV:66:ARG:NE	54:DV:68:LYS:H	1.28	1.28
54:DV:66:ARG:HE	54:DV:68:LYS:N	1.32	1.27
58:DZ:61:LEU:CD1	58:DZ:62:PRO:HD2	1.65	1.26
9:AI:53:VAL:HG22	9:AI:95:LYS:HE3	1.24	1.17
26:B1:25:LYS:C	26:B1:27:GLU:OE2	1.82	1.17
5:AE:69:VAL:O	5:AE:71:LEU:HD12	1.44	1.16
30:D5:3:LYS:O	30:D5:3:LYS:NZ	1.78	1.15
48:BP:71:VAL:HG13	48:BP:72:PRO:HD3	1.30	1.14
48:BP:62:LEU:O	48:BP:62:LEU:HD12	1.47	1.13
35:DA:2250:G:C5	49:DQ:82:ARG:HD3	1.83	1.13
35:BA:943:U:OP2	48:BP:38:GLN:HB3	1.48	1.13
25:D0:68:GLU:HG3	25:D0:82:ARG:NH1	1.64	1.13
30:D5:3:LYS:HE2	30:D5:5:PRO:CD	1.78	1.12
46:BN:66:LYS:HE3	46:BN:87:LEU:HB3	1.29	1.11
53:BU:50:ARG:O	53:BU:54:LYS:HE3	1.49	1.11
46:BN:30:ILE:O	46:BN:34:LEU:HD13	1.48	1.11
58:DZ:61:LEU:CD1	58:DZ:62:PRO:HD3	1.77	1.10
4:AD:9:CYS:HB3	4:AD:32:ALA:HB2	1.33	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:426:G:P	4:AD:36:ARG:HH21	1.74	1.09
35:BA:2772:C:OP1	39:BE:202:LYS:NZ	1.86	1.09
49:BQ:18:LYS:O	49:BQ:18:LYS:HD2	1.50	1.08
31:B6:15:GLU:OE2	31:B6:18:ARG:NH1	1.86	1.08
33:B8:25:MET:HB2	48:BP:62:LEU:HD11	1.29	1.08
43:DI:77:LEU:HB2	43:DI:140:LEU:HD21	1.35	1.07
35:BA:2378:A:O2'	51:BS:20:ARG:NH1	1.86	1.07
46:DN:40:PRO:O	53:DU:64:ARG:HD2	1.54	1.07
33:D8:27:THR:HG23	35:DA:2361:A:H5''	1.36	1.06
51:BS:62:LYS:HA	51:BS:65:VAL:HA	1.37	1.06
58:DZ:61:LEU:HD13	58:DZ:62:PRO:HD3	1.32	1.06
49:DQ:10:ARG:CZ	49:DQ:11:LYS:H	1.68	1.06
57:BY:27:VAL:HG13	57:BY:28:LYS:H	1.18	1.05
26:B1:26:ARG:N	26:B1:27:GLU:OE2	1.90	1.05
35:BA:139:G:H2'	35:BA:139(A):G:H5''	1.35	1.05
12:AL:47:LYS:HB3	12:AL:48:PRO:HD3	1.39	1.04
48:DP:126:VAL:HA	48:DP:145:PRO:HG3	1.35	1.04
35:BA:2404:C:O3'	48:BP:77:ARG:NH2	1.91	1.04
30:D5:3:LYS:HE2	30:D5:5:PRO:HD3	1.37	1.04
55:BW:25:ARG:NH1	55:BW:74:ALA:O	1.90	1.03
35:BA:1773:A:N1	38:BD:14:ARG:NH1	2.05	1.03
27:D2:55:ARG:O	27:D2:55:ARG:NH1	1.89	1.03
1:AA:162:A:H61	1:AA:334:C:P	1.81	1.02
9:AI:53:VAL:HG13	9:AI:95:LYS:HD3	1.42	1.02
41:DG:76:SER:HB3	41:DG:84:LYS:H	1.23	1.02
33:B8:25:MET:HG3	48:BP:64:LYS:HG2	1.42	1.01
1:AA:583:A:O2'	17:AQ:91:ARG:NH2	1.94	1.01
13:CM:23:TYR:HD2	13:CM:67:GLU:HA	1.25	1.01
33:D8:13:ARG:HD3	48:DP:61:ARG:HB3	1.43	1.00
54:BV:40:LEU:HD12	54:BV:41:GLY:H	1.25	1.00
48:BP:23:PRO:HA	48:BP:30:THR:OG1	1.60	1.00
3:CC:70:VAL:HG12	3:CC:72:LYS:H	1.26	1.00
58:BZ:144:LEU:HD12	58:BZ:149:SER:HA	1.41	0.99
31:D6:37:ARG:NH1	35:DA:2286:A:C8	2.30	0.99
35:BA:581:C:P	53:BU:33:ARG:HE	1.85	0.99
35:BA:186:G:H1	35:BA:210:C:H5	1.01	0.99
39:DE:119:ARG:HD3	39:DE:160:TYR:HB2	1.42	0.99
38:BD:44:ASN:HB3	38:BD:49:ILE:HA	1.45	0.98
56:BX:44:GLU:OE2	56:BX:50:LYS:C	2.01	0.98
36:BB:65:C:N4	36:BB:109:C:H2'	1.78	0.98
26:B1:26:ARG:C	26:B1:27:GLU:OE2	2.00	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2107:C:H42	35:BA:2182:G:H1	1.07	0.98
1:AA:952:U:C4	13:AM:104:ARG:NH2	2.30	0.98
1:AA:1345:U:N3	1:AA:1377:A:N1	2.11	0.97
35:BA:1446:C:H42	35:BA:1465:G:H1	1.05	0.97
54:DV:80:GLN:HG3	54:DV:81:TYR:CZ	1.99	0.97
19:AS:69:HIS:HB2	19:AS:73:GLU:HG3	1.45	0.97
39:DE:110:GLY:O	50:DR:2:ARG:NE	1.97	0.97
35:DA:1568:G:H5''	38:DD:61:LEU:HD13	1.42	0.97
46:BN:42:TRP:O	53:BU:64:ARG:NH2	1.96	0.97
36:BB:6:C:H42	36:BB:115:G:H1	1.03	0.97
57:DY:7:VAL:HG12	57:DY:8:LYS:HE3	1.46	0.97
3:AC:40:ARG:HE	3:AC:55:VAL:HG23	1.29	0.97
35:BA:996:A:OP2	53:BU:92:ARG:NH2	1.98	0.97
51:BS:97:ARG:O	51:BS:97:ARG:NH1	1.97	0.97
35:DA:1485:G:N3	35:DA:1505:C:N4	2.12	0.96
35:BA:1494:A:H1'	35:BA:1495:A:H5'	1.47	0.96
56:DX:77:LYS:HD3	56:DX:78:LYS:N	1.78	0.96
1:AA:1139:G:O2'	1:AA:1141:C:OP2	1.83	0.96
26:D1:60:PHE:HE2	26:D1:91:LYS:HE3	1.29	0.96
11:CK:22:HIS:HB3	11:CK:29:ILE:HG23	1.46	0.96
12:AL:27:LEU:HD13	12:AL:62:SER:CB	1.95	0.96
1:AA:1192:C:OP2	3:AC:4:LYS:NZ	1.98	0.96
8:AH:104:ARG:CD	8:AH:107:LEU:HB2	1.94	0.96
8:AH:104:ARG:HD2	8:AH:107:LEU:HB2	1.47	0.96
39:BE:36:ARG:HH22	39:BE:88:GLY:HA3	1.29	0.96
4:AD:122:ARG:HH22	4:AD:135:LEU:HA	1.27	0.95
54:BV:69:LYS:HG2	54:BV:70:ILE:H	1.27	0.95
35:DA:1899:G:N2	35:DA:1902:C:H41	1.64	0.95
27:B2:27:GLU:H	27:B2:29:LYS:HG2	1.31	0.95
49:BQ:5:ARG:HD3	49:BQ:71:ASP:HA	1.46	0.95
46:DN:4:TYR:HB2	53:DU:64:ARG:NH1	1.81	0.95
33:B8:13:ARG:HH21	48:BP:62:LEU:N	1.65	0.95
32:D7:9:ARG:NH1	35:DA:1310:G:OP2	1.99	0.95
12:AL:27:LEU:HD13	12:AL:62:SER:HB3	1.48	0.95
27:B2:51:ARG:CZ	27:B2:55:ARG:HD2	1.97	0.95
1:AA:1001(A):G:O6	1:AA:1004:A:N6	2.00	0.95
35:DA:1056:G:O2'	35:DA:1086:A:N6	2.00	0.95
35:BA:614(B):G:C8	40:BF:44:ARG:NH2	2.35	0.95
43:DI:80:PRO:HA	43:DI:143:SER:HA	1.47	0.94
35:BA:1048:A:OP1	35:BA:1110:G:N2	2.00	0.94
49:BQ:18:LYS:O	49:BQ:18:LYS:CD	2.15	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BT:29:ARG:HG3	52:BT:30:VAL:HG13	1.48	0.94
1:AA:976:G:N2	1:AA:1363:C:OP2	1.99	0.94
35:BA:2632:A:N3	39:BE:61:ARG:NH2	2.15	0.94
13:AM:104:ARG:HH11	13:AM:104:ARG:HB3	1.27	0.94
35:BA:245:G:H1	35:BA:253:C:H5	1.11	0.94
36:BB:65:C:H42	36:BB:109:C:H2'	1.33	0.94
35:DA:1332:G:N2	35:DA:1609:A:O2'	2.01	0.94
35:DA:1385:G:HO2'	35:DA:1396:U:H6	0.94	0.94
1:AA:664:G:H22	1:AA:741:G:H1	1.07	0.93
5:AE:81:GLU:HG2	5:AE:90:VAL:HG13	1.49	0.93
50:BR:72:ASP:OD1	50:BR:75:LEU:N	1.99	0.93
39:DE:59:VAL:HG21	39:DE:63:LEU:HG	1.50	0.93
39:BE:38:THR:HB	39:BE:41:LYS:HB3	1.51	0.93
38:DD:142:VAL:HG23	38:DD:193:VAL:HA	1.50	0.93
35:BA:1985:G:H2'	35:BA:1986:A:H5''	1.47	0.93
55:BW:29:LEU:HD21	55:BW:33:ARG:HH21	1.34	0.93
16:CP:8:ARG:HB2	16:CP:28:ARG:HH22	1.31	0.93
1:CA:664:G:H22	1:CA:741:G:H1	1.16	0.93
35:BA:1154:G:OP2	53:BU:58:ARG:NH1	2.01	0.93
51:BS:20:ARG:HE	51:BS:21:THR:H	0.96	0.93
1:CA:64:G:O6	1:CA:100:C:N4	2.02	0.93
35:DA:2656:U:H3	35:DA:2665:A:H2	1.11	0.93
35:DA:1092:C:H1'	35:DA:1101:U:H5	1.34	0.93
54:DV:1:MET:HG3	54:DV:44:LYS:HB2	1.47	0.93
1:AA:426:G:P	4:AD:36:ARG:NH2	2.42	0.93
1:AA:656:C:H2'	15:AO:28:GLN:NE2	1.84	0.93
26:D1:41:ARG:HH22	35:DA:205:G:H1	1.17	0.93
35:DA:2680:C:H5'	39:DE:189:PRO:HA	1.49	0.93
1:AA:1115:C:N4	1:AA:1186:G:N3	2.17	0.92
33:B8:25:MET:HB2	48:BP:62:LEU:CD1	2.00	0.92
53:BU:10:ARG:H	53:BU:13:LYS:HG2	1.33	0.92
35:DA:774:A:H2	35:DA:787:U:HO2'	1.08	0.92
5:AE:152:ARG:HH22	8:AH:104:ARG:HH21	1.04	0.92
54:BV:69:LYS:NZ	54:BV:71:LEU:HG	1.83	0.92
54:BV:69:LYS:HZ2	54:BV:71:LEU:HG	1.34	0.92
35:DA:1494:A:H2'	35:DA:1495:A:H5''	1.51	0.92
4:AD:122:ARG:CZ	4:AD:136:PRO:HD3	1.99	0.92
35:BA:1223:G:H5'	35:BA:1224:C:OP2	1.70	0.92
1:AA:692:U:HO2'	1:AA:694:A:H2	0.99	0.92
35:BA:34:C:H4'	35:BA:35:G:OP2	1.67	0.92
35:BA:2444:G:OP2	40:BF:68:LYS:HE2	1.69	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DP:7:ARG:O	48:DP:10:PRO:HD3	1.70	0.92
56:DX:70:LEU:O	56:DX:72:LYS:N	2.01	0.92
30:B5:9:LYS:NZ	35:BA:2019:A:N7	2.17	0.92
35:BA:602:G:O2'	35:BA:604:G:O2'	1.87	0.92
1:AA:1166:G:H21	1:AA:1171:G:H22	1.13	0.91
35:BA:2701:C:H3'	35:BA:2702:U:H5''	1.49	0.91
25:D0:68:GLU:HG3	25:D0:82:ARG:HH11	1.21	0.91
35:BA:1639:U:H4'	35:BA:2699:C:H1'	1.52	0.91
1:CA:445:G:H1	1:CA:489:C:H42	1.12	0.91
50:DR:4:LEU:O	50:DR:6:SER:N	2.02	0.91
31:B6:15:GLU:HB3	31:B6:18:ARG:HB2	1.53	0.91
42:BH:167:GLU:HB2	42:BH:168:PRO:HD2	1.51	0.91
9:AI:53:VAL:CG2	9:AI:95:LYS:HE3	2.01	0.91
26:B1:25:LYS:O	26:B1:27:GLU:OE2	1.87	0.91
4:AD:122:ARG:HH22	4:AD:135:LEU:CA	1.80	0.91
35:DA:2867:G:OP2	52:DT:119:LYS:NZ	2.03	0.91
54:DV:62:LEU:HD13	54:DV:96:ILE:HD13	1.49	0.91
31:B6:18:ARG:NH1	31:B6:43:CYS:O	2.03	0.91
41:BG:161:THR:HG22	41:BG:163:ALA:H	1.33	0.91
51:BS:20:ARG:HE	51:BS:21:THR:N	1.68	0.91
53:BU:49:HIS:HA	53:BU:52:ARG:HB2	1.52	0.91
23:CW:17:C:H42	35:DA:2180:U:H4'	1.36	0.91
1:AA:1178:G:N7	9:AI:97:LYS:NZ	2.18	0.91
35:DA:1689:A:H62	35:DA:1698:A:H2	1.11	0.91
35:BA:2012:G:H4'	55:BW:96:ILE:HD11	1.51	0.91
1:AA:998:G:N2	1:AA:1043:C:N3	2.19	0.90
30:D5:34:PRO:CD	30:D5:35:GLU:OE2	2.19	0.90
53:BU:8:VAL:HG12	53:BU:12:ARG:HD2	1.52	0.90
21:AU:2:GLY:O	21:AU:4:GLY:N	2.03	0.90
35:BA:2123:G:N2	37:BC:42:GLU:OE2	2.02	0.90
35:BA:2327:A:H2'	35:BA:2328:A:C8	2.06	0.90
41:BG:61:ALA:HB2	41:BG:68:PRO:HD3	1.53	0.90
56:BX:44:GLU:HG3	56:BX:49:VAL:O	1.69	0.90
19:AS:40:ILE:HD12	19:AS:67:VAL:HG22	1.53	0.90
38:BD:260:ARG:HH22	38:BD:266:SER:HB2	1.37	0.90
50:BR:38:VAL:HG22	50:BR:112:ALA:HB2	1.54	0.90
7:CG:78:ARG:NH1	7:CG:79:ARG:O	2.04	0.90
8:AH:64:LYS:HG2	8:AH:79:VAL:HG21	1.53	0.90
11:AK:29:ILE:HG22	11:AK:44:SER:HB2	1.53	0.90
33:B8:46:ARG:NH2	35:BA:631:A:OP2	2.03	0.90
1:CA:1125:U:H3	1:CA:1281:U:H3	1.19	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:73:HIS:H	20:CT:74:LYS:HE2	1.34	0.90
53:BU:97:ASP:OD2	53:BU:101:ARG:NH2	2.05	0.90
1:AA:615:C:H5	1:AA:625:G:H1	1.18	0.90
53:DU:84:LYS:NZ	53:DU:91:ASP:OD2	2.05	0.90
54:DV:66:ARG:HD3	54:DV:67:GLY:N	1.86	0.90
1:AA:1160:G:O6	1:AA:1175:G:N1	2.05	0.90
35:BA:1434:A:H61	35:BA:1558:A:H62	1.18	0.90
35:DA:2376:A:N1	51:DS:89:ARG:NH2	2.19	0.90
35:BA:1817:G:OP1	38:BD:88:ARG:NH2	2.05	0.89
49:BQ:108:GLY:HA3	58:BZ:116:VAL:HG11	1.51	0.89
1:AA:660:G:H1	1:AA:745:C:H42	1.19	0.89
26:B1:25:LYS:HB3	26:B1:27:GLU:OE1	1.71	0.89
52:BT:91:ARG:HA	52:BT:116:ALA:HA	1.51	0.89
1:CA:585:G:H5''	17:CQ:36:ILE:HG21	1.55	0.89
35:BA:2683:C:OP1	52:BT:53:ARG:NH2	2.04	0.89
48:DP:59:LEU:HA	48:DP:61:ARG:CG	2.02	0.89
58:DZ:61:LEU:HD12	58:DZ:62:PRO:HD2	0.91	0.89
46:DN:137:LYS:O	46:DN:140:VAL:N	2.06	0.89
56:DX:60:ARG:HB3	56:DX:73:ARG:HG2	1.51	0.89
1:AA:1241:G:OP1	7:AG:32:ARG:NH1	2.04	0.89
40:BF:158:THR:HA	40:BF:195:ASP:HB2	1.52	0.89
50:BR:86:ARG:HE	50:BR:117:VAL:HG11	1.38	0.89
35:DA:2610:C:H4'	35:DA:2611:U:OP2	1.69	0.89
1:AA:152:A:N6	1:AA:170:U:O2	2.05	0.89
13:AM:104:ARG:HB3	13:AM:104:ARG:NH1	1.88	0.89
38:BD:27:THR:O	38:BD:30:GLU:N	2.03	0.89
1:AA:458:C:H41	1:AA:473:G:H1	1.21	0.89
48:BP:71:VAL:HG13	48:BP:72:PRO:CD	2.03	0.89
26:D1:41:ARG:NH2	35:DA:190:A:OP2	2.06	0.89
27:D2:56:GLN:HA	27:D2:56:GLN:OE1	1.72	0.89
35:DA:1798:U:H5'	38:DD:259:THR:HG23	1.54	0.89
1:AA:1342:C:H4'	9:AI:125:TYR:HB3	1.55	0.89
7:CG:62:PHE:HA	7:CG:124:LEU:HD21	1.53	0.89
35:DA:2305:A:H61	41:DG:43:LEU:HD13	1.36	0.89
1:AA:975:A:H4'	1:AA:976:G:H5''	1.53	0.88
10:AJ:6:ILE:HG22	10:AJ:96:ILE:HD11	1.55	0.88
35:BA:538:G:H1	35:BA:555:U:H5	1.18	0.88
53:BU:98:LEU:HD11	53:BU:105:VAL:HB	1.52	0.88
1:CA:1246:C:H42	1:CA:1291:G:H1	1.21	0.88
49:BQ:18:LYS:O	49:BQ:20:ALA:N	2.05	0.88
12:CL:45:PRO:HG3	12:CL:53:ARG:NH1	1.88	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:389:G:H1	48:DP:71:VAL:HB	1.36	0.88
25:B0:53:MET:HB3	25:B0:59:LEU:HD23	1.55	0.88
31:B6:18:ARG:HH22	31:B6:44:ARG:HB2	1.37	0.88
52:BT:3:ARG:HG3	52:BT:7:ILE:HD11	1.54	0.88
18:CR:58:LEU:HD12	18:CR:62:GLU:HB3	1.55	0.88
35:BA:661:C:H1'	48:BP:15:ARG:HD2	1.55	0.88
35:BA:1771:C:HO2'	35:BA:1786:A:H8	0.96	0.88
35:DA:259:G:O2'	35:DA:621:A:O2'	1.91	0.88
32:D7:32:LYS:NZ	35:DA:180:G:OP2	2.05	0.88
35:DA:2068:U:H3	35:DA:2430:A:H2	1.18	0.88
49:DQ:37:LEU:HB2	49:DQ:128:LYS:HB3	1.55	0.88
35:DA:2787:C:H1'	39:DE:61:ARG:HD3	1.53	0.88
46:DN:74:ARG:O	46:DN:75:TYR:HD1	1.55	0.88
56:DX:56:THR:HG22	56:DX:77:LYS:HB2	1.56	0.88
1:AA:1261:A:H62	1:AA:1274:G:H21	1.22	0.88
35:BA:139:G:H5''	56:BX:41:ASN:HB3	1.56	0.88
35:BA:994:C:OP2	53:BU:54:LYS:NZ	2.07	0.88
35:BA:2839:G:H5'	50:BR:46:GLY:HA2	1.56	0.88
57:BY:95:LYS:NZ	57:BY:99:CYS:O	2.07	0.88
1:AA:563:A:O2'	1:AA:567:G:OP2	1.89	0.88
49:BQ:124:LYS:HZ2	49:BQ:125:LEU:HD21	1.39	0.88
1:CA:458:C:O2	1:CA:474:G:N1	2.06	0.88
1:CA:959:A:H62	19:CS:78:ARG:HH21	1.22	0.88
26:D1:47:GLN:NE2	35:DA:2090:G:N3	2.21	0.88
35:DA:535:C:O3'	53:DU:53:ARG:NH1	2.07	0.88
35:DA:1899:G:H22	35:DA:1902:C:H41	0.93	0.88
35:DA:2662:A:H1'	35:DA:2663:G:OP2	1.74	0.88
35:DA:2392:A:H2	35:DA:2424:C:H42	1.22	0.87
27:B2:46:GLN:O	27:B2:49:LYS:N	2.06	0.87
33:B8:30:ARG:NH2	35:BA:2394:C:OP1	2.06	0.87
35:DA:1899:G:H22	35:DA:1902:C:N4	1.72	0.87
35:BA:139(A):G:H22	56:BX:40:LYS:HE2	1.39	0.87
35:DA:1771:C:HO2'	35:DA:1786:A:H8	0.88	0.87
39:DE:111:ARG:HA	50:DR:2:ARG:HB2	1.56	0.87
53:DU:90:VAL:HG22	54:DV:39:LEU:HB3	1.57	0.87
26:B1:64:ALA:HA	26:B1:67:ILE:HD13	1.56	0.87
35:DA:139(A):G:N2	56:DX:44:GLU:OE1	2.07	0.87
35:DA:2206:G:H21	35:DA:2207:G:H5'	1.38	0.87
56:DX:65:ARG:HH11	56:DX:65:ARG:C	1.77	0.87
1:AA:987:G:H1	1:AA:1218:C:H42	1.23	0.87
48:DP:23:PRO:HB3	48:DP:29:LYS:HB3	1.55	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BF:202:PHE:O	40:BF:204:ASN:ND2	2.06	0.87
52:BT:51:ARG:NH1	52:BT:100:TYR:OH	2.07	0.87
54:DV:29:PRO:O	54:DV:31:ALA:N	2.08	0.87
4:AD:98:GLU:OE1	4:AD:103:ASN:ND2	2.08	0.87
10:AJ:74:ILE:HG13	10:AJ:75:ILE:H	1.39	0.87
35:DA:2101:G:H1	35:DA:2188:C:H42	1.20	0.87
1:AA:446:G:H1	1:AA:488:C:H42	1.23	0.87
26:B1:10:LYS:HD2	26:B1:14:VAL:HA	1.57	0.87
1:AA:1255:G:OP1	10:AJ:45:ARG:NH2	2.08	0.86
28:B3:8:LEU:HD13	28:B3:31:LEU:HD23	1.56	0.86
35:DA:2523:G:H2'	35:DA:2524:G:H5''	1.56	0.86
40:DF:134:GLY:HA2	40:DF:166:ALA:HB2	1.55	0.86
20:AT:44:ALA:HB1	20:AT:91:LEU:HB3	1.56	0.86
3:CC:79:ARG:NH2	3:CC:82:GLU:OE1	2.08	0.86
4:AD:106:TYR:OH	4:AD:114:ARG:NH1	2.08	0.86
9:AI:89:ASN:HB3	9:AI:92:TYR:HB2	1.57	0.86
46:DN:95:PRO:O	46:DN:97:ARG:N	2.07	0.86
54:DV:66:ARG:NE	54:DV:68:LYS:N	2.02	0.86
35:BA:1789:A:OP2	38:BD:222:ARG:NH2	2.09	0.86
35:BA:2699:C:H41	35:BA:2708:G:H22	1.23	0.86
54:BV:19:LYS:HG2	54:BV:96:ILE:HG22	1.56	0.86
1:CA:1086:U:H3	1:CA:1099:G:H22	1.23	0.86
58:DZ:61:LEU:HD13	58:DZ:62:PRO:CD	1.92	0.86
12:AL:46:LYS:HG3	12:AL:94:PRO:HD3	1.58	0.86
35:DA:1359:A:N6	35:DA:1372:U:O2	2.08	0.86
53:DU:90:VAL:O	53:DU:92:ARG:N	2.08	0.86
1:AA:1128:C:OP2	1:AA:1139:G:N2	2.08	0.86
1:CA:1068:G:OP2	1:CA:1068:G:H8	1.58	0.86
33:B8:13:ARG:HH21	48:BP:62:LEU:H	1.20	0.86
33:B8:32:LEU:HD12	35:BA:2392:A:OP2	1.76	0.86
46:BN:30:ILE:O	46:BN:34:LEU:CD1	2.24	0.86
48:BP:29:LYS:HG3	48:BP:30:THR:HG22	1.58	0.86
2:CB:224:GLN:HB3	2:CB:229:VAL:HG23	1.58	0.86
41:DG:67:LYS:HD2	41:DG:67:LYS:H	1.38	0.86
26:B1:76:ARG:NH2	26:B1:93:GLU:O	2.09	0.86
35:BA:942:G:H5'	48:BP:35:HIS:HB3	1.56	0.86
42:BH:156:ALA:O	42:BH:158:HIS:N	2.08	0.86
51:BS:58:LEU:HD12	51:BS:66:ALA:HB1	1.58	0.86
35:BA:139(A):G:H5'	35:BA:140:G:OP2	1.76	0.85
35:BA:1447:G:H4'	35:BA:1546:C:H42	1.41	0.85
35:DA:271(Q):G:O2'	35:DA:271(R):G:OP2	1.93	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BG:82:LEU:HD13	41:BG:87:PRO:HD3	1.56	0.85
25:D0:66:VAL:HG23	25:D0:82:ARG:HB2	1.58	0.85
35:DA:662:G:H5'	48:DP:18:ARG:HB2	1.57	0.85
31:B6:15:GLU:OE2	31:B6:41:PRO:HG3	1.76	0.85
48:BP:62:LEU:HD12	48:BP:62:LEU:C	1.90	0.85
5:CE:76:ILE:HG22	5:CE:93:PRO:HB3	1.57	0.85
11:AK:44:SER:OG	11:AK:47:VAL:HG23	1.75	0.85
30:B5:46:CYS:HB2	30:B5:51:TYR:CZ	2.11	0.85
35:BA:1899:G:H22	35:BA:1902:C:H5	1.24	0.85
1:CA:1305:G:N2	1:CA:1331:G:O2'	2.09	0.85
2:CB:174:VAL:HG11	2:CB:196:LEU:HD11	1.59	0.85
35:DA:995:C:O2	46:DN:4:TYR:OH	1.95	0.85
35:BA:1689:A:H62	35:BA:1698:A:H2	1.24	0.85
49:BQ:122:GLY:HA3	49:BQ:129:THR:HG21	1.56	0.85
1:AA:1502:A:H2	1:AA:1505:G:H1	1.20	0.85
35:BA:272(G):C:N3	35:BA:363(D):G:N2	2.25	0.85
36:BB:4:C:H42	36:BB:117:G:H1	1.23	0.85
58:BZ:108:PRO:HB3	58:BZ:116:VAL:HA	1.59	0.85
1:CA:1128:C:H1'	1:CA:1146:A:H61	1.42	0.85
33:D8:32:LEU:HD23	35:DA:2392:A:OP2	1.77	0.85
46:BN:17:ASP:OD1	46:BN:18:ALA:N	2.09	0.85
57:BY:81:LYS:HD3	57:BY:97:ARG:HG3	1.59	0.85
12:CL:45:PRO:HG3	12:CL:53:ARG:HH11	1.40	0.85
28:D3:3:ARG:O	28:D3:59:VAL:N	2.10	0.85
56:DX:31:HIS:O	56:DX:35:THR:OG1	1.93	0.85
7:AG:111:ARG:HG3	7:AG:112:PRO:HD2	1.57	0.85
4:CD:150:GLU:N	4:CD:150:GLU:OE2	2.10	0.85
28:D3:8:LEU:HD13	28:D3:31:LEU:HD22	1.58	0.85
31:D6:46:HIS:HD1	35:DA:2371:G:HO2'	1.25	0.85
1:AA:156:G:C2	1:AA:157:G:H1'	2.12	0.84
19:AS:49:ILE:HD12	19:AS:60:VAL:HG13	1.58	0.84
23:AW:52:G:H1'	23:AW:63:G:H22	1.43	0.84
48:BP:96:THR:OG1	48:BP:98:GLU:OE2	1.95	0.84
35:DA:2415:G:H4'	48:DP:67:MET:H	1.41	0.84
20:AT:37:SER:HB2	20:AT:84:LEU:HD21	1.57	0.84
35:BA:259:G:H21	35:BA:621:A:H8	1.24	0.84
35:DA:942:G:H5'	48:DP:35:HIS:HB2	1.60	0.84
39:DE:143:ASN:HB2	39:DE:147:PRO:HD2	1.59	0.84
1:CA:366:C:H5'	1:CA:366:C:H6	1.40	0.84
26:D1:65:SER:OG	26:D1:66:HIS:ND1	2.09	0.84
35:BA:1341:U:OP2	35:BA:1394:U:O2'	1.95	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:51:LYS:HA	11:CK:55:LYS:HD3	1.59	0.84
26:D1:17:SER:O	26:D1:44:PRO:HD2	1.76	0.84
30:D5:3:LYS:CE	30:D5:5:PRO:CD	2.55	0.84
33:D8:50:LEU:HD12	33:D8:51:ALA:H	1.40	0.84
35:DA:527:C:OP2	35:DA:2779:U:H5	1.60	0.84
33:B8:30:ARG:HH22	48:BP:63:PRO:HD2	1.42	0.84
35:BA:242:G:O2'	35:BA:254:G:O6	1.95	0.84
9:CI:45:ALA:O	9:CI:78:LYS:NZ	2.10	0.84
48:DP:126:VAL:CA	48:DP:145:PRO:HG3	2.08	0.84
46:DN:16:ILE:HA	46:DN:137:LYS:HG2	1.60	0.84
35:BA:1847:A:H4'	35:BA:1848:A:OP1	1.78	0.84
43:BI:57:ARG:HA	43:BI:60:GLU:HB3	1.56	0.84
35:DA:1598:C:H5'	56:DX:37:THR:HB	1.60	0.84
58:DZ:52:SER:OG	58:DZ:53:ILE:N	2.09	0.84
56:BX:85:PRO:O	56:BX:87:GLN:N	2.10	0.84
47:DO:65:THR:HA	47:DO:82:ASN:HB3	1.60	0.84
14:CN:4:LYS:HD3	14:CN:5:ALA:N	1.93	0.83
32:D7:21:ARG:HB3	32:D7:31:LEU:HD11	1.60	0.83
35:DA:335:C:H4'	57:DY:73:ARG:HE	1.41	0.83
1:AA:838:G:H22	1:AA:849:C:H1'	1.42	0.83
10:AJ:3:LYS:HB2	10:AJ:4:ILE:HG12	1.59	0.83
12:AL:82:VAL:HG12	12:AL:105:TYR:HB3	1.60	0.83
33:B8:31:HIS:HB2	35:BA:2420:C:H41	1.40	0.83
35:BA:27:G:N2	35:BA:512:G:H2'	1.93	0.83
35:BA:133:C:N4	35:BA:145:G:H1	1.76	0.83
35:BA:1899:G:N2	35:BA:1902:C:H5	1.76	0.83
27:B2:41:ILE:HD13	27:B2:44:LEU:HB3	1.61	0.83
48:BP:25:SER:OG	48:BP:26:GLY:N	2.10	0.83
27:D2:49:LYS:HD2	27:D2:54:LYS:HZ1	1.44	0.83
40:DF:24:LEU:HD22	40:DF:25:PRO:HD2	1.58	0.83
35:BA:1885:A:H5'	35:BA:1886:C:OP2	1.78	0.83
35:BA:2287:A:H62	35:BA:2344:U:H3	1.25	0.83
48:BP:81:GLN:H	48:BP:111:ARG:HB3	1.44	0.83
30:D5:34:PRO:CG	30:D5:35:GLU:OE2	2.26	0.83
35:BA:2599:G:OP2	38:BD:236:GLY:HA2	1.79	0.83
43:BI:78:THR:HA	43:BI:141:LYS:HB2	1.59	0.83
5:CE:20:GLN:O	5:CE:22:GLY:N	2.12	0.83
19:CS:22:LEU:HD12	19:CS:27:GLU:O	1.78	0.83
28:D3:59:VAL:HG12	28:D3:60:GLU:HG2	1.60	0.83
48:DP:59:LEU:HA	48:DP:61:ARG:HG3	1.59	0.83
1:AA:172:A:H3'	1:AA:172:A:OP1	1.79	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2467:C:H1'	49:BQ:124:LYS:HG3	1.58	0.83
15:CO:26:GLU:OE2	15:CO:77:ARG:NH1	2.12	0.83
1:AA:446:G:N2	1:AA:488:C:N3	2.25	0.83
2:AB:105:PHE:HA	2:AB:108:ILE:HG22	1.60	0.83
5:AE:100:VAL:O	5:AE:107:ARG:NH2	2.12	0.83
35:BA:2287:A:N6	35:BA:2344:U:H3	1.77	0.83
27:D2:26:ARG:CZ	27:D2:29:LYS:HD3	2.07	0.83
56:DX:54:VAL:HA	56:DX:77:LYS:HE3	1.60	0.83
35:BA:676:A:H8	35:BA:2069:G:H21	1.23	0.83
35:BA:1303:G:N2	35:BA:1625:C:O2	2.10	0.83
43:DI:117:GLU:HG2	43:DI:118:LYS:H	1.43	0.83
19:AS:80:TYR:HD1	19:AS:81:ARG:H	1.27	0.83
35:BA:300:A:OP2	57:BY:84:ARG:NH1	2.11	0.83
35:DA:100:G:OP2	57:DY:106:LEU:HD22	1.78	0.83
53:DU:98:LEU:O	53:DU:100:VAL:N	2.11	0.83
10:AJ:8:LEU:HD12	10:AJ:96:ILE:HD13	1.59	0.83
16:AP:12:LYS:HD3	16:AP:13:HIS:N	1.93	0.83
35:BA:2660:A:OP2	35:BA:2661:G:N2	2.12	0.83
30:D5:34:PRO:HG2	30:D5:35:GLU:OE2	1.78	0.83
35:DA:2483:C:N3	49:DQ:124:LYS:NZ	2.26	0.83
52:DT:102:ILE:HD12	52:DT:110:ILE:HD11	1.59	0.83
58:DZ:30:ASN:O	58:DZ:32:HIS:N	2.11	0.83
1:AA:262:A:H5'	20:AT:74:LYS:HD3	1.59	0.82
57:BY:46:LYS:NZ	57:BY:63:LYS:O	2.12	0.82
2:AB:124:SER:HB3	2:AB:125:PRO:HD3	1.61	0.82
29:B4:13:ARG:O	41:BG:105:LYS:NZ	2.11	0.82
35:BA:508:G:H5''	35:BA:508:G:C8	2.14	0.82
57:BY:10:GLY:HA2	57:BY:27:VAL:HG13	1.59	0.82
38:DD:43:ARG:NH2	38:DD:51:VAL:O	2.10	0.82
40:DF:25:PRO:HG3	40:DF:119:ARG:HB2	1.61	0.82
33:B8:13:ARG:NH2	48:BP:61:ARG:HA	1.94	0.82
1:CA:35:G:O2'	12:CL:118:SER:O	1.96	0.82
35:DA:676:A:H8	35:DA:2069:G:H21	1.27	0.82
54:DV:79:VAL:HG13	54:DV:80:GLN:H	1.45	0.82
1:AA:79:G:O6	1:AA:92:C:N4	2.12	0.82
36:DB:18:G:H1	36:DB:65:C:H42	1.22	0.82
41:DG:115:ARG:HH11	41:DG:116:ASP:HB2	1.42	0.82
14:AN:6:LEU:HB3	14:AN:23:ARG:HH22	1.45	0.82
10:CJ:32:ALA:HB2	10:CJ:76:ASN:HB2	1.61	0.82
35:DA:993:G:OP1	53:DU:50:ARG:NH2	2.13	0.82
35:BA:1779:U:H5	35:BA:1784:A:N7	1.77	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:126:GLN:O	38:BD:129:ASN:ND2	2.13	0.82
1:CA:1134:G:H1	1:CA:1141:C:H1'	1.44	0.82
35:DA:1464:C:O2'	35:DA:1528:A:H8	1.60	0.82
42:DH:83:TYR:CD2	42:DH:141:VAL:HB	2.15	0.82
4:AD:27:TYR:OH	6:CF:15:ASP:OD2	1.97	0.82
35:BA:1037:G:H8	35:BA:1037:G:OP2	1.62	0.82
46:BN:66:LYS:CE	46:BN:87:LEU:HB3	2.08	0.82
33:D8:30:ARG:HH12	35:DA:2394:C:H41	1.27	0.82
35:DA:2476:A:H2'	35:DA:2477:C:H5''	1.61	0.82
36:DB:89:G:H2'	36:DB:90:A:C8	2.15	0.82
42:DH:15:VAL:HG12	42:DH:29:PRO:HD3	1.61	0.82
46:DN:74:ARG:O	46:DN:75:TYR:CD1	2.32	0.82
8:AH:42:GLU:HG2	8:AH:109:ILE:HD12	1.62	0.82
35:BA:102:G:H5''	35:BA:103:A:H5''	1.62	0.82
35:BA:139(A):G:H22	56:BX:40:LYS:CE	1.92	0.82
56:BX:29:TRP:NE1	56:BX:74:PRO:HB2	1.95	0.82
1:AA:1289:A:N7	9:AI:70:LYS:NZ	2.26	0.82
1:AA:1505:G:O2'	1:AA:1506:U:OP2	1.97	0.82
35:BA:607:U:H3	35:BA:621:A:H2	1.24	0.82
57:BY:10:GLY:HA2	57:BY:27:VAL:CG1	2.10	0.82
14:CN:9:LYS:HD2	14:CN:12:ARG:HH12	1.44	0.82
1:AA:1060:C:H5''	10:AJ:51:ARG:HG2	1.62	0.82
35:BA:947:G:H2'	35:BA:948:G:H8	1.45	0.82
38:BD:3:VAL:HB	38:BD:17:THR:HB	1.62	0.82
42:BH:16:SER:HB2	42:BH:27:LYS:HB2	1.60	0.82
48:BP:80:TYR:HA	48:BP:111:ARG:HB2	1.61	0.82
1:CA:1129:C:H41	1:CA:1135:U:H5	1.28	0.82
35:DA:94:C:H5'	35:DA:94(A):G:OP2	1.79	0.82
35:DA:607:U:H3	35:DA:621:A:H2	1.25	0.82
35:DA:1593:G:H2'	35:DA:1594:G:C8	2.14	0.82
54:DV:66:ARG:HE	54:DV:68:LYS:H	0.86	0.82
19:AS:5:LEU:HD12	19:AS:10:PHE:HB3	1.59	0.81
42:BH:148:ILE:HG22	42:BH:162:ILE:HD12	1.62	0.81
1:CA:78:G:N2	1:CA:79:G:O6	2.11	0.81
1:CA:1239:A:H2'	1:CA:1298:C:H42	1.44	0.81
26:D1:60:PHE:CE2	26:D1:91:LYS:HE3	2.15	0.81
38:DD:10:THR:HG23	38:DD:13:ARG:HB2	1.60	0.81
1:AA:896:C:H5'	17:AQ:100:LYS:HG3	1.62	0.81
35:BA:1628:G:H22	35:BA:1638:C:H5	1.28	0.81
35:BA:2631:G:N2	39:BE:61:ARG:HH22	1.77	0.81
38:BD:32:SER:O	38:BD:34:VAL:N	2.12	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BP:90:ARG:HD2	48:BP:90:ARG:H	1.45	0.81
5:CE:148:VAL:HG21	8:CH:107:LEU:HD22	1.62	0.81
20:CT:42:GLN:NE2	20:CT:46:GLU:OE2	2.13	0.81
50:DR:56:LYS:NZ	50:DR:90:ARG:O	2.13	0.81
9:AI:53:VAL:HG22	9:AI:95:LYS:CE	2.09	0.81
13:AM:97:PRO:HG2	13:AM:103:THR:HG22	1.62	0.81
35:BA:2652:C:H42	35:BA:2668:G:H1	1.27	0.81
35:BA:2770:G:H5''	35:BA:2771:C:OP2	1.81	0.81
1:CA:376:G:O3'	16:CP:5:ARG:NH1	2.13	0.81
1:CA:975:A:H8	1:CA:975:A:H5'	1.42	0.81
1:CA:1161:C:O2	1:CA:1175:G:N2	2.13	0.81
13:CM:65:LYS:HD2	13:CM:69:GLU:HG3	1.60	0.81
16:CP:28:ARG:NH1	16:CP:29:ASP:OD1	2.12	0.81
35:BA:72:U:H6	35:BA:72:U:H5''	1.45	0.81
35:BA:1190:G:H2'	35:BA:1191:G:H8	1.45	0.81
35:BA:2699:C:N4	35:BA:2708:G:H1	1.78	0.81
41:BG:106:LEU:O	41:BG:111:LEU:HD13	1.79	0.81
1:AA:1458:G:OP1	20:AT:35:THR:OG1	1.99	0.81
38:BD:27:THR:N	38:BD:28:GLU:OE2	2.13	0.81
58:BZ:40:ASP:O	58:BZ:44:PHE:N	2.13	0.81
1:CA:983:A:O2'	1:CA:1050:G:OP2	1.98	0.81
32:D7:35:ARG:HG3	32:D7:42:LEU:HD11	1.62	0.81
42:DH:70:THR:O	42:DH:72:ILE:N	2.13	0.81
1:AA:457:C:O2	1:AA:474:G:N1	2.12	0.81
5:AE:152:ARG:NH2	8:AH:104:ARG:HH21	1.77	0.81
42:DH:119:GLU:O	42:DH:121:ILE:N	2.14	0.81
46:DN:40:PRO:O	53:DU:64:ARG:CD	2.29	0.81
1:CA:960:U:O4	19:CS:78:ARG:NH1	2.13	0.81
54:DV:66:ARG:CD	54:DV:67:GLY:N	2.44	0.81
57:DY:17:SER:HB2	57:DY:71:LYS:HE2	1.62	0.81
26:B1:26:ARG:CA	26:B1:27:GLU:OE2	2.28	0.81
48:BP:88:LEU:HD12	48:BP:95:VAL:HG11	1.60	0.81
48:BP:135:LEU:HD22	48:BP:144:GLU:OE2	1.80	0.81
23:AY:40:C:OP2	23:AY:40:C:C5	2.33	0.81
35:BA:2632:A:O2'	35:BA:2811:G:O2'	1.94	0.81
3:CC:90:GLU:HA	3:CC:93:LYS:HB2	1.62	0.81
18:CR:40:LEU:O	18:CR:42:ARG:N	2.13	0.81
56:DX:33:LYS:O	56:DX:35:THR:OG1	1.98	0.81
13:AM:84:ILE:HD11	19:AS:66:MET:HG2	1.64	0.81
26:B1:13:ILE:HG12	26:B1:14:VAL:N	1.96	0.81
35:BA:1786:A:H2	35:BA:2606:C:H1'	1.45	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BT:93:ARG:O	52:BT:95:ARG:N	2.12	0.81
57:BY:17:SER:OG	57:BY:18:GLY:N	2.13	0.81
46:DN:39:ARG:HE	46:DN:41:ASP:HB2	1.44	0.81
1:AA:356:A:N3	1:AA:368:U:O2'	2.14	0.80
35:BA:27:G:H22	35:BA:512:G:H2'	1.46	0.80
25:B0:74:ARG:NE	36:BB:13:A:OP2	2.14	0.80
35:BA:1170:G:O6	35:BA:1179:C:N4	2.14	0.80
46:BN:18:ALA:HB1	46:BN:21:LYS:HB2	1.61	0.80
26:B1:25:LYS:O	26:B1:27:GLU:CD	2.19	0.80
33:B8:58:ILE:HA	33:B8:61:LEU:HD13	1.64	0.80
35:BA:2701:C:H3'	35:BA:2702:U:C5'	2.06	0.80
12:CL:90:VAL:O	12:CL:92:ASP:N	2.15	0.80
15:CO:74:ASP:OD1	15:CO:77:ARG:N	2.12	0.80
35:DA:2751:G:N2	35:DA:2751:G:OP1	2.14	0.80
38:DD:44:ASN:CB	38:DD:49:ILE:HA	2.10	0.80
48:DP:133:SER:O	48:DP:135:LEU:N	2.14	0.80
1:AA:192:U:H4'	20:AT:103:GLY:HA2	1.62	0.80
10:AJ:32:ALA:HB1	10:AJ:74:ILE:HG12	1.61	0.80
41:BG:15:VAL:HG22	41:BG:175:LEU:CD1	2.11	0.80
53:BU:75:ASN:ND2	53:BU:78:THR:OG1	2.12	0.80
54:BV:24:LYS:HA	54:BV:94:LEU:HD13	1.62	0.80
35:DA:192:C:H3'	35:DA:193:U:H5''	1.62	0.80
35:DA:1678:G:N2	35:DA:1989:G:H22	1.80	0.80
38:DD:44:ASN:HB3	38:DD:49:ILE:HA	1.61	0.80
51:DS:34:HIS:CD2	51:DS:54:LEU:HB2	2.16	0.80
35:BA:84:A:O4'	35:BA:103:A:N6	2.13	0.80
35:DA:2161:C:H2'	35:DA:2162:G:H2'	1.61	0.80
1:AA:147:G:N2	1:AA:176:C:O2	2.14	0.80
2:AB:142:LEU:CD2	2:AB:142:LEU:CB	2.59	0.80
3:AC:26:LYS:HD2	3:AC:26:LYS:H	1.45	0.80
9:CI:114:TYR:HE2	10:CJ:60:ARG:H	1.28	0.80
18:CR:84:LYS:O	18:CR:85:LEU:HD22	1.82	0.80
1:CA:737:A:H2'	1:CA:738:C:H6	1.46	0.80
7:CG:113:GLU:HG3	7:CG:122:HIS:HE1	1.45	0.80
38:DD:180:GLY:HA3	38:DD:274:ARG:HD3	1.63	0.80
50:DR:2:ARG:NH1	50:DR:5:LYS:HZ2	1.80	0.80
52:DT:16:ARG:NH1	52:DT:18:ASP:OD2	2.15	0.80
54:DV:70:ILE:HG13	54:DV:90:PRO:CB	2.12	0.80
57:DY:38:ILE:HA	57:DY:64:GLU:OE2	1.80	0.80
1:AA:186:C:H42	1:AA:191:G:H1	1.30	0.80
35:BA:1629:U:H5	35:BA:1637:A:N1	1.79	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:BV:8:GLY:HA3	54:BV:23:GLU:HG3	1.62	0.80
55:BW:64:MET:HA	55:BW:109:GLU:OE2	1.81	0.80
6:AF:89:MET:SD	18:AR:76:LEU:HD11	2.22	0.80
38:BD:183:ARG:HB2	38:BD:270:ILE:HG22	1.63	0.80
57:BY:27:VAL:HG13	57:BY:28:LYS:N	1.96	0.80
20:CT:40:ALA:HA	20:CT:43:LEU:HG	1.62	0.80
20:CT:40:ALA:HB3	20:CT:55:ILE:HG21	1.63	0.80
1:AA:71:C:N4	1:AA:98:G:O6	2.15	0.80
1:AA:1320:C:N3	19:AS:36:ARG:HD2	1.97	0.80
2:AB:188:ALA:HB1	2:AB:192:SER:HB2	1.63	0.80
10:AJ:61:GLU:OE2	14:AN:45:ARG:NH1	2.16	0.80
35:BA:2791:C:O2'	35:BA:2792:G:OP2	1.99	0.80
35:DA:1173:G:H5'	35:DA:1174:A:OP2	1.82	0.80
8:AH:104:ARG:HG2	8:AH:104:ARG:O	1.81	0.79
35:BA:186:G:N1	35:BA:210:C:H5	1.80	0.79
36:BB:40:U:H2'	36:BB:43:C:OP2	1.81	0.79
53:BU:92:ARG:O	53:BU:94:ASN:N	2.16	0.79
35:DA:854:G:H5'	35:DA:855:G:OP2	1.82	0.79
48:DP:47:ASP:HB3	48:DP:48:PRO:O	1.82	0.79
28:B3:39:ASP:O	28:B3:44:ARG:NH2	2.15	0.79
10:CJ:27:ALA:HB1	10:CJ:74:ILE:HD12	1.63	0.79
27:D2:53:LEU:HD22	35:DA:72:U:C4'	2.11	0.79
38:DD:69:ARG:NH2	38:DD:128:GLY:O	2.16	0.79
56:DX:29:TRP:CZ3	56:DX:76:ARG:HD2	2.17	0.79
1:AA:1452:C:H1'	1:AA:1456:G:OP1	1.83	0.79
35:BA:2566:A:H61	47:BO:29:ASN:HD21	1.27	0.79
38:BD:110:GLY:O	38:BD:112:GLN:OE1	2.00	0.79
35:DA:1434:A:H61	35:DA:1558:A:H62	1.30	0.79
10:AJ:33:GLN:HG3	10:AJ:74:ILE:HD11	1.65	0.79
31:B6:26:ASN:HB3	35:BA:2286:A:H2	1.46	0.79
35:BA:259:G:H2'	35:BA:621:A:O2'	1.83	0.79
35:BA:2768:C:O2'	46:BN:89:LYS:NZ	2.15	0.79
36:BB:114:C:H4'	51:BS:46:VAL:HG22	1.62	0.79
1:CA:683:G:H21	11:CK:38:ASN:HB2	1.47	0.79
12:CL:89:ARG:HH12	12:CL:95:GLY:H	1.30	0.79
20:CT:72:LEU:HB2	20:CT:76:ALA:HB1	1.64	0.79
27:D2:11:GLU:OE1	27:D2:14:ARG:HD2	1.81	0.79
9:AI:71:SER:HA	9:AI:74:ILE:HD12	1.64	0.79
42:BH:124:GLU:OE2	42:BH:132:ARG:NH1	2.16	0.79
43:BI:88:ILE:HG22	43:BI:90:GLY:H	1.44	0.79
5:CE:8:GLU:OE1	5:CE:63:ARG:NH2	2.16	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:71:A:OP2	35:DA:71:A:H3'	1.81	0.79
35:DA:863:A:OP1	49:DQ:21:THR:HB	1.81	0.79
35:DA:1042:G:H1'	35:DA:1114:G:H22	1.48	0.79
35:BA:2542:A:O2'	35:BA:2543:G:O5'	1.99	0.79
39:BE:1:MET:HB3	39:BE:200:GLU:CD	2.03	0.79
42:BH:44:VAL:HG12	42:BH:45:VAL:H	1.48	0.79
46:BN:14:VAL:HA	46:BN:135:PRO:HD2	1.65	0.79
48:BP:40:SER:OG	48:BP:40:SER:O	1.96	0.79
2:CB:187:LEU:HA	2:CB:201:ILE:HG13	1.63	0.79
35:DA:1593:G:H2'	35:DA:1594:G:H8	1.47	0.79
57:DY:53:PRO:HA	57:DY:56:PRO:HD3	1.65	0.79
38:BD:44:ASN:CB	38:BD:49:ILE:HA	2.13	0.79
35:DA:768:G:O2'	35:DA:1379:A:N6	2.14	0.79
1:AA:177:C:H2'	1:AA:178:C:H6	1.47	0.79
35:BA:708:C:H42	35:BA:723:G:H1	1.29	0.79
1:CA:1025:U:H2'	1:CA:1026:G:H8	1.46	0.79
25:D0:7:LEU:HD13	49:DQ:83:MET:SD	2.23	0.79
33:D8:25:MET:O	33:D8:47:LYS:NZ	2.15	0.79
56:DX:54:VAL:HG13	56:DX:77:LYS:HG3	1.64	0.79
1:AA:187:C:H5''	20:AT:86:ARG:HG3	1.65	0.79
30:B5:22:HIS:O	30:B5:24:ALA:N	2.15	0.79
35:BA:1651:G:H5'	50:BR:39:PRO:HG2	1.64	0.79
1:CA:1182:G:H4'	1:CA:1183:A:H5''	1.65	0.79
35:DA:2124:G:N2	37:DC:40:THR:OG1	2.16	0.79
35:DA:2791:C:H4'	35:DA:2792:G:H5'	1.62	0.79
1:AA:147:G:N1	1:AA:176:C:N3	2.31	0.79
40:BF:22:ALA:HA	40:BF:26:ALA:HB2	1.64	0.79
1:CA:865:A:H2	1:CA:918:A:H4'	1.48	0.79
10:CJ:32:ALA:HB1	10:CJ:75:ILE:HG12	1.65	0.79
13:CM:24:GLY:HA3	13:CM:66:LEU:HD22	1.65	0.79
33:D8:50:LEU:HD12	33:D8:51:ALA:N	1.98	0.79
35:DA:1286:A:O2'	35:DA:1288:U:OP2	1.99	0.79
41:BG:51:ARG:HH12	41:BG:53:LEU:HD23	1.47	0.78
54:BV:72:VAL:HG21	54:BV:88:ARG:NH1	1.98	0.78
1:CA:217:C:O2'	1:CA:470:C:N4	2.16	0.78
35:DA:857:C:H42	35:DA:920:G:H1	1.30	0.78
51:DS:24:LEU:HB3	51:DS:85:VAL:HG23	1.63	0.78
1:AA:1347:G:C8	9:AI:107:ARG:HB3	2.18	0.78
35:BA:1070:A:H2'	35:BA:1097:U:H5'	1.65	0.78
54:BV:40:LEU:CD1	54:BV:41:GLY:H	1.96	0.78
1:CA:1239:A:H62	1:CA:1299:A:H62	1.30	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:882:G:H22	35:DA:894:C:H42	1.31	0.78
35:DA:1279:G:N2	35:DA:1291:C:O2	2.15	0.78
54:DV:3:ALA:HB1	54:DV:38:LEU:HD21	1.64	0.78
56:DX:84:ALA:O	56:DX:86:GLY:N	2.16	0.78
2:AB:18:GLY:H	2:AB:204:ASN:HB2	1.47	0.78
19:AS:36:ARG:HD3	19:AS:72:GLY:HA3	1.66	0.78
35:BA:1782:C:H1'	35:BA:2609:U:H5'	1.63	0.78
3:CC:141:VAL:HG11	3:CC:202:ILE:HD13	1.65	0.78
35:DA:2553:G:H5''	35:DA:2554:U:OP2	1.83	0.78
56:DX:21:PHE:HE1	56:DX:26:TYR:CD2	2.00	0.78
10:AJ:39:PRO:HA	10:AJ:70:ARG:HA	1.64	0.78
1:CA:376:G:H2'	1:CA:377:G:H8	1.47	0.78
19:CS:33:THR:OG1	19:CS:34:TRP:N	2.14	0.78
23:CW:52:G:H1	23:CW:62:C:H42	1.32	0.78
35:DA:7:G:H2'	35:DA:8:A:C8	2.19	0.78
35:DA:1210:A:H8	35:DA:1210:A:H5'	1.48	0.78
35:DA:2190:G:H2'	35:DA:2191:G:H8	1.48	0.78
54:DV:36:PRO:HD2	54:DV:60:GLU:O	1.83	0.78
1:AA:1160:G:N7	1:AA:1176:A:N6	2.30	0.78
35:BA:83:G:O2'	35:BA:84:A:OP2	2.00	0.78
51:BS:97:ARG:HH22	51:BS:100:ALA:HB2	1.45	0.78
1:CA:69:G:N2	1:CA:100:C:O2	2.16	0.78
1:CA:737:A:H2'	1:CA:738:C:C6	2.17	0.78
27:D2:49:LYS:CD	27:D2:54:LYS:HZ1	1.96	0.78
35:DA:34:C:O2'	35:DA:35:G:H5'	1.84	0.78
56:DX:26:TYR:OH	56:DX:89:ILE:HG13	1.83	0.78
8:AH:63:LEU:HD13	8:AH:64:LYS:H	1.48	0.78
26:B1:16:ASN:HB2	26:B1:44:PRO:HG2	1.65	0.78
32:B7:5:TRP:NE1	35:BA:464:U:OP1	2.16	0.78
35:BA:881:G:N2	35:BA:898:C:N3	2.31	0.78
49:BQ:18:LYS:HD2	49:BQ:18:LYS:C	2.03	0.78
1:CA:339:C:OP2	47:DO:97:ARG:NH1	2.17	0.78
1:CA:1296:C:H5'	1:CA:1297:C:OP2	1.83	0.78
31:D6:12:GLU:HA	31:D6:23:THR:HG22	1.64	0.78
50:DR:2:ARG:NH2	50:DR:5:LYS:HE3	1.97	0.78
4:AD:122:ARG:NH1	4:AD:136:PRO:CD	2.06	0.78
35:BA:1798:U:H5'	38:BD:259:THR:HG22	1.64	0.78
48:BP:125:VAL:HG12	48:BP:144:GLU:HB2	1.64	0.78
35:DA:157:U:O2'	35:DA:158:U:OP2	2.01	0.78
46:DN:65:LYS:NZ	46:DN:68:GLU:HB3	1.99	0.78
1:AA:235:C:H5'	17:AQ:70:ARG:HG2	1.66	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:BW:52:GLU:O	55:BW:54:ALA:N	2.15	0.78
39:DE:128:SER:OG	39:DE:129:HIS:N	2.15	0.78
26:B1:26:ARG:HA	26:B1:34:THR:HG23	1.66	0.78
34:B9:35:ARG:NE	34:B9:37:GLY:OXT	2.16	0.78
36:BB:44:G:O2'	36:BB:47:C:N4	2.16	0.78
35:DA:630:G:N2	35:DA:633:A:OP2	2.17	0.78
35:DA:1162:G:H21	54:DV:91:TYR:HE1	1.31	0.78
46:DN:41:ASP:O	53:DU:64:ARG:NH2	2.17	0.78
35:BA:541:C:H42	35:BA:551:G:H1	1.31	0.78
58:BZ:30:ASN:O	58:BZ:32:HIS:N	2.17	0.78
1:CA:78:G:N2	1:CA:90:U:O2	2.15	0.78
1:CA:574:A:H5''	1:CA:575:G:OP2	1.84	0.78
1:CA:1436:U:OP1	20:CT:23:ARG:NH2	2.16	0.78
39:DE:179:GLU:HB3	39:DE:181:LEU:HD23	1.65	0.78
52:DT:92:GLY:O	52:DT:94:ALA:N	2.17	0.78
35:BA:2483:C:N3	49:BQ:124:LYS:NZ	2.32	0.77
13:CM:102:ARG:HH11	13:CM:105:THR:HG23	1.49	0.77
34:D9:14:CYS:HA	34:D9:27:CYS:HB3	1.65	0.77
35:DA:2250:G:C6	49:DQ:82:ARG:HD3	2.19	0.77
35:DA:2688:U:H5	35:DA:2720:U:OP2	1.66	0.77
47:DO:26:LYS:HB3	47:DO:30:ALA:HB2	1.64	0.77
56:DX:12:VAL:HG11	56:DX:27:THR:HG23	1.65	0.77
1:AA:426:G:OP1	4:AD:36:ARG:NH2	2.15	0.77
1:AA:765:G:H1	1:AA:812:C:HO2'	1.28	0.77
5:AE:37:ARG:HH12	5:AE:111:GLU:HG2	1.48	0.77
32:B7:9:ARG:NH2	35:BA:1310:G:OP2	2.17	0.77
35:BA:2700:C:H42	35:BA:2707:G:H1	1.33	0.77
1:CA:659:U:H2'	1:CA:660:G:H8	1.50	0.77
35:DA:674:G:O2'	40:DF:74:ARG:HG3	1.84	0.77
26:B1:88:LYS:O	26:B1:90:ILE:N	2.17	0.77
48:BP:57:THR:HG22	48:BP:59:LEU:H	1.48	0.77
52:BT:83:ILE:HG13	52:BT:84:GLN:H	1.49	0.77
35:DA:153:C:H2'	35:DA:154:G:C8	2.19	0.77
35:DA:1219:G:OP2	53:DU:19:LYS:HE3	1.84	0.77
35:DA:1778:U:H2'	35:DA:1784:A:N6	1.99	0.77
36:DB:5:C:H42	36:DB:116:G:H1	1.28	0.77
1:AA:929:G:H1	1:AA:1388:C:H42	1.32	0.77
23:AW:28:G:O6	23:AW:42:C:N4	2.18	0.77
35:BA:182:A:N3	35:BA:433:C:O2'	2.17	0.77
16:CP:45:THR:HG22	16:CP:47:ASP:H	1.49	0.77
42:DH:9:ILE:HG12	42:DH:69:ARG:NH2	2.00	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DP:85:LEU:HD22	48:DP:116:GLY:HA2	1.65	0.77
57:DY:39:VAL:HG23	57:DY:40:GLU:H	1.48	0.77
10:AJ:5:ARG:HG2	10:AJ:71:LEU:HD11	1.66	0.77
35:BA:1447:G:H4'	35:BA:1546:C:N4	1.98	0.77
47:BO:68:GLU:HB3	47:BO:78:ARG:HB2	1.66	0.77
38:DD:142:VAL:HA	38:DD:194:GLY:H	1.49	0.77
5:AE:31:LEU:HD22	5:AE:43:LEU:HD11	1.66	0.77
38:BD:206:LEU:HD22	38:BD:211:ARG:HG2	1.67	0.77
42:BH:41:MET:HG2	42:BH:54:ARG:HA	1.66	0.77
47:BO:115:VAL:HG23	47:BO:117:LEU:H	1.50	0.77
35:DA:2032:G:H21	39:DE:146:THR:HG23	1.49	0.77
35:DA:2723:C:H5'	50:DR:5:LYS:HE2	1.65	0.77
37:DC:18:LYS:N	37:DC:220:PRO:O	2.17	0.77
1:AA:346:G:OP1	52:BT:41:ARG:NH2	2.16	0.77
26:B1:53:VAL:HG21	26:B1:74:VAL:HG21	1.66	0.77
35:BA:2779:U:H4'	35:BA:2780:G:H5''	1.64	0.77
13:CM:23:TYR:CD2	13:CM:67:GLU:HA	2.16	0.77
31:D6:16:CYS:SG	31:D6:48:VAL:HG22	2.24	0.77
35:DA:379:G:N1	35:DA:395:U:O2	2.16	0.77
35:DA:1771:C:O2'	35:DA:1786:A:H8	1.68	0.77
38:DD:141:VAL:HG12	38:DD:164:GLN:HG3	1.67	0.77
39:DE:24:THR:HG21	39:DE:188:VAL:HG12	1.65	0.77
58:DZ:108:PRO:HD3	58:DZ:116:VAL:HA	1.67	0.77
1:AA:952:U:O4	13:AM:104:ARG:NH2	2.16	0.77
31:B6:30:THR:OG1	31:B6:31:PRO:HD3	1.85	0.77
51:BS:67:ARG:HA	51:BS:98:VAL:HG11	1.66	0.77
54:BV:61:VAL:HB	54:BV:99:ILE:HB	1.66	0.77
55:BW:51:LEU:HG	55:BW:107:LEU:HD13	1.65	0.77
1:CA:1160:G:O6	1:CA:1181:G:N1	2.17	0.77
52:DT:8:LYS:HD2	52:DT:8:LYS:N	1.98	0.77
36:BB:85:G:H2'	36:BB:86:G:H5''	1.67	0.77
52:BT:109:GLU:HG2	52:BT:112:ARG:HH12	1.50	0.77
25:D0:7:LEU:CD1	49:DQ:83:MET:SD	2.73	0.77
35:DA:2461:C:H42	35:DA:2489:G:H1	1.33	0.77
5:AE:48:ALA:HB2	5:AE:57:LYS:HD3	1.66	0.77
43:BI:38:LEU:H	43:BI:38:LEU:HD12	1.49	0.77
58:BZ:143:GLY:O	58:BZ:144:LEU:HD22	1.84	0.77
22:CV:71:C:H3'	22:CV:72:A:H5''	1.68	0.77
49:DQ:16:ARG:HH12	49:DQ:18:LYS:HG3	1.50	0.77
51:DS:89:ARG:HD2	51:DS:93:LYS:HG3	1.67	0.77
35:BA:597:U:O2'	48:BP:15:ARG:NH2	2.18	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BR:20:LEU:HA	50:BR:23:ASN:HB2	1.65	0.76
1:CA:690:G:O6	11:CK:51:LYS:NZ	2.17	0.76
1:CA:1316:G:N2	1:CA:1319:A:OP2	2.16	0.76
1:AA:1009:G:N2	1:AA:1021:G:O2'	2.15	0.76
1:AA:1166:G:H21	1:AA:1171:G:N2	1.83	0.76
4:AD:187:ARG:NH2	4:AD:193:ASP:OD2	2.18	0.76
35:BA:1558:A:H4'	35:BA:1559:G:H5'	1.67	0.76
40:BF:178:PRO:HB3	40:BF:201:VAL:HG11	1.67	0.76
1:CA:342:C:N4	1:CA:347:G:O6	2.18	0.76
27:D2:49:LYS:HD2	27:D2:54:LYS:NZ	2.00	0.76
35:DA:414:C:O2	35:DA:1864:U:O2'	2.03	0.76
35:DA:1092:C:H1'	35:DA:1101:U:C5	2.19	0.76
35:BA:1494:A:H4'	35:BA:1494:A:OP2	1.84	0.76
35:DA:1042:G:H1	35:DA:1112:G:H22	1.33	0.76
38:DD:31:LYS:O	38:DD:34:VAL:N	2.17	0.76
43:DI:77:LEU:HD21	43:DI:101:LEU:HD13	1.66	0.76
1:AA:1101:A:OP2	2:AB:96:ARG:NH2	2.18	0.76
1:AA:1239:A:H4'	1:AA:1240:U:H5'	1.68	0.76
2:AB:51:LEU:O	2:AB:54:THR:OG1	2.02	0.76
13:AM:17:VAL:HG22	13:AM:27:LYS:HE3	1.68	0.76
49:BQ:21:THR:HG23	58:BZ:78:LYS:HG3	1.65	0.76
51:BS:64:GLU:HA	51:BS:67:ARG:HD3	1.67	0.76
1:CA:580:U:N3	1:CA:761:G:O6	2.18	0.76
1:CA:1002:G:H8	1:CA:1002:G:OP2	1.69	0.76
10:CJ:40:LEU:HG	10:CJ:69:ASN:HB3	1.67	0.76
28:D3:2:PRO:HA	28:D3:38:GLU:HA	1.67	0.76
35:DA:18:C:O3'	53:DU:23:GLY:HA2	1.85	0.76
35:DA:90:U:O2'	35:DA:92:A:OP2	2.01	0.76
1:AA:202:U:O2'	1:AA:203:U:O5'	2.01	0.76
2:AB:52:GLU:N	2:AB:52:GLU:OE2	2.19	0.76
39:BE:1:MET:HB3	39:BE:200:GLU:OE2	1.85	0.76
28:D3:1:MET:HB2	28:D3:3:ARG:HH11	1.49	0.76
35:DA:548:A:N6	54:DV:95:LEU:HD21	2.01	0.76
35:DA:1143:A:OP1	46:DN:25:ARG:NH2	2.18	0.76
38:DD:4:LYS:HE3	38:DD:20:ASP:HA	1.67	0.76
48:DP:105:LEU:O	48:DP:106:LEU:HB2	1.86	0.76
46:BN:58:ASP:O	46:BN:60:ILE:N	2.19	0.76
56:BX:32:PRO:HA	56:BX:75:ASP:OD1	1.85	0.76
56:BX:35:THR:HG23	56:BX:36:LYS:H	1.51	0.76
35:DA:1486:A:H2'	35:DA:1487:G:H8	1.50	0.76
1:AA:983:A:N1	1:AA:1222:G:N2	2.32	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1090:U:N3	1:AA:1095:U:O4	2.15	0.76
35:BA:1575:C:H2'	35:BA:1576:U:O2	1.86	0.76
40:BF:132:VAL:O	40:BF:134:GLY:N	2.18	0.76
54:BV:33:VAL:HG12	54:BV:63:GLY:HA2	1.67	0.76
55:BW:88:ARG:NH1	55:BW:94:ASP:OD2	2.19	0.76
57:BY:17:SER:HB2	57:BY:71:LYS:HE2	1.65	0.76
2:CB:100:GLY:O	2:CB:104:ASN:N	2.17	0.76
33:D8:46:ARG:HH22	48:DP:65:ARG:CZ	1.98	0.76
1:AA:363:A:OP2	12:AL:34:ARG:NH1	2.19	0.76
1:AA:1040:U:H2'	1:AA:1041:A:H8	1.49	0.76
1:AA:1392:G:H21	1:AA:1502:A:H8	1.32	0.76
35:BA:1048:A:N6	35:BA:1107:G:O6	2.19	0.76
35:BA:2810:A:C2'	39:BE:61:ARG:HH11	1.99	0.76
36:BB:90:A:H2'	36:BB:91:C:H5'	1.68	0.76
5:CE:41:VAL:HG13	5:CE:113:ALA:HA	1.68	0.76
8:CH:7:ALA:HB2	8:CH:85:ARG:HD3	1.68	0.76
26:D1:40:ARG:HG3	35:DA:2081:C:H5''	1.66	0.76
39:DE:201:THR:HG22	39:DE:202:LYS:H	1.50	0.76
40:DF:152:GLU:HB3	40:DF:190:GLU:HG2	1.66	0.76
49:DQ:5:ARG:HH21	49:DQ:5:ARG:HG3	1.50	0.76
26:B1:44:PRO:HG2	26:B1:45:ASN:H	1.51	0.76
35:BA:998:C:OP2	53:BU:58:ARG:NH2	2.18	0.76
46:BN:60:ILE:HD12	46:BN:99:LEU:HD21	1.67	0.76
51:BS:73:LEU:HD12	51:BS:106:ARG:HD2	1.68	0.76
53:BU:50:ARG:O	53:BU:54:LYS:CE	2.32	0.76
1:CA:574:A:O2'	1:CA:882:C:O2'	2.03	0.76
26:D1:32:LYS:HB3	26:D1:33:LYS:HZ3	1.51	0.76
26:D1:47:GLN:HG2	35:DA:2230:G:H1'	1.66	0.76
46:DN:1:MET:SD	46:DN:2:LYS:N	2.58	0.76
50:DR:2:ARG:HB3	50:DR:5:LYS:HZ1	1.49	0.76
1:AA:189(C):C:O2	1:AA:189(H):G:N2	2.19	0.76
1:AA:1314:C:OP2	19:AS:6:LYS:HE3	1.86	0.76
4:AD:122:ARG:HH12	4:AD:136:PRO:CG	1.99	0.76
7:AG:15:ASP:HA	7:AG:24:THR:HG23	1.66	0.76
30:B5:46:CYS:SG	30:B5:49:CYS:HB2	2.25	0.76
35:BA:1210:A:H5'	35:BA:1210:A:H8	1.50	0.76
50:BR:6:SER:O	50:BR:8:ARG:NH2	2.19	0.76
35:DA:2172:U:H5''	35:DA:2174:C:OP2	1.85	0.76
36:DB:89:G:N7	36:DB:90:A:N6	2.30	0.76
42:DH:44:VAL:O	42:DH:46:GLU:N	2.17	0.76
54:DV:66:ARG:NH2	54:DV:68:LYS:HA	2.00	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:DV:70:ILE:HG13	54:DV:90:PRO:HB2	1.66	0.76
9:AI:96:LEU:HB3	9:AI:102:LEU:HG	1.67	0.75
26:B1:17:SER:O	26:B1:44:PRO:HG3	1.85	0.75
35:BA:389:G:H1	48:BP:71:VAL:CG1	1.99	0.75
35:BA:2699:C:H41	35:BA:2708:G:N2	1.84	0.75
35:BA:2713:A:H4'	35:BA:2713:A:OP2	1.85	0.75
54:BV:66:ARG:NE	54:BV:94:LEU:HG	2.01	0.75
26:D1:37:ILE:HG21	35:DA:2080:G:P	2.27	0.75
33:D8:30:ARG:O	33:D8:32:LEU:N	2.19	0.75
42:DH:40:GLU:HG3	42:DH:55:PRO:HG2	1.67	0.75
48:DP:70:GLN:HB2	48:DP:71:VAL:HG12	1.68	0.75
4:AD:47:ARG:H	4:AD:47:ARG:HD2	1.50	0.75
25:B0:39:ARG:NH2	35:BA:2363:C:O2	2.18	0.75
35:BA:2666:C:H5''	35:BA:2667:C:OP2	1.84	0.75
49:DQ:109:VAL:CG1	49:DQ:113:GLN:HB2	2.16	0.75
1:AA:215:U:OP2	1:AA:215:U:H4'	1.85	0.75
1:AA:654:G:H8	1:AA:654:G:OP2	1.68	0.75
1:AA:1445:C:H1'	1:AA:1458:G:N2	2.02	0.75
2:AB:71:VAL:HG23	2:AB:93:VAL:HG21	1.67	0.75
38:BD:44:ASN:HB2	38:BD:48:ARG:O	1.87	0.75
51:BS:100:ALA:O	51:BS:102:ALA:N	2.20	0.75
25:D0:7:LEU:HD13	49:DQ:83:MET:CG	2.16	0.75
27:D2:53:LEU:HD22	35:DA:72:U:O4'	1.86	0.75
35:DA:1488:G:H5'	35:DA:1489:U:OP2	1.86	0.75
35:DA:2360:A:O2'	35:DA:2361:A:O5'	2.04	0.75
9:AI:53:VAL:HG13	9:AI:95:LYS:CD	2.15	0.75
25:B0:11:ARG:O	25:B0:14:ARG:NH2	2.20	0.75
13:CM:36:LYS:O	13:CM:38:GLY:N	2.17	0.75
35:DA:1494:A:H3'	35:DA:1494:A:N3	2.01	0.75
1:AA:1342:C:H1'	9:AI:124:GLN:OE1	1.87	0.75
12:AL:82:VAL:HG12	12:AL:105:TYR:CG	2.21	0.75
23:AW:8:U:O4	23:AW:13:C:N4	2.19	0.75
49:BQ:43:THR:H	49:BQ:46:GLN:HE21	1.34	0.75
1:CA:1022:G:O6	1:CA:1024:G:N2	2.19	0.75
23:CY:24:G:O2'	23:CY:25:C:O4'	2.05	0.75
35:DA:412:A:H8	35:DA:412:A:OP2	1.70	0.75
35:DA:645:C:H5'	35:DA:646:A:OP2	1.86	0.75
39:DE:63:LEU:O	39:DE:65:GLY:N	2.20	0.75
48:DP:145:PRO:O	48:DP:146:VAL:HG13	1.87	0.75
3:AC:131:ARG:NH1	5:AE:50:GLU:OE2	2.17	0.75
35:BA:943:U:OP2	48:BP:38:GLN:CB	2.33	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BQ:108:GLY:CA	58:BZ:116:VAL:HG11	2.17	0.75
51:BS:90:GLY:O	51:BS:92:TYR:N	2.20	0.75
35:DA:1057:A:H3'	35:DA:1058:G:H3'	1.68	0.75
35:DA:2294:C:O2	35:DA:2338:G:N2	2.19	0.75
1:AA:656:C:H2'	15:AO:28:GLN:HE21	1.49	0.75
1:AA:1005:A:OP2	1:AA:1025:U:N3	2.19	0.75
3:AC:40:ARG:HG2	3:AC:55:VAL:HG21	1.67	0.75
18:AR:50:ILE:HD11	18:AR:70:ILE:HG21	1.68	0.75
25:B0:23:VAL:HG21	35:BA:857:C:H4'	1.68	0.75
35:BA:1688:U:H1'	35:BA:1701:A:C6	2.21	0.75
56:BX:32:PRO:HG3	56:BX:72:LYS:HD2	1.69	0.75
1:CA:406:G:N2	1:CA:437:U:O2	2.20	0.75
1:CA:1285:A:H4'	1:CA:1286:A:H5'	1.67	0.75
35:DA:2481:G:HO2'	35:DA:2482:G:P	2.10	0.75
35:DA:2766:G:H5''	35:DA:2767:C:OP2	1.86	0.75
54:DV:21:ARG:HG2	54:DV:95:LEU:HD13	1.68	0.75
2:AB:167:PRO:HB2	2:AB:196:LEU:HD11	1.67	0.75
13:AM:14:ARG:HE	13:AM:42:ALA:HA	1.50	0.75
35:BA:1487:G:O6	35:BA:1502:C:N4	2.19	0.75
36:BB:3:C:H42	36:BB:118:G:H1	1.33	0.75
39:BE:9:VAL:HG22	39:BE:25:VAL:O	1.86	0.75
40:BF:10:PRO:HA	40:BF:128:ALA:HB2	1.66	0.75
1:CA:484:G:O2'	1:CA:485:G:OP2	2.04	0.75
48:DP:9:ASN:H	48:DP:10:PRO:HD3	1.50	0.75
57:DY:81:LYS:HD2	57:DY:97:ARG:HB3	1.68	0.75
13:AM:7:VAL:HG11	41:BG:115:ARG:HD3	1.67	0.75
26:B1:20:ARG:HH11	26:B1:39:LYS:HA	1.51	0.75
57:BY:76:CYS:SG	57:BY:77:PRO:HD2	2.26	0.75
1:CA:1445:C:N4	1:CA:1457:G:O6	2.18	0.75
18:CR:40:LEU:HD22	18:CR:79:LEU:HD11	1.69	0.75
18:CR:69:THR:HA	18:CR:72:ARG:HG3	1.69	0.75
23:CW:51:U:O2'	23:CW:52:G:O4'	2.03	0.75
35:DA:2402:C:H5'	35:DA:2403:C:OP2	1.87	0.75
48:DP:95:VAL:HG22	48:DP:125:VAL:HA	1.68	0.75
53:DU:98:LEU:C	53:DU:100:VAL:H	1.89	0.75
54:DV:73:SER:OG	54:DV:74:LYS:N	2.09	0.75
10:AJ:34:VAL:HG22	10:AJ:74:ILE:HB	1.66	0.74
10:AJ:95:GLU:N	10:AJ:95:GLU:OE2	2.20	0.74
12:AL:27:LEU:HD23	12:AL:27:LEU:H	1.52	0.74
19:AS:15:LEU:HD12	19:AS:18:LYS:HB2	1.67	0.74
37:BC:82:LYS:HD2	37:BC:86:ALA:HB2	1.67	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CV:55:U:H5'	22:CV:56:C:OP2	1.85	0.74
38:DD:68:LYS:HB3	38:DD:70:TRP:CH2	2.22	0.74
49:DQ:55:VAL:HG12	49:DQ:64:ILE:HD12	1.69	0.74
51:DS:99:LYS:HD2	51:DS:99:LYS:H	1.51	0.74
35:BA:139:G:C5'	56:BX:41:ASN:HB3	2.17	0.74
35:BA:879:G:N1	35:BA:899:A:N1	2.35	0.74
35:BA:1501:C:H5'	35:BA:1502:C:OP2	1.87	0.74
35:BA:1589:C:H5'	35:BA:1590:U:OP2	1.87	0.74
48:BP:80:TYR:HA	48:BP:111:ARG:CB	2.16	0.74
8:CH:103:VAL:HG21	8:CH:110:ALA:HB2	1.69	0.74
23:CW:29:G:N2	23:CW:43:C:O2	2.20	0.74
35:DA:675:A:N6	35:DA:803:U:O2	2.19	0.74
41:DG:16:ARG:HB3	41:DG:17:PRO:HD3	1.68	0.74
1:AA:565:U:OP2	1:AA:566:G:O2'	2.04	0.74
1:AA:1000:U:O2	1:AA:1042:G:N2	2.20	0.74
41:BG:83:ARG:O	41:BG:85:GLY:N	2.21	0.74
1:CA:736:C:H2'	1:CA:737:A:H8	1.52	0.74
26:D1:53:VAL:HG11	26:D1:74:VAL:HG21	1.69	0.74
56:DX:27:THR:HB	56:DX:78:LYS:HB3	1.68	0.74
1:AA:348:G:H2'	1:AA:349:A:H5'	1.69	0.74
7:AG:46:ALA:HB1	7:AG:121:ALA:HB2	1.69	0.74
13:AM:65:LYS:HB3	13:AM:70:LEU:HB2	1.69	0.74
40:BF:152:GLU:HB3	40:BF:190:GLU:OE1	1.87	0.74
1:CA:1140:C:H2'	1:CA:1142:G:OP2	1.86	0.74
5:CE:43:LEU:HD21	5:CE:132:ALA:HB1	1.69	0.74
20:CT:10:LEU:HG	20:CT:12:ALA:H	1.52	0.74
35:DA:1464:C:HO2'	35:DA:1528:A:H8	0.78	0.74
40:DF:148:LEU:HD21	40:DF:191:ARG:HE	1.51	0.74
53:DU:92:ARG:NH1	53:DU:95:LEU:HB2	2.02	0.74
32:B7:40:TRP:HD1	35:BA:459:U:H5'	1.51	0.74
56:BX:25:LYS:HG3	56:BX:26:TYR:H	1.53	0.74
41:DG:110:ALA:HB1	41:DG:140:ILE:HD12	1.69	0.74
43:DI:107:VAL:HG12	43:DI:108:THR:H	1.52	0.74
1:AA:69:G:H2'	1:AA:70:G:H8	1.53	0.74
8:AH:104:ARG:HD3	8:AH:107:LEU:HB2	1.69	0.74
35:BA:272(I):U:H3	35:BA:363(A):A:N6	1.84	0.74
35:BA:598:G:O5'	48:BP:14:LYS:NZ	2.17	0.74
35:BA:1339:G:H21	35:BA:1603:A:H1'	1.51	0.74
38:BD:42:GLY:O	38:BD:43:ARG:HG3	1.87	0.74
1:CA:29:G:H1	1:CA:554:C:H42	1.36	0.74
1:CA:1356:G:H2'	1:CA:1357:A:C8	2.23	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DE:47:VAL:HG21	39:DE:86:PRO:HD3	1.69	0.74
42:DH:89:ILE:HD11	42:DH:129:THR:HB	1.69	0.74
13:AM:81:LEU:HB3	13:AM:89:GLY:HA2	1.66	0.74
58:BZ:19:ARG:NH1	58:BZ:84:GLU:O	2.20	0.74
42:DH:144:VAL:HA	42:DH:147:ASN:HB2	1.67	0.74
1:AA:450:G:OP1	16:AP:43:LYS:NZ	2.21	0.74
1:AA:1003:G:N7	1:AA:1039:C:N4	2.36	0.74
23:AW:51:U:N3	23:AW:63:G:O6	2.19	0.74
23:AY:28:G:O6	23:AY:29:G:N2	2.21	0.74
35:BA:615:G:OP1	40:BF:40:GLN:NE2	2.21	0.74
48:BP:15:ARG:HA	48:BP:15:ARG:NE	2.03	0.74
48:BP:130:PHE:HD2	48:BP:135:LEU:HD21	1.52	0.74
1:CA:1366:C:H2'	1:CA:1367:C:H6	1.52	0.74
16:CP:8:ARG:HB2	16:CP:28:ARG:NH2	2.01	0.74
27:D2:22:GLU:O	27:D2:26:ARG:HG2	1.88	0.74
33:D8:28:GLY:O	33:D8:30:ARG:N	2.20	0.74
39:DE:19:ARG:HA	47:DO:73:ASP:HA	1.68	0.74
46:DN:136:GLU:HG2	46:DN:137:LYS:HG3	1.68	0.74
48:DP:130:PHE:HZ	48:DP:145:PRO:HD2	1.51	0.74
35:BA:2791:C:N4	35:BA:2893:G:N7	2.36	0.74
36:BB:15:A:H5'	36:BB:16:G:H8	1.52	0.74
40:BF:21:ALA:O	40:BF:23:ASP:N	2.21	0.74
2:CB:140:HIS:HA	2:CB:143:GLU:HG2	1.70	0.74
8:CH:21:LYS:O	8:CH:65:TYR:OH	2.06	0.74
35:DA:1568:G:OP2	38:DD:63:ARG:NH2	2.20	0.74
41:DG:71:THR:N	41:DG:89:GLY:O	2.20	0.74
1:AA:1086:U:H3	1:AA:1099:G:H22	1.36	0.74
12:AL:82:VAL:HG12	12:AL:105:TYR:CB	2.18	0.74
35:BA:542:C:C4	35:BA:543:C:H1'	2.22	0.74
36:BB:80:U:H2'	36:BB:81:G:H21	1.52	0.74
46:BN:15:LEU:HD21	46:BN:55:VAL:HG23	1.70	0.74
47:BO:66:LYS:HG3	47:BO:80:ASP:HA	1.69	0.74
1:AA:832:C:O2'	1:AA:833:U:O5'	2.05	0.73
1:AA:1504:G:H5''	1:AA:1505:G:H5'	1.69	0.73
35:BA:1247:A:OP1	40:BF:95:ARG:NH2	2.18	0.73
40:BF:127:GLU:O	40:BF:129:PHE:N	2.18	0.73
1:CA:1240:U:OP2	7:CG:116:ALA:N	2.20	0.73
27:D2:26:ARG:NH2	27:D2:29:LYS:HD3	2.02	0.73
1:AA:1279:A:OP2	10:AJ:9:ARG:NH2	2.20	0.73
35:BA:271(J):C:O2'	35:BA:271(K):U:OP1	2.06	0.73
35:BA:947:G:H2'	35:BA:948:G:C8	2.23	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BH:102:ALA:HB2	42:BH:117:PRO:HD3	1.69	0.73
43:BI:10:GLU:O	43:BI:12:LEU:N	2.19	0.73
56:BX:52:VAL:HG21	56:BX:82:GLN:HG3	1.70	0.73
2:CB:102:LEU:HB2	2:CB:176:GLU:HG3	1.68	0.73
33:D8:30:ARG:HH12	35:DA:2394:C:N4	1.85	0.73
35:DA:1654:A:OP1	50:DR:3:HIS:HB2	1.87	0.73
1:AA:920:U:H2'	1:AA:921:U:H6	1.51	0.73
12:AL:27:LEU:HD11	12:AL:60:LEU:HB3	1.69	0.73
35:BA:2563:U:N3	35:BA:2566:A:OP2	2.14	0.73
35:BA:2882:A:P	50:BR:96:ARG:HH21	2.12	0.73
38:BD:43:ARG:HH11	38:BD:44:ASN:ND2	1.85	0.73
38:BD:181:GLU:HA	38:BD:272:ALA:HB3	1.70	0.73
39:BE:179:GLU:HB3	39:BE:181:LEU:HD23	1.69	0.73
48:BP:6:LEU:O	48:BP:9:ASN:HB2	1.87	0.73
53:BU:90:VAL:O	53:BU:92:ARG:N	2.20	0.73
35:DA:579:G:H2'	35:DA:580:C:C6	2.23	0.73
52:DT:100:TYR:HB3	52:DT:103:ARG:HD2	1.69	0.73
42:BH:85:LYS:NZ	42:BH:141:VAL:O	2.19	0.73
52:BT:51:ARG:HG3	52:BT:98:LYS:HG3	1.69	0.73
54:BV:63:GLY:HA3	54:BV:97:LYS:HE3	1.70	0.73
7:CG:145:ALA:O	7:CG:146:GLU:HB2	1.87	0.73
26:D1:94:LEU:HD23	26:D1:95:LEU:H	1.53	0.73
31:D6:27:LYS:HD3	35:DA:2286:A:OP1	1.88	0.73
35:DA:1056:G:HO2'	35:DA:1086:A:N6	1.86	0.73
35:DA:2349:G:H5''	35:DA:2350:C:OP2	1.88	0.73
10:AJ:56:HIS:NE2	10:AJ:58:ASP:O	2.21	0.73
11:AK:122:LYS:HE3	11:AK:124:LYS:HB2	1.71	0.73
1:CA:341:C:H42	1:CA:348:G:H1	1.36	0.73
43:DI:124:GLY:H	43:DI:142:VAL:HG22	1.53	0.73
48:DP:71:VAL:HG22	48:DP:72:PRO:HD3	1.69	0.73
52:DT:39:ARG:HA	52:DT:39:ARG:NE	2.03	0.73
57:DY:101:LYS:HZ2	57:DY:102:CYS:HB3	1.54	0.73
1:AA:673:G:H2'	1:AA:674:G:C8	2.22	0.73
1:AA:979:C:H2'	1:AA:980:C:H5'	1.70	0.73
1:AA:1312:G:H1	1:AA:1325:C:H42	1.36	0.73
2:AB:122:PHE:O	2:AB:127:ILE:HG13	1.87	0.73
35:BA:389:G:H1	48:BP:71:VAL:HG12	1.52	0.73
48:BP:62:LEU:CD1	48:BP:62:LEU:C	2.57	0.73
58:BZ:45:ASP:O	58:BZ:47:VAL:N	2.22	0.73
7:CG:113:GLU:HG3	7:CG:122:HIS:CE1	2.23	0.73
35:DA:548:A:H61	54:DV:95:LEU:HD21	1.54	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DB:87:G:H3'	36:DB:88:C:H5''	1.71	0.73
41:DG:161:THR:HG22	41:DG:163:ALA:H	1.53	0.73
48:DP:66:GLY:O	48:DP:68:GLN:N	2.21	0.73
1:AA:1279:A:O2'	1:AA:1281:U:OP2	2.05	0.73
35:BA:729:G:OP2	38:BD:13:ARG:NH2	2.22	0.73
35:BA:2032:G:OP2	35:BA:2454:G:O2'	2.04	0.73
51:BS:20:ARG:NH2	51:BS:21:THR:OG1	2.21	0.73
52:BT:28:VAL:O	52:BT:29:ARG:HB2	1.89	0.73
58:BZ:99:TYR:HB3	58:BZ:123:ASP:HB3	1.70	0.73
35:DA:389:G:H22	48:DP:71:VAL:HG11	1.51	0.73
1:AA:1251:A:H5''	9:AI:12:GLU:OE2	1.89	0.73
2:AB:101:MET:SD	2:AB:102:LEU:N	2.61	0.73
10:AJ:56:HIS:CD2	10:AJ:57:LYS:H	2.07	0.73
10:AJ:57:LYS:HD3	10:AJ:60:ARG:HH12	1.54	0.73
10:AJ:74:ILE:CG1	10:AJ:75:ILE:H	2.02	0.73
47:BO:4:PRO:O	47:BO:5:GLN:HB2	1.89	0.73
52:BT:50:ILE:HG13	52:BT:62:THR:HG23	1.69	0.73
1:CA:434:U:H2'	1:CA:435:C:C6	2.24	0.73
7:CG:93:PRO:HA	7:CG:96:GLN:HB3	1.70	0.73
35:DA:1022:G:H22	35:DA:1142(A):A:H2	1.35	0.73
35:DA:1040:C:O2'	35:DA:1041:C:OP2	2.06	0.73
38:DD:11:PRO:O	38:DD:13:ARG:N	2.20	0.73
19:AS:11:VAL:HG22	19:AS:12:ASP:H	1.54	0.73
26:B1:43:TYR:CD1	26:B1:45:ASN:ND2	2.56	0.73
35:BA:1092:C:N4	35:BA:1100:C:N3	2.36	0.73
41:BG:106:LEU:HG	41:BG:111:LEU:CD1	2.19	0.73
48:BP:27:HIS:C	48:BP:29:LYS:H	1.92	0.73
1:CA:651:C:H2'	1:CA:652:U:H6	1.53	0.73
1:CA:1053:G:C3'	1:CA:1054:C:H5'	2.18	0.73
13:CM:49:THR:HG22	13:CM:51:ALA:H	1.54	0.73
30:D5:34:PRO:HD2	30:D5:35:GLU:OE2	1.87	0.73
1:AA:1018:C:H2'	1:AA:1019:C:H4'	1.70	0.73
1:AA:1154:G:O2'	1:AA:1155:G:OP1	2.06	0.73
35:BA:1430:C:H2'	35:BA:1431:U:H6	1.53	0.73
47:BO:11:ALA:HB3	47:BO:85:VAL:HG23	1.71	0.73
52:BT:16:ARG:HD3	52:BT:19:LEU:HD11	1.71	0.73
1:CA:406:G:O3'	4:CD:3:ARG:NH1	2.22	0.73
25:D0:71:ASP:O	25:D0:73:GLY:N	2.21	0.73
27:D2:32:LEU:O	27:D2:34:GLU:N	2.21	0.73
35:DA:620:G:H4'	35:DA:621:A:H5''	1.70	0.73
35:DA:2250:G:C4	49:DQ:82:ARG:HD3	2.23	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DP:67:MET:O	48:DP:69:GLY:N	2.22	0.73
1:AA:559:A:H4'	1:AA:560:U:H5''	1.71	0.72
23:AY:40:C:H6	23:AY:40:C:O5'	1.72	0.72
1:CA:156:G:H1	1:CA:165:C:H42	1.33	0.72
26:D1:72:GLU:OE2	26:D1:95:LEU:HD23	1.88	0.72
47:DO:71:ARG:NH2	47:DO:122:LEU:OXT	2.22	0.72
48:DP:101:VAL:HG12	48:DP:106:LEU:HB3	1.69	0.72
52:DT:53:ARG:HB2	52:DT:60:THR:HG22	1.71	0.72
1:AA:67:C:O2'	1:AA:171:A:N1	2.21	0.72
1:AA:410:G:N1	1:AA:431:A:OP2	2.22	0.72
7:AG:31:MET:SD	7:AG:35:LYS:N	2.62	0.72
30:B5:46:CYS:HB2	30:B5:51:TYR:CE1	2.24	0.72
35:BA:245:G:N1	35:BA:253:C:H5	1.86	0.72
35:BA:600:G:H1	35:BA:657:U:H3	1.34	0.72
35:BA:1889:A:O2'	35:BA:2087:G:H5'	1.90	0.72
35:BA:2107:C:N4	35:BA:2182:G:H1	1.84	0.72
35:BA:2537:U:H2'	35:BA:2538:C:C6	2.24	0.72
35:BA:2801:A:H2'	35:BA:2895:U:H1'	1.69	0.72
38:BD:11:PRO:HA	38:BD:14:ARG:NH2	2.03	0.72
2:CB:27:LYS:HB3	2:CB:194:PRO:HD2	1.71	0.72
27:D2:23:LYS:HD2	56:DX:5:TYR:OH	1.89	0.72
29:D4:28:LYS:O	29:D4:30:GLU:N	2.22	0.72
35:DA:827:U:H4'	35:DA:828:U:O5'	1.89	0.72
36:DB:87:G:H5''	36:DB:88:C:OP2	1.88	0.72
35:BA:71:A:H3'	35:BA:71:A:OP2	1.88	0.72
35:BA:1630:G:H1	35:BA:1636:C:H42	1.37	0.72
40:BF:40:GLN:HG2	40:BF:184:TYR:HB2	1.71	0.72
49:BQ:43:THR:H	49:BQ:46:GLN:NE2	1.86	0.72
57:BY:46:LYS:HG2	57:BY:63:LYS:H	1.54	0.72
2:CB:231:GLU:HB3	2:CB:232:PRO:HD3	1.70	0.72
35:DA:404:C:H4'	35:DA:405:U:H5'	1.72	0.72
35:DA:2349:G:H3'	35:DA:2350:C:H5''	1.71	0.72
50:DR:13:HIS:CD2	50:DR:16:HIS:H	2.07	0.72
1:AA:702:A:H5'	35:BA:1848:A:H1'	1.69	0.72
4:AD:122:ARG:HH12	4:AD:136:PRO:HD3	0.56	0.72
26:B1:25:LYS:C	26:B1:27:GLU:CD	2.48	0.72
1:CA:1216:G:OP1	14:CN:4:LYS:HE2	1.88	0.72
35:DA:2102:U:H5	35:DA:2187:G:H1	1.37	0.72
39:DE:67:PHE:CD2	39:DE:70:ALA:HA	2.24	0.72
43:DI:74:ASN:O	43:DI:75:LEU:HD12	1.90	0.72
58:DZ:94:GLU:OE2	58:DZ:95:PRO:HD2	1.89	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1067:A:O2'	1:AA:1068:G:OP2	2.04	0.72
7:AG:69:VAL:HG22	7:AG:135:VAL:HG22	1.69	0.72
35:BA:1740:G:O2'	35:BA:1741:A:O5'	2.06	0.72
39:BE:111:ARG:HA	50:BR:3:HIS:CE1	2.25	0.72
2:CB:69:LEU:HB3	2:CB:162:ILE:HG22	1.71	0.72
16:CP:20:VAL:HG23	16:CP:35:LYS:HA	1.72	0.72
33:D8:36:LYS:NZ	35:DA:2347:C:OP2	2.20	0.72
35:DA:58:G:P	56:DX:72:LYS:HB3	2.29	0.72
35:DA:534:U:H5'	53:DU:42:ALA:HB1	1.72	0.72
35:DA:1331:A:HO2'	35:DA:1332:G:H8	1.36	0.72
57:DY:96:ILE:HD11	57:DY:98:VAL:HG12	1.71	0.72
2:AB:193:ASP:OD1	2:AB:196:LEU:HD23	1.89	0.72
35:BA:1156:A:OP1	53:BU:55:ARG:NH2	2.22	0.72
35:BA:1681:G:HO2'	35:BA:1762:A:HO2'	1.31	0.72
35:BA:1985:G:C2'	35:BA:1986:A:H5''	2.19	0.72
35:DA:270:A:OP2	35:DA:271(X):G:N2	2.22	0.72
36:DB:91:C:H5'	49:DQ:18:LYS:HA	1.70	0.72
46:DN:74:ARG:HD2	46:DN:101:HIS:CE1	2.25	0.72
48:DP:55:ARG:O	48:DP:56:SER:OG	2.08	0.72
1:AA:411:A:H2'	1:AA:413:G:H5'	1.72	0.72
14:AN:41:ARG:HG3	14:AN:42:ILE:HG12	1.72	0.72
26:B1:32:LYS:NZ	26:B1:33:LYS:H	1.88	0.72
35:BA:2306:C:H5'	35:BA:2307:G:H2'	1.69	0.72
35:BA:2340:G:H2'	35:BA:2341:G:H8	1.55	0.72
58:BZ:30:ASN:N	58:BZ:33:LEU:O	2.18	0.72
27:D2:46:GLN:HA	27:D2:46:GLN:HE21	1.52	0.72
48:DP:61:ARG:O	48:DP:62:LEU:HB3	1.88	0.72
1:AA:750:G:N3	15:AO:23:GLY:HA3	2.04	0.72
17:AQ:66:SER:O	17:AQ:70:ARG:NH1	2.23	0.72
54:BV:70:ILE:HB	54:BV:90:PRO:HB2	1.72	0.72
55:BW:11:ARG:NH1	55:BW:99:ARG:O	2.22	0.72
1:CA:1286:A:H2'	1:CA:1287:A:H4'	1.72	0.72
26:D1:40:ARG:HE	35:DA:2081:C:P	2.12	0.72
30:D5:3:LYS:O	30:D5:5:PRO:HD3	1.90	0.72
54:DV:64:HIS:HB2	54:DV:95:LEU:O	1.88	0.72
1:AA:862:C:H1'	1:AA:874:G:H4'	1.71	0.72
1:AA:973:G:O3'	14:AN:41:ARG:NH2	2.22	0.72
23:AW:20:U:H5''	23:AW:21:A:OP2	1.89	0.72
35:BA:2203:U:H1'	38:BD:151:LYS:HE2	1.70	0.72
5:CE:25:ARG:HA	5:CE:25:ARG:HE	1.55	0.72
5:CE:80:ILE:HD12	5:CE:138:ALA:HB1	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DQ:15:GLY:HA3	49:DQ:17:LEU:HD23	1.70	0.72
1:AA:1040:U:H2'	1:AA:1041:A:C8	2.25	0.72
14:AN:6:LEU:HB3	14:AN:23:ARG:NH2	2.05	0.72
27:B2:53:LEU:HB2	27:B2:54:LYS:HD2	1.71	0.72
40:BF:4:VAL:HG12	40:BF:17:ARG:HD2	1.71	0.72
41:BG:15:VAL:HG22	41:BG:175:LEU:HD13	1.72	0.72
41:BG:41:GLN:NE2	41:BG:154:GLY:O	2.23	0.72
44:BJ:21:UNK:C	44:BJ:23:UNK:H	2.01	0.72
52:BT:93:ARG:HG3	52:BT:115:ARG:HB2	1.70	0.72
2:CB:162:ILE:HD11	2:CB:177:ALA:HB2	1.72	0.72
35:DA:2593:U:H2'	35:DA:2594:C:C6	2.25	0.72
36:DB:48:A:O2'	51:DS:95:HIS:HE1	1.73	0.72
1:AA:189(L):G:H2'	1:AA:190:U:C6	2.24	0.71
1:AA:838:G:N2	1:AA:849:C:H1'	2.05	0.71
1:AA:1189:C:OP1	14:AN:58:LYS:NZ	2.22	0.71
35:BA:64:A:H2'	35:BA:65:C:H6	1.55	0.71
35:BA:2319:G:N7	51:BS:8:GLU:HB2	2.04	0.71
35:BA:2636:U:H4'	39:BE:80:GLU:OE2	1.90	0.71
48:BP:71:VAL:O	48:BP:73:GLY:N	2.23	0.71
49:BQ:22:LYS:HG3	49:BQ:24:GLY:H	1.54	0.71
27:D2:26:ARG:NH2	56:DX:9:LEU:O	2.22	0.71
35:DA:610:G:N2	35:DA:618:C:O2	2.19	0.71
35:DA:1889:A:H5'	35:DA:1890:A:OP2	1.90	0.71
48:DP:27:HIS:CD2	48:DP:28:GLY:N	2.58	0.71
48:DP:127:ALA:H	48:DP:145:PRO:CG	2.03	0.71
50:DR:58:GLY:HA2	50:DR:80:PHE:HE1	1.54	0.71
52:DT:107:ASP:HB2	52:DT:109:GLU:H	1.54	0.71
1:AA:1358:U:OP2	14:AN:35:ARG:NH2	2.23	0.71
35:BA:995:C:OP2	53:BU:54:LYS:HG3	1.90	0.71
35:BA:2177:C:O3'	37:BC:46:LYS:HE3	1.90	0.71
48:BP:40:SER:O	48:BP:41:ARG:NH2	2.22	0.71
48:BP:61:ARG:HG3	48:BP:63:PRO:HB3	1.72	0.71
51:BS:19:LYS:O	51:BS:19:LYS:HG3	1.89	0.71
1:CA:1048:G:OP1	14:CN:3:ARG:NH1	2.23	0.71
1:CA:1195:C:H41	3:CC:1:MET:HG3	1.55	0.71
22:CV:53:G:H2'	22:CV:54:U:H6	1.54	0.71
35:DA:11:G:H22	35:DA:2628:C:P	2.13	0.71
35:DA:643:A:N1	35:DA:2369:A:O2'	2.22	0.71
38:DD:35:LYS:NZ	38:DD:35:LYS:O	2.22	0.71
2:AB:212:GLN:O	2:AB:216:SER:OG	2.05	0.71
3:AC:8:ILE:O	3:AC:11:ARG:N	2.24	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:112:LYS:HA	9:AI:119:ALA:HB2	1.72	0.71
35:BA:1022:G:O2'	35:BA:1024:G:O6	2.07	0.71
39:BE:4:ILE:HG12	39:BE:28:ALA:HB1	1.72	0.71
11:CK:98:LEU:O	11:CK:101:SER:OG	2.04	0.71
19:CS:6:LYS:HG2	19:CS:7:LYS:HG3	1.72	0.71
31:D6:26:ASN:HD21	31:D6:28:ARG:HH21	1.38	0.71
35:DA:17:G:H4'	53:DU:25:TRP:CZ3	2.25	0.71
35:DA:143:G:H1'	56:DX:38:GLU:HG3	1.72	0.71
35:DA:1177:A:H3'	35:DA:1177:A:OP2	1.89	0.71
41:DG:115:ARG:HD2	41:DG:116:ASP:N	2.05	0.71
51:DS:27:SER:HA	51:DS:88:ASP:HB3	1.72	0.71
52:DT:80:SER:HB2	52:DT:81:PRO:HD2	1.71	0.71
1:AA:10:A:OP2	5:AE:126:ARG:HG2	1.91	0.71
1:AA:340:U:O4	1:AA:349:A:N6	2.17	0.71
1:AA:1252:A:H61	1:AA:1285:A:H61	1.34	0.71
35:BA:663:G:OP1	48:BP:20:GLY:HA3	1.90	0.71
57:BY:9:LYS:O	57:BY:27:VAL:HG11	1.90	0.71
24:CX:14:A:H2	24:CX:15:A:C4	2.08	0.71
34:D9:4:ARG:O	34:D9:36:GLN:HA	1.91	0.71
35:DA:529:A:H62	35:DA:2041:U:H3	1.39	0.71
35:DA:1901:A:OP2	38:DD:255:LYS:HE2	1.90	0.71
1:AA:974:A:OP2	14:AN:41:ARG:NH1	2.22	0.71
10:AJ:49:VAL:HG22	14:AN:41:ARG:HB2	1.71	0.71
35:BA:71:A:H5''	35:BA:73:A:C8	2.25	0.71
39:BE:61:ARG:HG3	39:BE:62:PRO:HD2	1.71	0.71
40:BF:84:VAL:HB	40:BF:86:GLY:O	1.90	0.71
42:BH:92:ILE:O	42:BH:94:TYR:N	2.23	0.71
53:BU:61:TRP:O	53:BU:65:ILE:HD12	1.90	0.71
53:BU:102:GLU:HB3	54:BV:43:GLU:HG3	1.72	0.71
4:CD:196:LEU:H	4:CD:196:LEU:HD12	1.55	0.71
35:DA:1038:C:H42	35:DA:1117:G:H1	1.39	0.71
35:DA:1798:U:H5'	38:DD:259:THR:CG2	2.20	0.71
51:DS:28:VAL:HG21	51:DS:99:LYS:HZ3	1.55	0.71
52:DT:78:LEU:HB3	52:DT:79:HIS:CD2	2.26	0.71
2:AB:131:PRO:O	2:AB:133:LYS:N	2.24	0.71
12:AL:27:LEU:HD13	12:AL:62:SER:OG	1.89	0.71
37:BC:22:ILE:CG2	37:BC:25:ALA:HB2	2.20	0.71
50:BR:6:SER:C	50:BR:8:ARG:HH22	1.94	0.71
56:BX:44:GLU:O	56:BX:49:VAL:N	2.23	0.71
1:CA:455:C:H42	1:CA:476:G:H1	1.38	0.71
1:CA:651:C:H2'	1:CA:652:U:C6	2.26	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:685:G:O2'	1:CA:686:U:H5'	1.89	0.71
35:DA:1104:C:C4	35:DA:1105:U:H2'	2.25	0.71
40:DF:101:LEU:HD12	40:DF:102:PRO:HD2	1.71	0.71
55:DW:6:ILE:HG12	55:DW:104:THR:HG23	1.73	0.71
56:DX:36:LYS:O	56:DX:38:GLU:N	2.23	0.71
56:DX:36:LYS:HG2	56:DX:38:GLU:HG2	1.72	0.71
1:AA:192:U:H2'	1:AA:193:C:C6	2.25	0.71
1:AA:1351:U:O2	1:AA:1371:G:N1	2.19	0.71
2:AB:42:ILE:HG21	2:AB:203:GLY:HA2	1.71	0.71
2:AB:178:ARG:HH21	8:AH:68:ARG:HH22	1.36	0.71
17:AQ:29:HIS:CD2	17:AQ:30:PRO:HD2	2.25	0.71
35:BA:485:C:H42	35:BA:495:G:H1	1.38	0.71
35:BA:2699:C:H41	35:BA:2708:G:H1	1.38	0.71
39:BE:13:ARG:HD2	39:BE:20:ALA:HB1	1.72	0.71
48:BP:27:HIS:HB2	48:BP:29:LYS:HG2	1.73	0.71
54:BV:75:PHE:HB2	54:BV:87:HIS:CG	2.26	0.71
3:CC:141:VAL:HG11	3:CC:202:ILE:CD1	2.20	0.71
19:CS:6:LYS:HD3	19:CS:7:LYS:HD3	1.72	0.71
31:D6:26:ASN:ND2	31:D6:28:ARG:HH21	1.89	0.71
31:D6:35:GLU:HB3	31:D6:51:GLU:HG2	1.71	0.71
48:DP:122:PRO:HA	48:DP:141:ALA:O	1.90	0.71
57:DY:43:ASN:HD22	57:DY:44:ILE:H	1.38	0.71
57:DY:81:LYS:NZ	57:DY:97:ARG:O	2.15	0.71
1:AA:1249:C:O2	9:AI:70:LYS:HE2	1.91	0.71
12:AL:47:LYS:HB3	12:AL:48:PRO:CD	2.18	0.71
26:B1:12:PRO:HD2	26:B1:62:VAL:HG23	1.71	0.71
26:B1:92:LYS:HG2	26:B1:93:GLU:H	1.56	0.71
35:BA:1778:U:H2'	35:BA:1784:A:N6	2.05	0.71
43:BI:45:LYS:O	43:BI:48:GLU:N	2.24	0.71
1:CA:975:A:H4'	1:CA:976:G:H5''	1.73	0.71
19:CS:61:TYR:O	19:CS:62:ILE:HB	1.91	0.71
49:DQ:75:THR:HG22	49:DQ:86:GLY:HA3	1.73	0.71
1:AA:1513:A:H2'	1:AA:1514:C:C6	2.25	0.71
38:BD:260:ARG:NH2	38:BD:266:SER:HB2	2.04	0.71
48:BP:33:ARG:HD3	48:BP:36:LYS:HE3	1.73	0.71
52:BT:3:ARG:HD3	52:BT:6:LEU:HD22	1.71	0.71
6:CF:9:VAL:HB	6:CF:87:ARG:HB2	1.73	0.71
22:CV:3:C:H42	22:CV:70:G:H1	1.38	0.71
30:D5:3:LYS:CE	30:D5:5:PRO:HD2	2.19	0.71
30:D5:3:LYS:CE	30:D5:5:PRO:HD3	2.18	0.71
46:BN:30:ILE:C	46:BN:34:LEU:HD13	2.10	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BP:60:MET:CE	48:BP:61:ARG:HH21	2.03	0.71
4:CD:8:VAL:HG23	4:CD:9:CYS:H	1.56	0.71
11:CK:22:HIS:HB3	11:CK:29:ILE:CG2	2.20	0.71
12:CL:27:LEU:HD13	12:CL:64:TYR:HE1	1.56	0.71
17:CQ:28:PRO:HA	17:CQ:34:LYS:HA	1.71	0.71
35:DA:981:A:N1	35:DA:2027:G:O2'	2.22	0.71
35:DA:2661:G:OP2	35:DA:2661:G:C8	2.44	0.71
57:DY:57:GLN:CD	57:DY:57:GLN:H	1.92	0.71
57:DY:90:LEU:HD12	57:DY:91:GLU:HB2	1.72	0.71
1:AA:1226:C:N4	13:AM:104:ARG:HD3	2.05	0.70
1:AA:1321:C:H3'	1:AA:1322:C:H5''	1.72	0.70
2:AB:179:LYS:HA	8:AH:72:PRO:HG3	1.73	0.70
13:AM:54:VAL:HA	13:AM:57:ARG:HB3	1.72	0.70
30:B5:29:THR:HG21	35:BA:2815:C:H5'	1.74	0.70
54:BV:25:LEU:H	54:BV:94:LEU:HD22	1.55	0.70
55:BW:29:LEU:O	55:BW:33:ARG:HB2	1.90	0.70
1:CA:1095:U:P	1:CA:1108:G:H1	2.13	0.70
35:DA:879:G:C2	35:DA:899:A:H1'	2.26	0.70
46:DN:4:TYR:HB2	53:DU:64:ARG:HH12	1.52	0.70
56:DX:21:PHE:CE1	56:DX:26:TYR:CD2	2.79	0.70
11:AK:19:ALA:HB3	11:AK:82:VAL:HG22	1.73	0.70
15:AO:25:THR:HG21	15:AO:70:LEU:HB2	1.72	0.70
35:BA:2811:G:H4'	39:BE:61:ARG:HD3	1.73	0.70
27:D2:26:ARG:HG3	56:DX:5:TYR:HB3	1.73	0.70
32:D7:40:TRP:CD2	35:DA:459:U:H5''	2.25	0.70
41:DG:71:THR:HG22	41:DG:89:GLY:HA3	1.72	0.70
7:AG:20:ASP:HB3	7:AG:23:VAL:HG23	1.72	0.70
7:AG:57:GLU:O	7:AG:59:LEU:N	2.23	0.70
12:AL:46:LYS:NZ	12:AL:94:PRO:HB3	2.07	0.70
35:BA:660:G:H21	48:BP:15:ARG:HG2	1.57	0.70
38:BD:148:GLU:HB2	38:BD:151:LYS:HG3	1.72	0.70
2:CB:25:ASN:O	2:CB:27:LYS:N	2.24	0.70
27:D2:59:ARG:HA	27:D2:59:ARG:NE	2.05	0.70
35:DA:2312:U:H2'	35:DA:2313:C:H5''	1.71	0.70
38:DD:108:PRO:HG3	38:DD:143:HIS:CE1	2.26	0.70
40:DF:53:THR:HG23	40:DF:55:GLY:H	1.56	0.70
1:AA:1001(A):G:N2	1:AA:1040:U:O2	2.22	0.70
4:AD:91:SER:HB2	4:AD:191:ARG:HD3	1.72	0.70
9:AI:48:GLU:H	9:AI:49:PRO:HD2	1.56	0.70
17:AQ:92:ARG:O	17:AQ:95:TYR:N	2.24	0.70
35:BA:1899:G:H1	35:BA:1902:C:H41	1.37	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:BX:30:VAL:HG23	56:BX:75:ASP:HB2	1.73	0.70
19:CS:45:VAL:HA	19:CS:62:ILE:HG23	1.72	0.70
1:AA:946:A:O2'	1:AA:1333:A:N3	2.21	0.70
2:AB:72:GLY:H	2:AB:93:VAL:HB	1.56	0.70
2:AB:132:LYS:HD3	2:AB:135:GLN:HB3	1.72	0.70
3:AC:40:ARG:HE	3:AC:55:VAL:CG2	2.04	0.70
35:BA:133:C:H42	35:BA:145:G:H1	1.38	0.70
1:CA:96:U:O2'	1:CA:97:G:OP2	2.08	0.70
1:CA:1260:C:H5'	1:CA:1284:C:H4'	1.72	0.70
13:CM:99:ARG:HB2	13:CM:101:GLN:HE22	1.54	0.70
14:CN:8:GLU:O	14:CN:11:LYS:N	2.25	0.70
27:D2:21:LEU:HD21	27:D2:51:ARG:HE	1.54	0.70
35:DA:1251:C:OP2	53:DU:10:ARG:HB2	1.90	0.70
35:DA:1256:G:H5'	35:DA:1257:C:OP2	1.91	0.70
35:DA:2276:G:H4'	49:DQ:85:LYS:HE3	1.73	0.70
50:DR:2:ARG:HG2	50:DR:3:HIS:H	1.56	0.70
58:DZ:10:ARG:HH21	58:DZ:26:GLY:H	1.37	0.70
1:AA:1136:U:H5''	1:AA:1137:C:H5''	1.73	0.70
12:AL:24:VAL:HG13	12:AL:98:TYR:CE2	2.26	0.70
27:B2:12:GLU:O	27:B2:54:LYS:HG3	1.92	0.70
35:BA:198:C:H2'	35:BA:199:A:H5''	1.73	0.70
46:BN:30:ILE:HG22	46:BN:34:LEU:CD1	2.21	0.70
48:BP:81:GLN:N	48:BP:111:ARG:HB3	2.05	0.70
2:CB:194:PRO:O	2:CB:196:LEU:N	2.24	0.70
24:CX:13:A:N6	24:CX:15:A:N7	2.38	0.70
27:D2:26:ARG:CG	56:DX:5:TYR:HB3	2.22	0.70
35:DA:1657:C:H2'	35:DA:1658:C:C6	2.27	0.70
4:AD:122:ARG:NH1	4:AD:136:PRO:CG	2.53	0.70
42:BH:85:LYS:HE2	42:BH:145:ALA:HB2	1.72	0.70
43:BI:144:VAL:HG12	43:BI:145:VAL:HG23	1.72	0.70
54:BV:79:VAL:HG21	54:BV:82:ARG:HD3	1.73	0.70
58:BZ:27:VAL:HG12	58:BZ:87:ASP:HB3	1.74	0.70
2:CB:130:ARG:HB3	2:CB:134:GLU:HB2	1.72	0.70
13:CM:11:ARG:HH21	13:CM:12:ASN:HD21	1.38	0.70
17:CQ:19:VAL:HG23	17:CQ:44:ALA:HB3	1.72	0.70
42:DH:138:LYS:H	42:DH:141:VAL:HG23	1.55	0.70
56:DX:55:ASN:O	56:DX:77:LYS:HG2	1.91	0.70
12:AL:47:LYS:HD2	12:AL:48:PRO:HD3	1.74	0.70
32:B7:19:ARG:HG3	35:BA:126:A:OP2	1.92	0.70
35:BA:1677:A:H2'	35:BA:1678:G:H8	1.57	0.70
46:BN:66:LYS:O	46:BN:69:GLN:N	2.20	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BP:111:ARG:HH11	48:BP:129:ALA:HB2	1.55	0.70
35:DA:1877:A:H8	35:DA:1877:A:OP2	1.75	0.70
39:DE:173:VAL:HB	39:DE:183:LEU:HB3	1.72	0.70
41:DG:147:ASP:OD1	41:DG:148:MET:N	2.25	0.70
50:DR:68:ARG:NH1	50:DR:69:ASP:OD2	2.25	0.70
52:DT:107:ASP:O	52:DT:110:ILE:HG22	1.91	0.70
1:AA:171:A:N1	1:AA:172:A:H8	1.89	0.70
1:AA:1244:C:H5	1:AA:1293:G:H22	1.40	0.70
12:AL:82:VAL:CG1	12:AL:105:TYR:HB3	2.20	0.70
28:B3:29:ARG:NH1	35:BA:1183:G:O3'	2.24	0.70
35:BA:810:U:H3	48:BP:36:LYS:HZ2	1.39	0.70
35:BA:849:A:H5''	35:BA:850:C:OP2	1.91	0.70
35:BA:1051:G:N7	35:BA:1052:C:N4	2.40	0.70
1:CA:1116:C:H2'	1:CA:1117:G:H5''	1.74	0.70
7:CG:129:GLU:HB3	7:CG:131:LYS:HG3	1.72	0.70
33:D8:43:GLN:O	33:D8:43:GLN:NE2	2.25	0.70
54:DV:80:GLN:HG3	54:DV:81:TYR:CE2	2.26	0.70
56:DX:77:LYS:HD3	56:DX:77:LYS:C	2.12	0.70
1:AA:280:C:H4'	1:AA:281:G:OP2	1.92	0.70
1:AA:1165:C:H2'	1:AA:1166:G:C4	2.27	0.70
9:AI:81:ILE:O	9:AI:83:ARG:N	2.24	0.70
20:AT:10:LEU:HD12	20:AT:12:ALA:H	1.56	0.70
20:AT:67:ALA:O	20:AT:73:HIS:ND1	2.25	0.70
35:BA:897:C:H1'	35:BA:898:C:OP2	1.92	0.70
41:BG:165:THR:OG1	41:BG:167:GLU:OE1	2.09	0.70
50:BR:79:LEU:O	50:BR:83:ILE:HG22	1.92	0.70
56:BX:44:GLU:OE2	56:BX:50:LYS:CA	2.40	0.70
1:CA:923:A:O2'	1:CA:1399:C:OP2	2.09	0.70
1:CA:1194:U:H5''	1:CA:1195:C:OP2	1.92	0.70
21:CU:19:GLY:O	21:CU:21:TYR:N	2.25	0.70
25:D0:11:ARG:O	25:D0:14:ARG:NH2	2.25	0.70
35:DA:587:C:H2'	48:DP:33:ARG:HH11	1.56	0.70
25:B0:23:VAL:HA	25:B0:38:VAL:HG22	1.74	0.69
41:BG:51:ARG:CZ	41:BG:51:ARG:HA	2.21	0.69
1:CA:166:G:H2'	1:CA:167:G:H8	1.57	0.69
1:CA:1259:C:H5''	1:CA:1260:C:OP2	1.92	0.69
9:CI:28:VAL:HA	9:CI:63:ILE:O	1.90	0.69
35:DA:2394:C:OP1	48:DP:63:PRO:HD2	1.92	0.69
53:DU:92:ARG:CZ	53:DU:95:LEU:HB2	2.22	0.69
1:AA:175:C:H4'	20:AT:25:ARG:HD3	1.74	0.69
1:AA:1189:C:H5''	3:AC:5:ILE:HG12	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:79:LEU:HD22	9:AI:83:ARG:HB2	1.74	0.69
15:AO:64:ARG:HD3	15:AO:88:ARG:HH12	1.56	0.69
35:BA:271(O):C:O2'	35:BA:271(P):C:OP2	2.09	0.69
36:BB:15:A:H5'	36:BB:16:G:C8	2.27	0.69
48:BP:40:SER:H	48:BP:41:ARG:HG2	1.57	0.69
1:CA:606:G:H1'	1:CA:632:A:H61	1.57	0.69
35:DA:84:A:H5'	57:DY:9:LYS:HB3	1.73	0.69
1:AA:748:C:H4'	1:AA:749:C:O5'	1.92	0.69
4:AD:43:HIS:O	4:AD:45:GLN:N	2.25	0.69
23:AW:15:G:H1	23:AW:48:C:H5	1.39	0.69
25:B0:46:LYS:HD2	25:B0:76:GLY:HA3	1.74	0.69
32:B7:40:TRP:HD1	35:BA:459:U:C5'	2.05	0.69
41:BG:143:GLU:OE1	41:BG:143:GLU:N	2.23	0.69
48:BP:85:LEU:HA	48:BP:88:LEU:HD23	1.74	0.69
2:CB:87:ARG:NH1	2:CB:220:ASP:OD1	2.25	0.69
35:DA:811:U:H3'	48:DP:25:SER:HA	1.75	0.69
35:DA:1529:G:H2'	35:DA:1530:C:H5	1.57	0.69
37:DC:78:ALA:HA	37:DC:82:LYS:HD2	1.75	0.69
39:DE:51:PHE:HD2	39:DE:52:LEU:HD12	1.58	0.69
48:DP:35:HIS:O	48:DP:36:LYS:HG3	1.93	0.69
52:DT:29:ARG:HE	52:DT:82:LEU:CD2	2.06	0.69
52:DT:106:SER:HB2	52:DT:110:ILE:HD12	1.72	0.69
56:DX:28:PHE:O	56:DX:76:ARG:HB2	1.92	0.69
4:AD:150:GLU:OE2	4:AD:153:ARG:HD2	1.92	0.69
8:AH:63:LEU:HD12	8:AH:65:TYR:CZ	2.28	0.69
8:AH:102:ARG:HE	8:AH:105:ARG:HD3	1.56	0.69
13:AM:90:LEU:O	13:AM:93:ARG:N	2.24	0.69
35:BA:1335:U:H5''	56:BX:65:ARG:HH22	1.57	0.69
35:BA:1999:C:O2	35:BA:2687:U:O2'	2.10	0.69
35:BA:2094:G:P	43:BI:22:LYS:HD3	2.33	0.69
40:BF:8:GLN:HG3	40:BF:9:ILE:HG22	1.74	0.69
41:BG:15:VAL:HA	41:BG:175:LEU:HD12	1.74	0.69
27:D2:41:ILE:O	27:D2:43:GLN:N	2.26	0.69
35:DA:2393:A:H4'	48:DP:61:ARG:O	1.91	0.69
40:DF:25:PRO:HG3	40:DF:119:ARG:HD3	1.74	0.69
48:DP:71:VAL:HG13	48:DP:72:PRO:CD	2.22	0.69
52:DT:8:LYS:HD2	52:DT:8:LYS:H	1.56	0.69
1:AA:598:U:H2'	1:AA:599:C:C6	2.26	0.69
1:AA:694:A:N6	1:AA:787:A:O2'	2.25	0.69
10:AJ:9:ARG:NH1	10:AJ:69:ASN:OD1	2.25	0.69
35:BA:1276:A:N1	35:BA:1294:U:H5	1.89	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2483:C:H5'	35:BA:2484:G:OP2	1.93	0.69
35:BA:2635:C:OP1	39:BE:77:ILE:HG21	1.92	0.69
35:BA:2693:A:H2'	35:BA:2694:G:H8	1.57	0.69
38:BD:14:ARG:HD3	38:BD:14:ARG:H	1.58	0.69
51:BS:20:ARG:CZ	51:BS:22:GLY:H	2.05	0.69
1:CA:974:A:OP2	14:CN:41:ARG:NH1	2.26	0.69
20:CT:73:HIS:O	20:CT:76:ALA:N	2.26	0.69
39:DE:92:THR:O	39:DE:95:ILE:HG13	1.92	0.69
48:DP:23:PRO:HB2	48:DP:33:ARG:HG3	1.75	0.69
53:DU:92:ARG:NH2	53:DU:95:LEU:HB2	2.07	0.69
17:AQ:9:VAL:HG13	17:AQ:56:VAL:HG22	1.74	0.69
35:BA:81:G:H1	35:BA:82:G:H21	1.38	0.69
35:BA:1677:A:H2'	35:BA:1678:G:C8	2.27	0.69
48:BP:26:GLY:HA3	48:BP:29:LYS:HZ2	1.57	0.69
49:BQ:44:ALA:HA	49:BQ:47:ILE:HB	1.72	0.69
18:CR:26:LEU:HD12	18:CR:27:GLY:N	2.07	0.69
23:CY:28:G:H2'	23:CY:29:G:H8	1.56	0.69
26:D1:76:ARG:O	26:D1:78:LYS:NZ	2.16	0.69
39:DE:61:ARG:H	39:DE:62:PRO:HD2	1.57	0.69
1:AA:1363(A):A:H1'	1:AA:1365:G:N7	2.08	0.69
7:AG:35:LYS:O	7:AG:37:ASN:N	2.25	0.69
33:B8:61:LEU:HG	35:BA:593:G:H4'	1.74	0.69
35:BA:1100:C:H5	35:BA:1101:U:C4	2.10	0.69
35:BA:1231:G:H2'	35:BA:1232:G:H8	1.58	0.69
46:BN:13:TRP:HD1	46:BN:51:PHE:HB3	1.57	0.69
54:BV:69:LYS:NZ	54:BV:71:LEU:CG	2.56	0.69
1:CA:44:G:H1	1:CA:398:C:H42	1.40	0.69
36:DB:77:U:O2'	58:DZ:78:LYS:NZ	2.25	0.69
1:AA:79:G:O2'	1:AA:80:G:O5'	2.11	0.69
1:AA:782:A:OP1	1:AA:1521:G:N2	2.26	0.69
1:AA:1372:U:H5''	9:AI:71:SER:HB2	1.72	0.69
35:BA:797:C:OP2	40:BF:62:ARG:HG3	1.92	0.69
35:BA:882:G:H4'	35:BA:883:G:OP2	1.92	0.69
35:BA:1058:G:O6	35:BA:1080:C:N4	2.19	0.69
35:BA:1245:G:OP1	48:BP:16:ARG:HD2	1.92	0.69
35:BA:1532:C:H2'	35:BA:1533:G:N2	2.08	0.69
35:BA:2632:A:C4	39:BE:61:ARG:NH2	2.59	0.69
38:BD:273:ARG:HD2	38:BD:274:ARG:N	2.08	0.69
40:BF:20:LEU:HB3	40:BF:23:ASP:OD2	1.93	0.69
48:BP:79:ARG:O	48:BP:111:ARG:HB2	1.92	0.69
52:BT:29:ARG:HD3	52:BT:86:ILE:HG22	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:BW:80:PRO:O	55:BW:100:THR:CG2	2.40	0.69
58:BZ:45:ASP:OD1	58:BZ:46:LYS:N	2.24	0.69
1:CA:152:A:H5''	1:CA:153:C:OP2	1.92	0.69
1:CA:181:G:N2	1:CA:182:U:O4	2.25	0.69
1:CA:371:G:H5''	1:CA:372:C:OP2	1.92	0.69
1:CA:539:A:H2'	1:CA:540:G:C8	2.27	0.69
1:CA:736:C:H2'	1:CA:737:A:C8	2.27	0.69
11:CK:33:THR:HA	11:CK:39:PRO:HA	1.75	0.69
25:D0:82:ARG:O	25:D0:84:LEU:N	2.25	0.69
33:D8:29:LYS:HD2	33:D8:44:LYS:HB2	1.74	0.69
35:DA:2464:C:O2'	35:DA:2465:C:O5'	2.10	0.69
46:DN:73:THR:O	46:DN:75:TYR:N	2.26	0.69
1:AA:582:U:OP1	15:AO:68:ARG:NH2	2.25	0.69
1:AA:824:C:N4	1:AA:876:G:O6	2.15	0.69
1:AA:1502:A:H2	1:AA:1505:G:N1	1.91	0.69
3:AC:22:TRP:CH2	3:AC:32:LEU:HB3	2.28	0.69
31:B6:15:GLU:CD	31:B6:18:ARG:HD3	2.12	0.69
35:BA:58:G:H5'	56:BX:72:LYS:HB3	1.74	0.69
4:CD:76:ARG:O	4:CD:78:LEU:N	2.25	0.69
16:CP:3:LYS:HG3	16:CP:24:ALA:HB2	1.75	0.69
33:D8:25:MET:CG	48:DP:64:LYS:HB2	2.22	0.69
1:AA:939:G:H5''	7:AG:102:ARG:HH22	1.56	0.69
1:AA:946:A:H2'	1:AA:947:G:C8	2.28	0.69
28:B3:4:LEU:HD22	28:B3:39:ASP:OD1	1.93	0.69
33:B8:13:ARG:HH21	48:BP:61:ARG:HA	1.56	0.69
34:B9:16:VAL:HG11	35:BA:1032:A:O3'	1.92	0.69
35:BA:813:U:OP2	48:BP:26:GLY:HA2	1.93	0.69
39:BE:173:VAL:HG22	39:BE:183:LEU:HB3	1.74	0.69
49:BQ:50:ALA:HA	49:BQ:125:LEU:HD13	1.74	0.69
7:CG:93:PRO:HB2	7:CG:94:ARG:NH2	2.08	0.69
27:D2:34:GLU:N	27:D2:34:GLU:OE2	2.26	0.69
35:DA:34:C:O2'	35:DA:35:G:OP1	2.10	0.69
42:DH:77:LYS:HZ1	42:DH:138:LYS:HB2	1.58	0.69
1:AA:912:C:OP1	12:AL:46:LYS:NZ	2.25	0.68
7:AG:26:PHE:CD1	7:AG:30:ILE:HD11	2.28	0.68
35:BA:2818:G:H1	35:BA:2828:C:H42	1.39	0.68
58:BZ:45:ASP:O	58:BZ:48:PHE:N	2.20	0.68
7:CG:54:THR:O	7:CG:56:GLN:N	2.25	0.68
11:CK:51:LYS:HG2	11:CK:55:LYS:HZ3	1.58	0.68
19:CS:32:LYS:HA	19:CS:50:ALA:HB3	1.75	0.68
33:D8:33:ASN:O	33:D8:34:TRP:HB2	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:185:U:H4'	35:DA:218:A:H4'	1.74	0.68
1:AA:1133:G:N2	1:AA:1134:G:O6	2.26	0.68
29:B4:6:HIS:HA	41:BG:67:LYS:HG3	1.74	0.68
30:B5:54:GLY:HA2	50:BR:33:ARG:HH12	1.58	0.68
35:BA:1485:G:H2'	35:BA:1486:A:H8	1.58	0.68
35:BA:1584:C:H4'	35:BA:1586:A:OP2	1.93	0.68
39:BE:49:LEU:O	39:BE:78:LEU:HA	1.93	0.68
53:BU:27:LEU:O	53:BU:29:SER:N	2.26	0.68
19:CS:44:MET:N	19:CS:44:MET:SD	2.66	0.68
23:CW:37:A:H3'	23:CW:38:A:H8	1.58	0.68
40:DF:10:PRO:HG2	40:DF:127:GLU:HB3	1.74	0.68
41:DG:139:LEU:HD21	41:DG:149:VAL:HG11	1.74	0.68
4:AD:122:ARG:HA	4:AD:122:ARG:NE	2.08	0.68
6:AF:89:MET:SD	18:AR:76:LEU:CD1	2.81	0.68
7:AG:111:ARG:HH22	7:AG:123:GLU:HG2	1.58	0.68
25:B0:27:GLU:HB3	35:BA:856:C:H1'	1.75	0.68
26:B1:16:ASN:N	26:B1:16:ASN:OD1	2.24	0.68
1:CA:243:A:H4'	1:CA:244:U:H5'	1.74	0.68
1:CA:695:A:H2'	1:CA:696:A:C8	2.29	0.68
35:DA:2405:G:H8	35:DA:2405:G:OP2	1.76	0.68
49:DQ:10:ARG:NH1	49:DQ:11:LYS:H	1.91	0.68
51:DS:99:LYS:HD2	51:DS:99:LYS:N	2.05	0.68
57:DY:57:GLN:N	57:DY:57:GLN:OE1	2.23	0.68
21:AU:6:ARG:O	21:AU:8:THR:N	2.23	0.68
35:BA:351:G:O2'	35:BA:353:G:N7	2.25	0.68
35:BA:2591:C:OP2	38:BD:239:ARG:HB2	1.93	0.68
35:BA:2810:A:O2'	39:BE:61:ARG:NH1	2.22	0.68
40:BF:157:VAL:HG23	40:BF:194:MET:HA	1.76	0.68
51:BS:85:VAL:HG12	51:BS:86:ALA:H	1.57	0.68
52:BT:51:ARG:CZ	52:BT:100:TYR:HE1	2.07	0.68
1:CA:741:G:OP1	15:CO:35:ARG:NH1	2.27	0.68
1:CA:1399:C:H4'	1:CA:1400:C:O5'	1.94	0.68
2:CB:50:GLU:OE2	2:CB:200:ILE:HG13	1.93	0.68
11:CK:64:ALA:O	11:CK:67:ASP:N	2.27	0.68
15:CO:82:ILE:O	15:CO:86:GLY:N	2.27	0.68
26:D1:73:LEU:HD21	26:D1:94:LEU:HA	1.75	0.68
35:DA:819:A:OP2	35:DA:1187:G:N2	2.26	0.68
35:DA:2100:G:H2'	35:DA:2101:G:H8	1.59	0.68
35:DA:2787:C:HO2'	35:DA:2810:A:HO2'	1.36	0.68
36:DB:78:A:O2'	49:DQ:21:THR:HG21	1.93	0.68
41:DG:12:TYR:HA	41:DG:16:ARG:HB2	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:DZ:54:HIS:NE2	58:DZ:123:ASP:OD2	2.27	0.68
3:AC:40:ARG:NE	3:AC:55:VAL:HG23	2.06	0.68
26:B1:32:LYS:HG2	26:B1:33:LYS:N	2.08	0.68
35:BA:1568:G:OP2	38:BD:63:ARG:NH2	2.26	0.68
35:BA:2474:C:H5'	35:BA:2475:C:OP2	1.93	0.68
35:BA:2712:U:H1'	35:BA:2712(A):A:C8	2.29	0.68
47:BO:47:ILE:O	47:BO:49:ARG:N	2.25	0.68
54:BV:16:PRO:HA	54:BV:98:GLU:HB3	1.74	0.68
1:CA:192:U:H2'	1:CA:193:C:H6	1.59	0.68
4:CD:64:LEU:HB2	4:CD:198:VAL:HG21	1.75	0.68
8:CH:17:THR:O	8:CH:78:GLN:NE2	2.27	0.68
35:DA:1104:C:H2'	35:DA:1105:U:H5'	1.75	0.68
41:DG:5:VAL:HG13	41:DG:104:GLU:OE2	1.94	0.68
48:DP:130:PHE:CZ	48:DP:145:PRO:HD2	2.29	0.68
12:AL:25:PRO:O	12:AL:27:LEU:N	2.26	0.68
35:BA:1430:C:H2'	35:BA:1431:U:C6	2.29	0.68
39:BE:76:ARG:HG2	39:BE:195:LEU:HD22	1.76	0.68
40:BF:170:LEU:HB2	40:BF:173:VAL:HG12	1.76	0.68
1:CA:1346:A:OP1	9:CI:120:ARG:NH1	2.22	0.68
1:CA:1452:C:H4'	1:CA:1456:G:N2	2.08	0.68
10:CJ:49:VAL:HG23	14:CN:41:ARG:HB2	1.74	0.68
17:CQ:45:HIS:HD2	17:CQ:65:ILE:HG12	1.59	0.68
35:DA:173:G:H5'	35:DA:174:C:OP2	1.93	0.68
35:DA:2502:G:H5''	35:DA:2503:A:H5''	1.74	0.68
35:DA:2820:A:C8	39:DE:109:LYS:HE2	2.29	0.68
57:DY:13:VAL:HG21	57:DY:28:LYS:NZ	2.08	0.68
1:AA:279:A:H5''	1:AA:280:C:H3'	1.76	0.68
32:B7:39:ARG:NH2	35:BA:468:G:N7	2.42	0.68
35:BA:2392:A:H2	35:BA:2424:C:H42	1.39	0.68
40:BF:152:GLU:HA	40:BF:190:GLU:OE1	1.94	0.68
1:CA:1452:C:H4'	1:CA:1456:G:C2	2.28	0.68
4:CD:173:TRP:CD2	4:CD:189:PRO:HB3	2.29	0.68
16:CP:57:ARG:HA	16:CP:60:LEU:HD12	1.74	0.68
35:DA:2262:U:H2'	35:DA:2263:C:H5''	1.74	0.68
35:DA:2327:A:H2'	35:DA:2328:A:C8	2.28	0.68
35:DA:2774:C:H2'	35:DA:2775:A:O4'	1.94	0.68
52:DT:45:PHE:HD2	52:DT:76:PHE:HZ	1.41	0.68
57:DY:39:VAL:N	57:DY:64:GLU:OE2	2.26	0.68
1:AA:9:G:OP2	5:AE:121:LYS:NZ	2.22	0.68
32:B7:22:MET:O	32:B7:28:ARG:NH1	2.27	0.68
35:BA:508:G:H5''	35:BA:508:G:H8	1.58	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2492:U:H2'	35:BA:2493:U:H6	1.58	0.68
40:BF:11:VAL:O	40:BF:13:SER:N	2.26	0.68
56:BX:40:LYS:HD3	56:BX:51:VAL:HG11	1.76	0.68
2:CB:115:LEU:HD13	2:CB:145:LEU:HB3	1.74	0.68
8:CH:3:THR:OG1	8:CH:4:ASP:N	2.25	0.68
22:CV:52:G:O2'	22:CV:53:G:OP2	2.09	0.68
32:D7:5:TRP:NE1	32:D7:7:PRO:HG3	2.09	0.68
33:D8:25:MET:SD	48:DP:64:LYS:HD2	2.34	0.68
33:D8:25:MET:HG3	48:DP:64:LYS:HB2	1.76	0.68
36:DB:44:G:O2'	36:DB:45:A:OP2	2.09	0.68
48:DP:48:PRO:O	48:DP:50:ARG:N	2.26	0.68
4:AD:57:ARG:HH22	5:AE:107:ARG:HD3	1.59	0.68
9:AI:6:GLY:HA3	9:AI:84:ALA:HB2	1.76	0.68
35:BA:538:G:N1	35:BA:555:U:H5	1.90	0.68
35:BA:956:G:H2'	35:BA:957:A:H2'	1.76	0.68
35:BA:1256:G:H5'	35:BA:1257:C:OP2	1.92	0.68
36:BB:116:G:H8	36:BB:116:G:OP2	1.76	0.68
41:BG:106:LEU:O	41:BG:111:LEU:CD1	2.41	0.68
49:BQ:17:LEU:O	49:BQ:19:GLY:N	2.26	0.68
52:BT:34:VAL:HG22	52:BT:39:ARG:HD3	1.76	0.68
4:CD:156:GLU:OE2	4:CD:160:GLN:HG3	1.94	0.68
35:DA:1044:G:H1'	35:DA:1111:A:H62	1.59	0.68
35:DA:2656:U:N3	35:DA:2665:A:H2	1.87	0.68
35:DA:2657:A:H2	35:DA:2664:G:H21	1.42	0.68
37:DC:78:ALA:HB1	37:DC:82:LYS:HB3	1.76	0.68
40:DF:40:GLN:NE2	40:DF:182:ASN:OD1	2.26	0.68
47:DO:80:ASP:OD2	52:DT:64:ARG:NH2	2.26	0.68
57:DY:37:VAL:O	57:DY:38:ILE:HG12	1.94	0.68
1:AA:664:G:N2	1:AA:741:G:H1	1.86	0.68
8:AH:116:LYS:HD3	8:AH:129:VAL:HG11	1.75	0.68
12:AL:84:LEU:HD12	12:AL:104:VAL:HG11	1.76	0.68
35:BA:830:G:H4'	35:BA:831:G:OP2	1.94	0.68
57:BY:86:ARG:O	57:BY:88:LYS:NZ	2.25	0.68
35:DA:58:G:OP2	56:DX:72:LYS:HB3	1.94	0.68
35:DA:322:A:H5'	35:DA:340:A:H1'	1.76	0.68
40:DF:185:ASP:OD1	40:DF:188:ARG:NH1	2.27	0.68
1:AA:1168:A:H4'	1:AA:1169:A:OP2	1.93	0.67
1:AA:1367:C:OP1	9:AI:115:GLY:HA2	1.94	0.67
7:AG:105:VAL:O	7:AG:109:ASN:ND2	2.26	0.67
27:B2:57:ILE:HG12	27:B2:59:ARG:HH12	1.59	0.67
35:BA:492:A:H2'	35:BA:493:G:O4'	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1763:G:H8	35:BA:1763:G:H3'	1.57	0.67
40:BF:28:ILE:HD12	40:BF:30:PRO:HD3	1.76	0.67
41:BG:39:ILE:HG23	41:BG:92:VAL:HG13	1.75	0.67
49:BQ:75:THR:HA	49:BQ:91:GLU:OE1	1.93	0.67
57:BY:4:LYS:HG3	57:BY:6:HIS:CE1	2.29	0.67
1:CA:442:C:H42	1:CA:492:G:H1	1.40	0.67
1:CA:1012:U:H2'	1:CA:1013:G:C8	2.29	0.67
20:CT:73:HIS:N	20:CT:74:LYS:HE2	2.07	0.67
35:DA:229:A:H5'	35:DA:230:U:OP2	1.92	0.67
35:DA:587:C:C6	48:DP:33:ARG:HD2	2.28	0.67
35:DA:1265:A:OP1	35:DA:1265:A:H8	1.76	0.67
35:DA:1405:U:H2'	35:DA:1406:U:C6	2.28	0.67
35:DA:2068:U:N3	35:DA:2430:A:H2	1.89	0.67
42:DH:21:PRO:O	42:DH:23:ARG:N	2.27	0.67
53:DU:92:ARG:NH1	54:DV:11:GLN:HB2	2.09	0.67
57:DY:14:LEU:HG	57:DY:15:VAL:N	2.08	0.67
58:DZ:4:ARG:NH1	58:DZ:66:SER:OG	2.27	0.67
1:AA:110:C:O2'	16:AP:25:ARG:O	2.09	0.67
1:AA:1316:G:N2	1:AA:1319:A:OP2	2.23	0.67
7:AG:69:VAL:HA	7:AG:138:LYS:HD2	1.76	0.67
16:AP:34:GLU:OE2	16:AP:55:ARG:HD3	1.93	0.67
35:BA:1054:A:H5'	35:BA:1055:G:C8	2.28	0.67
35:BA:1057:A:H2'	35:BA:1058:G:C4'	2.24	0.67
1:CA:109:A:H4'	1:CA:110:C:OP2	1.93	0.67
13:CM:49:THR:HB	13:CM:52:GLU:HG3	1.76	0.67
35:DA:620:G:H5'	35:DA:620:G:N3	2.10	0.67
35:DA:2655:G:O2'	35:DA:2664:G:N1	2.27	0.67
48:DP:21:ARG:HH12	48:DP:29:LYS:HE3	1.59	0.67
57:DY:99:CYS:SG	57:DY:100:ALA:N	2.63	0.67
33:B8:13:ARG:NH2	48:BP:62:LEU:H	1.89	0.67
35:BA:405:U:H4'	35:BA:406:G:OP2	1.93	0.67
35:BA:1578:U:H6	35:BA:1578:U:OP2	1.77	0.67
49:BQ:43:THR:O	49:BQ:46:GLN:HG2	1.95	0.67
55:BW:17:VAL:HG12	55:BW:76:VAL:HG11	1.76	0.67
6:CF:89:MET:SD	18:CR:76:LEU:HD21	2.35	0.67
31:D6:14:THR:O	31:D6:49:HIS:HA	1.95	0.67
35:DA:363:G:H2'	35:DA:363(A):A:H8	1.59	0.67
35:DA:481:G:H4'	35:DA:482:A:H5'	1.74	0.67
35:DA:1403:C:H5''	35:DA:1471:A:H1'	1.75	0.67
38:DD:61:LEU:O	38:DD:63:ARG:NH1	2.27	0.67
58:DZ:119:GLU:O	58:DZ:121:HIS:N	2.27	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:439:A:N7	1:AA:494:U:H5	1.92	0.67
1:AA:1368:G:OP2	9:AI:112:LYS:HD3	1.95	0.67
3:AC:154:SER:OG	3:AC:155:GLY:N	2.21	0.67
4:AD:46:LYS:HG2	4:AD:47:ARG:NH2	2.08	0.67
9:AI:17:VAL:HG11	9:AI:81:ILE:HA	1.76	0.67
26:B1:26:ARG:HD2	26:B1:34:THR:HG21	1.76	0.67
35:BA:157:U:OP2	35:BA:157:U:H6	1.77	0.67
43:BI:79:ILE:N	43:BI:141:LYS:O	2.25	0.67
49:BQ:43:THR:HG22	49:BQ:46:GLN:CD	2.14	0.67
1:CA:1169:A:H2'	1:CA:1170:A:C8	2.28	0.67
30:D5:3:LYS:C	30:D5:5:PRO:HD3	2.14	0.67
35:DA:1045:A:O2'	35:DA:1046:A:OP2	2.06	0.67
35:DA:2475:C:H5''	35:DA:2476:A:OP2	1.94	0.67
41:DG:27:ASN:HB3	41:DG:30:GLU:HG3	1.75	0.67
49:DQ:109:VAL:HG13	49:DQ:113:GLN:HB2	1.76	0.67
57:DY:13:VAL:HG21	57:DY:28:LYS:HZ1	1.59	0.67
1:AA:476:G:H5''	1:AA:477:A:OP2	1.93	0.67
9:AI:26:VAL:HG12	9:AI:61:ALA:HB3	1.75	0.67
9:AI:95:LYS:HG3	9:AI:96:LEU:HD12	1.77	0.67
16:AP:9:PHE:CE2	16:AP:18:ARG:HD2	2.30	0.67
18:AR:26:LEU:HD21	18:AR:42:ARG:CZ	2.24	0.67
35:BA:1568:G:P	38:BD:63:ARG:HH22	2.18	0.67
35:BA:2124:G:N2	37:BC:40:THR:OG1	2.26	0.67
40:BF:167:ALA:O	40:BF:169:ASN:N	2.28	0.67
3:CC:11:ARG:NH2	3:CC:177:THR:O	2.27	0.67
34:D9:31:LYS:HE3	35:DA:2478:A:OP1	1.95	0.67
35:DA:2314:C:H2'	35:DA:2315:G:H8	1.59	0.67
35:DA:2661:G:OP2	35:DA:2661:G:H8	1.77	0.67
38:DD:31:LYS:HB3	38:DD:35:LYS:H	1.60	0.67
1:AA:657:G:N2	15:AO:22:THR:OG1	2.28	0.67
2:AB:74:LYS:CB	2:AB:165:VAL:HG21	2.25	0.67
3:AC:7:PRO:O	3:AC:11:ARG:NH1	2.27	0.67
7:AG:73:MET:HA	7:AG:91:VAL:HG23	1.75	0.67
35:BA:35:G:H5'	35:BA:36:G:OP2	1.95	0.67
35:BA:240:G:H1'	35:BA:257:A:H61	1.60	0.67
35:BA:1495:A:C8	35:BA:1495:A:H5''	2.29	0.67
35:BA:2512:C:H5''	35:BA:2513:G:OP2	1.95	0.67
37:BC:169:GLY:O	37:BC:171:ILE:N	2.27	0.67
48:BP:41:ARG:HH12	48:BP:45:LEU:HD11	1.60	0.67
53:BU:102:GLU:HG3	54:BV:2:PHE:CE2	2.30	0.67
1:CA:1239:A:H2'	1:CA:1298:C:N4	2.08	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:74:LYS:NZ	2:CB:205:ASP:HB2	2.09	0.67
43:DI:74:ASN:O	43:DI:75:LEU:CD1	2.42	0.67
49:DQ:52:VAL:HA	49:DQ:55:VAL:HG22	1.77	0.67
1:AA:191:G:H1'	20:AT:105:SER:HA	1.77	0.67
1:AA:1181:G:O2'	1:AA:1182:G:O5'	2.12	0.67
35:BA:1449:A:OP1	35:BA:1449:A:H4'	1.94	0.67
50:BR:23:ASN:O	50:BR:26:LYS:HD2	1.95	0.67
51:BS:42:ASP:O	51:BS:44:LYS:N	2.28	0.67
1:CA:1258:G:H8	1:CA:1258:G:OP2	1.77	0.67
35:DA:707:G:H2'	35:DA:708:C:O4'	1.95	0.67
35:DA:2105:C:OP2	35:DA:2105:C:H6	1.76	0.67
35:DA:2476:A:C2	35:DA:2477:C:H6	2.13	0.67
53:DU:83:LEU:HD12	53:DU:113:ALA:HB2	1.77	0.67
57:DY:17:SER:OG	57:DY:18:GLY:N	2.28	0.67
1:AA:103:C:O2'	1:AA:172:A:N1	2.24	0.67
1:AA:1203:C:H6	1:AA:1203:C:OP2	1.77	0.67
30:B5:3:LYS:NZ	30:B5:4:HIS:HB2	2.10	0.67
35:BA:1763:G:H3'	35:BA:1763:G:C8	2.30	0.67
35:BA:2160:G:H2'	35:BA:2161:C:H4'	1.75	0.67
35:BA:2734:A:H5'	35:BA:2735:G:OP2	1.93	0.67
41:BG:105:LYS:HE3	41:BG:143:GLU:OE2	1.94	0.67
47:BO:14:THR:OG1	47:BO:15:GLY:N	2.28	0.67
51:BS:51:ALA:HB2	51:BS:76:LYS:HD2	1.76	0.67
55:BW:15:ARG:O	55:BW:19:LEU:CD1	2.43	0.67
1:CA:473:G:H5''	16:CP:81:ARG:HH21	1.59	0.67
2:CB:117:GLU:O	2:CB:121:LEU:CD1	2.43	0.67
22:CV:40:C:H4'	23:CW:35:A:H1'	1.77	0.67
43:DI:6:LEU:HG	43:DI:36:ALA:HA	1.75	0.67
48:DP:56:SER:O	48:DP:59:LEU:HB2	1.95	0.67
56:DX:62:LYS:H	56:DX:62:LYS:HD2	1.59	0.67
1:AA:1347:G:N2	1:AA:1373:G:H2'	2.10	0.67
8:AH:63:LEU:HD13	8:AH:64:LYS:N	2.10	0.67
39:BE:48:GLN:HB3	39:BE:80:GLU:HG2	1.77	0.67
48:BP:35:HIS:O	48:BP:36:LYS:HB3	1.93	0.67
49:BQ:124:LYS:HG2	49:BQ:125:LEU:HG	1.77	0.67
2:CB:120:ALA:O	2:CB:121:LEU:HD12	1.94	0.67
12:CL:77:LEU:HD21	12:CL:107:ALA:HA	1.77	0.67
35:DA:2206:G:H21	35:DA:2207:G:C5'	2.06	0.67
51:DS:87:PHE:O	51:DS:89:ARG:NH1	2.27	0.67
52:DT:78:LEU:HB3	52:DT:79:HIS:HD2	1.57	0.67
53:DU:61:TRP:CZ2	53:DU:94:ASN:HB3	2.30	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:675:A:H2'	1:AA:676:A:H8	1.58	0.67
11:AK:34:ASP:HB2	11:AK:35:PRO:HD2	1.76	0.67
12:AL:28:LYS:O	12:AL:30:ALA:N	2.27	0.67
14:AN:24:CYS:SG	14:AN:25:VAL:N	2.67	0.67
33:B8:25:MET:CB	48:BP:62:LEU:HD11	2.16	0.67
35:BA:631:A:H1'	48:BP:66:GLY:HA3	1.77	0.67
35:BA:2831:G:OP1	39:BE:58:ARG:NH2	2.20	0.67
37:BC:197:GLU:O	37:BC:199:HIS:N	2.28	0.67
1:CA:10:A:H2'	1:CA:11:G:H8	1.60	0.67
4:CD:176:LEU:HG	4:CD:178:VAL:HG22	1.77	0.67
1:AA:458:C:H3'	1:AA:460:G:H8	1.59	0.66
1:AA:1288:A:N3	1:AA:1352:C:O2'	2.28	0.66
60:AA:1805:EDS:OAH	62:AA:1901:HOH:O	2.11	0.66
2:AB:55:PHE:CZ	2:AB:221:LEU:HB3	2.30	0.66
13:AM:90:LEU:O	13:AM:92:HIS:N	2.29	0.66
33:B8:62:LEU:HG	35:BA:242:G:H5''	1.77	0.66
35:BA:2527:C:H5'	35:BA:2528:U:OP2	1.95	0.66
35:BA:2661:G:H3'	35:BA:2662:A:H5''	1.77	0.66
40:BF:57:VAL:HG21	40:BF:87:GLY:H	1.61	0.66
40:BF:84:VAL:HG21	40:BF:87:GLY:HA3	1.77	0.66
49:BQ:110:THR:O	49:BQ:113:GLN:N	2.27	0.66
1:CA:376:G:H2'	1:CA:377:G:C8	2.29	0.66
4:CD:83:SER:HA	4:CD:89:THR:HG23	1.76	0.66
31:D6:15:GLU:OE2	31:D6:43:CYS:O	2.13	0.66
35:DA:631:A:H1'	48:DP:66:GLY:HA3	1.77	0.66
35:DA:748:G:OP2	55:DW:88:ARG:HD2	1.95	0.66
35:DA:975:C:OP2	35:DA:975:C:H4'	1.94	0.66
35:DA:1485:G:H2'	35:DA:1486:A:C8	2.30	0.66
35:DA:1877:A:H5''	35:DA:1878:G:OP2	1.95	0.66
50:DR:74:LYS:HG3	50:DR:77:ARG:HH21	1.59	0.66
1:AA:832:C:H42	1:AA:854:G:H1	1.42	0.66
31:B6:8:LYS:HB3	31:B6:29:ASN:HD21	1.60	0.66
35:BA:2566:A:H61	47:BO:29:ASN:ND2	1.92	0.66
36:BB:9:G:O5'	51:BS:25:ARG:NH2	2.29	0.66
39:BE:36:ARG:NH2	39:BE:88:GLY:HA3	2.09	0.66
41:BG:15:VAL:HG22	41:BG:175:LEU:HD12	1.76	0.66
1:CA:1302:U:OP2	13:CM:21:TYR:OH	2.10	0.66
13:CM:30:ALA:C	13:CM:32:GLU:H	1.97	0.66
35:DA:481:G:OP2	57:DY:46:LYS:NZ	2.28	0.66
35:DA:2101:G:H1	35:DA:2188:C:N4	1.93	0.66
54:DV:66:ARG:HD3	54:DV:66:ARG:C	2.16	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:36:LEU:HB3	8:AH:48:TYR:CE1	2.31	0.66
26:B1:10:LYS:HA	26:B1:48:LYS:NZ	2.10	0.66
27:B2:47:ASN:O	27:B2:51:ARG:NE	2.23	0.66
33:B8:13:ARG:HG3	33:B8:14:VAL:HG13	1.76	0.66
35:BA:2304:G:O6	35:BA:2310:A:H2'	1.95	0.66
38:BD:92:ILE:HG22	38:BD:106:ILE:HA	1.77	0.66
40:BF:42:ALA:C	40:BF:44:ARG:H	1.99	0.66
48:BP:41:ARG:HH12	48:BP:45:LEU:CD1	2.08	0.66
1:CA:1150:U:H4'	10:CJ:41:PRO:HG3	1.76	0.66
35:DA:1091:G:N2	35:DA:1102:C:O2	2.27	0.66
36:DB:48:A:H2'	36:DB:49:C:C6	2.29	0.66
50:DR:103:ARG:HB2	50:DR:109:ALA:O	1.95	0.66
52:DT:27:THR:HG22	52:DT:87:ASP:HB3	1.78	0.66
1:AA:1054:C:O2'	1:AA:1055:A:OP2	2.11	0.66
1:AA:1223:C:P	19:AS:78:ARG:NH2	2.68	0.66
1:AA:1320:C:O2'	19:AS:73:GLU:OE2	2.06	0.66
11:AK:88:GLY:O	11:AK:90:GLY:N	2.29	0.66
35:BA:1016:G:H1	35:BA:1146:C:H42	1.44	0.66
35:BA:2318:G:H22	51:BS:7:TYR:HB3	1.59	0.66
35:BA:2655:G:O2'	35:BA:2664:G:O6	2.13	0.66
7:CG:78:ARG:HD2	7:CG:79:ARG:HB3	1.77	0.66
11:CK:24:SER:OG	11:CK:25:TYR:N	2.27	0.66
35:DA:636:G:OP1	48:DP:132:LYS:HB2	1.95	0.66
35:DA:792:G:H5''	35:DA:793:A:H5'	1.77	0.66
35:DA:1803:A:O3'	38:DD:259:THR:OG1	2.14	0.66
35:DA:2319:G:N7	51:DS:10:ARG:HD2	2.10	0.66
5:AE:83:GLU:HA	5:AE:88:LYS:HA	1.76	0.66
8:AH:88:LYS:HG3	8:AH:89:PRO:HD2	1.78	0.66
23:AY:29:G:H2'	23:AY:30:G:H8	1.61	0.66
32:B7:19:ARG:NH1	35:BA:125:G:OP2	2.28	0.66
37:BC:21:THR:O	37:BC:23:ASP:N	2.29	0.66
58:BZ:53:ILE:HD13	58:BZ:71:VAL:HG23	1.76	0.66
1:CA:254:G:H5''	17:CQ:69:LYS:HE2	1.76	0.66
1:CA:969:A:H4'	10:CJ:55:LYS:HE3	1.77	0.66
35:DA:135:G:H1	35:DA:144:C:H42	1.43	0.66
38:DD:10:THR:CG2	38:DD:13:ARG:HB2	2.25	0.66
1:AA:532:A:C8	3:AC:160:ALA:HB2	2.31	0.66
1:AA:1111:A:N1	3:AC:177:THR:HG22	2.11	0.66
4:AD:30:LYS:HB2	4:AD:32:ALA:O	1.95	0.66
4:AD:128:VAL:HG22	4:AD:146:ILE:HG13	1.78	0.66
5:AE:67:VAL:HG21	5:AE:140:ARG:HA	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:B1:32:LYS:NZ	26:B1:33:LYS:O	2.27	0.66
47:BO:14:THR:HG21	47:BO:86:ILE:HG21	1.78	0.66
1:CA:975:A:O2'	14:CN:32:SER:OG	2.11	0.66
39:DE:116:VAL:O	39:DE:117:MET:HB3	1.96	0.66
56:DX:62:LYS:HA	56:DX:69:TYR:HA	1.78	0.66
1:AA:954:G:H2'	1:AA:955:U:C6	2.30	0.66
2:AB:130:ARG:HD2	2:AB:134:GLU:HB2	1.77	0.66
5:AE:144:THR:HG23	5:AE:147:ASP:H	1.60	0.66
6:AF:30:LEU:HD23	6:AF:75:LEU:HD11	1.75	0.66
26:B1:56:GLN:NE2	26:B1:57:GLU:OE1	2.25	0.66
35:BA:686:G:H21	35:BA:788:A:H61	1.42	0.66
35:BA:1434:A:N6	35:BA:1558:A:H62	1.93	0.66
49:BQ:5:ARG:NH2	49:BQ:7:MET:H	1.94	0.66
58:BZ:70:LEU:N	58:BZ:89:PHE:O	2.26	0.66
2:CB:45:GLN:HG2	2:CB:49:GLU:OE2	1.95	0.66
2:CB:101:MET:HA	2:CB:108:ILE:HG13	1.78	0.66
3:CC:14:ILE:O	3:CC:16:ARG:N	2.28	0.66
9:CI:28:VAL:O	9:CI:31:GLN:N	2.29	0.66
27:D2:21:LEU:HD21	27:D2:51:ARG:NE	2.09	0.66
35:DA:1494:A:C2'	35:DA:1495:A:H5''	2.23	0.66
35:DA:2009:G:OP1	55:DW:41:LYS:HE2	1.95	0.66
38:DD:13:ARG:NH1	38:DD:16:MET:SD	2.69	0.66
47:DO:18:LYS:HD3	47:DO:45:GLU:OE1	1.96	0.66
33:B8:4:MET:SD	33:B8:61:LEU:HD23	2.35	0.66
35:BA:993:G:OP1	53:BU:50:ARG:NH2	2.28	0.66
38:BD:25:THR:HG23	38:BD:82:ILE:H	1.61	0.66
1:CA:1038:C:H2'	1:CA:1039:C:H6	1.61	0.66
1:CA:1095:U:OP1	1:CA:1108:G:N2	2.27	0.66
6:CF:33:TYR:HB2	6:CF:75:LEU:HD12	1.76	0.66
7:CG:27:ILE:HD11	7:CG:43:PHE:CD2	2.30	0.66
11:CK:21:ILE:HG13	11:CK:84:VAL:HA	1.77	0.66
16:CP:20:VAL:HG21	16:CP:32:TYR:CG	2.30	0.66
26:D1:26:ARG:CB	26:D1:34:THR:HB	2.25	0.66
35:DA:255:A:O2'	35:DA:384:U:OP1	2.11	0.66
35:DA:1567:A:H5'	38:DD:58:HIS:CD2	2.30	0.66
35:DA:1625:C:H5''	35:DA:1626:G:OP2	1.96	0.66
39:DE:119:ARG:HB3	39:DE:120:TRP:CD1	2.30	0.66
53:DU:8:VAL:HG13	53:DU:11:ARG:HH21	1.61	0.66
57:DY:39:VAL:HG23	57:DY:40:GLU:N	2.11	0.66
58:DZ:81:ARG:HH11	58:DZ:81:ARG:HG2	1.59	0.66
25:B0:77:ARG:NH2	35:BA:857:C:OP2	2.29	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:272(G):C:H42	35:BA:363(D):G:H1	1.42	0.66
1:CA:664:G:N2	1:CA:741:G:H1	1.92	0.66
1:CA:1187:G:H5'	1:CA:1188:A:OP2	1.96	0.66
2:CB:176:GLU:O	2:CB:180:LEU:HB2	1.95	0.66
27:D2:34:GLU:O	27:D2:36:ARG:N	2.25	0.66
30:D5:44:THR:HG21	50:DR:101:ALA:HB2	1.77	0.66
35:DA:458:G:O2'	35:DA:469:G:O6	2.14	0.66
39:DE:52:LEU:HD21	52:DT:1:MET:HG3	1.77	0.66
49:DQ:89:ASN:OD1	49:DQ:90:VAL:N	2.28	0.66
51:DS:101:LEU:HD11	51:DS:104:GLY:HA3	1.77	0.66
1:AA:836:G:O6	1:AA:850:U:N3	2.28	0.66
1:AA:1110:A:OP2	3:AC:176:HIS:NE2	2.29	0.66
2:AB:178:ARG:NH2	2:AB:198:ASP:OD1	2.28	0.66
6:AF:47:ARG:NH2	6:AF:57:GLN:HG2	2.11	0.66
34:B9:35:ARG:HD3	35:BA:2742:C:OP1	1.96	0.66
35:BA:288:C:H2'	35:BA:289:A:H8	1.59	0.66
35:BA:1194:A:OP2	48:BP:17:LYS:HD2	1.96	0.66
35:BA:2128:C:H42	35:BA:2160:G:H1	1.44	0.66
35:BA:2661:G:H2'	35:BA:2662:A:N3	2.11	0.66
39:BE:32:PRO:HA	39:BE:90:THR:HA	1.78	0.66
55:BW:84:ARG:HH22	55:BW:85:VAL:HG22	1.61	0.66
58:BZ:29:TYR:HA	58:BZ:34:ASN:HA	1.78	0.66
1:CA:529:G:O6	12:CL:49:ASN:HA	1.96	0.66
1:CA:972:C:OP1	10:CJ:57:LYS:NZ	2.22	0.66
27:D2:53:LEU:HD22	35:DA:72:U:H4'	1.78	0.66
35:DA:2314:C:H2'	35:DA:2315:G:C8	2.31	0.66
38:DD:165:ILE:HD13	38:DD:175:LEU:HD21	1.79	0.66
42:DH:154:PRO:HB3	42:DH:163:TYR:CZ	2.31	0.66
1:AA:26:A:N6	1:AA:558:G:O2'	2.28	0.65
1:AA:1289:A:H62	9:AI:70:LYS:CE	2.09	0.65
1:AA:1510:U:H2'	1:AA:1511:G:C8	2.31	0.65
14:AN:29:ARG:HB3	14:AN:40:CYS:SG	2.36	0.65
35:BA:2128:C:O2'	35:BA:2129:C:O5'	2.13	0.65
48:BP:32:THR:HB	48:BP:36:LYS:HD2	1.77	0.65
49:BQ:137:TYR:HB2	58:BZ:76:LEU:HD21	1.77	0.65
7:CG:62:PHE:HD1	7:CG:124:LEU:HD11	1.60	0.65
10:CJ:80:LYS:HG3	10:CJ:84:GLN:HE22	1.61	0.65
11:CK:41:THR:HG21	11:CK:71:LYS:HB2	1.78	0.65
35:DA:607:U:N3	35:DA:621:A:H2	1.92	0.65
35:DA:796:C:H2'	35:DA:797:C:C6	2.31	0.65
35:DA:879:G:N2	35:DA:899:A:H1'	2.12	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1057:A:H2'	35:DA:1058:G:H5'	1.77	0.65
46:DN:87:LEU:HD22	46:DN:91:LEU:HD11	1.79	0.65
48:DP:23:PRO:HD2	48:DP:33:ARG:HD3	1.77	0.65
50:DR:13:HIS:HD2	50:DR:16:HIS:H	1.42	0.65
1:AA:977:A:H2'	1:AA:978:A:H5''	1.79	0.65
13:AM:84:ILE:H	13:AM:84:ILE:HD12	1.61	0.65
35:BA:892:G:H2'	35:BA:893:C:H5''	1.76	0.65
35:BA:1876:A:H2'	35:BA:1877:A:C8	2.32	0.65
36:BB:44:G:OP1	41:BG:98:ARG:NH2	2.30	0.65
39:BE:52:LEU:HB2	39:BE:75:VAL:HG12	1.77	0.65
41:BG:66:GLN:HG3	41:BG:94:LEU:HB3	1.79	0.65
41:BG:173:LEU:O	41:BG:178:PHE:HB2	1.95	0.65
51:BS:83:LYS:O	51:BS:105:ALA:HB1	1.96	0.65
57:BY:46:LYS:NZ	57:BY:64:GLU:O	2.21	0.65
30:D5:3:LYS:HE3	30:D5:6:VAL:HG13	1.78	0.65
31:D6:41:PRO:HD2	31:D6:46:HIS:H	1.62	0.65
35:DA:2468:G:N2	35:DA:2481:G:O2'	2.30	0.65
41:DG:76:SER:CB	41:DG:84:LYS:H	2.03	0.65
48:DP:126:VAL:HA	48:DP:145:PRO:CG	2.21	0.65
49:DQ:4:PRO:HA	49:DQ:93:TYR:CD1	2.31	0.65
57:DY:9:LYS:O	57:DY:11:ASP:N	2.29	0.65
1:AA:995:C:H1'	14:AN:4:LYS:HE2	1.79	0.65
1:AA:1263:C:H2'	1:AA:1264:C:H6	1.60	0.65
1:AA:1280:A:H5''	10:AJ:40:LEU:HD13	1.78	0.65
1:AA:1405:G:N7	60:AA:1805:EDS:NAM	2.45	0.65
22:AV:19:G:H8	22:AV:19:G:OP2	1.78	0.65
31:B6:29:ASN:O	31:B6:30:THR:HG23	1.95	0.65
35:BA:271(E):U:H2'	35:BA:271(F):C:C6	2.30	0.65
35:BA:1981:A:H5''	35:BA:1982:C:OP2	1.97	0.65
37:BC:22:ILE:HG22	37:BC:25:ALA:HB2	1.79	0.65
48:BP:75:ILE:HD12	48:BP:77:ARG:HH11	1.60	0.65
50:BR:87:TYR:OH	50:BR:117:VAL:HG22	1.96	0.65
54:BV:20:LEU:HB3	54:BV:21:ARG:HH11	1.61	0.65
1:CA:598:U:H4'	8:CH:94:TYR:CD2	2.31	0.65
2:CB:105:PHE:O	2:CB:107:THR:N	2.26	0.65
6:CF:23:LYS:HE3	6:CF:61:LEU:HD11	1.78	0.65
23:CW:62:C:H5'	23:CW:63:G:OP2	1.97	0.65
35:DA:548:A:H3'	35:DA:549:G:O4'	1.96	0.65
35:DA:1019:U:HO2'	35:DA:1021:A:H2	1.45	0.65
35:DA:1187:G:H5''	54:DV:82:ARG:HH11	1.61	0.65
39:DE:199:ARG:NH1	39:DE:199:ARG:HB3	2.11	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DN:78:TYR:CE2	46:DN:79:PRO:HG3	2.31	0.65
1:AA:277:C:OP2	17:AQ:41:LYS:NZ	2.28	0.65
1:AA:737:A:H2'	1:AA:738:C:C6	2.31	0.65
1:AA:1336:C:H4'	1:AA:1336:C:OP1	1.95	0.65
14:AN:47:LEU:HA	14:AN:50:LYS:HB3	1.78	0.65
30:B5:47:PRO:HG3	50:BR:101:ALA:HB3	1.77	0.65
35:BA:203:C:OP2	35:BA:204:A:H2'	1.96	0.65
35:BA:1459:G:H5''	35:BA:1460:A:OP2	1.96	0.65
40:BF:181:LEU:HD11	40:BF:186:ILE:HD11	1.78	0.65
56:BX:27:THR:HB	56:BX:77:LYS:HD3	1.77	0.65
18:CR:45:SER:HB3	18:CR:49:LYS:HB2	1.78	0.65
23:CW:52:G:H1	23:CW:62:C:N4	1.95	0.65
25:D0:51:VAL:HG11	25:D0:79:VAL:O	1.96	0.65
27:D2:47:ASN:O	27:D2:52:ASP:HB3	1.95	0.65
35:DA:2689:U:P	35:DA:2719:G:H22	2.19	0.65
40:DF:24:LEU:O	40:DF:26:ALA:N	2.29	0.65
51:DS:33:LYS:HE3	51:DS:34:HIS:CE1	2.30	0.65
51:DS:87:PHE:CD2	51:DS:89:ARG:NH2	2.64	0.65
52:DT:43:GLN:HE21	52:DT:45:PHE:HE1	1.43	0.65
2:AB:17:PHE:CD1	2:AB:204:ASN:HB3	2.32	0.65
5:AE:50:GLU:OE1	5:AE:53:LEU:HD12	1.97	0.65
26:B1:87:PRO:HD2	26:B1:89:GLU:N	2.11	0.65
35:BA:239:U:O2'	35:BA:240:G:H5'	1.96	0.65
36:BB:58:A:H5'	36:BB:59:A:OP2	1.97	0.65
51:BS:15:ARG:HB3	51:BS:18:ILE:HG12	1.79	0.65
51:BS:97:ARG:HH11	51:BS:97:ARG:C	2.00	0.65
1:CA:1356:G:H2'	1:CA:1357:A:H8	1.61	0.65
12:CL:61:THR:O	12:CL:63:GLY:N	2.26	0.65
23:CW:69:G:H8	23:CW:69:G:OP2	1.80	0.65
35:DA:1653:G:C6	50:DR:10:LEU:HD12	2.32	0.65
48:DP:83:VAL:HG12	48:DP:112:LEU:HD21	1.78	0.65
57:DY:28:LYS:HA	57:DY:38:ILE:O	1.96	0.65
57:DY:107:ASP:OD1	57:DY:109:GLU:HG3	1.97	0.65
1:AA:951:G:C6	1:AA:1231:G:N1	2.65	0.65
4:AD:122:ARG:NH2	4:AD:135:LEU:HA	2.02	0.65
35:BA:579:G:H2'	35:BA:580:C:H6	1.59	0.65
35:BA:895:U:O2	35:BA:898:C:N4	2.30	0.65
38:BD:179:SER:HB3	38:BD:273:ARG:HD3	1.78	0.65
48:BP:126:VAL:HG12	48:BP:147:LEU:HD23	1.79	0.65
53:BU:97:ASP:OD1	54:BV:13:ARG:NH1	2.30	0.65
12:CL:32:PHE:HB3	12:CL:84:LEU:CD2	2.27	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:47:LYS:HG3	12:CL:48:PRO:HG3	1.79	0.65
22:CV:17:C:H3'	22:CV:17(A):U:H5''	1.77	0.65
28:D3:2:PRO:O	28:D3:4:LEU:N	2.29	0.65
35:DA:389:G:H1	48:DP:71:VAL:CB	2.08	0.65
35:DA:957:A:N1	35:DA:2458:G:H4'	2.12	0.65
35:DA:2632:A:O2'	39:DE:61:ARG:NH2	2.30	0.65
47:DO:10:VAL:HG21	47:DO:16:ALA:O	1.96	0.65
1:AA:736:C:H2'	1:AA:737:A:C8	2.31	0.65
1:AA:1030(B):G:H5'	1:AA:1030(E):A:H1'	1.78	0.65
1:AA:1357:A:H4'	10:AJ:47:PHE:CZ	2.30	0.65
13:AM:30:ALA:O	13:AM:34:LEU:HB2	1.97	0.65
31:B6:22:ALA:HB1	31:B6:39:TYR:CZ	2.31	0.65
33:B8:48:PHE:HZ	35:BA:650:C:H5'	1.62	0.65
35:BA:1478:G:O2'	35:BA:1558:A:H2	1.80	0.65
38:BD:35:LYS:HZ1	38:BD:103:ARG:HA	1.61	0.65
48:BP:60:MET:CE	48:BP:61:ARG:NH2	2.60	0.65
52:BT:92:GLY:O	52:BT:94:ALA:N	2.29	0.65
1:CA:434:U:H2'	1:CA:435:C:H6	1.61	0.65
1:CA:1127:G:O2'	1:CA:1148:U:N3	2.29	0.65
8:CH:121:ASP:HB2	8:CH:125:ARG:HH21	1.62	0.65
41:DG:83:ARG:O	41:DG:85:GLY:N	2.30	0.65
55:DW:14:PRO:O	55:DW:16:LYS:N	2.30	0.65
55:DW:18:ARG:HG2	55:DW:76:VAL:HG13	1.78	0.65
1:AA:457:C:N4	1:AA:460:G:O6	2.30	0.65
1:AA:1051:C:O2	1:AA:1207:G:N2	2.20	0.65
2:AB:211:ILE:HA	2:AB:214:ILE:HD12	1.78	0.65
17:AQ:67:LYS:O	17:AQ:69:LYS:N	2.29	0.65
35:BA:685:A:OP1	35:BA:686:G:N2	2.28	0.65
35:BA:1322:A:N7	35:BA:1323:U:C4	2.65	0.65
38:BD:111:LEU:C	38:BD:112:GLN:OE1	2.35	0.65
51:BS:99:LYS:O	51:BS:106:ARG:NH2	2.29	0.65
5:CE:78:HIS:CD2	5:CE:78:HIS:H	2.14	0.65
12:CL:32:PHE:HB3	12:CL:84:LEU:HD21	1.78	0.65
35:DA:20:C:H42	35:DA:520:G:H1	1.44	0.65
35:DA:305:U:H2'	35:DA:306:U:C6	2.31	0.65
35:DA:871:U:OP1	49:DQ:6:ARG:HB2	1.97	0.65
43:DI:10:GLU:O	43:DI:12:LEU:N	2.30	0.65
51:DS:87:PHE:HD2	51:DS:89:ARG:NH2	1.94	0.65
57:DY:81:LYS:HZ2	57:DY:98:VAL:HB	1.62	0.65
1:AA:190:U:H2'	1:AA:191:G:H8	1.60	0.65
1:AA:1483:A:H1'	35:BA:1948:G:H1'	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:10:LEU:HD22	8:AH:83:ILE:HD11	1.79	0.65
35:BA:1190:G:H5''	48:BP:35:HIS:HA	1.77	0.65
35:BA:2101:G:H2'	35:BA:2102:U:O4'	1.96	0.65
35:BA:2674:G:H2'	35:BA:2675:A:C8	2.32	0.65
38:BD:43:ARG:HB3	38:BD:54:ARG:HB2	1.79	0.65
43:BI:52:ARG:HG3	43:BI:53:ALA:N	2.11	0.65
48:BP:63:PRO:O	48:BP:65:ARG:N	2.30	0.65
51:BS:20:ARG:NH2	51:BS:22:GLY:H	1.95	0.65
52:BT:13:ARG:HA	52:BT:13:ARG:NE	2.12	0.65
56:BX:25:LYS:CG	56:BX:26:TYR:H	2.10	0.65
56:BX:40:LYS:O	56:BX:42:ALA:N	2.30	0.65
1:CA:1074:G:H1	1:CA:1083:U:H3	1.45	0.65
37:DC:66:HIS:NE2	37:DC:186:ALA:O	2.30	0.65
42:DH:132:ARG:HB2	42:DH:132:ARG:HH11	1.62	0.65
49:DQ:22:LYS:HD2	49:DQ:101:ARG:HH11	1.60	0.65
51:DS:53:SER:HA	51:DS:58:LEU:HD23	1.79	0.65
54:DV:72:VAL:O	54:DV:88:ARG:NH1	2.30	0.65
1:AA:1353:G:H1	1:AA:1369:C:H42	1.43	0.65
5:AE:152:ARG:O	8:AH:64:LYS:NZ	2.23	0.65
7:AG:28:ASN:O	7:AG:30:ILE:N	2.30	0.65
18:AR:74:ARG:HB3	18:AR:81:PHE:CE1	2.32	0.65
20:AT:36:LEU:HD23	20:AT:36:LEU:O	1.95	0.65
35:BA:2873:A:N3	50:BR:8:ARG:NH1	2.45	0.65
43:BI:6:LEU:C	43:BI:15:VAL:HG23	2.17	0.65
1:CA:585:G:H5''	17:CQ:36:ILE:CG2	2.26	0.65
1:CA:1299:A:H5''	1:CA:1300:G:OP2	1.97	0.65
4:CD:26:CYS:HA	4:CD:31:CYS:HB2	1.79	0.65
12:CL:89:ARG:NH1	12:CL:95:GLY:H	1.95	0.65
35:DA:587:C:H2'	48:DP:33:ARG:NH1	2.11	0.65
35:DA:2469:A:H2	35:DA:2481:G:H21	1.45	0.65
46:DN:16:ILE:HG22	46:DN:54:VAL:HA	1.78	0.65
49:DQ:134:ARG:O	49:DQ:138:ASP:HB3	1.97	0.65
52:DT:29:ARG:NE	52:DT:82:LEU:HD22	2.10	0.65
56:DX:88:LYS:HA	56:DX:88:LYS:HE3	1.78	0.65
57:DY:81:LYS:NZ	57:DY:98:VAL:HB	2.11	0.65
1:AA:1226:C:C5	13:AM:104:ARG:HG2	2.32	0.64
1:AA:1346:A:N1	1:AA:1374:A:H5''	2.12	0.64
12:AL:32:PHE:HB3	12:AL:84:LEU:HD21	1.79	0.64
22:AV:10:G:N2	22:AV:27:G:H1'	2.11	0.64
38:BD:25:THR:CG2	38:BD:82:ILE:H	2.09	0.64
39:BE:87:GLU:O	39:BE:87:GLU:HG3	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BF:57:VAL:HG12	40:BF:59:TYR:H	1.61	0.64
40:BF:132:VAL:HG22	40:BF:133:ASN:H	1.62	0.64
1:CA:439:A:H2'	1:CA:441:A:O4'	1.97	0.64
13:CM:118:ALA:HB3	22:CV:29:G:H5''	1.79	0.64
33:D8:36:LYS:O	33:D8:37:SER:OG	2.11	0.64
35:DA:83:G:N2	35:DA:103:A:OP2	2.30	0.64
35:DA:528:A:N1	35:DA:2042:A:H2'	2.12	0.64
35:DA:1177:A:H5'	35:DA:1178:C:C6	2.32	0.64
35:DA:1528(A):A:N7	35:DA:1529:G:C8	2.65	0.64
38:DD:267:SER:C	38:DD:269:PHE:H	2.00	0.64
41:DG:76:SER:HB3	41:DG:84:LYS:N	2.04	0.64
42:DH:44:VAL:H	42:DH:46:GLU:CD	1.99	0.64
1:AA:982:U:H4'	1:AA:983:A:H5'	1.79	0.64
9:AI:43:ALA:O	9:AI:45:ALA:N	2.29	0.64
10:AJ:34:VAL:HA	10:AJ:74:ILE:HD13	1.78	0.64
19:AS:15:LEU:CD1	19:AS:18:LYS:HB2	2.27	0.64
35:BA:676:A:H8	35:BA:2069:G:N2	1.95	0.64
35:BA:1527:G:HO2'	35:BA:1528:A:H8	1.43	0.64
40:BF:184:TYR:CE2	40:BF:188:ARG:HD2	2.33	0.64
53:BU:83:LEU:HG	53:BU:88:ILE:HD11	1.79	0.64
54:BV:40:LEU:HD12	54:BV:41:GLY:N	2.05	0.64
54:BV:69:LYS:HZ1	54:BV:71:LEU:CG	2.11	0.64
4:CD:90:GLY:HA2	4:CD:204:ILE:HD11	1.80	0.64
5:CE:145:LYS:HA	5:CE:148:VAL:HB	1.78	0.64
35:DA:305:U:H2'	35:DA:306:U:H6	1.61	0.64
35:DA:370:G:H4'	35:DA:371:A:OP2	1.96	0.64
35:DA:2481:G:O2'	35:DA:2482:G:OP2	2.12	0.64
35:DA:2532:G:O2'	35:DA:2657:A:N6	2.31	0.64
50:DR:10:LEU:HA	50:DR:17:ARG:HD3	1.79	0.64
1:AA:678:U:H2'	1:AA:679:C:C6	2.33	0.64
1:AA:1097:C:H5''	1:AA:1098:C:OP2	1.97	0.64
11:AK:99:GLN:NE2	11:AK:105:VAL:HG21	2.12	0.64
13:AM:91:ARG:NE	13:AM:97:PRO:O	2.30	0.64
19:AS:40:ILE:HG12	19:AS:69:HIS:O	1.97	0.64
35:BA:1423:G:O2'	35:BA:1499:C:O2'	2.10	0.64
40:BF:51:THR:HG21	40:BF:92:PRO:HD2	1.77	0.64
48:BP:33:ARG:HG2	48:BP:36:LYS:HB3	1.79	0.64
56:BX:57:LEU:HD12	56:BX:58:HIS:N	2.11	0.64
57:BY:27:VAL:HG22	57:BY:30:VAL:HG11	1.79	0.64
1:CA:674:G:H2'	1:CA:675:A:H8	1.62	0.64
1:CA:865:A:C2	1:CA:918:A:H4'	2.30	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1062:U:H2'	1:CA:1063:C:C6	2.32	0.64
1:CA:1497:G:H2'	1:CA:1498:U:H5'	1.79	0.64
8:CH:120:THR:H	8:CH:123:GLU:HB2	1.62	0.64
27:D2:53:LEU:CD2	35:DA:72:U:H4'	2.27	0.64
35:DA:2035:G:H4'	35:DA:2036:C:OP2	1.96	0.64
37:DC:24:GLU:HG2	37:DC:184:LYS:HA	1.79	0.64
1:AA:544:G:OP2	4:AD:66:ARG:NH2	2.31	0.64
1:AA:1100:C:OP2	2:AB:96:ARG:HD2	1.97	0.64
2:AB:28:PHE:O	2:AB:31:TYR:N	2.27	0.64
31:B6:36:LEU:O	31:B6:37:ARG:HD2	1.97	0.64
35:BA:136:G:H5''	35:BA:137:C:C5	2.32	0.64
35:BA:848:G:H2'	35:BA:849:A:C8	2.32	0.64
35:BA:1171:G:H8	35:BA:1171:G:OP2	1.81	0.64
36:BB:64:C:H2'	36:BB:65:C:C6	2.33	0.64
40:BF:10:PRO:HB3	40:BF:127:GLU:HB3	1.78	0.64
41:BG:121:ASN:ND2	41:BG:124:SER:OG	2.27	0.64
47:BO:28:SER:O	47:BO:29:ASN:ND2	2.30	0.64
48:BP:7:ARG:O	48:BP:10:PRO:HD3	1.98	0.64
51:BS:25:ARG:HD3	51:BS:25:ARG:O	1.97	0.64
3:CC:15:THR:HG23	3:CC:181:ASN:HA	1.79	0.64
13:CM:67:GLU:O	13:CM:69:GLU:N	2.30	0.64
19:CS:53:ASN:O	19:CS:55:LYS:N	2.30	0.64
24:CX:14:A:N3	24:CX:14:A:H2'	2.13	0.64
26:D1:32:LYS:O	35:DA:2396:G:H4'	1.97	0.64
35:DA:70:G:H21	35:DA:71:A:N6	1.95	0.64
35:DA:2324:C:H5''	35:DA:2325:G:H5''	1.78	0.64
39:DE:60:ASN:HB2	39:DE:62:PRO:HD2	1.79	0.64
43:DI:120:ILE:HG22	43:DI:122:GLU:H	1.61	0.64
46:DN:4:TYR:CB	53:DU:64:ARG:NH1	2.58	0.64
55:DW:18:ARG:HG2	55:DW:76:VAL:CG1	2.26	0.64
57:DY:32:PRO:O	57:DY:35:TYR:N	2.26	0.64
1:AA:631:G:H2'	1:AA:632:A:H8	1.62	0.64
27:B2:28:LYS:HB2	27:B2:32:LEU:HD21	1.79	0.64
35:BA:184:C:H2'	35:BA:185:U:C6	2.31	0.64
35:BA:672:C:N4	35:BA:808:G:O6	2.18	0.64
35:BA:875:G:O6	35:BA:902:C:N4	2.28	0.64
35:BA:1567:A:H5'	38:BD:58:HIS:CD2	2.32	0.64
49:BQ:126:PRO:O	49:BQ:127:ILE:HG23	1.97	0.64
57:BY:43:ASN:O	57:BY:44:ILE:HG12	1.97	0.64
1:CA:129:U:H2'	1:CA:131:C:H5	1.61	0.64
1:CA:1352:C:H2'	1:CA:1353:G:C8	2.33	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:81:GLU:HB3	5:CE:90:VAL:HG12	1.79	0.64
31:D6:50:ARG:HG3	31:D6:51:GLU:H	1.63	0.64
35:DA:71:A:H4'	35:DA:72:U:H5''	1.78	0.64
35:DA:661:C:O4'	48:DP:16:ARG:HG2	1.97	0.64
35:DA:2468:G:H22	35:DA:2481:G:HO2'	1.43	0.64
48:DP:82:GLY:HA2	48:DP:113:LYS:O	1.97	0.64
1:AA:1243:C:O2	1:AA:1295:G:N2	2.30	0.64
17:AQ:59:ILE:CG2	17:AQ:71:PHE:HB3	2.28	0.64
27:B2:27:GLU:N	27:B2:29:LYS:HG2	2.10	0.64
31:B6:28:ARG:HA	31:B6:32:ASN:HB2	1.78	0.64
35:BA:80:G:N1	35:BA:81:G:O6	2.30	0.64
35:BA:1158:C:O2'	35:BA:1159:U:OP2	2.15	0.64
35:BA:1223:G:H3'	35:BA:1224:C:H5''	1.80	0.64
35:BA:2631:G:H1	35:BA:2787:C:H42	1.45	0.64
35:BA:2801(A):A:N3	35:BA:2802:G:O2'	2.28	0.64
35:BA:2831:G:H5'	35:BA:2832:U:OP1	1.98	0.64
41:BG:120:LEU:HD21	41:BG:178:PHE:CE1	2.32	0.64
1:CA:130:A:C8	17:CQ:63:ARG:HG3	2.32	0.64
9:CI:31:GLN:HE21	9:CI:35:GLU:HB3	1.61	0.64
17:CQ:48:GLU:HB2	17:CQ:50:LYS:HD3	1.79	0.64
19:CS:15:LEU:HD13	19:CS:18:LYS:HB3	1.80	0.64
26:D1:40:ARG:NE	35:DA:2081:C:OP1	2.31	0.64
29:D4:41:PRO:O	29:D4:43:TYR:N	2.30	0.64
32:D7:28:ARG:NH2	35:DA:1368:G:OP1	2.30	0.64
33:D8:29:LYS:HB3	33:D8:44:LYS:HG3	1.80	0.64
38:DD:121:PRO:HB3	38:DD:135:PHE:CE2	2.33	0.64
46:DN:65:LYS:HZ1	46:DN:68:GLU:HB3	1.63	0.64
54:DV:34:GLU:HB3	54:DV:62:LEU:HB2	1.79	0.64
1:AA:182:U:OP2	1:AA:183:G:N2	2.30	0.64
1:AA:636:U:H2'	1:AA:637:G:H8	1.62	0.64
35:BA:1107:G:O2'	44:BJ:81:UNK:N	2.30	0.64
42:BH:101:ARG:O	42:BH:117:PRO:HB3	1.98	0.64
55:BW:68:ARG:O	55:BW:110:LYS:N	2.30	0.64
27:D2:18:PRO:HB2	27:D2:21:LEU:HB2	1.80	0.64
35:DA:2287:A:H2	35:DA:2346:A:N1	1.96	0.64
46:DN:82:LEU:HD12	46:DN:83:LYS:N	2.12	0.64
2:AB:69:LEU:HD13	2:AB:91:PRO:HB2	1.80	0.64
8:AH:12:ARG:NH1	8:AH:27:PRO:HD3	2.12	0.64
9:AI:111:ARG:HD3	9:AI:113:LYS:HB3	1.80	0.64
14:AN:47:LEU:H	14:AN:47:LEU:HD12	1.62	0.64
30:B5:44:THR:HG22	30:B5:45:VAL:H	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BO:88:ASN:ND2	47:BO:90:GLN:OE1	2.31	0.64
50:BR:78:LYS:HE2	50:BR:83:ILE:HD12	1.80	0.64
51:BS:26:LEU:HD11	51:BS:87:PHE:CG	2.33	0.64
2:CB:107:THR:HA	2:CB:110:GLN:HG3	1.80	0.64
13:CM:39:ILE:HD13	13:CM:56:LEU:HD23	1.79	0.64
19:CS:31:ILE:HG23	19:CS:49:ILE:HA	1.80	0.64
34:D9:27:CYS:SG	34:D9:27:CYS:O	2.55	0.64
35:DA:527:C:C2	35:DA:2779:U:H2'	2.31	0.64
35:DA:784:A:C5	38:DD:229:VAL:HG21	2.33	0.64
35:DA:2099:U:H3	35:DA:2190:G:H1	1.45	0.64
35:DA:2491:U:O2'	35:DA:2570:G:OP1	2.16	0.64
46:DN:17:ASP:H	46:DN:140:VAL:HG13	1.63	0.64
55:DW:4:LYS:HD3	55:DW:6:ILE:HD11	1.80	0.64
1:AA:959:A:H5''	1:AA:960:U:OP2	1.98	0.64
1:AA:1372:U:OP1	9:AI:72:GLY:N	2.31	0.64
10:AJ:98:ILE:HD12	10:AJ:98:ILE:O	1.97	0.64
19:AS:31:ILE:O	19:AS:50:ALA:HB3	1.98	0.64
26:B1:48:LYS:HZ3	26:B1:63:ALA:N	1.96	0.64
30:B5:29:THR:O	30:B5:29:THR:HG23	1.98	0.64
35:BA:137:C:OP2	35:BA:137:C:H6	1.81	0.64
35:BA:142:A:N6	35:BA:1595:G:O2'	2.30	0.64
35:BA:1149:G:H2'	35:BA:1150:C:C6	2.32	0.64
38:BD:2:ALA:O	38:BD:3:VAL:HG22	1.98	0.64
38:BD:27:THR:HG23	38:BD:28:GLU:H	1.62	0.64
41:BG:45:GLU:O	41:BG:51:ARG:NH1	2.31	0.64
48:BP:132:LYS:HG2	48:BP:136:GLU:OE2	1.98	0.64
53:BU:18:LEU:HD11	53:BU:32:PHE:CD2	2.33	0.64
56:BX:27:THR:HG22	56:BX:78:LYS:HB3	1.80	0.64
1:CA:503:C:OP2	12:CL:116:SER:HB3	1.97	0.64
5:CE:100:VAL:HA	5:CE:118:ILE:HG22	1.78	0.64
13:CM:15:VAL:HA	13:CM:18:ALA:HB3	1.80	0.64
16:CP:23:ASP:O	16:CP:25:ARG:N	2.31	0.64
26:D1:27:GLU:HB3	26:D1:33:LYS:H	1.63	0.64
26:D1:46:LEU:HD12	26:D1:46:LEU:O	1.98	0.64
35:DA:363(D):G:N2	35:DA:363(E):U:O2	2.31	0.64
35:DA:1434:A:H61	35:DA:1558:A:N6	1.96	0.64
39:DE:65:GLY:HA2	39:DE:70:ALA:HB2	1.79	0.64
42:DH:117:PRO:HB3	42:DH:123:PHE:CD2	2.33	0.64
48:DP:113:LYS:HE2	48:DP:131:SER:HB2	1.80	0.64
49:DQ:16:ARG:NH1	49:DQ:18:LYS:HG3	2.12	0.64
50:DR:10:LEU:HD12	50:DR:11:ASN:H	1.63	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:460:G:H2'	1:AA:460:G:N3	2.13	0.64
1:AA:972:C:H4'	10:AJ:57:LYS:HG2	1.78	0.64
5:AE:31:LEU:HD11	5:AE:129:ILE:HA	1.79	0.64
35:BA:271(P):C:H2'	35:BA:271(Q):G:H5'	1.80	0.64
35:BA:581:C:OP2	53:BU:33:ARG:NE	2.29	0.64
35:BA:861:A:N3	36:BB:79:C:O2'	2.30	0.64
35:BA:1064:C:H41	35:BA:1088:A:H61	1.46	0.64
46:BN:66:LYS:HE3	46:BN:87:LEU:CB	2.18	0.64
51:BS:26:LEU:HD21	51:BS:87:PHE:CD1	2.33	0.64
1:CA:627:G:H2'	1:CA:628:G:C8	2.32	0.64
4:CD:25:ARG:NH1	4:CD:30:LYS:O	2.31	0.64
11:CK:84:VAL:HG22	11:CK:110:ASP:HA	1.78	0.64
31:D6:46:HIS:ND1	35:DA:2371:G:O2'	2.21	0.64
35:DA:64:A:OP1	56:DX:70:LEU:HD12	1.98	0.64
37:DC:64:LEU:HG	37:DC:178:ALA:HA	1.80	0.64
52:DT:29:ARG:HD2	52:DT:76:PHE:CZ	2.33	0.64
1:AA:1363(A):A:H4'	1:AA:1364:U:H2'	1.80	0.63
1:AA:1442(A):G:N2	52:BT:122:ASP:HB3	2.13	0.63
26:B1:79:GLY:O	26:B1:81:LYS:N	2.31	0.63
31:B6:12:GLU:HB3	31:B6:23:THR:OG1	1.97	0.63
35:BA:480:A:O3'	57:BY:50:ARG:NH2	2.32	0.63
35:BA:1026:U:H4'	35:BA:1027:A:OP2	1.97	0.63
35:BA:1494:A:H1'	35:BA:1495:A:C5'	2.27	0.63
35:BA:1665:A:C2'	35:BA:1666:G:H5'	2.27	0.63
35:BA:2518:A:C8	35:BA:2518:A:H5'	2.33	0.63
46:BN:26:LEU:C	46:BN:26:LEU:HD12	2.18	0.63
47:BO:1:MET:HB3	47:BO:32:TYR:HB3	1.78	0.63
53:BU:28:ARG:HG3	53:BU:38:THR:OG1	1.97	0.63
54:BV:73:SER:O	54:BV:75:PHE:HD2	1.81	0.63
1:CA:186:C:O2'	20:CT:85:MET:SD	2.53	0.63
1:CA:250:A:H4'	1:CA:251:G:O5'	1.96	0.63
1:CA:460:G:H21	1:CA:472:A:H62	1.44	0.63
1:CA:975:A:H5'	1:CA:975:A:C8	2.30	0.63
1:CA:1397:C:OP2	5:CE:24:ARG:NH2	2.31	0.63
23:CW:76:A:H5''	26:D1:33:LYS:HE3	1.78	0.63
27:D2:54:LYS:O	27:D2:55:ARG:HB2	1.98	0.63
35:DA:2629:A:H2'	35:DA:2629:A:N3	2.11	0.63
38:DD:159:ALA:HB1	38:DD:198:ASN:O	1.98	0.63
42:DH:137:ASP:O	42:DH:138:LYS:HB3	1.97	0.63
49:DQ:17:LEU:HD12	49:DQ:98:LYS:HD3	1.79	0.63
1:AA:373:A:H2'	1:AA:374:A:H8	1.62	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1103:C:H5'	2:AB:98:LEU:HD21	1.81	0.63
1:AA:1298:C:H1'	1:AA:1299:A:C2	2.31	0.63
34:B9:2:LYS:HE2	34:B9:35:ARG:HB3	1.80	0.63
35:BA:1339:G:N2	35:BA:1603:A:H1'	2.13	0.63
35:BA:1360:A:H5'	35:BA:1361:G:OP2	1.98	0.63
35:BA:2305:A:H2'	35:BA:2306:C:H5''	1.78	0.63
35:BA:2704:C:H3'	35:BA:2705:A:H8	1.61	0.63
38:BD:179:SER:HB2	38:BD:181:GLU:H	1.63	0.63
50:BR:87:TYR:O	50:BR:89:ASP:N	2.31	0.63
55:BW:88:ARG:HB2	55:BW:92:ARG:HB3	1.79	0.63
5:CE:143:ARG:NH1	8:CH:77:GLU:OE1	2.32	0.63
43:DI:125:GLU:OE2	43:DI:141:LYS:HG2	1.97	0.63
1:AA:595:G:H1'	1:AA:596:C:H5	1.63	0.63
3:AC:70:VAL:HG21	3:AC:76:VAL:HG11	1.79	0.63
12:AL:76:ASN:H	12:AL:77:LEU:HD12	1.63	0.63
17:AQ:82:MET:HA	17:AQ:85:VAL:HG22	1.80	0.63
17:AQ:88:TYR:HA	17:AQ:91:ARG:HG3	1.81	0.63
27:B2:18:PRO:O	27:B2:21:LEU:N	2.29	0.63
33:B8:39:LYS:NZ	35:BA:2365:G:N7	2.37	0.63
33:B8:50:LEU:HD23	35:BA:2360:A:OP1	1.98	0.63
40:BF:170:LEU:HD12	40:BF:172:TRP:HE1	1.64	0.63
54:BV:66:ARG:HD2	54:BV:68:LYS:N	2.13	0.63
57:BY:10:GLY:HA3	57:BY:28:LYS:HE2	1.80	0.63
57:BY:81:LYS:HB3	57:BY:96:ILE:HB	1.80	0.63
1:CA:264:U:O3'	17:CQ:63:ARG:NH2	2.32	0.63
2:CB:185:ILE:HG22	2:CB:199:TYR:HB2	1.80	0.63
5:CE:101:ILE:HD11	5:CE:119:LEU:HD22	1.79	0.63
35:DA:17:G:H4'	53:DU:25:TRP:CH2	2.34	0.63
35:DA:1983:C:H2'	35:DA:1984:G:H5''	1.80	0.63
1:AA:943:U:H1'	9:AI:124:GLN:HE22	1.62	0.63
1:AA:1132:C:N3	1:AA:1133:G:O2'	2.23	0.63
4:AD:205:GLU:HA	4:AD:208:SER:HB3	1.79	0.63
7:AG:87:VAL:HG12	7:AG:151:TYR:O	1.99	0.63
23:AY:40:C:OP2	23:AY:40:C:C6	2.51	0.63
33:B8:59:LYS:NZ	48:BP:49:ARG:HD2	2.14	0.63
38:BD:14:ARG:HD3	38:BD:14:ARG:N	2.14	0.63
38:BD:83:GLU:HB2	38:BD:92:ILE:HD12	1.79	0.63
39:BE:14:ILE:HG13	39:BE:21:VAL:HG23	1.81	0.63
52:BT:23:ARG:HB3	52:BT:24:PRO:HD3	1.79	0.63
1:CA:819:A:H4'	1:CA:820:U:OP2	1.98	0.63
5:CE:91:LEU:HD12	5:CE:120:THR:HG22	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:CX:22:U:N3	24:CX:23:A:H2	1.96	0.63
27:D2:49:LYS:HD2	27:D2:54:LYS:CE	2.29	0.63
33:D8:27:THR:HG22	33:D8:28:GLY:H	1.63	0.63
35:DA:548:A:H61	54:DV:95:LEU:HD11	1.62	0.63
35:DA:1329:U:H5''	35:DA:1330:C:H5	1.63	0.63
35:DA:1654:A:P	50:DR:3:HIS:HB2	2.39	0.63
37:DC:97:GLU:HA	37:DC:100:ILE:HG12	1.78	0.63
39:DE:59:VAL:HG21	39:DE:63:LEU:CG	2.27	0.63
41:DG:41:GLN:HB3	41:DG:43:LEU:HD23	1.80	0.63
46:DN:22:THR:HG22	46:DN:61:ARG:HD2	1.79	0.63
57:DY:39:VAL:HG23	57:DY:41:GLY:H	1.62	0.63
1:AA:1505:G:HO2'	1:AA:1506:U:P	2.19	0.63
5:AE:48:ALA:HB3	5:AE:54:ALA:HB2	1.79	0.63
27:B2:55:ARG:HH12	27:B2:57:ILE:HG22	1.63	0.63
38:BD:28:GLU:HB2	38:BD:29:PRO:HD3	1.80	0.63
39:BE:48:GLN:HA	39:BE:80:GLU:HA	1.80	0.63
39:BE:105:THR:HB	39:BE:197:ILE:HG23	1.81	0.63
2:CB:131:PRO:O	2:CB:133:LYS:N	2.29	0.63
35:DA:883:G:O6	35:DA:893:C:N4	2.30	0.63
35:DA:2271:G:H2'	35:DA:2272:U:H6	1.64	0.63
35:DA:2688:U:C5	35:DA:2720:U:OP2	2.49	0.63
35:DA:2876:G:OP1	52:DT:4:GLY:N	2.32	0.63
38:DD:168:ARG:HG2	38:DD:173:VAL:HG23	1.80	0.63
47:DO:121:VAL:O	47:DO:122:LEU:HG	1.98	0.63
49:DQ:38:GLU:OE2	49:DQ:128:LYS:HD3	1.97	0.63
52:DT:23:ARG:O	52:DT:25:GLY:N	2.31	0.63
2:AB:19:HIS:CE1	2:AB:206:ASP:HB2	2.33	0.63
35:BA:1258:C:H6	35:BA:1258:C:H5''	1.62	0.63
35:BA:1485:G:H2'	35:BA:1486:A:C8	2.34	0.63
35:BA:2273:A:H2'	35:BA:2274:A:C8	2.34	0.63
35:BA:2317:C:H2'	35:BA:2318:G:O4'	1.98	0.63
40:BF:95:ARG:HB2	40:BF:97:TYR:CE1	2.34	0.63
44:BJ:25:UNK:HA	44:BJ:116:UNK:HA	1.80	0.63
46:BN:24:GLY:HA2	46:BN:27:ALA:HB3	1.79	0.63
1:CA:19:C:H2'	1:CA:20:U:H6	1.64	0.63
35:DA:535:C:C2'	35:DA:536:A:H5'	2.28	0.63
35:DA:1459:G:H5''	35:DA:1460:A:OP2	1.99	0.63
35:DA:1805:U:O2	38:DD:50:THR:HB	1.97	0.63
35:DA:2823:A:OP1	39:DE:113:PHE:HB2	1.98	0.63
40:DF:185:ASP:HA	40:DF:188:ARG:HD3	1.79	0.63
42:DH:7:LEU:HD12	42:DH:69:ARG:NH2	2.12	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DQ:4:PRO:O	49:DQ:5:ARG:HB2	1.98	0.63
8:AH:7:ALA:CB	8:AH:85:ARG:HD2	2.29	0.63
10:AJ:77:PRO:O	10:AJ:79:ARG:NH1	2.31	0.63
26:B1:28:GLY:HA3	26:B1:32:LYS:H	1.63	0.63
33:B8:34:TRP:CE2	33:B8:35:GLN:O	2.52	0.63
35:BA:454:A:H4'	35:BA:455:C:OP2	1.98	0.63
35:BA:977:G:H2'	35:BA:978:G:H8	1.63	0.63
35:BA:2500:U:O2'	35:BA:2504:U:OP1	2.12	0.63
36:BB:42:C:O2'	41:BG:67:LYS:O	2.09	0.63
47:BO:2:ILE:HD12	47:BO:6:THR:HG21	1.80	0.63
50:BR:33:ARG:HB3	50:BR:113:LEU:HD11	1.80	0.63
52:BT:123:GLN:O	52:BT:127:ALA:N	2.30	0.63
57:BY:2:ARG:HG2	57:BY:4:LYS:HB2	1.79	0.63
1:CA:26:A:H1'	4:CD:209:ARG:HH21	1.62	0.63
35:DA:1162:G:N2	54:DV:91:TYR:HE1	1.96	0.63
35:DA:1190:G:O5'	48:DP:35:HIS:HA	1.99	0.63
35:DA:2121:G:H1	35:DA:2177:C:H42	1.47	0.63
35:DA:2253:G:H2'	35:DA:2254:C:C6	2.34	0.63
41:DG:107:LEU:HD13	41:DG:177:GLY:O	1.98	0.63
50:DR:91:GLN:OE1	50:DR:91:GLN:N	2.28	0.63
52:DT:29:ARG:HE	52:DT:82:LEU:HD22	1.62	0.63
56:DX:21:PHE:O	56:DX:23:GLU:N	2.31	0.63
1:AA:100:C:H2'	1:AA:101:A:C8	2.34	0.63
1:AA:939:G:H5''	7:AG:102:ARG:NH2	2.14	0.63
8:AH:53:VAL:O	8:AH:55:GLY:N	2.31	0.63
17:AQ:11:VAL:HG12	17:AQ:85:VAL:HG12	1.80	0.63
26:B1:54:ALA:HA	26:B1:56:GLN:O	1.99	0.63
35:BA:1021:A:H62	35:BA:1141:U:H3	1.45	0.63
35:BA:2376:A:N6	51:BS:89:ARG:NH1	2.47	0.63
35:BA:2492:U:H2'	35:BA:2493:U:C6	2.34	0.63
41:BG:33:ARG:O	41:BG:161:THR:HG23	1.98	0.63
52:BT:118:ARG:NH1	52:BT:119:LYS:HB2	2.14	0.63
1:CA:342:C:N3	1:CA:347:G:N1	2.41	0.63
1:CA:519:C:H2'	1:CA:520:A:C8	2.34	0.63
13:CM:13:LYS:HA	13:CM:44:ARG:HH11	1.64	0.63
35:DA:142:A:H8	35:DA:1595:G:H21	1.46	0.63
35:DA:1027:A:O2'	36:DB:88:C:N4	2.32	0.63
1:AA:8:A:H61	4:AD:206:PHE:H	1.45	0.63
1:AA:1323:G:H2'	1:AA:1324:A:C8	2.34	0.63
8:AH:13:ILE:O	8:AH:17:THR:HG23	1.99	0.63
35:BA:480:A:O5'	57:BY:50:ARG:NH2	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:72:C:O2	1:CA:98:G:N2	2.32	0.63
1:CA:1016:A:H2'	1:CA:1017:G:O4'	1.99	0.63
1:CA:1226:C:H4'	1:CA:1227:A:OP1	1.99	0.63
1:CA:1260:C:H4'	1:CA:1284:C:H5'	1.81	0.63
1:CA:1410:G:H2'	1:CA:1411:C:H6	1.64	0.63
4:CD:7:PRO:HB2	4:CD:10:ARG:HD2	1.80	0.63
26:D1:91:LYS:O	26:D1:94:LEU:HB2	1.98	0.63
28:D3:5:LYS:HB3	28:D3:36:VAL:HG12	1.81	0.63
33:D8:26:LYS:HE3	33:D8:43:GLN:HE22	1.64	0.63
35:DA:824:A:H5''	35:DA:825:C:OP2	1.98	0.63
35:DA:1607:C:H4'	35:DA:1608:A:O5'	1.99	0.63
40:DF:65:TRP:CZ3	40:DF:72:ARG:HB3	2.34	0.63
49:DQ:87:LYS:HD3	49:DQ:90:VAL:HG11	1.81	0.63
52:DT:32:TYR:HD1	52:DT:40:THR:HG21	1.64	0.63
1:AA:1254:C:H5''	10:AJ:45:ARG:HH21	1.62	0.62
1:AA:1255:G:P	10:AJ:45:ARG:HH22	2.22	0.62
7:AG:63:LYS:O	7:AG:65:ALA:N	2.31	0.62
8:AH:12:ARG:HH11	8:AH:26:VAL:HA	1.63	0.62
22:AV:41:C:H2'	22:AV:42:C:H6	1.64	0.62
35:BA:84:A:H5''	57:BY:4:LYS:NZ	2.14	0.62
35:BA:86:C:OP2	57:BY:31:LEU:HD23	1.98	0.62
35:BA:134:C:H42	35:BA:144:C:H42	1.46	0.62
35:BA:2031:A:N3	35:BA:2455:G:O2'	2.27	0.62
39:BE:117:MET:HA	39:BE:122:PHE:N	2.14	0.62
50:BR:70:LEU:HD13	50:BR:75:LEU:HD12	1.81	0.62
58:BZ:145:GLU:HG3	58:BZ:146:ILE:H	1.64	0.62
1:CA:137:C:O2'	16:CP:61:SER:O	2.15	0.62
1:CA:947:G:H5''	13:CM:109:THR:HG23	1.81	0.62
1:CA:1410:G:H2'	1:CA:1411:C:C6	2.34	0.62
3:CC:6:HIS:CD2	3:CC:7:PRO:HD2	2.34	0.62
4:CD:153:ARG:NH2	4:CD:180:GLY:O	2.32	0.62
15:CO:15:PHE:CZ	15:CO:84:LYS:HD2	2.34	0.62
35:DA:506:G:H4'	35:DA:507:A:H5'	1.81	0.62
35:DA:1545:A:O2'	35:DA:1546:C:OP1	2.15	0.62
35:DA:2316:C:O2'	41:DG:128:ARG:NH2	2.32	0.62
38:DD:43:ARG:HB2	38:DD:54:ARG:HB2	1.81	0.62
40:DF:15:SER:O	40:DF:17:ARG:HG3	1.99	0.62
58:DZ:72:ARG:HG3	58:DZ:89:PHE:HB2	1.81	0.62
1:AA:162:A:N6	1:AA:334:C:OP1	2.31	0.62
1:AA:656:C:C2'	15:AO:28:GLN:NE2	2.61	0.62
1:AA:1345:U:H2'	1:AA:1345:U:O2	1.98	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1442(A):G:N3	1:AA:1442(A):G:H2'	2.14	0.62
2:AB:136:VAL:HA	2:AB:139:LYS:HD2	1.81	0.62
5:AE:42:GLY:HA3	5:AE:65:ASN:O	1.99	0.62
23:AY:30:G:N2	23:AY:41:C:O2	2.30	0.62
26:B1:40:ARG:HG2	35:BA:2081:C:H4'	1.81	0.62
35:BA:296:C:H42	35:BA:342:G:H1	1.46	0.62
39:BE:24:THR:HG21	39:BE:188:VAL:HG12	1.81	0.62
54:BV:16:PRO:HB3	54:BV:99:ILE:O	1.98	0.62
56:BX:62:LYS:HZ3	56:BX:62:LYS:C	2.02	0.62
1:CA:57:G:H2'	1:CA:58:C:C6	2.34	0.62
1:CA:1002:G:N2	1:CA:1039:C:O2	2.30	0.62
27:D2:26:ARG:HB3	27:D2:30:ARG:CZ	2.28	0.62
33:D8:61:LEU:HD21	35:DA:593:G:O2'	1.98	0.62
35:DA:197:A:H8	35:DA:197:A:H5'	1.64	0.62
35:DA:630:G:H4'	35:DA:640:C:H4'	1.80	0.62
35:DA:2485:G:O3'	49:DQ:126:PRO:HB3	1.99	0.62
39:DE:24:THR:HG23	39:DE:184:VAL:HG23	1.79	0.62
39:DE:96:PHE:HA	39:DE:100:GLU:OE1	2.00	0.62
7:AG:26:PHE:HE1	7:AG:120:ILE:HD11	1.62	0.62
16:AP:12:LYS:HD3	16:AP:13:HIS:H	1.64	0.62
35:BA:50:U:H4'	35:BA:51:G:OP2	1.97	0.62
35:BA:581:C:H42	35:BA:1259:G:H1	1.45	0.62
35:BA:1512:U:H5'	35:BA:1513:C:OP2	1.99	0.62
35:BA:2723:C:H4'	50:BR:3:HIS:HD2	1.62	0.62
50:BR:28:LEU:HD21	50:BR:114:VAL:HG12	1.80	0.62
57:BY:81:LYS:NZ	57:BY:97:ARG:O	2.26	0.62
1:CA:136:C:H42	1:CA:227:G:H1	1.45	0.62
1:CA:1284:C:H3'	1:CA:1285:A:H5''	1.81	0.62
31:D6:37:ARG:NH1	35:DA:2286:A:H8	1.89	0.62
35:DA:71:A:H5'	35:DA:71:A:C8	2.34	0.62
35:DA:953:A:OP2	49:DQ:16:ARG:HD2	2.00	0.62
35:DA:2505:G:O6	35:DA:2576:G:H2'	1.99	0.62
37:DC:59:ARG:HB2	37:DC:62:VAL:HG22	1.81	0.62
53:DU:95:LEU:O	53:DU:97:ASP:N	2.32	0.62
54:DV:66:ARG:HH21	54:DV:68:LYS:HA	1.64	0.62
57:DY:30:VAL:HG12	57:DY:32:PRO:HD3	1.81	0.62
4:AD:73:ARG:O	4:AD:76:ARG:N	2.31	0.62
9:AI:17:VAL:HA	9:AI:63:ILE:HG22	1.80	0.62
20:AT:38:LYS:HA	20:AT:41:ILE:HG12	1.82	0.62
27:B2:33:MET:HB2	27:B2:34:GLU:OE2	2.00	0.62
35:BA:2029:G:H2'	35:BA:2031:A:OP2	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:54:ARG:O	38:BD:218:ARG:NH1	2.32	0.62
42:BH:15:VAL:HB	42:BH:17:VAL:HG23	1.82	0.62
1:CA:1211:U:H5''	1:CA:1212:U:OP1	1.99	0.62
3:CC:11:ARG:O	3:CC:14:ILE:N	2.29	0.62
14:CN:26:ARG:HB3	14:CN:43:CYS:SG	2.40	0.62
16:CP:22:THR:HG22	16:CP:32:TYR:HA	1.82	0.62
20:CT:42:GLN:O	20:CT:46:GLU:HB2	1.99	0.62
35:DA:1012:U:O4	46:DN:28:THR:HG21	1.98	0.62
39:DE:32:PRO:HB2	39:DE:67:PHE:HZ	1.64	0.62
40:DF:40:GLN:NE2	40:DF:184:TYR:HB3	2.15	0.62
48:DP:23:PRO:HB2	48:DP:33:ARG:CG	2.29	0.62
1:AA:636:U:H2'	1:AA:637:G:C8	2.35	0.62
1:AA:1226:C:C4	13:AM:104:ARG:HD3	2.34	0.62
26:B1:48:LYS:O	26:B1:49:VAL:HG12	1.99	0.62
35:BA:363:G:C8	35:BA:363(A):A:H2	2.18	0.62
35:BA:594:U:H2'	35:BA:595:C:C6	2.35	0.62
35:BA:764:A:OP2	38:BD:214:TRP:HH2	1.83	0.62
50:BR:27:SER:HA	50:BR:29:LEU:HG	1.82	0.62
50:BR:52:ILE:O	50:BR:55:ALA:N	2.32	0.62
53:BU:92:ARG:HD2	54:BV:11:GLN:HB2	1.82	0.62
1:CA:68:G:C2	1:CA:69:G:H1'	2.34	0.62
1:CA:1002:G:OP2	1:CA:1002:G:C8	2.51	0.62
23:CW:37:A:H5'	23:CW:38:A:OP2	1.98	0.62
35:DA:861:A:N6	35:DA:916:G:O2'	2.33	0.62
36:DB:20:C:C2'	36:DB:21:G:H5'	2.30	0.62
40:DF:132:VAL:O	40:DF:134:GLY:N	2.33	0.62
1:AA:177:C:H2'	1:AA:178:C:C6	2.33	0.62
2:AB:27:LYS:HB2	2:AB:194:PRO:HD2	1.81	0.62
5:AE:7:GLU:HG3	5:AE:37:ARG:HG3	1.81	0.62
10:AJ:63:PHE:HB2	14:AN:57:ARG:O	1.99	0.62
12:AL:45:PRO:HB3	12:AL:92:ASP:O	2.00	0.62
15:AO:16:ALA:HB1	15:AO:21:ASP:HB3	1.81	0.62
35:BA:72:U:H5''	35:BA:72:U:C6	2.33	0.62
46:BN:2:LYS:HE2	53:BU:95:LEU:HD21	1.81	0.62
49:BQ:22:LYS:HG3	49:BQ:23:GLY:N	2.13	0.62
51:BS:102:ALA:O	51:BS:106:ARG:NH1	2.33	0.62
52:BT:11:GLU:CD	52:BT:11:GLU:H	2.03	0.62
52:BT:122:ASP:OD1	52:BT:122:ASP:N	2.32	0.62
58:BZ:41:LEU:HA	58:BZ:44:PHE:HB2	1.81	0.62
1:CA:883:C:C2'	1:CA:884:U:H5'	2.29	0.62
1:CA:1025:U:H2'	1:CA:1026:G:C8	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CW:52:G:N2	23:CW:63:G:N7	2.47	0.62
26:D1:76:ARG:HB2	26:D1:78:LYS:HZ2	1.65	0.62
35:DA:1939:U:OP1	35:DA:2604:U:O2'	2.15	0.62
35:DA:2632:A:N3	39:DE:61:ARG:NH1	2.47	0.62
35:DA:2877:G:H5''	35:DA:2878:U:OP2	2.00	0.62
47:DO:43:VAL:HG12	47:DO:54:GLU:HA	1.82	0.62
47:DO:104:ARG:NH1	52:DT:35:LYS:HE2	2.14	0.62
57:DY:88:LYS:NZ	57:DY:93:GLY:HA3	2.14	0.62
1:AA:178:C:H2'	1:AA:179:A:H8	1.65	0.62
4:AD:61:LYS:HB2	4:AD:203:VAL:HG22	1.82	0.62
23:AW:3:C:N3	23:AW:71:G:N1	2.48	0.62
27:B2:46:GLN:N	27:B2:49:LYS:HG2	2.14	0.62
35:BA:2787:C:O2	39:BE:61:ARG:NH1	2.33	0.62
35:BA:2867:G:OP2	52:BT:119:LYS:NZ	2.30	0.62
40:BF:65:TRP:HE1	40:BF:72:ARG:HH21	1.47	0.62
41:BG:120:LEU:N	41:BG:179:PRO:O	2.27	0.62
43:BI:75:LEU:HD21	43:BI:105:HIS:CE1	2.34	0.62
43:BI:76:THR:HG22	43:BI:139:GLN:OE1	2.00	0.62
51:BS:20:ARG:NE	51:BS:21:THR:H	1.81	0.62
4:CD:11:LEU:HD13	4:CD:66:ARG:HD2	1.81	0.62
6:CF:35:ALA:HA	6:CF:67:MET:HB3	1.82	0.62
8:CH:31:PHE:O	8:CH:35:ILE:HG13	2.00	0.62
27:D2:46:GLN:HA	27:D2:46:GLN:NE2	2.15	0.62
30:D5:7:PRO:HG2	35:DA:2016:U:O2	1.99	0.62
35:DA:357:A:H2'	35:DA:358:U:H6	1.63	0.62
35:DA:552:G:H8	35:DA:552:G:OP2	1.83	0.62
35:DA:1312:U:OP2	56:DX:62:LYS:HE2	1.99	0.62
42:DH:7:LEU:HD12	42:DH:69:ARG:CZ	2.30	0.62
51:DS:74:ALA:O	51:DS:77:ALA:N	2.32	0.62
1:AA:287:U:H2'	1:AA:288:A:C8	2.35	0.62
1:AA:1456:G:OP1	1:AA:1456:G:N3	2.32	0.62
7:AG:60:LYS:HE3	7:AG:64:GLN:HB2	1.80	0.62
35:BA:918:A:N3	36:BB:80:U:O2'	2.33	0.62
35:BA:1158:C:O2'	35:BA:1159:U:P	2.58	0.62
35:BA:2699:C:N4	35:BA:2708:G:H22	1.94	0.62
54:BV:72:VAL:HG23	54:BV:88:ARG:HB2	1.80	0.62
1:CA:1145:C:H4'	1:CA:1146:A:H5'	1.81	0.62
13:CM:49:THR:O	13:CM:52:GLU:N	2.32	0.62
35:DA:84:A:H5''	57:DY:9:LYS:HE2	1.81	0.62
38:DD:143:HIS:ND1	38:DD:194:GLY:O	2.32	0.62
51:DS:62:LYS:HB2	51:DS:66:ALA:HB2	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:DY:17:SER:HA	57:DY:71:LYS:HD2	1.82	0.62
1:AA:704:A:H5'	1:AA:705:U:OP2	2.00	0.62
10:AJ:71:LEU:HD12	10:AJ:72:VAL:H	1.64	0.62
13:AM:29:ARG:HD3	13:AM:64:TRP:CH2	2.34	0.62
35:BA:142:A:H3'	35:BA:142(A):C:H5''	1.81	0.62
35:BA:223:A:O2'	35:BA:420:C:O2	2.18	0.62
35:BA:1109:C:H41	35:BA:1110:G:N2	1.96	0.62
35:BA:1231:G:H2'	35:BA:1232:G:C8	2.35	0.62
40:BF:33:LEU:HD21	40:BF:112:MET:HB3	1.82	0.62
40:BF:77:ASP:O	40:BF:79:GLY:N	2.33	0.62
54:BV:76:LYS:HZ1	54:BV:83:ARG:NE	1.97	0.62
1:CA:1203:C:H2'	1:CA:1204:A:H8	1.65	0.62
1:CA:1459:C:H2'	1:CA:1460:A:O4'	1.99	0.62
35:DA:265:A:C8	35:DA:266:G:H1'	2.35	0.62
40:DF:2:LYS:O	40:DF:3:GLU:HB3	2.00	0.62
53:DU:8:VAL:O	53:DU:12:ARG:HG3	1.99	0.62
2:AB:12:GLU:HB2	2:AB:16:HIS:HD2	1.63	0.62
2:AB:97:TRP:HZ3	2:AB:101:MET:HG2	1.63	0.62
4:AD:117:ALA:O	4:AD:121:VAL:HG23	2.00	0.62
13:AM:46:LYS:HG3	13:AM:47:ASP:OD1	2.00	0.62
30:B5:36:CYS:HB3	30:B5:49:CYS:SG	2.39	0.62
33:B8:16:ILE:O	33:B8:16:ILE:HD12	1.99	0.62
35:BA:905:U:H2'	35:BA:906:G:H5''	1.81	0.62
35:BA:1403:C:H5''	35:BA:1471:A:H1'	1.81	0.62
1:CA:77:G:H5'	1:CA:78:G:OP2	1.99	0.62
1:CA:1412:C:H2'	1:CA:1413:A:C8	2.35	0.62
2:CB:27:LYS:HD2	2:CB:193:ASP:HB2	1.82	0.62
5:CE:136:MET:O	5:CE:138:ALA:N	2.33	0.62
10:CJ:16:LEU:HD13	10:CJ:70:ARG:HG2	1.81	0.62
19:CS:40:ILE:HG12	19:CS:62:ILE:HD11	1.81	0.62
35:DA:2271:G:H2'	35:DA:2272:U:C6	2.35	0.62
39:DE:119:ARG:CD	39:DE:160:TYR:HB2	2.24	0.62
1:AA:620:C:C2	4:AD:135:LEU:HG	2.35	0.61
4:AD:119:GLN:HG3	4:AD:123:HIS:CD2	2.34	0.61
12:AL:18:VAL:HG23	12:AL:19:ARG:H	1.65	0.61
35:BA:768:G:O2'	35:BA:1379:A:N6	2.33	0.61
35:BA:1019:U:H3	35:BA:1142(A):A:H62	1.48	0.61
40:BF:29:ASN:HB3	40:BF:32:LEU:HB3	1.82	0.61
49:BQ:17:LEU:HD11	49:BQ:96:VAL:HG13	1.82	0.61
1:CA:673:G:H2'	1:CA:674:G:C8	2.35	0.61
1:CA:1010:G:H8	1:CA:1010:G:O5'	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:50:ALA:HB1	3:CC:70:VAL:HG11	1.82	0.61
3:CC:58:GLU:HB3	3:CC:65:ALA:HB2	1.82	0.61
9:CI:97:LYS:HB3	9:CI:98:PRO:HD3	1.82	0.61
10:CJ:28:ARG:HG3	10:CJ:34:VAL:H	1.64	0.61
14:CN:4:LYS:HD3	14:CN:4:LYS:C	2.20	0.61
15:CO:86:GLY:O	15:CO:87:ILE:HD13	2.00	0.61
22:CV:21:A:H61	22:CV:46:A:H2'	1.63	0.61
25:D0:18:ALA:HB3	25:D0:20:ARG:HH21	1.64	0.61
30:D5:2:ALA:HB3	35:DA:747:U:OP2	1.99	0.61
35:DA:1721:G:H5'	35:DA:1722:A:OP2	2.00	0.61
35:DA:2100:G:H2'	35:DA:2101:G:C8	2.35	0.61
51:DS:62:LYS:HD3	51:DS:66:ALA:N	2.15	0.61
53:DU:92:ARG:NH2	53:DU:92:ARG:O	2.25	0.61
57:DY:43:ASN:HD22	57:DY:44:ILE:N	1.98	0.61
1:AA:190:U:H2'	1:AA:191:G:C8	2.35	0.61
1:AA:1360:A:OP1	1:AA:1360:A:H8	1.82	0.61
7:AG:84:ASN:ND2	23:AW:32:U:O2	2.29	0.61
12:AL:46:LYS:HZ2	12:AL:94:PRO:HB3	1.65	0.61
15:AO:2:PRO:O	15:AO:38:ARG:NH2	2.32	0.61
35:BA:874:G:H1	35:BA:903:C:H42	1.49	0.61
35:BA:1266:G:O2'	35:BA:2012:G:O6	2.16	0.61
35:BA:1980:G:O2'	35:BA:1982:C:OP2	2.17	0.61
35:BA:2689:U:H4'	35:BA:2690:C:OP2	1.99	0.61
48:BP:7:ARG:C	48:BP:9:ASN:H	2.03	0.61
52:BT:106:SER:HA	52:BT:110:ILE:HD12	1.81	0.61
7:CG:71:PRO:O	7:CG:91:VAL:HG21	1.99	0.61
35:DA:1087:G:O2'	35:DA:1089:G:OP1	2.14	0.61
35:DA:1901:A:OP2	35:DA:1901:A:H4'	2.00	0.61
35:DA:2123:G:H2'	35:DA:2124:G:H8	1.65	0.61
35:DA:2523:G:C2'	35:DA:2524:G:H5''	2.30	0.61
35:DA:2655:G:O2'	35:DA:2656:U:OP2	2.18	0.61
38:DD:21:PHE:HB3	38:DD:24:ILE:HG12	1.82	0.61
38:DD:31:LYS:NZ	38:DD:32:SER:HB2	2.15	0.61
39:DE:106:GLY:HA3	39:DE:189:PRO:HG2	1.82	0.61
51:DS:17:ARG:HD3	51:DS:88:ASP:OD2	2.00	0.61
8:AH:68:ARG:NH1	8:AH:70:GLN:OE1	2.31	0.61
10:AJ:78:ASN:O	10:AJ:81:THR:OG1	2.13	0.61
25:B0:70:GLN:HE22	25:B0:72:ARG:HD3	1.66	0.61
35:BA:234:C:H2'	35:BA:235:U:H6	1.66	0.61
35:BA:2031:A:C6	35:BA:2498:C:H1'	2.36	0.61
53:BU:92:ARG:NH1	54:BV:11:GLN:O	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:BW:80:PRO:O	55:BW:100:THR:HG22	1.99	0.61
13:CM:7:VAL:HB	41:DG:115:ARG:HB3	1.82	0.61
35:DA:1495:A:H2	35:DA:1496:A:C5	2.18	0.61
42:DH:88:LEU:O	42:DH:89:ILE:HG23	2.00	0.61
54:DV:70:ILE:HG13	54:DV:90:PRO:HB3	1.80	0.61
56:DX:47:PHE:O	56:DX:49:VAL:HG13	2.00	0.61
1:AA:250:A:H8	1:AA:250:A:O5'	1.83	0.61
1:AA:600:C:H2'	1:AA:601:C:C6	2.35	0.61
1:AA:1008:C:N3	1:AA:1022:G:N1	2.48	0.61
2:AB:74:LYS:HB2	2:AB:165:VAL:HG21	1.83	0.61
3:AC:155:GLY:HA3	3:AC:164:ARG:O	2.01	0.61
4:AD:177:ASP:O	4:AD:179:GLU:N	2.33	0.61
5:AE:11:ILE:HD11	5:AE:33:VAL:HG23	1.82	0.61
8:AH:17:THR:HG22	8:AH:63:LEU:HD21	1.82	0.61
23:AW:7:A:O2'	23:AW:8:U:OP1	2.16	0.61
34:B9:19:ARG:HB2	35:BA:2756:U:H5''	1.81	0.61
35:BA:1289:C:H2'	35:BA:1290:C:H6	1.66	0.61
37:BC:68:LEU:HB3	37:BC:179:SER:HA	1.81	0.61
38:BD:228:PRO:HD3	38:BD:235:GLY:HA2	1.82	0.61
39:BE:8:LYS:HG2	39:BE:192:ASN:HA	1.81	0.61
39:BE:52:LEU:O	39:BE:75:VAL:N	2.32	0.61
1:CA:91:C:H3'	1:CA:91:C:OP2	2.01	0.61
1:CA:959:A:N6	19:CS:78:ARG:HE	1.97	0.61
10:CJ:49:VAL:CG2	14:CN:41:ARG:HB2	2.31	0.61
20:CT:56:MET:HE1	20:CT:104:LEU:H	1.66	0.61
28:D3:11:SER:OG	28:D3:13:ILE:HG12	1.99	0.61
35:DA:1252:G:OP2	53:DU:14:HIS:HE1	1.84	0.61
36:DB:88:C:H2'	36:DB:89:G:C8	2.35	0.61
37:DC:39:GLU:HG2	37:DC:180:PHE:HA	1.83	0.61
38:DD:31:LYS:HB3	38:DD:35:LYS:N	2.15	0.61
56:DX:53:LYS:N	56:DX:80:ILE:HG22	2.16	0.61
1:AA:6:G:H4'	1:AA:298:A:H4'	1.83	0.61
1:AA:156:G:O6	1:AA:165:C:C4	2.53	0.61
1:AA:620:C:H2'	1:AA:621:A:O4'	2.00	0.61
1:AA:625:G:H4'	16:AP:16:HIS:CD2	2.36	0.61
1:AA:1137:C:O4'	1:AA:1140:C:N4	2.33	0.61
8:AH:106:GLY:O	8:AH:122:ARG:NH2	2.33	0.61
19:AS:33:THR:OG1	19:AS:34:TRP:N	2.32	0.61
33:B8:6:THR:HG21	35:BA:243:U:P	2.40	0.61
35:BA:136:G:H3'	35:BA:137:C:C6	2.36	0.61
35:BA:259:G:H2'	35:BA:621:A:HO2'	1.63	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1022:G:H22	35:BA:1142(A):A:H2	1.49	0.61
35:BA:1416:G:N2	35:BA:1583:A:N1	2.49	0.61
35:BA:1594:G:H5'	35:BA:1595:G:OP2	2.01	0.61
35:BA:2094:G:OP2	43:BI:22:LYS:NZ	2.29	0.61
35:BA:2320:A:H2'	35:BA:2320:A:N3	2.16	0.61
39:BE:25:VAL:HG12	39:BE:181:LEU:HD12	1.82	0.61
39:BE:171:GLU:HB3	39:BE:185:LYS:HB2	1.83	0.61
52:BT:51:ARG:NH1	52:BT:100:TYR:CE1	2.68	0.61
1:CA:663:A:H2'	1:CA:664:G:O4'	2.01	0.61
3:CC:7:PRO:O	3:CC:11:ARG:HD3	2.01	0.61
3:CC:114:PRO:HA	3:CC:117:ALA:HB3	1.81	0.61
7:CG:93:PRO:HA	7:CG:96:GLN:CB	2.29	0.61
8:CH:87:SER:HB2	8:CH:93:VAL:HB	1.83	0.61
11:CK:127:LYS:O	11:CK:129:SER:N	2.34	0.61
13:CM:50:GLU:HA	13:CM:53:VAL:HB	1.81	0.61
18:CR:44:LEU:HG	18:CR:49:LYS:O	2.01	0.61
26:D1:83:GLU:HG2	26:D1:86:SER:N	2.15	0.61
35:DA:1044:G:H1'	35:DA:1111:A:N6	2.14	0.61
35:DA:2023:G:H5'	35:DA:2617:C:H4'	1.81	0.61
35:DA:2031:A:N3	35:DA:2455:G:O2'	2.29	0.61
35:DA:2864:G:H5''	35:DA:2864:G:H8	1.66	0.61
51:DS:33:LYS:HE3	51:DS:34:HIS:HE1	1.64	0.61
54:DV:2:PHE:CD1	54:DV:13:ARG:CZ	2.83	0.61
1:AA:353:A:H5'	1:AA:353:A:H8	1.65	0.61
4:AD:196:LEU:H	4:AD:196:LEU:HD12	1.65	0.61
18:AR:47:THR:HB	18:AR:49:LYS:HG3	1.82	0.61
49:BQ:124:LYS:NZ	49:BQ:125:LEU:HD21	2.12	0.61
56:BX:29:TRP:HE1	56:BX:74:PRO:HB2	1.63	0.61
1:CA:292:G:N7	1:CA:293:G:H1'	2.15	0.61
1:CA:1136:U:H5''	1:CA:1137:C:C2	2.36	0.61
3:CC:17:ASP:O	3:CC:54:ARG:NH2	2.33	0.61
7:CG:107:ALA:HA	7:CG:110:GLN:HG3	1.82	0.61
9:CI:13:ALA:HB2	9:CI:68:GLY:HA3	1.82	0.61
35:DA:572:A:H2'	35:DA:573:G:O4'	2.00	0.61
35:DA:1412:A:H2'	35:DA:1413:G:C8	2.35	0.61
36:DB:73:A:H5'	36:DB:74:U:OP2	2.01	0.61
48:DP:26:GLY:O	48:DP:27:HIS:HB3	2.00	0.61
50:DR:62:ALA:HA	50:DR:65:LEU:HD23	1.81	0.61
55:DW:64:MET:HG2	55:DW:109:GLU:OE2	2.00	0.61
1:AA:1120:G:H2'	1:AA:1121:U:O2	1.99	0.61
2:AB:213:LEU:HA	2:AB:216:SER:HB2	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:121:PRO:HB2	11:AK:125:PHE:HB2	1.82	0.61
26:B1:43:TYR:CE1	26:B1:45:ASN:ND2	2.69	0.61
35:BA:139:G:H1'	35:BA:139(A):G:N2	2.16	0.61
35:BA:922:U:H2'	35:BA:923:C:C6	2.36	0.61
35:BA:1916:A:H2'	35:BA:1917:U:O4'	2.00	0.61
35:BA:2791:C:HO2'	35:BA:2792:G:P	2.22	0.61
37:BC:18:LYS:HB2	37:BC:22:ILE:CD1	2.30	0.61
49:BQ:124:LYS:HZ2	49:BQ:125:LEU:CD2	2.11	0.61
35:DA:389:G:N1	48:DP:71:VAL:HB	2.12	0.61
38:DD:132:PRO:HD3	38:DD:190:TYR:CZ	2.36	0.61
40:DF:10:PRO:HG2	40:DF:127:GLU:H	1.65	0.61
50:DR:12:ARG:HG2	50:DR:16:HIS:CG	2.35	0.61
51:DS:74:ALA:HB2	51:DS:101:LEU:HD21	1.82	0.61
1:AA:163:C:H5	1:AA:164:U:C4	2.19	0.61
1:AA:190:U:O2	20:AT:105:SER:HB2	2.00	0.61
1:AA:1443:G:H8	1:AA:1443:G:H5'	1.65	0.61
1:AA:1446:U:C2	1:AA:1447:A:H1'	2.36	0.61
35:BA:1858:G:O2'	35:BA:1884:A:N6	2.34	0.61
35:BA:2733:A:C2	39:BE:203:LYS:HG2	2.35	0.61
38:BD:132:PRO:HG3	38:BD:190:TYR:CE1	2.36	0.61
50:BR:31:HIS:O	50:BR:34:ILE:HG12	2.00	0.61
54:BV:19:LYS:HE2	54:BV:22:VAL:HG13	1.81	0.61
56:BX:82:GLN:O	56:BX:83:VAL:HG22	2.01	0.61
1:CA:68:G:N2	1:CA:69:G:H1'	2.16	0.61
1:CA:438:G:H4'	4:CD:123:HIS:ND1	2.15	0.61
1:CA:1195:C:H5''	1:CA:1196:U:O5'	2.00	0.61
12:CL:59:ARG:HA	12:CL:65:GLU:HG2	1.81	0.61
15:CO:17:ARG:HB2	15:CO:21:ASP:OD2	2.00	0.61
29:D4:17:GLY:O	29:D4:19:GLY:N	2.33	0.61
35:DA:1068:G:O2'	35:DA:1069:A:H5'	1.99	0.61
35:DA:1449:A:H5'	35:DA:1450:G:OP2	2.00	0.61
46:DN:62:VAL:HG11	46:DN:67:LEU:HD23	1.82	0.61
47:DO:7:TYR:CZ	47:DO:44:LYS:HG3	2.35	0.61
53:DU:85:LYS:HD3	53:DU:117:GLN:HA	1.82	0.61
1:AA:77:G:N3	1:AA:77:G:O2'	2.30	0.61
1:AA:999:C:N4	1:AA:1042:G:H1	1.98	0.61
4:AD:71:SER:HB3	4:AD:74:GLN:HB2	1.83	0.61
8:AH:102:ARG:HH21	8:AH:105:ARG:HD3	1.65	0.61
19:AS:40:ILE:HG21	19:AS:68:GLY:N	2.16	0.61
27:B2:26:ARG:C	27:B2:27:GLU:OE2	2.38	0.61
35:BA:13:A:H61	35:BA:525:U:H3'	1.66	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1773:A:C6	38:BD:14:ARG:NH1	2.67	0.61
36:BB:15:A:H1'	36:BB:110:G:C8	2.34	0.61
36:BB:20:C:O2'	36:BB:21:G:H5'	2.00	0.61
38:BD:97:TYR:O	38:BD:99:ASP:N	2.34	0.61
47:BO:71:ARG:HG2	47:BO:72:PRO:HD2	1.81	0.61
48:BP:130:PHE:CD2	48:BP:135:LEU:HD21	2.35	0.61
50:BR:7:GLY:N	50:BR:8:ARG:HH12	1.99	0.61
52:BT:35:LYS:HG3	52:BT:36:GLU:HG3	1.83	0.61
1:CA:627:G:H2'	1:CA:628:G:H8	1.66	0.61
1:CA:674:G:H2'	1:CA:675:A:C8	2.36	0.61
1:CA:1347:G:N2	1:CA:1374:A:OP2	2.30	0.61
14:CN:21:TYR:HD1	14:CN:22:THR:O	1.83	0.61
23:CW:63:G:O2'	37:DC:53:ARG:HG2	2.00	0.61
35:DA:571:A:H5'	35:DA:2030:A:H62	1.66	0.61
35:DA:787:U:H5''	35:DA:788:A:H5'	1.83	0.61
35:DA:1087:G:H2'	35:DA:1088:A:H4'	1.82	0.61
49:DQ:30:GLY:HA2	49:DQ:107:ALA:HB2	1.83	0.61
52:DT:30:VAL:HG13	52:DT:83:ILE:HG13	1.82	0.61
52:DT:62:THR:HG22	52:DT:75:ILE:HG12	1.83	0.61
53:DU:97:ASP:O	53:DU:99:ALA:N	2.34	0.61
1:AA:747:C:H5''	1:AA:748:C:OP2	2.01	0.61
1:AA:1023:G:O6	1:AA:1039:C:H5	1.83	0.61
1:AA:1521:G:H2'	1:AA:1522:U:C6	2.36	0.61
2:AB:223:ILE:O	2:AB:225:ALA:N	2.33	0.61
5:AE:48:ALA:HB1	5:AE:49:PRO:HD2	1.83	0.61
5:AE:105:VAL:HB	5:AE:106:PRO:HD3	1.83	0.61
7:AG:143:ARG:NH1	23:AW:41:C:O3'	2.33	0.61
13:AM:22:ILE:HG22	13:AM:67:GLU:HG3	1.83	0.61
35:BA:198:C:C2'	35:BA:199:A:H5''	2.31	0.61
35:BA:686:G:N2	35:BA:788:A:H61	1.98	0.61
35:BA:2629:A:H2'	35:BA:2629:A:N3	2.15	0.61
46:BN:78:TYR:HB3	46:BN:79:PRO:HD2	1.83	0.61
48:BP:25:SER:O	48:BP:29:LYS:NZ	2.32	0.61
1:CA:558:G:C4	1:CA:559:A:C2	2.89	0.61
1:CA:1292:U:O2'	1:CA:1293:G:H5'	2.00	0.61
2:CB:189:ASP:CG	2:CB:205:ASP:HB3	2.22	0.61
13:CM:5:ALA:HA	13:CM:61:GLU:HG3	1.83	0.61
27:D2:49:LYS:HA	27:D2:54:LYS:NZ	2.16	0.61
37:DC:23:ASP:O	37:DC:25:ALA:N	2.33	0.61
40:DF:3:GLU:OE2	40:DF:3:GLU:N	2.34	0.61
43:DI:135:GLU:OE2	43:DI:135:GLU:N	2.23	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:DS:89:ARG:HG2	51:DS:93:LYS:NZ	2.15	0.61
53:DU:95:LEU:HD21	54:DV:13:ARG:HB3	1.81	0.61
58:DZ:151:HIS:HB2	58:DZ:169:GLU:O	2.00	0.61
58:DZ:151:HIS:HA	58:DZ:171:ILE:HG12	1.82	0.61
1:AA:256:U:H3	1:AA:270:A:H61	1.49	0.60
1:AA:489:C:C2'	1:AA:490:G:H5'	2.31	0.60
1:AA:1356:G:N2	1:AA:1367:C:O2	2.34	0.60
1:AA:1381:U:O2	7:AG:80:VAL:HB	2.01	0.60
3:AC:32:LEU:O	3:AC:36:ASP:HB2	2.00	0.60
4:AD:110:PHE:CE1	4:AD:148:VAL:CG2	2.84	0.60
6:AF:82:ARG:HB2	6:AF:85:VAL:HG23	1.83	0.60
7:AG:83:ALA:O	23:AW:37:A:N6	2.31	0.60
8:AH:77:GLU:HG2	8:AH:78:GLN:H	1.64	0.60
33:B8:29:LYS:NZ	35:BA:2362:G:OP1	2.34	0.60
35:BA:288:C:H2'	35:BA:289:A:C8	2.36	0.60
35:BA:626:U:H3	48:BP:105:LEU:HD23	1.66	0.60
35:BA:668:G:H2'	35:BA:670:A:H62	1.66	0.60
35:BA:1116:C:H2'	35:BA:1117:G:O4'	1.99	0.60
35:BA:1629:U:C5	35:BA:1637:A:N1	2.67	0.60
35:BA:1741:A:H2'	35:BA:1742:G:C4	2.36	0.60
35:BA:2009:G:H2'	35:BA:2010:G:H5'	1.82	0.60
35:BA:2661:G:H2'	35:BA:2662:A:C2	2.36	0.60
42:BH:86:GLU:N	42:BH:86:GLU:OE1	2.33	0.60
51:BS:102:ALA:HB3	51:BS:106:ARG:NH1	2.15	0.60
53:BU:53:ARG:HA	53:BU:56:ASP:HB2	1.82	0.60
54:BV:66:ARG:HH11	54:BV:68:LYS:HA	1.66	0.60
1:CA:130:A:N3	1:CA:263:A:O2'	2.33	0.60
9:CI:53:VAL:HG11	9:CI:85:LEU:HD22	1.82	0.60
21:CU:19:GLY:C	21:CU:21:TYR:H	2.03	0.60
33:D8:19:SER:OG	35:DA:651:G:OP1	2.18	0.60
35:DA:2500:U:O2'	35:DA:2504:U:OP1	2.17	0.60
38:DD:44:ASN:HB2	38:DD:49:ILE:HA	1.81	0.60
38:DD:66:ASP:OD2	38:DD:69:ARG:HG2	2.01	0.60
43:DI:77:LEU:O	43:DI:78:THR:HG22	2.01	0.60
58:DZ:24:LEU:HD21	58:DZ:86:VAL:HG23	1.83	0.60
1:AA:920:U:H2'	1:AA:921:U:C6	2.35	0.60
1:AA:991:U:HO2'	1:AA:993:G:H8	1.49	0.60
4:AD:64:LEU:HB2	4:AD:198:VAL:HG11	1.84	0.60
31:B6:27:LYS:HD2	31:B6:31:PRO:HD2	1.81	0.60
35:BA:1638:C:H1'	35:BA:2698:U:O2'	2.02	0.60
35:BA:2340:G:H2'	35:BA:2341:G:C8	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BH:43:VAL:HG11	42:BH:53:GLU:HB3	1.83	0.60
48:BP:7:ARG:NH2	48:BP:10:PRO:HB3	2.15	0.60
48:BP:60:MET:HE2	48:BP:61:ARG:NH2	2.17	0.60
12:CL:58:VAL:O	12:CL:65:GLU:HA	2.01	0.60
16:CP:21:VAL:O	16:CP:33:ILE:N	2.32	0.60
20:CT:71:THR:HG22	20:CT:72:LEU:HG	1.82	0.60
39:DE:56:PRO:O	39:DE:58:ARG:N	2.34	0.60
1:AA:1009:G:H2'	1:AA:1010:G:C8	2.35	0.60
15:AO:18:PHE:HB2	15:AO:19:PRO:HD2	1.83	0.60
18:AR:70:ILE:HG23	18:AR:79:LEU:HD12	1.83	0.60
35:BA:656:G:H3'	35:BA:656:G:C8	2.36	0.60
35:BA:776:G:H4'	35:BA:777:A:O5'	2.00	0.60
40:BF:21:ALA:O	40:BF:24:LEU:N	2.27	0.60
51:BS:21:THR:O	51:BS:23:ARG:N	2.34	0.60
1:CA:262:A:H5'	20:CT:74:LYS:HD2	1.84	0.60
1:CA:1027:C:O2'	1:CA:1035:A:N1	2.32	0.60
8:CH:14:ARG:HD3	8:CH:18:ARG:HH22	1.65	0.60
18:CR:41:LYS:HA	18:CR:44:LEU:HB2	1.83	0.60
35:DA:577:G:O2'	35:DA:1254:A:OP1	2.19	0.60
35:DA:2635:C:OP1	39:DE:77:ILE:HG21	2.01	0.60
35:DA:2655:G:HO2'	35:DA:2664:G:H1	1.49	0.60
36:DB:15:A:H1'	36:DB:110:G:C5	2.36	0.60
39:DE:134:ILE:HB	39:DE:137:HIS:HB2	1.82	0.60
42:DH:11:VAL:HG13	42:DH:15:VAL:CG2	2.31	0.60
45:DK:104:UNK:O	45:DK:106:UNK:N	2.34	0.60
50:DR:2:ARG:CZ	50:DR:5:LYS:HE3	2.32	0.60
1:AA:1309:G:OP1	13:AM:88:ARG:NH1	2.33	0.60
2:AB:88:ALA:HA	2:AB:223:ILE:HD11	1.83	0.60
12:AL:76:ASN:ND2	12:AL:106:ASP:O	2.31	0.60
33:B8:2:PRO:HA	35:BA:591:C:O2	2.02	0.60
35:BA:142:A:H5'	35:BA:142(A):C:OP2	2.01	0.60
35:BA:1453:U:OP1	50:BR:77:ARG:NH1	2.35	0.60
38:BD:171:ASP:O	38:BD:187:GLY:N	2.34	0.60
46:BN:15:LEU:HD22	46:BN:16:ILE:H	1.65	0.60
58:BZ:45:ASP:OD2	58:BZ:49:ARG:NE	2.28	0.60
1:CA:271:C:H2'	1:CA:272:C:C6	2.37	0.60
1:CA:979:C:H3'	1:CA:980:C:H5''	1.83	0.60
2:CB:84:GLU:HG3	2:CB:215:LEU:HD12	1.83	0.60
3:CC:119:ARG:O	3:CC:123:GLN:HG3	2.01	0.60
4:CD:59:ARG:HA	4:CD:62:GLN:HB2	1.83	0.60
6:CF:15:ASP:OD1	6:CF:18:GLN:N	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:51:ARG:NH2	10:CJ:60:ARG:O	2.34	0.60
27:D2:23:LYS:HB2	56:DX:5:TYR:CZ	2.35	0.60
35:DA:711:G:N2	35:DA:720:C:O2	2.18	0.60
35:DA:942:G:P	48:DP:41:ARG:HH22	2.24	0.60
35:DA:1049:C:H2'	35:DA:1050:A:N7	2.16	0.60
35:DA:1137:G:O2'	35:DA:2039:C:H5''	2.01	0.60
35:DA:1384:A:O2'	35:DA:1404:C:O2	2.19	0.60
35:DA:1607:C:N4	35:DA:1622:G:OP2	2.29	0.60
35:DA:2468:G:O2'	35:DA:2469:A:H5'	2.01	0.60
35:DA:2577:A:H5''	35:DA:2578:G:H5'	1.81	0.60
40:DF:24:LEU:HD13	40:DF:25:PRO:HG2	1.82	0.60
40:DF:202:PHE:CE1	40:DF:206:ILE:HD11	2.36	0.60
56:DX:43:VAL:HG13	56:DX:51:VAL:HG21	1.83	0.60
57:DY:84:ARG:HH12	57:DY:97:ARG:NH1	1.98	0.60
1:AA:1147:C:O2	9:AI:16:ARG:NE	2.35	0.60
1:AA:1276:G:H2'	1:AA:1277:C:H5'	1.82	0.60
2:AB:181:PHE:CZ	8:AH:70:GLN:HB2	2.37	0.60
4:AD:141:ARG:N	4:AD:144:ASP:OD2	2.28	0.60
35:BA:1091:G:N2	35:BA:1101:U:O2	2.34	0.60
35:BA:1276:A:H2	50:BR:23:ASN:HD21	1.49	0.60
35:BA:1283:G:H5'	35:BA:1284:A:OP2	2.01	0.60
39:BE:117:MET:HA	39:BE:122:PHE:H	1.67	0.60
40:BF:84:VAL:HG11	40:BF:87:GLY:N	2.16	0.60
49:BQ:80:GLU:OE2	49:BQ:81:VAL:N	2.35	0.60
52:BT:129:ARG:HH11	52:BT:131:ALA:HB2	1.66	0.60
3:CC:112:SER:OG	3:CC:115:LEU:HB2	2.01	0.60
19:CS:9:VAL:O	19:CS:11:VAL:N	2.34	0.60
25:D0:66:VAL:HG23	25:D0:82:ARG:CB	2.29	0.60
30:D5:55:ARG:NE	30:D5:55:ARG:O	2.33	0.60
35:DA:1448:G:H1'	35:DA:1528:A:H62	1.66	0.60
38:DD:133:LEU:HD13	38:DD:173:VAL:HG11	1.83	0.60
42:DH:15:VAL:HG12	42:DH:29:PRO:CD	2.30	0.60
48:DP:71:VAL:CG2	48:DP:72:PRO:HD3	2.32	0.60
48:DP:127:ALA:N	48:DP:145:PRO:HG3	2.15	0.60
58:DZ:19:ARG:HH22	58:DZ:82:ARG:HG3	1.65	0.60
1:AA:360:A:H2'	1:AA:361:G:C8	2.36	0.60
1:AA:922:G:H1'	5:AE:19:MET:HB3	1.84	0.60
2:AB:102:LEU:HD13	2:AB:158:LEU:CD2	2.31	0.60
13:AM:84:ILE:HD11	19:AS:66:MET:CG	2.30	0.60
35:BA:627:A:H4'	35:BA:628:G:OP1	2.01	0.60
35:BA:1056:G:H1'	35:BA:1086:A:N6	2.17	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1628:G:N2	35:BA:1638:C:H5	1.99	0.60
35:BA:1810:A:H2'	35:BA:1811:G:O4'	2.02	0.60
35:BA:2298:A:N6	35:BA:2318:G:C8	2.69	0.60
35:BA:2319:G:N1	35:BA:2334:G:OP2	2.31	0.60
49:BQ:25:ASP:OD2	49:BQ:102:VAL:N	2.19	0.60
1:CA:189(G):G:H4'	1:CA:189(H):G:OP2	2.01	0.60
1:CA:499:A:H4'	1:CA:500:G:OP1	2.02	0.60
1:CA:556:C:H2'	1:CA:557:G:H8	1.65	0.60
10:CJ:37:PRO:HB3	10:CJ:72:VAL:HG22	1.84	0.60
13:CM:68:GLY:O	13:CM:72:ALA:N	2.31	0.60
28:D3:30:ARG:O	28:D3:33:GLN:HB2	2.02	0.60
35:DA:58:G:H5''	56:DX:72:LYS:HD2	1.84	0.60
35:DA:1641:A:H2'	35:DA:1642:G:O4'	2.01	0.60
37:DC:87:GLU:HG3	37:DC:94:VAL:HG23	1.83	0.60
49:DQ:130:LYS:HG3	49:DQ:131:ILE:H	1.67	0.60
56:DX:77:LYS:CD	56:DX:78:LYS:N	2.59	0.60
1:AA:1208:C:H2'	1:AA:1209:C:H6	1.66	0.60
1:AA:1238:A:H62	1:AA:1301:U:H3	1.48	0.60
8:AH:33:GLU:HG3	8:AH:59:LEU:HD11	1.84	0.60
9:AI:23:ASN:N	9:AI:60:ASP:OD2	2.34	0.60
20:AT:95:ALA:O	20:AT:97:ALA:N	2.34	0.60
26:B1:48:LYS:HZ3	26:B1:63:ALA:H	1.48	0.60
27:B2:27:GLU:HG2	27:B2:29:LYS:HE2	1.82	0.60
37:BC:46:LYS:HB2	37:BC:208:PHE:O	2.02	0.60
40:BF:42:ALA:O	40:BF:44:ARG:N	2.34	0.60
48:BP:97:PRO:O	48:BP:100:LEU:N	2.34	0.60
50:BR:103:ARG:NH1	55:BW:40:ASN:OD1	2.34	0.60
55:BW:7:ALA:HB3	55:BW:103:ILE:HG12	1.84	0.60
30:D5:3:LYS:HE3	30:D5:6:VAL:CG1	2.31	0.60
35:DA:192:C:C3'	35:DA:193:U:H5''	2.32	0.60
35:DA:806:C:OP2	48:DP:39:LYS:HB3	2.02	0.60
36:DB:20:C:H2'	36:DB:21:G:H5'	1.83	0.60
37:DC:46:LYS:HE2	37:DC:46:LYS:HA	1.83	0.60
40:DF:22:ALA:C	40:DF:24:LEU:H	2.05	0.60
56:DX:69:TYR:OH	56:DX:73:ARG:HG3	2.02	0.60
1:AA:57:G:H2'	1:AA:58:C:C6	2.37	0.60
1:AA:1295:G:H21	1:AA:1302:U:H5	1.50	0.60
2:AB:165:VAL:HG23	2:AB:166:ASP:H	1.67	0.60
10:AJ:42:THR:HG22	10:AJ:68:HIS:HA	1.83	0.60
15:AO:32:LEU:O	15:AO:36:ILE:HG12	2.01	0.60
27:B2:47:ASN:ND2	27:B2:51:ARG:HH21	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:B8:19:SER:OG	35:BA:651:G:OP1	2.14	0.60
34:B9:36:GLN:HE22	35:BA:1031:G:H21	1.50	0.60
35:BA:1039:G:H1	35:BA:1116:C:H42	1.48	0.60
35:BA:2343:C:O2'	35:BA:2373:G:O2'	2.16	0.60
39:BE:38:THR:HG22	39:BE:40:GLU:H	1.65	0.60
40:BF:68:LYS:O	40:BF:70:THR:N	2.26	0.60
1:CA:236:G:H5''	17:CQ:42:TYR:OH	2.02	0.60
1:CA:1261:A:H1'	1:CA:1283:G:H5''	1.83	0.60
20:CT:55:ILE:O	20:CT:59:ALA:N	2.34	0.60
35:DA:1048:A:OP2	35:DA:1048:A:H4'	2.00	0.60
35:DA:2038:G:H2'	35:DA:2039:C:O4'	2.02	0.60
35:DA:2661:G:C8	35:DA:2662:A:N1	2.70	0.60
52:DT:80:SER:HB2	52:DT:81:PRO:CD	2.30	0.60
1:AA:922:G:N3	1:AA:1398:A:H2	1.98	0.60
1:AA:1129:C:H41	1:AA:1132:C:H41	1.50	0.60
1:AA:1138:G:H3'	1:AA:1138:G:N3	2.16	0.60
2:AB:178:ARG:NH1	2:AB:196:LEU:O	2.29	0.60
4:AD:100:ARG:HE	4:AD:137:SER:HB3	1.67	0.60
5:AE:140:ARG:O	5:AE:143:ARG:NH2	2.35	0.60
8:AH:109:ILE:HG22	8:AH:137:VAL:HB	1.84	0.60
19:AS:66:MET:O	19:AS:68:GLY:N	2.35	0.60
22:AV:24:C:H2'	22:AV:25:U:C6	2.36	0.60
22:AV:44:A:O2'	22:AV:45:A:H5'	2.01	0.60
23:AW:35:A:H61	24:AX:13:A:H62	1.47	0.60
35:BA:108:U:H2'	35:BA:109:G:C8	2.37	0.60
35:BA:1688:U:O2	35:BA:1700:A:H5''	2.02	0.60
41:BG:134:GLY:HA2	41:BG:156:ASP:HA	1.83	0.60
46:BN:30:ILE:HG22	46:BN:34:LEU:HD13	1.82	0.60
48:BP:57:THR:HB	48:BP:60:MET:HG2	1.84	0.60
56:BX:44:GLU:OE2	56:BX:50:LYS:HA	2.02	0.60
57:BY:47:LYS:HB3	57:BY:60:PHE:CD2	2.37	0.60
58:BZ:10:ARG:HB2	58:BZ:36:LYS:HB3	1.84	0.60
9:CI:42:ARG:NH1	9:CI:71:SER:OG	2.35	0.60
9:CI:93:ARG:O	9:CI:95:LYS:N	2.35	0.60
20:CT:75:ASN:O	20:CT:79:ARG:HB3	2.02	0.60
33:D8:30:ARG:NH1	35:DA:2394:C:C5	2.70	0.60
35:DA:250:G:H2'	35:DA:251:A:C8	2.37	0.60
36:DB:5:C:N4	36:DB:116:G:H1	1.99	0.60
46:DN:43:THR:HB	46:DN:46:VAL:CG1	2.32	0.60
48:DP:7:ARG:O	48:DP:9:ASN:N	2.34	0.60
48:DP:40:SER:O	48:DP:41:ARG:HG3	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DP:49:ARG:HH21	48:DP:50:ARG:NH1	2.00	0.60
52:DT:51:ARG:HB2	52:DT:98:LYS:HG3	1.82	0.60
53:DU:92:ARG:HG2	54:DV:11:GLN:CD	2.22	0.60
1:AA:633:G:H5'	1:AA:634:C:OP2	2.01	0.60
1:AA:881:G:H2'	1:AA:882:C:O4'	2.02	0.60
1:AA:1289:A:N6	1:AA:1371:G:O2'	2.35	0.60
2:AB:126:GLU:HG2	2:AB:129:GLU:HG3	1.84	0.60
10:AJ:34:VAL:HG13	10:AJ:73:ASP:O	2.02	0.60
35:BA:81:G:H1	35:BA:82:G:N2	2.00	0.60
42:BH:85:LYS:HZ2	42:BH:141:VAL:HG13	1.65	0.60
43:BI:26:ALA:HA	43:BI:30:LEU:HB2	1.82	0.60
46:BN:30:ILE:HG22	46:BN:34:LEU:HD11	1.84	0.60
51:BS:89:ARG:HD2	51:BS:92:TYR:HA	1.84	0.60
54:BV:85:LYS:O	54:BV:87:HIS:N	2.35	0.60
1:CA:600:C:H2'	1:CA:601:C:H6	1.67	0.60
1:CA:625:G:H4'	16:CP:16:HIS:CG	2.37	0.60
1:CA:688:G:H2'	1:CA:689:C:H6	1.67	0.60
1:CA:1347:G:H22	1:CA:1374:A:P	2.25	0.60
35:DA:548:A:H61	54:DV:95:LEU:CD2	2.15	0.60
35:DA:1020:A:N1	35:DA:1141:U:O2'	2.24	0.60
35:DA:1050:A:H2	35:DA:1051:G:N2	1.99	0.60
35:DA:1639:U:H4'	35:DA:2699:C:H4'	1.84	0.60
43:DI:82:ARG:N	43:DI:143:SER:OG	2.35	0.60
46:DN:39:ARG:HE	46:DN:41:ASP:CB	2.14	0.60
48:DP:51:PHE:CE1	48:DP:61:ARG:NH2	2.70	0.60
48:DP:67:MET:C	48:DP:69:GLY:H	2.05	0.60
49:DQ:10:ARG:HA	49:DQ:10:ARG:NE	2.15	0.60
56:DX:11:PRO:HG2	56:DX:13:LEU:HD21	1.82	0.60
1:AA:575:G:HO2'	1:AA:821:G:H5'	1.67	0.59
4:AD:36:ARG:HB3	4:AD:38:TYR:CE2	2.37	0.59
5:AE:72:GLN:O	5:AE:74:GLY:N	2.29	0.59
16:AP:70:ALA:O	16:AP:74:LEU:HD12	2.02	0.59
30:B5:3:LYS:HB3	35:BA:747:U:H5	1.67	0.59
35:BA:2065:C:H1'	35:BA:2449:U:H3	1.67	0.59
35:BA:2327:A:H2'	35:BA:2328:A:H8	1.61	0.59
39:BE:31:CYS:HB3	39:BE:49:LEU:HB3	1.83	0.59
57:BY:20:TYR:CE2	57:BY:42:VAL:HA	2.36	0.59
58:BZ:24:LEU:HB3	58:BZ:44:PHE:CE2	2.36	0.59
1:CA:559:A:OP2	5:CE:126:ARG:NH2	2.35	0.59
8:CH:4:ASP:OD2	8:CH:85:ARG:NE	2.27	0.59
21:CU:9:ARG:HH11	21:CU:22:ARG:HG2	1.66	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CW:37:A:H3'	23:CW:38:A:C8	2.37	0.59
35:DA:1517:G:H5''	35:DA:1517:G:H8	1.67	0.59
35:DA:1739:U:O2'	35:DA:1740:G:N7	2.33	0.59
37:DC:86:ALA:HA	37:DC:89:ALA:HB3	1.83	0.59
41:DG:43:LEU:HD12	41:DG:45:GLU:OE1	2.02	0.59
53:DU:92:ARG:HH12	53:DU:95:LEU:HB2	1.66	0.59
57:DY:90:LEU:CD1	57:DY:91:GLU:HB2	2.31	0.59
58:DZ:26:GLY:HA3	58:DZ:86:VAL:O	2.02	0.59
1:AA:165:C:O2'	1:AA:166:G:O4'	2.20	0.59
1:AA:1190:G:OP1	3:AC:5:ILE:N	2.35	0.59
1:AA:1287:A:H2	1:AA:1353:G:H1'	1.67	0.59
5:AE:79:GLU:OE1	8:AH:105:ARG:HG2	2.02	0.59
35:BA:64:A:H2'	35:BA:65:C:C6	2.34	0.59
35:BA:547:A:H2'	35:BA:547:A:N3	2.17	0.59
35:BA:1341:U:H2'	35:BA:1397:U:O2	2.02	0.59
35:BA:2400:G:H5''	35:BA:2400:G:C8	2.38	0.59
35:BA:2566:A:N6	47:BO:29:ASN:HD21	1.98	0.59
53:BU:102:GLU:HG3	54:BV:2:PHE:CZ	2.37	0.59
1:CA:418:C:H2'	1:CA:419:C:H6	1.65	0.59
35:DA:248:G:H5''	35:DA:386:G:N2	2.17	0.59
35:DA:1503:U:H2'	35:DA:1504:C:H6	1.67	0.59
40:DF:93:LYS:HB3	40:DF:94:PRO:HD2	1.84	0.59
49:DQ:80:GLU:HB3	49:DQ:81:VAL:HG22	1.83	0.59
1:AA:419:C:H2'	1:AA:420:U:O2	2.01	0.59
1:AA:1220:G:H21	19:AS:54:GLY:HA2	1.67	0.59
4:AD:18:LYS:HG3	4:AD:31:CYS:HB2	1.84	0.59
4:AD:205:GLU:O	4:AD:206:PHE:HB3	2.02	0.59
10:AJ:48:THR:HB	10:AJ:62:HIS:HD2	1.67	0.59
12:AL:52:LEU:O	12:AL:54:LYS:NZ	2.27	0.59
22:AV:67:C:H2'	22:AV:68:C:H6	1.67	0.59
23:AY:41:C:H5'	23:AY:42:C:OP2	2.01	0.59
27:B2:45:SER:O	27:B2:48:HIS:HB2	2.02	0.59
32:B7:36:GLN:H	32:B7:38:GLY:H	1.50	0.59
32:B7:40:TRP:CD1	35:BA:459:U:H5'	2.35	0.59
35:BA:139(A):G:N2	56:BX:40:LYS:HE2	2.13	0.59
38:BD:45:ASN:OD1	38:BD:46:GLN:N	2.35	0.59
49:BQ:5:ARG:CZ	49:BQ:6:ARG:H	2.16	0.59
51:BS:30:ARG:NH2	51:BS:62:LYS:HE2	2.16	0.59
56:BX:27:THR:HB	56:BX:77:LYS:HA	1.84	0.59
57:BY:47:LYS:HB3	57:BY:60:PHE:HD2	1.67	0.59
1:CA:957:U:O2'	19:CS:78:ARG:NH2	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1053:G:H3'	1:CA:1054:C:H5'	1.82	0.59
1:CA:1067:A:H1'	1:CA:1068:G:C8	2.37	0.59
8:CH:39:LEU:O	8:CH:44:PHE:N	2.35	0.59
10:CJ:23:ILE:HD12	10:CJ:23:ILE:H	1.68	0.59
23:CW:31:A:N6	23:CW:40:C:N3	2.51	0.59
30:D5:20:ARG:HG2	30:D5:23:HIS:CE1	2.38	0.59
32:D7:31:LEU:HD12	32:D7:31:LEU:H	1.68	0.59
35:DA:636:G:OP1	48:DP:132:LYS:HE2	2.02	0.59
35:DA:1071:G:H1	35:DA:1092:C:H41	1.50	0.59
35:DA:1224:C:O3'	54:DV:88:ARG:HB3	2.02	0.59
35:DA:2876:G:P	52:DT:4:GLY:H	2.25	0.59
40:DF:2:LYS:C	40:DF:3:GLU:OE2	2.40	0.59
42:DH:137:ASP:HB3	42:DH:140:LYS:HB3	1.84	0.59
51:DS:106:ARG:O	51:DS:107:GLU:HB2	2.01	0.59
55:DW:10:VAL:HG12	55:DW:12:ILE:HG22	1.83	0.59
1:AA:740:U:H4'	15:AO:42:HIS:NE2	2.17	0.59
7:AG:115:ARG:O	7:AG:118:VAL:N	2.35	0.59
10:AJ:50:ILE:HD11	10:AJ:57:LYS:HE2	1.84	0.59
32:B7:34:ARG:O	32:B7:36:GLN:N	2.35	0.59
34:B9:19:ARG:HH22	34:B9:26:ILE:HD11	1.67	0.59
35:BA:614(C):A:C4	40:BF:180:GLY:HA2	2.37	0.59
35:BA:1102:C:H1'	35:BA:1103:A:C8	2.37	0.59
35:BA:1587:A:H2'	35:BA:1588:C:C6	2.38	0.59
35:BA:2094:G:OP1	43:BI:22:LYS:CD	2.50	0.59
41:BG:80:PHE:O	41:BG:81:LYS:HB2	2.01	0.59
53:BU:88:ILE:HB	53:BU:90:VAL:HG23	1.83	0.59
54:BV:66:ARG:HD2	54:BV:67:GLY:C	2.23	0.59
54:BV:85:LYS:HA	54:BV:87:HIS:HD2	1.66	0.59
1:CA:366:C:H5'	1:CA:366:C:C6	2.30	0.59
4:CD:61:LYS:HE2	4:CD:206:PHE:CE2	2.37	0.59
6:CF:8:ILE:HD11	6:CF:79:LEU:HD13	1.83	0.59
7:CG:115:ARG:HB2	7:CG:118:VAL:HG22	1.84	0.59
20:CT:29:LYS:O	20:CT:33:ILE:HG12	2.02	0.59
32:D7:16:HIS:ND1	35:DA:684:G:OP1	2.36	0.59
35:DA:1690:A:H3'	35:DA:1691:C:H6	1.66	0.59
35:DA:2308:G:O2'	35:DA:2309:A:OP1	2.20	0.59
35:DA:2654:A:N1	35:DA:2665:A:H5''	2.17	0.59
52:DT:108:ARG:NH1	52:DT:112:ARG:HG2	2.16	0.59
54:DV:25:LEU:H	54:DV:94:LEU:HD13	1.66	0.59
58:DZ:19:ARG:NH2	58:DZ:82:ARG:HG3	2.18	0.59
1:AA:189:G:H8	1:AA:189:G:H3'	1.65	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1070:U:H2'	1:AA:1071:C:H6	1.67	0.59
1:AA:1166:G:O2'	1:AA:1168:A:O5'	2.20	0.59
35:BA:634:C:H2'	35:BA:635:C:C6	2.38	0.59
35:BA:993:G:N2	54:BV:91:TYR:OH	2.33	0.59
35:BA:1583:A:H4'	35:BA:1584:C:O5'	2.02	0.59
35:BA:1615:C:C2	55:BW:87:PRO:HG2	2.38	0.59
35:BA:2582:G:OP2	35:BA:2583:G:OP2	2.20	0.59
40:BF:53:THR:H	40:BF:56:GLU:HB2	1.68	0.59
52:BT:107:ASP:OD1	52:BT:109:GLU:HB2	2.02	0.59
1:CA:939:G:H5''	7:CG:102:ARG:NH2	2.18	0.59
1:CA:977:A:H1'	1:CA:982:U:O4	2.03	0.59
5:CE:11:ILE:HD11	5:CE:108:ALA:CB	2.32	0.59
13:CM:8:GLU:OE1	13:CM:23:TYR:N	2.35	0.59
13:CM:66:LEU:O	13:CM:70:LEU:N	2.22	0.59
20:CT:67:ALA:HA	20:CT:72:LEU:O	2.01	0.59
26:D1:13:ILE:HG13	26:D1:14:VAL:H	1.68	0.59
33:D8:29:LYS:HD2	33:D8:44:LYS:CB	2.32	0.59
35:DA:2273:A:O2'	35:DA:2274:A:H5'	2.02	0.59
35:DA:2464:C:O2'	35:DA:2465:C:H6	1.86	0.59
35:DA:2481:G:O2'	35:DA:2482:G:P	2.60	0.59
35:DA:2492:U:H2'	35:DA:2493:U:C6	2.38	0.59
37:DC:82:LYS:NZ	37:DC:152:ILE:H	1.99	0.59
38:DD:228:PRO:HD3	38:DD:235:GLY:CA	2.31	0.59
42:DH:149:ARG:HA	42:DH:162:ILE:HG13	1.84	0.59
48:DP:6:LEU:O	48:DP:7:ARG:HB3	2.02	0.59
51:DS:11:LYS:O	51:DS:13:ARG:N	2.35	0.59
54:DV:66:ARG:HE	54:DV:67:GLY:C	2.03	0.59
58:DZ:72:ARG:CG	58:DZ:89:PHE:HB2	2.32	0.59
1:AA:1095:U:P	1:AA:1108:G:H1	2.25	0.59
1:AA:1152:A:H4'	10:AJ:13:HIS:NE2	2.18	0.59
1:AA:1245:A:H5'	1:AA:1246:C:OP2	2.03	0.59
23:AW:38:A:H5''	23:AW:38:A:C8	2.38	0.59
35:BA:1019:U:HO2'	35:BA:1021:A:H2	1.50	0.59
38:BD:25:THR:HG21	38:BD:113:VAL:HG21	1.84	0.59
39:BE:103:ASP:OD1	39:BE:201:THR:HG23	2.00	0.59
46:BN:58:ASP:C	46:BN:60:ILE:H	2.06	0.59
55:BW:110:LYS:HG3	55:BW:111:HIS:ND1	2.17	0.59
1:CA:49:U:C2	1:CA:361:G:N2	2.70	0.59
1:CA:1368:G:OP1	9:CI:111:ARG:NH2	2.36	0.59
3:CC:104:GLN:HA	3:CC:104:GLN:OE1	2.01	0.59
8:CH:121:ASP:HB2	8:CH:125:ARG:NH2	2.17	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:9:ARG:HG3	9:CI:14:VAL:HG22	1.85	0.59
15:CO:3:ILE:HD12	15:CO:8:LYS:HD2	1.84	0.59
35:DA:2020:A:O2'	35:DA:2021:C:H5'	2.02	0.59
41:DG:115:ARG:NH1	41:DG:117:PHE:H	2.00	0.59
46:DN:74:ARG:HD2	46:DN:101:HIS:ND1	2.17	0.59
51:DS:89:ARG:CD	51:DS:93:LYS:HG3	2.33	0.59
56:DX:69:TYR:CE1	56:DX:72:LYS:HA	2.37	0.59
56:DX:77:LYS:HD3	56:DX:78:LYS:CA	2.33	0.59
1:AA:192:U:H2'	1:AA:193:C:H6	1.65	0.59
1:AA:412:A:H5'	4:AD:35:ARG:HH22	1.68	0.59
1:AA:1176:A:N7	1:AA:1177:G:N2	2.50	0.59
1:AA:1305:G:O2'	1:AA:1306:A:OP2	2.19	0.59
7:AG:152:ALA:HB1	7:AG:155:ARG:HH21	1.67	0.59
8:AH:21:LYS:N	8:AH:65:TYR:OH	2.35	0.59
17:AQ:67:LYS:HA	17:AQ:70:ARG:HH12	1.67	0.59
26:B1:35:THR:HG21	35:BA:2432:A:C5	2.38	0.59
27:B2:59:ARG:HD2	27:B2:59:ARG:N	2.17	0.59
34:B9:22:ARG:NH1	34:B9:24:TYR:OH	2.33	0.59
35:BA:880:G:N2	35:BA:898:C:O2	2.33	0.59
35:BA:1024:G:H8	35:BA:1024:G:O5'	1.85	0.59
35:BA:2061:G:H5''	35:BA:2503:A:C2	2.37	0.59
35:BA:2547:U:H2'	35:BA:2548:G:H8	1.68	0.59
35:BA:2753:A:O2'	35:BA:2754:U:O5'	2.20	0.59
38:BD:242:ARG:HG2	38:BD:246:PRO:HG3	1.85	0.59
39:BE:169:ASN:OD1	39:BE:201:THR:HG21	2.02	0.59
42:BH:149:ARG:HA	42:BH:162:ILE:HG13	1.85	0.59
56:BX:40:LYS:O	56:BX:44:GLU:HB3	2.01	0.59
57:BY:47:LYS:HG3	57:BY:49:VAL:HG22	1.82	0.59
57:BY:67:LEU:HD12	57:BY:71:LYS:HD3	1.85	0.59
3:CC:149:ALA:HA	3:CC:201:TYR:O	2.02	0.59
5:CE:78:HIS:HB3	8:CH:107:LEU:HD12	1.84	0.59
30:D5:2:ALA:O	30:D5:3:LYS:HG3	2.03	0.59
35:DA:153:C:H2'	35:DA:154:G:H8	1.68	0.59
35:DA:2859:G:H3'	35:DA:2859:G:C8	2.38	0.59
35:DA:2864:G:H5''	35:DA:2864:G:C8	2.37	0.59
36:DB:44:G:H1'	36:DB:47:C:N4	2.18	0.59
39:DE:51:PHE:C	39:DE:74:PRO:HB3	2.23	0.59
42:DH:145:ALA:HB1	42:DH:164:TYR:HE1	1.68	0.59
1:AA:737:A:H2'	1:AA:738:C:H6	1.66	0.59
1:AA:1206:G:H1'	3:AC:193:TYR:O	2.03	0.59
1:AA:1505:G:H4'	1:AA:1506:U:H5''	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:32:ILE:HD13	2:AB:40:HIS:CE1	2.37	0.59
11:AK:18:ARG:NH2	11:AK:36:ASP:O	2.31	0.59
11:AK:41:THR:HG21	11:AK:71:LYS:HD2	1.83	0.59
23:AW:8:U:H1'	23:AW:48:C:H1'	1.84	0.59
26:B1:43:TYR:CE1	26:B1:45:ASN:OD1	2.56	0.59
27:B2:27:GLU:C	27:B2:29:LYS:H	2.06	0.59
35:BA:1496:A:H8	35:BA:1578:U:HO2'	1.50	0.59
35:BA:2400:G:H5''	35:BA:2400:G:H8	1.67	0.59
35:BA:2425:A:H4'	35:BA:2426:A:H5''	1.84	0.59
35:BA:2522:U:O2'	35:BA:2647:U:H5''	2.02	0.59
35:BA:2723:C:H4'	50:BR:3:HIS:CD2	2.37	0.59
39:BE:98:PRO:HD3	39:BE:175:VAL:HG12	1.84	0.59
46:BN:91:LEU:O	46:BN:95:PRO:HB3	2.03	0.59
47:BO:58:VAL:HG21	47:BO:86:ILE:HD11	1.84	0.59
50:BR:72:ASP:O	50:BR:76:VAL:HG23	2.03	0.59
53:BU:27:LEU:HB3	53:BU:31:SER:HB3	1.85	0.59
58:BZ:29:TYR:HE1	58:BZ:87:ASP:HB2	1.68	0.59
9:CI:22:GLY:H	9:CI:60:ASP:H	1.49	0.59
9:CI:29:ASN:N	9:CI:64:THR:OG1	2.36	0.59
13:CM:66:LEU:HA	13:CM:70:LEU:HD12	1.84	0.59
19:CS:22:LEU:O	19:CS:26:GLY:HA2	2.02	0.59
23:CW:46:G:OP2	23:CW:46:G:C8	2.55	0.59
31:D6:26:ASN:HD21	31:D6:28:ARG:NH2	2.00	0.59
35:DA:1101:U:H5'	35:DA:1102:C:OP2	2.02	0.59
35:DA:1209:G:H21	35:DA:1210:A:H62	1.49	0.59
35:DA:2331:G:O2'	35:DA:2336:A:N1	2.24	0.59
35:DA:2680:C:H2'	35:DA:2681:C:O2	2.02	0.59
39:DE:9:VAL:HG23	39:DE:25:VAL:HB	1.85	0.59
42:DH:77:LYS:NZ	42:DH:138:LYS:HB2	2.17	0.59
46:DN:4:TYR:CB	53:DU:64:ARG:HH11	2.16	0.59
49:DQ:39:PRO:C	49:DQ:127:ILE:HD11	2.23	0.59
51:DS:56:LEU:HB3	51:DS:58:LEU:CD2	2.32	0.59
1:AA:976:G:H5'	1:AA:1358:U:O2'	2.03	0.59
1:AA:1036:G:H3'	1:AA:1037:C:C6	2.37	0.59
1:AA:1293:G:O2'	1:AA:1294:G:OP2	2.17	0.59
7:AG:120:ILE:O	7:AG:124:LEU:HB2	2.03	0.59
20:AT:60:GLU:HG3	20:AT:81:LYS:HE3	1.83	0.59
33:B8:42:ARG:HD3	35:BA:2350:C:OP2	2.03	0.59
35:BA:392:C:H5''	35:BA:409:C:H5''	1.84	0.59
35:BA:430:G:H5''	35:BA:431:U:OP2	2.03	0.59
35:BA:1478:G:H2'	35:BA:1479:G:H8	1.68	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1528:A:H62	35:BA:1545:A:N6	2.00	0.59
35:BA:1889:A:H3'	35:BA:1890:A:C8	2.37	0.59
37:BC:47:LEU:HD23	37:BC:47:LEU:H	1.67	0.59
38:BD:146:GLU:HB2	38:BD:189:CYS:HB3	1.85	0.59
40:BF:9:ILE:HB	40:BF:13:SER:O	2.02	0.59
54:BV:25:LEU:HD12	54:BV:94:LEU:HD22	1.85	0.59
58:BZ:39:VAL:HG23	58:BZ:44:PHE:CG	2.38	0.59
1:CA:1028:C:H42	1:CA:1033:G:H1	1.49	0.59
1:CA:1135:U:H5'	1:CA:1136:U:OP2	2.02	0.59
1:CA:1148:U:H2'	1:CA:1149:C:O4'	2.03	0.59
5:CE:57:LYS:HE2	5:CE:61:TYR:HE1	1.67	0.59
11:CK:79:SER:OG	11:CK:104:GLN:HB3	2.03	0.59
26:D1:47:GLN:NE2	35:DA:2090:G:H21	2.01	0.59
35:DA:527:C:OP2	35:DA:2779:U:C5	2.49	0.59
35:DA:2207:G:H2'	35:DA:2208:A:H5''	1.84	0.59
41:DG:173:LEU:O	41:DG:178:PHE:HB2	2.02	0.59
54:DV:85:LYS:O	54:DV:87:HIS:N	2.35	0.59
58:DZ:30:ASN:HB2	58:DZ:89:PHE:CE1	2.38	0.59
58:DZ:127:LYS:HB3	58:DZ:162:GLU:OE2	2.03	0.59
1:AA:88:A:H3'	1:AA:89:C:H3'	1.85	0.59
1:AA:461:A:H2'	1:AA:461:A:N3	2.18	0.59
1:AA:955:U:H2'	1:AA:956:U:O4'	2.03	0.59
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.38	0.59
1:AA:1319:A:OP2	19:AS:5:LEU:HG	2.02	0.59
35:BA:1000:A:C6	35:BA:1001:A:N1	2.70	0.59
43:BI:135:GLU:OE1	43:BI:135:GLU:N	2.25	0.59
48:BP:67:MET:O	48:BP:69:GLY:N	2.36	0.59
58:BZ:24:LEU:HB3	58:BZ:44:PHE:CD2	2.38	0.59
1:CA:353:A:H8	1:CA:353:A:H5'	1.67	0.59
1:CA:953:G:H5'	1:CA:965:A:H61	1.68	0.59
1:CA:1260:C:HO2'	1:CA:1261:A:H8	1.51	0.59
1:CA:1504:G:OP1	1:CA:1507:A:H4'	2.03	0.59
4:CD:173:TRP:CZ3	4:CD:193:ASP:HB3	2.38	0.59
10:CJ:57:LYS:O	10:CJ:59:SER:N	2.36	0.59
13:CM:80:ARG:O	13:CM:82:MET:N	2.36	0.59
27:D2:33:MET:HG3	56:DX:11:PRO:HD2	1.85	0.59
33:D8:12:LYS:HB2	48:DP:68:GLN:OE1	2.03	0.59
35:DA:547:A:H2'	35:DA:547:A:N3	2.16	0.59
35:DA:714:U:O2'	35:DA:716:A:N7	2.34	0.59
35:DA:833:U:H5'	48:DP:52:GLU:CG	2.33	0.59
35:DA:1786:A:H2	35:DA:2606:C:H1'	1.68	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2177:C:O3'	37:DC:46:LYS:HE3	2.02	0.59
40:DF:24:LEU:CD2	40:DF:25:PRO:HD2	2.32	0.59
52:DT:24:PRO:HA	52:DT:49:VAL:HG13	1.85	0.59
1:AA:652:U:O4	1:AA:752:G:O2'	2.19	0.58
1:AA:760:G:O2'	17:AQ:98:LEU:HD22	2.03	0.58
1:AA:878:G:OP1	8:AH:88:LYS:HG2	2.03	0.58
1:AA:1287:A:C2	1:AA:1353:G:H1'	2.38	0.58
2:AB:187:LEU:HA	2:AB:201:ILE:O	2.02	0.58
6:AF:76:ALA:HB1	6:AF:80:ARG:HH21	1.68	0.58
14:AN:22:THR:HB	14:AN:33:VAL:HG21	1.83	0.58
26:B1:37:ILE:HG21	35:BA:2080:G:P	2.43	0.58
35:BA:673:C:H5''	35:BA:673:C:H6	1.67	0.58
35:BA:1678:G:H22	35:BA:1989:G:H1	1.51	0.58
35:BA:1799:G:N7	38:BD:179:SER:OG	2.36	0.58
35:BA:2377:A:N1	51:BS:89:ARG:NH2	2.50	0.58
38:BD:108:PRO:HG2	38:BD:111:LEU:HB2	1.84	0.58
48:BP:27:HIS:O	48:BP:29:LYS:N	2.29	0.58
49:BQ:59:ARG:O	49:BQ:60:ARG:HG2	2.03	0.58
52:BT:51:ARG:CZ	52:BT:100:TYR:CE1	2.86	0.58
54:BV:93:GLU:O	54:BV:94:LEU:HD12	2.03	0.58
57:BY:83:THR:HA	57:BY:96:ILE:HA	1.85	0.58
2:CB:183:PRO:HA	2:CB:198:ASP:OD2	2.03	0.58
8:CH:8:ASP:O	8:CH:12:ARG:N	2.30	0.58
8:CH:29:SER:HB3	8:CH:32:LYS:HE3	1.85	0.58
16:CP:57:ARG:HG2	16:CP:79:VAL:HG13	1.84	0.58
23:CW:50:U:O2'	23:CW:51:U:O4'	2.18	0.58
35:DA:443:A:H1'	35:DA:1201:C:O4'	2.02	0.58
35:DA:2811:G:H4'	39:DE:61:ARG:HH21	1.67	0.58
52:DT:40:THR:O	52:DT:41:ARG:HB3	2.04	0.58
57:DY:11:ASP:O	57:DY:28:LYS:HD3	2.03	0.58
1:AA:189(I):G:H2'	1:AA:189(J):G:C4'	2.33	0.58
1:AA:660:G:H1	1:AA:745:C:N4	1.97	0.58
1:AA:1298:C:O2'	1:AA:1299:A:P	2.61	0.58
15:AO:82:ILE:HG12	15:AO:87:ILE:HG13	1.84	0.58
35:BA:23:G:OP1	35:BA:504:U:N3	2.37	0.58
35:BA:1118:C:O2'	58:BZ:80:ARG:NH2	2.36	0.58
35:BA:1652:A:H5'	35:BA:1653:G:OP2	2.03	0.58
35:BA:2602:A:H4'	35:BA:2603:G:O5'	2.03	0.58
36:BB:15:A:H1'	36:BB:110:G:N9	2.18	0.58
43:BI:52:ARG:HG3	43:BI:53:ALA:H	1.67	0.58
46:BN:17:ASP:OD1	46:BN:17:ASP:C	2.42	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BP:130:PHE:HB3	48:BP:135:LEU:CG	2.33	0.58
49:BQ:86:GLY:O	49:BQ:91:GLU:OE2	2.21	0.58
51:BS:85:VAL:HG12	51:BS:86:ALA:N	2.17	0.58
55:BW:55:ALA:O	55:BW:59:VAL:HG23	2.03	0.58
1:CA:73:G:C2	1:CA:76:C:H1'	2.39	0.58
1:CA:648:A:H2'	1:CA:649:G:H8	1.66	0.58
1:CA:659:U:H2'	1:CA:660:G:C8	2.34	0.58
14:CN:4:LYS:CE	14:CN:5:ALA:HB3	2.33	0.58
25:D0:68:GLU:HG3	25:D0:82:ARG:HH12	1.64	0.58
26:D1:83:GLU:HG2	26:D1:85:LEU:HB2	1.84	0.58
35:DA:1018:C:O3'	35:DA:1120:G:N2	2.36	0.58
35:DA:1858:G:H2'	35:DA:1883:G:H22	1.67	0.58
35:DA:2528:U:H2'	35:DA:2530:A:O5'	2.03	0.58
35:DA:2658:C:H5''	42:DH:158:HIS:CE1	2.37	0.58
36:DB:86:G:H2'	36:DB:87:G:C8	2.38	0.58
36:DB:88:C:N3	36:DB:89:G:C6	2.71	0.58
41:DG:96:ARG:O	41:DG:99:MET:HB3	2.03	0.58
43:DI:69:LYS:HD2	43:DI:70:GLU:OE2	2.02	0.58
46:DN:1:MET:SD	46:DN:2:LYS:HG2	2.44	0.58
55:DW:46:PHE:O	55:DW:50:VAL:HG12	2.02	0.58
1:AA:600:C:H2'	1:AA:601:C:H6	1.68	0.58
1:AA:1122:U:N3	1:AA:1123:A:N7	2.51	0.58
3:AC:47:LEU:HD11	3:AC:76:VAL:HG12	1.86	0.58
4:AD:122:ARG:NH2	4:AD:136:PRO:HD3	2.19	0.58
9:AI:43:ALA:C	9:AI:45:ALA:H	2.05	0.58
13:AM:68:GLY:H	13:AM:71:ARG:HD3	1.68	0.58
35:BA:614(B):G:H2'	40:BF:44:ARG:NH2	2.19	0.58
35:BA:2547:U:O2	47:BO:23:ARG:NH2	2.36	0.58
38:BD:70:TRP:CH2	38:BD:150:LYS:HA	2.38	0.58
50:BR:30:THR:O	50:BR:31:HIS:ND1	2.36	0.58
52:BT:26:ASP:HB2	52:BT:88:ILE:HB	1.85	0.58
54:BV:69:LYS:HG2	54:BV:70:ILE:N	2.05	0.58
55:BW:12:ILE:HD13	55:BW:17:VAL:HG23	1.86	0.58
57:BY:14:LEU:HG	57:BY:15:VAL:N	2.18	0.58
1:CA:559:A:H4'	1:CA:560:U:O5'	2.03	0.58
1:CA:840:C:H5''	1:CA:848:C:N4	2.18	0.58
1:CA:1327:C:OP2	21:CU:12:LYS:NZ	2.37	0.58
1:CA:1348:U:H4'	9:CI:120:ARG:HD2	1.84	0.58
2:CB:114:ARG:O	2:CB:118:LEU:HG	2.03	0.58
17:CQ:29:HIS:N	17:CQ:33:GLY:O	2.35	0.58
22:CV:21:A:N6	22:CV:46:A:H2'	2.18	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:548:A:O2'	35:DA:549:G:OP1	2.20	0.58
35:DA:699:A:H2'	35:DA:700:G:O4'	2.03	0.58
35:DA:1156:A:C8	53:DU:51:LYS:HD2	2.38	0.58
35:DA:2057:A:H2'	35:DA:2058:A:O4'	2.03	0.58
40:DF:127:GLU:HA	40:DF:196:LEU:HD12	1.84	0.58
41:DG:115:ARG:HD2	41:DG:116:ASP:H	1.68	0.58
43:DI:77:LEU:CD2	43:DI:101:LEU:HD13	2.31	0.58
48:DP:9:ASN:H	48:DP:10:PRO:CD	2.16	0.58
48:DP:49:ARG:HH21	48:DP:50:ARG:HH11	1.51	0.58
49:DQ:10:ARG:NH1	49:DQ:11:LYS:HG2	2.17	0.58
50:DR:32:GLY:HA2	50:DR:116:LEU:HD23	1.85	0.58
54:DV:36:PRO:HG3	54:DV:62:LEU:HD11	1.85	0.58
56:DX:12:VAL:CG1	56:DX:27:THR:HG23	2.31	0.58
57:DY:96:ILE:HD12	57:DY:98:VAL:H	1.68	0.58
58:DZ:53:ILE:HG22	58:DZ:71:VAL:HB	1.85	0.58
1:AA:271:C:H2'	1:AA:272:C:H6	1.69	0.58
1:AA:675:A:H2'	1:AA:676:A:C8	2.39	0.58
1:AA:1228:C:H2'	1:AA:1229:A:C8	2.38	0.58
3:AC:40:ARG:HG2	3:AC:55:VAL:CG2	2.34	0.58
35:BA:1500:G:H5''	35:BA:1501:C:OP2	2.02	0.58
35:BA:1652:A:H3'	35:BA:1653:G:C8	2.38	0.58
35:BA:1896:G:H5''	35:BA:1896:G:H8	1.68	0.58
35:BA:2872:G:C2	35:BA:2873:A:N6	2.71	0.58
41:BG:56:ALA:HA	41:BG:153:ARG:HH12	1.67	0.58
42:BH:43:VAL:HG21	42:BH:53:GLU:H	1.68	0.58
48:BP:70:GLN:O	48:BP:71:VAL:HG12	2.03	0.58
58:BZ:24:LEU:HD23	58:BZ:44:PHE:CG	2.39	0.58
2:CB:172:ILE:O	2:CB:175:ARG:HB2	2.03	0.58
7:CG:69:VAL:HG22	7:CG:135:VAL:HG22	1.86	0.58
20:CT:72:LEU:HB2	20:CT:76:ALA:CB	2.32	0.58
32:D7:1:MET:HE1	35:DA:1619:G:N3	2.18	0.58
35:DA:15:G:H1	35:DA:525:U:H3	1.51	0.58
36:DB:8:U:H3	36:DB:113:G:H1	1.51	0.58
46:DN:19:GLU:O	46:DN:21:LYS:N	2.34	0.58
52:DT:32:TYR:CD1	52:DT:40:THR:HG21	2.39	0.58
57:DY:107:ASP:O	57:DY:108:THR:HG22	2.04	0.58
1:AA:1154:G:HO2'	1:AA:1155:G:P	2.25	0.58
1:AA:1281:U:H4'	1:AA:1282:C:OP2	2.03	0.58
12:AL:47:LYS:CB	12:AL:48:PRO:HD3	2.25	0.58
22:AV:74:A:H5'	22:AV:75:C:OP1	2.04	0.58
26:B1:47:GLN:O	26:B1:47:GLN:HG3	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:B6:11:LEU:O	31:B6:23:THR:HG23	2.02	0.58
31:B6:39:TYR:HB3	31:B6:49:HIS:CE1	2.39	0.58
35:BA:448:U:O4	35:BA:583:G:H1'	2.03	0.58
35:BA:927:G:H2'	35:BA:928:G:O4'	2.03	0.58
35:BA:1048:A:N6	35:BA:1107:G:C6	2.71	0.58
35:BA:1143:A:OP1	46:BN:25:ARG:NH2	2.34	0.58
35:BA:1899:G:H22	35:BA:1902:C:H41	1.51	0.58
35:BA:2576:G:O2'	35:BA:2579:C:OP2	2.16	0.58
35:BA:2734:A:H3'	35:BA:2735:G:H8	1.68	0.58
36:BB:87:G:N2	36:BB:89:G:H5''	2.18	0.58
1:CA:757:U:O2'	1:CA:879:C:O2	2.20	0.58
1:CA:1510:U:H2'	1:CA:1511:G:C8	2.38	0.58
3:CC:11:ARG:HH21	3:CC:180:ALA:HB3	1.67	0.58
9:CI:84:ALA:O	9:CI:86:VAL:N	2.33	0.58
9:CI:113:LYS:HG2	9:CI:119:ALA:HA	1.84	0.58
17:CQ:66:SER:HB3	17:CQ:69:LYS:NZ	2.19	0.58
25:D0:24:LYS:O	25:D0:25:ARG:HD3	2.04	0.58
33:D8:39:LYS:HG3	35:DA:2351:G:O6	2.03	0.58
35:DA:71:A:H5''	35:DA:73:A:C8	2.38	0.58
42:DH:148:ILE:HG22	42:DH:162:ILE:HD12	1.84	0.58
48:DP:23:PRO:HD2	48:DP:33:ARG:NH1	2.17	0.58
50:DR:2:ARG:NH1	50:DR:5:LYS:NZ	2.50	0.58
1:AA:109:A:H2'	1:AA:326:G:N2	2.19	0.58
1:AA:420:U:H2'	1:AA:422:C:O2	2.02	0.58
9:AI:111:ARG:HG3	14:AN:61:TRP:CD1	2.39	0.58
10:AJ:57:LYS:CD	10:AJ:60:ARG:HH12	2.16	0.58
12:AL:70:ILE:HD13	12:AL:77:LEU:HD22	1.85	0.58
31:B6:13:CYS:HA	31:B6:50:ARG:O	2.03	0.58
35:BA:136:G:H2'	35:BA:136:G:N3	2.17	0.58
35:BA:530:G:C5	35:BA:2022:U:H5''	2.38	0.58
35:BA:1478:G:H2'	35:BA:1479:G:C8	2.38	0.58
35:BA:2074:U:H2'	35:BA:2075:U:C6	2.38	0.58
54:BV:69:LYS:HZ1	54:BV:71:LEU:HG	1.68	0.58
58:BZ:126:VAL:HG12	58:BZ:163:LEU:HA	1.84	0.58
1:CA:37:U:OP1	12:CL:123:LYS:HB3	2.04	0.58
1:CA:91:C:OP2	1:CA:91:C:H6	1.85	0.58
1:CA:1128:C:H2'	1:CA:1130:A:C8	2.38	0.58
1:CA:1289:A:N1	1:CA:1371:G:O2'	2.27	0.58
1:CA:1306:A:N6	1:CA:1331:G:H1'	2.17	0.58
5:CE:77:PRO:HG2	5:CE:142:LEU:HD22	1.85	0.58
7:CG:15:ASP:OD1	7:CG:16:LEU:N	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:93:ARG:HH22	9:CI:97:LYS:HD3	1.69	0.58
35:DA:588:U:O4	35:DA:670:A:H1'	2.03	0.58
35:DA:1434:A:H2'	35:DA:1435:G:C8	2.39	0.58
35:DA:1525:G:H2'	35:DA:1526:G:H8	1.68	0.58
35:DA:2376:A:OP1	35:DA:2376:A:H8	1.86	0.58
43:DI:47:LEU:O	43:DI:51:ILE:HG22	2.04	0.58
47:DO:4:PRO:O	47:DO:5:GLN:HB2	2.03	0.58
48:DP:34:GLY:O	48:DP:35:HIS:CG	2.56	0.58
48:DP:92:GLU:HG3	48:DP:121:LYS:HE2	1.86	0.58
1:AA:17:U:H1'	1:AA:1080:A:N3	2.19	0.58
1:AA:161:A:OP1	1:AA:162:A:OP1	2.21	0.58
1:AA:232:G:H1'	1:AA:262:A:N1	2.19	0.58
1:AA:316:G:OP2	1:AA:351:G:O2'	2.21	0.58
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.39	0.58
3:AC:19:GLU:HG3	3:AC:54:ARG:HD3	1.86	0.58
5:AE:39:GLY:HA2	5:AE:71:LEU:CD1	2.33	0.58
6:AF:31:GLU:O	6:AF:33:TYR:N	2.36	0.58
13:AM:36:LYS:HB3	13:AM:59:TYR:CE2	2.38	0.58
13:AM:67:GLU:HA	13:AM:71:ARG:HG3	1.85	0.58
35:BA:64:A:O2'	56:BX:68:ARG:N	2.34	0.58
37:BC:64:LEU:HG	37:BC:68:LEU:HD11	1.84	0.58
38:BD:130:ALA:HB2	38:BD:192:THR:HG22	1.84	0.58
41:BG:106:LEU:HG	41:BG:111:LEU:HD11	1.86	0.58
42:BH:141:VAL:O	42:BH:144:VAL:N	2.29	0.58
49:BQ:8:LYS:CG	49:BQ:9:TYR:H	2.16	0.58
51:BS:101:LEU:O	51:BS:103:GLU:N	2.36	0.58
54:BV:34:GLU:HG2	54:BV:35:LEU:H	1.68	0.58
3:CC:62:ASP:OD1	3:CC:97:LYS:HB3	2.02	0.58
23:CY:26:A:H3'	23:CY:27:G:C5'	2.34	0.58
27:D2:41:ILE:C	27:D2:43:GLN:H	2.04	0.58
35:DA:1882:C:H2'	35:DA:1883:G:O4'	2.04	0.58
37:DC:62:VAL:O	37:DC:64:LEU:N	2.37	0.58
48:DP:51:PHE:CE2	48:DP:59:LEU:HD12	2.38	0.58
56:DX:88:LYS:HD2	56:DX:88:LYS:H	1.68	0.58
57:DY:101:LYS:NZ	57:DY:102:CYS:HB3	2.18	0.58
58:DZ:162:GLU:OE2	58:DZ:164:ALA:HB2	2.03	0.58
1:AA:161:A:H5'	1:AA:161:A:H8	1.68	0.58
1:AA:189(A):C:H2'	1:AA:189(B):C:H6	1.67	0.58
12:AL:69:TYR:HD2	12:AL:99:HIS:CD2	2.21	0.58
35:BA:103:A:H2'	35:BA:104:U:C1'	2.34	0.58
35:BA:528:A:H3'	35:BA:528:A:H8	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1074:G:H2'	35:BA:1075:C:H4'	1.85	0.58
35:BA:2810:A:H2'	39:BE:61:ARG:HD2	1.85	0.58
42:BH:85:LYS:HE2	42:BH:145:ALA:CB	2.34	0.58
49:BQ:23:GLY:HA2	49:BQ:101:ARG:NH1	2.19	0.58
52:BT:80:SER:N	52:BT:81:PRO:HD2	2.19	0.58
1:CA:93:G:H8	1:CA:93:G:OP2	1.87	0.58
5:CE:11:ILE:HB	5:CE:31:LEU:HD12	1.85	0.58
13:CM:120:LYS:NZ	23:CY:40:C:O2'	2.36	0.58
26:D1:48:LYS:HE3	26:D1:61:ARG:HB2	1.84	0.58
33:D8:49:VAL:HG23	33:D8:53:PRO:HB3	1.86	0.58
35:DA:960:A:H5''	35:DA:961:C:OP2	2.04	0.58
35:DA:1342:A:OP1	56:DX:55:ASN:HA	2.04	0.58
42:DH:24:VAL:O	42:DH:35:VAL:N	2.34	0.58
42:DH:70:THR:O	42:DH:73:ALA:N	2.35	0.58
48:DP:58:THR:O	48:DP:61:ARG:NE	2.37	0.58
56:DX:44:GLU:HB2	56:DX:49:VAL:O	2.03	0.58
1:AA:664:G:OP1	18:AR:64:ARG:NH2	2.32	0.58
2:AB:178:ARG:HG2	8:AH:71:GLY:C	2.24	0.58
3:AC:95:THR:O	3:AC:97:LYS:N	2.34	0.58
19:AS:14:HIS:NE2	19:AS:35:SER:OG	2.30	0.58
20:AT:33:ILE:HD13	20:AT:62:LEU:HB3	1.85	0.58
31:B6:24:GLU:OE1	33:B8:36:LYS:HA	2.04	0.58
35:BA:587:C:C2	48:BP:33:ARG:NH2	2.72	0.58
35:BA:1402:C:O2'	35:BA:1520:G:O6	2.22	0.58
40:BF:34:TRP:HD1	48:BP:10:PRO:HB2	1.69	0.58
48:BP:92:GLU:CD	48:BP:92:GLU:H	2.06	0.58
56:BX:77:LYS:HG3	56:BX:78:LYS:H	1.69	0.58
1:CA:501:C:H2'	1:CA:502:G:C8	2.39	0.58
1:CA:731:G:OP1	1:CA:766:A:H1'	2.04	0.58
3:CC:162:GLN:HE22	24:CX:24:A:H4'	1.69	0.58
10:CJ:5:ARG:HD3	10:CJ:73:ASP:HB2	1.86	0.58
16:CP:20:VAL:HG21	16:CP:32:TYR:CD2	2.38	0.58
27:D2:12:GLU:H	27:D2:14:ARG:CZ	2.17	0.58
35:DA:2022:U:O2'	35:DA:2617:C:H5'	2.04	0.58
36:DB:91:C:OP2	49:DQ:16:ARG:NH2	2.36	0.58
39:DE:133:LYS:HB2	39:DE:134:ILE:CG2	2.34	0.58
51:DS:36:TYR:HD1	51:DS:52:SER:HB2	1.68	0.58
1:AA:194:C:H2'	1:AA:195:A:H5''	1.84	0.58
1:AA:1180:A:O2'	1:AA:1181:G:OP1	2.20	0.58
2:AB:134:GLU:O	2:AB:138:LEU:HB2	2.04	0.58
8:AH:36:LEU:HA	8:AH:39:LEU:HB2	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:29:LYS:O	20:AT:33:ILE:HG12	2.03	0.58
31:B6:13:CYS:O	31:B6:21:TYR:HA	2.03	0.58
34:B9:11:CYS:HB2	34:B9:32:HIS:CE1	2.39	0.58
35:BA:185:U:H4'	35:BA:218:A:H4'	1.85	0.58
35:BA:1025:G:C4	35:BA:1135:C:H1'	2.39	0.58
35:BA:1429:G:H2'	35:BA:1430:C:C6	2.39	0.58
35:BA:2293:C:OP1	51:BS:92:TYR:OH	2.17	0.58
40:BF:128:ALA:O	40:BF:142:TRP:NE1	2.36	0.58
47:BO:119:PRO:HB3	52:BT:68:TYR:CE2	2.38	0.58
48:BP:21:ARG:HD2	48:BP:29:LYS:O	2.04	0.58
48:BP:112:LEU:HG	48:BP:127:ALA:HB1	1.86	0.58
50:BR:9:LYS:HD3	50:BR:43:GLU:HG2	1.84	0.58
58:BZ:103:ARG:HB2	58:BZ:138:GLU:HA	1.85	0.58
1:CA:626:U:H2'	1:CA:627:G:C8	2.39	0.58
1:CA:837:G:H1	1:CA:849:C:H42	1.51	0.58
1:CA:1152:A:OP1	10:CJ:68:HIS:NE2	2.37	0.58
1:CA:1268:A:H8	1:CA:1268:A:OP2	1.87	0.58
8:CH:113:SER:OG	8:CH:134:ILE:HD11	2.04	0.58
18:CR:37:VAL:O	18:CR:40:LEU:HD11	2.03	0.58
35:DA:910:A:N7	49:DQ:13:GLN:HG2	2.19	0.58
35:DA:1750:G:O2'	35:DA:2860:A:N1	2.30	0.58
35:DA:2346:A:H5''	35:DA:2383:G:H1'	1.86	0.58
40:DF:28:ILE:O	40:DF:30:PRO:HD3	2.03	0.58
49:DQ:22:LYS:HG2	49:DQ:101:ARG:HB2	1.86	0.58
51:DS:85:VAL:HG12	51:DS:106:ARG:HB2	1.85	0.58
1:AA:278:G:OP2	17:AQ:41:LYS:HE2	2.04	0.57
1:AA:834:C:H42	1:AA:852:G:H1	1.51	0.57
1:AA:849:C:H2'	1:AA:850:U:O4'	2.03	0.57
1:AA:929:G:N2	1:AA:1388:C:N3	2.49	0.57
1:AA:1126:U:O2'	1:AA:1281:U:O2	2.23	0.57
2:AB:175:ARG:O	2:AB:179:LYS:N	2.33	0.57
3:AC:76:VAL:HG23	3:AC:77:ILE:HG13	1.86	0.57
7:AG:138:LYS:HE2	7:AG:142:GLU:OE1	2.04	0.57
9:AI:89:ASN:CB	9:AI:92:TYR:HB2	2.33	0.57
20:AT:26:ASN:HB2	20:AT:71:THR:HG23	1.86	0.57
25:B0:70:GLN:HE22	25:B0:72:ARG:HG2	1.69	0.57
35:BA:568:U:H5'	35:BA:945:A:N1	2.19	0.57
35:BA:1514:U:H2'	35:BA:1515:G:H8	1.67	0.57
35:BA:2572:A:OP1	35:BA:2574:G:H4'	2.04	0.57
35:BA:2697:G:H2'	35:BA:2698:U:O4'	2.04	0.57
38:BD:30:GLU:HG3	38:BD:63:ARG:HH21	1.68	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BF:114:VAL:HG21	40:BF:202:PHE:CE2	2.39	0.57
46:BN:56:ASN:HD21	46:BN:126:PRO:HB3	1.68	0.57
48:BP:133:SER:N	48:BP:136:GLU:OE2	2.37	0.57
48:BP:144:GLU:N	48:BP:144:GLU:OE1	2.37	0.57
54:BV:76:LYS:HD3	54:BV:77:ALA:N	2.18	0.57
58:BZ:57:ILE:O	58:BZ:69:THR:N	2.37	0.57
1:CA:1216:G:H5''	14:CN:4:LYS:HE3	1.86	0.57
28:D3:18:ASP:N	28:D3:18:ASP:OD1	2.37	0.57
35:DA:271(A):A:H5''	35:DA:271(B):C:OP2	2.03	0.57
35:DA:1779:U:H5	35:DA:1784:A:N7	2.02	0.57
42:DH:8:PRO:HB3	42:DH:51:ARG:HG2	1.86	0.57
42:DH:44:VAL:N	42:DH:46:GLU:OE1	2.29	0.57
58:DZ:152:ALA:HB1	58:DZ:168:GLU:HA	1.86	0.57
1:AA:152:A:N6	1:AA:170:U:C2	2.72	0.57
1:AA:586:C:O2'	1:AA:878:G:H4'	2.04	0.57
1:AA:1054:C:H5''	1:AA:1196:U:H2'	1.86	0.57
7:AG:77:SER:HB2	7:AG:86:GLN:HB3	1.86	0.57
11:AK:22:HIS:HB3	11:AK:29:ILE:HG13	1.86	0.57
13:AM:18:ALA:HB2	13:AM:45:VAL:HG21	1.86	0.57
22:AV:52:C:N4	22:AV:53:G:O6	2.37	0.57
26:B1:10:LYS:HA	26:B1:48:LYS:CE	2.34	0.57
27:B2:50:ILE:HG22	27:B2:50:ILE:O	2.02	0.57
35:BA:271(P):C:OP1	43:BI:45:LYS:NZ	2.28	0.57
35:BA:528:A:O2'	35:BA:529:A:H5'	2.04	0.57
35:BA:1062:G:H1	35:BA:1075:C:H41	1.52	0.57
35:BA:1386:C:H2'	35:BA:1387:C:H6	1.68	0.57
35:BA:1486:A:N1	35:BA:1504:C:N4	2.53	0.57
35:BA:1502:C:H5'	35:BA:1503:U:OP2	2.04	0.57
38:BD:162:SER:HB3	38:BD:195:ALA:HA	1.85	0.57
40:BF:179:GLU:CD	40:BF:179:GLU:H	2.06	0.57
41:BG:51:ARG:C	41:BG:53:LEU:H	2.05	0.57
57:BY:17:SER:HG	57:BY:18:GLY:H	1.51	0.57
58:BZ:77:ASP:O	58:BZ:79:ARG:N	2.37	0.57
1:CA:184:G:N2	1:CA:194:C:C2	2.72	0.57
9:CI:24:GLY:N	9:CI:60:ASP:OD1	2.19	0.57
13:CM:30:ALA:O	13:CM:32:GLU:N	2.37	0.57
15:CO:56:LEU:O	15:CO:60:VAL:HG23	2.03	0.57
18:CR:74:ARG:HD3	18:CR:81:PHE:CE1	2.39	0.57
35:DA:244:A:H4'	48:DP:74:GLU:HB2	1.86	0.57
35:DA:849:A:H3'	35:DA:850:C:H6	1.69	0.57
35:DA:2377:A:H4'	51:DS:107:GLU:HB3	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DI:2:LYS:HB2	43:DI:39:ALA:HB3	1.85	0.57
46:DN:128:HIS:O	46:DN:130:HIS:N	2.36	0.57
52:DT:43:GLN:HG2	52:DT:45:PHE:HE1	1.67	0.57
52:DT:106:SER:HA	52:DT:110:ILE:HB	1.85	0.57
1:AA:219:C:H2'	1:AA:220:G:O4'	2.04	0.57
1:AA:689:C:OP2	11:AK:55:LYS:NZ	2.37	0.57
1:AA:824:C:O2'	8:AH:1:MET:N	2.34	0.57
2:AB:197:VAL:HG13	2:AB:200:ILE:HG13	1.85	0.57
35:BA:1404:C:H2'	35:BA:1405:U:H5'	1.86	0.57
35:BA:1899:G:O2'	35:BA:1900:A:OP2	2.17	0.57
35:BA:2690:C:H5''	35:BA:2872:G:N2	2.19	0.57
35:BA:2818:G:O6	35:BA:2828:C:N3	2.37	0.57
47:BO:92:GLU:HG3	47:BO:93:PRO:HD2	1.86	0.57
48:BP:132:LYS:O	48:BP:134:ALA:N	2.37	0.57
54:BV:64:HIS:HA	54:BV:96:ILE:HA	1.87	0.57
57:BY:2:ARG:CZ	57:BY:4:LYS:HB3	2.33	0.57
1:CA:115:G:H4'	1:CA:116:A:O5'	2.04	0.57
1:CA:974:A:P	14:CN:41:ARG:HH12	2.27	0.57
1:CA:1150:U:O2'	10:CJ:39:PRO:O	2.18	0.57
7:CG:70:LYS:O	7:CG:138:LYS:HE3	2.04	0.57
21:CU:8:THR:HA	21:CU:21:TYR:CE2	2.39	0.57
36:DB:105:A:OP1	58:DZ:72:ARG:NH2	2.36	0.57
38:DD:79:VAL:HG12	38:DD:113:VAL:HA	1.87	0.57
42:DH:41:MET:HE3	42:DH:54:ARG:HA	1.87	0.57
48:DP:33:ARG:HG3	48:DP:34:GLY:H	1.67	0.57
49:DQ:20:ALA:O	49:DQ:22:LYS:N	2.36	0.57
1:AA:1174:G:H3'	1:AA:1174:G:H8	1.69	0.57
2:AB:59:GLU:O	2:AB:63:MET:HG2	2.04	0.57
2:AB:102:LEU:HB3	2:AB:180:LEU:HD12	1.87	0.57
26:B1:87:PRO:HG2	26:B1:88:LYS:HB3	1.85	0.57
30:B5:10:LYS:HE3	35:BA:1262:A:N3	2.19	0.57
35:BA:28:A:H61	35:BA:512:G:H1'	1.69	0.57
35:BA:1025:G:O2'	35:BA:1026:U:OP1	2.21	0.57
35:BA:1224:C:O3'	54:BV:88:ARG:HG2	2.04	0.57
35:BA:1614:A:H2'	35:BA:1615:C:H5''	1.86	0.57
35:BA:2303:G:O2'	41:BG:132:ASN:HB2	2.04	0.57
35:BA:2496:C:P	49:BQ:81:VAL:HG13	2.44	0.57
35:BA:2835:A:H4'	35:BA:2836:U:OP1	2.05	0.57
40:BF:152:GLU:CB	40:BF:190:GLU:OE1	2.51	0.57
46:BN:128:HIS:ND1	46:BN:128:HIS:O	2.37	0.57
52:BT:28:VAL:HG12	52:BT:29:ARG:HD2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BT:28:VAL:CG1	52:BT:29:ARG:HD2	2.34	0.57
55:BW:15:ARG:O	55:BW:19:LEU:HD12	2.05	0.57
1:CA:364:A:O2'	1:CA:365:U:H5'	2.03	0.57
1:CA:460:G:H3'	1:CA:461:A:C5'	2.34	0.57
2:CB:61:LEU:HD23	2:CB:68:ILE:HD11	1.86	0.57
5:CE:76:ILE:HG12	5:CE:77:PRO:HD2	1.85	0.57
17:CQ:63:ARG:HG2	17:CQ:64:PRO:HD2	1.87	0.57
18:CR:65:ILE:HD12	18:CR:66:LEU:N	2.18	0.57
35:DA:271(E):U:H2'	35:DA:271(F):C:C6	2.40	0.57
35:DA:967:C:H5''	35:DA:968:G:OP2	2.04	0.57
35:DA:1431:U:H2'	35:DA:1432:C:C6	2.39	0.57
35:DA:1915:U:OP2	35:DA:1915:U:H6	1.87	0.57
35:DA:2123:G:H2'	35:DA:2124:G:C8	2.39	0.57
47:DO:35:VAL:HG21	47:DO:69:ILE:HD11	1.85	0.57
48:DP:111:ARG:HH22	48:DP:148:LEU:HD22	1.70	0.57
56:DX:55:ASN:N	56:DX:77:LYS:HE3	2.20	0.57
57:DY:27:VAL:C	57:DY:28:LYS:HD2	2.25	0.57
1:AA:1277:C:H6	1:AA:1277:C:H3'	1.70	0.57
3:AC:37:GLN:O	3:AC:41:GLY:N	2.30	0.57
6:AF:24:GLU:HA	6:AF:27:GLN:HE21	1.69	0.57
8:AH:104:ARG:HD2	8:AH:107:LEU:CB	2.29	0.57
10:AJ:30:SER:OG	10:AJ:84:GLN:OE1	2.13	0.57
13:AM:81:LEU:O	13:AM:85:GLY:HA2	2.03	0.57
16:AP:15:PRO:O	16:AP:16:HIS:ND1	2.37	0.57
20:AT:10:LEU:HD12	20:AT:12:ALA:N	2.20	0.57
26:B1:32:LYS:HZ2	26:B1:33:LYS:H	1.53	0.57
35:BA:271(C):C:H42	35:BA:271(U):G:H1	1.52	0.57
35:BA:698:C:O2'	35:BA:734:A:N6	2.36	0.57
35:BA:872:A:H2'	35:BA:873:G:C8	2.40	0.57
35:BA:1109:C:H41	35:BA:1110:G:H21	1.53	0.57
35:BA:1227:G:OP1	53:BU:13:LYS:NZ	2.26	0.57
35:BA:1340:U:H4'	35:BA:1394:U:O2'	2.04	0.57
35:BA:2114:A:N6	35:BA:2167:U:O2'	2.38	0.57
36:BB:28:C:H42	36:BB:56:G:H1	1.52	0.57
41:BG:59:GLU:HG2	41:BG:144:ILE:HD11	1.87	0.57
42:BH:167:GLU:HB2	42:BH:168:PRO:CD	2.32	0.57
48:BP:86:LYS:HG3	48:BP:87:ASP:OD1	2.04	0.57
49:BQ:119:ARG:O	49:BQ:121:ALA:N	2.37	0.57
51:BS:30:ARG:HH22	51:BS:62:LYS:HB3	1.69	0.57
53:BU:59:ARG:O	53:BU:63:VAL:HG23	2.03	0.57
53:BU:110:VAL:O	53:BU:113:ALA:HB3	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:BX:26:TYR:O	56:BX:78:LYS:HB2	2.05	0.57
56:BX:62:LYS:HA	56:BX:70:LEU:H	1.69	0.57
1:CA:1502:A:H5''	1:CA:1504:G:N7	2.19	0.57
2:CB:170:GLU:HG3	2:CB:174:VAL:HG23	1.85	0.57
3:CC:108:ASN:HB3	3:CC:111:LEU:HD12	1.85	0.57
7:CG:95:ARG:HE	7:CG:99:LEU:HD21	1.69	0.57
13:CM:97:PRO:HB3	13:CM:101:GLN:OE1	2.04	0.57
16:CP:75:ARG:O	16:CP:77:ALA:N	2.37	0.57
27:D2:50:ILE:O	27:D2:50:ILE:HG13	2.04	0.57
35:DA:271(F):C:H2'	35:DA:271(G):C:O4'	2.04	0.57
35:DA:573:G:O2'	35:DA:574:C:H3'	2.04	0.57
35:DA:1386:C:H2'	35:DA:1387:C:C6	2.38	0.57
35:DA:2392:A:H2	35:DA:2424:C:N4	1.99	0.57
41:DG:111:LEU:HD23	41:DG:117:PHE:CZ	2.40	0.57
52:DT:87:ASP:OD1	52:DT:87:ASP:N	2.35	0.57
57:DY:96:ILE:HD12	57:DY:97:ARG:N	2.20	0.57
1:AA:112:G:H21	1:AA:354:G:H5'	1.69	0.57
1:AA:616:G:OP1	4:AD:141:ARG:NH2	2.37	0.57
7:AG:31:MET:SD	7:AG:36:LYS:N	2.78	0.57
8:AH:102:ARG:NE	8:AH:105:ARG:HD3	2.20	0.57
22:AV:48:U:H2'	22:AV:51:U:OP1	2.04	0.57
25:B0:74:ARG:NH2	36:BB:13:A:OP2	2.38	0.57
35:BA:234:C:H2'	35:BA:235:U:C6	2.40	0.57
35:BA:1190:G:H2'	35:BA:1191:G:C8	2.34	0.57
35:BA:1991:U:H2'	35:BA:1992:G:H5''	1.86	0.57
35:BA:2721:A:H1'	35:BA:2873:A:O2'	2.05	0.57
35:BA:2851:A:H2'	35:BA:2852:G:C8	2.39	0.57
38:BD:218:ARG:O	38:BD:220:HIS:CD2	2.57	0.57
46:BN:39:ARG:HG3	46:BN:41:ASP:OD1	2.05	0.57
49:BQ:22:LYS:HG3	49:BQ:23:GLY:H	1.69	0.57
53:BU:9:VAL:HG13	53:BU:13:LYS:HE3	1.86	0.57
1:CA:131:C:O2	1:CA:231:G:N2	2.32	0.57
1:CA:374:A:C6	1:CA:375:U:C4	2.93	0.57
1:CA:390:C:H2'	1:CA:391:G:C8	2.40	0.57
1:CA:403:C:O2'	4:CD:122:ARG:NH2	2.38	0.57
14:CN:24:CYS:SG	14:CN:25:VAL:N	2.77	0.57
16:CP:53:VAL:HA	16:CP:56:ALA:HB3	1.85	0.57
25:D0:27:GLU:HG3	35:DA:856:C:H4'	1.87	0.57
27:D2:44:LEU:HD12	27:D2:45:SER:N	2.20	0.57
30:D5:45:VAL:HG22	50:DR:100:LEU:HA	1.87	0.57
35:DA:619:G:H5''	35:DA:620:G:OP2	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1210:A:H5''	35:DA:1212:G:O4'	2.04	0.57
35:DA:1549:C:H5'	35:DA:1550:C:OP2	2.04	0.57
38:DD:231:HIS:CG	38:DD:232:PRO:HD2	2.39	0.57
53:DU:92:ARG:CZ	54:DV:11:GLN:HB2	2.34	0.57
58:DZ:152:ALA:H	58:DZ:171:ILE:HG23	1.68	0.57
1:AA:70:G:H1	1:AA:99:U:H3	1.53	0.57
1:AA:555:C:H2'	1:AA:556:C:C6	2.39	0.57
1:AA:1425:U:H2'	1:AA:1426:C:C6	2.40	0.57
1:AA:1521:G:H2'	1:AA:1522:U:H6	1.69	0.57
7:AG:135:VAL:O	7:AG:139:GLU:N	2.37	0.57
10:AJ:38:ILE:HG23	10:AJ:71:LEU:HB3	1.87	0.57
35:BA:1839:G:C8	35:BA:1927:A:H1'	2.39	0.57
36:BB:42:C:O2	41:BG:92:VAL:HA	2.05	0.57
37:BC:97:GLU:HA	37:BC:100:ILE:HG13	1.86	0.57
41:BG:145:THR:OG1	41:BG:146:TYR:N	2.37	0.57
48:BP:75:ILE:HD12	48:BP:77:ARG:NH1	2.19	0.57
49:BQ:78:PRO:HA	49:BQ:79:LEU:HD12	1.86	0.57
52:BT:35:LYS:H	52:BT:39:ARG:HB3	1.70	0.57
57:BY:84:ARG:N	57:BY:95:LYS:O	2.38	0.57
1:CA:88:A:H2'	1:CA:89:C:H5'	1.87	0.57
1:CA:832:C:N4	1:CA:855:G:O6	2.37	0.57
3:CC:159:GLY:HA3	3:CC:193:TYR:CE1	2.40	0.57
5:CE:136:MET:C	5:CE:138:ALA:H	2.07	0.57
35:DA:193:U:H6	35:DA:193:U:C5'	2.18	0.57
35:DA:248:G:H5'	35:DA:250:G:N7	2.20	0.57
35:DA:466:A:N3	35:DA:683:C:H1'	2.20	0.57
35:DA:631:A:OP1	48:DP:64:LYS:HE2	2.05	0.57
35:DA:1354:A:H2'	35:DA:1355:G:O4'	2.05	0.57
35:DA:2116:G:N7	35:DA:2171:A:N6	2.52	0.57
36:DB:32:C:C2	36:DB:51:G:N2	2.73	0.57
41:DG:120:LEU:HB3	41:DG:179:PRO:O	2.03	0.57
48:DP:127:ALA:H	48:DP:145:PRO:HG2	1.67	0.57
53:DU:82:GLY:HA3	53:DU:113:ALA:HB1	1.87	0.57
1:AA:740:U:H4'	15:AO:42:HIS:CE1	2.40	0.57
1:AA:1425:U:H2'	1:AA:1426:C:H6	1.68	0.57
2:AB:167:PRO:O	2:AB:171:ALA:N	2.38	0.57
5:AE:69:VAL:O	5:AE:71:LEU:N	2.37	0.57
7:AG:111:ARG:NH2	7:AG:119:ARG:O	2.37	0.57
13:AM:23:TYR:HB3	13:AM:67:GLU:HG2	1.87	0.57
13:AM:82:MET:HG2	13:AM:82:MET:O	2.05	0.57
27:B2:26:ARG:HD2	56:BX:5:TYR:CZ	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:29:U:H2'	35:BA:30:G:C8	2.40	0.57
35:BA:832:G:H5''	48:BP:45:LEU:HD21	1.86	0.57
35:BA:1758:G:C2	35:BA:2696:U:H5'	2.39	0.57
35:BA:1860:G:H8	35:BA:1860:G:OP2	1.88	0.57
35:BA:1901:A:O2'	38:BD:255:LYS:HE3	2.03	0.57
38:BD:43:ARG:HD2	38:BD:44:ASN:CG	2.25	0.57
40:BF:155:LEU:HD23	40:BF:186:ILE:HD13	1.86	0.57
42:BH:70:THR:HA	42:BH:73:ALA:HB3	1.86	0.57
48:BP:7:ARG:O	48:BP:9:ASN:N	2.36	0.57
52:BT:70:VAL:HG12	52:BT:71:GLY:H	1.70	0.57
52:BT:74:ARG:HD3	52:BT:76:PHE:CE1	2.39	0.57
1:CA:953:G:C2	1:CA:954:G:H1'	2.40	0.57
1:CA:1133:G:C8	1:CA:1134:G:N7	2.73	0.57
1:CA:1189:C:H4'	3:CC:10:PHE:CZ	2.39	0.57
20:CT:82:SER:O	20:CT:84:LEU:N	2.38	0.57
27:D2:49:LYS:HD2	27:D2:54:LYS:HE2	1.87	0.57
30:D5:3:LYS:O	30:D5:3:LYS:CE	2.53	0.57
35:DA:184:C:H2'	35:DA:185:U:H6	1.69	0.57
35:DA:272(H):C:H42	35:DA:363(B):G:H1	1.52	0.57
35:DA:357:A:H2'	35:DA:358:U:C6	2.39	0.57
35:DA:484:C:H2'	35:DA:485:C:C6	2.40	0.57
35:DA:1973:G:H2'	35:DA:1974:C:C6	2.39	0.57
35:DA:2661:G:N7	35:DA:2662:A:N6	2.52	0.57
46:DN:51:PHE:CZ	46:DN:119:ARG:HD2	2.40	0.57
57:DY:50:ARG:HG2	57:DY:54:LYS:HB2	1.87	0.57
1:AA:189(I):G:H2'	1:AA:189(J):G:H4'	1.86	0.57
1:AA:280:C:C5	17:AQ:38:ARG:HA	2.40	0.57
1:AA:382:A:H2'	1:AA:383:A:C8	2.40	0.57
1:AA:1289:A:H62	9:AI:70:LYS:NZ	2.03	0.57
1:AA:1452:C:H1'	1:AA:1456:G:P	2.44	0.57
1:AA:1505:G:C8	1:AA:1505:G:OP2	2.57	0.57
4:AD:150:GLU:OE2	4:AD:150:GLU:HA	2.04	0.57
8:AH:96:GLY:O	8:AH:99:GLU:N	2.36	0.57
10:AJ:6:ILE:HB	10:AJ:72:VAL:HG12	1.86	0.57
20:AT:56:MET:HE1	20:AT:85:MET:HB3	1.87	0.57
27:B2:51:ARG:NH1	27:B2:55:ARG:HD2	2.20	0.57
35:BA:139:G:N2	56:BX:38:GLU:HB3	2.19	0.57
35:BA:252:G:C2'	35:BA:253:C:H5'	2.35	0.57
35:BA:272(I):U:H3	35:BA:363(A):A:H61	1.50	0.57
35:BA:299:A:H8	35:BA:299:A:OP2	1.88	0.57
35:BA:363(A):A:H5'	35:BA:363(B):G:OP2	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:796:C:H2'	35:BA:797:C:C6	2.39	0.57
35:BA:1057:A:H2'	35:BA:1058:G:H4'	1.86	0.57
35:BA:1579:A:H2'	35:BA:1580:A:O4'	2.05	0.57
35:BA:1798:U:H5'	38:BD:259:THR:CG2	2.33	0.57
35:BA:2532:G:H1'	35:BA:2663:G:H22	1.70	0.57
35:BA:2818:G:H1'	35:BA:2836:U:O2'	2.05	0.57
35:BA:2838:G:H5''	35:BA:2839:G:OP2	2.05	0.57
36:BB:78:A:H2'	36:BB:79:C:O4'	2.03	0.57
43:BI:81:VAL:HG22	43:BI:82:ARG:H	1.70	0.57
48:BP:113:LYS:HA	48:BP:129:ALA:O	2.05	0.57
48:BP:130:PHE:CE1	48:BP:146:VAL:HA	2.39	0.57
51:BS:67:ARG:CA	51:BS:98:VAL:HG11	2.34	0.57
54:BV:85:LYS:HA	54:BV:87:HIS:CD2	2.40	0.57
1:CA:586:C:C2'	1:CA:587:G:H5'	2.35	0.57
1:CA:1003:G:H2'	1:CA:1004:A:H4'	1.85	0.57
2:CB:51:LEU:O	2:CB:55:PHE:HD2	1.86	0.57
2:CB:118:LEU:HA	2:CB:121:LEU:HD13	1.87	0.57
4:CD:102:ASP:HB3	4:CD:136:PRO:HB3	1.85	0.57
19:CS:20:LEU:HA	19:CS:23:ASN:HB3	1.86	0.57
28:D3:4:LEU:HD22	28:D3:39:ASP:HB2	1.86	0.57
31:D6:10:LEU:HD11	31:D6:12:GLU:OE1	2.04	0.57
31:D6:15:GLU:HG2	31:D6:18:ARG:HE	1.69	0.57
35:DA:330:A:HO2'	35:DA:331:A:H8	1.48	0.57
35:DA:2308:G:HO2'	35:DA:2309:A:P	2.28	0.57
35:DA:2312:U:O2'	41:DG:71:THR:HG21	2.04	0.57
35:DA:2321:G:H5''	35:DA:2322:A:OP2	2.03	0.57
38:DD:39:LYS:HB2	38:DD:62:TYR:HB2	1.85	0.57
55:DW:2:GLU:HA	55:DW:107:LEU:O	2.05	0.57
1:AA:519:C:H2'	1:AA:520:A:O4'	2.05	0.57
1:AA:745:C:H2'	1:AA:746:A:H8	1.70	0.57
1:AA:832:C:O2'	1:AA:833:U:P	2.63	0.57
1:AA:837:G:H2'	1:AA:837:G:N3	2.20	0.57
1:AA:1223:C:OP1	19:AS:78:ARG:NH2	2.38	0.57
1:AA:1347:G:H22	1:AA:1373:G:H2'	1.70	0.57
4:AD:173:TRP:CD2	4:AD:189:PRO:HB3	2.39	0.57
7:AG:111:ARG:HG3	7:AG:112:PRO:CD	2.34	0.57
13:AM:39:ILE:HG22	13:AM:40:ASN:H	1.70	0.57
18:AR:37:VAL:O	18:AR:40:LEU:N	2.37	0.57
35:BA:311:A:C6	35:BA:328:U:C4	2.93	0.57
35:BA:1050:A:O2'	35:BA:2752:C:H1'	2.05	0.57
35:BA:1586:A:H5''	35:BA:1587:A:C8	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1615:C:H5'	35:BA:1615:C:H6	1.69	0.57
35:BA:1999:C:H4'	35:BA:2723:C:O2	2.04	0.57
41:BG:63:ILE:HD12	41:BG:141:PHE:CE2	2.40	0.57
46:BN:30:ILE:CG2	46:BN:34:LEU:HD11	2.34	0.57
48:BP:57:THR:HG22	48:BP:59:LEU:N	2.20	0.57
54:BV:2:PHE:CE1	54:BV:13:ARG:HD3	2.40	0.57
55:BW:50:VAL:C	55:BW:51:LEU:HD22	2.26	0.57
57:BY:20:TYR:O	57:BY:22:GLY:N	2.38	0.57
1:CA:1026:G:H5'	1:CA:1027:C:OP2	2.05	0.57
7:CG:66:VAL:O	7:CG:70:LYS:HG3	2.05	0.57
18:CR:40:LEU:HA	18:CR:43:PHE:CD2	2.40	0.57
34:D9:27:CYS:O	34:D9:29:ASN:N	2.38	0.57
35:DA:154(A):C:H6	35:DA:154(A):C:OP2	1.88	0.57
35:DA:2542:A:H2'	35:DA:2542:A:N3	2.19	0.57
39:DE:51:PHE:CD2	39:DE:52:LEU:HD12	2.38	0.57
43:DI:95:LYS:HD3	43:DI:95:LYS:O	2.05	0.57
57:DY:38:ILE:CA	57:DY:64:GLU:OE2	2.53	0.57
1:AA:1181:G:H2'	1:AA:1182:G:N2	2.20	0.56
1:AA:1445:C:H1'	1:AA:1458:G:C2	2.40	0.56
2:AB:177:ALA:O	2:AB:182:ILE:HB	2.05	0.56
3:AC:155:GLY:O	3:AC:164:ARG:N	2.37	0.56
4:AD:71:SER:OG	4:AD:73:ARG:HB2	2.04	0.56
8:AH:87:SER:HB3	8:AH:132:GLU:OE2	2.05	0.56
35:BA:139:G:H1'	35:BA:139(A):G:H21	1.69	0.56
35:BA:244:A:C2	35:BA:255:A:C4	2.92	0.56
35:BA:587:C:O2	48:BP:33:ARG:NH2	2.38	0.56
35:BA:1084:A:N6	44:BJ:30:UNK:O	2.38	0.56
35:BA:1533:G:H4'	35:BA:1543:C:H5	1.69	0.56
35:BA:1614:A:N1	55:BW:91:GLY:HA2	2.19	0.56
35:BA:1899:G:H22	35:BA:1902:C:N4	2.03	0.56
35:BA:2085:C:H4'	38:BD:262:ARG:HH22	1.69	0.56
35:BA:2535:G:H2'	35:BA:2536:G:H8	1.69	0.56
40:BF:62:ARG:HH22	40:BF:64:ILE:HD12	1.69	0.56
48:BP:90:ARG:HD2	48:BP:90:ARG:N	2.17	0.56
49:BQ:68:ILE:HD13	49:BQ:103:MET:HB3	1.86	0.56
54:BV:30:GLY:HA2	54:BV:64:HIS:CE1	2.40	0.56
56:BX:28:PHE:CE2	56:BX:39:ILE:HD11	2.40	0.56
1:CA:90:U:H5'	1:CA:91:C:OP1	2.04	0.56
1:CA:437:U:H5''	4:CD:155:LEU:HD13	1.86	0.56
2:CB:104:ASN:O	2:CB:108:ILE:HG12	2.05	0.56
26:D1:19:GLN:HE21	35:DA:379:G:H21	1.51	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:D6:32:ASN:O	31:D6:33:LYS:HG3	2.04	0.56
41:DG:20:ILE:HG23	41:DG:25:TYR:HB2	1.87	0.56
43:DI:14:ASP:H	43:DI:17:GLN:HE22	1.52	0.56
47:DO:104:ARG:HH12	52:DT:35:LYS:HE2	1.69	0.56
50:DR:73:VAL:O	50:DR:76:VAL:HG12	2.05	0.56
53:DU:102:GLU:HB3	53:DU:105:VAL:HG23	1.85	0.56
56:DX:53:LYS:HD3	56:DX:54:VAL:H	1.70	0.56
57:DY:50:ARG:HD3	57:DY:55:TYR:O	2.04	0.56
1:AA:266:G:H5''	1:AA:267:C:H5	1.69	0.56
1:AA:301:G:H2'	1:AA:302:G:H8	1.69	0.56
1:AA:1181:G:H2'	1:AA:1182:G:C2	2.40	0.56
27:B2:41:ILE:HD11	27:B2:49:LYS:NZ	2.21	0.56
35:BA:1166:C:H1'	35:BA:1184:G:N2	2.20	0.56
35:BA:1210:A:H8	35:BA:1210:A:C5'	2.17	0.56
35:BA:2543:G:H2'	35:BA:2544:G:C8	2.40	0.56
35:BA:2888:C:H2'	35:BA:2889:C:H6	1.68	0.56
38:BD:24:ILE:HD11	38:BD:91:ARG:HD2	1.86	0.56
38:BD:80:ALA:HB2	38:BD:96:HIS:CD2	2.40	0.56
48:BP:15:ARG:HA	48:BP:15:ARG:CZ	2.34	0.56
50:BR:9:LYS:HD3	50:BR:43:GLU:CG	2.35	0.56
53:BU:91:ASP:OD1	53:BU:96:ALA:N	2.38	0.56
56:BX:44:GLU:OE2	56:BX:51:VAL:N	2.37	0.56
58:BZ:18:LEU:HG	58:BZ:23:LYS:HB2	1.87	0.56
1:CA:278:G:OP2	17:CQ:41:LYS:HE2	2.05	0.56
22:CV:17:C:H3'	22:CV:17(A):U:C5'	2.35	0.56
23:CW:68:C:H3'	23:CW:69:G:O4'	2.05	0.56
27:D2:52:ASP:OD1	27:D2:53:LEU:N	2.38	0.56
30:D5:35:GLU:OE2	30:D5:35:GLU:N	2.38	0.56
32:D7:10:ARG:NH2	35:DA:1378:A:OP1	2.38	0.56
33:D8:29:LYS:CB	33:D8:44:LYS:HG3	2.35	0.56
35:DA:287:C:H5'	35:DA:288:C:OP2	2.05	0.56
35:DA:911:A:H2'	49:DQ:9:TYR:OH	2.03	0.56
35:DA:1206:G:H2'	35:DA:1207:C:H6	1.69	0.56
35:DA:2661:G:N7	35:DA:2662:A:C6	2.73	0.56
35:DA:2821:A:OP2	50:DR:2:ARG:CZ	2.52	0.56
39:DE:46:ALA:HB1	39:DE:81:ILE:O	2.05	0.56
42:DH:144:VAL:O	42:DH:148:ILE:HG12	2.05	0.56
43:DI:133:HIS:HB2	43:DI:134:PRO:HD2	1.86	0.56
46:DN:47:ALA:HB2	46:DN:112:LEU:HD11	1.87	0.56
57:DY:96:ILE:HG23	57:DY:101:LYS:HB2	1.87	0.56
1:AA:146:G:O2'	1:AA:147:G:OP1	2.22	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:429:U:H1'	1:AA:430:A:H5''	1.87	0.56
1:AA:646:U:H2'	1:AA:647:C:C6	2.39	0.56
1:AA:867:G:H2'	1:AA:868:C:H6	1.70	0.56
1:AA:1174:G:H3'	1:AA:1174:G:C8	2.40	0.56
1:AA:1316:G:N1	19:AS:5:LEU:HD21	2.20	0.56
2:AB:84:GLU:HG2	2:AB:215:LEU:HD23	1.86	0.56
2:AB:168:THR:OG1	2:AB:191:ASP:O	2.19	0.56
4:AD:163:GLU:C	4:AD:165:MET:H	2.09	0.56
11:AK:29:ILE:HG22	11:AK:44:SER:CB	2.33	0.56
23:AW:1:G:H1	23:AW:72:C:H42	1.53	0.56
26:B1:87:PRO:HD2	26:B1:89:GLU:H	1.70	0.56
27:B2:26:ARG:O	27:B2:27:GLU:OE2	2.23	0.56
32:B7:31:LEU:HD22	32:B7:42:LEU:HD12	1.87	0.56
35:BA:103:A:OP2	35:BA:104:U:OP2	2.22	0.56
35:BA:539:G:H3'	35:BA:539:G:N3	2.20	0.56
35:BA:547:A:OP1	35:BA:548:A:N6	2.38	0.56
35:BA:593:G:H1	35:BA:664:C:H42	1.53	0.56
35:BA:708:C:N4	35:BA:723:G:H1	2.00	0.56
35:BA:1037:G:OP2	35:BA:1037:G:C8	2.52	0.56
35:BA:1112:G:HO2'	35:BA:1113:U:H6	1.52	0.56
35:BA:1403:C:H5''	35:BA:1471:A:C1'	2.35	0.56
35:BA:1718:G:H1	35:BA:1744:C:H42	1.53	0.56
35:BA:2859:G:H3'	35:BA:2859:G:C8	2.40	0.56
36:BB:85:G:C2'	36:BB:86:G:H5''	2.35	0.56
37:BC:64:LEU:HD13	37:BC:65:PRO:HD2	1.87	0.56
42:BH:89:ILE:HD13	42:BH:94:TYR:O	2.04	0.56
43:BI:63:ALA:HA	43:BI:66:GLU:HG2	1.88	0.56
53:BU:64:ARG:HG2	53:BU:64:ARG:HH21	1.71	0.56
54:BV:29:PRO:O	54:BV:64:HIS:HE1	1.88	0.56
54:BV:34:GLU:HG2	54:BV:35:LEU:N	2.20	0.56
54:BV:64:HIS:O	54:BV:64:HIS:CG	2.57	0.56
1:CA:130:A:N7	17:CQ:63:ARG:HG3	2.21	0.56
1:CA:413:G:H22	1:CA:429:U:H5''	1.71	0.56
1:CA:725:G:H2'	1:CA:726:C:H6	1.70	0.56
1:CA:1320:C:H5'	19:CS:70:LYS:HG3	1.87	0.56
4:CD:64:LEU:HD11	4:CD:97:LEU:HD13	1.87	0.56
23:CW:53:G:H2'	23:CW:54:U:H5'	1.88	0.56
35:DA:1190:G:H8	35:DA:1190:G:H5''	1.69	0.56
35:DA:1528(A):A:N7	35:DA:1529:G:H8	2.03	0.56
35:DA:2801:A:O2'	35:DA:2895:U:H1'	2.04	0.56
36:DB:34:U:OP1	41:DG:2:PRO:HB2	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DB:81:G:H1	36:DB:96:U:H3	1.53	0.56
38:DD:158:ALA:O	38:DD:161:THR:OG1	2.17	0.56
40:DF:132:VAL:HG22	40:DF:133:ASN:H	1.71	0.56
42:DH:30:LYS:HB2	42:DH:79:VAL:HA	1.86	0.56
48:DP:127:ALA:H	48:DP:145:PRO:HG3	1.69	0.56
1:AA:701:C:O2	1:AA:703:G:N1	2.39	0.56
2:AB:71:VAL:HG13	2:AB:164:VAL:HG23	1.86	0.56
27:B2:55:ARG:HH11	27:B2:56:GLN:HA	1.70	0.56
35:BA:581:C:H5''	53:BU:32:PHE:CD1	2.40	0.56
35:BA:838:C:H2'	35:BA:839:U:H6	1.70	0.56
35:BA:1469:A:H2'	35:BA:1470:G:O4'	2.05	0.56
35:BA:2394:C:H6	35:BA:2394:C:OP2	1.89	0.56
36:BB:70:C:H42	36:BB:107:G:H1	1.51	0.56
41:BG:131:TYR:HE2	41:BG:133:LEU:HD22	1.70	0.56
47:BO:34:THR:OG1	47:BO:35:VAL:N	2.38	0.56
1:CA:460:G:H3'	1:CA:461:A:H5'	1.86	0.56
1:CA:983:A:H5''	1:CA:984:C:OP2	2.06	0.56
1:CA:1120:G:N2	1:CA:1153:C:N3	2.49	0.56
1:CA:1265:G:C4	1:CA:1271:G:N2	2.74	0.56
7:CG:62:PHE:O	7:CG:64:GLN:N	2.39	0.56
7:CG:111:ARG:HB3	7:CG:113:GLU:HG2	1.86	0.56
11:CK:21:ILE:HG22	11:CK:30:VAL:HG12	1.87	0.56
26:D1:47:GLN:HE22	35:DA:2090:G:H21	1.53	0.56
28:D3:50:VAL:O	28:D3:54:VAL:HG22	2.04	0.56
30:D5:5:PRO:HD2	30:D5:6:VAL:HG13	1.85	0.56
35:DA:271(A):A:N1	35:DA:272(D):G:O2'	2.29	0.56
35:DA:272(I):U:H2'	35:DA:272(J):C:C6	2.40	0.56
35:DA:476:G:N2	35:DA:478:A:H3'	2.20	0.56
35:DA:660:G:C2'	35:DA:661:C:H5'	2.36	0.56
35:DA:1210:A:H4'	35:DA:1211:U:O5'	2.05	0.56
35:DA:2254:C:H5''	35:DA:2255:G:OP2	2.04	0.56
35:DA:2531:A:H5''	42:DH:157:TYR:CZ	2.41	0.56
35:DA:2543:G:H2'	35:DA:2544:G:C8	2.40	0.56
36:DB:106:G:H5'	58:DZ:31:ARG:HG2	1.88	0.56
41:DG:117:PHE:CZ	41:DG:120:LEU:HB2	2.40	0.56
41:DG:172:LEU:O	41:DG:176:LEU:HG	2.05	0.56
43:DI:40:THR:O	43:DI:44:LEU:HB2	2.06	0.56
49:DQ:135:ASP:O	49:DQ:138:ASP:N	2.38	0.56
50:DR:58:GLY:HA2	50:DR:80:PHE:CE1	2.38	0.56
51:DS:85:VAL:O	51:DS:106:ARG:HG3	2.05	0.56
1:AA:1097:C:O2'	1:AA:1169:A:H2'	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1456:G:OP1	1:AA:1456:G:C2	2.58	0.56
2:AB:77:ALA:HA	2:AB:80:ILE:HG12	1.88	0.56
2:AB:172:ILE:H	2:AB:172:ILE:HD12	1.71	0.56
7:AG:26:PHE:HD1	7:AG:30:ILE:HD11	1.71	0.56
8:AH:36:LEU:O	8:AH:48:TYR:OH	2.23	0.56
21:AU:6:ARG:NE	21:AU:15:ARG:HH21	2.04	0.56
22:AV:73:A:H5'	22:AV:74:A:OP2	2.05	0.56
25:B0:20:ARG:NE	35:BA:2271:G:H5''	2.20	0.56
26:B1:23:LYS:O	26:B1:37:ILE:HB	2.06	0.56
26:B1:50:ARG:NH2	35:BA:1363:C:OP1	2.37	0.56
27:B2:16:LEU:C	27:B2:18:PRO:HD3	2.25	0.56
27:B2:55:ARG:HD3	27:B2:55:ARG:C	2.26	0.56
33:B8:25:MET:CG	48:BP:64:LYS:HG2	2.28	0.56
35:BA:569:U:H5''	35:BA:821:A:C2	2.40	0.56
35:BA:860:U:H5	35:BA:917:A:N7	2.04	0.56
35:BA:1289:C:H2'	35:BA:1290:C:C6	2.41	0.56
35:BA:1477:A:H5'	35:BA:1478:G:OP2	2.05	0.56
35:BA:2869:G:H2'	35:BA:2870:C:O4'	2.05	0.56
40:BF:143:ALA:HB1	40:BF:148:LEU:HB2	1.86	0.56
44:BJ:27:UNK:C	44:BJ:113:UNK:HA	2.35	0.56
46:BN:19:GLU:O	46:BN:21:LYS:N	2.38	0.56
50:BR:19:ALA:O	50:BR:23:ASN:HB2	2.06	0.56
55:BW:29:LEU:HD21	55:BW:33:ARG:NH2	2.13	0.56
58:BZ:91:LEU:HB3	58:BZ:130:PRO:HG3	1.88	0.56
1:CA:814:A:N7	1:CA:816:A:C4	2.73	0.56
1:CA:939:G:H5''	7:CG:102:ARG:NH1	2.21	0.56
14:CN:59:ALA:O	14:CN:60:SER:OG	2.23	0.56
17:CQ:57:VAL:HG12	17:CQ:76:LEU:HD12	1.88	0.56
35:DA:494:G:O2'	55:DW:5:ALA:O	2.19	0.56
35:DA:675:A:OP1	40:DF:63:LYS:HE2	2.06	0.56
35:DA:826:U:H2'	35:DA:828:U:O4'	2.05	0.56
35:DA:2085:C:H4'	38:DD:262:ARG:NH2	2.20	0.56
37:DC:82:LYS:HD3	37:DC:86:ALA:HB2	1.88	0.56
38:DD:43:ARG:HH22	38:DD:53:PHE:N	2.02	0.56
1:AA:981:U:C5'	1:AA:982:U:H5''	2.36	0.56
1:AA:1091:U:C2	1:AA:1093:A:OP2	2.58	0.56
1:AA:1118:C:H1'	1:AA:1179:A:C5	2.41	0.56
1:AA:1223:C:P	19:AS:78:ARG:HH22	2.29	0.56
38:BD:89:SER:HB2	38:BD:159:ALA:H	1.69	0.56
40:BF:80:ALA:H	40:BF:82:ILE:HG22	1.71	0.56
1:CA:1012:U:H6	1:CA:1012:U:OP2	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CO:25:THR:HG21	15:CO:70:LEU:HD22	1.87	0.56
31:D6:28:ARG:NH2	31:D6:51:GLU:OE2	2.37	0.56
35:DA:271(M):G:O2'	35:DA:271(N):U:H5'	2.06	0.56
35:DA:587:C:C5	48:DP:33:ARG:HD2	2.40	0.56
35:DA:2815:C:H2'	35:DA:2816:C:H6	1.69	0.56
38:DD:31:LYS:HE3	38:DD:102:LYS:HD2	1.86	0.56
43:DI:33:ARG:O	43:DI:35:LEU:HG	2.04	0.56
48:DP:51:PHE:HB3	48:DP:57:THR:HB	1.88	0.56
1:AA:78:G:H1'	1:AA:79:G:H5'	1.87	0.56
1:AA:149:A:H2'	1:AA:150:C:C6	2.40	0.56
1:AA:460:G:N2	1:AA:472:A:N6	2.53	0.56
1:AA:631:G:H2'	1:AA:632:A:C8	2.41	0.56
1:AA:1235:U:O2'	1:AA:1305:G:OP1	2.19	0.56
1:AA:1357:A:H5''	1:AA:1358:U:OP2	2.06	0.56
6:AF:96:PRO:HB3	18:AR:30:ASP:CG	2.26	0.56
25:B0:70:GLN:HE22	25:B0:72:ARG:CD	2.19	0.56
35:BA:587:C:H42	48:BP:33:ARG:HD2	1.70	0.56
35:BA:2427:C:H5''	35:BA:2428:G:OP1	2.05	0.56
35:BA:2892:A:H62	35:BA:2893:G:H21	1.53	0.56
41:BG:106:LEU:HA	41:BG:110:ALA:HB3	1.87	0.56
56:BX:29:TRP:CD1	56:BX:74:PRO:HB2	2.41	0.56
1:CA:10:A:H2'	1:CA:11:G:C8	2.39	0.56
1:CA:751:U:H4'	15:CO:24:SER:HB3	1.88	0.56
1:CA:859:A:H2'	1:CA:860:A:C8	2.40	0.56
1:CA:1132:C:O2	1:CA:1133:G:N2	2.39	0.56
12:CL:26:ALA:O	12:CL:29:GLY:N	2.39	0.56
23:CY:27:G:H2'	23:CY:28:G:C8	2.41	0.56
26:D1:83:GLU:HG2	26:D1:85:LEU:C	2.26	0.56
35:DA:2409:G:H2'	35:DA:2410:G:O4'	2.05	0.56
35:DA:2580:U:H4'	39:DE:130:GLY:HA3	1.88	0.56
46:DN:77:GLY:C	46:DN:78:TYR:HD1	2.09	0.56
55:DW:31:GLU:O	55:DW:35:ILE:HD13	2.05	0.56
57:DY:6:HIS:O	57:DY:8:LYS:N	2.37	0.56
1:AA:654:G:OP2	1:AA:654:G:C8	2.55	0.56
2:AB:124:SER:HB3	2:AB:125:PRO:CD	2.35	0.56
17:AQ:88:TYR:O	17:AQ:91:ARG:HB2	2.05	0.56
32:B7:7:PRO:HA	35:BA:686:G:H8	1.71	0.56
35:BA:528:A:H3'	35:BA:528:A:C8	2.40	0.56
35:BA:660:G:H5'	40:BF:99:TYR:CD2	2.41	0.56
35:BA:764:A:OP2	38:BD:214:TRP:CH2	2.58	0.56
42:BH:116:GLU:HG2	42:BH:117:PRO:HD2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BI:77:LEU:HD21	43:BI:101:LEU:HD13	1.87	0.56
46:BN:70:LYS:HE2	46:BN:72:TYR:CZ	2.41	0.56
48:BP:84:ASN:HD21	48:BP:117:GLU:CB	2.19	0.56
50:BR:100:LEU:HD21	50:BR:113:LEU:HD13	1.87	0.56
52:BT:51:ARG:NH1	52:BT:100:TYR:CZ	2.73	0.56
53:BU:8:VAL:CG1	53:BU:12:ARG:HD2	2.33	0.56
53:BU:14:HIS:HB3	53:BU:32:PHE:HD2	1.70	0.56
54:BV:66:ARG:HG3	54:BV:94:LEU:HA	1.88	0.56
1:CA:1318:A:H5''	19:CS:10:PHE:HB3	1.87	0.56
1:CA:1355:G:H2'	1:CA:1356:G:C8	2.41	0.56
1:CA:1434:A:H8	1:CA:1434:A:OP2	1.88	0.56
2:CB:178:ARG:NH1	2:CB:197:VAL:H	2.03	0.56
4:CD:98:GLU:O	4:CD:103:ASN:ND2	2.38	0.56
26:D1:87:PRO:HA	26:D1:90:ILE:HB	1.88	0.56
35:DA:321:G:OP2	40:DF:136:THR:N	2.26	0.56
35:DA:528:A:O2'	35:DA:529:A:H5'	2.06	0.56
35:DA:1021:A:H3'	35:DA:1021:A:C8	2.40	0.56
35:DA:2200:C:H42	35:DA:2223:G:H1	1.52	0.56
35:DA:2474:C:H5'	35:DA:2475:C:C5	2.41	0.56
42:DH:148:ILE:O	42:DH:162:ILE:HD11	2.05	0.56
46:DN:12:ARG:HD2	46:DN:14:VAL:HG22	1.87	0.56
48:DP:59:LEU:HD23	48:DP:61:ARG:HG3	1.87	0.56
53:DU:97:ASP:OD1	53:DU:98:LEU:N	2.38	0.56
1:AA:1119:C:OP1	9:AI:83:ARG:NH1	2.33	0.56
1:AA:1316:G:H1	19:AS:5:LEU:HD21	1.69	0.56
4:AD:68:TYR:CD2	4:AD:97:LEU:HD13	2.41	0.56
23:AW:10:G:N2	23:AW:26:A:O2'	2.39	0.56
35:BA:194:G:H2'	35:BA:195:A:O4'	2.06	0.56
35:BA:272(J):C:N4	35:BA:274:G:N7	2.54	0.56
35:BA:948:G:H2'	35:BA:949:C:C6	2.41	0.56
35:BA:1478:G:HO2'	35:BA:1558:A:H2	1.51	0.56
35:BA:1899:G:N2	35:BA:1902:C:C5	2.57	0.56
35:BA:2100:G:H1	35:BA:2189:U:H3	1.54	0.56
36:BB:17:C:H2'	36:BB:18:G:O4'	2.06	0.56
43:BI:109:ILE:HB	43:BI:130:TYR:CZ	2.41	0.56
49:BQ:5:ARG:CD	49:BQ:71:ASP:HA	2.28	0.56
53:BU:76:TYR:O	53:BU:80:ILE:HG12	2.04	0.56
1:CA:72:C:H2'	1:CA:73:G:H8	1.71	0.56
1:CA:757:U:H2'	1:CA:758:G:O4'	2.06	0.56
2:CB:236:TYR:HA	2:CB:239:VAL:HB	1.86	0.56
3:CC:155:GLY:O	3:CC:156:ARG:HB2	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CS:22:LEU:HD12	19:CS:27:GLU:C	2.26	0.56
27:D2:44:LEU:O	27:D2:45:SER:HB3	2.05	0.56
33:D8:52:LYS:N	33:D8:53:PRO:HD2	2.19	0.56
35:DA:208:C:H2'	35:DA:209:C:C6	2.41	0.56
35:DA:363(B):G:H2'	35:DA:363(C):G:H8	1.70	0.56
35:DA:639:U:H2'	35:DA:640:C:C6	2.40	0.56
35:DA:1446:C:H42	35:DA:1465:G:H1	1.53	0.56
40:DF:20:LEU:O	40:DF:23:ASP:HB2	2.05	0.56
51:DS:88:ASP:O	51:DS:90:GLY:N	2.38	0.56
55:DW:48:ALA:O	55:DW:50:VAL:N	2.39	0.56
56:DX:55:ASN:C	56:DX:77:LYS:HG2	2.26	0.56
1:AA:657:G:H4'	15:AO:28:GLN:HG3	1.87	0.56
1:AA:826:C:H5'	8:AH:12:ARG:HH21	1.71	0.56
5:AE:16:THR:OG1	5:AE:17:ALA:N	2.39	0.56
13:AM:13:LYS:HG3	13:AM:18:ALA:HB2	1.87	0.56
14:AN:13:THR:HG22	14:AN:15:LYS:O	2.06	0.56
31:B6:27:LYS:HG3	31:B6:29:ASN:OD1	2.06	0.56
35:BA:157:U:H5'	35:BA:171:G:H22	1.72	0.56
35:BA:1103:A:H3'	35:BA:1104:C:H6	1.70	0.56
35:BA:2315:G:H2'	35:BA:2316:C:C6	2.40	0.56
36:BB:13:A:O2'	36:BB:14:U:H3'	2.05	0.56
36:BB:52:A:N7	51:BS:33:LYS:NZ	2.45	0.56
39:BE:35:GLN:HB2	39:BE:48:GLN:HE21	1.71	0.56
42:BH:169:VAL:HG22	42:BH:170:ARG:HD3	1.87	0.56
1:CA:1305:G:OP2	1:CA:1305:G:C8	2.59	0.56
4:CD:79:PHE:HE2	4:CD:204:ILE:HD13	1.71	0.56
5:CE:132:ALA:O	5:CE:135:THR:N	2.39	0.56
7:CG:145:ALA:HB1	7:CG:149:ARG:HH22	1.71	0.56
13:CM:59:TYR:O	13:CM:63:THR:OG1	2.21	0.56
22:CV:60:U:H5''	22:CV:61:C:H5	1.70	0.56
35:DA:271(H):G:N1	35:DA:271(Q):G:N3	2.54	0.56
35:DA:1126:A:OP1	35:DA:1126:A:H8	1.88	0.56
35:DA:2805:G:H2'	35:DA:2807:G:O4'	2.06	0.56
41:DG:145:THR:HG23	41:DG:147:ASP:OD1	2.06	0.56
51:DS:46:VAL:HG12	51:DS:48:LEU:HD23	1.88	0.56
1:AA:545:C:C5'	4:AD:73:ARG:HH22	2.19	0.55
1:AA:951:G:C6	1:AA:1231:G:C6	2.94	0.55
2:AB:98:LEU:HB3	2:AB:108:ILE:HD11	1.87	0.55
4:AD:127:THR:CG2	4:AD:147:ALA:HB3	2.35	0.55
8:AH:65:TYR:O	8:AH:79:VAL:HG23	2.06	0.55
10:AJ:49:VAL:O	10:AJ:60:ARG:HB3	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:B5:3:LYS:HB3	35:BA:747:U:C5	2.41	0.55
35:BA:1005:C:H2'	35:BA:1006:C:C6	2.41	0.55
35:BA:1179:C:H2'	35:BA:1180:C:H6	1.71	0.55
35:BA:1250:G:OP2	35:BA:1250:G:H8	1.89	0.55
36:BB:105:A:H2'	36:BB:106:G:O4'	2.05	0.55
36:BB:120:A:H3'	36:BB:120:A:N3	2.22	0.55
37:BC:51:PRO:HB2	37:BC:203:GLY:H	1.70	0.55
38:BD:132:PRO:HD3	38:BD:190:TYR:CZ	2.40	0.55
39:BE:90:THR:HG22	39:BE:91:VAL:H	1.71	0.55
40:BF:102:PRO:HB2	40:BF:105:VAL:HG23	1.88	0.55
40:BF:152:GLU:CA	40:BF:190:GLU:OE1	2.54	0.55
40:BF:157:VAL:HG12	40:BF:176:LEU:HB3	1.88	0.55
41:BG:7:LEU:O	41:BG:11:TYR:N	2.31	0.55
42:BH:148:ILE:O	42:BH:151:ILE:N	2.39	0.55
46:BN:20:GLY:HA3	46:BN:61:ARG:HE	1.71	0.55
57:BY:46:LYS:HB3	57:BY:62:GLU:HB3	1.89	0.55
1:CA:192:U:H2'	1:CA:193:C:C6	2.39	0.55
1:CA:552:U:H4'	12:CL:86:ARG:HD2	1.88	0.55
4:CD:109:GLY:HA3	4:CD:165:MET:CE	2.36	0.55
5:CE:15:ARG:HD2	5:CE:26:PHE:CD1	2.41	0.55
16:CP:23:ASP:C	16:CP:25:ARG:H	2.09	0.55
25:D0:26:TYR:HE1	35:DA:857:C:H1'	1.71	0.55
35:DA:207:A:H2'	35:DA:208:C:O4'	2.06	0.55
35:DA:548:A:H61	54:DV:95:LEU:CD1	2.18	0.55
35:DA:1557:C:OP2	35:DA:1558:A:O2'	2.22	0.55
39:DE:203:LYS:HG3	39:DE:204:ALA:N	2.21	0.55
57:DY:38:ILE:HG23	57:DY:64:GLU:HG2	1.88	0.55
1:AA:69:G:H2'	1:AA:70:G:C8	2.38	0.55
1:AA:189:G:N1	1:AA:189(L):G:N1	2.55	0.55
1:AA:375:U:C4	1:AA:376:G:N7	2.74	0.55
1:AA:420:U:O2'	1:AA:421:U:H2'	2.06	0.55
1:AA:981:U:H5''	1:AA:982:U:H2'	1.87	0.55
12:AL:97:ARG:HB2	12:AL:98:TYR:CE1	2.41	0.55
35:BA:137:C:C2	35:BA:139(A):G:OP2	2.59	0.55
35:BA:2612:C:H2'	35:BA:2613:U:H5''	1.89	0.55
35:BA:2851:A:H2'	35:BA:2852:G:H8	1.72	0.55
38:BD:10:THR:CG2	38:BD:13:ARG:HG3	2.36	0.55
47:BO:35:VAL:HG11	47:BO:103:ALA:HB3	1.87	0.55
54:BV:76:LYS:H	54:BV:87:HIS:CE1	2.25	0.55
56:BX:25:LYS:HE3	56:BX:86:GLY:O	2.07	0.55
58:BZ:27:VAL:HG23	58:BZ:36:LYS:HA	1.86	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:640:A:O2'	8:CH:115:SER:O	2.15	0.55
2:CB:74:LYS:HZ1	2:CB:205:ASP:HB2	1.70	0.55
2:CB:159:PRO:O	2:CB:161:ALA:N	2.32	0.55
9:CI:5:TYR:HE2	9:CI:16:ARG:HG2	1.71	0.55
26:D1:32:LYS:C	26:D1:33:LYS:HG2	2.25	0.55
27:D2:33:MET:HB3	56:DX:13:LEU:HD11	1.87	0.55
35:DA:1322:A:H2'	35:DA:1323:U:H6	1.71	0.55
41:DG:97:ASP:O	41:DG:101:ILE:HG22	2.05	0.55
52:DT:29:ARG:NE	52:DT:82:LEU:CD2	2.69	0.55
57:DY:96:ILE:HD12	57:DY:98:VAL:N	2.20	0.55
1:AA:136:C:H42	1:AA:227:G:H1	1.55	0.55
1:AA:1148:U:O3'	9:AI:14:VAL:HG11	2.05	0.55
1:AA:1239:A:C4'	1:AA:1240:U:H5'	2.34	0.55
4:AD:110:PHE:CE1	4:AD:148:VAL:HG21	2.42	0.55
8:AH:82:HIS:ND1	8:AH:138:TRP:CD1	2.75	0.55
33:B8:13:ARG:HH21	48:BP:61:ARG:CA	2.19	0.55
35:BA:810:U:H3	48:BP:36:LYS:NZ	2.03	0.55
35:BA:1899:G:H1	35:BA:1902:C:N4	2.04	0.55
35:BA:2282:G:H4'	35:BA:2389:G:O2'	2.05	0.55
35:BA:2294:C:OP1	51:BS:92:TYR:HB2	2.07	0.55
35:BA:2547:U:H2'	35:BA:2548:G:C8	2.41	0.55
46:BN:13:TRP:CD1	46:BN:51:PHE:HB3	2.39	0.55
50:BR:86:ARG:HG3	50:BR:117:VAL:HG11	1.87	0.55
51:BS:30:ARG:HH22	51:BS:62:LYS:HE2	1.71	0.55
1:CA:1486:G:H2'	1:CA:1487:G:O4'	2.06	0.55
3:CC:10:PHE:HB3	3:CC:11:ARG:HD2	1.88	0.55
4:CD:128:VAL:HG12	4:CD:146:ILE:HA	1.88	0.55
12:CL:51:ALA:HB3	12:CL:53:ARG:CZ	2.37	0.55
23:CW:66:U:H2'	23:CW:67:C:C6	2.40	0.55
25:D0:26:TYR:CE1	35:DA:857:C:H1'	2.41	0.55
26:D1:12:PRO:HD2	26:D1:62:VAL:HG23	1.88	0.55
35:DA:568:U:O4	35:DA:973:A:OP2	2.24	0.55
35:DA:764:A:O4'	38:DD:213:ARG:HG3	2.06	0.55
35:DA:996:A:O3'	53:DU:92:ARG:HB2	2.07	0.55
35:DA:1268:A:C2	35:DA:2013:A:C4	2.94	0.55
35:DA:1653:G:C6	50:DR:10:LEU:CD1	2.89	0.55
35:DA:1973:G:H2'	35:DA:1974:C:H6	1.71	0.55
35:DA:2593:U:H2'	35:DA:2594:C:H6	1.70	0.55
41:DG:56:ALA:O	41:DG:60:LEU:N	2.36	0.55
41:DG:71:THR:HG22	41:DG:89:GLY:CA	2.36	0.55
52:DT:29:ARG:HD2	52:DT:76:PHE:CE1	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:DZ:141:VAL:HG23	58:DZ:144:LEU:HD23	1.88	0.55
1:AA:413:G:N2	1:AA:428:G:H1'	2.20	0.55
2:AB:193:ASP:OD1	2:AB:193:ASP:O	2.25	0.55
7:AG:100:ALA:O	7:AG:104:LEU:HD23	2.06	0.55
10:AJ:61:GLU:OE2	14:AN:49:HIS:CE1	2.60	0.55
11:AK:57:THR:HG22	11:AK:59:TYR:N	2.21	0.55
15:AO:78:TYR:CZ	15:AO:82:ILE:HD12	2.41	0.55
26:B1:25:LYS:CB	26:B1:27:GLU:OE1	2.52	0.55
35:BA:212:G:H2'	35:BA:213:A:O4'	2.07	0.55
35:BA:324:A:H2'	35:BA:325:G:O4'	2.06	0.55
35:BA:2747:G:OP1	42:BH:138:LYS:NZ	2.39	0.55
42:BH:93:GLY:O	42:BH:95:ARG:N	2.39	0.55
48:BP:9:ASN:N	48:BP:10:PRO:HD3	2.21	0.55
48:BP:60:MET:HE2	48:BP:61:ARG:HH21	1.71	0.55
1:CA:1080:A:H5''	1:CA:1081:G:OP2	2.06	0.55
10:CJ:5:ARG:HB2	10:CJ:73:ASP:HA	1.86	0.55
11:CK:48:ILE:HD12	11:CK:63:LEU:HD22	1.89	0.55
13:CM:3:ARG:HE	13:CM:9:ILE:HD13	1.70	0.55
13:CM:19:LEU:HD11	13:CM:56:LEU:HD11	1.87	0.55
24:CX:22:U:C4	24:CX:23:A:H2	2.24	0.55
35:DA:642:G:N2	35:DA:645:C:OP2	2.40	0.55
35:DA:1210:A:H5'	35:DA:1210:A:C8	2.36	0.55
35:DA:1688:U:O2	35:DA:1700:A:H8	1.89	0.55
42:DH:154:PRO:HB3	42:DH:163:TYR:CE1	2.42	0.55
54:DV:85:LYS:C	54:DV:87:HIS:H	2.08	0.55
1:AA:189:G:H3'	1:AA:189:G:C8	2.40	0.55
1:AA:413:G:H21	1:AA:428:G:H1'	1.71	0.55
1:AA:702:A:H62	35:BA:1846:G:H21	1.55	0.55
34:B9:5:ALA:O	35:BA:1030:G:N2	2.39	0.55
35:BA:539:G:N2	35:BA:540:C:OP1	2.33	0.55
35:BA:672:C:H2'	35:BA:673:C:H5''	1.87	0.55
35:BA:942:G:H5'	48:BP:35:HIS:CB	2.32	0.55
35:BA:1789:A:H5'	38:BD:221:VAL:HG12	1.88	0.55
39:BE:38:THR:HG22	39:BE:40:GLU:N	2.20	0.55
40:BF:198:ALA:O	40:BF:201:VAL:HG12	2.06	0.55
43:BI:9:LEU:HD21	43:BI:35:LEU:HD13	1.89	0.55
51:BS:15:ARG:O	51:BS:18:ILE:HG12	2.07	0.55
58:BZ:40:ASP:C	58:BZ:44:PHE:HD2	2.10	0.55
1:CA:264:U:H4'	17:CQ:63:ARG:HE	1.71	0.55
1:CA:1278:U:H5''	1:CA:1279:A:O4'	2.06	0.55
1:CA:1305:G:H5''	21:CU:4:GLY:HA3	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:162:ILE:HD11	2:CB:177:ALA:CB	2.37	0.55
4:CD:13:ARG:O	4:CD:15:GLU:N	2.39	0.55
35:DA:806:C:P	48:DP:39:LYS:HB3	2.46	0.55
36:DB:71:C:H2'	36:DB:72:G:C8	2.42	0.55
51:DS:20:ARG:HA	51:DS:20:ARG:HE	1.72	0.55
51:DS:94:TYR:O	51:DS:95:HIS:HB3	2.05	0.55
58:DZ:74:VAL:HG22	58:DZ:86:VAL:HG13	1.88	0.55
1:AA:189(H):G:C8	1:AA:189(H):G:H5''	2.42	0.55
9:AI:6:GLY:HA3	9:AI:84:ALA:CB	2.36	0.55
11:AK:17:GLY:N	11:AK:79:SER:O	2.35	0.55
19:AS:40:ILE:HD12	19:AS:67:VAL:CG2	2.32	0.55
30:B5:25:LEU:HD12	55:BW:19:LEU:HB3	1.87	0.55
30:B5:33:CYS:HB2	30:B5:51:TYR:OH	2.07	0.55
35:BA:38:A:H5'	40:BF:50:SER:HB3	1.89	0.55
35:BA:134:C:N4	35:BA:144:C:H42	2.04	0.55
35:BA:139:G:H8	35:BA:139(A):G:H5''	1.71	0.55
35:BA:1048:A:H4'	35:BA:1049:C:OP1	2.05	0.55
35:BA:1070:A:H2'	35:BA:1097:U:C5'	2.37	0.55
35:BA:1140:C:O3'	46:BN:25:ARG:NH1	2.40	0.55
35:BA:2299:G:N1	35:BA:2318:G:C8	2.75	0.55
36:BB:21:G:O2'	36:BB:22:U:OP2	2.16	0.55
39:BE:173:VAL:CG2	39:BE:183:LEU:HB3	2.36	0.55
48:BP:132:LYS:C	48:BP:136:GLU:OE2	2.45	0.55
49:BQ:36:ALA:HB2	49:BQ:103:MET:SD	2.45	0.55
50:BR:26:LYS:HD3	50:BR:27:SER:H	1.71	0.55
55:BW:43:GLY:O	55:BW:45:TYR:HB3	2.06	0.55
1:CA:199:G:H2'	1:CA:200:G:C8	2.41	0.55
1:CA:724:G:C2	1:CA:725:G:C8	2.95	0.55
1:CA:1133:G:H2'	1:CA:1134:G:H8	1.72	0.55
4:CD:121:VAL:O	4:CD:134:ASP:HA	2.07	0.55
26:D1:90:ILE:HG22	26:D1:91:LYS:HD3	1.88	0.55
27:D2:49:LYS:HA	27:D2:54:LYS:HZ3	1.71	0.55
31:D6:19:ARG:HH21	31:D6:20:ASN:HD21	1.53	0.55
35:DA:296:C:H2'	35:DA:297:C:H6	1.71	0.55
35:DA:582:G:OP1	53:DU:14:HIS:HD2	1.90	0.55
35:DA:1664:A:H61	35:DA:1996:C:H42	1.54	0.55
35:DA:2393:A:H5'	48:DP:62:LEU:HB3	1.89	0.55
37:DC:44:HIS:HE1	37:DC:175:VAL:H	1.54	0.55
40:DF:34:TRP:CZ2	48:DP:12:ALA:HB2	2.42	0.55
40:DF:135:LYS:HB3	40:DF:138:GLU:HG3	1.87	0.55
1:AA:215:U:H5'	1:AA:216:G:H5'	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:472:A:O2'	16:AP:82:GLN:HG2	2.06	0.55
1:AA:1226:C:H4'	1:AA:1227:A:OP1	2.06	0.55
1:AA:1346:A:H61	1:AA:1374:A:H3'	1.72	0.55
3:AC:19:GLU:O	3:AC:40:ARG:NH2	2.39	0.55
5:AE:5:ASP:HB2	5:AE:6:PHE:CE1	2.42	0.55
5:AE:100:VAL:HG22	5:AE:118:ILE:HG22	1.89	0.55
17:AQ:76:LEU:HD21	17:AQ:79:SER:HB2	1.88	0.55
26:B1:10:LYS:HA	26:B1:48:LYS:HZ1	1.69	0.55
31:B6:46:HIS:ND1	35:BA:2371:G:O2'	2.39	0.55
33:B8:34:TRP:CZ2	33:B8:36:LYS:HD2	2.41	0.55
35:BA:271(E):U:H3	35:BA:271(S):G:H1	1.53	0.55
35:BA:443:A:H1'	35:BA:1201:C:O4'	2.07	0.55
35:BA:815:C:H5	48:BP:27:HIS:CE1	2.25	0.55
35:BA:827:U:H2'	35:BA:2430:A:C2	2.41	0.55
35:BA:1434:A:H61	35:BA:1558:A:N6	1.98	0.55
35:BA:1448:G:H21	35:BA:1544:A:H61	1.55	0.55
35:BA:2810:A:C2'	39:BE:61:ARG:HD2	2.37	0.55
39:BE:11:MET:HB2	39:BE:23:VAL:O	2.06	0.55
40:BF:117:ARG:HH21	40:BF:187:VAL:HA	1.72	0.55
41:BG:120:LEU:CD2	41:BG:178:PHE:CE1	2.89	0.55
48:BP:66:GLY:O	48:BP:67:MET:HG2	2.07	0.55
52:BT:13:ARG:HA	52:BT:13:ARG:CZ	2.36	0.55
52:BT:28:VAL:CG2	52:BT:88:ILE:HD11	2.37	0.55
54:BV:19:LYS:CG	54:BV:96:ILE:HG22	2.33	0.55
54:BV:69:LYS:HB3	54:BV:93:GLU:HG2	1.89	0.55
57:BY:51:VAL:HB	57:BY:53:PRO:HD3	1.88	0.55
57:BY:82:PRO:HD2	57:BY:97:ARG:HG2	1.89	0.55
1:CA:452:A:O2'	1:CA:453:A:OP2	2.19	0.55
1:CA:626:U:H2'	1:CA:627:G:H8	1.70	0.55
1:CA:1181:G:H2'	1:CA:1182:G:C4	2.42	0.55
1:CA:1250:A:H2'	1:CA:1251:A:C8	2.41	0.55
3:CC:143:GLU:C	3:CC:145:GLY:H	2.10	0.55
4:CD:8:VAL:O	4:CD:10:ARG:N	2.39	0.55
5:CE:69:VAL:O	5:CE:71:LEU:HG	2.07	0.55
30:D5:57:VAL:HG23	50:DR:33:ARG:HH22	1.71	0.55
33:D8:6:THR:HG22	33:D8:7:HIS:O	2.07	0.55
33:D8:36:LYS:HG3	33:D8:37:SER:H	1.70	0.55
33:D8:50:LEU:C	33:D8:53:PRO:HD2	2.27	0.55
35:DA:899:A:H2'	35:DA:899:A:N3	2.21	0.55
35:DA:1889:A:O2'	35:DA:2087:G:H5'	2.07	0.55
35:DA:2873:A:C2	50:DR:6:SER:HB2	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DE:173:VAL:HG12	39:DE:174:ASP:H	1.71	0.55
53:DU:92:ARG:HH12	53:DU:95:LEU:HD22	1.70	0.55
57:DY:90:LEU:HD12	57:DY:91:GLU:N	2.22	0.55
1:AA:73:G:OP1	1:AA:73:G:H4'	2.05	0.55
1:AA:383:A:H2'	1:AA:384:G:O4'	2.06	0.55
1:AA:499:A:H4'	1:AA:500:G:H5'	1.88	0.55
1:AA:745:C:H2'	1:AA:746:A:C8	2.41	0.55
3:AC:181:ASN:OD1	3:AC:204:LEU:HD12	2.07	0.55
4:AD:191:ARG:O	4:AD:191:ARG:NH1	2.36	0.55
7:AG:84:ASN:ND2	23:AW:38:A:H61	2.05	0.55
8:AH:104:ARG:HD2	8:AH:107:LEU:C	2.27	0.55
9:AI:48:GLU:N	9:AI:49:PRO:HD2	2.21	0.55
12:AL:7:ILE:HG13	12:AL:8:ASN:H	1.70	0.55
12:AL:25:PRO:O	12:AL:27:LEU:HD23	2.07	0.55
31:B6:27:LYS:HG2	31:B6:27:LYS:O	2.05	0.55
33:B8:41:ILE:HD11	35:BA:2419:U:OP2	2.07	0.55
33:B8:52:LYS:NZ	35:BA:833:U:O2'	2.40	0.55
35:BA:537:C:N4	35:BA:538:G:O6	2.39	0.55
35:BA:863:A:H2'	35:BA:864:G:C8	2.42	0.55
35:BA:1024:G:H1	35:BA:1140:C:H42	1.54	0.55
35:BA:1851:U:H2'	35:BA:1852:C:O4'	2.07	0.55
36:BB:39:A:O2'	36:BB:46:A:N1	2.38	0.55
43:BI:78:THR:OG1	43:BI:141:LYS:HD2	2.06	0.55
52:BT:108:ARG:O	52:BT:111:ARG:N	2.30	0.55
54:BV:39:LEU:HD12	54:BV:53:GLU:O	2.07	0.55
1:CA:831:U:O2'	1:CA:832:C:H5'	2.05	0.55
1:CA:1007:C:H42	1:CA:1024:G:N2	2.05	0.55
1:CA:1203:C:H2'	1:CA:1204:A:C8	2.40	0.55
1:CA:1268:A:O2'	21:CU:19:GLY:HA2	2.07	0.55
1:CA:1377:A:N6	7:CG:8:GLU:OE2	2.40	0.55
4:CD:79:PHE:CE2	4:CD:204:ILE:HD13	2.41	0.55
7:CG:15:ASP:HB3	7:CG:19:GLY:N	2.22	0.55
10:CJ:54:PHE:HD1	10:CJ:55:LYS:HB3	1.70	0.55
26:D1:72:GLU:HG2	26:D1:72:GLU:O	2.04	0.55
35:DA:109:G:H2'	35:DA:110:G:O4'	2.07	0.55
35:DA:307:G:N2	35:DA:309:G:H3'	2.22	0.55
35:DA:1051:G:H3'	35:DA:1051:G:C8	2.42	0.55
35:DA:1206:G:H2'	35:DA:1207:C:C6	2.42	0.55
35:DA:1209:G:N2	35:DA:1210:A:H62	2.05	0.55
35:DA:1403:C:C5'	35:DA:1471:A:H1'	2.36	0.55
35:DA:2464:C:O2'	35:DA:2465:C:P	2.65	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DF:3:GLU:HB3	40:DF:24:LEU:HG	1.88	0.55
40:DF:132:VAL:C	40:DF:134:GLY:H	2.09	0.55
41:DG:50:ALA:O	41:DG:52:ILE:N	2.40	0.55
42:DH:132:ARG:HB2	42:DH:132:ARG:NH1	2.21	0.55
1:AA:427:U:H5''	1:AA:428:G:H2'	1.88	0.55
1:AA:1148:U:H5'	1:AA:1149:C:OP2	2.07	0.55
20:AT:30:LYS:NZ	20:AT:72:LEU:HD21	2.21	0.55
35:BA:78:A:H2'	35:BA:79:G:C8	2.42	0.55
35:BA:1010:A:H1'	35:BA:1153:C:H1'	1.88	0.55
35:BA:2415:G:H4'	48:BP:67:MET:N	2.22	0.55
39:BE:143:ASN:OD1	39:BE:147:PRO:HD3	2.07	0.55
46:BN:36:GLY:H	46:BN:42:TRP:HZ3	1.54	0.55
1:CA:271:C:H2'	1:CA:272:C:H6	1.72	0.55
1:CA:584:G:H5'	17:CQ:91:ARG:HH22	1.71	0.55
6:CF:4:TYR:CE2	6:CF:72:VAL:HG11	2.42	0.55
10:CJ:25:GLU:O	10:CJ:29:ARG:HB3	2.07	0.55
26:D1:48:LYS:NZ	26:D1:61:ARG:HD2	2.22	0.55
26:D1:71:TYR:O	26:D1:74:VAL:N	2.40	0.55
29:D4:42:PHE:O	29:D4:45:GLY:N	2.35	0.55
35:DA:330:A:O2'	35:DA:331:A:H8	1.90	0.55
35:DA:658:C:H2'	35:DA:659:C:C6	2.42	0.55
35:DA:1550:C:OP1	35:DA:1720:U:O2'	2.19	0.55
35:DA:1653:G:H3'	50:DR:4:LEU:HD23	1.89	0.55
35:DA:2316:C:H5'	35:DA:2317:C:OP2	2.07	0.55
35:DA:2895:U:C6	35:DA:2895:U:OP2	2.59	0.55
38:DD:82:ILE:HD11	38:DD:111:LEU:HD22	1.87	0.55
40:DF:34:TRP:HB2	48:DP:10:PRO:HB2	1.87	0.55
40:DF:67:GLN:HG3	40:DF:67:GLN:O	2.06	0.55
47:DO:69:ILE:H	47:DO:69:ILE:HD12	1.72	0.55
57:DY:60:PHE:O	57:DY:62:GLU:N	2.39	0.55
1:AA:257:G:H2'	1:AA:258:G:H8	1.72	0.55
1:AA:929:G:H1	1:AA:1388:C:N4	2.02	0.55
2:AB:98:LEU:HD13	2:AB:99:GLY:N	2.22	0.55
2:AB:166:ASP:OD2	2:AB:206:ASP:OD1	2.25	0.55
3:AC:120:VAL:HA	3:AC:123:GLN:HG3	1.89	0.55
15:AO:33:THR:HG21	15:AO:85:LEU:HD22	1.87	0.55
15:AO:53:HIS:CE1	15:AO:57:LEU:HD21	2.40	0.55
35:BA:89:G:H21	35:BA:90:U:H5'	1.72	0.55
35:BA:499:U:H4'	57:BY:45:VAL:HG21	1.88	0.55
35:BA:541:C:N4	35:BA:551:G:H1	2.03	0.55
35:BA:2694:G:H2'	35:BA:2695:C:H6	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:201:HIS:O	38:BD:204:ILE:HG12	2.07	0.55
58:BZ:72:ARG:HH22	58:BZ:97:GLU:HG3	1.72	0.55
1:CA:147:G:H1	1:CA:175:C:H42	1.55	0.55
3:CC:193:TYR:HD1	3:CC:193:TYR:O	1.89	0.55
5:CE:106:PRO:O	5:CE:110:LEU:HG	2.06	0.55
8:CH:10:LEU:HD22	8:CH:83:ILE:HD11	1.88	0.55
9:CI:49:PRO:HA	9:CI:95:LYS:HZ2	1.70	0.55
11:CK:108:ILE:HB	18:CR:88:LYS:H	1.71	0.55
26:D1:33:LYS:HD3	35:DA:2395:C:O2'	2.06	0.55
35:DA:143(A):C:H4'	56:DX:36:LYS:HE3	1.89	0.55
35:DA:252:G:OP2	48:DP:50:ARG:NH2	2.40	0.55
36:DB:71:C:H2'	36:DB:72:G:H8	1.71	0.55
41:DG:11:TYR:HA	41:DG:15:VAL:CG1	2.37	0.55
41:DG:38:VAL:HG22	41:DG:93:THR:HG23	1.88	0.55
43:DI:123:LEU:HA	43:DI:142:VAL:CG2	2.37	0.55
46:DN:13:TRP:O	46:DN:135:PRO:HD2	2.07	0.55
47:DO:104:ARG:NE	52:DT:33:LYS:HD2	2.21	0.55
48:DP:84:ASN:O	48:DP:87:ASP:HB2	2.07	0.55
49:DQ:4:PRO:HA	49:DQ:93:TYR:CE1	2.41	0.55
50:DR:116:LEU:O	50:DR:117:VAL:HG22	2.07	0.55
52:DT:129:ARG:NH1	52:DT:131:ALA:HB3	2.22	0.55
1:AA:551:U:H5''	1:AA:552:U:OP2	2.07	0.54
1:AA:974:A:N7	14:AN:31:ARG:NH1	2.54	0.54
1:AA:1063:C:H5''	1:AA:1064:G:H2'	1.88	0.54
1:AA:1344:C:H4'	9:AI:120:ARG:HB3	1.88	0.54
1:AA:1516:G:H2'	1:AA:1518:A:OP2	2.07	0.54
4:AD:92:VAL:O	4:AD:96:LEU:N	2.28	0.54
12:AL:37:CYS:SG	12:AL:81:SER:HB2	2.47	0.54
13:AM:11:ARG:O	13:AM:13:LYS:HG2	2.07	0.54
14:AN:22:THR:OG1	14:AN:33:VAL:HG11	2.07	0.54
15:AO:33:THR:O	15:AO:36:ILE:N	2.40	0.54
19:AS:16:LEU:O	19:AS:20:LEU:N	2.39	0.54
26:B1:69:LYS:HE3	35:BA:372:G:OP2	2.06	0.54
27:B2:28:LYS:HD2	27:B2:32:LEU:HD21	1.88	0.54
33:B8:39:LYS:O	33:B8:43:GLN:HG3	2.07	0.54
35:BA:103:A:H2'	35:BA:104:U:N1	2.23	0.54
35:BA:249:C:OP2	35:BA:2394:C:O2'	2.23	0.54
35:BA:1103:A:H3'	35:BA:1104:C:C6	2.42	0.54
35:BA:1420:U:O2'	35:BA:1421:G:OP1	2.23	0.54
35:BA:2291:U:H2'	35:BA:2292:C:C6	2.43	0.54
35:BA:2376:A:C2	35:BA:2377:A:H1'	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:34:VAL:C	38:BD:35:LYS:HD2	2.27	0.54
38:BD:77:ALA:HB2	38:BD:97:TYR:CD1	2.42	0.54
43:BI:56:LYS:C	43:BI:58:LEU:H	2.10	0.54
53:BU:12:ARG:HB2	53:BU:13:LYS:HD3	1.89	0.54
54:BV:72:VAL:CG2	54:BV:88:ARG:HB2	2.37	0.54
55:BW:59:VAL:HG22	55:BW:64:MET:H	1.72	0.54
58:BZ:102:LEU:HD21	58:BZ:124:ILE:HD11	1.89	0.54
1:CA:351:G:H8	1:CA:351:G:OP2	1.90	0.54
1:CA:1120:G:H2'	1:CA:1121:U:C6	2.42	0.54
2:CB:7:VAL:C	2:CB:8:LYS:HD3	2.27	0.54
4:CD:31:CYS:C	4:CD:33:MET:H	2.10	0.54
12:CL:38:THR:HG21	12:CL:65:GLU:OE1	2.07	0.54
35:DA:1003:G:N2	35:DA:1153:C:C2	2.75	0.54
35:DA:1331:A:O2'	35:DA:1332:G:H8	1.90	0.54
35:DA:2564:A:OP1	35:DA:2648:C:H4'	2.07	0.54
35:DA:2718:G:O2'	35:DA:2847:U:OP1	2.25	0.54
36:DB:15:A:H1'	36:DB:110:G:C8	2.42	0.54
39:DE:133:LYS:HB2	39:DE:134:ILE:HG22	1.89	0.54
40:DF:178:PRO:HB3	40:DF:198:ALA:HA	1.88	0.54
41:DG:37:VAL:HG21	41:DG:103:LEU:HD11	1.88	0.54
41:DG:166:ASP:O	41:DG:170:ARG:N	2.40	0.54
50:DR:28:LEU:HD13	50:DR:116:LEU:HD21	1.89	0.54
56:DX:21:PHE:HE1	56:DX:26:TYR:CG	2.25	0.54
1:AA:392:G:H2'	1:AA:393:A:H8	1.72	0.54
1:AA:458:C:N4	1:AA:473:G:H1	1.99	0.54
1:AA:930:C:H2'	1:AA:931:C:O4'	2.06	0.54
1:AA:1208:C:H2'	1:AA:1209:C:C6	2.42	0.54
19:AS:49:ILE:HG22	19:AS:58:VAL:O	2.06	0.54
26:B1:46:LEU:HD11	26:B1:48:LYS:HG2	1.88	0.54
35:BA:2009:G:C2'	35:BA:2010:G:H5'	2.37	0.54
38:BD:30:GLU:HA	38:BD:83:GLU:OE1	2.07	0.54
40:BF:25:PRO:HB3	40:BF:119:ARG:CZ	2.37	0.54
42:BH:12:PRO:HG2	42:BH:49:VAL:HA	1.89	0.54
51:BS:64:GLU:HB2	51:BS:67:ARG:HB2	1.89	0.54
55:BW:18:ARG:NH2	55:BW:22:ASP:OD2	2.41	0.54
1:CA:520:A:H61	1:CA:529:G:H1'	1.71	0.54
1:CA:728:A:H2'	1:CA:729:A:C8	2.42	0.54
1:CA:926:G:H3'	1:CA:1505:G:H21	1.71	0.54
1:CA:1231:G:H5'	9:CI:128:ARG:HD3	1.90	0.54
1:CA:1235:U:H2'	1:CA:1236:A:O4'	2.07	0.54
13:CM:74:VAL:O	13:CM:78:ILE:HG12	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:D2:34:GLU:HG2	27:D2:36:ARG:HB2	1.89	0.54
35:DA:455:C:N3	35:DA:472:A:H2'	2.22	0.54
35:DA:2115:G:N2	35:DA:2117:A:N7	2.56	0.54
39:DE:111:ARG:HD2	39:DE:160:TYR:CE2	2.42	0.54
40:DF:34:TRP:HH2	48:DP:16:ARG:HD3	1.72	0.54
46:DN:16:ILE:HG12	46:DN:140:VAL:HG13	1.87	0.54
46:DN:89:LYS:O	46:DN:93:THR:HG22	2.07	0.54
57:DY:52:SER:O	57:DY:54:LYS:N	2.40	0.54
58:DZ:19:ARG:NH1	58:DZ:82:ARG:HD2	2.22	0.54
1:AA:188:C:N3	1:AA:189:G:N1	2.54	0.54
1:AA:393:A:C2'	1:AA:394:G:H5'	2.36	0.54
1:AA:1148:U:O5'	9:AI:7:THR:HG21	2.07	0.54
8:AH:20:TYR:HD1	8:AH:65:TYR:CE2	2.25	0.54
13:AM:49:THR:OG1	13:AM:52:GLU:HB3	2.06	0.54
13:AM:86:CYS:HB2	13:AM:89:GLY:H	1.73	0.54
24:AX:12:A:H3'	24:AX:12:A:N3	2.22	0.54
26:B1:20:ARG:NH1	26:B1:39:LYS:HA	2.18	0.54
27:B2:26:ARG:HB3	56:BX:5:TYR:CD2	2.41	0.54
31:B6:27:LYS:CD	31:B6:31:PRO:HD2	2.37	0.54
31:B6:42:TRP:CZ2	35:BA:642:G:O3'	2.60	0.54
32:B7:34:ARG:HH11	32:B7:42:LEU:HA	1.72	0.54
35:BA:82:G:O2'	35:BA:83:G:O4'	2.13	0.54
35:BA:83:G:N1	35:BA:102:G:O2'	2.40	0.54
35:BA:460:A:H2'	35:BA:461:C:O4'	2.06	0.54
35:BA:2128:C:N4	35:BA:2160:G:H1	2.05	0.54
35:BA:2536:G:C6	35:BA:2537:U:C4	2.96	0.54
38:BD:137:PRO:O	38:BD:140:THR:HG23	2.07	0.54
38:BD:273:ARG:HH11	38:BD:274:ARG:HA	1.72	0.54
39:BE:111:ARG:HG2	50:BR:3:HIS:CE1	2.42	0.54
40:BF:37:VAL:O	40:BF:40:GLN:HB3	2.08	0.54
43:BI:56:LYS:O	43:BI:58:LEU:N	2.40	0.54
49:BQ:34:LEU:HB2	49:BQ:118:LEU:HD22	1.89	0.54
54:BV:73:SER:O	54:BV:75:PHE:CD2	2.60	0.54
55:BW:80:PRO:O	55:BW:100:THR:HG21	2.07	0.54
58:BZ:101:PRO:HA	58:BZ:123:ASP:HA	1.89	0.54
1:CA:33:A:H2'	1:CA:34:C:C6	2.42	0.54
1:CA:559:A:N3	1:CA:559:A:H2'	2.22	0.54
1:CA:1015:A:N3	1:CA:1218:C:O2'	2.36	0.54
2:CB:93:VAL:HG11	2:CB:97:TRP:HD1	1.72	0.54
3:CC:28:GLN:HG3	3:CC:31:HIS:HB3	1.90	0.54
8:CH:114:THR:HG23	8:CH:116:LYS:H	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:11:LYS:H	9:CI:104:ARG:HH21	1.56	0.54
13:CM:81:LEU:HD13	13:CM:88:ARG:HB3	1.89	0.54
27:D2:17:SER:O	27:D2:17:SER:OG	2.24	0.54
35:DA:1106:G:H4'	35:DA:1107:G:OP1	2.05	0.54
35:DA:2287:A:O2'	35:DA:2288:A:H3'	2.08	0.54
40:DF:67:GLN:O	40:DF:67:GLN:CG	2.55	0.54
40:DF:192:LEU:HD21	40:DF:194:MET:HE3	1.89	0.54
41:DG:76:SER:HB3	41:DG:83:ARG:HA	1.89	0.54
47:DO:14:THR:HG22	47:DO:52:VAL:HG22	1.90	0.54
57:DY:10:GLY:CA	57:DY:27:VAL:HG13	2.37	0.54
58:DZ:80:ARG:HG2	58:DZ:82:ARG:NH1	2.23	0.54
2:AB:142:LEU:CD2	2:AB:142:LEU:HG	2.19	0.54
32:B7:34:ARG:CZ	32:B7:39:ARG:HG3	2.37	0.54
33:B8:59:LYS:HZ1	48:BP:49:ARG:HB2	1.73	0.54
35:BA:614(B):G:C2'	40:BF:44:ARG:NH2	2.70	0.54
35:BA:1047:G:C8	35:BA:1110:G:C6	2.96	0.54
35:BA:1336:A:H2'	35:BA:1337:G:C8	2.43	0.54
35:BA:1847:A:O2'	35:BA:1848:A:H5''	2.07	0.54
35:BA:2473:U:H5'	35:BA:2475:C:H41	1.71	0.54
35:BA:2483:C:C5'	35:BA:2484:G:OP2	2.55	0.54
40:BF:15:SER:HB2	40:BF:17:ARG:HH22	1.72	0.54
41:BG:109:VAL:O	41:BG:113:ARG:HG3	2.07	0.54
48:BP:130:PHE:HB3	48:BP:135:LEU:HD11	1.88	0.54
49:BQ:19:GLY:HA2	49:BQ:98:LYS:HE2	1.89	0.54
52:BT:93:ARG:HH21	52:BT:115:ARG:NH1	2.05	0.54
54:BV:51:VAL:HG12	54:BV:54:GLY:HA2	1.89	0.54
1:CA:407:G:O4'	4:CD:119:GLN:NE2	2.41	0.54
1:CA:959:A:H62	19:CS:78:ARG:NH2	1.99	0.54
1:CA:963:G:H21	10:CJ:54:PHE:HE1	1.55	0.54
1:CA:1140:C:O2'	1:CA:1141:C:H5'	2.08	0.54
2:CB:54:THR:O	2:CB:58:ILE:HG12	2.07	0.54
2:CB:163:PHE:CD1	2:CB:185:ILE:HG13	2.42	0.54
4:CD:25:ARG:O	4:CD:28:SER:HB2	2.07	0.54
4:CD:105:VAL:HG13	4:CD:110:PHE:HB2	1.89	0.54
5:CE:72:GLN:O	5:CE:75:THR:HG22	2.08	0.54
11:CK:19:ALA:HA	11:CK:32:ILE:HA	1.90	0.54
11:CK:91:ARG:O	11:CK:95:ILE:HG13	2.07	0.54
22:CV:23:C:H2'	22:CV:24:U:C6	2.42	0.54
23:CW:72:C:H2'	23:CW:73:A:O4'	2.06	0.54
27:D2:29:LYS:O	27:D2:32:LEU:N	2.40	0.54
33:D8:25:MET:HG2	48:DP:64:LYS:HB2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1433:U:H6	35:DA:1433:U:H5''	1.71	0.54
35:DA:1827:C:OP2	38:DD:222:ARG:NH1	2.40	0.54
35:DA:2252:G:H2'	35:DA:2253:G:O4'	2.08	0.54
39:DE:76:ARG:HG2	39:DE:195:LEU:HD22	1.88	0.54
49:DQ:37:LEU:HB2	49:DQ:128:LYS:CB	2.33	0.54
52:DT:28:VAL:HG12	52:DT:86:ILE:HG13	1.88	0.54
54:DV:75:PHE:CD2	54:DV:76:LYS:N	2.76	0.54
1:AA:79:G:HO2'	1:AA:80:G:P	2.31	0.54
1:AA:159:G:H1'	1:AA:160:A:C8	2.43	0.54
1:AA:271:C:H2'	1:AA:272:C:C6	2.43	0.54
1:AA:953:G:C6	1:AA:954:G:C5	2.95	0.54
1:AA:1128:C:H2'	1:AA:1129:C:C4'	2.38	0.54
26:B1:13:ILE:CG1	26:B1:14:VAL:N	2.70	0.54
31:B6:8:LYS:CG	31:B6:29:ASN:HD21	2.19	0.54
33:B8:34:TRP:HZ2	33:B8:36:LYS:HD2	1.73	0.54
33:B8:48:PHE:HZ	35:BA:650:C:C5'	2.20	0.54
35:BA:581:C:H5''	53:BU:32:PHE:HD1	1.73	0.54
35:BA:2094:G:OP1	43:BI:22:LYS:HD3	2.06	0.54
35:BA:2689:U:H5''	35:BA:2690:C:H5'	1.88	0.54
38:BD:138:VAL:CG1	38:BD:168:ARG:HE	2.20	0.54
43:BI:68:LEU:O	43:BI:70:GLU:N	2.40	0.54
47:BO:22:ILE:HG12	47:BO:42:SER:N	2.22	0.54
52:BT:29:ARG:HG2	52:BT:84:GLN:HG3	1.89	0.54
52:BT:77:PRO:HG2	52:BT:81:PRO:HG3	1.90	0.54
58:BZ:40:ASP:OD2	58:BZ:42:VAL:HG22	2.06	0.54
1:CA:186:C:H2'	1:CA:187:C:C6	2.41	0.54
1:CA:254:G:H5''	17:CQ:69:LYS:CE	2.38	0.54
1:CA:376:G:OP1	16:CP:5:ARG:HB2	2.07	0.54
2:CB:7:VAL:N	2:CB:8:LYS:HD3	2.23	0.54
2:CB:73:THR:HB	2:CB:96:ARG:HH22	1.73	0.54
2:CB:188:ALA:HB3	2:CB:202:PRO:HA	1.90	0.54
3:CC:70:VAL:HG12	3:CC:72:LYS:N	2.09	0.54
4:CD:9:CYS:SG	4:CD:22:LYS:HD2	2.48	0.54
13:CM:70:LEU:O	13:CM:74:VAL:HG23	2.08	0.54
26:D1:37:ILE:HG21	35:DA:2080:G:O5'	2.07	0.54
35:DA:171:G:O2'	35:DA:172:C:OP1	2.25	0.54
35:DA:454:A:H4'	35:DA:455:C:OP2	2.05	0.54
35:DA:2024:G:H2'	35:DA:2025:C:C6	2.43	0.54
35:DA:2190:G:H2'	35:DA:2191:G:C8	2.37	0.54
35:DA:2293:C:H5''	51:DS:93:LYS:HD2	1.88	0.54
39:DE:75:VAL:O	39:DE:77:ILE:N	2.30	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DF:25:PRO:CG	40:DF:119:ARG:HB2	2.36	0.54
42:DH:70:THR:HG22	42:DH:71:LEU:H	1.71	0.54
57:DY:6:HIS:HB2	57:DY:7:VAL:HG23	1.89	0.54
1:AA:130:A:O2'	1:AA:131:C:O5'	2.17	0.54
1:AA:959:A:O2'	1:AA:984:C:O2'	2.23	0.54
1:AA:964:A:O3'	10:AJ:55:LYS:NZ	2.36	0.54
11:AK:91:ARG:HG3	11:AK:92:GLU:N	2.23	0.54
12:AL:110:VAL:HG12	12:AL:120:TYR:O	2.08	0.54
15:AO:71:GLN:HB2	15:AO:78:TYR:CE1	2.43	0.54
28:B3:26:LEU:HD21	28:B3:46:ASN:HB2	1.88	0.54
35:BA:35:G:H1'	35:BA:454:A:N3	2.23	0.54
35:BA:247:G:H4'	35:BA:386:G:C5	2.42	0.54
35:BA:307:G:H21	35:BA:330:A:H62	1.56	0.54
35:BA:529:A:H62	35:BA:2041:U:H3	1.55	0.54
35:BA:1258:C:H5''	35:BA:1258:C:C6	2.43	0.54
35:BA:1405:U:H2'	35:BA:1406:U:C6	2.43	0.54
35:BA:2612:C:H2'	35:BA:2613:U:C5'	2.38	0.54
37:BC:51:PRO:HB3	37:BC:204:ALA:H	1.72	0.54
42:BH:169:VAL:HG22	42:BH:170:ARG:H	1.73	0.54
1:CA:813:U:H5''	1:CA:903:G:O3'	2.08	0.54
1:CA:1512:U:H3	1:CA:1523:G:H1	1.55	0.54
2:CB:97:TRP:HH2	2:CB:176:GLU:OE2	1.90	0.54
13:CM:12:ASN:H	13:CM:45:VAL:HB	1.72	0.54
14:CN:13:THR:N	14:CN:14:PRO:HD2	2.23	0.54
27:D2:23:LYS:HD2	56:DX:5:TYR:CZ	2.43	0.54
35:DA:943:U:OP2	48:DP:38:GLN:CD	2.46	0.54
35:DA:1532:C:O2'	35:DA:1533:G:N2	2.41	0.54
35:DA:2287:A:N6	35:DA:2344:U:H3	2.06	0.54
43:DI:65:ALA:HB1	43:DI:132:PRO:HG2	1.90	0.54
46:DN:96:GLU:HB2	46:DN:122:VAL:HG12	1.89	0.54
48:DP:75:ILE:HD12	48:DP:77:ARG:HH22	1.70	0.54
53:DU:109:LEU:HA	53:DU:112:ARG:HB2	1.90	0.54
1:AA:280:C:H5	17:AQ:39:SER:N	2.04	0.54
1:AA:374:A:OP1	1:AA:452:A:N6	2.33	0.54
1:AA:562:C:H1'	12:AL:15:ARG:HG3	1.89	0.54
1:AA:951:G:N1	1:AA:1231:G:C6	2.76	0.54
1:AA:1346:A:C4	7:AG:10:ARG:NH1	2.75	0.54
1:AA:1496:C:H2'	1:AA:1497:G:O4'	2.07	0.54
4:AD:159:ARG:HA	4:AD:162:LEU:HD23	1.89	0.54
12:AL:32:PHE:HE1	12:AL:86:ARG:HG3	1.71	0.54
15:AO:70:LEU:HD11	15:AO:77:ARG:HG2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AU:2:GLY:C	21:AU:4:GLY:H	2.04	0.54
27:B2:45:SER:C	27:B2:49:LYS:HG2	2.28	0.54
35:BA:81:G:H2'	35:BA:81:G:N3	2.22	0.54
35:BA:363:G:C8	35:BA:363(A):A:C2	2.95	0.54
35:BA:442:G:N2	40:BF:48:THR:HB	2.22	0.54
35:BA:678:C:H2'	35:BA:679:C:C6	2.43	0.54
35:BA:1097:U:H2'	35:BA:1098:A:H8	1.72	0.54
43:BI:79:ILE:O	43:BI:142:VAL:HA	2.08	0.54
51:BS:77:ALA:O	51:BS:80:LEU:N	2.38	0.54
56:BX:37:THR:HG22	56:BX:39:ILE:HB	1.89	0.54
1:CA:88:A:H5'	1:CA:90:U:C2	2.42	0.54
1:CA:328:C:H2'	1:CA:328:C:O2	2.07	0.54
1:CA:584:G:H5'	17:CQ:91:ARG:HH12	1.72	0.54
1:CA:892:A:H2'	1:CA:893:C:C6	2.43	0.54
1:CA:1117:G:O3'	9:CI:104:ARG:HG2	2.08	0.54
1:CA:1369:C:H2'	1:CA:1370:G:C8	2.43	0.54
2:CB:103:THR:OG1	2:CB:176:GLU:HB3	2.07	0.54
3:CC:6:HIS:HD2	3:CC:8:ILE:H	1.55	0.54
12:CL:59:ARG:CZ	12:CL:63:GLY:HA2	2.37	0.54
13:CM:47:ASP:OD1	13:CM:47:ASP:N	2.40	0.54
35:DA:579:G:H2'	35:DA:580:C:H6	1.72	0.54
35:DA:687:C:H42	35:DA:787:U:H4'	1.73	0.54
35:DA:690:G:H2'	35:DA:691:C:C6	2.42	0.54
35:DA:1171:G:H1	35:DA:1178:C:H42	1.56	0.54
35:DA:1257:C:H4'	40:DF:83:PHE:CE1	2.43	0.54
35:DA:2107:C:H42	35:DA:2182:G:H1	1.55	0.54
35:DA:2244:U:H2'	35:DA:2245:U:O4'	2.08	0.54
35:DA:2266:A:H4'	35:DA:2267:A:C4	2.43	0.54
36:DB:102:A:H2'	36:DB:103:G:O4'	2.07	0.54
42:DH:9:ILE:HG12	42:DH:69:ARG:HH21	1.69	0.54
52:DT:74:ARG:HB3	52:DT:76:PHE:CZ	2.42	0.54
57:DY:7:VAL:CG1	57:DY:8:LYS:HE3	2.30	0.54
1:AA:643:C:OP1	8:AH:30:ARG:NH2	2.39	0.54
1:AA:1224:G:H1	1:AA:1363:C:H42	1.54	0.54
4:AD:8:VAL:O	4:AD:10:ARG:N	2.40	0.54
17:AQ:59:ILE:HG22	17:AQ:71:PHE:HB3	1.90	0.54
18:AR:61:LYS:O	18:AR:65:ILE:HG12	2.08	0.54
25:B0:72:ARG:HB2	25:B0:75:LEU:HB2	1.89	0.54
35:BA:228:A:H2'	35:BA:230:U:O4'	2.07	0.54
35:BA:328:U:H4'	57:BY:68:HIS:ND1	2.23	0.54
35:BA:892:G:H2'	35:BA:893:C:C5'	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1277:G:O2'	50:BR:24:GLN:OE1	2.20	0.54
39:BE:8:LYS:HD2	39:BE:188:VAL:HG13	1.90	0.54
46:BN:20:GLY:CA	46:BN:61:ARG:HE	2.20	0.54
47:BO:22:ILE:HG12	47:BO:41:ALA:HA	1.90	0.54
48:BP:114:ILE:HD11	48:BP:130:PHE:CD2	2.43	0.54
48:BP:132:LYS:O	48:BP:135:LEU:N	2.34	0.54
49:BQ:31:ASP:N	49:BQ:106:VAL:O	2.37	0.54
1:CA:9:G:C6	1:CA:26:A:N6	2.76	0.54
1:CA:176:C:OP1	20:CT:29:LYS:NZ	2.40	0.54
1:CA:371:G:O2'	1:CA:373:A:N7	2.39	0.54
1:CA:686:U:O4	1:CA:703:G:H1'	2.06	0.54
1:CA:918:A:H2'	1:CA:919:A:C8	2.43	0.54
10:CJ:62:HIS:HB3	14:CN:59:ALA:HB3	1.89	0.54
12:CL:21:LYS:HD3	12:CL:21:LYS:H	1.73	0.54
31:D6:41:PRO:HD2	31:D6:45:LYS:HA	1.89	0.54
35:DA:1190:G:H5''	35:DA:1190:G:C8	2.43	0.54
35:DA:1669:A:H2'	35:DA:1670:C:H5'	1.90	0.54
35:DA:2029:G:H2'	35:DA:2031:A:OP1	2.08	0.54
37:DC:124:GLY:O	37:DC:126:LYS:N	2.40	0.54
53:DU:93:LYS:HA	53:DU:96:ALA:HB3	1.89	0.54
1:AA:11:G:O2'	1:AA:506:G:N2	2.41	0.54
1:AA:515:G:H2'	1:AA:516:U:O4'	2.07	0.54
1:AA:792:A:H4'	1:AA:793:U:O5'	2.08	0.54
8:AH:4:ASP:OD1	8:AH:7:ALA:HB3	2.06	0.54
16:AP:28:ARG:HG2	16:AP:29:ASP:OD1	2.07	0.54
19:AS:72:GLY:HA2	19:AS:75:ALA:HB3	1.89	0.54
26:B1:17:SER:N	26:B1:44:PRO:HG3	2.23	0.54
27:B2:53:LEU:HD13	27:B2:54:LYS:HD2	1.90	0.54
35:BA:2012:G:H4'	55:BW:96:ILE:CD1	2.33	0.54
35:BA:2298:A:H2'	35:BA:2299:G:O4'	2.07	0.54
50:BR:86:ARG:HG2	50:BR:117:VAL:HG21	1.90	0.54
1:CA:406:G:H2'	1:CA:407:G:H8	1.73	0.54
1:CA:448:A:OP2	1:CA:485:G:N2	2.34	0.54
2:CB:195:ASP:O	8:CH:68:ARG:NH2	2.33	0.54
33:D8:31:HIS:HB3	35:DA:2420:C:H41	1.73	0.54
35:DA:363(B):G:H2'	35:DA:363(C):G:C8	2.43	0.54
35:DA:625:G:N7	48:DP:107:LYS:NZ	2.55	0.54
35:DA:1533:G:N3	35:DA:1533:G:OP2	2.41	0.54
35:DA:1916:A:C8	35:DA:1916:A:H5''	2.42	0.54
35:DA:2464:C:HO2'	35:DA:2465:C:P	2.31	0.54
37:DC:72:VAL:O	37:DC:74:VAL:N	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:DU:93:LYS:HD3	53:DU:93:LYS:H	1.72	0.54
1:AA:8:A:N6	4:AD:206:PHE:H	2.05	0.54
1:AA:78:G:O2'	1:AA:79:G:OP2	2.24	0.54
1:AA:262:A:C5'	20:AT:74:LYS:HD3	2.36	0.54
1:AA:782:A:C6	1:AA:801:U:C2	2.96	0.54
1:AA:791:G:C6	1:AA:792:A:N7	2.75	0.54
1:AA:1124:G:N2	1:AA:1126:U:OP1	2.39	0.54
1:AA:1148:U:H3'	1:AA:1149:C:C6	2.43	0.54
3:AC:47:LEU:HD12	3:AC:83:ARG:HH21	1.74	0.54
11:AK:48:ILE:HD12	11:AK:48:ILE:H	1.72	0.54
17:AQ:29:HIS:O	17:AQ:33:GLY:N	2.37	0.54
17:AQ:59:ILE:HG21	17:AQ:71:PHE:HB3	1.90	0.54
23:AY:39:U:O2	23:AY:39:U:H2'	2.07	0.54
25:B0:53:MET:HG3	25:B0:54:GLY:H	1.73	0.54
25:B0:66:VAL:HG12	25:B0:67:VAL:H	1.72	0.54
26:B1:85:LEU:HD13	26:B1:87:PRO:HB3	1.90	0.54
29:B4:6:HIS:CB	41:BG:67:LYS:HE3	2.38	0.54
30:B5:3:LYS:HD3	30:B5:4:HIS:N	2.22	0.54
33:B8:8:LYS:NZ	35:BA:243:U:OP2	2.28	0.54
35:BA:35:G:O2'	35:BA:454:A:O4'	2.19	0.54
35:BA:134:C:H42	35:BA:144:C:N4	2.05	0.54
35:BA:1421:G:C2	35:BA:1422:G:C8	2.95	0.54
35:BA:2121:G:H2'	35:BA:2122:U:C6	2.43	0.54
35:BA:2364:C:H2'	35:BA:2365:G:O4'	2.08	0.54
35:BA:2661:G:C8	35:BA:2662:A:C6	2.96	0.54
41:BG:25:TYR:CZ	41:BG:32:PRO:HD3	2.43	0.54
46:BN:36:GLY:O	46:BN:38:HIS:N	2.40	0.54
48:BP:7:ARG:HA	48:BP:7:ARG:HE	1.72	0.54
50:BR:56:LYS:HE2	50:BR:91:GLN:HA	1.90	0.54
55:BW:84:ARG:NH2	55:BW:85:VAL:HG22	2.22	0.54
58:BZ:5:LEU:O	58:BZ:59:LEU:HA	2.08	0.54
58:BZ:128:VAL:CG2	58:BZ:132:ASN:HB2	2.38	0.54
1:CA:69:G:N1	1:CA:70:G:O6	2.41	0.54
1:CA:129(A):G:N3	1:CA:189(F):U:H5'	2.23	0.54
1:CA:880:C:OP1	12:CL:8:ASN:ND2	2.41	0.54
1:CA:924:C:H5'	1:CA:1399:C:OP2	2.08	0.54
2:CB:231:GLU:HB3	2:CB:232:PRO:CD	2.35	0.54
7:CG:95:ARG:O	7:CG:99:LEU:HD22	2.08	0.54
7:CG:146:GLU:C	7:CG:148:ASN:H	2.11	0.54
18:CR:40:LEU:HA	18:CR:43:PHE:HD2	1.73	0.54
25:D0:40:GLN:OE1	25:D0:44:ARG:N	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D1:32:LYS:HD3	35:DA:2396:G:O2'	2.08	0.54
26:D1:40:ARG:CG	35:DA:2081:C:H5''	2.35	0.54
31:D6:8:LYS:HD3	31:D6:25:LYS:HE2	1.90	0.54
35:DA:24:G:O2'	55:DW:78:GLU:O	2.26	0.54
35:DA:1257:C:O2'	40:DF:83:PHE:O	2.25	0.54
35:DA:1427:A:H4'	35:DA:1428:C:O5'	2.08	0.54
35:DA:1916:A:H5'	35:DA:1917:U:OP2	2.07	0.54
38:DD:20:ASP:OD1	38:DD:20:ASP:C	2.44	0.54
39:DE:61:ARG:H	39:DE:62:PRO:CD	2.19	0.54
41:DG:55:LYS:NZ	41:DG:148:MET:HB3	2.23	0.54
46:DN:1:MET:HA	53:DU:95:LEU:HD11	1.89	0.54
52:DT:61:PHE:CE1	52:DT:76:PHE:HB2	2.43	0.54
1:AA:159:G:H2'	1:AA:344:A:C5	2.42	0.53
1:AA:426:G:OP1	4:AD:38:TYR:OH	2.21	0.53
1:AA:1429:C:H2'	1:AA:1430:C:H6	1.73	0.53
4:AD:72:GLU:O	4:AD:76:ARG:N	2.36	0.53
5:AE:100:VAL:HA	5:AE:118:ILE:HG22	1.91	0.53
28:B3:5:LYS:O	28:B3:56:VAL:HA	2.07	0.53
33:B8:33:ASN:HD21	33:B8:41:ILE:HD12	1.72	0.53
35:BA:252:G:O2'	35:BA:253:C:H5'	2.08	0.53
35:BA:719:C:O2'	35:BA:720:C:H5'	2.07	0.53
35:BA:827:U:H2'	35:BA:2430:A:H2	1.73	0.53
35:BA:1818:U:O2'	38:BD:155:LEU:HA	2.07	0.53
50:BR:104:ARG:HG3	50:BR:109:ALA:HB3	1.91	0.53
51:BS:97:ARG:N	51:BS:97:ARG:HD3	2.22	0.53
56:BX:57:LEU:O	56:BX:75:ASP:HA	2.07	0.53
58:BZ:94:GLU:O	58:BZ:130:PRO:HD3	2.08	0.53
1:CA:105:G:H2'	1:CA:106:C:C6	2.44	0.53
1:CA:509:A:H3'	1:CA:509:A:C8	2.43	0.53
1:CA:1306:A:H61	1:CA:1331:G:H1'	1.73	0.53
4:CD:128:VAL:HG22	4:CD:133:VAL:HG21	1.90	0.53
8:CH:9:MET:O	8:CH:12:ARG:N	2.41	0.53
10:CJ:45:ARG:HB2	10:CJ:45:ARG:NH1	2.23	0.53
11:CK:51:LYS:HZ3	11:CK:55:LYS:HZ3	1.57	0.53
25:D0:41:ARG:HH11	35:DA:2330:G:H4'	1.72	0.53
26:D1:21:ARG:HB2	26:D1:40:ARG:HH11	1.72	0.53
35:DA:1329:U:H5''	35:DA:1330:C:C5	2.42	0.53
35:DA:1386:C:H2'	35:DA:1387:C:H6	1.72	0.53
35:DA:1835:G:H2'	35:DA:1835:G:N3	2.22	0.53
42:DH:155:SER:HB3	42:DH:158:HIS:O	2.08	0.53
47:DO:11:ALA:O	47:DO:98:VAL:HA	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DQ:22:LYS:NZ	49:DQ:101:ARG:HD3	2.23	0.53
56:DX:44:GLU:HB3	56:DX:51:VAL:HG23	1.89	0.53
1:AA:1030(E):A:O2'	1:AA:1032:G:N2	2.40	0.53
1:AA:1152:A:H2'	1:AA:1153:C:C6	2.43	0.53
1:AA:1190:G:H3'	3:AC:3:ASN:OD1	2.08	0.53
2:AB:74:LYS:CE	2:AB:206:ASP:HA	2.38	0.53
2:AB:74:LYS:O	2:AB:76:GLN:N	2.41	0.53
3:AC:144:SER:O	3:AC:144:SER:OG	2.22	0.53
4:AD:9:CYS:CB	4:AD:32:ALA:HB2	2.23	0.53
12:AL:70:ILE:HG12	12:AL:100:ILE:HD12	1.91	0.53
18:AR:52:PRO:O	18:AR:56:THR:HG23	2.07	0.53
35:BA:8:A:H2'	35:BA:9:U:C5	2.44	0.53
35:BA:79:G:H1	35:BA:107:C:H42	1.55	0.53
35:BA:507:A:H5''	35:BA:508:G:H5'	1.89	0.53
35:BA:614(B):G:N9	40:BF:44:ARG:NH2	2.46	0.53
35:BA:2376:A:N6	51:BS:89:ARG:CZ	2.71	0.53
35:BA:2790:A:H1'	35:BA:2893:G:N2	2.23	0.53
35:BA:2808:U:H5'	35:BA:2809:A:OP2	2.08	0.53
42:BH:85:LYS:HB3	42:BH:133:VAL:O	2.08	0.53
47:BO:68:GLU:CB	47:BO:78:ARG:HB2	2.37	0.53
53:BU:55:ARG:HH11	53:BU:55:ARG:HB3	1.73	0.53
53:BU:110:VAL:HG12	53:BU:114:LYS:NZ	2.23	0.53
54:BV:56:SER:O	54:BV:56:SER:OG	2.22	0.53
1:CA:6:G:O2'	1:CA:7:G:O5'	2.25	0.53
1:CA:1169:A:H2'	1:CA:1170:A:H8	1.72	0.53
23:CW:23:A:H5''	23:CW:24:G:OP2	2.08	0.53
35:DA:922:U:H2'	35:DA:923:C:C6	2.43	0.53
35:DA:1266:G:O5'	55:DW:15:ARG:NH2	2.41	0.53
35:DA:1278:A:H61	35:DA:1292:U:H3	1.55	0.53
35:DA:2104:G:H8	35:DA:2186:G:H22	1.56	0.53
35:DA:2334:G:H1'	51:DS:18:ILE:HD11	1.90	0.53
35:DA:2415:G:H4'	48:DP:67:MET:N	2.16	0.53
35:DA:2422:A:H4'	35:DA:2423:U:OP1	2.08	0.53
35:DA:2693:A:H2'	35:DA:2694:G:H8	1.73	0.53
41:DG:139:LEU:HD11	41:DG:149:VAL:HB	1.89	0.53
42:DH:89:ILE:HG22	42:DH:162:ILE:HG22	1.90	0.53
42:DH:102:ALA:HA	42:DH:117:PRO:HD3	1.89	0.53
43:DI:5:LEU:CD1	43:DI:13:GLY:HA3	2.38	0.53
50:DR:18:LEU:HD11	50:DR:22:ARG:CZ	2.38	0.53
53:DU:61:TRP:CH2	53:DU:94:ASN:HB3	2.42	0.53
1:AA:616:G:C2	1:AA:617:G:C8	2.97	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1466:C:H2'	1:AA:1467:G:O4'	2.08	0.53
2:AB:9:GLU:HG3	2:AB:10:LEU:N	2.22	0.53
2:AB:164:VAL:O	2:AB:186:ALA:HB1	2.09	0.53
4:AD:18:LYS:HG3	4:AD:31:CYS:CB	2.38	0.53
5:AE:59:GLY:O	5:AE:63:ARG:HG2	2.08	0.53
8:AH:94:TYR:CE1	8:AH:132:GLU:HB2	2.44	0.53
9:AI:28:VAL:HA	9:AI:63:ILE:O	2.09	0.53
11:AK:89:ALA:O	11:AK:91:ARG:N	2.41	0.53
12:AL:27:LEU:HD11	12:AL:60:LEU:CB	2.38	0.53
31:B6:8:LYS:CB	31:B6:29:ASN:HD21	2.21	0.53
35:BA:26:G:H1'	35:BA:515:A:H61	1.73	0.53
35:BA:567:A:H2'	35:BA:568:U:O4'	2.08	0.53
35:BA:1167:U:H3	35:BA:1182:A:N6	2.05	0.53
35:BA:1827:C:OP2	38:BD:222:ARG:HD3	2.09	0.53
38:BD:228:PRO:CD	38:BD:235:GLY:HA2	2.38	0.53
43:BI:29:TYR:C	43:BI:32:PRO:HD2	2.28	0.53
43:BI:77:LEU:HD21	43:BI:101:LEU:CD1	2.38	0.53
48:BP:95:VAL:CG1	48:BP:100:LEU:HD21	2.37	0.53
52:BT:102:ILE:HB	52:BT:110:ILE:HG13	1.90	0.53
54:BV:52:VAL:O	54:BV:54:GLY:N	2.42	0.53
1:CA:14:U:N3	1:CA:17:U:OP2	2.32	0.53
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.44	0.53
1:CA:1447:A:N3	1:CA:1447:A:H2'	2.23	0.53
2:CB:92:TYR:HE1	2:CB:94:ASN:HB2	1.73	0.53
3:CC:56:ASP:O	3:CC:57:ILE:HD12	2.09	0.53
10:CJ:26:ALA:HA	10:CJ:29:ARG:NH2	2.24	0.53
27:D2:46:GLN:OE1	27:D2:50:ILE:HG12	2.09	0.53
32:D7:10:ARG:HG3	35:DA:125:G:C6	2.43	0.53
35:DA:142:A:C8	35:DA:1408:C:H1'	2.43	0.53
35:DA:221:A:H4'	35:DA:222:A:O5'	2.08	0.53
35:DA:1276:A:O2'	50:DR:12:ARG:NH1	2.41	0.53
35:DA:2762:G:H5'	35:DA:2763:G:OP2	2.08	0.53
37:DC:22:ILE:HG22	37:DC:25:ALA:HB2	1.88	0.53
37:DC:44:HIS:CE1	37:DC:175:VAL:H	2.26	0.53
42:DH:22:GLY:HA2	42:DH:37:VAL:H	1.72	0.53
48:DP:27:HIS:NE2	48:DP:28:GLY:HA3	2.22	0.53
51:DS:56:LEU:HD23	51:DS:58:LEU:HD21	1.90	0.53
52:DT:45:PHE:HD2	52:DT:76:PHE:CZ	2.22	0.53
56:DX:84:ALA:HB3	56:DX:85:PRO:HD3	1.90	0.53
1:AA:458:C:C6	1:AA:460:G:C8	2.97	0.53
1:AA:575:G:O2'	1:AA:821:G:H5'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:82:ARG:HG3	2:AB:92:TYR:CE2	2.43	0.53
4:AD:12:CYS:SG	4:AD:31:CYS:SG	3.06	0.53
19:AS:36:ARG:HD3	19:AS:72:GLY:CA	2.37	0.53
35:BA:89:G:N2	35:BA:90:U:O4'	2.40	0.53
35:BA:485:C:N4	35:BA:495:G:H1	2.05	0.53
35:BA:631:A:H2'	35:BA:632:A:O4'	2.07	0.53
35:BA:1277:G:H5''	50:BR:40:LYS:HZ3	1.74	0.53
35:BA:2419:U:H2'	35:BA:2420:C:C6	2.43	0.53
37:BC:64:LEU:HB2	37:BC:162:GLU:CB	2.38	0.53
37:BC:66:HIS:HE2	37:BC:186:ALA:HB1	1.74	0.53
52:BT:11:GLU:O	52:BT:13:ARG:N	2.38	0.53
53:BU:49:HIS:CA	53:BU:52:ARG:HB2	2.33	0.53
53:BU:102:GLU:HB3	54:BV:43:GLU:CG	2.39	0.53
58:BZ:54:HIS:HD2	58:BZ:101:PRO:HG2	1.74	0.53
1:CA:8:A:C6	4:CD:209:ARG:HB2	2.43	0.53
1:CA:36:C:O2'	12:CL:117:ARG:NH2	2.39	0.53
1:CA:59:A:H1'	1:CA:354:G:N2	2.23	0.53
1:CA:176:C:H1'	1:CA:1447:A:H61	1.73	0.53
1:CA:262:A:C6	1:CA:263:A:C6	2.96	0.53
1:CA:436:C:O2'	1:CA:437:U:P	2.66	0.53
1:CA:665:A:H1'	1:CA:733:A:O4'	2.09	0.53
1:CA:1321:C:H5'	1:CA:1322:C:H5''	1.90	0.53
6:CF:39:LYS:O	6:CF:40:VAL:HB	2.08	0.53
27:D2:55:ARG:O	27:D2:55:ARG:HD2	2.07	0.53
35:DA:722:A:C2	35:DA:723:G:C4	2.96	0.53
35:DA:1946:U:O2'	35:DA:1947:C:H5'	2.08	0.53
35:DA:2524:G:H8	35:DA:2524:G:H5'	1.72	0.53
36:DB:89:G:H2'	36:DB:90:A:N7	2.24	0.53
38:DD:145:VAL:HG12	38:DD:146:GLU:O	2.09	0.53
40:DF:51:THR:O	40:DF:93:LYS:NZ	2.41	0.53
43:DI:62:LYS:O	43:DI:66:GLU:HB2	2.08	0.53
48:DP:33:ARG:O	48:DP:35:HIS:N	2.41	0.53
56:DX:58:HIS:HA	56:DX:75:ASP:HA	1.89	0.53
56:DX:77:LYS:HD3	56:DX:78:LYS:C	2.29	0.53
1:AA:472:A:O2'	16:AP:81:ARG:HA	2.08	0.53
1:AA:1015:A:N3	1:AA:1218:C:O2'	2.36	0.53
6:AF:97:PHE:HB2	18:AR:32:ARG:NH1	2.24	0.53
12:AL:27:LEU:HD23	12:AL:27:LEU:N	2.21	0.53
15:AO:4:THR:H	15:AO:7:GLU:HB2	1.74	0.53
22:AV:17:C:H3'	22:AV:18:U:H5''	1.91	0.53
26:B1:32:LYS:HZ2	26:B1:33:LYS:HG3	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:B1:46:LEU:C	26:B1:46:LEU:HD12	2.29	0.53
32:B7:30:VAL:O	32:B7:34:ARG:HG3	2.08	0.53
35:BA:1146:C:H5'	35:BA:1147:C:OP2	2.08	0.53
35:BA:1448:G:H21	35:BA:1544:A:N6	2.06	0.53
35:BA:1787:A:O4'	35:BA:2589:A:H4'	2.09	0.53
43:BI:123:LEU:HD22	43:BI:143:SER:HA	1.90	0.53
51:BS:21:THR:OG1	51:BS:22:GLY:N	2.41	0.53
54:BV:36:PRO:HD2	54:BV:60:GLU:N	2.23	0.53
1:CA:143:A:H2	1:CA:220:G:H1	1.55	0.53
2:CB:165:VAL:HA	2:CB:187:LEU:HD21	1.89	0.53
12:CL:59:ARG:HG2	12:CL:65:GLU:HG2	1.89	0.53
20:CT:89:ARG:HD2	20:CT:104:LEU:HD21	1.90	0.53
23:CW:6:G:H1'	23:CW:68:C:N4	2.24	0.53
35:DA:634:C:H2'	35:DA:635:C:H6	1.74	0.53
35:DA:1575:C:H2'	35:DA:1576:U:O4'	2.08	0.53
35:DA:2692:C:OP1	35:DA:2871:C:H5'	2.09	0.53
38:DD:142:VAL:O	38:DD:163:ALA:N	2.36	0.53
38:DD:201:HIS:O	38:DD:204:ILE:HG13	2.08	0.53
46:DN:33:LEU:HD12	46:DN:38:HIS:ND1	2.24	0.53
51:DS:89:ARG:HG3	51:DS:92:TYR:O	2.08	0.53
54:DV:43:GLU:HA	54:DV:46:VAL:O	2.07	0.53
54:DV:67:GLY:O	54:DV:93:GLU:HG2	2.08	0.53
56:DX:36:LYS:C	56:DX:38:GLU:H	2.12	0.53
56:DX:54:VAL:CG1	56:DX:77:LYS:HG3	2.37	0.53
1:AA:9:G:H2'	1:AA:10:A:H8	1.73	0.53
1:AA:303:A:H2'	1:AA:304:U:O4'	2.09	0.53
1:AA:323:U:O3'	20:AT:22:ARG:HD3	2.09	0.53
1:AA:819:A:H4'	1:AA:820:U:OP2	2.09	0.53
1:AA:1233:G:OP2	9:AI:124:GLN:HG3	2.08	0.53
2:AB:12:GLU:O	2:AB:16:HIS:NE2	2.41	0.53
16:AP:21:VAL:HG11	16:AP:59:TRP:CG	2.44	0.53
35:BA:1021:A:H3'	35:BA:1021:A:C8	2.44	0.53
35:BA:1022:G:P	46:BN:69:GLN:HE22	2.32	0.53
35:BA:1213:A:H2'	35:BA:1214:A:C8	2.44	0.53
35:BA:1628:G:H1	35:BA:1638:C:H41	1.56	0.53
35:BA:2287:A:H2	35:BA:2346:A:N1	2.07	0.53
35:BA:2302:G:N1	35:BA:2303:G:C5	2.76	0.53
36:BB:45:A:H1'	41:BG:95:ARG:NH2	2.24	0.53
38:BD:145:VAL:HG11	38:BD:175:LEU:HD11	1.90	0.53
39:BE:174:ASP:O	39:BE:183:LEU:HB2	2.09	0.53
46:BN:43:THR:H	46:BN:48:MET:CE	2.21	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BP:33:ARG:HD3	48:BP:36:LYS:CE	2.38	0.53
50:BR:27:SER:OG	50:BR:29:LEU:HD12	2.09	0.53
57:BY:6:HIS:O	57:BY:8:LYS:N	2.39	0.53
58:BZ:128:VAL:HG11	58:BZ:134:PRO:HD2	1.90	0.53
1:CA:187:C:H2'	1:CA:188:C:C6	2.43	0.53
1:CA:854:G:H3'	1:CA:871:U:O4	2.08	0.53
2:CB:117:GLU:O	2:CB:121:LEU:HD12	2.08	0.53
9:CI:49:PRO:HA	9:CI:95:LYS:NZ	2.23	0.53
21:CU:23:PRO:HG2	21:CU:24:ARG:NH2	2.24	0.53
35:DA:1212:G:O2'	35:DA:1213:A:OP2	2.25	0.53
35:DA:1490:A:H2	38:DD:75:ILE:HD13	1.74	0.53
35:DA:1819:A:OP1	38:DD:156:ALA:HA	2.08	0.53
35:DA:2771:C:H2'	35:DA:2772:C:C6	2.44	0.53
39:DE:38:THR:HG22	39:DE:40:GLU:H	1.73	0.53
40:DF:3:GLU:OE1	40:DF:19:GLU:HB2	2.08	0.53
43:DI:3:VAL:HG23	43:DI:19:VAL:HG23	1.90	0.53
52:DT:12:SER:O	52:DT:15:VAL:HG13	2.08	0.53
53:DU:47:TYR:HA	53:DU:50:ARG:CZ	2.39	0.53
1:AA:652:U:HO2'	1:AA:752:G:H1	1.56	0.53
1:AA:790:A:H2'	1:AA:791:G:C8	2.43	0.53
1:AA:1289:A:N3	1:AA:1289:A:H2'	2.24	0.53
3:AC:29:TYR:OH	14:AN:54:PRO:HD2	2.09	0.53
8:AH:4:ASP:OD1	8:AH:7:ALA:N	2.42	0.53
14:AN:4:LYS:C	14:AN:6:LEU:H	2.11	0.53
26:B1:50:ARG:HE	26:B1:61:ARG:HD2	1.72	0.53
35:BA:141:A:C8	35:BA:1408:C:O2'	2.52	0.53
35:BA:1109:C:H5	35:BA:1110:G:N3	2.06	0.53
35:BA:2126:A:H1'	35:BA:2127:G:OP2	2.08	0.53
38:BD:83:GLU:HB2	38:BD:92:ILE:CD1	2.38	0.53
40:BF:65:TRP:HZ3	40:BF:75:HIS:HD1	1.53	0.53
49:BQ:121:ALA:HA	49:BQ:125:LEU:HD12	1.90	0.53
50:BR:51:LEU:HD13	50:BR:66:VAL:HG13	1.91	0.53
55:BW:28:SER:HA	55:BW:70:TYR:HA	1.90	0.53
56:BX:63:LYS:O	56:BX:68:ARG:HA	2.09	0.53
56:BX:65:ARG:NE	56:BX:65:ARG:HA	2.24	0.53
1:CA:202:U:H4'	1:CA:203:U:OP2	2.09	0.53
1:CA:1258:G:OP2	1:CA:1258:G:C8	2.59	0.53
2:CB:80:ILE:H	2:CB:80:ILE:HD12	1.73	0.53
2:CB:231:GLU:CB	2:CB:232:PRO:HD3	2.37	0.53
3:CC:58:GLU:O	3:CC:64:VAL:HA	2.09	0.53
5:CE:139:LEU:HA	5:CE:142:LEU:HD12	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:17:THR:HG22	8:CH:63:LEU:HG	1.89	0.53
31:D6:9:LEU:HD11	31:D6:26:ASN:OD1	2.09	0.53
35:DA:495:G:O2'	55:DW:62:HIS:HE1	1.92	0.53
35:DA:580:C:H2'	35:DA:581:C:C6	2.44	0.53
35:DA:1533:G:OP2	35:DA:1533:G:C4	2.61	0.53
36:DB:89:G:H2'	36:DB:90:A:H8	1.71	0.53
50:DR:2:ARG:CZ	50:DR:5:LYS:NZ	2.71	0.53
52:DT:66:VAL:HA	52:DT:71:GLY:HA2	1.91	0.53
54:DV:60:GLU:HA	54:DV:60:GLU:OE2	2.08	0.53
55:DW:1:MET:HB3	55:DW:64:MET:HE3	1.90	0.53
57:DY:56:PRO:HB3	57:DY:57:GLN:OE1	2.09	0.53
1:AA:1009:G:C2	1:AA:1022:G:N7	2.77	0.53
1:AA:1061:G:C4	1:AA:1197:G:N2	2.77	0.53
4:AD:206:PHE:O	4:AD:209:ARG:HB3	2.08	0.53
5:AE:51:VAL:O	5:AE:55:VAL:HG23	2.09	0.53
6:AF:76:ALA:HB1	6:AF:80:ARG:NH2	2.24	0.53
11:AK:16:SER:OG	11:AK:106:LYS:NZ	2.42	0.53
13:AM:93:ARG:N	13:AM:93:ARG:HD2	2.24	0.53
17:AQ:82:MET:HA	17:AQ:85:VAL:CG2	2.39	0.53
35:BA:630:G:N2	35:BA:633:A:OP2	2.40	0.53
35:BA:1283:G:H5''	35:BA:1283:G:H8	1.72	0.53
35:BA:2343:C:HO2'	35:BA:2373:G:HO2'	1.52	0.53
35:BA:2532:G:O2'	35:BA:2657:A:N6	2.41	0.53
36:BB:91:C:O2'	36:BB:92:C:P	2.67	0.53
39:BE:37:ARG:HB2	39:BE:46:ALA:O	2.09	0.53
41:BG:176:LEU:HD13	41:BG:176:LEU:O	2.09	0.53
46:BN:15:LEU:HD22	46:BN:16:ILE:N	2.24	0.53
51:BS:20:ARG:NE	51:BS:21:THR:N	2.47	0.53
56:BX:52:VAL:HG12	56:BX:53:LYS:CB	2.39	0.53
1:CA:1118:C:H2'	1:CA:1119:C:C6	2.44	0.53
2:CB:55:PHE:HE1	2:CB:218:ALA:HA	1.72	0.53
5:CE:57:LYS:O	5:CE:61:TYR:HD1	1.92	0.53
7:CG:111:ARG:NH2	7:CG:126:ASP:OD2	2.39	0.53
19:CS:40:ILE:HD12	19:CS:69:HIS:O	2.08	0.53
35:DA:1385:G:H4'	35:DA:1386:C:OP1	2.08	0.53
35:DA:1982:C:H5''	35:DA:1983:C:OP2	2.09	0.53
36:DB:75:G:H1'	58:DZ:27:VAL:HG21	1.91	0.53
38:DD:84:TYR:HE1	38:DD:86:PRO:HB3	1.73	0.53
55:DW:64:MET:HE3	55:DW:109:GLU:HG3	1.91	0.53
57:DY:42:VAL:HG12	57:DY:65:ALA:HB3	1.90	0.53
1:AA:541:G:N2	1:AA:542:G:H1'	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:583:A:O3'	17:AQ:91:ARG:NE	2.42	0.53
4:AD:173:TRP:CZ3	4:AD:193:ASP:HB3	2.44	0.53
7:AG:146:GLU:O	7:AG:149:ARG:HB2	2.09	0.53
8:AH:4:ASP:HB2	8:AH:89:PRO:HG3	1.90	0.53
11:AK:48:ILE:O	11:AK:50:TYR:N	2.42	0.53
16:AP:28:ARG:NH1	16:AP:29:ASP:OD1	2.42	0.53
19:AS:30:LEU:H	19:AS:48:THR:HG21	1.74	0.53
27:B2:31:GLU:O	27:B2:36:ARG:HG2	2.08	0.53
33:B8:31:HIS:HB2	35:BA:2420:C:N4	2.18	0.53
35:BA:426:C:O2'	35:BA:427:U:H5'	2.09	0.53
35:BA:1826:G:H2'	35:BA:1827:C:O4'	2.09	0.53
35:BA:1856:G:H2'	35:BA:1857:G:O4'	2.09	0.53
35:BA:2103:C:H5'	35:BA:2104:G:OP2	2.08	0.53
36:BB:50:G:OP1	51:BS:63:THR:N	2.42	0.53
40:BF:10:PRO:CB	40:BF:127:GLU:HB3	2.38	0.53
40:BF:40:GLN:O	40:BF:44:ARG:HD3	2.08	0.53
40:BF:133:ASN:O	40:BF:162:LEU:HD12	2.08	0.53
40:BF:164:ARG:HG2	40:BF:175:THR:OG1	2.09	0.53
41:BG:178:PHE:CD1	41:BG:179:PRO:HD2	2.44	0.53
48:BP:32:THR:HB	48:BP:36:LYS:CD	2.38	0.53
50:BR:4:LEU:O	50:BR:6:SER:N	2.42	0.53
52:BT:53:ARG:O	52:BT:59:THR:HB	2.09	0.53
1:CA:62:U:H6	1:CA:62:U:O5'	1.91	0.53
1:CA:1165:C:H2'	1:CA:1166:G:O4'	2.09	0.53
2:CB:210:SER:O	2:CB:214:ILE:HG12	2.09	0.53
3:CC:40:ARG:NH1	14:CN:52:GLN:HG2	2.23	0.53
3:CC:141:VAL:CG1	3:CC:202:ILE:CD1	2.86	0.53
11:CK:18:ARG:HG3	11:CK:33:THR:OG1	2.08	0.53
13:CM:17:VAL:HG22	13:CM:27:LYS:HE3	1.89	0.53
13:CM:30:ALA:C	13:CM:32:GLU:N	2.62	0.53
30:D5:55:ARG:NH2	50:DR:115:GLU:OE2	2.41	0.53
33:D8:14:VAL:HG21	33:D8:56:GLU:OE2	2.09	0.53
35:DA:1103:A:C4	35:DA:1104:C:H1'	2.44	0.53
35:DA:1478:G:N2	35:DA:1558:A:OP1	2.41	0.53
35:DA:1588:C:H2'	35:DA:1589:C:H6	1.73	0.53
35:DA:2820:A:O2'	35:DA:2821:A:OP1	2.25	0.53
38:DD:28:GLU:N	38:DD:28:GLU:OE1	2.42	0.53
39:DE:93:VAL:HG21	39:DE:180:ASN:HA	1.90	0.53
47:DO:75:SER:OG	52:DT:74:ARG:NH1	2.42	0.53
47:DO:86:ILE:HG22	47:DO:94:ARG:HG3	1.90	0.53
49:DQ:138:ASP:N	49:DQ:138:ASP:OD1	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DT:67:SER:N	52:DT:70:VAL:O	2.41	0.53
52:DT:102:ILE:O	52:DT:106:SER:HB3	2.09	0.53
1:AA:56:U:C2'	1:AA:57:G:H5'	2.39	0.53
1:AA:113:G:O2'	1:AA:354:G:H5''	2.09	0.53
1:AA:349:A:O2'	1:AA:350:G:H5'	2.08	0.53
1:AA:692:U:H5'	1:AA:797:C:H5''	1.90	0.53
2:AB:95:GLN:HG3	2:AB:96:ARG:N	2.23	0.53
7:AG:46:ALA:HB1	7:AG:121:ALA:CB	2.39	0.53
11:AK:67:ASP:O	11:AK:71:LYS:HG3	2.08	0.53
21:AU:3:LYS:HB3	21:AU:14:TRP:CG	2.44	0.53
28:B3:7:LYS:HG3	28:B3:34:GLU:HG3	1.89	0.53
30:B5:47:PRO:HG2	55:BW:38:TYR:OH	2.09	0.53
31:B6:36:LEU:HB3	31:B6:50:ARG:HG2	1.90	0.53
33:B8:13:ARG:NH2	48:BP:62:LEU:N	2.47	0.53
35:BA:17:G:H4'	53:BU:25:TRP:CH2	2.44	0.53
35:BA:330:A:H2	35:BA:1210:A:H2'	1.74	0.53
35:BA:581:C:H5''	53:BU:33:ARG:HH21	1.73	0.53
35:BA:719:C:H6	35:BA:719:C:O5'	1.91	0.53
35:BA:1060:U:O2'	35:BA:1061:U:OP2	2.23	0.53
35:BA:1952:A:C5	47:BO:22:ILE:HD12	2.44	0.53
41:BG:7:LEU:HD13	41:BG:176:LEU:HD11	1.91	0.53
46:BN:4:TYR:CG	46:BN:5:VAL:N	2.74	0.53
50:BR:97:VAL:HA	50:BR:113:LEU:O	2.09	0.53
53:BU:16:LYS:O	53:BU:20:LEU:HD23	2.08	0.53
57:BY:75:ILE:HD12	57:BY:76:CYS:H	1.74	0.53
5:CE:8:GLU:HG3	5:CE:34:VAL:HG22	1.91	0.53
6:CF:46:ARG:HH12	18:CR:37:VAL:HG21	1.73	0.53
10:CJ:45:ARG:HB2	10:CJ:45:ARG:HH11	1.74	0.53
19:CS:52:TYR:OH	19:CS:55:LYS:HA	2.09	0.53
30:D5:55:ARG:CZ	50:DR:115:GLU:OE2	2.58	0.53
35:DA:128:C:C6	35:DA:128:C:H3'	2.43	0.53
35:DA:200:U:O2	35:DA:386:G:N2	2.42	0.53
35:DA:805:G:H4'	35:DA:806:C:OP2	2.09	0.53
35:DA:1759:A:H4'	35:DA:2715:C:O4'	2.08	0.53
35:DA:2304:G:O2'	41:DG:156:ASP:OD1	2.17	0.53
35:DA:2619:C:H5''	39:DE:152:LYS:HA	1.90	0.53
37:DC:60:GLY:O	37:DC:61:THR:OG1	2.24	0.53
40:DF:51:THR:OG1	40:DF:88:VAL:HG11	2.09	0.53
47:DO:9:GLU:O	47:DO:83:ALA:HA	2.09	0.53
50:DR:33:ARG:HA	50:DR:114:VAL:O	2.08	0.53
52:DT:29:ARG:CZ	52:DT:31:SER:OG	2.57	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:DU:28:ARG:HH11	53:DU:38:THR:HG23	1.74	0.53
1:AA:143:A:H5''	1:AA:144:G:H5'	1.91	0.52
1:AA:374:A:C6	1:AA:375:U:C4	2.97	0.52
1:AA:611:A:H61	1:AA:629:G:H1	1.57	0.52
1:AA:974:A:P	14:AN:41:ARG:HH12	2.31	0.52
1:AA:1071:C:H2'	1:AA:1072:G:C8	2.44	0.52
1:AA:1291:G:H5''	7:AG:41:ARG:NH2	2.23	0.52
4:AD:22:LYS:HB2	4:AD:26:CYS:SG	2.49	0.52
6:AF:67:MET:HB2	6:AF:68:PRO:HD2	1.90	0.52
7:AG:138:LYS:O	7:AG:138:LYS:HG2	2.09	0.52
9:AI:10:ARG:HG3	9:AI:11:LYS:HG3	1.91	0.52
26:B1:43:TYR:CD1	26:B1:45:ASN:CG	2.83	0.52
35:BA:475:U:C4	35:BA:481:G:O6	2.62	0.52
35:BA:1599:C:H2'	35:BA:1600:C:H6	1.74	0.52
35:BA:1808:U:H5''	35:BA:1809:A:OP2	2.09	0.52
35:BA:2752:C:H3'	35:BA:2753:A:H8	1.74	0.52
38:BD:143:HIS:HD2	38:BD:144:ALA:HB2	1.74	0.52
38:BD:244:ARG:HB2	38:BD:245:PRO:HD2	1.90	0.52
50:BR:90:ARG:HH12	50:BR:118:GLU:HB2	1.74	0.52
52:BT:54:ARG:HA	52:BT:59:THR:HB	1.91	0.52
58:BZ:69:THR:HA	58:BZ:90:VAL:HB	1.91	0.52
1:CA:1414:U:H3	1:CA:1486:G:H1	1.57	0.52
4:CD:95:GLY:O	4:CD:99:SER:OG	2.19	0.52
4:CD:190:ASP:O	4:CD:193:ASP:HB2	2.10	0.52
9:CI:17:VAL:HA	9:CI:63:ILE:HG13	1.91	0.52
30:D5:35:GLU:HG3	30:D5:49:CYS:SG	2.49	0.52
35:DA:1170:G:N2	35:DA:1180:C:O2	2.42	0.52
35:DA:1690:A:H5''	35:DA:1691:C:OP2	2.09	0.52
35:DA:1985:G:O2'	35:DA:1986:A:H5'	2.09	0.52
36:DB:14:U:H4'	36:DB:15:A:OP2	2.08	0.52
38:DD:30:GLU:OE2	38:DD:83:GLU:HB3	2.09	0.52
39:DE:25:VAL:HG12	39:DE:181:LEU:HD12	1.92	0.52
41:DG:48:GLU:O	41:DG:49:ASP:HB2	2.09	0.52
45:DK:59:UNK:HA	45:DK:63:UNK:HA	1.90	0.52
53:DU:92:ARG:HH22	53:DU:95:LEU:HB2	1.73	0.52
57:DY:94:LYS:HG3	57:DY:103:GLY:HA3	1.90	0.52
1:AA:283:C:C2	1:AA:284:G:C8	2.97	0.52
1:AA:348:G:C2'	1:AA:349:A:H5'	2.38	0.52
1:AA:682:G:H1	1:AA:708:C:H42	1.57	0.52
1:AA:1269:A:H5''	1:AA:1270:C:OP2	2.10	0.52
3:AC:88:ARG:HA	3:AC:91:LEU:HD12	1.89	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:80:LYS:O	10:AJ:83:GLU:HB3	2.09	0.52
11:AK:44:SER:CB	11:AK:47:VAL:HG23	2.38	0.52
13:AM:8:GLU:HG2	13:AM:9:ILE:N	2.24	0.52
14:AN:60:SER:OG	14:AN:61:TRP:N	2.41	0.52
33:B8:58:ILE:O	48:BP:49:ARG:NH1	2.42	0.52
35:BA:833:U:H2'	35:BA:834:C:C6	2.44	0.52
35:BA:2318:G:N2	51:BS:7:TYR:O	2.42	0.52
35:BA:2351:G:H8	35:BA:2351:G:O5'	1.93	0.52
35:BA:2694:G:C4	35:BA:2695:C:C5	2.97	0.52
36:BB:10:C:C4	36:BB:11:C:C5	2.97	0.52
39:BE:34:VAL:HG23	39:BE:48:GLN:HG3	1.91	0.52
43:BI:111:PRO:O	43:BI:113:ARG:N	2.41	0.52
47:BO:12:ASP:OD1	47:BO:14:THR:HG23	2.08	0.52
47:BO:26:LYS:O	47:BO:28:SER:N	2.42	0.52
47:BO:64:ARG:HG2	47:BO:79:PHE:CG	2.44	0.52
52:BT:30:VAL:HB	52:BT:42:ILE:HB	1.91	0.52
1:CA:255:G:H2'	1:CA:256:U:C6	2.45	0.52
1:CA:771:G:H2'	1:CA:772:U:C6	2.43	0.52
1:CA:920:U:H5''	1:CA:921:U:OP2	2.10	0.52
2:CB:178:ARG:HH22	8:CH:68:ARG:NH2	2.07	0.52
4:CD:31:CYS:O	4:CD:31:CYS:SG	2.67	0.52
4:CD:98:GLU:OE2	4:CD:103:ASN:ND2	2.39	0.52
7:CG:50:ILE:HD12	7:CG:61:VAL:HG11	1.90	0.52
10:CJ:49:VAL:HG12	10:CJ:61:GLU:O	2.10	0.52
16:CP:53:VAL:HG12	16:CP:79:VAL:HG22	1.92	0.52
27:D2:26:ARG:HG2	56:DX:5:TYR:HB3	1.91	0.52
28:D3:26:LEU:HD21	28:D3:46:ASN:HB2	1.91	0.52
35:DA:272(J):C:H42	35:DA:363(A):A:N6	2.07	0.52
35:DA:363(C):G:H2'	35:DA:363(D):G:C8	2.43	0.52
35:DA:2291:U:H5''	35:DA:2380:C:O2'	2.09	0.52
35:DA:2592:G:N7	35:DA:2593:U:C5	2.78	0.52
35:DA:2771:C:H2'	35:DA:2772:C:H6	1.75	0.52
36:DB:8:U:O2	36:DB:113:G:N2	2.39	0.52
54:DV:67:GLY:O	54:DV:69:LYS:N	2.42	0.52
1:AA:1249:C:N4	1:AA:1287:A:H5'	2.24	0.52
2:AB:102:LEU:O	2:AB:158:LEU:HD21	2.10	0.52
7:AG:13:GLN:O	7:AG:24:THR:HG21	2.10	0.52
7:AG:60:LYS:HD2	7:AG:63:LYS:HB2	1.92	0.52
10:AJ:22:LYS:HE2	10:AJ:88:LEU:HD21	1.92	0.52
13:AM:83:ASP:OD2	13:AM:84:ILE:HD12	2.10	0.52
17:AQ:60:ILE:HG23	17:AQ:61:GLU:O	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:36:LEU:HD23	20:AT:36:LEU:C	2.30	0.52
22:AV:14:A:H1'	22:AV:23:G:N2	2.24	0.52
26:B1:23:LYS:HB2	26:B1:38:SER:CB	2.39	0.52
27:B2:29:LYS:N	27:B2:29:LYS:HD3	2.22	0.52
31:B6:45:LYS:O	31:B6:46:HIS:HB2	2.09	0.52
35:BA:66:C:H2'	35:BA:67:U:O4'	2.09	0.52
35:BA:274:G:P	35:BA:274:G:H3'	2.50	0.52
35:BA:656:G:C8	35:BA:656:G:C3'	2.92	0.52
35:BA:1223:G:C5'	35:BA:1224:C:OP2	2.52	0.52
35:BA:2250:G:O2'	35:BA:2496:C:OP1	2.20	0.52
38:BD:112:GLN:HB2	38:BD:115:GLN:NE2	2.24	0.52
39:BE:34:VAL:CG2	39:BE:78:LEU:HD12	2.40	0.52
46:BN:30:ILE:CG2	46:BN:34:LEU:CD1	2.88	0.52
49:BQ:43:THR:HG22	49:BQ:46:GLN:NE2	2.25	0.52
50:BR:77:ARG:O	50:BR:80:PHE:N	2.42	0.52
54:BV:27:ALA:HB1	54:BV:64:HIS:CE1	2.44	0.52
1:CA:560:U:H5''	1:CA:561:U:O5'	2.09	0.52
1:CA:1169:A:C6	1:CA:1170:A:N6	2.78	0.52
1:CA:1189:C:H4'	3:CC:10:PHE:CE1	2.45	0.52
1:CA:1308:U:OP1	13:CM:98:VAL:HG22	2.08	0.52
1:CA:1347:G:HO2'	1:CA:1373:G:H1	1.57	0.52
1:CA:1438:G:H2'	1:CA:1439:C:H6	1.75	0.52
19:CS:39:THR:HA	19:CS:70:LYS:HA	1.92	0.52
20:CT:55:ILE:CG2	20:CT:56:MET:N	2.71	0.52
20:CT:75:ASN:HA	20:CT:78:ALA:HB3	1.90	0.52
28:D3:43:ILE:O	28:D3:47:VAL:HG23	2.08	0.52
33:D8:30:ARG:HD3	33:D8:30:ARG:C	2.29	0.52
35:DA:150:C:H42	35:DA:176:G:H1	1.58	0.52
35:DA:860:U:H5	35:DA:917:A:N7	2.08	0.52
35:DA:883:G:H5''	35:DA:884:C:OP2	2.09	0.52
35:DA:1240:U:O2'	35:DA:1241:A:H5'	2.09	0.52
35:DA:1333:C:H2'	35:DA:1334:G:H8	1.74	0.52
35:DA:1788:C:OP1	38:DD:222:ARG:NH2	2.42	0.52
35:DA:1916:A:H3'	35:DA:1917:U:H6	1.74	0.52
35:DA:2276:G:H4'	49:DQ:85:LYS:CE	2.37	0.52
38:DD:65:ILE:HD11	38:DD:67:PHE:CZ	2.44	0.52
40:DF:155:LEU:HB2	40:DF:189:THR:HG21	1.91	0.52
41:DG:161:THR:HG22	41:DG:163:ALA:N	2.23	0.52
43:DI:93:THR:H	43:DI:96:ASP:CG	2.12	0.52
52:DT:108:ARG:HH12	52:DT:112:ARG:HG2	1.74	0.52
54:DV:79:VAL:HG13	54:DV:80:GLN:N	2.21	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:DY:86:ARG:HG2	57:DY:88:LYS:HE3	1.90	0.52
1:AA:149:A:H2'	1:AA:150:C:H6	1.74	0.52
1:AA:448:A:H62	1:AA:486:U:H3	1.57	0.52
1:AA:523:A:N1	12:AL:92:ASP:HB2	2.25	0.52
1:AA:735:C:H2'	1:AA:736:C:H6	1.73	0.52
1:AA:751:U:H4'	15:AO:24:SER:HA	1.91	0.52
1:AA:1244:C:H5	1:AA:1293:G:N2	2.08	0.52
1:AA:1268:A:H2'	1:AA:1269:A:C8	2.44	0.52
1:AA:1300:G:H4'	1:AA:1301:U:O5'	2.09	0.52
4:AD:60:GLU:HG3	4:AD:198:VAL:HG13	1.91	0.52
7:AG:123:GLU:C	7:AG:125:MET:N	2.63	0.52
9:AI:77:ILE:HG22	9:AI:81:ILE:HG13	1.91	0.52
14:AN:25:VAL:HG23	14:AN:38:GLY:O	2.10	0.52
19:AS:25:LYS:N	19:AS:27:GLU:OE2	2.42	0.52
35:BA:309:G:O3'	57:BY:18:GLY:HA2	2.09	0.52
35:BA:958:U:OP1	35:BA:958:U:H3'	2.09	0.52
35:BA:1130:U:O2	39:BE:149:ARG:NH2	2.43	0.52
35:BA:1394:U:H5''	35:BA:1395:A:OP2	2.10	0.52
35:BA:2180:U:H2'	35:BA:2181:G:C8	2.45	0.52
35:BA:2752:C:H3'	35:BA:2753:A:C8	2.44	0.52
39:BE:129:HIS:O	39:BE:131:ALA:N	2.40	0.52
52:BT:11:GLU:N	52:BT:11:GLU:OE2	2.40	0.52
53:BU:10:ARG:N	53:BU:13:LYS:HG2	2.13	0.52
55:BW:51:LEU:HB3	55:BW:107:LEU:HD22	1.91	0.52
56:BX:52:VAL:HG21	56:BX:82:GLN:H	1.73	0.52
58:BZ:87:ASP:OD1	58:BZ:87:ASP:N	2.41	0.52
58:BZ:128:VAL:HG22	58:BZ:132:ASN:HB2	1.91	0.52
1:CA:623:C:H5''	1:CA:624:C:OP2	2.10	0.52
1:CA:648:A:H2'	1:CA:649:G:C8	2.43	0.52
1:CA:929:G:C6	1:CA:930:C:N4	2.77	0.52
1:CA:1003:G:C6	1:CA:1004:A:H1'	2.43	0.52
1:CA:1023:G:H2'	1:CA:1023:G:N3	2.23	0.52
1:CA:1113:C:H2'	1:CA:1114:C:H6	1.74	0.52
5:CE:127:ASN:OD1	5:CE:128:PRO:HD2	2.09	0.52
25:D0:73:GLY:HA3	36:DB:12:C:H2'	1.91	0.52
26:D1:27:GLU:HG2	26:D1:32:LYS:HB2	1.91	0.52
35:DA:272:G:H4'	35:DA:272(B):G:OP1	2.09	0.52
35:DA:1019:U:H3	35:DA:1142(A):A:H62	1.55	0.52
35:DA:1639:U:C2'	35:DA:1640:C:H5''	2.40	0.52
35:DA:1762:A:H8	35:DA:1762:A:O5'	1.92	0.52
35:DA:2360:A:O2'	35:DA:2361:A:P	2.67	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DB:40:U:C2	36:DB:43:C:OP2	2.63	0.52
37:DC:39:GLU:OE1	37:DC:70:LYS:HE3	2.10	0.52
46:DN:28:THR:HG23	46:DN:29:LYS:H	1.73	0.52
1:AA:123:C:O2'	1:AA:290:C:O2	2.27	0.52
1:AA:255:G:H2'	1:AA:256:U:C6	2.45	0.52
1:AA:1443:G:H5'	1:AA:1443:G:C8	2.45	0.52
22:AV:9:G:N3	22:AV:46:G:H2'	2.25	0.52
30:B5:30:LEU:HD12	30:B5:41:PRO:N	2.25	0.52
32:B7:18:PHE:O	32:B7:22:MET:HG2	2.09	0.52
34:B9:22:ARG:NH2	35:BA:2741:A:OP1	2.43	0.52
35:BA:26:G:OP1	55:BW:80:PRO:HB3	2.08	0.52
35:BA:204:A:OP1	35:BA:204:A:H8	1.93	0.52
35:BA:1028:A:N6	35:BA:1125:G:H2'	2.24	0.52
35:BA:1029:A:N1	35:BA:2465:C:O2'	2.31	0.52
35:BA:1405:U:H2'	35:BA:1406:U:H6	1.75	0.52
35:BA:1503:U:C2'	35:BA:1504:C:H5'	2.39	0.52
35:BA:1509:C:OP2	35:BA:1509:C:H4'	2.09	0.52
35:BA:2019:A:H4'	53:BU:34:LYS:HD3	1.91	0.52
35:BA:2535:G:H2'	35:BA:2536:G:C8	2.44	0.52
35:BA:2701:C:C3'	35:BA:2702:U:H5''	2.30	0.52
36:BB:15:A:H3'	36:BB:16:G:H5'	1.90	0.52
36:BB:52:A:H62	51:BS:33:LYS:HE2	1.74	0.52
38:BD:10:THR:HG21	38:BD:13:ARG:HG3	1.91	0.52
40:BF:34:TRP:CD1	48:BP:10:PRO:HB2	2.44	0.52
41:BG:51:ARG:O	41:BG:53:LEU:N	2.43	0.52
49:BQ:5:ARG:HG3	49:BQ:93:TYR:CG	2.44	0.52
50:BR:117:VAL:O	50:BR:118:GLU:OXT	2.27	0.52
51:BS:62:LYS:O	51:BS:65:VAL:HG22	2.09	0.52
52:BT:53:ARG:HB3	52:BT:60:THR:O	2.08	0.52
52:BT:55:ASN:H	52:BT:59:THR:HG22	1.74	0.52
1:CA:97:G:O2'	1:CA:98:G:H8	1.92	0.52
1:CA:322:C:H5	1:CA:328:C:H5	1.58	0.52
1:CA:1298:C:H2'	7:CG:114:ARG:HH21	1.74	0.52
2:CB:85:ALA:O	2:CB:89:GLY:N	2.42	0.52
8:CH:112:LEU:HA	8:CH:134:ILE:HG12	1.90	0.52
15:CO:17:ARG:NH2	15:CO:77:ARG:HD2	2.25	0.52
18:CR:62:GLU:O	18:CR:65:ILE:HD12	2.10	0.52
19:CS:4:SER:O	19:CS:5:LEU:HB2	2.10	0.52
19:CS:19:VAL:C	19:CS:21:GLU:H	2.13	0.52
35:DA:834:C:H2'	35:DA:835:A:O4'	2.10	0.52
35:DA:1326:U:HO2'	35:DA:2010:G:HO2'	1.55	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1436:G:H1	35:DA:1556:C:H42	1.57	0.52
36:DB:37:C:H2'	36:DB:38:C:O4'	2.10	0.52
39:DE:51:PHE:O	39:DE:74:PRO:HB3	2.09	0.52
40:DF:181:LEU:HD11	40:DF:186:ILE:HD11	1.90	0.52
41:DG:105:LYS:HD2	41:DG:143:GLU:OE2	2.09	0.52
49:DQ:4:PRO:O	49:DQ:5:ARG:CB	2.58	0.52
56:DX:55:ASN:H	56:DX:77:LYS:CG	2.23	0.52
57:DY:26:LYS:O	57:DY:28:LYS:HD2	2.10	0.52
1:AA:473:G:OP2	16:AP:80:PHE:HB2	2.08	0.52
1:AA:601:C:H2'	1:AA:602:A:C8	2.44	0.52
1:AA:1185:G:H2'	1:AA:1186:G:O4'	2.09	0.52
1:AA:1321:C:H5''	1:AA:1322:C:H5''	1.92	0.52
2:AB:19:HIS:HE1	2:AB:207:ALA:H	1.57	0.52
5:AE:75:THR:HA	5:AE:115:VAL:HG13	1.90	0.52
12:AL:6:THR:HG22	12:AL:7:ILE:HG13	1.91	0.52
12:AL:62:SER:OG	12:AL:64:TYR:HB2	2.10	0.52
14:AN:52:GLN:O	14:AN:53:LEU:HD23	2.09	0.52
25:B0:50:ASN:C	25:B0:62:LEU:HD12	2.30	0.52
32:B7:37:LYS:HD2	35:BA:458:G:N7	2.25	0.52
35:BA:195:A:H2'	35:BA:198:C:N4	2.25	0.52
35:BA:256:A:H2'	35:BA:257:A:C8	2.44	0.52
35:BA:568:U:H2'	35:BA:570:G:OP2	2.09	0.52
35:BA:581:C:P	53:BU:33:ARG:NE	2.70	0.52
35:BA:733:G:O6	35:BA:761:A:C8	2.62	0.52
35:BA:869:G:C2	35:BA:870:A:C8	2.98	0.52
35:BA:2681:C:H5	35:BA:2725:A:H62	1.56	0.52
38:BD:155:LEU:HD13	38:BD:177:LEU:HD22	1.91	0.52
38:BD:268:ARG:NH2	38:BD:268:ARG:HB3	2.25	0.52
43:BI:92:VAL:CG1	43:BI:120:ILE:HB	2.40	0.52
43:BI:92:VAL:O	43:BI:92:VAL:HG13	2.09	0.52
48:BP:130:PHE:HB3	48:BP:135:LEU:CD1	2.40	0.52
50:BR:37:THR:OG1	50:BR:39:PRO:HD2	2.09	0.52
55:BW:51:LEU:CB	55:BW:107:LEU:HD22	2.40	0.52
58:BZ:25:PRO:HA	58:BZ:38:TYR:HB3	1.90	0.52
1:CA:172:A:H8	1:CA:172:A:OP2	1.92	0.52
1:CA:394:G:H2'	1:CA:395:C:H6	1.74	0.52
1:CA:746:A:H4'	1:CA:837:G:O2'	2.10	0.52
1:CA:799:G:C2'	1:CA:800:G:H5'	2.38	0.52
4:CD:43:HIS:CD2	4:CD:46:LYS:NZ	2.78	0.52
4:CD:112:VAL:HG12	4:CD:116:GLN:OE1	2.09	0.52
14:CN:52:GLN:O	14:CN:53:LEU:HD23	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:D2:57:ILE:HG22	27:D2:59:ARG:HG2	1.90	0.52
32:D7:1:MET:SD	32:D7:3:ARG:NH2	2.83	0.52
32:D7:40:TRP:CZ3	35:DA:459:U:H4'	2.44	0.52
35:DA:928:G:H8	35:DA:928:G:O5'	1.92	0.52
35:DA:1209:G:H21	35:DA:1210:A:N6	2.08	0.52
35:DA:1693:U:H4'	35:DA:1694:C:OP2	2.10	0.52
35:DA:1906:G:H1	35:DA:1924:C:N4	2.08	0.52
35:DA:2681:C:H5	35:DA:2725:A:H62	1.57	0.52
36:DB:18:G:H1	36:DB:65:C:N4	2.01	0.52
54:DV:6:LYS:HB2	54:DV:39:LEU:HD21	1.92	0.52
1:AA:266:G:H5''	1:AA:267:C:C5	2.45	0.52
1:AA:392:G:H2'	1:AA:393:A:C8	2.45	0.52
1:AA:949:A:OP1	13:AM:101:GLN:HB3	2.09	0.52
1:AA:1014:A:H2'	1:AA:1015:A:C8	2.45	0.52
2:AB:32:ILE:HD13	2:AB:40:HIS:HE1	1.75	0.52
12:AL:32:PHE:HB3	12:AL:84:LEU:CD2	2.40	0.52
16:AP:70:ALA:HA	16:AP:73:LEU:HD12	1.90	0.52
26:B1:10:LYS:HB2	26:B1:14:VAL:N	2.24	0.52
28:B3:18:ASP:OD1	28:B3:18:ASP:N	2.41	0.52
33:B8:39:LYS:HE3	35:BA:2365:G:O6	2.10	0.52
35:BA:62:C:H42	35:BA:93:G:H1	1.58	0.52
35:BA:272(I):U:N3	35:BA:363(A):A:N6	2.58	0.52
35:BA:330:A:HO2'	35:BA:331:A:H8	1.57	0.52
35:BA:581:C:C5'	53:BU:33:ARG:HH21	2.22	0.52
35:BA:729:G:C5	38:BD:208:LYS:HB2	2.45	0.52
35:BA:958:U:OP2	49:BQ:14:ARG:NH1	2.41	0.52
35:BA:1261:C:OP2	55:BW:83:LYS:NZ	2.26	0.52
35:BA:1287:A:N7	50:BR:107:ASP:HB2	2.25	0.52
35:BA:1586:A:H5''	35:BA:1587:A:N7	2.24	0.52
35:BA:1681:G:O2'	35:BA:1762:A:O2'	2.12	0.52
35:BA:1899:G:N2	35:BA:1902:C:H41	2.08	0.52
38:BD:227:ASN:O	38:BD:230:ASP:N	2.40	0.52
47:BO:98:VAL:CG2	47:BO:118:ALA:HA	2.39	0.52
48:BP:38:GLN:HG2	48:BP:38:GLN:O	2.10	0.52
1:CA:130:A:OP2	1:CA:189(F):U:C2	2.63	0.52
1:CA:444:C:H42	1:CA:490:G:H1	1.55	0.52
1:CA:1094:G:HO2'	1:CA:1108:G:N2	2.08	0.52
10:CJ:81:THR:O	10:CJ:85:LEU:HG	2.10	0.52
12:CL:54:LYS:N	12:CL:54:LYS:HD2	2.24	0.52
26:D1:21:ARG:O	26:D1:39:LYS:HA	2.10	0.52
26:D1:26:ARG:HB3	26:D1:34:THR:HB	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D1:47:GLN:NE2	35:DA:2090:G:C2	2.78	0.52
26:D1:47:GLN:HE22	35:DA:2090:G:N2	2.07	0.52
31:D6:26:ASN:HD21	31:D6:28:ARG:HE	1.58	0.52
35:DA:143(A):C:C4'	56:DX:36:LYS:HE3	2.39	0.52
35:DA:673:C:H5'	40:DF:54:ARG:HH12	1.75	0.52
35:DA:1019:U:O2'	35:DA:1021:A:H2	1.92	0.52
35:DA:1455:G:O2'	35:DA:2853:C:OP1	2.20	0.52
35:DA:1749:A:H5'	35:DA:1750:G:OP2	2.09	0.52
35:DA:2295:C:OP2	51:DS:12:PHE:HE1	1.91	0.52
35:DA:2552:U:H2'	35:DA:2554:U:H5''	1.92	0.52
38:DD:70:TRP:CD1	38:DD:70:TRP:C	2.83	0.52
38:DD:138:VAL:HA	38:DD:165:ILE:HG21	1.91	0.52
40:DF:13:SER:O	40:DF:15:SER:N	2.43	0.52
46:DN:115:ARG:HA	46:DN:118:LYS:HE2	1.92	0.52
51:DS:89:ARG:CG	51:DS:93:LYS:HG3	2.40	0.52
1:AA:547:A:OP2	4:AD:2:GLY:HA2	2.10	0.52
1:AA:1312:G:H1	1:AA:1325:C:N4	2.05	0.52
2:AB:74:LYS:NZ	2:AB:206:ASP:HA	2.25	0.52
8:AH:102:ARG:NH2	8:AH:105:ARG:HD3	2.25	0.52
10:AJ:48:THR:HB	10:AJ:62:HIS:CD2	2.44	0.52
23:AW:61:C:H3'	23:AW:62:C:H5''	1.91	0.52
25:B0:56:ASP:OD2	35:BA:2364:C:H5'	2.10	0.52
35:BA:918:A:H5''	36:BB:98:G:O2'	2.10	0.52
35:BA:1005:C:H2'	35:BA:1006:C:H6	1.72	0.52
35:BA:1131:G:O6	35:BA:2040:C:H1'	2.10	0.52
35:BA:1171:G:OP2	35:BA:1171:G:C8	2.62	0.52
35:BA:1546:C:C4	35:BA:1546:C:OP1	2.63	0.52
35:BA:2532:G:H1'	35:BA:2663:G:N2	2.25	0.52
35:BA:2634:G:O3'	39:BE:77:ILE:HG12	2.10	0.52
35:BA:2835:A:N6	35:BA:2879:C:O5'	2.43	0.52
35:BA:2856:C:H5'	35:BA:2857:G:OP2	2.10	0.52
36:BB:21:G:O2'	36:BB:22:U:P	2.68	0.52
43:BI:1:MET:N	43:BI:21:VAL:O	2.43	0.52
48:BP:60:MET:HE3	48:BP:61:ARG:NH2	2.23	0.52
55:BW:59:VAL:HA	55:BW:63:ASP:H	1.75	0.52
56:BX:87:GLN:HG2	56:BX:89:ILE:HG22	1.92	0.52
58:BZ:51:ALA:O	58:BZ:54:HIS:HB2	2.10	0.52
1:CA:1463:C:C5'	52:DT:115:ARG:HH22	2.23	0.52
3:CC:62:ASP:O	3:CC:63:ASN:ND2	2.42	0.52
3:CC:153:VAL:HG22	3:CC:198:VAL:HG22	1.92	0.52
8:CH:102:ARG:HD3	8:CH:102:ARG:H	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:65:VAL:HG21	9:CI:73:GLN:HB3	1.90	0.52
9:CI:86:VAL:HG23	9:CI:93:ARG:HB2	1.92	0.52
10:CJ:43:ARG:HB2	10:CJ:67:THR:O	2.10	0.52
17:CQ:27:PHE:O	17:CQ:35:VAL:HG12	2.10	0.52
35:DA:330:A:H2	35:DA:1210:A:H2'	1.74	0.52
35:DA:1719:G:H2'	35:DA:1720:U:O4'	2.10	0.52
35:DA:2307:G:N2	35:DA:2308:G:H5''	2.24	0.52
35:DA:2376:A:C6	51:DS:89:ARG:NH2	2.78	0.52
35:DA:2476:A:N3	35:DA:2477:C:H5''	2.24	0.52
37:DC:45:ALA:O	37:DC:46:LYS:HE2	2.09	0.52
38:DD:39:LYS:HG3	38:DD:62:TYR:HB2	1.92	0.52
38:DD:93:ALA:HB3	38:DD:105:ILE:HG22	1.91	0.52
38:DD:146:GLU:HB2	38:DD:189:CYS:HB3	1.91	0.52
40:DF:63:LYS:HE3	40:DF:67:GLN:HB3	1.91	0.52
40:DF:195:ASP:O	40:DF:198:ALA:N	2.42	0.52
42:DH:90:LYS:HD2	42:DH:159:GLU:HG2	1.92	0.52
54:DV:80:GLN:C	54:DV:81:TYR:CG	2.81	0.52
54:DV:82:ARG:O	54:DV:82:ARG:HG3	2.09	0.52
54:DV:83:ARG:HH11	54:DV:83:ARG:HG2	1.75	0.52
56:DX:55:ASN:H	56:DX:77:LYS:HE3	1.75	0.52
1:AA:892:A:O2'	1:AA:1415:G:H4'	2.09	0.52
1:AA:1202:G:C2'	1:AA:1203:C:H5'	2.40	0.52
1:AA:1407:C:O2'	35:BA:1912:A:N1	2.32	0.52
2:AB:19:HIS:ND1	2:AB:206:ASP:HB2	2.25	0.52
5:AE:129:ILE:O	5:AE:132:ALA:HB3	2.09	0.52
7:AG:111:ARG:CZ	7:AG:123:GLU:HB3	2.39	0.52
9:AI:118:LYS:O	9:AI:119:ALA:HB3	2.10	0.52
16:AP:53:VAL:HG12	16:AP:79:VAL:HG22	1.92	0.52
17:AQ:63:ARG:NH1	17:AQ:64:PRO:O	2.43	0.52
35:BA:89:G:OP2	35:BA:90:U:O2'	2.24	0.52
35:BA:760:G:H2'	35:BA:761:A:O4'	2.09	0.52
35:BA:1092:C:C5	35:BA:1093:G:C8	2.97	0.52
35:BA:2584:U:H2'	35:BA:2585:U:H5'	1.92	0.52
38:BD:112:GLN:OE1	38:BD:112:GLN:N	2.42	0.52
40:BF:6:VAL:HG21	40:BF:19:GLU:OE2	2.10	0.52
40:BF:135:LYS:HB2	40:BF:138:GLU:HG2	1.91	0.52
51:BS:30:ARG:HD2	51:BS:31:SER:O	2.09	0.52
53:BU:31:SER:OG	53:BU:32:PHE:N	2.41	0.52
57:BY:8:LYS:NZ	57:BY:94:LYS:HG3	2.24	0.52
1:CA:1237:C:O2	1:CA:1334:G:O2'	2.16	0.52
18:CR:29:PHE:CE1	18:CR:31:LEU:HB3	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CV:2:G:H1	22:CV:71:C:H42	1.58	0.52
23:CW:38:A:C6	23:CW:39:U:C5	2.98	0.52
23:CY:26:A:H3'	23:CY:27:G:H5'	1.91	0.52
27:D2:49:LYS:NZ	27:D2:54:LYS:HE2	2.25	0.52
35:DA:142:A:H5'	35:DA:142(A):C:OP2	2.10	0.52
35:DA:272(G):C:C2	35:DA:363(D):G:N2	2.78	0.52
35:DA:576:U:H2'	35:DA:577:G:C8	2.45	0.52
35:DA:1517:G:H5''	35:DA:1517:G:C8	2.44	0.52
35:DA:2352:A:H2'	35:DA:2353:G:O4'	2.09	0.52
35:DA:2863:C:H2'	35:DA:2864:G:H8	1.75	0.52
36:DB:73:A:C4	36:DB:105:A:C2	2.97	0.52
43:DI:113:ARG:HE	43:DI:132:PRO:HB3	1.75	0.52
48:DP:51:PHE:HE2	48:DP:59:LEU:CD1	2.22	0.52
48:DP:127:ALA:N	48:DP:145:PRO:CG	2.71	0.52
51:DS:20:ARG:HA	51:DS:20:ARG:NE	2.25	0.52
53:DU:92:ARG:NH2	53:DU:92:ARG:HG3	2.25	0.52
55:DW:96:ILE:O	55:DW:96:ILE:HG13	2.10	0.52
57:DY:101:LYS:HZ2	57:DY:110:GLU:HB2	1.75	0.52
58:DZ:26:GLY:HA2	58:DZ:85:HIS:CD2	2.45	0.52
1:AA:393:A:O2'	1:AA:394:G:H5'	2.10	0.52
1:AA:1154:G:H2'	1:AA:1155:G:H8	1.75	0.52
1:AA:1169:A:H5''	1:AA:1171:G:H22	1.75	0.52
1:AA:1353:G:C2	1:AA:1370:G:C2	2.98	0.52
4:AD:30:LYS:HA	4:AD:34:GLU:H	1.75	0.52
4:AD:209:ARG:HG2	4:AD:209:ARG:O	2.08	0.52
6:AF:21:LEU:O	6:AF:25:ILE:HG12	2.10	0.52
6:AF:100:ASN:HD21	18:AR:23:LYS:HG3	1.75	0.52
10:AJ:63:PHE:HA	14:AN:59:ALA:HB2	1.92	0.52
12:AL:7:ILE:HG13	12:AL:8:ASN:N	2.25	0.52
13:AM:66:LEU:O	13:AM:70:LEU:HB3	2.10	0.52
19:AS:8:GLY:C	19:AS:10:PHE:H	2.12	0.52
27:B2:46:GLN:OE1	27:B2:46:GLN:HA	2.09	0.52
35:BA:80:G:C2	35:BA:81:G:N7	2.78	0.52
35:BA:532:A:C2	53:BU:28:ARG:NH2	2.78	0.52
35:BA:577:G:O2'	35:BA:1254:A:OP1	2.27	0.52
35:BA:1257:C:OP1	40:BF:75:HIS:HE1	1.93	0.52
35:BA:1276:A:N1	35:BA:1294:U:C5	2.75	0.52
35:BA:2801(A):A:H1'	35:BA:2802:G:H2'	1.92	0.52
36:BB:13:A:H2'	36:BB:70:C:O2'	2.10	0.52
39:BE:117:MET:HE1	39:BE:136:ARG:HB3	1.92	0.52
43:BI:58:LEU:O	43:BI:62:LYS:HB2	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BJ:56:UNK:HA	44:BJ:83:UNK:HA	1.92	0.52
54:BV:69:LYS:HE3	54:BV:71:LEU:HD11	1.91	0.52
58:BZ:144:LEU:CD1	58:BZ:149:SER:HA	2.27	0.52
1:CA:44:G:H1	1:CA:398:C:N4	2.07	0.52
1:CA:584:G:H5'	17:CQ:91:ARG:NH2	2.25	0.52
1:CA:585:G:OP1	17:CQ:36:ILE:HB	2.10	0.52
1:CA:1397:C:H4'	1:CA:1398:A:OP2	2.10	0.52
10:CJ:55:LYS:HG3	10:CJ:55:LYS:O	2.10	0.52
19:CS:9:VAL:O	19:CS:11:VAL:HG13	2.10	0.52
23:CW:12:U:C2	23:CW:13:C:H5	2.28	0.52
30:D5:2:ALA:HA	35:DA:2611:U:O2	2.10	0.52
35:DA:1049:C:N4	35:DA:1111:A:N1	2.57	0.52
35:DA:1887:C:H5''	35:DA:1888:G:OP2	2.09	0.52
35:DA:2030:A:H4'	35:DA:2031:A:C8	2.44	0.52
35:DA:2163:C:H3'	35:DA:2164:C:H4'	1.92	0.52
35:DA:2295:C:OP2	51:DS:12:PHE:CE1	2.63	0.52
35:DA:2461:C:N4	35:DA:2489:G:H1	2.03	0.52
35:DA:2467:C:H4'	49:DQ:123:HIS:ND1	2.25	0.52
35:DA:2845:G:H2'	35:DA:2846:G:H8	1.75	0.52
38:DD:109:ASP:HB2	38:DD:197:GLY:HA3	1.92	0.52
40:DF:114:VAL:HG22	40:DF:192:LEU:HD11	1.92	0.52
42:DH:47:GLU:OE2	42:DH:51:ARG:HD3	2.10	0.52
47:DO:77:ILE:HB	52:DT:74:ARG:HD3	1.92	0.52
55:DW:65:LEU:O	55:DW:67:ASP:N	2.43	0.52
58:DZ:59:LEU:HB3	58:DZ:61:LEU:HD23	1.92	0.52
1:AA:99:U:O2'	1:AA:100:C:H5'	2.09	0.51
1:AA:186:C:H2'	1:AA:186:C:O2	2.08	0.51
1:AA:189(B):C:H42	1:AA:189(I):G:H1	1.57	0.51
1:AA:956:U:H2'	1:AA:957:U:C6	2.44	0.51
1:AA:1109:C:H2'	1:AA:1110:A:O4'	2.10	0.51
1:AA:1281:U:H5'	1:AA:1282:C:H5	1.74	0.51
1:AA:1349:A:OP1	9:AI:120:ARG:HB2	2.10	0.51
2:AB:54:THR:HB	2:AB:185:ILE:HD11	1.92	0.51
2:AB:174:VAL:HG13	2:AB:184:VAL:HG11	1.92	0.51
3:AC:181:ASN:ND2	3:AC:204:LEU:HB2	2.25	0.51
9:AI:48:GLU:HG3	9:AI:51:ARG:HD2	1.92	0.51
10:AJ:32:ALA:O	10:AJ:34:VAL:N	2.43	0.51
23:AW:66:U:HO2'	23:AW:67:C:P	2.33	0.51
26:B1:26:ARG:O	26:B1:27:GLU:OE2	2.27	0.51
31:B6:26:ASN:CB	35:BA:2286:A:H2	2.18	0.51
32:B7:35:ARG:O	32:B7:36:GLN:HB2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1005:C:C2	35:BA:1143:A:C5	2.98	0.51
35:BA:1204:A:O2'	35:BA:1205:U:OP2	2.25	0.51
35:BA:2351:G:O2'	35:BA:2352:A:H8	1.93	0.51
46:BN:66:LYS:NZ	46:BN:87:LEU:HD22	2.25	0.51
52:BT:77:PRO:O	52:BT:79:HIS:N	2.43	0.51
55:BW:18:ARG:NH1	55:BW:25:ARG:NH2	2.58	0.51
1:CA:72:C:H2'	1:CA:73:G:C8	2.45	0.51
1:CA:161:A:H2'	1:CA:162:A:O4'	2.11	0.51
1:CA:234:C:H2'	1:CA:235:C:H6	1.74	0.51
1:CA:804:U:H5''	1:CA:805:C:OP2	2.10	0.51
1:CA:1402:C:H2'	1:CA:1403:C:O4'	2.10	0.51
2:CB:105:PHE:C	2:CB:107:THR:H	2.11	0.51
13:CM:8:GLU:OE1	13:CM:22:ILE:HA	2.10	0.51
31:D6:41:PRO:CD	31:D6:46:HIS:H	2.23	0.51
35:DA:600:G:H2'	35:DA:601:C:O4'	2.10	0.51
35:DA:863:A:H2'	35:DA:864:G:H8	1.74	0.51
35:DA:1041:C:H5'	35:DA:1042:G:OP2	2.10	0.51
35:DA:1495:A:O2'	35:DA:1496:A:H5'	2.10	0.51
35:DA:1763:G:H4'	35:DA:1763:G:OP1	2.09	0.51
35:DA:1859:A:N6	35:DA:1883:G:O2'	2.44	0.51
35:DA:1932:A:H2'	35:DA:1933:G:O4'	2.09	0.51
35:DA:2567:G:H2'	35:DA:2568:C:C6	2.45	0.51
35:DA:2679:A:H4'	39:DE:165:VAL:HG11	1.92	0.51
41:DG:41:GLN:HA	41:DG:155:MET:HB2	1.91	0.51
42:DH:33:LEU:HD21	42:DH:136:ILE:HG13	1.91	0.51
43:DI:53:ALA:HA	43:DI:56:LYS:HB3	1.93	0.51
48:DP:38:GLN:HG3	48:DP:39:LYS:N	2.24	0.51
53:DU:92:ARG:NE	54:DV:11:GLN:HB2	2.25	0.51
57:DY:26:LYS:HG2	57:DY:27:VAL:H	1.75	0.51
57:DY:101:LYS:NZ	57:DY:110:GLU:HB2	2.25	0.51
1:AA:1008:C:N3	1:AA:1022:G:C6	2.78	0.51
1:AA:1160:G:H22	1:AA:1182:G:N2	2.08	0.51
12:AL:57:LYS:HG3	12:AL:67:THR:HG22	1.90	0.51
17:AQ:6:LEU:HD22	17:AQ:23:VAL:HG11	1.91	0.51
18:AR:72:ARG:HA	18:AR:75:ILE:HD12	1.92	0.51
22:AV:63:C:H2'	22:AV:64:G:C8	2.45	0.51
25:B0:74:ARG:HG2	36:BB:12:C:O2'	2.11	0.51
35:BA:1025:G:C5	35:BA:1135:C:H1'	2.45	0.51
35:BA:1926:U:H2'	35:BA:1928:A:OP2	2.10	0.51
35:BA:2318:G:H22	51:BS:7:TYR:CB	2.23	0.51
35:BA:2356:C:H2'	35:BA:2357:U:O4'	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2639:A:O3'	46:BN:97:ARG:NH2	2.39	0.51
39:BE:111:ARG:HA	50:BR:3:HIS:HE1	1.74	0.51
40:BF:101:LEU:HD12	40:BF:102:PRO:HD2	1.91	0.51
46:BN:33:LEU:HD21	46:BN:137:LYS:HE2	1.91	0.51
49:BQ:7:MET:HG2	49:BQ:8:LYS:N	2.25	0.51
49:BQ:23:GLY:CA	49:BQ:101:ARG:HD2	2.41	0.51
49:BQ:42:ILE:HG13	49:BQ:97:VAL:HG21	1.91	0.51
50:BR:9:LYS:HD3	50:BR:43:GLU:OE2	2.10	0.51
51:BS:10:ARG:O	51:BS:12:PHE:N	2.42	0.51
51:BS:62:LYS:CA	51:BS:65:VAL:HA	2.26	0.51
51:BS:67:ARG:HA	51:BS:98:VAL:CG1	2.38	0.51
52:BT:28:VAL:HG21	52:BT:88:ILE:HD11	1.93	0.51
56:BX:44:GLU:HA	56:BX:49:VAL:HG23	1.91	0.51
57:BY:10:GLY:HA3	57:BY:28:LYS:CE	2.39	0.51
1:CA:1073:U:H2'	1:CA:1074:G:H8	1.75	0.51
3:CC:40:ARG:CZ	14:CN:52:GLN:HG2	2.40	0.51
9:CI:93:ARG:C	9:CI:95:LYS:H	2.12	0.51
11:CK:30:VAL:HG21	11:CK:65:ALA:HA	1.92	0.51
16:CP:2:VAL:HG23	16:CP:22:THR:O	2.10	0.51
18:CR:88:LYS:HD2	18:CR:88:LYS:OXT	2.10	0.51
25:D0:27:GLU:HG3	35:DA:856:C:C4'	2.40	0.51
26:D1:20:ARG:HH21	26:D1:41:ARG:HB2	1.74	0.51
34:D9:14:CYS:HA	34:D9:27:CYS:CB	2.36	0.51
35:DA:1059:G:O2'	35:DA:1070:A:O2'	2.05	0.51
35:DA:1170:G:C2	35:DA:1171:G:H1'	2.45	0.51
35:DA:1464:C:O2'	35:DA:1528:A:C8	2.47	0.51
35:DA:1496:A:H8	35:DA:1577:C:HO2'	1.56	0.51
35:DA:2690:C:H5''	35:DA:2872:G:N2	2.24	0.51
36:DB:52:A:O2'	36:DB:53:A:OP2	2.25	0.51
43:DI:80:PRO:CA	43:DI:143:SER:HA	2.30	0.51
52:DT:24:PRO:HB3	52:DT:99:LEU:HD21	1.91	0.51
57:DY:60:PHE:O	57:DY:62:GLU:HG3	2.10	0.51
3:AC:131:ARG:HD3	5:AE:50:GLU:OE2	2.10	0.51
23:AW:35:A:H5'	23:AW:36:A:OP2	2.10	0.51
25:B0:20:ARG:HE	35:BA:2271:G:H5''	1.76	0.51
25:B0:43:THR:CG2	35:BA:2336:A:H61	2.23	0.51
25:B0:70:GLN:NE2	25:B0:72:ARG:HD3	2.25	0.51
27:B2:46:GLN:O	27:B2:48:HIS:N	2.44	0.51
35:BA:154(A):C:H41	35:BA:172:C:H42	1.58	0.51
35:BA:271(Q):G:O2'	35:BA:271(R):G:OP2	2.23	0.51
35:BA:297:C:H5''	57:BY:85:VAL:HG21	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:494:G:H5''	35:BA:494:G:H8	1.75	0.51
35:BA:675:A:N6	35:BA:676:A:N6	2.58	0.51
35:BA:1277:G:H5''	50:BR:40:LYS:NZ	2.25	0.51
35:BA:1283:G:N2	35:BA:1286:A:OP2	2.42	0.51
35:BA:1931:U:H5'	35:BA:1931:U:H6	1.76	0.51
35:BA:2468:G:O2'	35:BA:2481:G:N2	2.44	0.51
35:BA:2894:G:H5''	35:BA:2895:U:H5'	1.91	0.51
36:BB:57:A:N3	41:BG:29:TRP:HB3	2.24	0.51
41:BG:119:GLY:HA3	41:BG:180:PHE:O	2.10	0.51
50:BR:78:LYS:O	50:BR:82:GLU:HB3	2.10	0.51
51:BS:26:LEU:HD11	51:BS:87:PHE:CD2	2.45	0.51
55:BW:68:ARG:NH1	55:BW:111:HIS:O	2.43	0.51
58:BZ:28:MET:HE1	58:BZ:59:LEU:HD12	1.93	0.51
1:CA:939:G:H5''	7:CG:102:ARG:CZ	2.39	0.51
1:CA:1013:G:H2'	1:CA:1015:A:OP2	2.10	0.51
3:CC:64:VAL:O	3:CC:100:ALA:HB3	2.09	0.51
4:CD:35:ARG:HB3	4:CD:36:ARG:HG3	1.92	0.51
20:CT:55:ILE:C	20:CT:57:ARG:H	2.13	0.51
28:D3:3:ARG:HH12	28:D3:60:GLU:HA	1.75	0.51
35:DA:528:A:H3'	35:DA:528:A:C8	2.46	0.51
35:DA:2354:G:H1	35:DA:2363:C:H42	1.58	0.51
35:DA:2415:G:H4'	48:DP:66:GLY:HA2	1.93	0.51
35:DA:2723:C:H4'	50:DR:2:ARG:O	2.10	0.51
38:DD:138:VAL:HA	38:DD:165:ILE:CG2	2.40	0.51
1:AA:109:A:H2'	1:AA:326:G:H21	1.75	0.51
1:AA:179:A:H2'	1:AA:180:U:H6	1.75	0.51
1:AA:528:C:H5''	1:AA:529:G:OP2	2.11	0.51
1:AA:605:U:H2'	1:AA:606:G:H8	1.74	0.51
1:AA:832:C:HO2'	1:AA:833:U:P	2.33	0.51
1:AA:837:G:H2'	1:AA:838:G:H5''	1.91	0.51
1:AA:1305:G:H5''	21:AU:4:GLY:HA3	1.92	0.51
23:AW:51:U:H2'	23:AW:52:G:C8	2.46	0.51
25:B0:72:ARG:CB	25:B0:75:LEU:HB2	2.41	0.51
25:B0:74:ARG:CZ	36:BB:13:A:OP2	2.57	0.51
28:B3:20:LYS:NZ	28:B3:20:LYS:HB3	2.25	0.51
34:B9:18:ARG:HD2	35:BA:1034:G:H5'	1.93	0.51
35:BA:389:G:H1	48:BP:71:VAL:HG11	1.76	0.51
35:BA:581:C:N4	35:BA:1259:G:H1	2.09	0.51
35:BA:813:U:H2'	35:BA:814:C:C6	2.45	0.51
35:BA:1357:U:H2'	35:BA:1358:G:O4'	2.11	0.51
35:BA:2231:C:H2'	35:BA:2232:U:O4'	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2393:A:C2'	35:BA:2394:C:H5'	2.41	0.51
39:BE:119:ARG:HG2	39:BE:160:TYR:HB2	1.93	0.51
46:BN:19:GLU:C	46:BN:21:LYS:H	2.14	0.51
48:BP:75:ILE:O	48:BP:77:ARG:N	2.44	0.51
50:BR:11:ASN:OD1	50:BR:12:ARG:N	2.31	0.51
57:BY:27:VAL:CG2	57:BY:30:VAL:HG11	2.40	0.51
1:CA:128:G:H4'	17:CQ:3:LYS:HG2	1.92	0.51
1:CA:329:A:C4	1:CA:332:G:C5	2.99	0.51
1:CA:966:G:O2'	9:CI:127:LYS:HB3	2.10	0.51
1:CA:977:A:O2'	1:CA:981:U:N3	2.41	0.51
1:CA:1179:A:H2'	1:CA:1180:A:O4'	2.10	0.51
1:CA:1344:C:HO2'	1:CA:1348:U:HO2'	1.53	0.51
2:CB:155:LEU:HD21	2:CB:159:PRO:HB3	1.92	0.51
4:CD:78:LEU:HD21	4:CD:139:ARG:HH22	1.76	0.51
5:CE:11:ILE:HD11	5:CE:108:ALA:HB3	1.92	0.51
15:CO:43:LEU:HD11	15:CO:53:HIS:HA	1.91	0.51
19:CS:41:VAL:HB	19:CS:44:MET:SD	2.51	0.51
27:D2:49:LYS:HD3	27:D2:54:LYS:HZ1	1.74	0.51
32:D7:1:MET:HE3	35:DA:1619:G:H21	1.75	0.51
35:DA:435:C:O5'	35:DA:435:C:H6	1.93	0.51
35:DA:1107:G:O2'	44:DJ:81:UNK:HA	2.11	0.51
35:DA:1441:G:H2'	35:DA:1442:G:H8	1.76	0.51
35:DA:1486:A:H2'	35:DA:1487:G:C8	2.39	0.51
35:DA:1588:C:H2'	35:DA:1589:C:C6	2.45	0.51
35:DA:2111:C:O2'	35:DA:2118:U:H4'	2.11	0.51
35:DA:2701:C:H2'	35:DA:2702:U:H2'	1.92	0.51
40:DF:53:THR:HG22	40:DF:56:GLU:CD	2.31	0.51
41:DG:94:LEU:HD22	41:DG:98:ARG:HB2	1.92	0.51
49:DQ:139:GLU:OE2	58:DZ:54:HIS:CE1	2.63	0.51
52:DT:35:LYS:HE3	52:DT:41:ARG:HE	1.76	0.51
52:DT:89:VAL:HG23	52:DT:91:ARG:HD2	1.93	0.51
53:DU:98:LEU:C	53:DU:100:VAL:N	2.59	0.51
55:DW:11:ARG:O	55:DW:11:ARG:HG3	2.10	0.51
56:DX:77:LYS:CD	56:DX:78:LYS:C	2.79	0.51
58:DZ:19:ARG:HH21	58:DZ:83:PRO:C	2.13	0.51
1:AA:191:G:C4	20:AT:105:SER:HB3	2.46	0.51
1:AA:692:U:N3	1:AA:695:A:OP2	2.37	0.51
1:AA:821:G:H2'	1:AA:822:C:C6	2.46	0.51
1:AA:1111:A:N6	3:AC:176:HIS:O	2.44	0.51
1:AA:1421:G:C2'	1:AA:1422:G:H5'	2.40	0.51
2:AB:84:GLU:O	2:AB:219:VAL:HG11	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:6:HIS:ND1	3:AC:7:PRO:HD2	2.25	0.51
5:AE:50:GLU:HG2	5:AE:53:LEU:HB2	1.93	0.51
8:AH:97:VAL:HG12	8:AH:129:VAL:O	2.10	0.51
22:AV:17:C:H2'	22:AV:17:C:O2	2.09	0.51
33:B8:43:GLN:O	33:B8:44:LYS:HD2	2.10	0.51
35:BA:1545:A:N3	35:BA:1546:C:H5	2.09	0.51
35:BA:1948:G:H5'	35:BA:1949:G:OP2	2.11	0.51
35:BA:2668:G:H8	35:BA:2668:G:O5'	1.94	0.51
43:BI:77:LEU:HD12	43:BI:140:LEU:HD13	1.92	0.51
48:BP:85:LEU:HB2	48:BP:116:GLY:HA2	1.93	0.51
52:BT:92:GLY:HA3	52:BT:120:ARG:NH2	2.26	0.51
55:BW:65:LEU:HD13	55:BW:68:ARG:HE	1.76	0.51
1:CA:26:A:N6	1:CA:558:G:O2'	2.43	0.51
1:CA:118:U:H3'	1:CA:288:A:H61	1.75	0.51
1:CA:189(J):G:H2'	1:CA:189(K):U:O4'	2.11	0.51
1:CA:625:G:H4'	16:CP:16:HIS:CD2	2.45	0.51
1:CA:1186:G:O3'	9:CI:113:LYS:HE2	2.10	0.51
1:CA:1435:G:H8	1:CA:1435:G:O5'	1.94	0.51
2:CB:166:ASP:OD2	2:CB:169:LYS:HB2	2.11	0.51
3:CC:180:ALA:HB1	3:CC:182:ILE:HG13	1.92	0.51
8:CH:114:THR:HG22	8:CH:117:GLY:O	2.11	0.51
12:CL:51:ALA:CB	12:CL:53:ARG:NH2	2.74	0.51
13:CM:82:MET:HG3	13:CM:83:ASP:H	1.75	0.51
16:CP:39:TYR:CG	16:CP:40:ASP:N	2.79	0.51
20:CT:27:LYS:NZ	20:CT:30:LYS:HD3	2.26	0.51
20:CT:45:GLN:HB2	20:CT:91:LEU:HD13	1.92	0.51
35:DA:376:C:H2'	35:DA:377:C:C6	2.46	0.51
35:DA:1568:G:P	38:DD:63:ARG:HH22	2.31	0.51
35:DA:1570:A:H2'	35:DA:1571:A:C8	2.45	0.51
35:DA:1952:A:C6	47:DO:22:ILE:HD12	2.45	0.51
35:DA:2262:U:H4'	35:DA:2328:A:C2	2.46	0.51
35:DA:2489:G:H2'	35:DA:2490:G:H5''	1.91	0.51
35:DA:2808:U:H5''	35:DA:2891:G:O6	2.10	0.51
36:DB:25:A:H2'	36:DB:26:A:C8	2.46	0.51
49:DQ:77:LYS:NZ	49:DQ:82:ARG:HA	2.26	0.51
55:DW:18:ARG:NH1	55:DW:76:VAL:O	2.44	0.51
56:DX:10:ALA:HB1	56:DX:11:PRO:HD2	1.92	0.51
57:DY:27:VAL:O	57:DY:29:GLU:OE2	2.29	0.51
58:DZ:128:VAL:HB	58:DZ:161:VAL:HG22	1.91	0.51
1:AA:811:C:H4'	1:AA:900:A:N6	2.25	0.51
1:AA:1321:C:H5'	13:AM:87:TYR:CE1	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:162:ILE:HG22	2:AB:184:VAL:HA	1.93	0.51
3:AC:134:ILE:HD12	3:AC:151:VAL:HB	1.92	0.51
4:AD:19:LEU:HD13	4:AD:21:LEU:HD21	1.91	0.51
4:AD:57:ARG:NH1	4:AD:205:GLU:OE2	2.44	0.51
5:AE:143:ARG:NH1	8:AH:77:GLU:OE2	2.44	0.51
6:AF:69:GLU:CD	6:AF:69:GLU:H	2.12	0.51
25:B0:66:VAL:O	25:B0:81:VAL:HA	2.10	0.51
26:B1:10:LYS:HD2	26:B1:14:VAL:CA	2.36	0.51
35:BA:108:U:H2'	35:BA:109:G:H8	1.76	0.51
35:BA:271(K):U:H1'	43:BI:50:ARG:CZ	2.41	0.51
35:BA:594:U:H2'	35:BA:595:C:H6	1.75	0.51
35:BA:937:U:H2'	35:BA:938:G:O4'	2.11	0.51
35:BA:1056:G:O2'	35:BA:1057:A:O4'	2.28	0.51
35:BA:1102:C:H1'	35:BA:1103:A:N7	2.26	0.51
35:BA:2199:A:H3'	35:BA:2200:C:H6	1.76	0.51
35:BA:2274:A:C5	35:BA:2276:G:C8	2.99	0.51
35:BA:2542:A:O2'	35:BA:2543:G:P	2.69	0.51
38:BD:11:PRO:HA	38:BD:14:ARG:HH21	1.73	0.51
39:BE:108:SER:O	39:BE:162:ALA:HA	2.11	0.51
42:BH:70:THR:HG22	42:BH:74:ASN:OD1	2.11	0.51
52:BT:45:PHE:CD2	52:BT:74:ARG:HD2	2.46	0.51
53:BU:25:TRP:CD1	53:BU:26:GLY:N	2.78	0.51
1:CA:407:G:H5''	4:CD:115:ARG:HB3	1.93	0.51
1:CA:826:C:H4'	8:CH:12:ARG:HG2	1.92	0.51
1:CA:1028:C:N4	1:CA:1033:G:H1	2.08	0.51
2:CB:165:VAL:HA	2:CB:187:LEU:CD2	2.41	0.51
8:CH:112:LEU:HD12	8:CH:113:SER:N	2.26	0.51
12:CL:59:ARG:NH2	12:CL:63:GLY:HA2	2.25	0.51
18:CR:23:LYS:HB2	18:CR:57:GLY:HA3	1.93	0.51
26:D1:38:SER:HB2	35:DA:2080:G:H4'	1.91	0.51
35:DA:583:G:OP2	53:DU:10:ARG:NH1	2.43	0.51
35:DA:2783:G:H2'	35:DA:2784:C:C6	2.46	0.51
37:DC:46:LYS:O	37:DC:207:THR:HA	2.10	0.51
38:DD:274:ARG:HG2	38:DD:275:LYS:H	1.75	0.51
40:DF:150:GLY:HA2	40:DF:172:TRP:CD2	2.46	0.51
40:DF:161:GLU:HG2	40:DF:164:ARG:HH12	1.76	0.51
41:DG:64:THR:OG1	41:DG:94:LEU:HD11	2.09	0.51
48:DP:27:HIS:CD2	48:DP:28:GLY:HA3	2.45	0.51
51:DS:38:GLN:HG2	51:DS:47:THR:HG21	1.92	0.51
54:DV:34:GLU:OE1	54:DV:35:LEU:N	2.43	0.51
55:DW:5:ALA:HB2	55:DW:54:ALA:HB2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:175:C:H2'	1:AA:176:C:C5'	2.41	0.51
1:AA:1075:C:H5''	2:AB:179:LYS:HE3	1.93	0.51
1:AA:1243:C:H5'	21:AU:8:THR:HB	1.92	0.51
1:AA:1429:C:H2'	1:AA:1430:C:C6	2.46	0.51
3:AC:121:ALA:HB1	3:AC:188:LEU:O	2.11	0.51
10:AJ:46:ARG:HB2	10:AJ:64:GLU:HG2	1.92	0.51
14:AN:45:ARG:O	14:AN:49:HIS:ND1	2.41	0.51
17:AQ:21:VAL:HG11	17:AQ:59:ILE:HD11	1.92	0.51
18:AR:36:ASN:O	18:AR:39:VAL:HB	2.11	0.51
20:AT:14:LYS:HG3	20:AT:17:ARG:NH2	2.26	0.51
30:B5:47:PRO:HB3	50:BR:102:GLU:OE1	2.11	0.51
34:B9:27:CYS:SG	34:B9:28:GLU:N	2.84	0.51
35:BA:528:A:C2	35:BA:2043:C:H4'	2.45	0.51
35:BA:1301:A:C8	35:BA:1303:G:C8	2.97	0.51
35:BA:1341:U:OP1	35:BA:1397:U:N3	2.40	0.51
35:BA:1865:G:H5'	35:BA:1866:C:OP2	2.09	0.51
35:BA:2445:G:C2'	35:BA:2446:G:H5'	2.41	0.51
35:BA:2557:G:O2'	35:BA:2558:C:H5'	2.11	0.51
35:BA:2677:G:H2'	35:BA:2678:C:C6	2.46	0.51
35:BA:2759:G:H2'	35:BA:2760:C:H5'	1.93	0.51
36:BB:43:C:H5'	36:BB:44:G:OP2	2.11	0.51
39:BE:26:ILE:HB	39:BE:182:LEU:HB3	1.93	0.51
49:BQ:66:ILE:HG22	49:BQ:104:PHE:CE2	2.46	0.51
50:BR:20:LEU:O	50:BR:24:GLN:N	2.44	0.51
52:BT:10:VAL:O	52:BT:13:ARG:HD2	2.09	0.51
52:BT:36:GLU:OE2	52:BT:38:ASN:O	2.28	0.51
1:CA:284:G:H2'	1:CA:285:G:H8	1.76	0.51
1:CA:412:A:C6	4:CD:35:ARG:HG3	2.46	0.51
1:CA:517:G:H5'	1:CA:519:C:C2	2.46	0.51
1:CA:574:A:N3	1:CA:883:C:H1'	2.25	0.51
1:CA:590:C:H2'	1:CA:591:U:H6	1.76	0.51
1:CA:690:G:H2'	1:CA:691:G:O4'	2.10	0.51
1:CA:1313:U:O4	19:CS:4:SER:N	2.44	0.51
3:CC:116:VAL:O	3:CC:120:VAL:HG22	2.11	0.51
4:CD:78:LEU:HD21	4:CD:139:ARG:NH2	2.25	0.51
12:CL:51:ALA:HB3	12:CL:53:ARG:NH2	2.26	0.51
13:CM:3:ARG:HH21	13:CM:9:ILE:CD1	2.23	0.51
23:CW:33:U:H5	23:CW:35:A:OP1	1.93	0.51
31:D6:18:ARG:HB3	31:D6:19:ARG:HG2	1.93	0.51
35:DA:20:C:N4	35:DA:520:G:H1	2.09	0.51
35:DA:140:G:H8	35:DA:140:G:OP2	1.94	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:415:A:H2'	35:DA:416:C:C6	2.45	0.51
35:DA:588:U:H2'	35:DA:589:C:C6	2.45	0.51
35:DA:1050:A:C2	35:DA:1051:G:N2	2.78	0.51
35:DA:1205:U:H4'	35:DA:1206:G:OP2	2.11	0.51
35:DA:1582:C:O2'	35:DA:1583:A:O5'	2.29	0.51
35:DA:2295:C:OP2	51:DS:15:ARG:NH1	2.44	0.51
35:DA:2758:A:C4	42:DH:67:LEU:HD21	2.45	0.51
35:DA:2811:G:OP1	39:DE:60:ASN:HA	2.11	0.51
46:DN:39:ARG:NE	46:DN:41:ASP:HB2	2.20	0.51
49:DQ:63:LYS:O	49:DQ:63:LYS:HD2	2.10	0.51
49:DQ:90:VAL:O	49:DQ:91:GLU:HG2	2.10	0.51
50:DR:100:LEU:HD11	50:DR:113:LEU:HD13	1.92	0.51
52:DT:25:GLY:HA2	52:DT:91:ARG:HB3	1.92	0.51
1:AA:454:C:N4	1:AA:479:C:O2	2.44	0.51
1:AA:511:C:C2	1:AA:512:U:C5	2.99	0.51
1:AA:1249:C:O2'	9:AI:69:GLY:O	2.29	0.51
3:AC:156:ARG:O	3:AC:157:ILE:HB	2.10	0.51
9:AI:96:LEU:HD23	9:AI:102:LEU:HG	1.93	0.51
12:AL:45:PRO:HG3	12:AL:53:ARG:HD2	1.93	0.51
16:AP:9:PHE:HE2	16:AP:18:ARG:HD2	1.75	0.51
17:AQ:32:TYR:O	17:AQ:34:LYS:N	2.40	0.51
18:AR:37:VAL:HG11	18:AR:78:LEU:HB3	1.92	0.51
18:AR:73:ALA:HB1	18:AR:79:LEU:HG	1.92	0.51
35:BA:10:G:C6	35:BA:2629:A:N6	2.78	0.51
35:BA:226:G:O2'	35:BA:227:A:OP2	2.25	0.51
35:BA:289:A:H61	35:BA:351:G:H1'	1.76	0.51
35:BA:997:G:OP1	53:BU:93:LYS:HD3	2.10	0.51
35:BA:1825:A:O3'	38:BD:233:HIS:NE2	2.43	0.51
35:BA:2684:U:C2'	35:BA:2685:G:H5'	2.41	0.51
42:BH:17:VAL:O	42:BH:45:VAL:HG21	2.11	0.51
43:BI:135:GLU:H	43:BI:135:GLU:CD	2.13	0.51
48:BP:27:HIS:CB	48:BP:29:LYS:HG2	2.39	0.51
57:BY:39:VAL:HG12	57:BY:40:GLU:H	1.75	0.51
1:CA:83:U:H2'	1:CA:84:U:C6	2.46	0.51
1:CA:337:C:H2'	1:CA:338:A:C8	2.46	0.51
1:CA:355:C:H2'	1:CA:356:A:O4'	2.10	0.51
1:CA:1027:C:H5''	1:CA:1028:C:OP2	2.11	0.51
1:CA:1068:G:OP2	1:CA:1068:G:C8	2.50	0.51
3:CC:143:GLU:O	3:CC:145:GLY:N	2.44	0.51
4:CD:113:SER:O	4:CD:117:ALA:N	2.44	0.51
10:CJ:87:THR:O	10:CJ:89:ASP:N	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CQ:69:LYS:NZ	17:CQ:69:LYS:HB3	2.24	0.51
27:D2:44:LEU:HD12	27:D2:45:SER:H	1.75	0.51
30:D5:3:LYS:HB3	35:DA:747:U:C5	2.46	0.51
33:D8:31:HIS:CA	35:DA:2420:C:H41	2.24	0.51
35:DA:245:G:O5'	48:DP:73:GLY:HA2	2.11	0.51
35:DA:760:G:H2'	35:DA:761:A:O4'	2.10	0.51
35:DA:793:A:O2'	35:DA:794:G:OP2	2.25	0.51
35:DA:918:A:N3	36:DB:80:U:O2'	2.42	0.51
35:DA:2200:C:O2	35:DA:2226:C:N4	2.44	0.51
37:DC:78:ALA:HB1	37:DC:82:LYS:CB	2.39	0.51
38:DD:21:PHE:HB3	38:DD:24:ILE:CG1	2.40	0.51
39:DE:77:ILE:HD12	39:DE:79:ARG:HH12	1.76	0.51
41:DG:125:PHE:HB2	41:DG:166:ASP:HB3	1.93	0.51
46:DN:137:LYS:HB2	46:DN:140:VAL:HA	1.92	0.51
54:DV:51:VAL:HG11	54:DV:56:SER:CB	2.41	0.51
56:DX:43:VAL:HG23	56:DX:47:PHE:CD2	2.45	0.51
1:AA:56:U:H2'	1:AA:57:G:H5'	1.93	0.51
1:AA:473:G:OP2	16:AP:75:ARG:HG2	2.10	0.51
1:AA:485:G:H1'	1:AA:486:U:H5	1.76	0.51
1:AA:1014:A:H4'	19:AS:14:HIS:CE1	2.46	0.51
1:AA:1321:C:H5''	1:AA:1322:C:C5'	2.40	0.51
1:AA:1442:G:N7	1:AA:1442(B):A:C6	2.79	0.51
3:AC:18:TRP:CD1	14:AN:54:PRO:HA	2.46	0.51
6:AF:100:ASN:O	18:AR:28:GLU:HA	2.11	0.51
15:AO:86:GLY:O	15:AO:87:ILE:HG23	2.11	0.51
23:AW:23:A:N6	23:AW:24:G:O6	2.44	0.51
31:B6:46:HIS:CE1	35:BA:2371:G:O2'	2.64	0.51
33:B8:52:LYS:N	33:B8:53:PRO:HD2	2.26	0.51
35:BA:328:U:H4'	57:BY:68:HIS:CE1	2.45	0.51
35:BA:910:A:H62	49:BQ:12:GLN:HA	1.76	0.51
35:BA:1062:G:H2'	35:BA:1062:G:N3	2.25	0.51
35:BA:1100:C:OP1	35:BA:1100:C:H4'	2.11	0.51
35:BA:1473:G:H2'	35:BA:1474:C:O4'	2.10	0.51
35:BA:1638:C:H6	35:BA:2698:U:O2'	1.94	0.51
35:BA:1690:A:H3'	35:BA:1691:C:H6	1.75	0.51
35:BA:1739:U:HO2'	35:BA:1740:G:C5'	2.23	0.51
35:BA:1889:A:N1	35:BA:2234:G:H1'	2.26	0.51
35:BA:2377:A:H2'	35:BA:2378:A:O4'	2.11	0.51
35:BA:2881:C:O3'	50:BR:96:ARG:NH2	2.36	0.51
37:BC:66:HIS:NE2	37:BC:186:ALA:O	2.43	0.51
42:BH:148:ILE:O	42:BH:150:ALA:N	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BN:18:ALA:CB	46:BN:26:LEU:HD22	2.41	0.51
49:BQ:42:ILE:HG13	49:BQ:97:VAL:CG2	2.41	0.51
49:BQ:78:PRO:HD3	49:BQ:87:LYS:HB3	1.93	0.51
50:BR:28:LEU:HD23	50:BR:34:ILE:HG21	1.92	0.51
52:BT:51:ARG:NH2	52:BT:100:TYR:HE1	2.09	0.51
58:BZ:10:ARG:HH21	58:BZ:36:LYS:HD2	1.76	0.51
58:BZ:17:ALA:HA	58:BZ:20:ARG:HB2	1.93	0.51
1:CA:139:G:C6	1:CA:140:A:N7	2.79	0.51
1:CA:158:G:H2'	1:CA:159:G:C8	2.46	0.51
1:CA:574:A:H1'	1:CA:883:C:O4'	2.11	0.51
2:CB:99:GLY:O	2:CB:101:MET:N	2.44	0.51
3:CC:24:ALA:HB1	3:CC:28:GLN:O	2.10	0.51
11:CK:29:ILE:HD13	11:CK:44:SER:HB3	1.93	0.51
16:CP:52:ASP:O	16:CP:55:ARG:N	2.44	0.51
23:CW:6:G:H1'	23:CW:68:C:H41	1.76	0.51
25:D0:5:LYS:HA	49:DQ:80:GLU:OE1	2.11	0.51
25:D0:27:GLU:HA	25:D0:67:VAL:O	2.10	0.51
26:D1:46:LEU:HD12	26:D1:46:LEU:C	2.31	0.51
33:D8:25:MET:HG2	48:DP:64:LYS:CB	2.40	0.51
35:DA:607:U:OP1	40:DF:102:PRO:HA	2.11	0.51
35:DA:732:C:H2'	35:DA:733:G:O4'	2.11	0.51
35:DA:1412:A:H2'	35:DA:1413:G:H8	1.76	0.51
35:DA:2167:U:H2'	35:DA:2169:A:OP2	2.11	0.51
35:DA:2207:G:H2'	35:DA:2207:G:N3	2.25	0.51
35:DA:2295:C:O2'	35:DA:2296:U:H5'	2.11	0.51
35:DA:2305:A:H61	41:DG:43:LEU:CD1	2.18	0.51
35:DA:2335:A:C8	35:DA:2337:G:C5	2.98	0.51
35:DA:2544:G:H8	35:DA:2544:G:O5'	1.94	0.51
40:DF:3:GLU:CB	40:DF:24:LEU:HG	2.41	0.51
40:DF:34:TRP:CH2	48:DP:16:ARG:HD3	2.46	0.51
42:DH:113:VAL:HG11	42:DH:151:ILE:HD12	1.93	0.51
48:DP:27:HIS:CG	48:DP:28:GLY:N	2.76	0.51
57:DY:39:VAL:H	57:DY:64:GLU:CD	2.13	0.51
58:DZ:138:GLU:O	58:DZ:155:LEU:HD21	2.11	0.51
1:AA:195:A:OP1	20:AT:68:LYS:NZ	2.44	0.51
1:AA:730:G:C5	1:AA:731:G:H1'	2.46	0.51
1:AA:1114:C:H42	1:AA:1186:G:H22	1.59	0.51
1:AA:1228:C:H2'	1:AA:1229:A:H8	1.75	0.51
8:AH:29:SER:H	8:AH:32:LYS:HB2	1.76	0.51
12:AL:25:PRO:C	12:AL:27:LEU:N	2.64	0.51
33:B8:5:LYS:HG2	35:BA:242:G:C8	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1373:A:H5''	35:BA:1374:G:OP2	2.11	0.51
35:BA:1583:A:N3	35:BA:1583:A:OP2	2.44	0.51
35:BA:2303:G:H5'	41:BG:126:ASP:HB2	1.92	0.51
36:BB:9:G:P	51:BS:25:ARG:NH2	2.84	0.51
37:BC:100:ILE:HG23	37:BC:132:GLY:HA3	1.93	0.51
38:BD:30:GLU:HG3	38:BD:63:ARG:NH2	2.26	0.51
38:BD:35:LYS:HG2	38:BD:104:TYR:CD2	2.46	0.51
40:BF:53:THR:HG22	40:BF:56:GLU:HB2	1.92	0.51
41:BG:125:PHE:HB3	41:BG:166:ASP:HB2	1.93	0.51
43:BI:6:LEU:O	43:BI:15:VAL:HG23	2.11	0.51
49:BQ:108:GLY:N	49:BQ:109:VAL:HG22	2.26	0.51
53:BU:32:PHE:CD1	53:BU:32:PHE:N	2.79	0.51
54:BV:76:LYS:HZ1	54:BV:83:ARG:CD	2.24	0.51
1:CA:584:G:H5'	17:CQ:91:ARG:NH1	2.25	0.51
1:CA:790:A:C6	1:CA:791:G:C6	2.99	0.51
1:CA:1054:C:OP2	1:CA:1197:G:OP2	2.28	0.51
1:CA:1404:C:H2'	1:CA:1405:G:C8	2.46	0.51
2:CB:60:ASP:O	2:CB:64:ARG:HG2	2.10	0.51
2:CB:76:GLN:O	2:CB:211:ILE:HD12	2.10	0.51
3:CC:11:ARG:HG2	3:CC:15:THR:HG21	1.93	0.51
9:CI:33:PHE:O	9:CI:36:TYR:N	2.44	0.51
9:CI:55:ALA:HB1	9:CI:59:PHE:CD1	2.46	0.51
9:CI:93:ARG:HH12	9:CI:97:LYS:HD3	1.76	0.51
18:CR:47:THR:O	18:CR:83:GLU:N	2.43	0.51
18:CR:56:THR:OG1	18:CR:57:GLY:N	2.44	0.51
19:CS:28:LYS:HD2	19:CS:29:ARG:HG2	1.92	0.51
28:D3:11:SER:OG	35:DA:989:G:OP2	2.14	0.51
35:DA:2261:C:H1'	35:DA:2388:A:N3	2.26	0.51
36:DB:51:G:P	51:DS:63:THR:HG23	2.50	0.51
44:DJ:22:UNK:HA	44:DJ:119:UNK:CB	2.41	0.51
46:DN:78:TYR:CG	46:DN:79:PRO:HD3	2.46	0.51
56:DX:87:GLN:OE1	56:DX:88:LYS:HG2	2.11	0.51
1:AA:538:G:H5''	12:AL:114:LYS:HB2	1.93	0.50
1:AA:1352:C:H2'	1:AA:1353:G:C8	2.46	0.50
1:AA:1375:A:OP1	7:AG:28:ASN:ND2	2.45	0.50
2:AB:68:ILE:HB	2:AB:70:PHE:CE1	2.47	0.50
3:AC:19:GLU:HA	3:AC:54:ARG:NH1	2.26	0.50
14:AN:4:LYS:C	14:AN:6:LEU:N	2.64	0.50
14:AN:46:GLU:O	14:AN:48:ALA:N	2.44	0.50
16:AP:17:TYR:HE1	16:AP:41:PRO:HG3	1.76	0.50
30:B5:30:LEU:HD12	30:B5:40:LYS:C	2.32	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:B9:31:LYS:HD3	35:BA:2478:A:H5'	1.93	0.50
35:BA:588:U:H1'	40:BF:90:PHE:HB3	1.93	0.50
35:BA:1629:U:H2'	35:BA:1630:G:O4'	2.11	0.50
35:BA:1799:G:H5'	35:BA:1819:A:N6	2.26	0.50
39:BE:4:ILE:HD13	39:BE:91:VAL:HG12	1.92	0.50
47:BO:119:PRO:HB3	52:BT:68:TYR:CZ	2.46	0.50
49:BQ:37:LEU:HD11	49:BQ:130:LYS:HB2	1.93	0.50
50:BR:85:PRO:HA	50:BR:88:ARG:HB3	1.93	0.50
51:BS:26:LEU:HD12	51:BS:27:SER:N	2.26	0.50
51:BS:74:ALA:HA	51:BS:106:ARG:HG2	1.93	0.50
52:BT:16:ARG:HH11	52:BT:16:ARG:HB2	1.75	0.50
52:BT:60:THR:HG22	52:BT:77:PRO:HA	1.93	0.50
54:BV:66:ARG:NH1	54:BV:67:GLY:O	2.44	0.50
56:BX:37:THR:CG2	56:BX:39:ILE:HB	2.41	0.50
58:BZ:123:ASP:O	58:BZ:124:ILE:HG23	2.10	0.50
1:CA:136:C:N4	1:CA:227:G:H1	2.09	0.50
1:CA:373:A:H2'	1:CA:374:A:H8	1.76	0.50
1:CA:511:C:O3'	4:CD:43:HIS:NE2	2.43	0.50
1:CA:682:G:N2	1:CA:709:G:C4	2.79	0.50
7:CG:75:VAL:HA	7:CG:88:PRO:HA	1.92	0.50
9:CI:23:ASN:H	9:CI:60:ASP:CG	2.13	0.50
12:CL:110:VAL:CG2	12:CL:120:TYR:HB3	2.41	0.50
20:CT:49:ALA:HB3	20:CT:99:LEU:HD12	1.92	0.50
25:D0:43:THR:H	35:DA:2331:G:H4'	1.76	0.50
26:D1:76:ARG:HB2	26:D1:78:LYS:NZ	2.25	0.50
33:D8:13:ARG:NH2	35:DA:250:G:OP2	2.45	0.50
35:DA:861:A:C2	35:DA:917:A:C4	2.99	0.50
35:DA:1218:C:H2'	35:DA:1219:G:H5''	1.93	0.50
35:DA:1245:G:OP1	48:DP:16:ARG:NH2	2.40	0.50
35:DA:1360:A:H2'	35:DA:1361:G:O4'	2.11	0.50
35:DA:1560:G:C2'	35:DA:1561:G:H5'	2.41	0.50
35:DA:2104:G:H3'	35:DA:2105:C:C6	2.46	0.50
35:DA:2627:G:N2	35:DA:2777:G:OP2	2.44	0.50
39:DE:76:ARG:O	39:DE:77:ILE:C	2.48	0.50
41:DG:83:ARG:H	41:DG:86:MET:HG3	1.76	0.50
42:DH:6:ARG:HB3	42:DH:69:ARG:HG3	1.94	0.50
56:DX:25:LYS:HB3	56:DX:26:TYR:O	2.11	0.50
57:DY:14:LEU:HD12	57:DY:24:VAL:HG22	1.93	0.50
58:DZ:68:PRO:O	58:DZ:91:LEU:HB2	2.11	0.50
58:DZ:82:ARG:HH21	58:DZ:82:ARG:HB3	1.76	0.50
1:AA:35:G:O2'	12:AL:118:SER:O	2.28	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:179:A:O2'	1:AA:180:U:H5'	2.11	0.50
1:AA:814:A:N7	1:AA:816:A:C4	2.79	0.50
1:AA:1207:G:H2'	1:AA:1208:C:C6	2.47	0.50
7:AG:31:MET:HE2	7:AG:31:MET:HA	1.94	0.50
7:AG:47:CYS:O	7:AG:50:ILE:HB	2.12	0.50
10:AJ:4:ILE:HD12	10:AJ:74:ILE:C	2.32	0.50
14:AN:37:PHE:HB3	14:AN:39:LEU:HD12	1.92	0.50
25:B0:70:GLN:HE22	25:B0:72:ARG:CG	2.25	0.50
28:B3:43:ILE:O	28:B3:47:VAL:HG23	2.11	0.50
35:BA:117:G:C6	35:BA:119:A:C6	3.00	0.50
35:BA:271(P):C:C2'	35:BA:271(Q):G:H5'	2.41	0.50
35:BA:463:G:H5''	35:BA:464:U:OP2	2.11	0.50
35:BA:899:A:H2'	35:BA:899:A:N3	2.26	0.50
35:BA:1064:C:H3'	35:BA:1065:U:H5''	1.93	0.50
35:BA:1221:C:H42	35:BA:1229:G:H1	1.59	0.50
35:BA:2225:A:H1'	35:BA:2226:C:OP2	2.10	0.50
35:BA:2602:A:H4'	35:BA:2603:G:C5'	2.41	0.50
35:BA:2788:C:O2'	35:BA:2809:A:N3	2.40	0.50
40:BF:36:VAL:O	40:BF:40:GLN:HB2	2.12	0.50
42:BH:20:ALA:HB1	42:BH:21:PRO:HD2	1.92	0.50
43:BI:6:LEU:CA	43:BI:15:VAL:HG23	2.42	0.50
46:BN:115:ARG:O	46:BN:118:LYS:HB3	2.11	0.50
47:BO:63:VAL:HG23	47:BO:64:ARG:HB2	1.94	0.50
50:BR:7:GLY:O	50:BR:8:ARG:HG3	2.11	0.50
52:BT:1:MET:O	52:BT:3:ARG:HG2	2.12	0.50
52:BT:65:LYS:HG3	52:BT:66:VAL:H	1.75	0.50
53:BU:14:HIS:HB3	53:BU:32:PHE:CD2	2.46	0.50
53:BU:38:THR:O	53:BU:41:ALA:HB3	2.11	0.50
54:BV:20:LEU:HB3	54:BV:21:ARG:NH1	2.25	0.50
1:CA:122:G:H2'	1:CA:123:C:O4'	2.11	0.50
1:CA:430:A:OP2	4:CD:8:VAL:HG22	2.12	0.50
1:CA:486:U:H2'	1:CA:487:A:H8	1.76	0.50
1:CA:742:G:P	15:CO:35:ARG:HH22	2.33	0.50
1:CA:1273:G:C2	1:CA:1274:G:H1'	2.46	0.50
1:CA:1396:A:C4'	1:CA:1398:A:H1'	2.41	0.50
4:CD:13:ARG:HD2	4:CD:38:TYR:O	2.11	0.50
10:CJ:61:GLU:OE2	14:CN:58:LYS:NZ	2.34	0.50
16:CP:18:ARG:HD3	16:CP:35:LYS:HD2	1.93	0.50
18:CR:25:THR:HG21	18:CR:42:ARG:HH12	1.74	0.50
27:D2:53:LEU:HD13	35:DA:72:U:H1'	1.93	0.50
35:DA:214:G:O2'	35:DA:216:A:O2'	2.15	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:814:C:H5''	54:DV:86:GLY:HA3	1.92	0.50
35:DA:1218:C:N3	35:DA:1231:G:N2	2.56	0.50
35:DA:1503:U:H2'	35:DA:1504:C:C6	2.46	0.50
35:DA:1512:U:H6	35:DA:1512:U:H5''	1.75	0.50
35:DA:1789:A:OP1	38:DD:221:VAL:HA	2.11	0.50
35:DA:2243:U:H2'	35:DA:2244:U:C6	2.46	0.50
49:DQ:34:LEU:HD11	49:DQ:129:THR:OG1	2.11	0.50
52:DT:30:VAL:HG12	52:DT:84:GLN:O	2.11	0.50
52:DT:129:ARG:HH11	52:DT:131:ALA:HB3	1.75	0.50
58:DZ:6:LYS:HE3	58:DZ:8:TYR:CD2	2.46	0.50
1:AA:165:C:H2'	1:AA:165:C:O2	2.10	0.50
1:AA:167:G:H2'	1:AA:168:G:C8	2.46	0.50
1:AA:892:A:C2	1:AA:907:A:C4	2.99	0.50
1:AA:1165:C:OP2	1:AA:1165:C:C6	2.64	0.50
1:AA:1202:G:H2'	1:AA:1203:C:H5'	1.93	0.50
1:AA:1247:U:H2'	1:AA:1248:A:O4'	2.11	0.50
3:AC:117:ALA:HB2	3:AC:200:ALA:HB2	1.93	0.50
4:AD:23:GLY:HA3	4:AD:112:VAL:HG22	1.92	0.50
7:AG:26:PHE:CE1	7:AG:30:ILE:HD11	2.47	0.50
11:AK:89:ALA:C	11:AK:91:ARG:H	2.13	0.50
11:AK:129:SER:OG	11:AK:129:SER:O	2.24	0.50
20:AT:64:ASP:OD2	20:AT:81:LYS:NZ	2.34	0.50
23:AY:40:C:C6	23:AY:40:C:P	3.05	0.50
27:B2:28:LYS:HD2	27:B2:32:LEU:CD2	2.41	0.50
35:BA:11:G:H2'	35:BA:12:U:H6	1.76	0.50
35:BA:123:G:H2'	35:BA:124:G:O4'	2.11	0.50
35:BA:577:G:OP1	35:BA:2502:G:O2'	2.21	0.50
35:BA:1420:U:HO2'	35:BA:1421:G:P	2.35	0.50
38:BD:260:ARG:NH2	38:BD:264:LYS:HE3	2.26	0.50
39:BE:171:GLU:O	39:BE:184:VAL:HA	2.10	0.50
40:BF:148:LEU:O	40:BF:149:ASP:HB2	2.11	0.50
43:BI:75:LEU:HD11	43:BI:105:HIS:NE2	2.26	0.50
47:BO:48:PRO:O	47:BO:49:ARG:NE	2.44	0.50
48:BP:20:GLY:O	48:BP:21:ARG:HB2	2.11	0.50
53:BU:60:LEU:HD23	53:BU:64:ARG:HG3	1.92	0.50
56:BX:77:LYS:CG	56:BX:78:LYS:H	2.23	0.50
57:BY:27:VAL:HA	57:BY:39:VAL:H	1.75	0.50
1:CA:14:U:H2'	1:CA:16:A:OP2	2.11	0.50
1:CA:624:C:O3'	16:CP:10:GLY:HA2	2.11	0.50
1:CA:976:G:H5'	1:CA:1358:U:O2'	2.12	0.50
1:CA:1174:G:H2'	1:CA:1175:G:H8	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1225:A:H2'	1:CA:1225:A:N3	2.26	0.50
5:CE:11:ILE:CB	5:CE:31:LEU:HD12	2.41	0.50
6:CF:97:PHE:HB3	18:CR:32:ARG:NE	2.27	0.50
12:CL:21:LYS:H	12:CL:21:LYS:CD	2.23	0.50
17:CQ:59:ILE:HG23	17:CQ:71:PHE:HB3	1.93	0.50
23:CY:41:C:H2'	23:CY:42:C:H6	1.76	0.50
35:DA:86:C:H4'	35:DA:104:U:H1'	1.93	0.50
35:DA:1645:G:H5''	35:DA:1646:C:H5'	1.93	0.50
35:DA:1916:A:H5''	35:DA:1916:A:H8	1.76	0.50
35:DA:2262:U:C2'	35:DA:2263:C:H5''	2.42	0.50
35:DA:2287:A:H62	35:DA:2344:U:H3	1.58	0.50
35:DA:2723:C:C5'	50:DR:5:LYS:HE2	2.38	0.50
40:DF:202:PHE:O	40:DF:206:ILE:HG13	2.12	0.50
47:DO:7:TYR:HE1	47:DO:20:MET:HE3	1.75	0.50
56:DX:40:LYS:O	56:DX:44:GLU:HG2	2.11	0.50
56:DX:51:VAL:HG13	56:DX:79:ALA:HB1	1.92	0.50
57:DY:88:LYS:O	57:DY:90:LEU:HG	2.11	0.50
1:AA:170:U:O2'	1:AA:171:A:N7	2.39	0.50
1:AA:266:G:H2'	1:AA:266:G:N3	2.27	0.50
1:AA:446:G:H1	1:AA:488:C:N4	2.02	0.50
1:AA:454:C:H3'	1:AA:455:C:C6	2.46	0.50
1:AA:941:G:C2	1:AA:1343:G:C2	3.00	0.50
1:AA:1269:A:C2	1:AA:1313:U:H1'	2.46	0.50
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.46	0.50
7:AG:26:PHE:O	7:AG:30:ILE:HG13	2.12	0.50
8:AH:20:TYR:HA	8:AH:65:TYR:CZ	2.46	0.50
10:AJ:63:PHE:HB2	14:AN:57:ARG:C	2.32	0.50
11:AK:42:TRP:HZ3	11:AK:44:SER:HB3	1.76	0.50
15:AO:79:ARG:O	15:AO:82:ILE:HG22	2.12	0.50
25:B0:43:THR:HG22	35:BA:2331:G:O2'	2.11	0.50
27:B2:28:LYS:O	27:B2:32:LEU:HD21	2.11	0.50
27:B2:33:MET:SD	27:B2:33:MET:N	2.84	0.50
35:BA:49:A:H4'	35:BA:50:U:H5'	1.92	0.50
35:BA:128:C:O2'	35:BA:129:C:OP1	2.23	0.50
35:BA:142:A:C8	35:BA:1408:C:H1'	2.47	0.50
35:BA:422:A:H2'	35:BA:423:A:C8	2.47	0.50
35:BA:683:C:H2'	35:BA:684:G:H5''	1.92	0.50
35:BA:866:A:H5''	35:BA:867:C:OP2	2.11	0.50
35:BA:1429:G:C4	35:BA:1568:G:C2	2.99	0.50
35:BA:2690:C:OP1	50:BR:17:ARG:NH1	2.40	0.50
36:BB:44:G:C2	36:BB:48:A:C2	3.00	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BE:188:VAL:HG23	39:BE:189:PRO:HD2	1.94	0.50
46:BN:89:LYS:O	46:BN:92:ALA:HB3	2.11	0.50
48:BP:62:LEU:O	48:BP:62:LEU:CD1	2.39	0.50
53:BU:90:VAL:HG13	54:BV:39:LEU:HG	1.93	0.50
56:BX:25:LYS:HG3	56:BX:87:GLN:HE21	1.76	0.50
1:CA:542:G:H5'	4:CD:41:GLY:HA3	1.93	0.50
1:CA:658:G:H2'	1:CA:659:U:C6	2.46	0.50
1:CA:799:G:H2'	1:CA:800:G:H5'	1.93	0.50
2:CB:219:VAL:HA	2:CB:222:ILE:HD12	1.92	0.50
28:D3:18:ASP:HA	28:D3:21:ALA:HB3	1.92	0.50
34:D9:11:CYS:SG	34:D9:13:LYS:N	2.84	0.50
35:DA:247:G:H4'	35:DA:386:G:C5	2.47	0.50
35:DA:481:G:H1'	35:DA:507:A:N1	2.25	0.50
35:DA:1104:C:H2'	35:DA:1105:U:C5'	2.41	0.50
35:DA:1468:C:H2'	35:DA:1469:A:H8	1.75	0.50
35:DA:1614:A:N1	55:DW:91:GLY:HA2	2.27	0.50
35:DA:1864:U:C3'	35:DA:1865:G:H5''	2.42	0.50
35:DA:2317:C:H2'	35:DA:2318:G:O4'	2.11	0.50
47:DO:119:PRO:HB2	52:DT:68:TYR:CD2	2.46	0.50
49:DQ:19:GLY:O	49:DQ:21:THR:HG23	2.12	0.50
56:DX:12:VAL:HG12	56:DX:27:THR:O	2.10	0.50
56:DX:88:LYS:HD2	56:DX:88:LYS:N	2.26	0.50
1:AA:165:C:H4'	1:AA:166:G:OP1	2.11	0.50
1:AA:1023:G:O6	1:AA:1039:C:C5	2.64	0.50
1:AA:1057:G:H5''	3:AC:154:SER:OG	2.11	0.50
1:AA:1059:C:H42	1:AA:1198:G:H1	1.60	0.50
3:AC:44:GLU:HG3	3:AC:52:LEU:HD11	1.93	0.50
4:AD:72:GLU:HA	4:AD:75:PHE:HB3	1.92	0.50
12:AL:28:LYS:C	12:AL:30:ALA:H	2.14	0.50
15:AO:64:ARG:HH21	35:BA:715:G:P	2.34	0.50
16:AP:39:TYR:OH	16:AP:41:PRO:HB3	2.11	0.50
19:AS:6:LYS:N	19:AS:6:LYS:HD3	2.26	0.50
19:AS:30:LEU:N	19:AS:48:THR:HG21	2.27	0.50
25:B0:43:THR:HG23	25:B0:43:THR:O	2.11	0.50
33:B8:64:TYR:CE2	35:BA:594:U:OP1	2.64	0.50
35:BA:102:G:H5''	35:BA:103:A:C5'	2.37	0.50
35:BA:1016:G:H1	35:BA:1146:C:N4	2.08	0.50
35:BA:1312:U:H5	35:BA:1340:U:O4	1.95	0.50
35:BA:1763:G:C8	35:BA:1763:G:C3'	2.91	0.50
48:BP:95:VAL:HB	48:BP:125:VAL:HG23	1.92	0.50
52:BT:15:VAL:HG23	52:BT:79:HIS:CE1	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:BU:8:VAL:O	53:BU:12:ARG:HG3	2.11	0.50
58:BZ:14:LYS:HB3	58:BZ:17:ALA:HB3	1.93	0.50
1:CA:190:U:O2	20:CT:105:SER:HB2	2.12	0.50
1:CA:435:C:N3	1:CA:436:C:N4	2.60	0.50
1:CA:501:C:H2'	1:CA:502:G:H8	1.77	0.50
1:CA:502:G:OP1	12:CL:118:SER:HB2	2.10	0.50
1:CA:665:A:N6	1:CA:725:G:O6	2.44	0.50
1:CA:1153:C:OP1	10:CJ:13:HIS:NE2	2.44	0.50
1:CA:1444:C:H42	1:CA:1458:G:H1	1.60	0.50
2:CB:19:HIS:CG	2:CB:204:ASN:HD21	2.30	0.50
8:CH:91:ARG:HG3	17:CQ:32:TYR:O	2.11	0.50
18:CR:43:PHE:O	18:CR:51:LEU:HD12	2.12	0.50
20:CT:50:GLU:HG3	20:CT:51:GLU:N	2.27	0.50
21:CU:8:THR:HA	21:CU:21:TYR:CD2	2.47	0.50
23:CW:57:G:H2'	23:CW:57:G:N3	2.27	0.50
27:D2:54:LYS:HE3	35:DA:77:C:OP1	2.12	0.50
33:D8:5:LYS:HG2	35:DA:254:G:O6	2.12	0.50
33:D8:53:PRO:HG2	33:D8:54:GLU:H	1.75	0.50
35:DA:411:G:C5	48:DP:72:PRO:HG3	2.46	0.50
35:DA:1836:C:C2'	35:DA:1837:C:H5'	2.42	0.50
35:DA:2021:C:H4'	35:DA:2022:U:OP2	2.11	0.50
35:DA:2316:C:O2	35:DA:2316:C:H2'	2.12	0.50
35:DA:2686:G:H2'	35:DA:2687:U:C6	2.46	0.50
39:DE:59:VAL:HG21	39:DE:63:LEU:CB	2.41	0.50
39:DE:132:HIS:CD2	39:DE:133:LYS:HZ3	2.30	0.50
42:DH:22:GLY:CA	42:DH:37:VAL:H	2.25	0.50
51:DS:28:VAL:HG11	51:DS:99:LYS:NZ	2.27	0.50
58:DZ:10:ARG:NH2	58:DZ:26:GLY:O	2.44	0.50
1:AA:864:A:H5'	5:AE:86:ALA:HB2	1.94	0.50
1:AA:1128:C:H2'	1:AA:1129:C:H4'	1.94	0.50
2:AB:84:GLU:OE2	2:AB:216:SER:HA	2.11	0.50
7:AG:26:PHE:CE1	7:AG:120:ILE:HD11	2.45	0.50
9:AI:70:LYS:N	9:AI:73:GLN:HB2	2.26	0.50
13:AM:15:VAL:O	13:AM:19:LEU:HD23	2.11	0.50
23:AW:28:G:H2'	23:AW:29:G:H5'	1.94	0.50
35:BA:271(W):G:H5''	35:BA:271(X):G:OP2	2.12	0.50
35:BA:522:G:C6	35:BA:523:C:C4	2.99	0.50
35:BA:769:G:H5'	35:BA:1379:A:H61	1.74	0.50
35:BA:2012:G:O3'	55:BW:96:ILE:HG13	2.11	0.50
35:BA:2052:G:O4'	39:BE:142:GLY:HA3	2.12	0.50
39:BE:151:TYR:CZ	39:BE:154:LYS:HD2	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BG:73:ALA:HB3	41:BG:85:GLY:HA2	1.94	0.50
51:BS:26:LEU:HD22	51:BS:39:ILE:HD13	1.93	0.50
54:BV:69:LYS:HZ1	54:BV:71:LEU:CD2	2.24	0.50
1:CA:1081:G:H5''	5:CE:18:ARG:HG2	1.93	0.50
3:CC:29:TYR:H	3:CC:32:LEU:H	1.58	0.50
12:CL:82:VAL:HG23	12:CL:106:ASP:OD2	2.12	0.50
23:CW:27:G:H8	23:CW:27:G:OP2	1.95	0.50
23:CW:52:G:H2'	23:CW:53:G:N9	2.27	0.50
35:DA:1038:C:N3	35:DA:1117:G:N2	2.44	0.50
35:DA:1906:G:H1	35:DA:1924:C:H42	1.58	0.50
35:DA:2330:G:H2'	35:DA:2331:G:O4'	2.11	0.50
38:DD:223:GLY:HA3	38:DD:231:HIS:CE1	2.47	0.50
38:DD:258:LYS:HD2	38:DD:273:ARG:HH22	1.77	0.50
38:DD:267:SER:O	38:DD:269:PHE:N	2.44	0.50
41:DG:60:LEU:O	41:DG:64:THR:HG22	2.11	0.50
42:DH:152:ARG:HH11	42:DH:153:LYS:NZ	2.09	0.50
48:DP:134:ALA:O	48:DP:138:LEU:HG	2.11	0.50
1:AA:408:A:C4	1:AA:409:G:C8	3.00	0.50
1:AA:460:G:H3'	1:AA:461:A:C5'	2.41	0.50
1:AA:634:C:O2'	1:AA:635:G:H5'	2.12	0.50
1:AA:1286:A:O2'	1:AA:1287:A:H4'	2.12	0.50
1:AA:1300:G:O6	1:AA:1335:C:H5''	2.11	0.50
2:AB:102:LEU:HD11	2:AB:182:ILE:HG13	1.93	0.50
9:AI:17:VAL:HG11	9:AI:81:ILE:HG12	1.94	0.50
9:AI:27:THR:HG23	9:AI:31:GLN:O	2.12	0.50
10:AJ:24:VAL:O	10:AJ:27:ALA:HB3	2.12	0.50
12:AL:69:TYR:HD2	12:AL:99:HIS:HD2	1.59	0.50
14:AN:21:TYR:HE1	14:AN:23:ARG:HD3	1.77	0.50
15:AO:39:LEU:HD12	15:AO:56:LEU:HD22	1.94	0.50
22:AV:19:G:OP2	22:AV:19:G:O4'	2.29	0.50
34:B9:1:MET:O	34:B9:2:LYS:HB2	2.12	0.50
35:BA:263:C:H2'	35:BA:264:C:O4'	2.12	0.50
35:BA:271(M):G:H2'	35:BA:271(N):U:H4'	1.93	0.50
35:BA:688:U:H5'	35:BA:1780:A:C2	2.46	0.50
35:BA:1291:C:H2'	35:BA:1292:U:C6	2.47	0.50
35:BA:1607:C:H4'	35:BA:1608:A:H5''	1.94	0.50
35:BA:1932:A:H2'	35:BA:1933:G:O4'	2.11	0.50
35:BA:2065:C:H2'	35:BA:2066:C:H6	1.76	0.50
35:BA:2376:A:H2'	35:BA:2376:A:N3	2.27	0.50
36:BB:118:G:H8	36:BB:118:G:O5'	1.95	0.50
38:BD:57:GLY:HA3	38:BD:213:ARG:O	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BP:116:GLY:HA3	48:BP:134:ALA:HB2	1.94	0.50
50:BR:84:ALA:N	50:BR:85:PRO:HD2	2.26	0.50
52:BT:45:PHE:CE2	52:BT:74:ARG:HD2	2.46	0.50
1:CA:201:C:N4	1:CA:216:G:H1	2.09	0.50
1:CA:920:U:H2'	1:CA:920:U:O2	2.12	0.50
1:CA:1199:U:H4'	10:CJ:54:PHE:CD2	2.46	0.50
1:CA:1434:A:H2'	1:CA:1435:G:O4'	2.12	0.50
4:CD:8:VAL:HG11	4:CD:115:ARG:CZ	2.42	0.50
6:CF:19:LEU:O	6:CF:23:LYS:HG3	2.12	0.50
25:D0:53:MET:HG3	25:D0:59:LEU:HD23	1.92	0.50
30:D5:34:PRO:N	30:D5:35:GLU:OE2	2.45	0.50
32:D7:5:TRP:CZ3	35:DA:464:U:H4'	2.47	0.50
35:DA:320:A:H5''	35:DA:321:G:OP1	2.12	0.50
35:DA:919:G:H4'	36:DB:81:G:H4'	1.93	0.50
35:DA:1062:G:N3	35:DA:1062:G:H2'	2.27	0.50
35:DA:2302:G:H2'	35:DA:2303:G:H8	1.77	0.50
35:DA:2619:C:O2'	35:DA:2620:C:H5'	2.11	0.50
35:DA:2836:U:H2'	35:DA:2837:G:C8	2.46	0.50
36:DB:44:G:O2'	36:DB:45:A:P	2.70	0.50
40:DF:3:GLU:HG3	40:DF:20:LEU:H	1.76	0.50
41:DG:53:LEU:HD23	41:DG:53:LEU:H	1.76	0.50
48:DP:21:ARG:NH1	48:DP:29:LYS:HE3	2.25	0.50
52:DT:26:ASP:OD1	52:DT:91:ARG:HD3	2.12	0.50
57:DY:96:ILE:CG2	57:DY:101:LYS:HB2	2.41	0.50
58:DZ:130:PRO:HA	58:DZ:133:ILE:HD11	1.94	0.50
1:AA:254:G:H21	17:AQ:16:GLN:HE22	1.60	0.50
1:AA:552:U:H4'	12:AL:86:ARG:HG2	1.92	0.50
1:AA:716:A:N3	11:AK:118:GLY:HA2	2.26	0.50
1:AA:799:G:C6	1:AA:800:G:C4	2.99	0.50
1:AA:1128:C:C2'	1:AA:1129:C:H4'	2.42	0.50
1:AA:1326:C:H2'	1:AA:1327:C:C6	2.47	0.50
3:AC:73:PRO:O	3:AC:76:VAL:N	2.32	0.50
5:AE:84:PHE:O	5:AE:86:ALA:N	2.41	0.50
8:AH:33:GLU:O	8:AH:35:ILE:N	2.44	0.50
10:AJ:61:GLU:OE2	14:AN:49:HIS:HE1	1.95	0.50
10:AJ:74:ILE:CG1	10:AJ:75:ILE:N	2.73	0.50
35:BA:1000:A:C6	35:BA:1155:A:C8	2.99	0.50
35:BA:1391:U:H2'	35:BA:1393:A:OP2	2.12	0.50
35:BA:1480:G:C6	35:BA:1481:U:N3	2.79	0.50
35:BA:1570:A:C4'	38:BD:38:LYS:HE2	2.42	0.50
35:BA:1754:C:OP1	52:BT:96:ARG:NH1	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2092:U:H5	35:BA:2226:C:OP1	1.95	0.50
35:BA:2661:G:O2'	35:BA:2662:A:OP1	2.28	0.50
35:BA:2873:A:C2	50:BR:8:ARG:HD3	2.47	0.50
39:BE:176:ILE:HB	39:BE:181:LEU:HB2	1.94	0.50
40:BF:82:ILE:O	40:BF:84:VAL:N	2.40	0.50
42:BH:73:ALA:O	42:BH:76:VAL:N	2.38	0.50
48:BP:27:HIS:C	48:BP:29:LYS:N	2.64	0.50
56:BX:24:GLY:HA3	56:BX:80:ILE:HG13	1.94	0.50
56:BX:52:VAL:CG2	56:BX:82:GLN:H	2.25	0.50
1:CA:1064:G:O2'	1:CA:1065:U:OP2	2.30	0.50
1:CA:1118:C:H1'	1:CA:1179:A:C4	2.47	0.50
1:CA:1277:C:H3'	1:CA:1277:C:H6	1.77	0.50
1:CA:1391:U:H2'	1:CA:1392:G:C8	2.47	0.50
2:CB:142:LEU:HA	2:CB:145:LEU:HB2	1.94	0.50
3:CC:28:GLN:O	3:CC:29:TYR:HB2	2.11	0.50
6:CF:86:ARG:O	6:CF:87:ARG:HG2	2.11	0.50
6:CF:98:LEU:HB3	18:CR:30:ASP:HA	1.92	0.50
7:CG:57:GLU:O	7:CG:60:LYS:N	2.41	0.50
9:CI:10:ARG:HG2	9:CI:75:ASP:HB2	1.93	0.50
9:CI:13:ALA:HA	9:CI:67:GLY:HA3	1.93	0.50
13:CM:66:LEU:O	13:CM:70:LEU:HB2	2.12	0.50
22:CV:66:C:H5'	22:CV:67:C:OP2	2.11	0.50
32:D7:40:TRP:CG	35:DA:459:U:H5''	2.46	0.50
33:D8:58:ILE:O	33:D8:61:LEU:HD22	2.11	0.50
35:DA:309:G:N3	35:DA:329:G:O2'	2.44	0.50
35:DA:335:C:H5'	57:DY:73:ARG:HH21	1.77	0.50
35:DA:2120:G:H2'	35:DA:2120:G:N3	2.26	0.50
35:DA:2294:C:OP1	51:DS:93:LYS:HE2	2.11	0.50
35:DA:2849:U:H4'	35:DA:2868:A:C2	2.47	0.50
39:DE:9:VAL:HG22	39:DE:25:VAL:O	2.12	0.50
41:DG:63:ILE:HD12	41:DG:141:PHE:CE2	2.46	0.50
58:DZ:9:TYR:CE1	58:DZ:62:PRO:HD3	2.47	0.50
1:AA:45:U:H2'	1:AA:46:G:C8	2.47	0.50
1:AA:131:C:H2'	1:AA:132:C:C6	2.47	0.50
1:AA:1258:G:O2'	1:AA:1259:C:H5'	2.11	0.50
1:AA:1260:C:P	1:AA:1284:C:H4'	2.52	0.50
1:AA:1275:A:H2'	1:AA:1276:G:N9	2.27	0.50
2:AB:102:LEU:HD13	2:AB:158:LEU:HD23	1.93	0.50
3:AC:73:PRO:O	3:AC:75:VAL:N	2.44	0.50
12:AL:33:ARG:HB3	12:AL:60:LEU:HD12	1.94	0.50
12:AL:71:PRO:O	12:AL:102:ARG:HD3	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AW:18:G:H22	23:AW:55:U:H5''	1.76	0.50
35:BA:71:A:C2	56:BX:31:HIS:CE1	3.00	0.50
35:BA:559:G:C2'	35:BA:560:C:H5'	2.41	0.50
35:BA:897:C:H4'	35:BA:898:C:O5'	2.12	0.50
35:BA:903:C:H2'	35:BA:904:C:H5''	1.92	0.50
35:BA:1379:A:O2'	35:BA:1380:G:P	2.70	0.50
35:BA:1889:A:H3'	35:BA:1890:A:H8	1.77	0.50
35:BA:2318:G:H22	51:BS:7:TYR:CA	2.25	0.50
36:BB:80:U:H2'	36:BB:81:G:N2	2.25	0.50
37:BC:73:ARG:HB3	37:BC:92:ASP:OD2	2.12	0.50
41:BG:115:ARG:NH1	41:BG:137:GLU:OE2	2.45	0.50
41:BG:125:PHE:HD1	41:BG:131:TYR:HB2	1.76	0.50
42:BH:144:VAL:O	42:BH:148:ILE:HG12	2.12	0.50
43:BI:113:ARG:HB2	43:BI:130:TYR:CE1	2.47	0.50
50:BR:7:GLY:C	50:BR:8:ARG:NH1	2.66	0.50
54:BV:59:ALA:O	54:BV:61:VAL:N	2.45	0.50
55:BW:84:ARG:CZ	55:BW:85:VAL:H	2.25	0.50
1:CA:509:A:O2'	1:CA:510:A:OP1	2.28	0.50
1:CA:639:G:H2'	1:CA:640:A:H8	1.76	0.50
1:CA:720:C:H5'	18:CR:50:ILE:O	2.11	0.50
1:CA:730:G:H5''	1:CA:731:G:OP2	2.12	0.50
1:CA:939:G:H5''	7:CG:102:ARG:HH22	1.77	0.50
2:CB:92:TYR:CE1	2:CB:94:ASN:HB2	2.47	0.50
3:CC:5:ILE:HD12	14:CN:58:LYS:HE3	1.93	0.50
3:CC:34:LEU:HD11	14:CN:25:VAL:HG11	1.92	0.50
6:CF:5:GLU:HG3	6:CF:93:SER:OG	2.12	0.50
8:CH:20:TYR:HE2	8:CH:75:ARG:HD2	1.77	0.50
12:CL:48:PRO:C	12:CL:49:ASN:HD22	2.15	0.50
14:CN:15:LYS:O	14:CN:17:LYS:N	2.45	0.50
15:CO:55:GLY:HA2	15:CO:58:MET:HE2	1.94	0.50
23:CY:43:C:H5'	23:CY:44:G:OP1	2.12	0.50
26:D1:41:ARG:NH1	35:DA:205:G:O6	2.41	0.50
35:DA:258:G:H5''	35:DA:259:G:OP2	2.10	0.50
35:DA:271(U):G:C2	35:DA:271(V):G:C8	3.00	0.50
35:DA:1075:C:H2'	35:DA:1076:C:H2'	1.93	0.50
35:DA:1218:C:H42	35:DA:1231:G:H1	1.59	0.50
35:DA:1406:U:H2'	35:DA:1407:C:C6	2.47	0.50
35:DA:1614:A:C6	55:DW:91:GLY:HA2	2.46	0.50
35:DA:2306:C:O2	41:DG:45:GLU:OE2	2.30	0.50
35:DA:2323:G:C6	35:DA:2324:C:C4	3.00	0.50
38:DD:65:ILE:HD11	38:DD:67:PHE:CE1	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DF:132:VAL:C	40:DF:134:GLY:N	2.65	0.50
41:DG:33:ARG:H	41:DG:162:THR:HB	1.76	0.50
46:DN:76:SER:OG	46:DN:78:TYR:CE1	2.61	0.50
50:DR:11:ASN:O	50:DR:12:ARG:HB2	2.11	0.50
54:DV:79:VAL:O	54:DV:80:GLN:OE1	2.29	0.50
1:AA:719:C:H1'	18:AR:49:LYS:HB3	1.93	0.49
1:AA:1281:U:H5'	1:AA:1282:C:C5	2.47	0.49
1:AA:1291:G:H2'	1:AA:1292:U:C6	2.47	0.49
1:AA:1323:G:H5''	1:AA:1363:C:N3	2.27	0.49
2:AB:101:MET:HA	2:AB:108:ILE:HG21	1.93	0.49
8:AH:45:ILE:HD12	8:AH:48:TYR:HE1	1.75	0.49
32:B7:29:LYS:HE2	32:B7:33:ARG:HE	1.76	0.49
35:BA:222:A:H3'	35:BA:421:U:H5'	1.94	0.49
35:BA:601:C:OP1	40:BF:108:LYS:HE2	2.12	0.49
35:BA:952:G:C6	35:BA:966:G:C6	3.00	0.49
35:BA:1133:U:H5''	35:BA:1135:C:OP2	2.10	0.49
35:BA:1188:U:O2'	35:BA:1189:A:H5'	2.12	0.49
35:BA:1332:G:N2	35:BA:1609:A:H2'	2.27	0.49
35:BA:1946:U:H2'	35:BA:1947:C:H6	1.78	0.49
35:BA:2450:A:C2	35:BA:2451:A:C4	2.99	0.49
36:BB:10:C:N3	36:BB:111:G:N2	2.53	0.49
36:BB:60:C:H2'	36:BB:61:G:C8	2.47	0.49
39:BE:64:LYS:O	39:BE:70:ALA:HB2	2.12	0.49
48:BP:97:PRO:O	48:BP:99:LEU:N	2.45	0.49
49:BQ:78:PRO:HG3	49:BQ:87:LYS:HG2	1.94	0.49
49:BQ:121:ALA:O	49:BQ:125:LEU:N	2.45	0.49
52:BT:34:VAL:HA	52:BT:39:ARG:HB3	1.94	0.49
56:BX:25:LYS:O	56:BX:78:LYS:HD3	2.11	0.49
57:BY:4:LYS:HA	57:BY:6:HIS:ND1	2.27	0.49
1:CA:177:C:H2'	1:CA:178:C:C6	2.47	0.49
1:CA:343:U:O2'	1:CA:346:G:O6	2.17	0.49
1:CA:374:A:H5''	1:CA:375:U:OP2	2.12	0.49
1:CA:658:G:H2'	1:CA:659:U:H6	1.77	0.49
1:CA:673:G:H5''	6:CF:87:ARG:NH1	2.27	0.49
1:CA:987:G:H1	1:CA:1218:C:H42	1.60	0.49
2:CB:20:GLU:OE2	2:CB:191:ASP:N	2.38	0.49
3:CC:54:ARG:HG2	3:CC:56:ASP:OD2	2.12	0.49
8:CH:9:MET:SD	8:CH:32:LYS:HB3	2.51	0.49
16:CP:28:ARG:NH1	16:CP:28:ARG:HG2	2.25	0.49
23:CW:1:G:C2	23:CW:73:A:C2	3.00	0.49
23:CW:15:G:H2'	23:CW:16:U:H4'	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CW:40:C:H6	23:CW:40:C:H3'	1.76	0.49
25:D0:46:LYS:HG3	25:D0:47:PRO:HD2	1.93	0.49
35:DA:833:U:H5''	48:DP:48:PRO:HB3	1.94	0.49
35:DA:858:U:O2	35:DA:2268:A:H2'	2.12	0.49
35:DA:954:G:O2'	35:DA:2274:A:N1	2.41	0.49
35:DA:1241:A:H2'	35:DA:1242:A:O5'	2.12	0.49
35:DA:1405:U:H2'	35:DA:1406:U:H6	1.75	0.49
35:DA:1485:G:N2	35:DA:1504:C:C4	2.80	0.49
38:DD:77:ALA:HB2	38:DD:97:TYR:CD2	2.47	0.49
42:DH:101:ARG:HD3	42:DH:122:THR:HG23	1.94	0.49
43:DI:123:LEU:HG	43:DI:142:VAL:HG23	1.94	0.49
46:DN:22:THR:HA	46:DN:61:ARG:HB3	1.94	0.49
48:DP:97:PRO:HG3	48:DP:127:ALA:HA	1.94	0.49
52:DT:29:ARG:HE	52:DT:82:LEU:HD21	1.77	0.49
53:DU:40:PHE:CG	54:DV:78:LYS:HD3	2.46	0.49
1:AA:742:G:OP2	15:AO:35:ARG:NH2	2.44	0.49
1:AA:1051:C:H2'	1:AA:1052:U:C6	2.47	0.49
1:AA:1151:A:H5''	10:AJ:42:THR:HG23	1.95	0.49
1:AA:1367:C:O2'	10:AJ:48:THR:HG21	2.12	0.49
1:AA:1435:G:H8	1:AA:1435:G:O5'	1.95	0.49
6:AF:31:GLU:O	6:AF:34:GLY:N	2.44	0.49
9:AI:47:LEU:HD23	9:AI:47:LEU:H	1.77	0.49
13:AM:99:ARG:HB2	13:AM:101:GLN:OE1	2.12	0.49
23:AW:38:A:H5''	23:AW:38:A:H8	1.77	0.49
25:B0:43:THR:HG21	35:BA:2336:A:H61	1.76	0.49
25:B0:45:PHE:HD1	25:B0:77:ARG:HB2	1.76	0.49
28:B3:16:PRO:HB2	28:B3:18:ASP:OD1	2.12	0.49
34:B9:30:PRO:HG2	35:BA:2528:U:OP1	2.12	0.49
35:BA:272(G):C:O2'	35:BA:272(H):C:OP1	2.22	0.49
35:BA:1410:G:H2'	35:BA:1411:C:C6	2.47	0.49
37:BC:37:PHE:O	37:BC:39:GLU:N	2.45	0.49
40:BF:6:VAL:HG23	40:BF:17:ARG:HA	1.95	0.49
52:BT:29:ARG:HG2	52:BT:84:GLN:CG	2.41	0.49
53:BU:27:LEU:C	53:BU:29:SER:N	2.66	0.49
53:BU:92:ARG:NH2	54:BV:10:LYS:HB3	2.28	0.49
55:BW:15:ARG:O	55:BW:19:LEU:HD13	2.12	0.49
56:BX:35:THR:HG23	56:BX:36:LYS:N	2.25	0.49
57:BY:2:ARG:C	57:BY:4:LYS:H	2.16	0.49
2:CB:170:GLU:CG	2:CB:173:ALA:HB3	2.42	0.49
7:CG:50:ILE:HG21	7:CG:58:PRO:HA	1.95	0.49
8:CH:11:THR:HG22	8:CH:15:ASN:ND2	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:91:ASP:OD1	9:CI:91:ASP:N	2.38	0.49
19:CS:72:GLY:C	19:CS:74:PHE:H	2.15	0.49
22:CV:53:G:H2'	22:CV:54:U:C6	2.42	0.49
28:D3:15:TYR:OH	36:DB:84:C:OP1	2.23	0.49
30:D5:34:PRO:HD2	30:D5:35:GLU:CD	2.32	0.49
31:D6:19:ARG:NH2	31:D6:42:TRP:CE3	2.80	0.49
32:D7:9:ARG:NH1	35:DA:1309:G:H3'	2.27	0.49
33:D8:59:LYS:O	33:D8:61:LEU:N	2.45	0.49
35:DA:484:C:OP1	57:DY:51:VAL:HG22	2.12	0.49
35:DA:535:C:O2'	35:DA:536:A:H5'	2.12	0.49
35:DA:2492:U:H2'	35:DA:2493:U:H6	1.76	0.49
35:DA:2791:C:H4'	35:DA:2792:G:C5'	2.39	0.49
40:DF:3:GLU:HB3	40:DF:24:LEU:HB2	1.94	0.49
54:DV:43:GLU:HG3	54:DV:44:LYS:H	1.76	0.49
58:DZ:81:ARG:HG2	58:DZ:81:ARG:NH1	2.27	0.49
58:DZ:96:VAL:HG11	58:DZ:130:PRO:HG3	1.94	0.49
1:AA:171:A:H2'	1:AA:171:A:N3	2.27	0.49
1:AA:435:C:H2'	1:AA:436:C:H6	1.78	0.49
1:AA:1060:C:OP1	14:AN:45:ARG:NH2	2.44	0.49
1:AA:1207:G:H2'	1:AA:1208:C:H6	1.77	0.49
1:AA:1308:U:H5''	13:AM:98:VAL:HG22	1.93	0.49
2:AB:220:ASP:O	2:AB:222:ILE:N	2.45	0.49
3:AC:70:VAL:O	3:AC:106:VAL:HG23	2.12	0.49
3:AC:77:ILE:HG23	3:AC:84:ILE:HG21	1.93	0.49
10:AJ:56:HIS:HD2	10:AJ:57:LYS:H	1.59	0.49
16:AP:45:THR:HG22	16:AP:47:ASP:H	1.78	0.49
26:B1:72:GLU:HG2	26:B1:72:GLU:O	2.11	0.49
34:B9:29:ASN:HA	42:BH:170:ARG:HH22	1.77	0.49
35:BA:157:U:H5'	35:BA:171:G:N2	2.27	0.49
35:BA:204:A:O3'	35:BA:205:G:H4'	2.12	0.49
35:BA:704:G:H1'	35:BA:726:G:N2	2.27	0.49
35:BA:1047:G:H21	35:BA:1111:A:N6	2.10	0.49
35:BA:1327:C:O3'	50:BR:105:ARG:NH2	2.45	0.49
35:BA:1638:C:H6	35:BA:2698:U:HO2'	1.59	0.49
35:BA:1820:U:H4'	35:BA:1821:A:OP2	2.12	0.49
35:BA:2575:C:H6	35:BA:2575:C:O5'	1.95	0.49
35:BA:2865:U:H5''	35:BA:2866:U:H2'	1.95	0.49
40:BF:29:ASN:O	40:BF:31:HIS:N	2.44	0.49
40:BF:114:VAL:HG21	40:BF:202:PHE:HE2	1.76	0.49
41:BG:35:GLU:N	41:BG:35:GLU:OE2	2.45	0.49
43:BI:102:SER:C	43:BI:104:GLN:H	2.15	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1199:U:H4'	10:CJ:54:PHE:CE2	2.48	0.49
2:CB:20:GLU:OE2	2:CB:189:ASP:HB3	2.11	0.49
3:CC:119:ARG:O	3:CC:122:GLU:HB3	2.11	0.49
5:CE:32:VAL:HB	5:CE:58:ALA:HB1	1.94	0.49
6:CF:76:ALA:HB1	6:CF:80:ARG:HH21	1.78	0.49
10:CJ:99:LYS:HE2	10:CJ:99:LYS:HA	1.94	0.49
16:CP:1:MET:HG2	16:CP:2:VAL:O	2.11	0.49
19:CS:38:SER:OG	19:CS:39:THR:N	2.44	0.49
23:CW:35:A:H2'	23:CW:36:A:H5''	1.94	0.49
25:D0:66:VAL:O	25:D0:82:ARG:N	2.38	0.49
32:D7:27:GLY:O	32:D7:30:VAL:HB	2.12	0.49
33:D8:34:TRP:CH2	33:D8:40:GLU:OE2	2.65	0.49
35:DA:1088:A:H3'	35:DA:1088:A:N3	2.27	0.49
35:DA:1466:G:H1'	35:DA:1545:A:C2	2.47	0.49
35:DA:1518:U:H2'	35:DA:1519:G:O4'	2.12	0.49
38:DD:44:ASN:HB2	38:DD:48:ARG:C	2.32	0.49
38:DD:108:PRO:HD2	38:DD:111:LEU:HD12	1.93	0.49
46:DN:30:ILE:HD12	46:DN:99:LEU:HD11	1.94	0.49
46:DN:78:TYR:CD1	46:DN:79:PRO:HD3	2.46	0.49
53:DU:92:ARG:HH11	54:DV:11:GLN:HB2	1.75	0.49
58:DZ:19:ARG:HH21	58:DZ:84:GLU:HA	1.77	0.49
1:AA:162:A:H4'	1:AA:162:A:OP2	2.12	0.49
1:AA:216:G:O2'	1:AA:217:C:O4'	2.27	0.49
1:AA:737:A:H1'	6:AF:73:ASN:HD21	1.76	0.49
1:AA:1368:G:C2'	1:AA:1369:C:H5'	2.42	0.49
1:AA:1371:G:H5''	9:AI:69:GLY:HA2	1.95	0.49
2:AB:130:ARG:O	2:AB:132:LYS:N	2.45	0.49
13:AM:117:VAL:HG22	13:AM:118:ALA:H	1.76	0.49
21:AU:6:ARG:C	21:AU:8:THR:H	2.12	0.49
25:B0:49:LYS:HB2	25:B0:82:ARG:HH22	1.76	0.49
32:B7:9:ARG:HH22	35:BA:1310:G:P	2.35	0.49
35:BA:55:G:C2	35:BA:116:C:C2	3.00	0.49
35:BA:81:G:N2	35:BA:82:G:H1'	2.27	0.49
35:BA:157:U:OP2	35:BA:157:U:C6	2.62	0.49
35:BA:339:U:H2'	35:BA:340:A:H5'	1.94	0.49
35:BA:573:G:O2'	35:BA:574:C:H3'	2.12	0.49
35:BA:579:G:H2'	35:BA:580:C:C6	2.44	0.49
35:BA:855:G:H5''	35:BA:856:C:P	2.52	0.49
35:BA:1057:A:H2'	35:BA:1058:G:O4'	2.12	0.49
35:BA:1259:G:H2'	35:BA:1260:G:C8	2.46	0.49
35:BA:2082:A:H2'	35:BA:2083:G:O4'	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:27:THR:O	38:BD:29:PRO:N	2.45	0.49
38:BD:142:VAL:HG23	38:BD:192:THR:O	2.11	0.49
40:BF:21:ALA:C	40:BF:23:ASP:H	2.14	0.49
40:BF:118:ALA:O	40:BF:121:GLY:N	2.28	0.49
48:BP:30:THR:OG1	48:BP:31:ALA:N	2.46	0.49
48:BP:130:PHE:HB3	48:BP:135:LEU:HG	1.93	0.49
55:BW:70:TYR:HD1	55:BW:108:GLY:O	1.94	0.49
1:CA:730:G:C5	1:CA:731:G:H1'	2.47	0.49
1:CA:1055:A:N7	1:CA:1200:C:N4	2.60	0.49
1:CA:1164:G:H1	1:CA:1172:C:H42	1.59	0.49
1:CA:1398:A:OP2	1:CA:1398:A:H8	1.95	0.49
2:CB:163:PHE:HA	2:CB:185:ILE:O	2.11	0.49
5:CE:11:ILE:CG2	5:CE:31:LEU:HD12	2.42	0.49
10:CJ:84:GLN:HA	10:CJ:88:LEU:HD13	1.94	0.49
22:CV:25:C:H2'	22:CV:26:G:O4'	2.13	0.49
22:CV:64:G:H2'	22:CV:65:C:O4'	2.12	0.49
35:DA:17:G:H2'	35:DA:18:C:C6	2.48	0.49
35:DA:229:A:OP1	48:DP:150:ALA:OXT	2.31	0.49
35:DA:271(W):G:C6	35:DA:271(X):G:C2	3.00	0.49
35:DA:386:G:H4'	35:DA:387:U:OP2	2.12	0.49
35:DA:775:G:O5'	35:DA:777:A:H1'	2.13	0.49
35:DA:990:A:OP2	35:DA:991:C:OP2	2.30	0.49
35:DA:1930:G:O2'	35:DA:1968:G:O6	2.25	0.49
35:DA:1983:C:C2'	35:DA:1984:G:H5''	2.43	0.49
36:DB:31:C:O2'	36:DB:53:A:N1	2.38	0.49
36:DB:88:C:C2	36:DB:89:G:C6	3.00	0.49
38:DD:80:ALA:HB3	38:DD:94:LEU:HD13	1.94	0.49
38:DD:106:ILE:O	38:DD:108:PRO:HD3	2.13	0.49
38:DD:267:SER:C	38:DD:269:PHE:N	2.66	0.49
42:DH:89:ILE:C	42:DH:89:ILE:HD12	2.33	0.49
46:DN:43:THR:HB	46:DN:46:VAL:HG11	1.93	0.49
48:DP:35:HIS:O	48:DP:36:LYS:CG	2.59	0.49
48:DP:51:PHE:HE2	48:DP:59:LEU:HD12	1.77	0.49
49:DQ:77:LYS:NZ	49:DQ:83:MET:H	2.09	0.49
53:DU:83:LEU:CD1	53:DU:113:ALA:HB2	2.42	0.49
1:AA:147:G:C6	1:AA:176:C:N3	2.81	0.49
1:AA:262:A:H2'	1:AA:263:A:C8	2.47	0.49
1:AA:957:U:H5''	1:AA:958:A:OP2	2.12	0.49
1:AA:1151:A:OP2	1:AA:1151:A:H2'	2.13	0.49
1:AA:1315:U:H2'	1:AA:1316:G:O4'	2.12	0.49
2:AB:97:TRP:CZ3	2:AB:101:MET:HG2	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:166:ASP:HB3	2:AB:169:LYS:HB3	1.94	0.49
3:AC:181:ASN:HD21	3:AC:204:LEU:HB2	1.77	0.49
7:AG:18:TYR:HD1	7:AG:18:TYR:H	1.59	0.49
11:AK:91:ARG:NH1	11:AK:110:ASP:OD2	2.44	0.49
11:AK:92:GLU:HA	11:AK:95:ILE:HG12	1.94	0.49
26:B1:82:LEU:HD22	26:B1:83:GLU:H	1.78	0.49
28:B3:26:LEU:HB2	28:B3:28:LEU:HD12	1.95	0.49
28:B3:49:LYS:NZ	35:BA:851:U:OP1	2.41	0.49
30:B5:31:VAL:HG22	30:B5:32:PRO:HD3	1.94	0.49
32:B7:1:MET:CE	32:B7:3:ARG:HH21	2.25	0.49
35:BA:220:G:H2'	35:BA:427:U:O4	2.12	0.49
35:BA:447:A:N1	35:BA:454:A:O2'	2.43	0.49
35:BA:651:G:H2'	35:BA:651:G:N3	2.27	0.49
35:BA:1164:G:H2'	35:BA:1165:U:C6	2.47	0.49
35:BA:2094:G:OP1	43:BI:22:LYS:HD2	2.13	0.49
35:BA:2233:U:H2'	35:BA:2234:G:C8	2.48	0.49
36:BB:2:C:C4	36:BB:120:A:N6	2.81	0.49
38:BD:10:THR:HG23	38:BD:13:ARG:H	1.77	0.49
38:BD:36:PRO:HA	38:BD:62:TYR:O	2.11	0.49
39:BE:7:VAL:HG23	39:BE:27:LEU:HB3	1.94	0.49
41:BG:161:THR:HG22	41:BG:163:ALA:N	2.14	0.49
43:BI:53:ALA:O	43:BI:56:LYS:N	2.45	0.49
44:BJ:103:UNK:O	44:BJ:105:UNK:N	2.45	0.49
52:BT:61:PHE:CE1	52:BT:76:PHE:HB2	2.48	0.49
55:BW:59:VAL:HG13	55:BW:64:MET:H	1.77	0.49
1:CA:1264:C:H2'	1:CA:1265:G:O4'	2.12	0.49
3:CC:52:LEU:HD23	3:CC:52:LEU:H	1.78	0.49
8:CH:64:LYS:HD2	8:CH:79:VAL:HG21	1.93	0.49
12:CL:45:PRO:CG	12:CL:53:ARG:HH11	2.18	0.49
19:CS:78:ARG:HA	19:CS:78:ARG:NE	2.27	0.49
35:DA:321:G:O4'	40:DF:165:ARG:HG3	2.12	0.49
35:DA:634:C:H2'	35:DA:635:C:C6	2.48	0.49
35:DA:1217:C:H2'	35:DA:1218:C:H5''	1.93	0.49
35:DA:1916:A:H3'	35:DA:1917:U:C6	2.47	0.49
36:DB:32:C:H2'	36:DB:33:G:O4'	2.11	0.49
39:DE:24:THR:HG22	39:DE:186:GLY:O	2.13	0.49
46:DN:39:ARG:NH2	46:DN:41:ASP:OD2	2.39	0.49
49:DQ:19:GLY:O	49:DQ:21:THR:N	2.46	0.49
52:DT:7:ILE:HB	52:DT:8:LYS:NZ	2.26	0.49
52:DT:108:ARG:HG3	52:DT:109:GLU:N	2.25	0.49
56:DX:43:VAL:HG23	56:DX:47:PHE:HD2	1.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:DY:50:ARG:HB3	57:DY:56:PRO:HA	1.95	0.49
1:AA:9:G:H2'	1:AA:10:A:C8	2.47	0.49
1:AA:642:A:N6	8:AH:115:SER:OG	2.46	0.49
1:AA:667:G:H4'	15:AO:51:HIS:ND1	2.28	0.49
1:AA:947:G:O3'	13:AM:109:THR:OG1	2.30	0.49
1:AA:981:U:H5'	1:AA:982:U:H5''	1.93	0.49
1:AA:1442(A):G:O6	52:BT:118:ARG:HA	2.12	0.49
2:AB:165:VAL:HG23	2:AB:166:ASP:N	2.27	0.49
3:AC:95:THR:HG22	3:AC:97:LYS:HB2	1.92	0.49
13:AM:81:LEU:HD11	13:AM:88:ARG:NH2	2.27	0.49
20:AT:86:ARG:O	20:AT:90:GLN:HG2	2.13	0.49
31:B6:28:ARG:HB3	31:B6:32:ASN:HB3	1.94	0.49
35:BA:29:U:O5'	35:BA:29:U:H6	1.95	0.49
35:BA:776:G:O6	35:BA:793:A:H2'	2.13	0.49
35:BA:1478:G:O2'	35:BA:1558:A:C2	2.61	0.49
35:BA:1639:U:H4'	35:BA:2699:C:C1'	2.34	0.49
35:BA:2780:G:H4'	35:BA:2781:A:OP2	2.12	0.49
35:BA:2882:A:OP1	50:BR:96:ARG:NH2	2.46	0.49
39:BE:105:THR:O	39:BE:196:VAL:HG23	2.12	0.49
41:BG:46:ALA:HB1	41:BG:82:LEU:HD12	1.95	0.49
50:BR:20:LEU:CA	50:BR:23:ASN:HB2	2.40	0.49
53:BU:88:ILE:C	53:BU:90:VAL:H	2.15	0.49
54:BV:51:VAL:HG13	54:BV:52:VAL:N	2.28	0.49
54:BV:79:VAL:CG2	54:BV:82:ARG:HD3	2.39	0.49
1:CA:291:C:H42	1:CA:309:G:H1	1.60	0.49
1:CA:1012:U:OP2	1:CA:1012:U:C6	2.65	0.49
1:CA:1272:G:H5'	1:CA:1273:G:OP2	2.12	0.49
2:CB:20:GLU:OE2	2:CB:190:THR:N	2.45	0.49
3:CC:134:ILE:HG23	3:CC:151:VAL:HB	1.95	0.49
4:CD:162:LEU:HD13	4:CD:181:MET:HB3	1.95	0.49
5:CE:59:GLY:HA2	5:CE:62:ALA:HB3	1.94	0.49
6:CF:11:ASN:HB3	6:CF:14:LEU:HG	1.95	0.49
26:D1:74:VAL:C	26:D1:76:ARG:H	2.16	0.49
31:D6:12:GLU:OE2	31:D6:52:VAL:C	2.50	0.49
35:DA:271(B):C:O2'	35:DA:272(F):C:H5'	2.12	0.49
35:DA:361:G:H5''	35:DA:362:U:OP2	2.12	0.49
35:DA:924:C:H5''	35:DA:925:C:OP2	2.13	0.49
35:DA:1179:C:H2'	35:DA:1180:C:H6	1.78	0.49
35:DA:1652:A:H2'	35:DA:1653:G:H5'	1.94	0.49
35:DA:1721:G:H3'	35:DA:1722:A:H5''	1.94	0.49
35:DA:1800:C:OP1	38:DD:266:SER:OG	2.19	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1899:G:N2	35:DA:1902:C:N4	2.44	0.49
35:DA:2184:G:H2'	35:DA:2185:C:O4'	2.11	0.49
36:DB:82:G:O2'	36:DB:83:G:H5'	2.12	0.49
37:DC:181:PRO:O	37:DC:183:GLU:N	2.46	0.49
40:DF:52:LYS:HG3	40:DF:56:GLU:HB2	1.95	0.49
40:DF:184:TYR:O	40:DF:188:ARG:HG3	2.13	0.49
40:DF:198:ALA:O	40:DF:201:VAL:HG12	2.12	0.49
46:DN:51:PHE:CE2	46:DN:119:ARG:HD2	2.48	0.49
50:DR:4:LEU:O	50:DR:4:LEU:HD12	2.13	0.49
56:DX:80:ILE:O	56:DX:81:VAL:HG12	2.12	0.49
1:AA:261:U:OP2	20:AT:79:ARG:NH2	2.40	0.49
1:AA:544:G:P	4:AD:62:GLN:HE21	2.36	0.49
1:AA:939:G:C6	1:AA:940:C:N4	2.81	0.49
1:AA:1006:C:H2'	1:AA:1007:C:C4	2.48	0.49
1:AA:1034:G:O2'	1:AA:1035:A:H5'	2.13	0.49
1:AA:1113:C:H1'	3:AC:178:LEU:HD13	1.93	0.49
3:AC:164:ARG:CZ	3:AC:164:ARG:HB2	2.43	0.49
4:AD:163:GLU:O	4:AD:165:MET:N	2.45	0.49
8:AH:40:ALA:O	8:AH:43:GLY:N	2.46	0.49
10:AJ:12:ASP:HB3	10:AJ:15:THR:CG2	2.43	0.49
10:AJ:49:VAL:CG2	14:AN:41:ARG:HB2	2.43	0.49
12:AL:110:VAL:HG11	12:AL:120:TYR:HB3	1.95	0.49
30:B5:40:LYS:HD2	30:B5:41:PRO:O	2.13	0.49
35:BA:71:A:C8	35:BA:71:A:H5'	2.47	0.49
35:BA:1188:U:C2'	35:BA:1189:A:H5'	2.42	0.49
35:BA:1496:A:H8	35:BA:1578:U:O2'	1.96	0.49
35:BA:1509(A):A:H2'	35:BA:1509(B):A:C8	2.48	0.49
35:BA:1759:A:H4'	35:BA:2715:C:O4'	2.12	0.49
35:BA:1819:A:H3'	38:BD:178:PRO:HB3	1.93	0.49
35:BA:2378:A:C2'	51:BS:20:ARG:NH1	2.74	0.49
35:BA:2795:G:N2	35:BA:2796:U:H2'	2.28	0.49
37:BC:19:VAL:HG12	37:BC:20:TYR:H	1.77	0.49
39:BE:134:ILE:HB	39:BE:137:HIS:HB2	1.95	0.49
43:BI:31:LEU:HD21	43:BI:38:LEU:HG	1.93	0.49
46:BN:15:LEU:HD23	46:BN:53:VAL:HB	1.93	0.49
55:BW:59:VAL:HA	55:BW:63:ASP:N	2.28	0.49
58:BZ:96:VAL:HG22	58:BZ:97:GLU:HG2	1.95	0.49
1:CA:437:U:C5	1:CA:438:G:C5	3.01	0.49
1:CA:859:A:H2'	1:CA:860:A:O4'	2.13	0.49
1:CA:881:G:H2'	1:CA:882:C:O4'	2.13	0.49
1:CA:988:G:C2	1:CA:989:C:H1'	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1290:G:C6	1:CA:1291:G:C5	3.01	0.49
1:CA:1529:G:H4'	1:CA:1530:G:OP2	2.13	0.49
5:CE:11:ILE:HG21	5:CE:31:LEU:HD12	1.95	0.49
9:CI:18:PHE:HB2	9:CI:62:TYR:O	2.13	0.49
17:CQ:63:ARG:HG2	17:CQ:64:PRO:CD	2.43	0.49
35:DA:919:G:C2'	35:DA:920:G:H5'	2.42	0.49
35:DA:1021:A:H2'	35:DA:1023:U:H5''	1.95	0.49
35:DA:1103:A:H3'	35:DA:1104:C:C6	2.48	0.49
35:DA:1107:G:H2'	35:DA:1107:G:N3	2.27	0.49
35:DA:1918:A:O2'	35:DA:1920:C:N4	2.45	0.49
35:DA:2102:U:H5	35:DA:2187:G:N1	2.07	0.49
35:DA:2127:G:O6	35:DA:2161:C:H1'	2.13	0.49
35:DA:2308:G:N7	35:DA:2310:A:H3'	2.28	0.49
36:DB:44:G:H1'	36:DB:47:C:H42	1.77	0.49
38:DD:108:PRO:HG3	38:DD:143:HIS:HE1	1.75	0.49
39:DE:52:LEU:O	39:DE:74:PRO:HA	2.13	0.49
41:DG:115:ARG:NH1	41:DG:116:ASP:HB2	2.21	0.49
48:DP:23:PRO:O	48:DP:33:ARG:NE	2.42	0.49
48:DP:89:ALA:HA	48:DP:121:LYS:HD2	1.95	0.49
1:AA:50:A:N1	1:AA:360:A:O2'	2.38	0.49
1:AA:724:G:C2	1:AA:725:G:C8	3.01	0.49
1:AA:1157:A:H4'	1:AA:1158:C:O5'	2.13	0.49
1:AA:1169:A:C8	1:AA:1170:A:N7	2.80	0.49
1:AA:1326:C:H2'	1:AA:1327:C:H6	1.77	0.49
7:AG:12:LEU:HD11	7:AG:28:ASN:HD21	1.77	0.49
14:AN:21:TYR:CE1	14:AN:23:ARG:HD3	2.48	0.49
14:AN:59:ALA:HB1	14:AN:61:TRP:HZ3	1.78	0.49
15:AO:74:ASP:OD2	15:AO:77:ARG:NE	2.39	0.49
18:AR:21:LYS:HD2	18:AR:57:GLY:HA3	1.93	0.49
19:AS:49:ILE:HD11	19:AS:66:MET:CE	2.42	0.49
20:AT:75:ASN:HA	20:AT:78:ALA:HB3	1.93	0.49
30:B5:3:LYS:HD3	30:B5:3:LYS:C	2.33	0.49
34:B9:22:ARG:HH22	35:BA:2741:A:H5''	1.78	0.49
35:BA:271(J):C:OP2	35:BA:271(J):C:C6	2.65	0.49
35:BA:911:A:H2'	49:BQ:9:TYR:OH	2.12	0.49
35:BA:977:G:H2'	35:BA:978:G:C8	2.47	0.49
35:BA:1499:C:H5'	35:BA:1500:G:OP2	2.12	0.49
35:BA:2112:G:O2'	35:BA:2113:U:O5'	2.31	0.49
35:BA:2698:U:C5	35:BA:2699:C:N3	2.80	0.49
39:BE:38:THR:HG22	39:BE:41:LYS:H	1.77	0.49
39:BE:101:ARG:CZ	39:BE:171:GLU:HB2	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BF:19:GLU:HG3	40:BF:24:LEU:HD13	1.94	0.49
40:BF:42:ALA:C	40:BF:44:ARG:N	2.66	0.49
41:BG:120:LEU:HD23	41:BG:131:TYR:OH	2.13	0.49
46:BN:4:TYR:O	46:BN:5:VAL:HG12	2.13	0.49
46:BN:123:TYR:HH	46:BN:130:HIS:CE1	2.29	0.49
48:BP:85:LEU:N	48:BP:115:LEU:O	2.46	0.49
51:BS:59:LYS:HE2	51:BS:60:GLY:H	1.78	0.49
53:BU:14:HIS:O	53:BU:16:LYS:N	2.45	0.49
58:BZ:145:GLU:OE1	58:BZ:174:VAL:HG11	2.13	0.49
1:CA:418:C:H1'	1:CA:540:G:O2'	2.13	0.49
1:CA:460:G:H8	1:CA:460:G:OP2	1.96	0.49
16:CP:74:LEU:HB3	16:CP:79:VAL:HG21	1.93	0.49
21:CU:9:ARG:HD2	21:CU:22:ARG:HG2	1.94	0.49
23:CW:43:C:H2'	23:CW:44:G:H8	1.76	0.49
33:D8:30:ARG:HH11	35:DA:2395:C:N4	2.10	0.49
35:DA:570:G:H2'	35:DA:2030:A:C5	2.48	0.49
35:DA:860:U:C5	35:DA:917:A:N7	2.81	0.49
36:DB:89:G:C5	36:DB:90:A:N6	2.79	0.49
38:DD:125:ILE:HD13	38:DD:131:LEU:HD21	1.95	0.49
39:DE:30:PRO:HB3	39:DE:92:THR:HG22	1.93	0.49
41:DG:11:TYR:CZ	41:DG:16:ARG:HD3	2.48	0.49
43:DI:66:GLU:O	43:DI:69:LYS:HB2	2.12	0.49
47:DO:87:ILE:HG23	47:DO:91:LEU:HA	1.95	0.49
49:DQ:10:ARG:NE	49:DQ:10:ARG:CA	2.75	0.49
52:DT:98:LYS:HD2	52:DT:98:LYS:H	1.77	0.49
55:DW:50:VAL:HG22	55:DW:105:VAL:HG23	1.94	0.49
56:DX:33:LYS:O	56:DX:34:ALA:C	2.49	0.49
1:AA:682:G:N3	1:AA:709:G:C2	2.80	0.49
1:AA:996:A:H5''	1:AA:997:U:OP2	2.13	0.49
1:AA:1004:A:C8	1:AA:1039:C:N4	2.81	0.49
1:AA:1095:U:OP1	1:AA:1108:G:N2	2.39	0.49
1:AA:1267:C:H5''	1:AA:1268:A:OP2	2.13	0.49
1:AA:1277:C:H3'	1:AA:1277:C:C6	2.47	0.49
1:AA:1317:C:H5''	1:AA:1318:A:OP2	2.12	0.49
2:AB:123:ALA:HA	2:AB:127:ILE:HA	1.95	0.49
4:AD:113:SER:O	4:AD:117:ALA:N	2.40	0.49
4:AD:127:THR:HG23	4:AD:147:ALA:HB3	1.93	0.49
5:AE:79:GLU:HA	5:AE:91:LEU:O	2.12	0.49
10:AJ:69:ASN:HD22	10:AJ:70:ARG:N	2.11	0.49
12:AL:38:THR:HG23	12:AL:57:LYS:HB3	1.95	0.49
13:AM:20:THR:C	13:AM:22:ILE:H	2.16	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:58:TYR:O	16:AP:60:LEU:N	2.46	0.49
35:BA:28:A:N6	35:BA:512:G:H1'	2.27	0.49
35:BA:125:G:H4'	35:BA:126:A:OP2	2.13	0.49
35:BA:881:G:H22	35:BA:895:U:H3	1.58	0.49
35:BA:1045:A:H4'	35:BA:1047:G:H1'	1.93	0.49
35:BA:1064:C:N4	35:BA:1088:A:H61	2.08	0.49
35:BA:1106:G:N2	35:BA:1107:G:N7	2.61	0.49
35:BA:1643:G:N2	35:BA:1644:C:H1'	2.28	0.49
35:BA:1885:A:H3'	35:BA:1886:C:C6	2.47	0.49
43:BI:78:THR:CA	43:BI:141:LYS:HB2	2.38	0.49
47:BO:113:LYS:O	47:BO:117:LEU:HD12	2.13	0.49
48:BP:81:GLN:O	48:BP:111:ARG:O	2.31	0.49
51:BS:68:GLN:O	51:BS:71:ARG:N	2.45	0.49
56:BX:25:LYS:CG	56:BX:87:GLN:HE21	2.25	0.49
1:CA:163:C:H2'	1:CA:164:U:C6	2.48	0.49
1:CA:558:G:C4	1:CA:559:A:H2	2.30	0.49
1:CA:667:G:H8	1:CA:667:G:O5'	1.96	0.49
1:CA:833:U:H2'	1:CA:834:C:C6	2.48	0.49
1:CA:1054:C:HO2'	1:CA:1055:A:P	2.35	0.49
1:CA:1087:G:H2'	1:CA:1088:G:H8	1.77	0.49
1:CA:1330:U:C5	1:CA:1331:G:C5	3.01	0.49
3:CC:123:GLN:O	3:CC:128:PHE:HB2	2.13	0.49
6:CF:3:ARG:HB3	6:CF:93:SER:HB2	1.95	0.49
7:CG:51:GLN:O	7:CG:53:LYS:N	2.37	0.49
8:CH:94:TYR:HD1	8:CH:132:GLU:HA	1.78	0.49
13:CM:15:VAL:O	13:CM:19:LEU:HD23	2.13	0.49
21:CU:19:GLY:C	21:CU:21:TYR:N	2.66	0.49
22:CV:19:G:N2	41:DG:78:SER:OG	2.45	0.49
35:DA:658:C:H2'	35:DA:659:C:H6	1.78	0.49
35:DA:1044:G:H2'	35:DA:1044:G:N3	2.28	0.49
39:DE:14:ILE:HG13	39:DE:15:PHE:N	2.27	0.49
46:DN:75:TYR:O	46:DN:76:SER:O	2.30	0.49
48:DP:59:LEU:O	48:DP:60:MET:HG3	2.12	0.49
52:DT:92:GLY:HA3	52:DT:115:ARG:N	2.27	0.49
54:DV:35:LEU:HB3	54:DV:59:ALA:HB1	1.93	0.49
56:DX:32:PRO:HA	56:DX:75:ASP:HB3	1.95	0.49
1:AA:257:G:H2'	1:AA:258:G:C8	2.47	0.49
1:AA:472:A:N7	1:AA:473:G:H1'	2.28	0.49
1:AA:596:C:H5'	1:AA:596:C:H6	1.78	0.49
1:AA:1051:C:H2'	1:AA:1052:U:H6	1.77	0.49
3:AC:6:HIS:CG	14:AN:49:HIS:HB3	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:3:LYS:O	16:AP:21:VAL:HA	2.12	0.49
34:B9:26:ILE:HG12	34:B9:33:LYS:HE2	1.93	0.49
35:BA:100:G:H5''	35:BA:102:G:O5'	2.13	0.49
35:BA:681:G:H2'	35:BA:682:G:O4'	2.12	0.49
35:BA:1225:G:O2'	35:BA:1226:A:H5'	2.13	0.49
35:BA:1472:A:H2'	35:BA:1473:G:O4'	2.13	0.49
35:BA:1517:G:C6	35:BA:1518:U:C4	3.00	0.49
35:BA:1527:G:O2'	35:BA:1528:A:H8	1.96	0.49
35:BA:2274:A:N1	35:BA:2276:G:H1'	2.28	0.49
35:BA:2395:C:H2'	35:BA:2396:G:O4'	2.13	0.49
35:BA:2666:C:H3'	35:BA:2667:C:C6	2.48	0.49
35:BA:2697:G:N1	35:BA:2698:U:N3	2.61	0.49
40:BF:53:THR:HG23	40:BF:55:GLY:H	1.78	0.49
40:BF:178:PRO:CB	40:BF:201:VAL:HG11	2.39	0.49
43:BI:66:GLU:O	43:BI:70:GLU:HB2	2.11	0.49
49:BQ:6:ARG:HA	49:BQ:6:ARG:NE	2.28	0.49
55:BW:4:LYS:HB2	55:BW:106:ILE:HG22	1.95	0.49
1:CA:59:A:N6	1:CA:331:G:H1'	2.27	0.49
1:CA:436:C:O2'	1:CA:437:U:O5'	2.31	0.49
1:CA:520:A:H2'	1:CA:521:G:O4'	2.13	0.49
1:CA:692:U:H2'	1:CA:694:A:OP2	2.13	0.49
1:CA:860:A:H5''	1:CA:861:G:OP2	2.13	0.49
3:CC:89:GLU:O	3:CC:91:LEU:N	2.45	0.49
9:CI:116:LYS:NZ	9:CI:120:ARG:O	2.45	0.49
18:CR:59:SER:OG	18:CR:60:ALA:N	2.46	0.49
22:CV:52:G:N3	22:CV:53:G:C8	2.81	0.49
23:CW:76:A:H5''	26:D1:33:LYS:CE	2.41	0.49
26:D1:39:LYS:O	26:D1:39:LYS:HD2	2.12	0.49
34:D9:26:ILE:O	34:D9:28:GLU:N	2.46	0.49
35:DA:68:G:H2'	35:DA:69:C:O4'	2.13	0.49
35:DA:271(H):G:N1	35:DA:271(Q):G:C2	2.81	0.49
35:DA:271(S):G:C6	35:DA:271(T):C:C4	3.01	0.49
35:DA:548:A:N6	54:DV:95:LEU:HD11	2.26	0.49
35:DA:882:G:H22	35:DA:894:C:N4	2.04	0.49
35:DA:1170:G:N2	35:DA:1180:C:C2	2.81	0.49
35:DA:1292:U:H2'	35:DA:1293:C:C6	2.48	0.49
35:DA:1485:G:H2'	35:DA:1486:A:H8	1.77	0.49
35:DA:1858:G:H1'	35:DA:1884:A:N6	2.28	0.49
35:DA:2166:G:H1	35:DA:2171:A:H62	1.60	0.49
35:DA:2200:C:N4	35:DA:2223:G:H1	2.10	0.49
35:DA:2659:G:H2'	35:DA:2661:G:H1'	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2693:A:H2'	35:DA:2694:G:C8	2.48	0.49
35:DA:2698:U:H2'	35:DA:2699:C:C6	2.48	0.49
36:DB:87:G:C3'	36:DB:88:C:H5''	2.42	0.49
42:DH:83:TYR:HD2	42:DH:141:VAL:HB	1.70	0.49
50:DR:2:ARG:HH22	50:DR:5:LYS:HE3	1.72	0.49
50:DR:45:ARG:HD3	50:DR:97:VAL:HG21	1.94	0.49
58:DZ:107:THR:OG1	58:DZ:108:PRO:HD2	2.13	0.49
1:AA:6:G:O2'	1:AA:7:G:O5'	2.26	0.48
1:AA:17:U:O2'	1:AA:1079:G:N3	2.37	0.48
1:AA:273:A:C2'	1:AA:274:A:H5'	2.43	0.48
1:AA:452:A:H4'	1:AA:453:A:OP1	2.13	0.48
1:AA:1060:C:H5''	10:AJ:51:ARG:CG	2.38	0.48
1:AA:1097:C:H1'	1:AA:1170:A:H1'	1.94	0.48
1:AA:1128:C:O2'	1:AA:1146:A:N6	2.45	0.48
1:AA:1156:G:HO2'	1:AA:1180:A:H61	1.58	0.48
3:AC:13:GLY:HA2	3:AC:18:TRP:CZ3	2.48	0.48
4:AD:9:CYS:HB3	4:AD:32:ALA:CB	2.24	0.48
4:AD:12:CYS:O	4:AD:16:GLY:N	2.38	0.48
5:AE:74:GLY:O	5:AE:115:VAL:HA	2.12	0.48
11:AK:57:THR:HG22	11:AK:59:TYR:H	1.77	0.48
11:AK:99:GLN:HE21	11:AK:105:VAL:HG21	1.75	0.48
15:AO:16:ALA:HA	15:AO:27:VAL:HG22	1.95	0.48
18:AR:50:ILE:HG12	18:AR:74:ARG:HH12	1.78	0.48
19:AS:49:ILE:HB	19:AS:60:VAL:H	1.78	0.48
23:AW:54:U:H4'	23:AW:55:U:OP2	2.12	0.48
25:B0:37:LEU:HG	25:B0:60:PHE:HA	1.94	0.48
33:B8:4:MET:O	33:B8:62:LEU:HD23	2.13	0.48
33:B8:33:ASN:HB3	35:BA:2420:C:OP2	2.13	0.48
35:BA:139:G:C2'	35:BA:139(A):G:H5''	2.25	0.48
35:BA:143(A):C:H2'	35:BA:144:C:H6	1.78	0.48
35:BA:494:G:H5''	35:BA:494:G:C8	2.48	0.48
35:BA:586:A:N1	35:BA:809:G:O2'	2.36	0.48
35:BA:614:U:O2'	35:BA:614(C):A:N7	2.46	0.48
35:BA:1021:A:H3'	35:BA:1021:A:H8	1.78	0.48
35:BA:1742:G:N7	35:BA:1743:C:N3	2.61	0.48
35:BA:2312:U:OP1	41:BG:74:LYS:N	2.44	0.48
38:BD:77:ALA:HA	38:BD:97:TYR:HA	1.95	0.48
42:BH:110:SER:OG	42:BH:111:HIS:N	2.46	0.48
46:BN:73:THR:O	46:BN:73:THR:OG1	2.31	0.48
48:BP:73:GLY:O	48:BP:75:ILE:N	2.46	0.48
1:CA:79:G:H1'	1:CA:80:G:C8	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:407:G:N1	1:CA:436:C:N4	2.59	0.48
1:CA:592:G:C2	1:CA:593:G:C8	3.01	0.48
1:CA:1060:C:H4'	10:CJ:51:ARG:HG3	1.94	0.48
7:CG:90:GLU:OE1	7:CG:91:VAL:N	2.46	0.48
11:CK:28:THR:OG1	11:CK:90:GLY:HA3	2.13	0.48
35:DA:363(C):G:H2'	35:DA:363(D):G:H8	1.78	0.48
35:DA:988:A:H8	35:DA:988:A:O5'	1.96	0.48
35:DA:1239:G:H2'	35:DA:1240:U:O4'	2.13	0.48
35:DA:1271:G:O3'	35:DA:1272:A:H4'	2.12	0.48
35:DA:1529:G:H5'	35:DA:1530:C:OP2	2.12	0.48
35:DA:1683:C:H42	35:DA:1705:G:H1	1.61	0.48
35:DA:1769:G:O2'	35:DA:1958:C:OP1	2.16	0.48
35:DA:1779:U:C5	35:DA:1784:A:N7	2.80	0.48
35:DA:2616:C:H2'	35:DA:2617:C:H6	1.78	0.48
35:DA:2744:G:N2	42:DH:143:GLN:HE22	2.10	0.48
37:DC:219:GLY:O	37:DC:221:SER:N	2.40	0.48
46:DN:77:GLY:C	46:DN:78:TYR:CD1	2.86	0.48
51:DS:56:LEU:O	51:DS:58:LEU:HD22	2.12	0.48
52:DT:45:PHE:CE2	52:DT:74:ARG:NE	2.80	0.48
53:DU:95:LEU:CD2	54:DV:13:ARG:HB3	2.42	0.48
54:DV:33:VAL:HG13	54:DV:61:VAL:HG13	1.93	0.48
54:DV:36:PRO:O	54:DV:60:GLU:HB2	2.13	0.48
1:AA:784:C:H4'	35:BA:1837:C:OP1	2.14	0.48
1:AA:994:A:H2'	1:AA:994:A:N3	2.28	0.48
1:AA:1067:A:H8	1:AA:1067:A:O5'	1.96	0.48
1:AA:1068:G:N2	1:AA:1191:A:N3	2.58	0.48
1:AA:1159:U:H5	1:AA:1182:G:C2	2.31	0.48
1:AA:1340:A:O2'	22:AV:32:G:O2'	2.19	0.48
5:AE:102:ALA:O	5:AE:107:ARG:NH1	2.46	0.48
18:AR:32:ARG:HA	18:AR:69:THR:HG21	1.94	0.48
19:AS:69:HIS:CB	19:AS:73:GLU:HG3	2.29	0.48
33:B8:62:LEU:HD21	35:BA:592:G:O2'	2.13	0.48
35:BA:132:G:N2	35:BA:147:U:O2	2.45	0.48
35:BA:310:A:P	57:BY:18:GLY:HA2	2.54	0.48
35:BA:458:G:N2	35:BA:470:A:OP2	2.46	0.48
35:BA:838:C:H2'	35:BA:839:U:C6	2.47	0.48
35:BA:1051:G:C8	35:BA:1052:C:H5	2.31	0.48
35:BA:1157:G:C6	35:BA:1158:C:N4	2.81	0.48
35:BA:1449:A:H2'	35:BA:1450:G:O5'	2.13	0.48
35:BA:1790:C:H2'	35:BA:1791:A:C5	2.49	0.48
35:BA:2085:C:H4'	38:BD:262:ARG:NH2	2.27	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2281:C:C2'	35:BA:2282:G:H5'	2.43	0.48
35:BA:2334:G:H5'	51:BS:13:ARG:CG	2.43	0.48
35:BA:2690:C:OP2	35:BA:2690:C:H6	1.95	0.48
38:BD:206:LEU:CD2	38:BD:211:ARG:HG2	2.41	0.48
42:BH:43:VAL:HG21	42:BH:52:VAL:HG13	1.95	0.48
42:BH:156:ALA:C	42:BH:158:HIS:H	2.10	0.48
49:BQ:55:VAL:HG23	49:BQ:61:GLY:HA2	1.95	0.48
50:BR:86:ARG:NE	50:BR:117:VAL:HG11	2.17	0.48
54:BV:51:VAL:HG22	54:BV:52:VAL:H	1.78	0.48
56:BX:82:GLN:OE1	56:BX:83:VAL:HG13	2.14	0.48
1:CA:64:G:N2	1:CA:68:G:O6	2.44	0.48
1:CA:98:G:H2'	1:CA:99:U:O4'	2.13	0.48
1:CA:688:G:H2'	1:CA:689:C:C6	2.46	0.48
1:CA:883:C:H2'	1:CA:884:U:H5'	1.94	0.48
1:CA:1118:C:O4'	1:CA:1179:A:H1'	2.13	0.48
1:CA:1265:G:H5'	1:CA:1266:G:OP2	2.13	0.48
4:CD:15:GLU:HG2	4:CD:59:ARG:HB2	1.95	0.48
4:CD:100:ARG:HG2	4:CD:137:SER:HA	1.95	0.48
4:CD:162:LEU:HA	4:CD:165:MET:HB2	1.95	0.48
7:CG:74:GLU:HG2	7:CG:141:VAL:HG11	1.94	0.48
26:D1:47:GLN:NE2	35:DA:2090:G:N2	2.61	0.48
33:D8:29:LYS:HD2	33:D8:44:LYS:CG	2.43	0.48
35:DA:389:G:N2	48:DP:71:VAL:HG21	2.28	0.48
35:DA:587:C:C2'	48:DP:33:ARG:HH11	2.23	0.48
35:DA:1047:G:H8	35:DA:1110:G:N1	2.11	0.48
35:DA:1071:G:H1	35:DA:1092:C:N4	2.11	0.48
35:DA:1329:U:H3'	35:DA:1330:C:H6	1.76	0.48
35:DA:1741:A:N7	35:DA:1742:G:C5	2.81	0.48
35:DA:2127:G:N1	35:DA:2161:C:O2'	2.42	0.48
35:DA:2167:U:C5	35:DA:2170:A:OP2	2.66	0.48
39:DE:200:GLU:HG2	39:DE:201:THR:H	1.78	0.48
41:DG:147:ASP:OD1	41:DG:148:MET:HG3	2.13	0.48
46:DN:41:ASP:HB3	46:DN:48:MET:HE2	1.94	0.48
49:DQ:76:LYS:HB2	49:DQ:91:GLU:HG3	1.95	0.48
53:DU:34:LYS:HD3	53:DU:34:LYS:HA	1.51	0.48
53:DU:95:LEU:C	53:DU:97:ASP:N	2.66	0.48
1:AA:146:G:H5'	1:AA:146:G:H8	1.77	0.48
1:AA:295:C:H2'	1:AA:296:U:O4'	2.13	0.48
1:AA:523:A:H61	12:AL:53:ARG:NH1	2.11	0.48
1:AA:1070:U:H2'	1:AA:1071:C:C6	2.48	0.48
1:AA:1117:G:H5'	1:AA:1118:C:OP2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1387:G:H2'	1:AA:1388:C:C6	2.48	0.48
2:AB:58:ILE:O	2:AB:62:ALA:N	2.27	0.48
4:AD:30:LYS:HB2	4:AD:32:ALA:C	2.34	0.48
4:AD:191:ARG:HB3	4:AD:192:GLU:OE2	2.13	0.48
8:AH:69:ARG:HD3	8:AH:75:ARG:O	2.13	0.48
11:AK:62:GLN:HG3	11:AK:97:ALA:HB2	1.95	0.48
19:AS:39:THR:O	19:AS:41:VAL:N	2.46	0.48
32:B7:12:ARG:HG2	35:BA:686:G:O6	2.13	0.48
35:BA:30:G:C6	35:BA:31:C:C4	3.00	0.48
35:BA:485:C:N3	35:BA:495:G:N2	2.59	0.48
35:BA:620:G:H8	35:BA:622:G:O6	1.96	0.48
35:BA:1392:A:N6	35:BA:1393:A:N6	2.62	0.48
35:BA:1820:U:O2	38:BD:201:HIS:HB3	2.13	0.48
35:BA:1946:U:H2'	35:BA:1947:C:C6	2.47	0.48
35:BA:2287:A:C2	35:BA:2346:A:N1	2.81	0.48
35:BA:2392:A:H2	35:BA:2424:C:N4	2.08	0.48
35:BA:2716:U:O2'	35:BA:2717:G:H5'	2.13	0.48
36:BB:4:C:N4	36:BB:117:G:H1	2.01	0.48
36:BB:70:C:N3	36:BB:107:G:N2	2.56	0.48
40:BF:182:ASN:O	40:BF:186:ILE:HG12	2.13	0.48
41:BG:59:GLU:OE1	41:BG:138:GLN:NE2	2.31	0.48
42:BH:25:LYS:HB3	42:BH:32:GLU:OE2	2.13	0.48
42:BH:83:TYR:CG	42:BH:134:SER:HB3	2.48	0.48
42:BH:94:TYR:HE2	42:BH:161:GLY:H	1.61	0.48
43:BI:3:VAL:O	43:BI:18:VAL:HA	2.13	0.48
43:BI:57:ARG:HA	43:BI:60:GLU:CB	2.37	0.48
46:BN:55:VAL:HG22	46:BN:128:HIS:HB3	1.96	0.48
46:BN:100:GLU:C	46:BN:102:ALA:N	2.66	0.48
47:BO:113:LYS:O	47:BO:115:VAL:HG22	2.13	0.48
47:BO:120:GLU:OE1	47:BO:122:LEU:HD11	2.13	0.48
49:BQ:109:VAL:HA	49:BQ:113:GLN:OE1	2.12	0.48
51:BS:89:ARG:HG3	51:BS:90:GLY:O	2.12	0.48
54:BV:66:ARG:HE	54:BV:94:LEU:HG	1.77	0.48
55:BW:69:LEU:HA	55:BW:108:GLY:O	2.12	0.48
57:BY:75:ILE:HG12	57:BY:79:CYS:HA	1.95	0.48
1:CA:433:C:H2'	1:CA:434:U:C6	2.48	0.48
1:CA:536:C:H2'	1:CA:537:G:C8	2.48	0.48
1:CA:586:C:H2'	1:CA:587:G:H5'	1.95	0.48
1:CA:718:G:C4	11:CK:116:HIS:CD2	3.01	0.48
1:CA:958:A:C6	1:CA:959:A:C6	3.01	0.48
1:CA:1405:G:N7	60:CA:1787:EDS:NAM	2.61	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CF:19:LEU:HD21	6:CF:59:TYR:CZ	2.48	0.48
7:CG:108:ALA:HB1	7:CG:120:ILE:HD13	1.95	0.48
9:CI:14:VAL:O	9:CI:65:VAL:HG23	2.13	0.48
10:CJ:92:THR:O	10:CJ:92:THR:OG1	2.22	0.48
14:CN:34:TYR:HE1	14:CN:41:ARG:HB3	1.78	0.48
18:CR:66:LEU:HD23	18:CR:67:ALA:N	2.28	0.48
27:D2:9:GLN:O	27:D2:9:GLN:NE2	2.47	0.48
33:D8:31:HIS:CE1	35:DA:2419:U:O4	2.66	0.48
35:DA:80:G:C2'	35:DA:81:G:H5'	2.43	0.48
35:DA:1021:A:H3'	35:DA:1021:A:H8	1.78	0.48
35:DA:1060:U:H5'	35:DA:1070:A:C2	2.49	0.48
35:DA:1241:A:C2'	35:DA:1242:A:O5'	2.61	0.48
35:DA:1481:U:H5'	35:DA:1482:G:OP2	2.11	0.48
37:DC:58:VAL:HG21	37:DC:166:ASP:N	2.28	0.48
37:DC:59:ARG:HG3	37:DC:62:VAL:HG13	1.94	0.48
41:DG:150:ASP:OD1	41:DG:150:ASP:N	2.42	0.48
49:DQ:51:ARG:O	49:DQ:55:VAL:HG13	2.13	0.48
56:DX:53:LYS:H	56:DX:80:ILE:HG22	1.79	0.48
1:AA:189:G:C8	1:AA:189:G:C3'	2.95	0.48
1:AA:909:A:H2'	1:AA:910:C:O4'	2.14	0.48
4:AD:88:VAL:O	4:AD:92:VAL:HG12	2.14	0.48
4:AD:91:SER:OG	4:AD:191:ARG:HB2	2.13	0.48
5:AE:38:GLN:HG2	5:AE:38:GLN:O	2.12	0.48
6:AF:19:LEU:HD11	6:AF:59:TYR:CD2	2.48	0.48
10:AJ:32:ALA:HA	10:AJ:76:ASN:HB2	1.96	0.48
17:AQ:6:LEU:HD23	17:AQ:6:LEU:HA	1.59	0.48
25:B0:56:ASP:OD2	35:BA:2364:C:H4'	2.13	0.48
35:BA:271(K):U:O2'	43:BI:50:ARG:HD3	2.13	0.48
35:BA:279:C:OP2	35:BA:279:C:C6	2.66	0.48
35:BA:859:G:N2	35:BA:917:A:OP2	2.46	0.48
35:BA:1486:A:C6	35:BA:1504:C:N4	2.80	0.48
35:BA:2390:U:O2'	35:BA:2391:G:H5'	2.14	0.48
39:BE:102:VAL:N	39:BE:201:THR:OG1	2.46	0.48
39:BE:108:SER:HB3	39:BE:165:VAL:HG21	1.95	0.48
39:BE:116:VAL:O	39:BE:118:LYS:N	2.45	0.48
43:BI:10:GLU:CD	43:BI:11:ASN:H	2.17	0.48
46:BN:96:GLU:CD	46:BN:96:GLU:H	2.17	0.48
52:BT:92:GLY:C	52:BT:94:ALA:N	2.67	0.48
54:BV:35:LEU:HB2	54:BV:59:ALA:HB1	1.94	0.48
55:BW:18:ARG:HH11	55:BW:25:ARG:NH2	2.12	0.48
56:BX:49:VAL:HG13	56:BX:88:LYS:NZ	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:BZ:114:GLY:HA2	58:BZ:175:VAL:O	2.13	0.48
1:CA:299:G:H2'	1:CA:300:A:C8	2.48	0.48
1:CA:410:G:N1	1:CA:429:U:O2	2.45	0.48
1:CA:511:C:H4'	4:CD:43:HIS:CD2	2.48	0.48
1:CA:666:G:H5'	1:CA:726:C:H1'	1.94	0.48
1:CA:828:A:H2'	1:CA:829:G:O4'	2.13	0.48
1:CA:1153:C:P	10:CJ:13:HIS:HE2	2.37	0.48
1:CA:1171:G:H2'	1:CA:1172:C:C6	2.49	0.48
2:CB:174:VAL:HG22	2:CB:184:VAL:HG11	1.95	0.48
5:CE:57:LYS:HE2	5:CE:61:TYR:CE1	2.48	0.48
9:CI:65:VAL:O	9:CI:66:ARG:HG3	2.13	0.48
28:D3:17:LYS:HG3	35:DA:969:U:OP1	2.12	0.48
35:DA:26:G:C6	35:DA:27:G:N1	2.81	0.48
35:DA:773:U:H4'	38:DD:47:GLY:HA2	1.95	0.48
35:DA:833:U:H5'	48:DP:52:GLU:HG3	1.95	0.48
35:DA:2097:C:H2'	35:DA:2098:U:O4'	2.13	0.48
37:DC:79:LYS:H	37:DC:82:LYS:HB2	1.79	0.48
42:DH:44:VAL:C	42:DH:46:GLU:N	2.66	0.48
43:DI:5:LEU:O	43:DI:6:LEU:HD23	2.13	0.48
55:DW:13:SER:HB3	55:DW:16:LYS:HD2	1.94	0.48
1:AA:79:G:C2	1:AA:80:G:N7	2.80	0.48
1:AA:662:G:H1	1:AA:743:U:H3	1.62	0.48
1:AA:1179:A:H2'	1:AA:1180:A:H5'	1.95	0.48
2:AB:24:TRP:N	2:AB:24:TRP:CD1	2.80	0.48
3:AC:148:GLY:HA3	3:AC:172:ARG:O	2.13	0.48
6:AF:33:TYR:OH	6:AF:78:GLU:OE2	2.22	0.48
14:AN:13:THR:C	14:AN:15:LYS:H	2.17	0.48
15:AO:33:THR:HG22	15:AO:63:ARG:HH11	1.79	0.48
27:B2:22:GLU:HA	27:B2:25:VAL:HG12	1.95	0.48
35:BA:802:A:H2'	35:BA:803:U:C6	2.48	0.48
35:BA:994:C:OP1	53:BU:53:ARG:NH2	2.46	0.48
35:BA:1045:A:H4'	35:BA:1047:G:C1'	2.43	0.48
35:BA:1064:C:O2'	35:BA:1065:U:OP1	2.28	0.48
35:BA:1288:U:C2	35:BA:1327:C:O2	2.67	0.48
35:BA:1412:A:H2'	35:BA:1413:G:C8	2.49	0.48
35:BA:1865:G:N2	35:BA:1877:A:OP2	2.45	0.48
35:BA:2415:G:C6	35:BA:2416:C:C4	3.02	0.48
36:BB:52:A:O2'	36:BB:53:A:C8	2.67	0.48
38:BD:108:PRO:HA	38:BD:196:VAL:O	2.13	0.48
39:BE:105:THR:HG21	39:BE:164:ARG:HH21	1.77	0.48
41:BG:124:SER:HB2	41:BG:131:TYR:CE1	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BO:22:ILE:HG12	47:BO:42:SER:H	1.78	0.48
48:BP:95:VAL:HG12	48:BP:95:VAL:O	2.13	0.48
48:BP:110:TYR:CE1	48:BP:128:HIS:CD2	3.02	0.48
52:BT:50:ILE:CG1	52:BT:62:THR:HG23	2.39	0.48
52:BT:82:LEU:H	52:BT:82:LEU:HG	1.31	0.48
52:BT:113:LYS:O	52:BT:114:LEU:HD23	2.14	0.48
54:BV:75:PHE:HB2	54:BV:87:HIS:ND1	2.29	0.48
55:BW:75:TYR:CZ	55:BW:104:THR:HG21	2.48	0.48
58:BZ:39:VAL:C	58:BZ:44:PHE:CE2	2.87	0.48
58:BZ:67:LEU:HD23	58:BZ:68:PRO:HD2	1.96	0.48
1:CA:223:U:H2'	1:CA:224:C:H6	1.78	0.48
1:CA:260:G:OP2	20:CT:79:ARG:NH2	2.46	0.48
1:CA:277:C:OP2	17:CQ:41:LYS:NZ	2.44	0.48
1:CA:544:G:OP1	4:CD:62:GLN:NE2	2.26	0.48
1:CA:575:G:O2'	1:CA:821:G:H5'	2.13	0.48
1:CA:619:U:C2	4:CD:135:LEU:HD21	2.48	0.48
1:CA:694:A:H5''	11:CK:53:SER:CB	2.42	0.48
3:CC:6:HIS:CD2	3:CC:8:ILE:HB	2.48	0.48
5:CE:27:ARG:HH11	5:CE:27:ARG:HG2	1.79	0.48
9:CI:93:ARG:C	9:CI:95:LYS:N	2.67	0.48
17:CQ:6:LEU:HD22	17:CQ:23:VAL:HG11	1.95	0.48
22:CV:47:U:H6	22:CV:47:U:O5'	1.96	0.48
25:D0:53:MET:HA	25:D0:58:THR:O	2.13	0.48
35:DA:979:G:N2	35:DA:985:C:C4	2.82	0.48
35:DA:1190:G:O3'	48:DP:35:HIS:HB3	2.14	0.48
35:DA:1430:C:H2'	35:DA:1431:U:C6	2.49	0.48
35:DA:1431:U:H2'	35:DA:1432:C:H6	1.77	0.48
35:DA:1473:G:H2'	35:DA:1474:C:O4'	2.13	0.48
35:DA:1529:G:H22	35:DA:1531:C:N4	2.11	0.48
35:DA:1802:A:N1	35:DA:1822:G:H1'	2.28	0.48
35:DA:1835:G:H5'	35:DA:1836:C:OP2	2.14	0.48
37:DC:39:GLU:CG	37:DC:180:PHE:HA	2.43	0.48
38:DD:43:ARG:HH22	38:DD:52:ARG:HA	1.77	0.48
38:DD:54:ARG:O	38:DD:218:ARG:HD3	2.14	0.48
38:DD:80:ALA:HB3	38:DD:94:LEU:CD1	2.43	0.48
41:DG:117:PHE:HZ	41:DG:120:LEU:HB2	1.77	0.48
47:DO:7:TYR:CE1	47:DO:20:MET:HB2	2.48	0.48
53:DU:95:LEU:C	53:DU:97:ASP:H	2.17	0.48
54:DV:16:PRO:HA	54:DV:98:GLU:HB3	1.95	0.48
57:DY:32:PRO:O	57:DY:34:LYS:N	2.46	0.48
57:DY:65:ALA:HA	57:DY:66:PRO:HD2	1.63	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:32:A:C2	1:AA:33:A:C4	3.01	0.48
1:AA:34:C:H2'	1:AA:35:G:C8	2.47	0.48
1:AA:77:G:OP2	1:AA:77:G:H3'	2.14	0.48
1:AA:580:U:H2'	1:AA:581:G:O4'	2.13	0.48
1:AA:952:U:C5	13:AM:104:ARG:NH2	2.80	0.48
1:AA:1118:C:H1'	1:AA:1179:A:C4	2.48	0.48
2:AB:21:ARG:HG3	2:AB:23:ARG:NH1	2.28	0.48
3:AC:71:ALA:HA	3:AC:106:VAL:H	1.79	0.48
5:AE:76:ILE:HG23	5:AE:142:LEU:HD22	1.96	0.48
6:AF:55:ASP:C	6:AF:57:GLN:H	2.17	0.48
8:AH:12:ARG:NH1	8:AH:26:VAL:HA	2.28	0.48
8:AH:51:VAL:HG11	8:AH:60:ARG:NH1	2.29	0.48
13:AM:49:THR:O	13:AM:53:VAL:N	2.39	0.48
15:AO:70:LEU:HD21	15:AO:78:TYR:HA	1.95	0.48
19:AS:5:LEU:HD12	19:AS:10:PHE:CB	2.38	0.48
26:B1:44:PRO:CG	26:B1:45:ASN:H	2.24	0.48
28:B3:18:ASP:O	28:B3:22:ALA:N	2.37	0.48
30:B5:3:LYS:HE2	35:BA:2612:C:C5'	2.43	0.48
32:B7:29:LYS:CD	32:B7:33:ARG:HE	2.27	0.48
32:B7:33:ARG:HD2	35:BA:467:G:OP1	2.13	0.48
35:BA:455:C:N3	35:BA:472:A:H2'	2.28	0.48
35:BA:1218:C:OP2	53:BU:15:LYS:HE3	2.14	0.48
35:BA:1607:C:H4'	35:BA:1608:A:C5'	2.44	0.48
35:BA:1939:U:OP1	35:BA:2604:U:O2'	2.30	0.48
35:BA:2647:U:H2'	35:BA:2648:C:C6	2.49	0.48
37:BC:42:GLU:HB3	37:BC:44:HIS:CE1	2.48	0.48
38:BD:31:LYS:O	38:BD:36:PRO:HD3	2.13	0.48
38:BD:43:ARG:HD2	38:BD:44:ASN:OD1	2.13	0.48
39:BE:55:ASN:O	39:BE:55:ASN:ND2	2.47	0.48
41:BG:101:ILE:O	41:BG:105:LYS:NZ	2.20	0.48
48:BP:63:PRO:C	48:BP:65:ARG:H	2.16	0.48
53:BU:92:ARG:HH21	54:BV:10:LYS:HB3	1.78	0.48
55:BW:43:GLY:C	55:BW:45:TYR:HB3	2.33	0.48
1:CA:232:G:H1'	1:CA:262:A:N1	2.28	0.48
1:CA:430:A:H2'	1:CA:431:A:O4'	2.13	0.48
1:CA:565:U:H3'	1:CA:566:G:H2'	1.95	0.48
1:CA:1206:G:H4'	3:CC:193:TYR:HA	1.96	0.48
9:CI:25:LYS:HG2	9:CI:60:ASP:HB3	1.96	0.48
9:CI:46:ALA:O	9:CI:48:GLU:N	2.46	0.48
9:CI:95:LYS:HG3	9:CI:96:LEU:N	2.29	0.48
10:CJ:9:ARG:HB2	10:CJ:95:GLU:HB3	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:72:ALA:HB1	11:CK:77:MET:HB3	1.94	0.48
12:CL:27:LEU:HB2	12:CL:62:SER:HB3	1.93	0.48
13:CM:99:ARG:CB	13:CM:101:GLN:HE22	2.22	0.48
15:CO:43:LEU:HD13	15:CO:53:HIS:CD2	2.48	0.48
26:D1:13:ILE:HD12	26:D1:13:ILE:HA	1.57	0.48
34:D9:1:MET:HG2	34:D9:2:LYS:H	1.78	0.48
35:DA:839:U:O2'	35:DA:1191:G:N3	2.46	0.48
35:DA:1327:C:H2'	35:DA:1328:G:O4'	2.14	0.48
35:DA:1639:U:H2'	35:DA:1640:C:H5''	1.96	0.48
35:DA:2740:A:C6	35:DA:2764:A:C8	3.01	0.48
35:DA:2747:G:C2	35:DA:2756:U:C5	3.01	0.48
35:DA:2850:A:OP2	35:DA:2866:U:C5	2.67	0.48
37:DC:66:HIS:HE2	37:DC:186:ALA:HB1	1.78	0.48
38:DD:182:LEU:HB2	38:DD:271:ILE:O	2.12	0.48
47:DO:35:VAL:HG11	47:DO:103:ALA:HB3	1.95	0.48
51:DS:101:LEU:CD1	51:DS:104:GLY:HA3	2.43	0.48
56:DX:53:LYS:HE2	56:DX:53:LYS:HA	1.96	0.48
1:AA:17:U:H2'	1:AA:18:C:C6	2.48	0.48
1:AA:618:C:O2	1:AA:622:A:N6	2.47	0.48
1:AA:1235:U:H2'	1:AA:1236:A:O4'	2.13	0.48
1:AA:1286:A:OP1	21:AU:24:ARG:NH1	2.47	0.48
1:AA:1512:U:H2'	1:AA:1513:A:C8	2.49	0.48
2:AB:189:ASP:C	2:AB:191:ASP:H	2.17	0.48
5:AE:78:HIS:HA	8:AH:105:ARG:HG3	1.96	0.48
10:AJ:26:ALA:O	10:AJ:30:SER:OG	2.31	0.48
13:AM:14:ARG:NE	13:AM:42:ALA:HA	2.23	0.48
17:AQ:58:GLU:O	17:AQ:74:LEU:N	2.40	0.48
20:AT:54:LYS:CG	20:AT:57:ARG:HH22	2.26	0.48
26:B1:41:ARG:HD3	26:B1:41:ARG:N	2.29	0.48
26:B1:48:LYS:NZ	26:B1:63:ALA:H	2.10	0.48
34:B9:6:SER:HB2	35:BA:2466:C:H5''	1.95	0.48
35:BA:1790:C:H5''	35:BA:1791:A:OP1	2.14	0.48
35:BA:1866:C:H6	35:BA:1866:C:O5'	1.97	0.48
35:BA:2185:C:OP2	35:BA:2185:C:H6	1.97	0.48
35:BA:2666:C:H3'	35:BA:2667:C:H6	1.77	0.48
35:BA:2773:C:OP1	39:BE:166:THR:OG1	2.31	0.48
39:BE:35:GLN:CB	39:BE:48:GLN:HE21	2.27	0.48
40:BF:170:LEU:HB2	40:BF:173:VAL:CG1	2.43	0.48
47:BO:71:ARG:HH22	47:BO:77:ILE:HG21	1.78	0.48
55:BW:54:ALA:O	55:BW:64:MET:HB3	2.13	0.48
58:BZ:145:GLU:HG3	58:BZ:146:ILE:N	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:55:A:C5	1:CA:56:U:C5	3.02	0.48
1:CA:295:C:H2'	1:CA:296:U:H6	1.78	0.48
1:CA:491:G:H2'	1:CA:492:G:C8	2.49	0.48
1:CA:658:G:C2	1:CA:749:C:N3	2.82	0.48
1:CA:687:A:H4'	1:CA:688:G:O5'	2.13	0.48
1:CA:1152:A:H2'	1:CA:1153:C:H6	1.78	0.48
2:CB:93:VAL:HG11	2:CB:97:TRP:CD1	2.49	0.48
3:CC:120:VAL:O	3:CC:123:GLN:N	2.47	0.48
3:CC:159:GLY:HA3	3:CC:193:TYR:HE1	1.78	0.48
6:CF:76:ALA:O	6:CF:80:ARG:HG3	2.13	0.48
7:CG:107:ALA:HB3	7:CG:134:ALA:HB2	1.95	0.48
15:CO:53:HIS:O	15:CO:56:LEU:HB3	2.14	0.48
15:CO:64:ARG:HH12	15:CO:88:ARG:NE	2.12	0.48
23:CW:73:A:H5''	23:CW:74:C:P	2.53	0.48
35:DA:287:C:O2	35:DA:287:C:H2'	2.12	0.48
35:DA:307:G:H8	35:DA:307:G:O5'	1.96	0.48
35:DA:412:A:OP2	35:DA:412:A:C8	2.60	0.48
35:DA:1357:U:H2'	35:DA:1358:G:O4'	2.13	0.48
35:DA:1525:G:H2'	35:DA:1526:G:C8	2.48	0.48
39:DE:67:PHE:CG	39:DE:70:ALA:HA	2.48	0.48
47:DO:88:ASN:HB3	47:DO:94:ARG:HE	1.79	0.48
48:DP:23:PRO:CB	48:DP:33:ARG:HG3	2.43	0.48
50:DR:2:ARG:HG2	50:DR:3:HIS:N	2.26	0.48
50:DR:2:ARG:CZ	50:DR:5:LYS:CE	2.91	0.48
52:DT:68:TYR:N	52:DT:68:TYR:CD1	2.81	0.48
1:AA:1060:C:O2	1:AA:1198:G:C2	2.66	0.48
1:AA:1104:G:H4'	2:AB:111:ARG:NH1	2.29	0.48
1:AA:1349:A:H2'	1:AA:1350:A:O4'	2.14	0.48
1:AA:1481:U:H2'	1:AA:1482:G:C8	2.48	0.48
4:AD:93:PHE:O	4:AD:97:LEU:HB2	2.13	0.48
4:AD:145:GLU:HG3	4:AD:184:LYS:HG2	1.96	0.48
6:AF:21:LEU:HD13	6:AF:24:GLU:HB3	1.95	0.48
9:AI:7:THR:O	9:AI:83:ARG:NH2	2.46	0.48
33:B8:23:VAL:HG22	33:B8:48:PHE:HE1	1.78	0.48
35:BA:158:U:H1'	35:BA:171:G:C8	2.48	0.48
35:BA:597:U:H2'	35:BA:598:G:C8	2.48	0.48
35:BA:644:A:O3'	35:BA:645:C:N3	2.47	0.48
35:BA:946:G:H2'	35:BA:947:G:C8	2.49	0.48
35:BA:959:A:C6	35:BA:960:A:N1	2.82	0.48
35:BA:1158:C:O2'	35:BA:1159:U:O5'	2.32	0.48
35:BA:1654:A:H1'	35:BA:2823:A:H5'	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2273:A:H2'	35:BA:2274:A:H8	1.77	0.48
35:BA:2607:G:H2'	35:BA:2608:G:O4'	2.14	0.48
35:BA:2713:A:OP2	35:BA:2713:A:C4'	2.61	0.48
38:BD:70:TRP:O	38:BD:71:ASP:C	2.52	0.48
38:BD:76:PRO:HA	38:BD:118:VAL:HB	1.96	0.48
43:BI:118:LYS:O	43:BI:120:ILE:N	2.42	0.48
46:BN:68:GLU:N	46:BN:88:GLU:OE1	2.41	0.48
48:BP:7:ARG:C	48:BP:9:ASN:N	2.65	0.48
50:BR:87:TYR:HA	50:BR:90:ARG:HD2	1.95	0.48
50:BR:100:LEU:HD21	50:BR:113:LEU:HB2	1.96	0.48
54:BV:23:GLU:OE2	54:BV:23:GLU:HA	2.14	0.48
56:BX:81:VAL:O	56:BX:85:PRO:HD2	2.14	0.48
1:CA:68:G:H5'	1:CA:171:A:O2'	2.14	0.48
1:CA:173:U:H5''	1:CA:197:A:O4'	2.14	0.48
1:CA:649:G:C2	1:CA:650:G:C8	3.02	0.48
1:CA:1030(B):C:N4	1:CA:1030(C):G:N3	2.61	0.48
1:CA:1241:G:H1	1:CA:1296:C:H42	1.62	0.48
1:CA:1463:C:H5'	52:DT:115:ARG:HH22	1.78	0.48
2:CB:69:LEU:HD11	2:CB:93:VAL:HG23	1.95	0.48
2:CB:189:ASP:OD1	2:CB:205:ASP:HB3	2.14	0.48
17:CQ:66:SER:H	17:CQ:69:LYS:HZ2	1.62	0.48
20:CT:42:GLN:HG3	20:CT:43:LEU:HD23	1.94	0.48
22:CV:18:G:O2'	22:CV:19:G:H5'	2.14	0.48
26:D1:53:VAL:HG12	26:D1:54:ALA:H	1.78	0.48
33:D8:38:GLY:O	33:D8:40:GLU:N	2.47	0.48
33:D8:60:LEU:HD12	33:D8:60:LEU:N	2.28	0.48
35:DA:153:C:O5'	35:DA:153:C:H6	1.97	0.48
35:DA:863:A:H2'	35:DA:864:G:C8	2.48	0.48
35:DA:1903:G:OP2	38:DD:241:PRO:HB2	2.12	0.48
35:DA:2295:C:C2'	35:DA:2296:U:H5'	2.44	0.48
35:DA:2563:U:H4'	47:DO:28:SER:HA	1.95	0.48
35:DA:2712:U:H1'	35:DA:2712(A):A:C8	2.49	0.48
35:DA:2726:U:O2'	35:DA:2727:G:H8	1.96	0.48
35:DA:2843:G:N2	35:DA:2875:C:C2	2.82	0.48
35:DA:2845:G:H2'	35:DA:2846:G:C8	2.49	0.48
35:DA:2847:U:OP2	52:DT:98:LYS:NZ	2.45	0.48
40:DF:185:ASP:HA	40:DF:188:ARG:CD	2.44	0.48
43:DI:69:LYS:HA	43:DI:136:VAL:HG21	1.96	0.48
48:DP:18:ARG:C	48:DP:20:GLY:N	2.66	0.48
48:DP:113:LYS:CE	48:DP:131:SER:HB2	2.43	0.48
49:DQ:19:GLY:C	49:DQ:21:THR:H	2.17	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:DY:28:LYS:HE2	57:DY:39:VAL:HG12	1.95	0.48
1:AA:97:G:H2'	1:AA:98:G:O4'	2.14	0.48
1:AA:216:G:H2'	1:AA:217:C:C6	2.48	0.48
1:AA:353:A:O2'	1:AA:354:G:OP2	2.29	0.48
1:AA:403:C:OP1	4:AD:136:PRO:HD2	2.14	0.48
1:AA:411:A:C3'	1:AA:412:A:H5''	2.44	0.48
1:AA:461:A:H2	1:AA:471:G:C4	2.30	0.48
1:AA:686:U:C2	1:AA:687:A:N7	2.82	0.48
1:AA:1170:A:N7	1:AA:1171:G:N2	2.56	0.48
1:AA:1262:C:H2'	1:AA:1263:C:C6	2.49	0.48
2:AB:145:LEU:O	2:AB:149:LEU:N	2.46	0.48
3:AC:79:ARG:NH1	11:CK:99:GLN:OE1	2.47	0.48
4:AD:4:TYR:O	4:AD:5:ILE:HB	2.14	0.48
4:AD:103:ASN:OD1	4:AD:106:TYR:HE1	1.96	0.48
10:AJ:64:GLU:O	14:AN:56:VAL:HA	2.14	0.48
10:AJ:74:ILE:HG13	10:AJ:75:ILE:N	2.20	0.48
27:B2:19:VAL:C	27:B2:21:LEU:H	2.17	0.48
35:BA:38:A:H2'	35:BA:39:C:C6	2.49	0.48
35:BA:139(A):G:N2	56:BX:40:LYS:CE	2.71	0.48
35:BA:1631(A):A:C2'	35:BA:1632:A:H5'	2.44	0.48
35:BA:2652:C:N4	35:BA:2668:G:H1	2.05	0.48
40:BF:204:ASN:ND2	40:BF:205:ARG:HH21	2.11	0.48
51:BS:23:ARG:HB3	51:BS:24:LEU:HD22	1.94	0.48
53:BU:65:ILE:HD11	53:BU:96:ALA:HB3	1.96	0.48
54:BV:38:LEU:HD23	54:BV:60:GLU:OE2	2.13	0.48
1:CA:166:G:H2'	1:CA:167:G:C8	2.45	0.48
1:CA:445:G:H1	1:CA:489:C:N4	1.95	0.48
1:CA:632:A:H2'	1:CA:633:G:O4'	2.14	0.48
1:CA:975:A:H4'	1:CA:976:G:C5'	2.42	0.48
1:CA:1057:G:H5''	3:CC:154:SER:OG	2.14	0.48
1:CA:1122:U:H2'	1:CA:1123:A:O4'	2.13	0.48
2:CB:80:ILE:HG12	2:CB:208:ILE:HG23	1.95	0.48
8:CH:17:THR:HG21	8:CH:80:ILE:HD12	1.95	0.48
8:CH:112:LEU:HA	8:CH:134:ILE:H	1.78	0.48
12:CL:54:LYS:HG2	12:CL:75:HIS:HE2	1.78	0.48
14:CN:3:ARG:O	14:CN:5:ALA:N	2.47	0.48
15:CO:71:GLN:HG3	15:CO:78:TYR:CD2	2.48	0.48
18:CR:66:LEU:O	18:CR:70:ILE:HG13	2.14	0.48
19:CS:19:VAL:O	19:CS:23:ASN:N	2.45	0.48
28:D3:13:ILE:HD12	35:DA:989:G:C5	2.49	0.48
28:D3:24:LYS:HG2	35:DA:849:A:C2	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:D6:11:LEU:O	31:D6:23:THR:HB	2.14	0.48
31:D6:27:LYS:CD	35:DA:2286:A:OP1	2.54	0.48
33:D8:12:LYS:HB2	48:DP:68:GLN:CD	2.35	0.48
35:DA:111:A:C2	35:DA:112:U:C2	3.02	0.48
35:DA:350:U:H5''	35:DA:351:G:OP2	2.13	0.48
35:DA:631:A:H2'	35:DA:632:A:O4'	2.13	0.48
35:DA:1678:G:N2	35:DA:1989:G:N2	2.56	0.48
35:DA:1690:A:H3'	35:DA:1691:C:C6	2.48	0.48
37:DC:56:GLN:NE2	37:DC:168:THR:HA	2.29	0.48
38:DD:146:GLU:HA	38:DD:153:ALA:HA	1.95	0.48
39:DE:14:ILE:HG12	39:DE:21:VAL:HG22	1.96	0.48
42:DH:88:LEU:HA	42:DH:88:LEU:HD13	1.64	0.48
46:DN:55:VAL:CG1	46:DN:126:PRO:HA	2.44	0.48
47:DO:26:LYS:HB3	47:DO:30:ALA:CB	2.40	0.48
48:DP:27:HIS:CD2	48:DP:28:GLY:CA	2.97	0.48
1:AA:406:G:N2	1:AA:437:U:O2	2.47	0.48
1:AA:640:A:O2'	8:AH:115:SER:HB3	2.14	0.48
1:AA:778:G:H2'	1:AA:779:C:O4'	2.14	0.48
1:AA:1160:G:N2	1:AA:1182:G:N2	2.61	0.48
1:AA:1168:A:H3'	1:AA:1169:A:O4'	2.13	0.48
1:AA:1238:A:OP2	1:AA:1335:C:C6	2.67	0.48
1:AA:1247:U:C2	1:AA:1291:G:N2	2.82	0.48
3:AC:40:ARG:CG	3:AC:55:VAL:HG21	2.40	0.48
5:AE:39:GLY:HA2	5:AE:71:LEU:HD11	1.95	0.48
7:AG:27:ILE:HA	7:AG:30:ILE:HD12	1.96	0.48
13:AM:84:ILE:HD13	19:AS:74:PHE:CD2	2.48	0.48
18:AR:73:ALA:CB	18:AR:79:LEU:HG	2.44	0.48
26:B1:23:LYS:HB2	26:B1:38:SER:HB3	1.95	0.48
28:B3:52:HIS:CG	36:BB:83:G:H4'	2.49	0.48
31:B6:8:LYS:O	31:B6:9:LEU:HB3	2.13	0.48
35:BA:996:A:H4'	53:BU:92:ARG:HG2	1.96	0.48
35:BA:1707:G:H2'	35:BA:1708:C:C6	2.49	0.48
35:BA:1800:C:OP2	38:BD:183:ARG:NH2	2.47	0.48
35:BA:2686:G:C2	35:BA:2724:C:O2	2.67	0.48
35:BA:2694:G:H2'	35:BA:2695:C:C6	2.48	0.48
35:BA:2781:A:H5''	35:BA:2782:G:H5'	1.96	0.48
35:BA:2807:G:H2'	35:BA:2808:U:O4'	2.14	0.48
36:BB:31:C:C2'	36:BB:32:C:H5'	2.44	0.48
37:BC:66:HIS:NE2	37:BC:186:ALA:HB1	2.29	0.48
39:BE:4:ILE:HG13	39:BE:5:LEU:O	2.14	0.48
40:BF:31:HIS:O	40:BF:34:TRP:N	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BG:64:THR:HB	41:BG:94:LEU:HD13	1.95	0.48
48:BP:110:TYR:O	48:BP:112:LEU:N	2.47	0.48
51:BS:67:ARG:O	51:BS:69:VAL:N	2.47	0.48
52:BT:28:VAL:HG12	52:BT:44:ASP:OD1	2.14	0.48
52:BT:57:PHE:HA	52:BT:79:HIS:CD2	2.49	0.48
1:CA:341:C:N4	1:CA:348:G:H1	2.08	0.48
1:CA:418:C:H2'	1:CA:419:C:C6	2.47	0.48
1:CA:580:U:C4	1:CA:581:G:C6	3.01	0.48
1:CA:1015:A:H8	1:CA:1015:A:O5'	1.96	0.48
2:CB:180:LEU:O	2:CB:182:ILE:HG13	2.14	0.48
13:CM:50:GLU:CD	13:CM:50:GLU:H	2.17	0.48
13:CM:80:ARG:O	13:CM:82:MET:HG2	2.14	0.48
15:CO:74:ASP:CG	15:CO:77:ARG:HG2	2.34	0.48
30:D5:57:VAL:CG2	50:DR:33:ARG:HH22	2.27	0.48
35:DA:154(A):C:OP2	35:DA:154(A):C:C6	2.67	0.48
35:DA:389:G:N2	48:DP:71:VAL:HG11	2.25	0.48
35:DA:1468:C:H2'	35:DA:1469:A:C8	2.49	0.48
35:DA:2811:G:C4'	39:DE:61:ARG:HH21	2.27	0.48
41:DG:110:ALA:HB1	41:DG:140:ILE:CD1	2.42	0.48
48:DP:18:ARG:HG2	48:DP:19:VAL:N	2.29	0.48
54:DV:66:ARG:HH21	54:DV:68:LYS:CA	2.26	0.48
54:DV:73:SER:HB3	54:DV:88:ARG:HH11	1.79	0.48
54:DV:80:GLN:HG3	54:DV:81:TYR:CE1	2.48	0.48
1:AA:281:G:O5'	1:AA:281:G:H8	1.98	0.47
1:AA:631:G:C2'	1:AA:632:A:H8	2.25	0.47
1:AA:1126:U:H2'	1:AA:1127:G:OP1	2.13	0.47
1:AA:1219:U:OP1	14:AN:19:ARG:NH1	2.26	0.47
1:AA:1306:A:H2'	1:AA:1307:U:O4'	2.14	0.47
3:AC:88:ARG:HE	3:AC:101:LEU:HD22	1.79	0.47
26:B1:90:ILE:HG23	26:B1:91:LYS:H	1.77	0.47
33:B8:34:TRP:CD2	33:B8:35:GLN:O	2.67	0.47
33:B8:59:LYS:HZ1	48:BP:49:ARG:HD2	1.79	0.47
35:BA:146:G:H8	35:BA:146:G:H5''	1.79	0.47
35:BA:154(A):C:N4	35:BA:172:C:H42	2.12	0.47
35:BA:1057:A:H3'	35:BA:1057:A:C8	2.49	0.47
35:BA:1091:G:H2'	35:BA:1092:C:H5''	1.96	0.47
35:BA:1140:C:H1'	35:BA:1143:A:C2	2.49	0.47
35:BA:1420:U:O2'	35:BA:1421:G:P	2.72	0.47
35:BA:2281:C:O2'	35:BA:2282:G:H5'	2.14	0.47
35:BA:2850:A:OP2	35:BA:2866:U:H5	1.97	0.47
38:BD:134:ARG:HG3	38:BD:135:PHE:CD2	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BE:19:ARG:HA	47:BO:73:ASP:HA	1.96	0.47
39:BE:76:ARG:HG2	39:BE:195:LEU:CD2	2.44	0.47
39:BE:117:MET:HE1	39:BE:136:ARG:CB	2.44	0.47
39:BE:182:LEU:HD12	39:BE:183:LEU:H	1.78	0.47
40:BF:21:ALA:C	40:BF:23:ASP:N	2.64	0.47
40:BF:53:THR:HG23	40:BF:54:ARG:N	2.29	0.47
47:BO:104:ARG:O	47:BO:107:ARG:HG3	2.14	0.47
1:CA:109:A:H2'	1:CA:326:G:N2	2.29	0.47
1:CA:300:A:H1'	1:CA:565:U:O2	2.14	0.47
1:CA:390:C:H2'	1:CA:391:G:H8	1.79	0.47
1:CA:875:C:H1'	8:CH:15:ASN:OD1	2.14	0.47
1:CA:1073:U:H2'	1:CA:1074:G:C8	2.49	0.47
1:CA:1266:G:N2	1:CA:1270:C:C2	2.82	0.47
1:CA:1303:C:C2'	1:CA:1304:G:H5'	2.44	0.47
1:CA:1365:G:C2	1:CA:1366:C:C2	3.01	0.47
2:CB:72:GLY:HA2	2:CB:165:VAL:HG22	1.95	0.47
2:CB:123:ALA:HA	2:CB:127:ILE:HG21	1.96	0.47
4:CD:92:VAL:O	4:CD:96:LEU:HD22	2.14	0.47
19:CS:11:VAL:HG11	19:CS:39:THR:CB	2.44	0.47
33:D8:18:ALA:HB3	35:DA:651:G:H4'	1.96	0.47
33:D8:47:LYS:HE2	35:DA:2361:A:OP2	2.14	0.47
35:DA:251:A:H2'	35:DA:252:G:O4'	2.14	0.47
35:DA:284:U:H2'	35:DA:285:C:C6	2.49	0.47
35:DA:535:C:H2'	35:DA:536:A:H5'	1.96	0.47
35:DA:971:C:H2'	35:DA:972:G:O4'	2.14	0.47
35:DA:1257:C:H4'	40:DF:83:PHE:CD1	2.49	0.47
35:DA:1444:G:N2	35:DA:1548:C:C2	2.82	0.47
35:DA:1794:U:H2'	35:DA:1795:C:H6	1.77	0.47
35:DA:1826:G:H4'	38:DD:242:ARG:NH1	2.29	0.47
35:DA:1902:C:H2'	35:DA:1903:G:O5'	2.13	0.47
35:DA:1952:A:C6	35:DA:1953:A:N1	2.82	0.47
35:DA:2262:U:H4'	35:DA:2328:A:H2	1.79	0.47
36:DB:59:A:H5''	36:DB:60:C:OP2	2.13	0.47
39:DE:9:VAL:O	52:DT:8:LYS:HE2	2.14	0.47
48:DP:23:PRO:HB2	48:DP:33:ARG:CD	2.43	0.47
50:DR:20:LEU:HD21	50:DR:40:LYS:HD3	1.96	0.47
52:DT:6:LEU:HG	52:DT:7:ILE:HG12	1.96	0.47
54:DV:66:ARG:CD	54:DV:67:GLY:H	2.23	0.47
55:DW:6:ILE:HA	55:DW:103:ILE:O	2.14	0.47
55:DW:48:ALA:O	55:DW:51:LEU:N	2.47	0.47
57:DY:45:VAL:HA	57:DY:61:ILE:HA	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:DY:84:ARG:HH22	57:DY:97:ARG:HH11	1.62	0.47
58:DZ:101:PRO:HA	58:DZ:123:ASP:HB3	1.95	0.47
1:AA:171:A:N1	1:AA:172:A:C8	2.77	0.47
1:AA:236:G:C5	1:AA:237:C:C4	3.02	0.47
1:AA:402:G:O2'	1:AA:620:C:N3	2.47	0.47
1:AA:683:G:H2'	1:AA:684:A:C8	2.49	0.47
1:AA:832:C:N4	1:AA:854:G:H1	2.10	0.47
1:AA:1015:A:C6	1:AA:1016:A:C5	3.02	0.47
1:AA:1175:G:C6	1:AA:1176:A:C6	3.02	0.47
1:AA:1241:G:OP2	7:AG:38:LEU:HD21	2.14	0.47
3:AC:82:GLU:O	3:AC:86:VAL:HG22	2.14	0.47
4:AD:110:PHE:CE1	4:AD:148:VAL:HG23	2.48	0.47
6:AF:22:GLU:HA	6:AF:22:GLU:OE2	2.14	0.47
6:AF:54:LYS:HD3	6:AF:54:LYS:HA	1.60	0.47
7:AG:79:ARG:HG2	7:AG:79:ARG:O	2.14	0.47
9:AI:106:ALA:O	9:AI:108:VAL:N	2.47	0.47
13:AM:8:GLU:OE2	13:AM:10:PRO:HB3	2.14	0.47
15:AO:23:GLY:O	15:AO:27:VAL:HB	2.14	0.47
19:AS:36:ARG:NH2	19:AS:53:ASN:HA	2.29	0.47
22:AV:16:C:HO2'	22:AV:62:C:P	2.37	0.47
22:AV:63:C:C2	22:AV:64:G:C8	3.02	0.47
32:B7:7:PRO:HA	35:BA:686:G:C8	2.50	0.47
32:B7:35:ARG:O	32:B7:35:ARG:HG2	2.13	0.47
33:B8:29:LYS:HE2	33:B8:44:LYS:HZ1	1.78	0.47
35:BA:173:G:C8	35:BA:173:G:OP2	2.67	0.47
35:BA:198:C:H2'	35:BA:199:A:C5'	2.43	0.47
35:BA:1110:G:H5'	35:BA:1111:A:OP1	2.13	0.47
35:BA:1286:A:H1'	35:BA:1288:U:OP2	2.14	0.47
35:BA:1299:G:H8	35:BA:1299:G:O5'	1.98	0.47
35:BA:1424:G:H3'	35:BA:1425:G:H8	1.80	0.47
35:BA:2208:A:H8	35:BA:2218:U:OP2	1.96	0.47
35:BA:2584:U:C2'	35:BA:2585:U:H5'	2.44	0.47
35:BA:2740:A:H2'	35:BA:2741:A:C8	2.50	0.47
38:BD:218:ARG:HB2	38:BD:219:PRO:HD2	1.96	0.47
43:BI:98:ALA:O	43:BI:101:LEU:N	2.47	0.47
50:BR:28:LEU:O	50:BR:29:LEU:HD23	2.14	0.47
52:BT:45:PHE:CE1	52:BT:65:LYS:HB2	2.49	0.47
53:BU:26:GLY:O	53:BU:29:SER:HB2	2.15	0.47
53:BU:55:ARG:HB3	53:BU:55:ARG:NH1	2.29	0.47
53:BU:106:PHE:O	53:BU:110:VAL:HG23	2.14	0.47
56:BX:25:LYS:HE3	56:BX:86:GLY:HA2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:266:G:H5'	1:CA:268:C:H41	1.79	0.47
1:CA:445:G:N2	1:CA:489:C:N3	2.43	0.47
1:CA:693:G:H2'	1:CA:694:A:C8	2.49	0.47
1:CA:824:C:O2'	8:CH:2:LEU:HD22	2.14	0.47
1:CA:1521:G:H2'	1:CA:1522:U:C6	2.49	0.47
2:CB:47:THR:O	2:CB:51:LEU:N	2.33	0.47
6:CF:24:GLU:HG2	6:CF:28:ARG:CZ	2.44	0.47
10:CJ:25:GLU:C	10:CJ:27:ALA:H	2.16	0.47
22:CV:65:C:H5'	22:CV:66:C:OP2	2.14	0.47
33:D8:26:LYS:HG2	33:D8:44:LYS:HD2	1.96	0.47
33:D8:38:GLY:C	33:D8:40:GLU:H	2.16	0.47
35:DA:224:G:H2'	35:DA:225:A:O4'	2.14	0.47
35:DA:1003:G:H1	35:DA:1152:C:H42	1.61	0.47
35:DA:1029:A:N1	35:DA:2465:C:O2'	2.42	0.47
35:DA:1146:C:C2'	35:DA:1147:C:H5'	2.45	0.47
35:DA:2065:C:H2'	35:DA:2066:C:H6	1.79	0.47
35:DA:2734:A:H5''	35:DA:2734:A:H8	1.79	0.47
40:DF:83:PHE:O	40:DF:84:VAL:HB	2.14	0.47
40:DF:148:LEU:HD23	40:DF:148:LEU:HA	1.79	0.47
43:DI:5:LEU:HD23	43:DI:5:LEU:HA	1.68	0.47
43:DI:92:VAL:CG2	43:DI:120:ILE:HG13	2.44	0.47
43:DI:93:THR:O	43:DI:97:ILE:HG13	2.14	0.47
49:DQ:66:ILE:HA	49:DQ:104:PHE:HB3	1.96	0.47
55:DW:73:ALA:HB3	55:DW:106:ILE:HG12	1.96	0.47
56:DX:14:SER:H	56:DX:17:ALA:HB3	1.79	0.47
56:DX:40:LYS:HG3	56:DX:41:ASN:N	2.29	0.47
56:DX:89:ILE:HD13	56:DX:92:LEU:HD21	1.95	0.47
1:AA:14:U:O2	1:AA:17:U:H5	1.97	0.47
1:AA:34:C:H2'	1:AA:35:G:H8	1.79	0.47
1:AA:197:A:N6	1:AA:221:C:H4'	2.30	0.47
1:AA:434:U:C4	1:AA:435:C:N4	2.82	0.47
1:AA:780:A:O2'	1:AA:781:A:H5''	2.14	0.47
1:AA:967:C:H3'	1:AA:968:A:H2'	1.96	0.47
1:AA:990:C:C2	1:AA:1216:G:C2	3.02	0.47
1:AA:1010:G:H2'	1:AA:1010:G:N3	2.29	0.47
1:AA:1086:U:O5'	1:AA:1086:U:H6	1.98	0.47
1:AA:1342:C:O2'	1:AA:1343:G:H5'	2.15	0.47
1:AA:1472:U:H2'	1:AA:1473:A:O4'	2.14	0.47
5:AE:78:HIS:O	5:AE:93:PRO:HD3	2.14	0.47
8:AH:110:ALA:HB3	8:AH:121:ASP:HB3	1.96	0.47
10:AJ:92:THR:HG23	10:AJ:93:GLY:H	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:84:LEU:HD23	12:AL:85:ILE:N	2.29	0.47
26:B1:26:ARG:HD2	26:B1:34:THR:CG2	2.43	0.47
26:B1:41:ARG:HD3	26:B1:41:ARG:H	1.79	0.47
31:B6:41:PRO:HD2	31:B6:45:LYS:HA	1.95	0.47
35:BA:282:A:C5	35:BA:359:A:C2	3.02	0.47
35:BA:662:G:P	48:BP:18:ARG:HH21	2.38	0.47
35:BA:779:U:OP1	38:BD:49:ILE:HG23	2.14	0.47
35:BA:1054:A:H3'	35:BA:1055:G:H8	1.80	0.47
35:BA:1063:G:H1	35:BA:1076:C:N4	2.12	0.47
35:BA:1464:C:H2'	35:BA:1465:G:O4'	2.14	0.47
35:BA:1707:G:C6	35:BA:1708:C:C4	3.02	0.47
35:BA:1877:A:H5'	35:BA:1878:G:OP2	2.14	0.47
35:BA:2050:C:H1'	39:BE:156:MET:CE	2.44	0.47
35:BA:2393:A:C5'	48:BP:62:LEU:HB3	2.44	0.47
35:BA:2750:A:OP1	35:BA:2750:A:H8	1.97	0.47
38:BD:71:ASP:CG	38:BD:103:ARG:HH21	2.18	0.47
39:BE:61:ARG:CG	39:BE:62:PRO:HD2	2.42	0.47
40:BF:53:THR:O	40:BF:54:ARG:HB3	2.14	0.47
43:BI:88:ILE:HG22	43:BI:89:TYR:N	2.30	0.47
48:BP:63:PRO:C	48:BP:65:ARG:N	2.67	0.47
57:BY:37:VAL:HG21	57:BY:72:VAL:HG11	1.95	0.47
1:CA:455:C:N4	1:CA:476:G:H1	2.10	0.47
3:CC:179:ARG:O	3:CC:206:GLU:HA	2.14	0.47
17:CQ:68:ARG:HG3	17:CQ:68:ARG:O	2.13	0.47
17:CQ:95:TYR:O	17:CQ:97:SER:N	2.47	0.47
19:CS:8:GLY:HA3	19:CS:10:PHE:CE1	2.49	0.47
33:D8:21:LYS:NZ	35:DA:650:C:OP1	2.46	0.47
35:DA:142:A:H8	35:DA:1408:C:H1'	1.79	0.47
35:DA:730:C:OP2	35:DA:731:C:OP2	2.33	0.47
35:DA:1190:G:H4'	48:DP:35:HIS:HB3	1.96	0.47
35:DA:1398:C:OP1	56:DX:55:ASN:ND2	2.48	0.47
35:DA:1657:C:OP2	39:DE:136:ARG:HG3	2.14	0.47
35:DA:1662:C:O2'	35:DA:2687:U:OP1	2.29	0.47
35:DA:2815:C:H2'	35:DA:2816:C:C6	2.49	0.47
36:DB:42:C:O2	41:DG:92:VAL:HA	2.14	0.47
36:DB:88:C:N3	36:DB:89:G:N1	2.62	0.47
38:DD:26:LYS:HD2	38:DD:26:LYS:N	2.28	0.47
41:DG:151:ALA:HB3	41:DG:153:ARG:HH11	1.77	0.47
47:DO:25:LEU:HD23	47:DO:25:LEU:HA	1.58	0.47
47:DO:77:ILE:CD1	47:DO:122:LEU:HB3	2.44	0.47
48:DP:75:ILE:HD12	48:DP:77:ARG:NH2	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DT:120:ARG:HA	52:DT:123:GLN:HG2	1.95	0.47
55:DW:86:LEU:HD12	55:DW:87:PRO:HD2	1.94	0.47
56:DX:71:GLY:O	56:DX:72:LYS:HB2	2.14	0.47
58:DZ:104:PHE:HD1	58:DZ:105:VAL:H	1.62	0.47
1:AA:81:U:O4	1:AA:89:C:N4	2.47	0.47
1:AA:872:A:C4	1:AA:874:G:N7	2.83	0.47
2:AB:8:LYS:HA	2:AB:11:LEU:HG	1.96	0.47
2:AB:68:ILE:H	2:AB:90:MET:HE3	1.79	0.47
4:AD:121:VAL:HG12	4:AD:134:ASP:HA	1.96	0.47
5:AE:9:LYS:HE3	5:AE:111:GLU:OE2	2.13	0.47
10:AJ:6:ILE:CG2	10:AJ:96:ILE:HD11	2.34	0.47
15:AO:42:HIS:O	15:AO:46:HIS:N	2.45	0.47
19:AS:63:THR:HG23	19:AS:66:MET:HB2	1.96	0.47
23:AW:34:G:H3'	23:AW:35:A:O4'	2.15	0.47
26:B1:92:LYS:HG2	26:B1:93:GLU:N	2.28	0.47
35:BA:530:G:O4'	35:BA:530:G:N3	2.45	0.47
35:BA:636:G:O5'	35:BA:636:G:H8	1.96	0.47
35:BA:945:A:C4	35:BA:2448:A:C2	3.02	0.47
35:BA:1260:G:H2'	35:BA:1261:C:C6	2.49	0.47
35:BA:2688:U:H1'	35:BA:2721:A:N6	2.30	0.47
36:BB:52:A:O2'	36:BB:53:A:N7	2.48	0.47
36:BB:87:G:O2'	36:BB:89:G:N2	2.48	0.47
41:BG:43:LEU:HD22	41:BG:89:GLY:HA2	1.96	0.47
42:BH:107:VAL:HG21	42:BH:152:ARG:HB2	1.95	0.47
48:BP:47:ASP:O	48:BP:48:PRO:C	2.52	0.47
48:BP:124:LYS:HA	48:BP:143:GLY:O	2.13	0.47
48:BP:126:VAL:HG12	48:BP:147:LEU:CD2	2.43	0.47
51:BS:55:ALA:O	51:BS:56:LEU:HG	2.14	0.47
52:BT:55:ASN:N	52:BT:59:THR:HG22	2.29	0.47
55:BW:51:LEU:HG	55:BW:107:LEU:HD22	1.97	0.47
56:BX:18:TYR:HA	56:BX:21:PHE:CE2	2.50	0.47
58:BZ:63:ASP:OD1	58:BZ:65:GLN:HB3	2.15	0.47
1:CA:460:G:H21	1:CA:472:A:N6	2.11	0.47
1:CA:689:C:H2'	1:CA:690:G:O4'	2.14	0.47
1:CA:957:U:H4'	19:CS:79:THR:HG23	1.95	0.47
1:CA:1489:G:H2'	1:CA:1490:C:O4'	2.15	0.47
2:CB:174:VAL:HG11	2:CB:196:LEU:CD1	2.39	0.47
3:CC:32:LEU:HD21	3:CC:59:ARG:HD3	1.96	0.47
9:CI:70:LYS:O	9:CI:74:ILE:HG13	2.15	0.47
16:CP:43:LYS:HG2	16:CP:48:TRP:CE2	2.49	0.47
18:CR:41:LYS:N	18:CR:43:PHE:H	2.12	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:67:ALA:O	20:CT:73:HIS:CD2	2.68	0.47
26:D1:10:LYS:HG3	26:D1:13:ILE:O	2.15	0.47
27:D2:21:LEU:HA	27:D2:21:LEU:HD23	1.53	0.47
31:D6:25:LYS:NZ	35:DA:2285:C:H41	2.13	0.47
35:DA:11:G:C2'	35:DA:12:U:H5'	2.44	0.47
35:DA:272(D):G:N2	35:DA:365:C:C2	2.82	0.47
35:DA:877:U:H2'	35:DA:878:A:H5''	1.96	0.47
35:DA:1442:G:H1	35:DA:1549:C:H42	1.62	0.47
35:DA:1448:G:HO2'	35:DA:1528(A):A:N6	2.13	0.47
35:DA:1623:G:C2	35:DA:1624:G:C8	3.02	0.47
35:DA:1963:U:H4'	35:DA:1964:G:OP1	2.14	0.47
35:DA:2199:A:OP2	35:DA:2200:C:H5	1.98	0.47
35:DA:2218:U:H4'	35:DA:2219:G:OP2	2.15	0.47
35:DA:2360:A:O2'	35:DA:2361:A:H8	1.97	0.47
35:DA:2575:C:H5'	39:DE:144:ARG:HG3	1.95	0.47
36:DB:47:C:OP1	51:DS:13:ARG:NH2	2.47	0.47
36:DB:86:G:H2'	36:DB:87:G:H8	1.79	0.47
38:DD:164:GLN:OE1	38:DD:176:ARG:NH2	2.48	0.47
41:DG:110:ALA:HA	41:DG:140:ILE:O	2.14	0.47
42:DH:101:ARG:O	42:DH:123:PHE:HB2	2.14	0.47
43:DI:92:VAL:HA	43:DI:96:ASP:OD2	2.14	0.47
46:DN:67:LEU:HA	46:DN:87:LEU:HD13	1.96	0.47
47:DO:107:ARG:NH2	52:DT:35:LYS:HG3	2.30	0.47
50:DR:111:LEU:N	50:DR:111:LEU:HD12	2.29	0.47
52:DT:11:GLU:OE2	52:DT:11:GLU:C	2.53	0.47
54:DV:73:SER:HB3	54:DV:88:ARG:NH1	2.29	0.47
55:DW:29:LEU:HA	55:DW:29:LEU:HD12	1.66	0.47
56:DX:12:VAL:HG13	56:DX:17:ALA:HB2	1.96	0.47
1:AA:186:C:O3'	20:AT:82:SER:HB3	2.14	0.47
1:AA:189(L):G:H2'	1:AA:190:U:C5	2.48	0.47
1:AA:256:U:H3	1:AA:270:A:N6	2.12	0.47
1:AA:652:U:C5	1:AA:752:G:C4	3.02	0.47
1:AA:1005:A:H3'	1:AA:1006:C:C5'	2.44	0.47
1:AA:1005:A:C8	1:AA:1006:C:H4'	2.50	0.47
1:AA:1228:C:H4'	13:AM:116:THR:HA	1.96	0.47
1:AA:1316:G:C6	19:AS:5:LEU:HD21	2.48	0.47
2:AB:18:GLY:HA2	2:AB:42:ILE:HG12	1.97	0.47
2:AB:102:LEU:HD13	2:AB:158:LEU:HD22	1.96	0.47
5:AE:7:GLU:N	5:AE:35:GLY:O	2.47	0.47
5:AE:32:VAL:HG12	5:AE:33:VAL:O	2.14	0.47
13:AM:34:LEU:O	13:AM:38:GLY:N	2.46	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:B1:10:LYS:HB2	26:B1:14:VAL:H	1.79	0.47
27:B2:53:LEU:CB	27:B2:54:LYS:HD2	2.44	0.47
31:B6:15:GLU:CD	31:B6:41:PRO:HG3	2.34	0.47
32:B7:1:MET:HE2	32:B7:3:ARG:HH21	1.80	0.47
33:B8:59:LYS:HZ2	48:BP:49:ARG:HD2	1.80	0.47
35:BA:49:A:H5''	35:BA:51:G:O4'	2.13	0.47
35:BA:207:A:H2'	35:BA:208:C:O4'	2.14	0.47
35:BA:528:A:H2	35:BA:2043:C:H5'	1.80	0.47
35:BA:1169:G:N2	35:BA:1181:C:O2	2.47	0.47
35:BA:2114:A:N1	35:BA:2167:U:H4'	2.29	0.47
35:BA:2404:C:C3'	48:BP:77:ARG:HH22	2.19	0.47
41:BG:91:ARG:HG2	41:BG:92:VAL:N	2.29	0.47
47:BO:35:VAL:HG13	47:BO:63:VAL:C	2.35	0.47
47:BO:64:ARG:HG2	47:BO:79:PHE:CD2	2.50	0.47
48:BP:16:ARG:NE	48:BP:16:ARG:HA	2.29	0.47
50:BR:44:LEU:HD23	50:BR:44:LEU:HA	1.60	0.47
53:BU:81:HIS:O	53:BU:85:LYS:HB2	2.15	0.47
54:BV:1:MET:HG3	54:BV:42:GLY:CA	2.44	0.47
58:BZ:27:VAL:HG12	58:BZ:87:ASP:CB	2.43	0.47
1:CA:279:A:H4'	1:CA:280:C:H5''	1.96	0.47
1:CA:324:G:O2'	1:CA:326:G:N7	2.33	0.47
1:CA:865:A:H2'	1:CA:866:C:C6	2.50	0.47
2:CB:71:VAL:HG22	2:CB:93:VAL:HB	1.97	0.47
3:CC:79:ARG:O	3:CC:81:GLY:N	2.39	0.47
12:CL:21:LYS:HD3	12:CL:21:LYS:N	2.28	0.47
13:CM:10:PRO:HB2	13:CM:18:ALA:HB1	1.96	0.47
19:CS:16:LEU:HD12	19:CS:41:VAL:HG21	1.97	0.47
20:CT:54:LYS:HG3	20:CT:58:LYS:CD	2.45	0.47
20:CT:74:LYS:O	20:CT:75:ASN:HB2	2.15	0.47
27:D2:59:ARG:HA	27:D2:59:ARG:HE	1.75	0.47
33:D8:25:MET:CG	48:DP:64:LYS:CB	2.92	0.47
33:D8:27:THR:HA	35:DA:2361:A:OP1	2.15	0.47
35:DA:184:C:H2'	35:DA:185:U:C6	2.49	0.47
35:DA:218:A:C2	35:DA:235:U:H4'	2.49	0.47
35:DA:784:A:C8	35:DA:792:G:C5	3.03	0.47
37:DC:45:ALA:HA	37:DC:209:LEU:O	2.15	0.47
38:DD:60:ARG:HG3	38:DD:86:PRO:HG2	1.96	0.47
46:DN:68:GLU:HB2	46:DN:88:GLU:OE2	2.14	0.47
53:DU:8:VAL:HG13	53:DU:11:ARG:NH2	2.26	0.47
56:DX:57:LEU:O	56:DX:75:ASP:HA	2.14	0.47
57:DY:26:LYS:CG	57:DY:27:VAL:H	2.27	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:DZ:23:LYS:HD3	58:DZ:40:ASP:HA	1.95	0.47
58:DZ:33:LEU:HG	58:DZ:34:ASN:N	2.29	0.47
1:AA:37:U:O2'	1:AA:500:G:H4'	2.15	0.47
1:AA:731:G:OP1	1:AA:766:A:H1'	2.14	0.47
1:AA:945:G:C2	1:AA:946:A:C8	3.03	0.47
1:AA:1194:U:H2'	1:AA:1195:C:C6	2.49	0.47
4:AD:108:LEU:HB3	4:AD:109:GLY:H	1.61	0.47
5:AE:6:PHE:HA	5:AE:34:VAL:HG13	1.97	0.47
7:AG:50:ILE:HA	7:AG:125:MET:HE2	1.95	0.47
8:AH:102:ARG:HH21	8:AH:105:ARG:CD	2.28	0.47
14:AN:34:TYR:HD2	14:AN:44:LEU:HD22	1.79	0.47
19:AS:49:ILE:O	19:AS:59:PRO:HA	2.14	0.47
26:B1:46:LEU:CD1	26:B1:48:LYS:HG2	2.44	0.47
27:B2:27:GLU:C	27:B2:29:LYS:N	2.68	0.47
33:B8:25:MET:SD	48:BP:64:LYS:HD3	2.54	0.47
35:BA:315:G:H2'	35:BA:316:C:O4'	2.13	0.47
35:BA:1170:G:N1	35:BA:1180:C:C2	2.83	0.47
35:BA:1221:C:N4	35:BA:1229:G:H1	2.12	0.47
35:BA:1332:G:C8	35:BA:1332:G:H5'	2.49	0.47
35:BA:2471:C:H2'	35:BA:2472:G:O4'	2.15	0.47
35:BA:2745:C:H2'	35:BA:2746:U:O4'	2.15	0.47
35:BA:2756:U:H1'	35:BA:2757:A:H5''	1.97	0.47
40:BF:19:GLU:CG	40:BF:24:LEU:HD13	2.44	0.47
40:BF:65:TRP:CD1	40:BF:70:THR:HG21	2.49	0.47
41:BG:132:ASN:OD1	41:BG:158:ALA:HA	2.14	0.47
42:BH:101:ARG:HD2	42:BH:117:PRO:HB2	1.97	0.47
51:BS:7:TYR:HB2	51:BS:8:GLU:OE1	2.14	0.47
53:BU:92:ARG:NH1	53:BU:94:ASN:OD1	2.48	0.47
58:BZ:54:HIS:CG	58:BZ:55:HIS:H	2.33	0.47
1:CA:102:G:H2'	1:CA:103:C:H6	1.80	0.47
1:CA:343:U:H2'	1:CA:345:C:C5	2.48	0.47
1:CA:957:U:H2'	1:CA:959:A:OP2	2.14	0.47
1:CA:1020:U:H2'	1:CA:1021:G:H8	1.79	0.47
1:CA:1320:C:H42	19:CS:36:ARG:HG3	1.79	0.47
2:CB:174:VAL:O	2:CB:178:ARG:HB2	2.14	0.47
3:CC:102:ASN:O	3:CC:103:VAL:HG23	2.15	0.47
3:CC:162:GLN:NE2	24:CX:24:A:H4'	2.29	0.47
4:CD:170:VAL:HG22	4:CD:171:GLY:H	1.80	0.47
5:CE:32:VAL:O	5:CE:43:LEU:HD12	2.14	0.47
11:CK:32:ILE:HD12	11:CK:72:ALA:HB2	1.96	0.47
20:CT:55:ILE:HG22	20:CT:56:MET:N	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:65:LYS:HD3	20:CT:68:LYS:HE2	1.95	0.47
26:D1:26:ARG:O	26:D1:27:GLU:HB2	2.13	0.47
33:D8:31:HIS:CG	35:DA:2419:U:O4	2.68	0.47
33:D8:50:LEU:CD1	33:D8:51:ALA:N	2.74	0.47
35:DA:587:C:H4'	35:DA:588:U:OP2	2.15	0.47
35:DA:882:G:N2	35:DA:894:C:H42	2.08	0.47
35:DA:901:A:C2'	35:DA:902:C:H5'	2.45	0.47
35:DA:1272:A:O2'	35:DA:1273:U:H5'	2.15	0.47
35:DA:1813:G:H1'	38:DD:50:THR:OG1	2.14	0.47
35:DA:1952:A:C5	47:DO:22:ILE:CD1	2.97	0.47
35:DA:2013:A:N3	55:DW:88:ARG:NH2	2.62	0.47
42:DH:107:VAL:HG11	42:DH:152:ARG:HB3	1.95	0.47
46:DN:2:LYS:HG3	46:DN:3:THR:OG1	2.15	0.47
47:DO:68:GLU:CD	47:DO:68:GLU:H	2.18	0.47
51:DS:42:ASP:O	51:DS:44:LYS:N	2.45	0.47
52:DT:88:ILE:H	52:DT:88:ILE:HG13	1.17	0.47
58:DZ:138:GLU:O	58:DZ:139:VAL:HG23	2.15	0.47
1:AA:38:G:H1	1:AA:397:A:H5''	1.78	0.47
1:AA:429:U:H2'	4:AD:25:ARG:NH1	2.29	0.47
1:AA:435:C:H2'	1:AA:436:C:C6	2.50	0.47
1:AA:457:C:H2'	1:AA:458:C:C2	2.49	0.47
1:AA:557:G:H2'	1:AA:558:G:O4'	2.15	0.47
1:AA:750:G:C2	15:AO:23:GLY:HA3	2.48	0.47
1:AA:839:U:H3'	1:AA:839:U:OP2	2.15	0.47
1:AA:881:G:P	12:AL:12:ARG:NH2	2.88	0.47
1:AA:981:U:C3'	1:AA:982:U:H5''	2.44	0.47
1:AA:996:A:H2'	1:AA:996:A:N3	2.29	0.47
1:AA:997:U:H4'	1:AA:998:G:OP1	2.13	0.47
1:AA:1169:A:C8	1:AA:1170:A:C8	3.02	0.47
1:AA:1281:U:C4'	1:AA:1282:C:OP2	2.62	0.47
1:AA:1289:A:H62	9:AI:70:LYS:HE3	1.78	0.47
1:AA:1316:G:H1	19:AS:5:LEU:HD11	1.79	0.47
1:AA:1346:A:C8	1:AA:1348:U:C2	3.03	0.47
1:AA:1382:C:H2'	1:AA:1383:C:C6	2.50	0.47
2:AB:20:GLU:HA	2:AB:20:GLU:OE2	2.14	0.47
2:AB:21:ARG:HG3	2:AB:23:ARG:HH11	1.80	0.47
4:AD:29:PRO:O	4:AD:30:LYS:HD3	2.15	0.47
4:AD:55:ALA:O	4:AD:59:ARG:HB2	2.13	0.47
4:AD:118:ARG:HG3	4:AD:136:PRO:HB3	1.96	0.47
6:AF:9:VAL:HA	6:AF:59:TYR:O	2.15	0.47
8:AH:12:ARG:HH12	8:AH:27:PRO:HD3	1.77	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:48:THR:CG2	10:AJ:62:HIS:HD2	2.28	0.47
12:AL:24:VAL:HG13	12:AL:98:TYR:HE2	1.78	0.47
13:AM:95:GLY:HA2	13:AM:110:ARG:HH21	1.78	0.47
14:AN:45:ARG:HH11	14:AN:45:ARG:HG3	1.78	0.47
15:AO:35:ARG:O	15:AO:39:LEU:HB2	2.15	0.47
15:AO:55:GLY:O	15:AO:59:MET:HG3	2.15	0.47
23:AW:34:G:H5'	23:AW:35:A:OP2	2.14	0.47
25:B0:47:PRO:HB3	25:B0:51:VAL:O	2.15	0.47
27:B2:51:ARG:NE	27:B2:55:ARG:HD2	2.29	0.47
35:BA:81:G:O6	35:BA:82:G:N2	2.47	0.47
35:BA:139:G:H2'	35:BA:139(A):G:C5'	2.25	0.47
35:BA:184:C:H2'	35:BA:185:U:H6	1.79	0.47
35:BA:236:C:O2'	35:BA:431:U:H4'	2.15	0.47
35:BA:253:C:H2'	35:BA:254:G:O4'	2.15	0.47
35:BA:754:C:H2'	35:BA:755:C:H6	1.80	0.47
35:BA:864:G:C6	35:BA:865:C:N4	2.83	0.47
35:BA:1155:A:C2	35:BA:1157:G:C8	3.02	0.47
35:BA:1276:A:H2	50:BR:23:ASN:ND2	2.12	0.47
35:BA:1429:G:O2'	35:BA:1430:C:H5'	2.15	0.47
35:BA:1431:U:H2'	35:BA:1432:C:C6	2.50	0.47
35:BA:1435:G:H21	35:BA:1478:G:H5'	1.80	0.47
35:BA:2643:G:H2'	35:BA:2644:G:O4'	2.14	0.47
35:BA:2753:A:O2'	35:BA:2754:U:P	2.72	0.47
35:BA:2760:C:H1'	42:BH:139:GLN:NE2	2.30	0.47
36:BB:21:G:HO2'	36:BB:22:U:P	2.37	0.47
38:BD:27:THR:HG23	38:BD:28:GLU:N	2.30	0.47
38:BD:109:ASP:O	38:BD:111:LEU:N	2.47	0.47
39:BE:182:LEU:O	39:BE:183:LEU:HD12	2.15	0.47
40:BF:20:LEU:CD1	40:BF:203:GLN:HE22	2.28	0.47
40:BF:202:PHE:O	40:BF:205:ARG:NH2	2.48	0.47
41:BG:56:ALA:HA	41:BG:153:ARG:NH1	2.29	0.47
41:BG:178:PHE:HD1	41:BG:179:PRO:HD2	1.79	0.47
46:BN:53:VAL:HA	46:BN:121:LYS:O	2.14	0.47
46:BN:66:LYS:CE	46:BN:87:LEU:HD22	2.45	0.47
49:BQ:63:LYS:HE3	49:BQ:65:PHE:CZ	2.49	0.47
50:BR:85:PRO:O	50:BR:87:TYR:N	2.48	0.47
51:BS:22:GLY:O	51:BS:24:LEU:N	2.48	0.47
52:BT:118:ARG:HH12	52:BT:119:LYS:HB2	1.78	0.47
54:BV:69:LYS:HZ1	54:BV:71:LEU:HD21	1.78	0.47
56:BX:29:TRP:CD1	56:BX:75:ASP:O	2.68	0.47
56:BX:51:VAL:CG1	56:BX:52:VAL:N	2.77	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BY:29:GLU:O	57:BY:38:ILE:HG13	2.15	0.47
57:BY:81:LYS:HD3	57:BY:97:ARG:HE	1.78	0.47
57:BY:88:LYS:HE2	57:BY:88:LYS:HB2	1.55	0.47
58:BZ:45:ASP:CG	58:BZ:46:LYS:N	2.68	0.47
58:BZ:74:VAL:HA	58:BZ:86:VAL:HG12	1.96	0.47
1:CA:93:G:OP2	1:CA:93:G:C8	2.68	0.47
1:CA:266:G:H5'	1:CA:267:C:C5	2.50	0.47
1:CA:461:A:H2'	1:CA:471:G:N7	2.30	0.47
1:CA:602:A:C2	1:CA:637:G:C2	3.02	0.47
1:CA:671:G:H2'	1:CA:672:U:O4'	2.15	0.47
1:CA:771:G:H2'	1:CA:772:U:H6	1.80	0.47
1:CA:859:A:H2'	1:CA:860:A:H8	1.78	0.47
1:CA:880:C:P	12:CL:8:ASN:HD22	2.38	0.47
1:CA:1030:C:H2'	1:CA:1030(A):G:H5'	1.97	0.47
1:CA:1213:A:C8	1:CA:1215:G:C5	3.03	0.47
2:CB:104:ASN:ND2	2:CB:107:THR:OG1	2.48	0.47
2:CB:120:ALA:C	2:CB:121:LEU:HD12	2.34	0.47
4:CD:62:GLN:O	4:CD:66:ARG:HG2	2.15	0.47
5:CE:79:GLU:N	5:CE:79:GLU:OE1	2.47	0.47
10:CJ:13:HIS:HB3	10:CJ:68:HIS:CE1	2.49	0.47
10:CJ:72:VAL:HG12	10:CJ:73:ASP:H	1.80	0.47
13:CM:59:TYR:CZ	13:CM:63:THR:HG21	2.50	0.47
17:CQ:11:VAL:HG23	17:CQ:20:THR:HB	1.97	0.47
20:CT:89:ARG:HD2	20:CT:104:LEU:CD2	2.45	0.47
25:D0:9:SER:O	25:D0:10:THR:HB	2.15	0.47
26:D1:21:ARG:HB2	26:D1:40:ARG:HD3	1.96	0.47
27:D2:26:ARG:HA	27:D2:26:ARG:NE	2.28	0.47
30:D5:40:LYS:HG3	30:D5:41:PRO:O	2.14	0.47
34:D9:13:LYS:O	34:D9:27:CYS:HB2	2.15	0.47
35:DA:71:A:H3'	35:DA:71:A:P	2.55	0.47
35:DA:176:G:C2'	35:DA:177:G:H5'	2.45	0.47
35:DA:330:A:C2	35:DA:1210:A:H2'	2.50	0.47
35:DA:478:A:N1	35:DA:500:G:H4'	2.29	0.47
35:DA:498:G:C6	35:DA:499:U:C4	3.02	0.47
35:DA:552:G:OP2	35:DA:552:G:C8	2.65	0.47
35:DA:657:U:O2'	35:DA:658:C:H5'	2.15	0.47
35:DA:676:A:H1'	35:DA:2443:C:H1'	1.97	0.47
35:DA:818:G:OP2	35:DA:1187:G:O6	2.32	0.47
35:DA:932:G:H4'	35:DA:933:A:O5'	2.14	0.47
35:DA:997:G:OP1	53:DU:93:LYS:HE3	2.14	0.47
35:DA:1797:C:O3'	38:DD:259:THR:HG22	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1952:A:C5	47:DO:22:ILE:HD12	2.50	0.47
35:DA:2250:G:H5''	35:DA:2250:G:N3	2.29	0.47
35:DA:2506:U:H4'	35:DA:2507:C:OP1	2.13	0.47
35:DA:2612:C:C5	35:DA:2613:U:H5	2.32	0.47
35:DA:2619:C:OP1	39:DE:152:LYS:HD3	2.14	0.47
38:DD:64:ILE:HD13	38:DD:64:ILE:HG21	1.67	0.47
38:DD:92:ILE:HD12	38:DD:104:TYR:CE1	2.48	0.47
40:DF:82:ILE:HD13	40:DF:82:ILE:HG21	1.36	0.47
40:DF:181:LEU:HA	40:DF:181:LEU:HD12	1.73	0.47
41:DG:59:GLU:OE1	41:DG:153:ARG:NH2	2.48	0.47
42:DH:83:TYR:CG	42:DH:138:LYS:HA	2.50	0.47
42:DH:104:GLU:HA	42:DH:113:VAL:O	2.15	0.47
43:DI:78:THR:HB	43:DI:141:LYS:NZ	2.30	0.47
47:DO:2:ILE:HG23	47:DO:8:LEU:HD21	1.96	0.47
48:DP:41:ARG:HE	48:DP:45:LEU:HD12	1.78	0.47
48:DP:59:LEU:CA	48:DP:61:ARG:HG3	2.36	0.47
55:DW:78:GLU:HG3	55:DW:79:GLY:N	2.30	0.47
56:DX:56:THR:C	56:DX:57:LEU:HD12	2.35	0.47
56:DX:82:GLN:CG	56:DX:85:PRO:HD2	2.45	0.47
58:DZ:69:THR:HB	58:DZ:88:PHE:HB3	1.96	0.47
58:DZ:137:ILE:HG22	58:DZ:138:GLU:H	1.79	0.47
1:AA:31:G:N2	1:AA:47:C:O5'	2.48	0.47
1:AA:113:G:H1'	1:AA:354:G:H5'	1.95	0.47
1:AA:131:C:H2'	1:AA:132:C:H6	1.79	0.47
1:AA:1018:C:C2'	1:AA:1019:C:H4'	2.42	0.47
2:AB:82:ARG:O	2:AB:86:GLU:OE2	2.32	0.47
2:AB:94:ASN:HB2	2:AB:148:TYR:O	2.15	0.47
2:AB:102:LEU:HD12	2:AB:180:LEU:HD12	1.97	0.47
2:AB:115:LEU:HD13	2:AB:145:LEU:HD12	1.96	0.47
13:AM:92:HIS:CE1	13:AM:110:ARG:HH22	2.32	0.47
23:AY:40:C:C6	23:AY:40:C:H3'	2.50	0.47
25:B0:49:LYS:O	25:B0:50:ASN:HB2	2.14	0.47
26:B1:37:ILE:HG21	35:BA:2080:G:O5'	2.14	0.47
26:B1:79:GLY:O	26:B1:81:LYS:HG3	2.14	0.47
29:B4:22:ILE:O	29:B4:24:THR:N	2.47	0.47
32:B7:33:ARG:NH1	35:BA:466:A:O3'	2.47	0.47
33:B8:13:ARG:NH2	48:BP:61:ARG:CA	2.71	0.47
34:B9:1:MET:H2	35:BA:2526:G:N2	2.13	0.47
35:BA:203:C:H3'	35:BA:204:A:H5''	1.95	0.47
35:BA:728:G:H4'	38:BD:13:ARG:HH21	1.80	0.47
35:BA:871:U:OP2	35:BA:871:U:H6	1.98	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2784:C:O5'	35:BA:2784:C:H6	1.97	0.47
39:BE:97:LYS:N	39:BE:100:GLU:OE2	2.22	0.47
40:BF:197:ASP:O	40:BF:200:GLU:HB3	2.15	0.47
43:BI:118:LYS:NZ	43:BI:119:PRO:HG2	2.29	0.47
47:BO:7:TYR:CE1	47:BO:20:MET:HB2	2.50	0.47
47:BO:68:GLU:OE2	47:BO:78:ARG:NH1	2.48	0.47
48:BP:127:ALA:O	48:BP:129:ALA:N	2.48	0.47
49:BQ:132:VAL:HG11	58:BZ:81:ARG:HD3	1.97	0.47
50:BR:29:LEU:HB2	50:BR:31:HIS:HE1	1.79	0.47
52:BT:51:ARG:NH1	52:BT:100:TYR:HE1	2.11	0.47
56:BX:31:HIS:HB3	56:BX:34:ALA:HB2	1.96	0.47
57:BY:20:TYR:HE2	57:BY:42:VAL:HA	1.79	0.47
1:CA:773:G:N2	1:CA:774:G:H1'	2.30	0.47
1:CA:900:A:H2'	1:CA:901:A:C8	2.49	0.47
1:CA:1060:C:C5	3:CC:2:GLY:HA3	2.50	0.47
1:CA:1156:G:O2'	1:CA:1179:A:N6	2.47	0.47
1:CA:1320:C:N4	19:CS:36:ARG:HG3	2.30	0.47
5:CE:41:VAL:O	5:CE:67:VAL:HG12	2.15	0.47
13:CM:86:CYS:O	13:CM:89:GLY:N	2.47	0.47
20:CT:27:LYS:HD2	20:CT:27:LYS:HA	1.55	0.47
35:DA:103:A:C2'	35:DA:104:U:H5'	2.45	0.47
35:DA:1299:G:H3'	35:DA:1639:U:O4	2.15	0.47
35:DA:1608:A:H1'	35:DA:1610:A:OP2	2.15	0.47
35:DA:2314:C:H5'	41:DG:38:VAL:HG11	1.97	0.47
37:DC:46:LYS:HA	37:DC:46:LYS:CE	2.45	0.47
54:DV:21:ARG:HG2	54:DV:95:LEU:CD1	2.42	0.47
56:DX:55:ASN:H	56:DX:77:LYS:CE	2.27	0.47
57:DY:73:ARG:NH1	57:DY:81:LYS:N	2.63	0.47
1:AA:245:C:O2	1:AA:283:C:N3	2.48	0.47
1:AA:359:U:H2'	1:AA:360:A:C8	2.50	0.47
1:AA:1004:A:C8	1:AA:1038:C:C4	3.03	0.47
1:AA:1022:G:O2'	1:AA:1023:G:H5''	2.15	0.47
1:AA:1112:C:N4	3:AC:176:HIS:O	2.48	0.47
1:AA:1216:G:OP1	14:AN:2:ALA:HA	2.15	0.47
1:AA:1267:C:H5	1:AA:1268:A:C6	2.33	0.47
1:AA:1309:G:H2'	1:AA:1310:G:O4'	2.14	0.47
2:AB:115:LEU:HD22	2:AB:145:LEU:HD11	1.95	0.47
3:AC:150:LYS:HB3	3:AC:201:TYR:HB2	1.97	0.47
5:AE:99:GLY:N	5:AE:117:ASP:OD1	2.45	0.47
6:AF:6:VAL:HG22	6:AF:90:VAL:HG22	1.96	0.47
9:AI:43:ALA:HA	9:AI:74:ILE:HG21	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AN:33:VAL:O	14:AN:33:VAL:HG13	2.15	0.47
17:AQ:17:LYS:HA	17:AQ:46:ASP:O	2.14	0.47
23:AY:30:G:C5	23:AY:42:C:N4	2.82	0.47
26:B1:17:SER:C	26:B1:44:PRO:HG3	2.34	0.47
27:B2:47:ASN:HD21	27:B2:51:ARG:HH21	1.62	0.47
31:B6:42:TRP:HZ2	35:BA:642:G:O3'	1.98	0.47
32:B7:26:GLY:O	32:B7:30:VAL:HG23	2.15	0.47
35:BA:83:G:N2	35:BA:103:A:OP2	2.48	0.47
35:BA:118:A:H1'	35:BA:178:G:O4'	2.15	0.47
35:BA:581:C:N3	35:BA:1259:G:N2	2.51	0.47
35:BA:845:G:OP2	35:BA:845:G:C8	2.68	0.47
35:BA:1576:U:C5	35:BA:1577:C:C6	3.02	0.47
35:BA:1849:G:H2'	35:BA:1849:G:N3	2.28	0.47
35:BA:2093:G:O5'	43:BI:24:GLY:HA3	2.15	0.47
35:BA:2600:A:H2'	35:BA:2601:C:C6	2.50	0.47
35:BA:2660:A:C5'	35:BA:2661:G:H21	2.28	0.47
35:BA:2690:C:H5''	35:BA:2872:G:H21	1.80	0.47
35:BA:2843:G:H1	35:BA:2874:C:H42	1.61	0.47
40:BF:126:VAL:O	40:BF:196:LEU:HB2	2.15	0.47
49:BQ:119:ARG:C	49:BQ:121:ALA:H	2.19	0.47
54:BV:19:LYS:CE	54:BV:22:VAL:HG13	2.45	0.47
55:BW:49:LYS:HE2	55:BW:49:LYS:HB3	1.56	0.47
57:BY:27:VAL:CG1	57:BY:28:LYS:H	2.06	0.47
1:CA:332:G:OP2	20:CT:10:LEU:HD22	2.15	0.47
1:CA:457:C:O5'	1:CA:457:C:H6	1.98	0.47
1:CA:937:A:C5	1:CA:938:A:N7	2.83	0.47
1:CA:984:C:H2'	1:CA:985:C:C6	2.50	0.47
1:CA:985:C:C2	1:CA:1221:G:N2	2.83	0.47
1:CA:1125:U:H2'	1:CA:1125:U:O2	2.13	0.47
4:CD:111:ALA:HB2	4:CD:120:LEU:HD12	1.97	0.47
5:CE:60:TYR:OH	5:CE:64:ARG:NH2	2.48	0.47
13:CM:14:ARG:HB3	13:CM:16:ASP:OD1	2.15	0.47
13:CM:81:LEU:HA	13:CM:81:LEU:HD23	1.66	0.47
13:CM:107:ALA:H	13:CM:108:ARG:HD2	1.79	0.47
15:CO:82:ILE:HG23	15:CO:87:ILE:H	1.80	0.47
22:CV:52:G:C6	22:CV:63:G:C6	3.03	0.47
23:CW:21:A:N1	23:CW:46:G:N1	2.63	0.47
30:D5:37:LYS:HD2	30:D5:37:LYS:HA	1.81	0.47
35:DA:594:U:H2'	35:DA:595:C:C6	2.49	0.47
35:DA:1632:A:C6	35:DA:1633:G:C6	3.03	0.47
35:DA:2027:G:H2'	35:DA:2028:U:O4'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2776:A:H4'	35:DA:2777:G:H5''	1.97	0.47
37:DC:82:LYS:HZ1	37:DC:152:ILE:H	1.63	0.47
38:DD:83:GLU:HB2	38:DD:92:ILE:HG13	1.97	0.47
38:DD:142:VAL:HA	38:DD:194:GLY:N	2.26	0.47
38:DD:270:ILE:O	38:DD:271:ILE:HG23	2.14	0.47
39:DE:63:LEU:O	39:DE:64:LYS:C	2.53	0.47
46:DN:82:LEU:O	46:DN:83:LYS:HB2	2.15	0.47
53:DU:6:THR:O	53:DU:9:VAL:HG23	2.15	0.47
54:DV:62:LEU:HA	54:DV:97:LYS:O	2.15	0.47
57:DY:35:TYR:CE2	57:DY:69:ALA:HB3	2.50	0.47
57:DY:68:HIS:O	57:DY:70:SER:N	2.48	0.47
57:DY:73:ARG:NH1	57:DY:81:LYS:H	2.13	0.47
1:AA:981:U:OP2	1:AA:981:U:H6	1.98	0.47
1:AA:999:C:H42	1:AA:1042:G:H1	1.63	0.47
1:AA:1103:C:N3	1:AA:1104:G:C8	2.83	0.47
1:AA:1113:C:H4'	3:AC:14:ILE:HD12	1.96	0.47
1:AA:1432:G:OP1	52:BT:108:ARG:HG3	2.15	0.47
3:AC:156:ARG:NH1	3:AC:193:TYR:HB3	2.30	0.47
3:AC:180:ALA:HB1	3:AC:182:ILE:HG13	1.97	0.47
19:AS:11:VAL:HG22	19:AS:12:ASP:N	2.25	0.47
20:AT:54:LYS:CD	20:AT:57:ARG:HH22	2.27	0.47
24:AX:15:A:H5''	24:AX:16:A:OP1	2.15	0.47
31:B6:20:ASN:ND2	31:B6:21:TYR:O	2.48	0.47
35:BA:171:G:C5	35:BA:172:C:C4	3.03	0.47
35:BA:856:C:OP2	35:BA:856:C:H6	1.98	0.47
35:BA:1155:A:C4	35:BA:1157:G:C8	3.03	0.47
35:BA:1217:C:OP1	53:BU:15:LYS:NZ	2.31	0.47
35:BA:1580:A:C8	35:BA:1581:G:H1'	2.50	0.47
35:BA:2394:C:H5''	48:BP:61:ARG:NH1	2.29	0.47
36:BB:32:C:N4	36:BB:33:G:O6	2.48	0.47
42:BH:89:ILE:O	42:BH:90:LYS:HG2	2.14	0.47
46:BN:13:TRP:HA	46:BN:51:PHE:HB2	1.97	0.47
48:BP:7:ARG:HA	48:BP:7:ARG:NE	2.29	0.47
51:BS:8:GLU:OE1	51:BS:10:ARG:HD3	2.15	0.47
56:BX:50:LYS:O	56:BX:51:VAL:HG23	2.14	0.47
1:CA:29:G:N2	1:CA:554:C:N3	2.52	0.47
1:CA:741:G:H2'	1:CA:742:G:O4'	2.15	0.47
1:CA:786:G:C2	1:CA:797:C:C2	3.02	0.47
2:CB:69:LEU:HD13	2:CB:91:PRO:HB2	1.97	0.47
3:CC:120:VAL:CG2	3:CC:198:VAL:HG11	2.45	0.47
3:CC:205:GLY:O	3:CC:206:GLU:HG3	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:109:GLY:HA3	4:CD:165:MET:HE3	1.97	0.47
5:CE:42:GLY:HA2	5:CE:136:MET:HE1	1.97	0.47
5:CE:100:VAL:HG13	5:CE:118:ILE:CG2	2.45	0.47
6:CF:33:TYR:HD1	6:CF:71:ARG:HD2	1.80	0.47
9:CI:111:ARG:HG3	14:CN:61:TRP:NE1	2.30	0.47
9:CI:126:SER:OG	9:CI:128:ARG:NH1	2.48	0.47
12:CL:59:ARG:HG2	12:CL:65:GLU:CG	2.45	0.47
18:CR:65:ILE:HD12	18:CR:66:LEU:H	1.80	0.47
22:CV:76:A:OP1	22:CV:76:A:H4'	2.10	0.47
25:D0:25:ARG:HH11	25:D0:25:ARG:HG2	1.80	0.47
34:D9:4:ARG:O	34:D9:37:GLY:N	2.43	0.47
35:DA:272(G):C:N3	35:DA:363(D):G:C2	2.83	0.47
35:DA:580:C:H2'	35:DA:581:C:H6	1.80	0.47
35:DA:697:C:O2'	35:DA:698:C:H5'	2.14	0.47
35:DA:937:U:H2'	35:DA:938:G:O4'	2.14	0.47
35:DA:1581:G:H2'	35:DA:1582:C:O4'	2.15	0.47
35:DA:1877:A:C5'	35:DA:1878:G:OP2	2.63	0.47
35:DA:2658:C:O3'	42:DH:158:HIS:HE1	1.98	0.47
35:DA:2807:G:H22	35:DA:2892:A:N6	2.12	0.47
37:DC:46:LYS:HB2	37:DC:208:PHE:O	2.15	0.47
38:DD:69:ARG:HH21	38:DD:192:THR:HB	1.80	0.47
38:DD:132:PRO:HD3	38:DD:190:TYR:CE2	2.49	0.47
38:DD:264:LYS:HG2	38:DD:266:SER:HB3	1.97	0.47
40:DF:33:LEU:HD11	40:DF:112:MET:HB2	1.97	0.47
42:DH:37:VAL:HG22	42:DH:68:THR:HG23	1.97	0.47
43:DI:56:LYS:O	43:DI:56:LYS:HG3	2.14	0.47
46:DN:41:ASP:HB3	46:DN:48:MET:CE	2.44	0.47
48:DP:59:LEU:HA	48:DP:61:ARG:HG2	1.91	0.47
51:DS:106:ARG:HH11	51:DS:106:ARG:HB3	1.80	0.47
54:DV:3:ALA:HB3	54:DV:14:VAL:HG23	1.96	0.47
54:DV:46:VAL:HG12	54:DV:47:VAL:H	1.79	0.47
55:DW:81:ALA:HB1	55:DW:97:LYS:HB3	1.97	0.47
56:DX:88:LYS:O	56:DX:89:ILE:HG12	2.15	0.47
57:DY:47:LYS:HD2	57:DY:47:LYS:H	1.79	0.47
58:DZ:76:LEU:HD11	58:DZ:81:ARG:HD2	1.97	0.47
1:AA:116:A:H61	1:AA:313:A:H1'	1.80	0.46
1:AA:675:A:C4	1:AA:676:A:C8	3.04	0.46
1:AA:1216:G:H5''	14:AN:5:ALA:CB	2.45	0.46
7:AG:69:VAL:HG11	7:AG:134:ALA:HB1	1.97	0.46
8:AH:87:SER:OG	8:AH:132:GLU:HG3	2.14	0.46
17:AQ:45:HIS:CD2	17:AQ:47:PRO:HD3	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:67:C:H2'	22:AV:68:C:C6	2.50	0.46
28:B3:6:VAL:HG22	28:B3:56:VAL:HG12	1.96	0.46
35:BA:81:G:N1	35:BA:82:G:N3	2.62	0.46
35:BA:154:G:C6	35:BA:154(A):C:N4	2.83	0.46
35:BA:209:C:H2'	35:BA:210:C:O2	2.15	0.46
35:BA:469:G:H2'	35:BA:470:A:OP2	2.15	0.46
35:BA:861:A:H2'	35:BA:862:G:O4'	2.14	0.46
35:BA:1060:U:H5	35:BA:1062:G:HO2'	1.62	0.46
35:BA:1065:U:H1'	35:BA:1066:U:OP1	2.14	0.46
35:BA:1161:C:H4'	54:BV:8:GLY:HA2	1.96	0.46
35:BA:1291:C:H2'	35:BA:1292:U:H6	1.80	0.46
35:BA:1441:G:H1	35:BA:1550:C:H42	1.64	0.46
35:BA:2096:U:H3	35:BA:2193:G:H1	1.63	0.46
35:BA:2115:G:N7	35:BA:2117:A:H2'	2.30	0.46
35:BA:2358:G:C4	35:BA:2359:C:C6	3.03	0.46
35:BA:2817:G:N2	35:BA:2836:U:O2'	2.48	0.46
38:BD:70:TRP:HA	38:BD:73:VAL:HG13	1.97	0.46
40:BF:181:LEU:CD1	40:BF:186:ILE:HD11	2.44	0.46
41:BG:77:ILE:HG22	41:BG:79:ASN:H	1.80	0.46
47:BO:71:ARG:CG	47:BO:72:PRO:HD2	2.43	0.46
48:BP:131:SER:OG	48:BP:132:LYS:N	2.47	0.46
53:BU:64:ARG:HH21	53:BU:64:ARG:CG	2.27	0.46
54:BV:28:GLU:HB2	54:BV:29:PRO:HD3	1.97	0.46
55:BW:82:LEU:HD12	55:BW:84:ARG:HG2	1.97	0.46
58:BZ:39:VAL:N	58:BZ:44:PHE:CZ	2.83	0.46
1:CA:52:G:H2'	1:CA:53:A:H8	1.80	0.46
1:CA:538:G:OP1	12:CL:113:ARG:HD3	2.16	0.46
1:CA:1225:A:C2	1:CA:1226:C:N3	2.83	0.46
1:CA:1251:A:H2'	1:CA:1252:A:O4'	2.14	0.46
7:CG:89:MET:CE	7:CG:90:GLU:H	2.28	0.46
9:CI:28:VAL:O	9:CI:30:GLY:N	2.47	0.46
11:CK:51:LYS:NZ	11:CK:55:LYS:HZ3	2.13	0.46
11:CK:72:ALA:O	11:CK:76:GLY:N	2.48	0.46
17:CQ:24:GLU:OE1	17:CQ:37:LYS:HD3	2.15	0.46
23:CW:30:G:C6	23:CW:41:C:N4	2.83	0.46
35:DA:908:C:O2'	35:DA:909:A:H5'	2.15	0.46
35:DA:1051:G:C8	35:DA:1051:G:C3'	2.98	0.46
35:DA:1140:C:P	46:DN:66:LYS:HZ3	2.37	0.46
35:DA:1341:U:O3'	56:DX:55:ASN:HB3	2.15	0.46
35:DA:1864:U:C2'	35:DA:1865:G:H5''	2.45	0.46
35:DA:2107:C:OP2	35:DA:2107:C:H6	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DH:19:VAL:HG12	42:DH:20:ALA:H	1.79	0.46
43:DI:123:LEU:HD23	43:DI:124:GLY:N	2.31	0.46
46:DN:120:LEU:HD11	46:DN:122:VAL:HG23	1.97	0.46
48:DP:13:ASN:O	48:DP:15:ARG:N	2.48	0.46
48:DP:138:LEU:HA	48:DP:138:LEU:HD23	1.44	0.46
56:DX:54:VAL:CA	56:DX:77:LYS:HE3	2.37	0.46
56:DX:70:LEU:C	56:DX:72:LYS:H	2.16	0.46
1:AA:88:A:H5'	1:AA:90:U:H5''	1.97	0.46
1:AA:109:A:C6	1:AA:326:G:C6	3.03	0.46
1:AA:376:G:O3'	16:AP:5:ARG:HD2	2.15	0.46
1:AA:1084:G:C5	1:AA:1085:U:C4	3.03	0.46
4:AD:111:ALA:HB1	4:AD:116:GLN:HG2	1.97	0.46
4:AD:122:ARG:NE	4:AD:122:ARG:CA	2.76	0.46
8:AH:63:LEU:HD12	8:AH:65:TYR:CE1	2.50	0.46
9:AI:25:LYS:HB2	9:AI:60:ASP:HB3	1.97	0.46
12:AL:49:ASN:HD22	12:AL:53:ARG:HH12	1.63	0.46
16:AP:21:VAL:HG11	16:AP:59:TRP:CD2	2.50	0.46
17:AQ:62:SER:OG	17:AQ:72:ARG:HG3	2.15	0.46
19:AS:53:ASN:HB2	19:AS:77:THR:HG22	1.97	0.46
20:AT:73:HIS:O	20:AT:76:ALA:HB3	2.14	0.46
35:BA:516:C:O5'	35:BA:516:C:H6	1.98	0.46
35:BA:527:C:OP2	35:BA:2779:U:H5	1.98	0.46
35:BA:860:U:C5	35:BA:917:A:N7	2.82	0.46
35:BA:1300:U:H4'	35:BA:1301:A:H5'	1.98	0.46
35:BA:1366:A:H2'	35:BA:1367:A:O4'	2.16	0.46
35:BA:1480:G:H5'	35:BA:1481:U:OP2	2.16	0.46
35:BA:1767:C:H2'	35:BA:1768:U:H5''	1.96	0.46
35:BA:1842:G:H2'	35:BA:1843:C:C6	2.50	0.46
35:BA:2473:U:H2'	35:BA:2474:C:H6	1.80	0.46
38:BD:14:ARG:HB2	38:BD:15:PHE:H	1.53	0.46
38:BD:145:VAL:HG13	38:BD:191:ALA:HB2	1.96	0.46
39:BE:116:VAL:O	39:BE:117:MET:HB3	2.15	0.46
46:BN:100:GLU:O	46:BN:102:ALA:N	2.48	0.46
49:BQ:8:LYS:HG3	49:BQ:9:TYR:H	1.79	0.46
49:BQ:59:ARG:O	49:BQ:61:GLY:N	2.37	0.46
50:BR:102:GLU:OE2	55:BW:37:ARG:NH1	2.48	0.46
1:CA:1013:G:N2	1:CA:1015:A:H3'	2.30	0.46
1:CA:1038:C:H2'	1:CA:1039:C:C6	2.48	0.46
1:CA:1442:G:H1	1:CA:1461:G:H21	1.63	0.46
2:CB:187:LEU:H	2:CB:187:LEU:HD23	1.81	0.46
4:CD:8:VAL:O	4:CD:11:LEU:N	2.42	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:30:LYS:C	4:CD:32:ALA:H	2.16	0.46
4:CD:90:GLY:O	4:CD:93:PHE:N	2.47	0.46
15:CO:43:LEU:HD13	15:CO:53:HIS:HD2	1.80	0.46
17:CQ:48:GLU:CB	17:CQ:50:LYS:HD3	2.44	0.46
26:D1:19:GLN:CD	26:D1:44:PRO:HG3	2.36	0.46
26:D1:19:GLN:OE1	26:D1:44:PRO:HB3	2.15	0.46
31:D6:23:THR:O	33:D8:36:LYS:HB2	2.16	0.46
35:DA:26:G:C6	35:DA:27:G:C6	3.03	0.46
35:DA:823:G:H2'	35:DA:824:A:C8	2.51	0.46
35:DA:943:U:OP2	48:DP:38:GLN:NE2	2.47	0.46
35:DA:969:U:H5''	35:DA:970:C:OP2	2.15	0.46
35:DA:1155:A:C4	35:DA:1157:G:C8	3.03	0.46
35:DA:1202:C:N4	35:DA:1203:G:C6	2.84	0.46
35:DA:1218:C:N4	35:DA:1231:G:H1	2.13	0.46
35:DA:1652:A:C2'	35:DA:1653:G:H5'	2.46	0.46
35:DA:1833:U:O2'	35:DA:1969:A:N1	2.42	0.46
35:DA:2292:C:O2'	35:DA:2293:C:H5'	2.15	0.46
36:DB:17:C:H2'	36:DB:18:G:O4'	2.16	0.46
38:DD:19:ALA:HB3	38:DD:21:PHE:CZ	2.50	0.46
40:DF:117:ARG:HD3	40:DF:117:ARG:HA	1.68	0.46
40:DF:161:GLU:HG2	40:DF:164:ARG:NH1	2.29	0.46
40:DF:175:THR:O	40:DF:175:THR:HG23	2.14	0.46
47:DO:104:ARG:HE	52:DT:33:LYS:HD2	1.80	0.46
49:DQ:38:GLU:HG3	49:DQ:128:LYS:HB2	1.97	0.46
52:DT:50:ILE:CD1	52:DT:64:ARG:HB3	2.45	0.46
1:AA:72:C:H2'	1:AA:73:G:O4'	2.15	0.46
1:AA:192:U:C4'	20:AT:103:GLY:HA2	2.40	0.46
1:AA:460:G:H3'	1:AA:461:A:H5'	1.97	0.46
1:AA:575:G:C6	1:AA:821:G:N7	2.83	0.46
1:AA:612:C:H2'	1:AA:613:C:C6	2.50	0.46
1:AA:685:G:H5'	11:AK:39:PRO:O	2.16	0.46
1:AA:895:G:H2'	1:AA:896:C:C6	2.50	0.46
1:AA:977:A:H2'	1:AA:978:A:C5'	2.45	0.46
1:AA:1065:U:H1'	1:AA:1066:C:OP2	2.16	0.46
1:AA:1148:U:P	9:AI:7:THR:HG21	2.55	0.46
1:AA:1353:G:C2	1:AA:1370:G:N2	2.83	0.46
2:AB:127:ILE:HG12	2:AB:128:GLU:HG2	1.97	0.46
3:AC:34:LEU:HG	3:AC:38:ARG:HH21	1.80	0.46
6:AF:72:VAL:HG13	6:AF:73:ASN:H	1.81	0.46
9:AI:88:TYR:CD1	9:AI:89:ASN:HB2	2.50	0.46
10:AJ:50:ILE:HG12	10:AJ:60:ARG:HH11	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AN:22:THR:CB	14:AN:33:VAL:HG11	2.46	0.46
16:AP:58:TYR:O	16:AP:61:SER:N	2.48	0.46
26:B1:37:ILE:HD11	35:BA:2432:A:C2	2.50	0.46
31:B6:10:LEU:HB2	33:B8:35:GLN:HG2	1.97	0.46
33:B8:13:ARG:HB2	48:BP:61:ARG:CB	2.44	0.46
35:BA:271(M):G:C2	35:BA:271(O):C:C2	3.03	0.46
35:BA:620:G:N3	35:BA:620:G:H5'	2.30	0.46
35:BA:773:U:H4'	38:BD:47:GLY:CA	2.46	0.46
35:BA:991:C:O2	35:BA:1164:G:C2	2.69	0.46
35:BA:1133:U:H2'	35:BA:1137:G:OP1	2.15	0.46
35:BA:1142(A):A:C4	35:BA:1144:G:C8	3.03	0.46
35:BA:1308:A:H2'	35:BA:1309:G:O4'	2.15	0.46
35:BA:1509(B):A:H2'	35:BA:1510:G:C8	2.50	0.46
35:BA:1814:G:H2'	35:BA:1815:A:C8	2.50	0.46
35:BA:2358:G:C5	35:BA:2359:C:C5	3.03	0.46
35:BA:2715:C:H2'	35:BA:2716:U:O4'	2.14	0.46
35:BA:2882:A:P	50:BR:96:ARG:NH2	2.85	0.46
40:BF:160:ASN:HB3	40:BF:163:VAL:HB	1.96	0.46
42:BH:106:THR:O	42:BH:106:THR:OG1	2.33	0.46
48:BP:110:TYR:C	48:BP:110:TYR:HD1	2.19	0.46
51:BS:19:LYS:O	51:BS:19:LYS:NZ	2.32	0.46
53:BU:88:ILE:HG22	54:BV:51:VAL:O	2.14	0.46
55:BW:59:VAL:HG22	55:BW:64:MET:C	2.36	0.46
56:BX:62:LYS:HZ3	56:BX:63:LYS:N	2.12	0.46
58:BZ:19:ARG:H	58:BZ:19:ARG:HG2	1.52	0.46
1:CA:243:A:C4'	1:CA:244:U:H5'	2.45	0.46
1:CA:419:C:H2'	1:CA:420:U:H5'	1.97	0.46
1:CA:820:U:H4'	1:CA:821:G:OP2	2.14	0.46
1:CA:929:G:C6	1:CA:930:C:C4	3.04	0.46
1:CA:1152:A:H2'	1:CA:1153:C:C6	2.50	0.46
1:CA:1198:G:H2'	1:CA:1199:U:O4'	2.15	0.46
1:CA:1258:G:H2'	1:CA:1259:C:C6	2.50	0.46
11:CK:37:GLY:O	11:CK:38:ASN:HB3	2.15	0.46
13:CM:107:ALA:HB3	13:CM:111:LYS:HB2	1.98	0.46
15:CO:82:ILE:O	15:CO:85:LEU:N	2.41	0.46
17:CQ:45:HIS:HB3	17:CQ:72:ARG:HG2	1.97	0.46
30:D5:11:THR:OG1	35:DA:1263:U:O3'	2.33	0.46
33:D8:3:LYS:HD2	35:DA:242:G:O5'	2.15	0.46
35:DA:92:A:H3'	35:DA:93:G:H8	1.80	0.46
35:DA:537:C:H2'	35:DA:538:G:C8	2.51	0.46
35:DA:569:U:C4	35:DA:570:G:C6	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:775:G:C5	35:DA:794:G:C8	3.03	0.46
35:DA:1141:U:H2'	46:DN:63:THR:HG21	1.96	0.46
35:DA:2785:C:H2'	35:DA:2786:U:O4'	2.15	0.46
36:DB:11:C:OP2	36:DB:12:C:N4	2.38	0.46
41:DG:55:LYS:HZ1	41:DG:148:MET:C	2.18	0.46
43:DI:140:LEU:HA	43:DI:140:LEU:HD23	1.30	0.46
50:DR:97:VAL:HA	50:DR:113:LEU:O	2.14	0.46
54:DV:66:ARG:CG	54:DV:67:GLY:N	2.79	0.46
57:DY:14:LEU:HG	57:DY:15:VAL:H	1.81	0.46
57:DY:85:VAL:HG12	57:DY:92:ASN:OD1	2.15	0.46
1:AA:337:C:H2'	1:AA:338:A:C8	2.51	0.46
1:AA:760:G:H3'	1:AA:761:G:H8	1.80	0.46
1:AA:1240:U:O2'	7:AG:32:ARG:NH1	2.44	0.46
1:AA:1257:U:H1'	1:AA:1258:G:OP1	2.16	0.46
1:AA:1432:G:OP1	52:BT:107:ASP:HB2	2.16	0.46
2:AB:32:ILE:HG21	2:AB:40:HIS:HE1	1.80	0.46
2:AB:211:ILE:HA	2:AB:214:ILE:CD1	2.45	0.46
3:AC:88:ARG:NE	3:AC:101:LEU:HB3	2.31	0.46
7:AG:67:GLU:HA	7:AG:70:LYS:HD2	1.97	0.46
9:AI:95:LYS:HG3	9:AI:96:LEU:CD1	2.43	0.46
15:AO:64:ARG:HD3	15:AO:88:ARG:NH1	2.28	0.46
18:AR:36:ASN:O	18:AR:40:LEU:HD12	2.16	0.46
19:AS:5:LEU:CD1	19:AS:10:PHE:HB3	2.40	0.46
30:B5:11:THR:OG1	35:BA:1263:U:O3'	2.34	0.46
33:B8:24:ALA:O	33:B8:47:LYS:HG3	2.15	0.46
35:BA:17:G:H2'	35:BA:18:C:C6	2.51	0.46
35:BA:614(B):G:C1'	40:BF:44:ARG:HH21	2.29	0.46
35:BA:966:G:H2'	35:BA:967:C:C6	2.50	0.46
35:BA:1485:G:H1	35:BA:1504:C:N4	2.13	0.46
35:BA:1665:A:H2'	35:BA:1666:G:O4'	2.15	0.46
35:BA:1975:G:H5''	35:BA:1975:G:H8	1.80	0.46
35:BA:2122:U:H2'	35:BA:2123:G:O4'	2.16	0.46
35:BA:2696:U:H3	35:BA:2711:A:H62	1.64	0.46
35:BA:2760:C:H1'	42:BH:139:GLN:HE22	1.79	0.46
36:BB:28:C:N4	36:BB:56:G:H1	2.12	0.46
39:BE:24:THR:HG23	39:BE:184:VAL:HG23	1.97	0.46
41:BG:72:ARG:HB3	41:BG:85:GLY:O	2.15	0.46
51:BS:67:ARG:HD2	51:BS:98:VAL:CG2	2.44	0.46
54:BV:2:PHE:HB2	54:BV:42:GLY:H	1.80	0.46
57:BY:6:HIS:C	57:BY:8:LYS:H	2.18	0.46
57:BY:63:LYS:HD3	57:BY:64:GLU:OE2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:784:C:H2'	1:CA:785:G:H8	1.80	0.46
1:CA:836:G:P	18:CR:61:LYS:HZ1	2.38	0.46
1:CA:839:U:O2'	1:CA:840:C:OP1	2.33	0.46
1:CA:924:C:H2'	1:CA:925:G:C8	2.50	0.46
1:CA:933:G:N2	1:CA:935:A:O4'	2.49	0.46
1:CA:1067:A:O2'	1:CA:1094:G:H5'	2.15	0.46
1:CA:1079:G:H2'	1:CA:1080:A:C8	2.50	0.46
1:CA:1121:U:H2'	1:CA:1122:U:H6	1.79	0.46
1:CA:1122:U:C4	1:CA:1123:A:C5	3.03	0.46
1:CA:1266:G:N2	1:CA:1270:C:O2	2.49	0.46
5:CE:68:GLU:O	5:CE:68:GLU:HG3	2.15	0.46
5:CE:71:LEU:O	5:CE:72:GLN:HG3	2.15	0.46
10:CJ:5:ARG:HD2	10:CJ:71:LEU:HD11	1.98	0.46
10:CJ:40:LEU:HD23	10:CJ:40:LEU:H	1.81	0.46
13:CM:66:LEU:C	13:CM:70:LEU:HB2	2.36	0.46
20:CT:64:ASP:OD1	20:CT:81:LYS:HE3	2.15	0.46
20:CT:73:HIS:N	20:CT:76:ALA:HB3	2.30	0.46
25:D0:46:LYS:HG2	25:D0:78:TYR:CE2	2.50	0.46
26:D1:79:GLY:O	26:D1:80:LEU:HD22	2.15	0.46
31:D6:15:GLU:CG	31:D6:18:ARG:HE	2.27	0.46
35:DA:271(K):U:H3'	35:DA:271(L):U:C6	2.51	0.46
35:DA:581:C:H2'	35:DA:582:G:C8	2.50	0.46
35:DA:636:G:O5'	48:DP:131:SER:OG	2.33	0.46
35:DA:803:U:C2'	35:DA:804:A:H5'	2.44	0.46
35:DA:1108:U:H2'	35:DA:1108:U:O2	2.16	0.46
35:DA:1331:A:O2'	35:DA:1332:G:C8	2.67	0.46
35:DA:1864:U:H2'	35:DA:1865:G:H5''	1.97	0.46
35:DA:2119:A:H2	35:DA:2169:A:H61	1.62	0.46
37:DC:20:TYR:HE2	37:DC:23:ASP:OD2	1.98	0.46
38:DD:222:ARG:H	38:DD:222:ARG:HG3	1.48	0.46
41:DG:94:LEU:HD23	41:DG:94:LEU:HA	1.51	0.46
46:DN:17:ASP:N	46:DN:137:LYS:HE2	2.31	0.46
1:AA:163:C:H5	1:AA:164:U:C5	2.34	0.46
1:AA:167:G:H2'	1:AA:168:G:H8	1.81	0.46
1:AA:678:U:H2'	1:AA:679:C:H6	1.80	0.46
1:AA:825:G:H1	1:AA:875:C:H42	1.64	0.46
1:AA:1159:U:H6	1:AA:1181:G:C2	2.34	0.46
1:AA:1289:A:H5''	1:AA:1290:G:C8	2.51	0.46
2:AB:17:PHE:HD1	2:AB:204:ASN:HB3	1.81	0.46
7:AG:99:LEU:HD22	7:AG:103:TRP:CH2	2.51	0.46
9:AI:111:ARG:NH2	10:AJ:62:HIS:CE1	2.84	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:18:THR:HG23	17:AQ:69:LYS:HD3	1.97	0.46
19:AS:66:MET:HE2	19:AS:74:PHE:CD2	2.50	0.46
21:AU:6:ARG:CZ	21:AU:15:ARG:HH21	2.29	0.46
35:BA:1213:A:N3	35:BA:1238:G:O2'	2.44	0.46
35:BA:1429:G:H2'	35:BA:1430:C:H6	1.78	0.46
35:BA:1444:G:H1	35:BA:1547:C:N4	2.12	0.46
35:BA:1948:G:H5''	35:BA:1948:G:C8	2.51	0.46
35:BA:2466:C:C2	35:BA:2485:G:C2	3.03	0.46
35:BA:2698:U:C4	35:BA:2699:C:N3	2.84	0.46
35:BA:2753:A:HO2'	35:BA:2754:U:C5'	2.26	0.46
36:BB:61:G:C6	36:BB:62:C:C4	3.03	0.46
39:BE:14:ILE:HB	52:BT:14:TYR:CZ	2.51	0.46
41:BG:51:ARG:O	41:BG:54:GLU:HG2	2.15	0.46
43:BI:101:LEU:HD12	43:BI:101:LEU:HA	1.74	0.46
43:BI:143:SER:OG	43:BI:144:VAL:HG23	2.16	0.46
46:BN:10:GLU:HG2	46:BN:11:PRO:HD3	1.98	0.46
47:BO:7:TYR:HE1	47:BO:20:MET:HE3	1.80	0.46
50:BR:29:LEU:HB2	50:BR:31:HIS:CE1	2.51	0.46
51:BS:7:TYR:HB2	51:BS:8:GLU:CD	2.36	0.46
51:BS:83:LYS:HB3	51:BS:83:LYS:HE2	1.55	0.46
54:BV:38:LEU:CD2	54:BV:60:GLU:OE2	2.63	0.46
54:BV:85:LYS:C	54:BV:87:HIS:CD2	2.89	0.46
58:BZ:24:LEU:HD23	58:BZ:44:PHE:CD1	2.50	0.46
58:BZ:53:ILE:HD13	58:BZ:71:VAL:CG2	2.45	0.46
1:CA:164:U:H2'	1:CA:165:C:C6	2.50	0.46
1:CA:257:G:H2'	1:CA:258:G:O4'	2.16	0.46
1:CA:294:U:OP1	1:CA:610:G:O2'	2.24	0.46
1:CA:1194:U:H3'	1:CA:1195:C:H6	1.79	0.46
1:CA:1274:G:N2	1:CA:1275:A:H62	2.13	0.46
2:CB:80:ILE:HD11	2:CB:208:ILE:HD13	1.98	0.46
5:CE:10:MET:SD	5:CE:10:MET:N	2.80	0.46
9:CI:126:SER:O	9:CI:127:LYS:HG3	2.15	0.46
16:CP:43:LYS:HG2	16:CP:48:TRP:CZ2	2.51	0.46
21:CU:6:ARG:HG2	21:CU:15:ARG:NE	2.29	0.46
25:D0:39:ARG:NH2	35:DA:2363:C:O2	2.39	0.46
26:D1:18:ILE:HG21	26:D1:41:ARG:HD2	1.97	0.46
27:D2:59:ARG:NE	27:D2:59:ARG:CA	2.78	0.46
34:D9:1:MET:O	34:D9:3:VAL:N	2.37	0.46
34:D9:2:LYS:O	34:D9:34:GLN:HA	2.16	0.46
35:DA:64:A:H8	35:DA:64:A:O5'	1.99	0.46
35:DA:125:G:H4'	35:DA:126:A:OP2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:197:A:H5'	35:DA:197:A:C8	2.46	0.46
35:DA:587:C:C4'	35:DA:588:U:OP2	2.64	0.46
35:DA:773:U:O2'	38:DD:48:ARG:HG3	2.14	0.46
35:DA:814:C:H41	48:DP:27:HIS:HD2	1.63	0.46
35:DA:956:G:HO2'	35:DA:959:A:H62	1.63	0.46
35:DA:1549:C:O2'	35:DA:1742:G:N2	2.48	0.46
35:DA:1621:U:H5''	35:DA:1622:G:OP1	2.16	0.46
35:DA:1704:G:C2'	35:DA:1705:G:H5'	2.45	0.46
35:DA:2099:U:O2	35:DA:2190:G:N2	2.46	0.46
36:DB:9:G:H5''	36:DB:9:G:H8	1.80	0.46
38:DD:85:ASP:OD1	38:DD:87:ASN:N	2.47	0.46
40:DF:18:ARG:HG2	40:DF:19:GLU:HG2	1.97	0.46
46:DN:87:LEU:O	46:DN:91:LEU:HD12	2.15	0.46
46:DN:90:MET:O	46:DN:93:THR:O	2.34	0.46
49:DQ:10:ARG:NH1	49:DQ:11:LYS:N	2.63	0.46
49:DQ:127:ILE:HD13	49:DQ:127:ILE:HA	1.73	0.46
54:DV:35:LEU:HA	54:DV:60:GLU:O	2.15	0.46
54:DV:75:PHE:HD2	54:DV:76:LYS:H	1.63	0.46
58:DZ:9:TYR:CE1	58:DZ:61:LEU:HD13	2.51	0.46
1:AA:192:U:H4'	20:AT:103:GLY:CA	2.38	0.46
1:AA:277:C:P	17:AQ:41:LYS:HZ1	2.37	0.46
1:AA:533:A:H8	1:AA:533:A:OP2	1.99	0.46
1:AA:670:G:C6	1:AA:671:G:C5	3.04	0.46
1:AA:707:C:H4'	11:AK:20:TYR:CD2	2.50	0.46
1:AA:878:G:H5'	8:AH:89:PRO:HG2	1.98	0.46
8:AH:48:TYR:O	8:AH:49:GLU:HB3	2.15	0.46
9:AI:15:ALA:HA	9:AI:65:VAL:HA	1.97	0.46
22:AV:16:C:O2'	22:AV:61:U:O3'	2.33	0.46
26:B1:86:SER:OG	26:B1:87:PRO:N	2.49	0.46
27:B2:51:ARG:HD3	27:B2:55:ARG:HB3	1.97	0.46
31:B6:48:VAL:O	31:B6:49:HIS:ND1	2.49	0.46
35:BA:32:C:O2'	35:BA:33:U:H5'	2.15	0.46
35:BA:222:A:N6	35:BA:224:G:C2	2.84	0.46
35:BA:259:G:N2	35:BA:621:A:H8	2.03	0.46
35:BA:932:G:H4'	35:BA:933:A:O5'	2.16	0.46
35:BA:1213:A:H2'	35:BA:1214:A:H8	1.81	0.46
35:BA:1316:U:H2'	35:BA:1317:A:C8	2.50	0.46
35:BA:1441:G:H2'	35:BA:1442:G:H8	1.80	0.46
35:BA:1509(A):A:H2'	35:BA:1509(B):A:H8	1.80	0.46
35:BA:1518:U:H2'	35:BA:1519:G:O4'	2.15	0.46
35:BA:1754:C:H5'	52:BT:101:PHE:CE1	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2005:A:H5''	35:BA:2006:C:OP2	2.16	0.46
35:BA:2291:U:OP1	35:BA:2381:C:H5'	2.16	0.46
35:BA:2542:A:HO2'	35:BA:2543:G:P	2.35	0.46
35:BA:2702:U:H5	35:BA:2704:C:H41	1.64	0.46
35:BA:2722:G:O2'	50:BR:5:LYS:HB2	2.14	0.46
38:BD:260:ARG:HH12	38:BD:264:LYS:HB3	1.81	0.46
39:BE:34:VAL:HG23	39:BE:78:LEU:HD12	1.96	0.46
42:BH:125:VAL:HB	42:BH:131:VAL:HG22	1.98	0.46
43:BI:38:LEU:H	43:BI:38:LEU:CD1	2.22	0.46
43:BI:99:GLU:HB3	43:BI:103:ARG:NH1	2.30	0.46
56:BX:26:TYR:HB3	56:BX:28:PHE:CE2	2.50	0.46
56:BX:62:LYS:HB2	56:BX:69:TYR:HA	1.97	0.46
1:CA:250:A:H8	1:CA:250:A:O5'	1.99	0.46
1:CA:724:G:O2'	1:CA:725:G:H5'	2.15	0.46
1:CA:986:A:H2'	1:CA:987:G:C8	2.51	0.46
1:CA:1075:C:O3'	2:CB:175:ARG:NH2	2.41	0.46
1:CA:1262:C:H2'	1:CA:1263:C:C6	2.51	0.46
1:CA:1513:A:H2'	1:CA:1514:C:C6	2.51	0.46
1:CA:1516:G:H2'	1:CA:1518:A:OP2	2.15	0.46
1:CA:1517:G:H1'	35:DA:1919:A:O3'	2.15	0.46
3:CC:113:ALA:HB3	3:CC:183:ASP:OD1	2.15	0.46
13:CM:29:ARG:HD3	13:CM:64:TRP:CZ2	2.50	0.46
15:CO:24:SER:O	15:CO:25:THR:C	2.54	0.46
16:CP:34:GLU:OE1	16:CP:55:ARG:NH1	2.48	0.46
16:CP:42:ARG:O	16:CP:44:THR:HG23	2.16	0.46
17:CQ:88:TYR:CD2	17:CQ:89:LEU:N	2.84	0.46
18:CR:72:ARG:O	18:CR:76:LEU:HD23	2.16	0.46
25:D0:20:ARG:NH1	35:DA:2357:U:OP1	2.46	0.46
30:D5:20:ARG:HG2	30:D5:23:HIS:ND1	2.29	0.46
33:D8:52:LYS:HD3	33:D8:55:ALA:HB3	1.97	0.46
35:DA:267:C:O2'	35:DA:268:C:H5'	2.15	0.46
35:DA:271(Q):G:C2	35:DA:271(R):G:C5	3.04	0.46
35:DA:597:U:H2'	35:DA:598:G:C8	2.51	0.46
35:DA:607:U:N3	35:DA:621:A:C2	2.81	0.46
35:DA:719:C:H2'	35:DA:720:C:C6	2.51	0.46
35:DA:1025:G:O2'	35:DA:1026:U:OP1	2.31	0.46
35:DA:1658:C:O5'	35:DA:1658:C:H6	1.99	0.46
35:DA:1811:G:H2'	35:DA:1812:A:O4'	2.16	0.46
39:DE:11:MET:HB3	39:DE:24:THR:HA	1.97	0.46
39:DE:98:PRO:HG3	39:DE:175:VAL:HG12	1.97	0.46
43:DI:124:GLY:H	43:DI:142:VAL:CG2	2.24	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DN:28:THR:HG23	46:DN:29:LYS:N	2.31	0.46
49:DQ:71:ASP:OD1	49:DQ:71:ASP:N	2.49	0.46
51:DS:34:HIS:NE2	51:DS:54:LEU:HB2	2.31	0.46
51:DS:89:ARG:HG2	51:DS:93:LYS:HZ2	1.80	0.46
52:DT:53:ARG:O	52:DT:59:THR:HA	2.16	0.46
1:AA:273:A:H2'	1:AA:274:A:H5'	1.97	0.46
1:AA:301:G:H2'	1:AA:302:G:C8	2.48	0.46
1:AA:328:C:H4'	1:AA:329:A:H5''	1.98	0.46
1:AA:438:G:H4'	4:AD:123:HIS:HD1	1.81	0.46
1:AA:1010:G:N2	1:AA:1011:G:O4'	2.48	0.46
1:AA:1293:G:H2'	1:AA:1293:G:OP2	2.16	0.46
6:AF:24:GLU:OE2	6:AF:28:ARG:HG3	2.15	0.46
7:AG:50:ILE:HD13	7:AG:125:MET:HE2	1.97	0.46
20:AT:54:LYS:HG2	20:AT:57:ARG:HH22	1.80	0.46
20:AT:87:LYS:HA	20:AT:87:LYS:HD2	1.42	0.46
22:AV:73:A:C6	22:AV:74:A:C5	3.04	0.46
26:B1:87:PRO:O	26:B1:90:ILE:HG22	2.16	0.46
30:B5:49:CYS:O	30:B5:50:GLY:C	2.53	0.46
33:B8:64:TYR:HE2	35:BA:594:U:OP1	1.99	0.46
35:BA:49:A:C3'	35:BA:50:U:H5'	2.45	0.46
35:BA:174:C:H5'	35:BA:175:G:OP2	2.16	0.46
35:BA:990:A:H8	35:BA:990:A:H5'	1.80	0.46
35:BA:1158:C:HO2'	35:BA:1159:U:P	2.37	0.46
35:BA:1257:C:H4'	40:BF:82:ILE:HG13	1.96	0.46
35:BA:1551:C:H2'	35:BA:1552:G:O4'	2.16	0.46
35:BA:1669:A:H5''	35:BA:1670:C:OP2	2.16	0.46
35:BA:1896:G:H5''	35:BA:1896:G:C8	2.49	0.46
35:BA:2556:C:H2'	35:BA:2557:G:O4'	2.15	0.46
35:BA:2646:C:H6	35:BA:2646:C:O5'	1.97	0.46
38:BD:69:ARG:NH2	38:BD:128:GLY:O	2.48	0.46
38:BD:143:HIS:CD2	38:BD:144:ALA:HB2	2.51	0.46
38:BD:268:ARG:HB3	38:BD:268:ARG:HH21	1.80	0.46
40:BF:53:THR:HG22	40:BF:56:GLU:H	1.80	0.46
42:BH:74:ASN:HB3	42:BH:138:LYS:HD2	1.97	0.46
43:BI:37:VAL:HG12	43:BI:38:LEU:H	1.80	0.46
46:BN:4:TYR:HD2	53:BU:64:ARG:HH11	1.64	0.46
49:BQ:22:LYS:HG3	49:BQ:24:GLY:N	2.27	0.46
50:BR:24:GLN:HE22	50:BR:36:THR:HG21	1.80	0.46
51:BS:61:ASN:HB2	51:BS:64:GLU:OE2	2.16	0.46
51:BS:66:ALA:O	51:BS:68:GLN:N	2.49	0.46
52:BT:11:GLU:CD	52:BT:11:GLU:N	2.68	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:BW:59:VAL:HG22	55:BW:64:MET:O	2.16	0.46
56:BX:38:GLU:CD	56:BX:38:GLU:H	2.19	0.46
1:CA:323:U:H5'	20:CT:23:ARG:HB2	1.98	0.46
1:CA:410:G:H3'	1:CA:410:G:C8	2.51	0.46
1:CA:631:G:H8	1:CA:631:G:O5'	1.98	0.46
1:CA:1010:G:H2'	1:CA:1011:G:C8	2.50	0.46
1:CA:1326:C:H2'	1:CA:1327:C:C6	2.50	0.46
3:CC:69:HIS:HA	3:CC:104:GLN:O	2.15	0.46
4:CD:173:TRP:CE3	4:CD:189:PRO:HB3	2.50	0.46
13:CM:16:ASP:HA	13:CM:30:ALA:HB1	1.97	0.46
13:CM:37:THR:O	13:CM:39:ILE:N	2.40	0.46
16:CP:27:LYS:O	16:CP:30:GLY:N	2.47	0.46
23:CW:8:U:HO2'	23:CW:22:G:H1	1.64	0.46
27:D2:37:PHE:HD2	27:D2:39:ALA:H	1.64	0.46
30:D5:3:LYS:HD3	35:DA:2015:A:H1'	1.97	0.46
35:DA:78:A:H2'	35:DA:79:G:H8	1.79	0.46
35:DA:176:G:O2'	35:DA:177:G:H5'	2.15	0.46
35:DA:198:C:H5'	35:DA:2244:U:OP1	2.15	0.46
35:DA:475:U:C4	35:DA:481:G:O6	2.69	0.46
35:DA:1175:U:OP2	35:DA:1176:G:H5'	2.15	0.46
35:DA:1465:G:H21	35:DA:1545:A:H2	1.63	0.46
35:DA:1491:G:N2	35:DA:1500:G:H1'	2.31	0.46
35:DA:1498:C:O4'	35:DA:1577:C:H4'	2.15	0.46
35:DA:1812:A:O2'	38:DD:45:ASN:HB2	2.16	0.46
35:DA:1877:A:C5	35:DA:1878:G:H1'	2.51	0.46
35:DA:2065:C:H2'	35:DA:2066:C:C6	2.51	0.46
35:DA:2661:G:N7	35:DA:2662:A:N1	2.63	0.46
38:DD:43:ARG:HH22	38:DD:52:ARG:C	2.19	0.46
39:DE:3:GLY:HA2	39:DE:199:ARG:HA	1.97	0.46
39:DE:9:VAL:HB	52:DT:8:LYS:CE	2.46	0.46
40:DF:8:GLN:O	40:DF:10:PRO:HD3	2.15	0.46
40:DF:21:ALA:C	40:DF:23:ASP:N	2.69	0.46
42:DH:89:ILE:HD12	42:DH:89:ILE:O	2.16	0.46
46:DN:35:ARG:HB2	46:DN:42:TRP:CZ3	2.50	0.46
51:DS:93:LYS:O	51:DS:94:TYR:O	2.33	0.46
52:DT:25:GLY:HA2	52:DT:91:ARG:CB	2.46	0.46
1:AA:55:A:H2'	1:AA:56:U:O4'	2.16	0.46
1:AA:280:C:C5	17:AQ:39:SER:N	2.83	0.46
1:AA:441:A:H8	1:AA:441:A:OP2	1.98	0.46
1:AA:532:A:H2	1:AA:1207:G:O4'	1.99	0.46
1:AA:561:U:H5'	1:AA:561:U:H6	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1349:A:C2	1:AA:1350:A:H1'	2.51	0.46
2:AB:9:GLU:HG3	2:AB:10:LEU:H	1.79	0.46
13:AM:84:ILE:HD11	19:AS:66:MET:SD	2.55	0.46
20:AT:46:GLU:O	20:AT:48:LYS:N	2.49	0.46
35:BA:83:G:H22	35:BA:103:A:P	2.39	0.46
35:BA:105:C:H6	35:BA:105:C:H2'	1.25	0.46
35:BA:684:G:H5''	35:BA:684:G:H8	1.80	0.46
35:BA:729:G:C8	38:BD:208:LYS:HD3	2.51	0.46
35:BA:1614:A:H62	55:BW:93:ALA:HB2	1.80	0.46
35:BA:1645:G:H5''	35:BA:1646:C:H5'	1.97	0.46
35:BA:2068:U:N3	35:BA:2430:A:C2	2.78	0.46
38:BD:69:ARG:HE	38:BD:105:ILE:HD13	1.80	0.46
40:BF:22:ALA:HA	40:BF:26:ALA:CB	2.41	0.46
40:BF:112:MET:O	40:BF:115:ALA:HB3	2.15	0.46
43:BI:77:LEU:HB2	43:BI:140:LEU:HA	1.98	0.46
49:BQ:57:HIS:O	49:BQ:57:HIS:CG	2.68	0.46
50:BR:20:LEU:HA	50:BR:23:ASN:CB	2.42	0.46
52:BT:22:PHE:N	52:BT:22:PHE:CD1	2.83	0.46
53:BU:96:ALA:HA	53:BU:98:LEU:HB3	1.97	0.46
58:BZ:60:GLU:OE2	58:BZ:64:GLY:HA2	2.16	0.46
58:BZ:96:VAL:HG22	58:BZ:97:GLU:H	1.80	0.46
1:CA:9:G:H2'	1:CA:10:A:H8	1.81	0.46
1:CA:263:A:OP1	20:CT:75:ASN:HB3	2.16	0.46
1:CA:414:A:H2'	1:CA:415:A:C8	2.51	0.46
1:CA:520:A:C2	1:CA:536:C:H1'	2.50	0.46
1:CA:626:U:H5''	16:CP:38:TYR:CD2	2.51	0.46
1:CA:755:G:H21	8:CH:1:MET:HB3	1.79	0.46
1:CA:1030:C:H42	1:CA:1031:G:H1	1.64	0.46
1:CA:1424:C:H2'	1:CA:1425:U:O4'	2.16	0.46
3:CC:84:ILE:HG13	3:CC:101:LEU:HD13	1.98	0.46
4:CD:117:ALA:O	4:CD:121:VAL:HG23	2.16	0.46
8:CH:83:ILE:HA	8:CH:136:GLU:O	2.16	0.46
12:CL:110:VAL:HG23	12:CL:120:TYR:HB3	1.96	0.46
13:CM:23:TYR:OH	13:CM:71:ARG:HG3	2.15	0.46
17:CQ:46:ASP:OD1	17:CQ:50:LYS:HE2	2.16	0.46
26:D1:26:ARG:HB2	26:D1:34:THR:HB	1.96	0.46
26:D1:57:GLU:H	26:D1:58:ILE:HD12	1.80	0.46
27:D2:21:LEU:HD21	27:D2:51:ARG:NH1	2.31	0.46
35:DA:423:A:H5''	35:DA:424:G:O5'	2.15	0.46
35:DA:589:C:H2'	35:DA:590:A:C8	2.51	0.46
35:DA:1322:A:C5	35:DA:1323:U:C5	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1671:U:H2'	35:DA:1673:U:OP2	2.15	0.46
35:DA:1771:C:H1'	35:DA:1786:A:C8	2.50	0.46
35:DA:2011:U:OP1	55:DW:42:ARG:NH1	2.49	0.46
36:DB:15:A:H1'	36:DB:110:G:N7	2.31	0.46
44:DJ:23:UNK:HA	44:DJ:118:UNK:HA	1.98	0.46
46:DN:71:ILE:HG21	46:DN:84:LYS:HE3	1.97	0.46
48:DP:51:PHE:HE1	48:DP:61:ARG:NH2	2.13	0.46
53:DU:61:TRP:CE2	53:DU:94:ASN:HB3	2.51	0.46
58:DZ:10:ARG:HH21	58:DZ:26:GLY:N	2.08	0.46
1:AA:590:C:H2'	1:AA:591:U:H6	1.81	0.46
1:AA:814:A:C8	1:AA:816:A:C8	3.04	0.46
1:AA:1363(A):A:C8	1:AA:1365:G:C4	3.04	0.46
1:AA:1397:C:H6	1:AA:1397:C:H3'	1.79	0.46
3:AC:82:GLU:HA	3:AC:85:ARG:HB2	1.98	0.46
5:AE:92:LYS:N	5:AE:119:LEU:O	2.48	0.46
10:AJ:56:HIS:O	10:AJ:57:LYS:HB2	2.16	0.46
13:AM:94:ARG:O	13:AM:96:LEU:HG	2.16	0.46
15:AO:75:PRO:O	15:AO:79:ARG:HG3	2.16	0.46
17:AQ:29:HIS:ND1	17:AQ:32:TYR:HB2	2.30	0.46
35:BA:39:C:H2'	35:BA:40:C:C6	2.50	0.46
35:BA:71:A:H4'	35:BA:72:U:H5'	1.98	0.46
35:BA:566:U:O2'	35:BA:809:G:OP2	2.33	0.46
35:BA:949:C:H2'	35:BA:950:G:C8	2.51	0.46
35:BA:1039:G:C2	35:BA:1117:G:N2	2.84	0.46
35:BA:1368:G:O2'	35:BA:1369:G:H5'	2.15	0.46
35:BA:1435:G:H5''	35:BA:1436:G:OP2	2.16	0.46
35:BA:1577:C:C4	35:BA:1578:U:C4	3.04	0.46
35:BA:1602:U:H3'	35:BA:1603:A:H5'	1.98	0.46
35:BA:1768:U:H5''	35:BA:1768:U:H6	1.80	0.46
35:BA:2758:A:H2'	35:BA:2759:G:O4'	2.16	0.46
37:BC:51:PRO:CB	37:BC:204:ALA:H	2.29	0.46
38:BD:108:PRO:HD2	38:BD:111:LEU:HG	1.98	0.46
40:BF:62:ARG:NH2	40:BF:64:ILE:HA	2.31	0.46
42:BH:27:LYS:O	42:BH:79:VAL:HG21	2.16	0.46
46:BN:128:HIS:O	46:BN:128:HIS:CG	2.69	0.46
48:BP:105:LEU:O	48:BP:107:LYS:N	2.48	0.46
51:BS:97:ARG:HG2	51:BS:99:LYS:H	1.80	0.46
55:BW:70:TYR:O	55:BW:107:LEU:HG	2.16	0.46
58:BZ:115:GLY:N	58:BZ:175:VAL:O	2.49	0.46
1:CA:429:U:OP2	4:CD:36:ARG:NH1	2.49	0.46
1:CA:447:G:O6	1:CA:485:G:O2'	2.23	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:448:A:P	1:CA:485:G:H22	2.39	0.46
1:CA:991:U:O2	1:CA:991:U:H2'	2.14	0.46
1:CA:1014:A:OP1	1:CA:1014:A:H8	1.98	0.46
1:CA:1058:G:C5	1:CA:1059:C:C4	3.04	0.46
2:CB:189:ASP:OD2	2:CB:205:ASP:HB3	2.15	0.46
3:CC:120:VAL:HG23	3:CC:121:ALA:H	1.81	0.46
4:CD:105:VAL:HG21	4:CD:126:ILE:HG13	1.96	0.46
5:CE:76:ILE:HG22	5:CE:93:PRO:CB	2.38	0.46
6:CF:97:PHE:HB3	18:CR:32:ARG:HE	1.80	0.46
7:CG:8:GLU:HG2	7:CG:8:GLU:O	2.15	0.46
9:CI:117:HIS:HB2	9:CI:121:ARG:O	2.15	0.46
12:CL:38:THR:HG23	12:CL:57:LYS:HB3	1.98	0.46
19:CS:11:VAL:HG11	19:CS:39:THR:HB	1.97	0.46
28:D3:55:ARG:HE	28:D3:55:ARG:HA	1.80	0.46
35:DA:384:U:H2'	35:DA:385:C:H6	1.81	0.46
35:DA:394:A:O2'	35:DA:395:U:H5'	2.16	0.46
35:DA:779:U:OP1	38:DD:49:ILE:HG23	2.16	0.46
35:DA:1048:A:OP1	35:DA:1110:G:N2	2.38	0.46
38:DD:130:ALA:O	38:DD:131:LEU:HD12	2.16	0.46
39:DE:172:VAL:HG12	39:DE:173:VAL:O	2.16	0.46
41:DG:44:GLY:O	41:DG:47:LYS:HG3	2.16	0.46
42:DH:44:VAL:HG12	42:DH:45:VAL:H	1.81	0.46
44:DJ:116:UNK:O	44:DJ:123:UNK:N	2.49	0.46
45:DK:55:UNK:C	45:DK:67:UNK:HA	2.46	0.46
51:DS:30:ARG:NH1	51:DS:92:TYR:CD1	2.84	0.46
54:DV:80:GLN:NE2	54:DV:81:TYR:CE1	2.84	0.46
1:AA:247:G:OP2	17:AQ:100:LYS:N	2.49	0.46
1:AA:398:C:H2'	1:AA:399:G:C8	2.51	0.46
1:AA:521:G:H5'	12:AL:72:GLY:O	2.16	0.46
1:AA:1072:G:H2'	1:AA:1073:U:C6	2.51	0.46
1:AA:1129:C:H41	1:AA:1143:G:H22	1.63	0.46
1:AA:1432:G:H8	1:AA:1432:G:O5'	1.99	0.46
5:AE:54:ALA:HA	5:AE:57:LYS:HB2	1.98	0.46
6:AF:95:GLU:HA	6:AF:96:PRO:HD3	1.84	0.46
7:AG:18:TYR:N	7:AG:18:TYR:CD1	2.84	0.46
7:AG:28:ASN:C	7:AG:30:ILE:H	2.19	0.46
12:AL:84:LEU:C	12:AL:85:ILE:HD12	2.36	0.46
19:AS:22:LEU:O	19:AS:27:GLU:HG2	2.16	0.46
23:AW:16:U:N3	23:AW:20:U:C4	2.84	0.46
28:B3:8:LEU:HD21	28:B3:23:LEU:HD21	1.98	0.46
33:B8:41:ILE:HG21	33:B8:41:ILE:HD13	1.71	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:24:G:O2'	55:BW:78:GLU:O	2.25	0.46
35:BA:275:G:O4'	35:BA:275:G:N3	2.48	0.46
35:BA:649:G:H2'	35:BA:650:C:C6	2.51	0.46
35:BA:864:G:OP2	49:BQ:22:LYS:NZ	2.49	0.46
35:BA:1002:G:H2'	35:BA:1003:G:O4'	2.16	0.46
35:BA:1423:G:C4	35:BA:1424:G:C8	3.04	0.46
35:BA:1494:A:O2'	35:BA:1495:A:O5'	2.29	0.46
35:BA:1547:C:O2	35:BA:1547:C:H5''	2.16	0.46
35:BA:2334:G:H5'	51:BS:13:ARG:HG3	1.98	0.46
36:BB:102:A:H8	36:BB:102:A:OP2	1.98	0.46
38:BD:15:PHE:O	38:BD:16:MET:HB2	2.16	0.46
38:BD:28:GLU:OE2	38:BD:28:GLU:N	2.48	0.46
38:BD:116:GLN:H	38:BD:116:GLN:HG2	1.56	0.46
39:BE:111:ARG:HD2	39:BE:160:TYR:CD2	2.51	0.46
41:BG:67:LYS:CD	41:BG:67:LYS:H	2.29	0.46
43:BI:132:PRO:O	43:BI:133:HIS:HB3	2.16	0.46
48:BP:36:LYS:HG2	48:BP:37:GLY:H	1.81	0.46
48:BP:37:GLY:O	48:BP:39:LYS:N	2.45	0.46
48:BP:109:GLY:O	48:BP:111:ARG:N	2.49	0.46
48:BP:121:LYS:HG2	48:BP:122:PRO:CD	2.46	0.46
49:BQ:5:ARG:HH11	49:BQ:5:ARG:HA	1.80	0.46
56:BX:51:VAL:HA	56:BX:81:VAL:HG13	1.97	0.46
56:BX:66:LEU:HA	56:BX:66:LEU:HD23	1.34	0.46
56:BX:67:GLY:O	56:BX:68:ARG:NH1	2.49	0.46
57:BY:90:LEU:HB2	57:BY:91:GLU:OE2	2.15	0.46
1:CA:110:C:H2'	1:CA:111:G:O4'	2.16	0.46
1:CA:224:C:H2'	1:CA:225:C:C6	2.51	0.46
1:CA:246:A:N3	1:CA:247:G:H1'	2.31	0.46
1:CA:438:G:O2'	1:CA:493:G:C2	2.66	0.46
1:CA:470:C:O2'	1:CA:471:G:O5'	2.32	0.46
1:CA:622:A:H2'	1:CA:623:C:O4'	2.16	0.46
1:CA:749:C:O2'	1:CA:750:G:H5'	2.16	0.46
3:CC:40:ARG:O	3:CC:44:GLU:HG3	2.16	0.46
3:CC:50:ALA:HB2	3:CC:75:VAL:HB	1.97	0.46
5:CE:101:ILE:O	5:CE:101:ILE:HG13	2.16	0.46
7:CG:89:MET:HE2	7:CG:90:GLU:H	1.81	0.46
22:CV:37:A:C2	24:CX:16:A:C6	3.04	0.46
23:CW:67:C:C2'	23:CW:68:C:H5''	2.46	0.46
27:D2:25:VAL:HG13	27:D2:26:ARG:HD2	1.97	0.46
33:D8:46:ARG:HH22	48:DP:65:ARG:NH2	2.14	0.46
34:D9:24:TYR:CE1	34:D9:35:ARG:HG3	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:132:G:H1	35:DA:147:U:H3	1.63	0.46
35:DA:825:C:N4	35:DA:826:U:C4	2.84	0.46
35:DA:1155:A:O2'	35:DA:1156:A:H2'	2.16	0.46
35:DA:1528:A:O2'	35:DA:1528(A):A:C8	2.57	0.46
36:DB:13:A:N6	36:DB:70:C:H5'	2.30	0.46
41:DG:11:TYR:O	41:DG:16:ARG:N	2.39	0.46
41:DG:145:THR:CG2	41:DG:147:ASP:OD1	2.64	0.46
50:DR:100:LEU:HD22	50:DR:112:ALA:HA	1.97	0.46
51:DS:19:LYS:O	51:DS:20:ARG:NH1	2.49	0.46
53:DU:47:TYR:HA	53:DU:50:ARG:NH2	2.32	0.46
57:DY:2:ARG:NH1	57:DY:3:VAL:HB	2.29	0.46
1:AA:90:U:H5'	1:AA:90:U:H6	1.80	0.45
1:AA:429:U:H4'	1:AA:430:A:OP1	2.16	0.45
1:AA:1049:U:H4'	1:AA:1050:G:OP2	2.17	0.45
1:AA:1261:A:C6	1:AA:1275:A:H1'	2.51	0.45
1:AA:1359:C:H6	14:AN:35:ARG:HH12	1.64	0.45
1:AA:1368:G:OP1	10:AJ:62:HIS:CE1	2.69	0.45
4:AD:86:LYS:H	4:AD:86:LYS:HG2	1.48	0.45
4:AD:112:VAL:HG12	4:AD:116:GLN:OE1	2.16	0.45
4:AD:173:TRP:CE2	4:AD:189:PRO:HB3	2.51	0.45
5:AE:84:PHE:N	5:AE:87:SER:O	2.44	0.45
11:AK:63:LEU:HD23	11:AK:63:LEU:HA	1.75	0.45
11:AK:82:VAL:HB	11:AK:108:ILE:HG12	1.98	0.45
12:AL:69:TYR:HB2	12:AL:90:VAL:HG21	1.96	0.45
13:AM:37:THR:HG22	13:AM:59:TYR:CD1	2.51	0.45
13:AM:91:ARG:HB2	13:AM:98:VAL:HG12	1.98	0.45
21:AU:13:ILE:HG12	21:AU:22:ARG:NH1	2.31	0.45
26:B1:19:GLN:OE1	26:B1:44:PRO:HA	2.16	0.45
32:B7:9:ARG:NH2	35:BA:1309:G:H3'	2.31	0.45
35:BA:84:A:O4'	35:BA:103:A:C6	2.69	0.45
35:BA:118:A:OP2	35:BA:119:A:H2'	2.15	0.45
35:BA:182:A:H61	35:BA:215:G:H1	1.64	0.45
35:BA:306:U:H2'	35:BA:307:G:O4'	2.16	0.45
35:BA:533:G:H2'	35:BA:534:U:C6	2.51	0.45
35:BA:583:G:C5	35:BA:584:C:C5	3.04	0.45
35:BA:999:U:O2'	35:BA:1000:A:H5'	2.16	0.45
35:BA:1103:A:H4'	35:BA:1104:C:OP2	2.15	0.45
35:BA:1224:C:O2'	54:BV:87:HIS:O	2.25	0.45
35:BA:1324:G:H1	35:BA:1330:C:H42	1.63	0.45
35:BA:1479:G:H5'	35:BA:1558:A:C2	2.51	0.45
35:BA:1665:A:O2'	35:BA:1666:G:H5'	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1674:G:H1'	35:BA:1676:A:N6	2.31	0.45
35:BA:1833:U:O2	35:BA:1969:A:H2	1.99	0.45
35:BA:2422:A:H4'	35:BA:2423:U:OP1	2.15	0.45
40:BF:7:TYR:HE1	40:BF:10:PRO:HD3	1.81	0.45
40:BF:39:TRP:CH2	40:BF:106:ARG:HD3	2.51	0.45
47:BO:104:ARG:HA	47:BO:121:VAL:HG12	1.98	0.45
48:BP:110:TYR:C	48:BP:110:TYR:CD1	2.89	0.45
58:BZ:70:LEU:HD23	58:BZ:70:LEU:HA	1.81	0.45
58:BZ:72:ARG:NH2	58:BZ:97:GLU:HG3	2.30	0.45
1:CA:818:G:O2'	1:CA:819:A:H5'	2.15	0.45
1:CA:834:C:C2	1:CA:853:G:C2	3.04	0.45
1:CA:953:G:C5'	1:CA:965:A:H61	2.28	0.45
1:CA:1118:C:OP1	9:CI:9:ARG:NH1	2.49	0.45
1:CA:1171:G:O2'	1:CA:1172:C:H5'	2.16	0.45
3:CC:130:VAL:HG21	3:CC:157:ILE:HG23	1.97	0.45
3:CC:159:GLY:CA	3:CC:193:TYR:HE1	2.29	0.45
4:CD:73:ARG:O	4:CD:76:ARG:HG3	2.16	0.45
5:CE:136:MET:C	5:CE:138:ALA:N	2.69	0.45
16:CP:45:THR:HG22	16:CP:47:ASP:N	2.26	0.45
17:CQ:88:TYR:O	17:CQ:91:ARG:HB3	2.16	0.45
22:CV:40:C:H2'	22:CV:41:C:H6	1.80	0.45
26:D1:46:LEU:C	26:D1:46:LEU:CD1	2.84	0.45
28:D3:5:LYS:HD2	28:D3:59:VAL:HG21	1.98	0.45
35:DA:212:G:H2'	35:DA:213:A:O4'	2.15	0.45
35:DA:528:A:C2	35:DA:2042:A:H2'	2.50	0.45
35:DA:631:A:N3	35:DA:2415:G:O2'	2.35	0.45
35:DA:676:A:H2	35:DA:802:A:H61	1.64	0.45
35:DA:753:C:H6	35:DA:753:C:O5'	1.98	0.45
35:DA:775:G:C4	35:DA:794:G:C8	3.04	0.45
35:DA:1001:A:H2'	35:DA:1002:G:O4'	2.16	0.45
35:DA:1057:A:H5''	35:DA:1059:G:OP2	2.16	0.45
35:DA:1652:A:H3'	35:DA:1653:G:C8	2.51	0.45
35:DA:2164:C:OP2	35:DA:2166:G:O6	2.34	0.45
35:DA:2249:U:H4'	35:DA:2250:G:OP2	2.16	0.45
35:DA:2287:A:H2	35:DA:2346:A:C2	2.34	0.45
35:DA:2863:C:H2'	35:DA:2864:G:H5''	1.98	0.45
41:DG:66:GLN:HG3	41:DG:98:ARG:HD3	1.98	0.45
45:DK:73:UNK:O	45:DK:75:UNK:N	2.49	0.45
46:DN:19:GLU:HG3	46:DN:20:GLY:H	1.81	0.45
52:DT:88:ILE:O	52:DT:89:VAL:C	2.54	0.45
53:DU:92:ARG:NH1	53:DU:95:LEU:HD22	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:DV:85:LYS:C	54:DV:87:HIS:N	2.69	0.45
57:DY:13:VAL:HB	57:DY:28:LYS:HE3	1.97	0.45
58:DZ:44:PHE:CZ	58:DZ:86:VAL:HG21	2.51	0.45
1:AA:485:G:H1'	1:AA:486:U:C5	2.51	0.45
1:AA:611:A:H5''	1:AA:612:C:OP2	2.16	0.45
1:AA:657:G:O4'	15:AO:28:GLN:NE2	2.50	0.45
1:AA:759:A:H3'	1:AA:760:G:H5''	1.98	0.45
1:AA:834:C:N4	1:AA:852:G:H1	2.13	0.45
1:AA:1258:G:H2'	1:AA:1259:C:C6	2.52	0.45
1:AA:1360:A:H2'	1:AA:1361:G:C8	2.51	0.45
1:AA:1392:G:N2	1:AA:1502:A:H8	2.08	0.45
2:AB:155:LEU:HB3	2:AB:157:ARG:HG2	1.98	0.45
3:AC:138:VAL:HG23	3:AC:151:VAL:HG23	1.98	0.45
3:AC:156:ARG:HB2	3:AC:196:LEU:HD11	1.97	0.45
4:AD:114:ARG:HA	4:AD:117:ALA:HB3	1.98	0.45
9:AI:96:LEU:HB3	9:AI:102:LEU:CG	2.43	0.45
12:AL:62:SER:OG	12:AL:63:GLY:N	2.48	0.45
13:AM:81:LEU:HD23	13:AM:81:LEU:HA	1.64	0.45
20:AT:53:LEU:O	20:AT:56:MET:N	2.49	0.45
21:AU:12:LYS:O	21:AU:16:GLY:N	2.48	0.45
35:BA:526:A:N1	35:BA:2625:G:O2'	2.43	0.45
35:BA:797:C:H2'	35:BA:798:G:O4'	2.16	0.45
35:BA:997:G:O2'	35:BA:998:C:H5'	2.16	0.45
35:BA:1141:U:OP1	46:BN:25:ARG:NH1	2.48	0.45
35:BA:1287:A:C5	35:BA:1288:U:C4	3.04	0.45
35:BA:1292:U:H2'	35:BA:1293:C:C6	2.51	0.45
35:BA:1638:C:OP1	35:BA:2711:A:H5'	2.17	0.45
35:BA:2339:G:N2	35:BA:2340:G:C4	2.84	0.45
38:BD:49:ILE:HG21	38:BD:49:ILE:HD13	1.45	0.45
39:BE:87:GLU:O	39:BE:89:ASP:N	2.49	0.45
41:BG:52:ILE:O	41:BG:53:LEU:HD13	2.15	0.45
46:BN:100:GLU:C	46:BN:102:ALA:H	2.19	0.45
47:BO:53:LYS:HD2	47:BO:53:LYS:N	2.31	0.45
47:BO:72:PRO:C	47:BO:74:GLY:H	2.19	0.45
51:BS:67:ARG:HD2	51:BS:98:VAL:HG23	1.97	0.45
52:BT:57:PHE:C	52:BT:59:THR:H	2.19	0.45
54:BV:45:THR:OG1	54:BV:46:VAL:N	2.49	0.45
1:CA:137:C:H6	1:CA:137:C:H5''	1.82	0.45
1:CA:146:G:C6	1:CA:147:G:C5	3.05	0.45
1:CA:295:C:H2'	1:CA:296:U:C6	2.51	0.45
1:CA:309:G:H2'	1:CA:310:G:H8	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:353:A:H5'	1:CA:353:A:C8	2.50	0.45
1:CA:491:G:H2'	1:CA:492:G:H8	1.82	0.45
1:CA:974:A:OP1	1:CA:974:A:H8	1.99	0.45
1:CA:1202:G:H2'	1:CA:1203:C:H6	1.80	0.45
4:CD:159:ARG:HD2	4:CD:159:ARG:HA	1.83	0.45
6:CF:50:TYR:OH	18:CR:74:ARG:O	2.25	0.45
7:CG:76:ARG:O	7:CG:87:VAL:HG13	2.15	0.45
8:CH:94:TYR:HE1	8:CH:132:GLU:HB2	1.81	0.45
15:CO:25:THR:O	15:CO:29:VAL:N	2.41	0.45
15:CO:25:THR:O	15:CO:28:GLN:N	2.48	0.45
22:CV:49:G:N2	22:CV:66:C:C2	2.84	0.45
23:CW:65:G:N3	23:CW:66:U:H1'	2.30	0.45
25:D0:18:ALA:HB3	25:D0:20:ARG:NH2	2.29	0.45
33:D8:31:HIS:CB	35:DA:2420:C:H41	2.29	0.45
33:D8:33:ASN:O	35:DA:2420:C:OP2	2.33	0.45
35:DA:210:C:H2'	35:DA:211:A:H8	1.81	0.45
35:DA:492:A:H2'	35:DA:493:G:O4'	2.16	0.45
35:DA:1252:G:O4'	53:DU:33:ARG:HD2	2.15	0.45
35:DA:1667:G:O2'	35:DA:1991:U:O4	2.29	0.45
35:DA:1865:G:C5'	35:DA:1865:G:H8	2.29	0.45
35:DA:1999:C:O2	35:DA:2687:U:O2'	2.30	0.45
35:DA:2468:G:OP1	49:DQ:119:ARG:NH1	2.42	0.45
36:DB:31:C:N4	51:DS:32:LEU:HD13	2.32	0.45
36:DB:66:A:O2'	36:DB:67:G:P	2.74	0.45
37:DC:64:LEU:HD13	37:DC:65:PRO:HD2	1.98	0.45
40:DF:53:THR:HG22	40:DF:56:GLU:OE2	2.17	0.45
48:DP:59:LEU:HA	48:DP:61:ARG:HE	1.81	0.45
48:DP:59:LEU:O	48:DP:60:MET:CB	2.64	0.45
51:DS:94:TYR:CZ	51:DS:98:VAL:HG13	2.51	0.45
52:DT:29:ARG:CZ	52:DT:31:SER:CB	2.93	0.45
52:DT:30:VAL:HB	52:DT:44:ASP:OD1	2.16	0.45
57:DY:88:LYS:HZ2	57:DY:93:GLY:HA3	1.81	0.45
1:AA:67:C:H2'	1:AA:68:G:C8	2.51	0.45
1:AA:389:A:C6	1:AA:390:C:H1'	2.51	0.45
1:AA:560:U:H5''	1:AA:561:U:OP1	2.16	0.45
1:AA:1162:C:N4	1:AA:1174:G:C6	2.84	0.45
1:AA:1166:G:C4	1:AA:1169:A:OP2	2.70	0.45
1:AA:1375:A:O2'	7:AG:29:LYS:NZ	2.49	0.45
1:AA:1381:U:H2'	1:AA:1382:C:H5''	1.98	0.45
2:AB:18:GLY:HA2	2:AB:42:ILE:N	2.31	0.45
2:AB:216:SER:O	2:AB:218:ALA:N	2.44	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:155:GLY:HA3	3:AC:164:ARG:C	2.37	0.45
8:AH:95:VAL:HG22	8:AH:131:GLY:O	2.17	0.45
14:AN:59:ALA:HB1	14:AN:61:TRP:CZ3	2.52	0.45
26:B1:10:LYS:O	26:B1:48:LYS:NZ	2.49	0.45
30:B5:19:ARG:NH1	35:BA:1265:A:H3'	2.31	0.45
32:B7:2:LYS:HB2	32:B7:2:LYS:HE3	1.75	0.45
33:B8:59:LYS:HA	33:B8:59:LYS:HD3	1.44	0.45
35:BA:35:G:H1'	35:BA:454:A:C4	2.51	0.45
35:BA:158:U:H1'	35:BA:171:G:N7	2.31	0.45
35:BA:946:G:H2'	35:BA:947:G:H8	1.81	0.45
35:BA:959:A:C6	35:BA:960:A:C6	3.05	0.45
35:BA:997:G:C2	35:BA:998:C:C6	3.04	0.45
35:BA:1142(A):A:H8	35:BA:1142(A):A:H5'	1.80	0.45
35:BA:1532:C:H2'	35:BA:1533:G:H21	1.81	0.45
35:BA:2193:G:H2'	35:BA:2194:G:H8	1.81	0.45
35:BA:2339:G:C2	35:BA:2340:G:C4	3.04	0.45
36:BB:116:G:OP2	36:BB:116:G:C8	2.64	0.45
38:BD:110:GLY:C	38:BD:112:GLN:OE1	2.54	0.45
40:BF:25:PRO:HG3	40:BF:119:ARG:HA	1.97	0.45
43:BI:77:LEU:CD1	43:BI:97:ILE:HG23	2.47	0.45
46:BN:42:TRP:HA	46:BN:48:MET:HE1	1.99	0.45
52:BT:3:ARG:HH11	52:BT:6:LEU:HD13	1.81	0.45
53:BU:91:ASP:OD2	53:BU:96:ALA:HB2	2.16	0.45
58:BZ:4:ARG:HH22	58:BZ:60:GLU:HB2	1.81	0.45
58:BZ:8:TYR:HB2	58:BZ:38:TYR:CE1	2.51	0.45
1:CA:407:G:C2	1:CA:436:C:N3	2.85	0.45
1:CA:410:G:C2	1:CA:429:U:C2	3.04	0.45
1:CA:457:C:H2'	1:CA:458:C:O4'	2.17	0.45
1:CA:779:C:H2'	1:CA:780:A:O4'	2.16	0.45
1:CA:1379:G:O6	7:CG:2:ALA:HA	2.17	0.45
1:CA:1394:A:C5	1:CA:1501:C:H4'	2.52	0.45
4:CD:78:LEU:HD23	4:CD:78:LEU:HA	1.68	0.45
10:CJ:4:ILE:HG23	10:CJ:99:LYS:O	2.17	0.45
17:CQ:66:SER:HB3	17:CQ:69:LYS:HZ1	1.79	0.45
19:CS:6:LYS:HD2	19:CS:6:LYS:N	2.31	0.45
20:CT:73:HIS:O	20:CT:75:ASN:N	2.41	0.45
23:CW:13:C:H2'	23:CW:13:C:O2	2.16	0.45
23:CW:70:G:H2'	23:CW:71:G:C8	2.51	0.45
27:D2:12:GLU:N	27:D2:14:ARG:CZ	2.80	0.45
29:D4:29:PRO:O	29:D4:31:ILE:N	2.45	0.45
31:D6:25:LYS:HZ1	35:DA:2285:C:H41	1.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:D8:5:LYS:HE2	35:DA:254:G:N7	2.32	0.45
35:DA:13:A:O2'	35:DA:15:G:O6	2.31	0.45
35:DA:154:G:C6	35:DA:154(A):C:N4	2.84	0.45
35:DA:300:A:H2'	35:DA:334:C:H1'	1.98	0.45
35:DA:494:G:H8	35:DA:494:G:H5''	1.81	0.45
35:DA:729:G:OP1	38:DD:10:THR:HG21	2.17	0.45
35:DA:2411:A:H8	35:DA:2411:A:OP2	1.99	0.45
35:DA:2666:C:H42	42:DH:109:PHE:HA	1.81	0.45
36:DB:105:A:H2'	36:DB:106:G:O4'	2.16	0.45
38:DD:173:VAL:O	38:DD:184:LYS:HA	2.15	0.45
42:DH:70:THR:HG22	42:DH:71:LEU:N	2.31	0.45
43:DI:86:THR:O	43:DI:87:LYS:HB2	2.16	0.45
1:AA:132:C:H4'	20:AT:74:LYS:HE2	1.98	0.45
1:AA:199:G:H2'	1:AA:200:G:O4'	2.16	0.45
1:AA:583:A:H2'	1:AA:584:G:O4'	2.16	0.45
1:AA:604:G:H2'	1:AA:605:U:O4'	2.17	0.45
1:AA:1055:A:N6	1:AA:1206:G:C5	2.85	0.45
4:AD:111:ALA:HA	4:AD:161:ASN:HD22	1.82	0.45
5:AE:69:VAL:O	5:AE:71:LEU:CD1	2.38	0.45
13:AM:18:ALA:CB	13:AM:45:VAL:HG21	2.47	0.45
13:AM:84:ILE:HD13	19:AS:74:PHE:CG	2.52	0.45
25:B0:56:ASP:OD1	25:B0:58:THR:N	2.49	0.45
33:B8:23:VAL:HG22	33:B8:48:PHE:CE1	2.51	0.45
35:BA:574:C:H1'	35:BA:2055:C:C6	2.52	0.45
35:BA:818:G:C2	35:BA:1190:G:C6	3.04	0.45
35:BA:1341:U:P	35:BA:1397:U:H3	2.39	0.45
35:BA:1529:G:H1	35:BA:1533:G:P	2.39	0.45
35:BA:1606:G:H8	35:BA:1606:G:O5'	2.00	0.45
35:BA:1904:G:H2'	35:BA:1905:C:O4'	2.17	0.45
35:BA:2271:G:C5	35:BA:2272:U:C4	3.04	0.45
35:BA:2330:G:H2'	35:BA:2331:G:O4'	2.16	0.45
36:BB:28:C:H2'	36:BB:29:A:C8	2.51	0.45
38:BD:10:THR:O	38:BD:12:SER:N	2.41	0.45
38:BD:25:THR:O	38:BD:26:LYS:C	2.54	0.45
40:BF:110:LEU:HD23	40:BF:110:LEU:HA	1.66	0.45
42:BH:85:LYS:NZ	42:BH:144:VAL:HB	2.32	0.45
42:BH:89:ILE:HG12	42:BH:129:THR:HA	1.98	0.45
47:BO:98:VAL:HG22	47:BO:118:ALA:HA	1.98	0.45
49:BQ:22:LYS:CG	49:BQ:24:GLY:H	2.26	0.45
53:BU:106:PHE:HA	53:BU:109:LEU:HB2	1.99	0.45
58:BZ:24:LEU:O	58:BZ:44:PHE:CZ	2.70	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:79:G:N1	1:CA:91:C:O2	2.38	0.45
1:CA:147:G:H2'	1:CA:148:G:H8	1.82	0.45
1:CA:291:C:N4	1:CA:309:G:H1	2.14	0.45
1:CA:693:G:O2'	7:CG:84:ASN:ND2	2.48	0.45
2:CB:144:ARG:HG3	2:CB:145:LEU:N	2.30	0.45
5:CE:45:PHE:CZ	5:CE:47:LYS:HD2	2.51	0.45
6:CF:44:GLY:HA2	6:CF:59:TYR:CZ	2.52	0.45
10:CJ:8:LEU:CD1	10:CJ:70:ARG:HB2	2.47	0.45
13:CM:2:ALA:O	13:CM:4:ILE:HG13	2.16	0.45
13:CM:29:ARG:HD3	13:CM:64:TRP:CE2	2.51	0.45
19:CS:53:ASN:OD1	19:CS:56:GLN:HB3	2.16	0.45
22:CV:37:A:H3'	22:CV:38:A:H8	1.81	0.45
26:D1:19:GLN:HE22	35:DA:396:G:H1'	1.82	0.45
26:D1:72:GLU:HA	26:D1:75:GLU:HG2	1.97	0.45
27:D2:21:LEU:HD21	27:D2:51:ARG:CZ	2.47	0.45
33:D8:35:GLN:O	33:D8:35:GLN:HG2	2.14	0.45
33:D8:61:LEU:HG	35:DA:593:G:H4'	1.97	0.45
35:DA:7:G:H1	35:DA:2896:C:N4	2.14	0.45
35:DA:193:U:H5''	35:DA:193:U:H6	1.81	0.45
35:DA:271(I):G:H2'	35:DA:271(J):C:H1'	1.98	0.45
35:DA:587:C:C5	35:DA:671:C:H1'	2.51	0.45
35:DA:1459:G:C8	35:DA:1461:G:H1'	2.51	0.45
35:DA:1461:G:C5	35:DA:1462:C:C5	3.05	0.45
35:DA:1494:A:OP1	35:DA:1494:A:H4'	2.16	0.45
35:DA:1804:C:H2'	35:DA:1805:U:H6	1.81	0.45
35:DA:1993:U:H4'	39:DE:128:SER:HB3	1.99	0.45
35:DA:2014:A:H2'	35:DA:2015:A:C8	2.51	0.45
35:DA:2025:C:OP1	39:DE:149:ARG:HD3	2.16	0.45
35:DA:2291:U:O2'	35:DA:2374:C:O2	2.33	0.45
35:DA:2334:G:H1'	51:DS:18:ILE:CD1	2.46	0.45
36:DB:79:C:H2'	36:DB:80:U:O4'	2.17	0.45
39:DE:52:LEU:HD21	52:DT:1:MET:SD	2.56	0.45
47:DO:85:VAL:HG11	47:DO:114:ILE:CD1	2.46	0.45
52:DT:55:ASN:ND2	52:DT:58:ASN:HB2	2.31	0.45
52:DT:65:LYS:HA	52:DT:65:LYS:HD2	1.74	0.45
56:DX:88:LYS:HA	56:DX:88:LYS:CE	2.45	0.45
57:DY:15:VAL:HG12	57:DY:17:SER:H	1.80	0.45
57:DY:50:ARG:HD3	57:DY:55:TYR:C	2.36	0.45
1:AA:230:G:H5'	16:AP:23:ASP:OD2	2.16	0.45
1:AA:247:G:OP2	17:AQ:100:LYS:HB3	2.16	0.45
1:AA:664:G:P	18:AR:64:ARG:HH21	2.39	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:862:C:H2'	1:AA:862:C:O2	2.16	0.45
1:AA:1174:G:C8	1:AA:1174:G:C3'	2.99	0.45
1:AA:1206:G:C5	1:AA:1207:G:N7	2.85	0.45
1:AA:1307:U:H2'	1:AA:1308:U:C6	2.51	0.45
1:AA:1345:U:C2	1:AA:1377:A:N1	2.83	0.45
1:AA:1355:G:H2'	1:AA:1356:G:O4'	2.15	0.45
2:AB:171:ALA:HA	2:AB:174:VAL:HG23	1.97	0.45
4:AD:67:ILE:HD13	4:AD:196:LEU:HD23	1.99	0.45
8:AH:82:HIS:CE1	8:AH:84:ARG:HD3	2.52	0.45
12:AL:102:ARG:HE	12:AL:102:ARG:HB3	1.62	0.45
17:AQ:14:LYS:HA	17:AQ:14:LYS:HD2	1.69	0.45
18:AR:21:LYS:HD3	18:AR:21:LYS:HA	1.63	0.45
19:AS:44:MET:SD	19:AS:44:MET:N	2.90	0.45
26:B1:62:VAL:HG13	26:B1:67:ILE:HD12	1.97	0.45
35:BA:528:A:C8	35:BA:528:A:C3'	2.99	0.45
35:BA:809:G:O6	48:BP:36:LYS:NZ	2.44	0.45
35:BA:1169:G:H2'	35:BA:1170:G:O4'	2.16	0.45
35:BA:1619:G:OP2	35:BA:1619:G:C8	2.70	0.45
35:BA:1748:G:C2	35:BA:1749:A:C4	3.05	0.45
35:BA:1779:U:C5	35:BA:1784:A:N7	2.68	0.45
35:BA:2543:G:H21	35:BA:2646:C:H5''	1.82	0.45
35:BA:2563:U:O2	35:BA:2565:A:H8	1.99	0.45
38:BD:43:ARG:HH11	38:BD:44:ASN:HD21	1.60	0.45
40:BF:68:LYS:HB3	40:BF:69:HIS:ND1	2.32	0.45
40:BF:185:ASP:HA	40:BF:188:ARG:HD3	1.98	0.45
43:BI:77:LEU:HA	43:BI:77:LEU:HD23	1.34	0.45
46:BN:65:LYS:HE3	46:BN:65:LYS:HB3	1.43	0.45
52:BT:117:ASP:O	52:BT:121:ILE:HG13	2.16	0.45
1:CA:113:G:O4'	1:CA:354:G:H4'	2.17	0.45
1:CA:177:C:OP1	20:CT:65:LYS:NZ	2.43	0.45
1:CA:236:G:C5	1:CA:237:C:C4	3.05	0.45
1:CA:397:A:C6	1:CA:548:G:N7	2.85	0.45
1:CA:495:A:H4'	1:CA:496:A:OP1	2.16	0.45
1:CA:622:A:C8	1:CA:623:C:C6	3.04	0.45
1:CA:840:C:H5''	1:CA:848:C:H41	1.81	0.45
1:CA:991:U:H5''	1:CA:1212:U:H3	1.82	0.45
1:CA:1073:U:O2'	2:CB:104:ASN:OD1	2.28	0.45
1:CA:1175:G:H2'	1:CA:1176:A:C8	2.52	0.45
1:CA:1273:G:H2'	1:CA:1274:G:O4'	2.17	0.45
1:CA:1511:G:H2'	1:CA:1512:U:O4'	2.17	0.45
2:CB:20:GLU:OE2	2:CB:189:ASP:CB	2.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:148:GLY:HA3	3:CC:203:PHE:HB3	1.97	0.45
7:CG:69:VAL:HG21	7:CG:104:LEU:HD11	1.98	0.45
14:CN:9:LYS:HD2	14:CN:12:ARG:NH1	2.23	0.45
16:CP:21:VAL:O	16:CP:33:ILE:HG12	2.16	0.45
22:CV:10:G:N2	22:CV:26:G:H1'	2.32	0.45
25:D0:54:GLY:O	25:D0:57:PHE:N	2.49	0.45
27:D2:26:ARG:NH1	27:D2:29:LYS:HD3	2.30	0.45
30:D5:25:LEU:HD12	55:DW:19:LEU:HB3	1.97	0.45
35:DA:174:C:H3'	35:DA:175:G:H5''	1.98	0.45
35:DA:259:G:H21	35:DA:621:A:H8	1.60	0.45
35:DA:387:U:H4'	35:DA:388:G:O5'	2.15	0.45
35:DA:536:A:H5''	53:DU:53:ARG:HD3	1.98	0.45
35:DA:845:G:H21	35:DA:846:C:N4	2.14	0.45
35:DA:1689:A:N6	35:DA:1698:A:H2	1.94	0.45
35:DA:1794:U:H2'	35:DA:1795:C:C6	2.51	0.45
35:DA:1837:C:H2'	35:DA:1838:C:H5''	1.97	0.45
35:DA:1957:C:H2'	35:DA:1958:C:C6	2.52	0.45
35:DA:2105:C:OP2	35:DA:2105:C:C6	2.65	0.45
35:DA:2106:G:N2	35:DA:2184:G:C2	2.84	0.45
38:DD:124:PRO:HG2	38:DD:129:ASN:ND2	2.31	0.45
39:DE:31:CYS:HB3	39:DE:49:LEU:HB3	1.98	0.45
40:DF:3:GLU:CA	40:DF:24:LEU:HG	2.47	0.45
40:DF:137:LYS:HZ2	40:DF:141:ALA:H	1.64	0.45
41:DG:122:PRO:HB3	41:DG:180:PHE:CD2	2.51	0.45
43:DI:40:THR:OG1	43:DI:42:SER:HB3	2.17	0.45
43:DI:72:LEU:HB3	43:DI:138:ILE:HG12	1.99	0.45
51:DS:27:SER:CA	51:DS:88:ASP:HB3	2.44	0.45
56:DX:26:TYR:CZ	56:DX:89:ILE:HG13	2.52	0.45
1:AA:195:A:C6	1:AA:196:A:N1	2.85	0.45
1:AA:940:C:H2'	1:AA:941:G:C8	2.52	0.45
1:AA:972:C:O3'	10:AJ:57:LYS:HE3	2.16	0.45
1:AA:1252:A:H8	1:AA:1252:A:OP2	2.00	0.45
8:AH:6:ILE:HD12	8:AH:32:LYS:HG2	1.97	0.45
10:AJ:24:VAL:HG23	10:AJ:34:VAL:CG1	2.47	0.45
10:AJ:48:THR:CB	10:AJ:62:HIS:HD2	2.28	0.45
13:AM:13:LYS:O	13:AM:45:VAL:HG23	2.17	0.45
17:AQ:67:LYS:C	17:AQ:69:LYS:H	2.19	0.45
22:AV:17:C:C3'	22:AV:18:U:H5''	2.47	0.45
31:B6:9:LEU:HD12	31:B6:10:LEU:H	1.80	0.45
35:BA:24:G:C6	35:BA:25:U:N3	2.85	0.45
35:BA:36:G:C5	35:BA:37:C:C5	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:154(A):C:H5	35:BA:171:G:N1	2.14	0.45
35:BA:202:U:H2'	35:BA:203:C:O4'	2.16	0.45
35:BA:634:C:H2'	35:BA:635:C:H6	1.80	0.45
35:BA:859:G:O2'	35:BA:916:G:O6	2.22	0.45
35:BA:948:G:H2'	35:BA:949:C:H6	1.82	0.45
35:BA:1114:G:H2'	35:BA:1115:G:O4'	2.16	0.45
35:BA:1857:G:H8	35:BA:1857:G:O5'	2.00	0.45
35:BA:2684:U:OP1	52:BT:60:THR:OG1	2.24	0.45
35:BA:2779:U:O2	35:BA:2779:U:O4'	2.35	0.45
38:BD:10:THR:OG1	38:BD:11:PRO:HD2	2.17	0.45
47:BO:47:ILE:HA	47:BO:47:ILE:HD12	1.74	0.45
48:BP:13:ASN:O	48:BP:14:LYS:HB3	2.17	0.45
50:BR:35:THR:CG2	50:BR:111:LEU:HD12	2.46	0.45
55:BW:12:ILE:O	55:BW:101:SER:HB2	2.17	0.45
1:CA:438:G:H4'	4:CD:123:HIS:CE1	2.51	0.45
1:CA:901:A:H5''	1:CA:902:G:OP2	2.16	0.45
1:CA:974:A:OP2	14:CN:29:ARG:NH2	2.49	0.45
1:CA:1087:G:H2'	1:CA:1088:G:C8	2.51	0.45
2:CB:231:GLU:CD	2:CB:232:PRO:HD3	2.37	0.45
4:CD:196:LEU:C	4:CD:198:VAL:H	2.19	0.45
8:CH:64:LYS:CD	8:CH:79:VAL:HG21	2.47	0.45
9:CI:71:SER:O	9:CI:74:ILE:HB	2.17	0.45
10:CJ:32:ALA:HB1	10:CJ:75:ILE:CG1	2.41	0.45
15:CO:18:PHE:CD1	15:CO:18:PHE:O	2.69	0.45
27:D2:53:LEU:HB2	27:D2:54:LYS:H	1.69	0.45
28:D3:3:ARG:NH1	28:D3:60:GLU:HA	2.32	0.45
30:D5:19:ARG:O	30:D5:19:ARG:HG2	2.16	0.45
32:D7:18:PHE:CD2	35:DA:126:A:C5	3.05	0.45
32:D7:25:PRO:HA	32:D7:28:ARG:CZ	2.46	0.45
35:DA:593:G:C6	35:DA:594:U:C4	3.05	0.45
35:DA:675:A:C8	35:DA:804:A:C6	3.05	0.45
35:DA:870:A:H5''	49:DQ:7:MET:O	2.17	0.45
35:DA:879:G:C6	35:DA:880:G:C4	3.05	0.45
35:DA:1269:A:H2'	35:DA:1270:C:H6	1.81	0.45
35:DA:1452:A:C4	35:DA:2702:U:C5	3.05	0.45
35:DA:2258:C:H4'	35:DA:2259:G:OP2	2.16	0.45
35:DA:2312:U:C2'	35:DA:2313:C:H5''	2.43	0.45
35:DA:2473:U:C2	35:DA:2474:C:H5''	2.52	0.45
35:DA:2561:A:H2	47:DO:23:ARG:NH1	2.14	0.45
35:DA:2595:G:H5''	35:DA:2596:U:OP2	2.17	0.45
35:DA:2694:G:C5	35:DA:2695:C:C5	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2851:A:H2'	35:DA:2852:G:O4'	2.17	0.45
35:DA:2859:G:C8	35:DA:2859:G:C3'	3.00	0.45
35:DA:2864:G:OP1	52:DT:119:LYS:HD2	2.17	0.45
36:DB:89:G:C8	36:DB:90:A:N7	2.83	0.45
39:DE:102:VAL:HG22	39:DE:170:LEU:O	2.17	0.45
41:DG:46:ALA:O	41:DG:50:ALA:HA	2.17	0.45
41:DG:122:PRO:HB3	41:DG:180:PHE:CE2	2.51	0.45
48:DP:20:GLY:O	48:DP:21:ARG:HB2	2.16	0.45
49:DQ:22:LYS:HE3	49:DQ:98:LYS:HG3	1.98	0.45
50:DR:34:ILE:HD13	50:DR:34:ILE:HA	1.82	0.45
50:DR:76:VAL:O	50:DR:80:PHE:HB2	2.16	0.45
51:DS:24:LEU:HD23	51:DS:24:LEU:HA	1.60	0.45
55:DW:51:LEU:HD23	55:DW:105:VAL:HG11	1.97	0.45
56:DX:82:GLN:NE2	56:DX:85:PRO:HG2	2.32	0.45
1:AA:858:G:O6	1:AA:869:G:H3'	2.17	0.45
1:AA:862:C:H5'	1:AA:863:U:OP2	2.16	0.45
1:AA:991:U:O2'	1:AA:993:G:C8	2.69	0.45
1:AA:1037:C:O5'	1:AA:1037:C:H6	1.99	0.45
1:AA:1078:U:H5''	1:AA:1079:G:OP2	2.17	0.45
1:AA:1106:G:H4'	3:AC:171:GLY:O	2.16	0.45
1:AA:1504:G:C5'	1:AA:1505:G:H5'	2.41	0.45
3:AC:178:LEU:O	3:AC:180:ALA:N	2.48	0.45
3:AC:181:ASN:HB3	3:AC:205:GLY:O	2.16	0.45
4:AD:97:LEU:HD23	4:AD:97:LEU:HA	1.80	0.45
6:AF:45:LEU:HD21	6:AF:57:GLN:OE1	2.17	0.45
7:AG:108:ALA:O	7:AG:119:ARG:HD2	2.17	0.45
7:AG:113:GLU:O	7:AG:119:ARG:NH1	2.40	0.45
8:AH:29:SER:HB2	8:AH:30:ARG:HH11	1.82	0.45
10:AJ:61:GLU:OE1	14:AN:58:LYS:NZ	2.34	0.45
22:AV:17:C:H5''	22:AV:17:C:C2	2.52	0.45
23:AY:28:G:C6	23:AY:29:G:N3	2.84	0.45
31:B6:21:TYR:O	31:B6:22:ALA:HB2	2.15	0.45
35:BA:142:A:H8	35:BA:1595:G:H21	1.64	0.45
35:BA:143:G:H5''	35:BA:1598:C:O2'	2.17	0.45
35:BA:173:G:N3	35:BA:173:G:H2'	2.32	0.45
35:BA:708:C:H6	35:BA:708:C:OP2	2.00	0.45
35:BA:1022:G:C6	35:BA:1140:C:C4	3.05	0.45
35:BA:1221:C:H5'	35:BA:1221:C:H6	1.81	0.45
35:BA:1742:G:N7	35:BA:1743:C:C4	2.85	0.45
35:BA:1784:A:H4'	35:BA:1785:A:H5''	1.99	0.45
35:BA:1835:G:H5''	35:BA:1836:C:OP2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2205:C:C2	35:BA:2220:G:C2	3.04	0.45
35:BA:2287:A:C4	35:BA:2289:G:C8	3.04	0.45
35:BA:2582:G:H21	35:BA:2583:G:H1'	1.81	0.45
35:BA:2628:C:H1'	35:BA:2781:A:H2'	1.99	0.45
35:BA:2741:A:H2'	35:BA:2742:C:O4'	2.16	0.45
35:BA:2807:G:N2	35:BA:2893:G:C2	2.84	0.45
35:BA:2873:A:C2	50:BR:8:ARG:NH1	2.84	0.45
38:BD:59:LYS:HB3	38:BD:59:LYS:HE2	1.83	0.45
38:BD:254:THR:O	38:BD:254:THR:OG1	2.34	0.45
38:BD:270:ILE:O	38:BD:271:ILE:HG23	2.16	0.45
39:BE:100:GLU:O	39:BE:172:VAL:HG23	2.17	0.45
39:BE:101:ARG:O	39:BE:102:VAL:HG13	2.17	0.45
46:BN:56:ASN:ND2	46:BN:126:PRO:HB3	2.31	0.45
55:BW:50:VAL:O	55:BW:50:VAL:HG12	2.17	0.45
57:BY:96:ILE:HG13	57:BY:99:CYS:HB2	1.99	0.45
58:BZ:68:PRO:O	58:BZ:69:THR:HG23	2.16	0.45
1:CA:232:G:C5	1:CA:233:C:C5	3.05	0.45
1:CA:422:C:H4'	1:CA:423:G:O5'	2.17	0.45
1:CA:797:C:O2'	1:CA:798:G:H5'	2.17	0.45
1:CA:826:C:O5'	1:CA:826:C:H6	2.00	0.45
1:CA:885:G:O2'	1:CA:886:G:H5'	2.16	0.45
1:CA:1218:C:H2'	1:CA:1219:U:C6	2.52	0.45
1:CA:1269:A:H2	1:CA:1312:G:N3	2.15	0.45
1:CA:1402:C:O2	1:CA:1500:A:N1	2.50	0.45
2:CB:17:PHE:O	2:CB:42:ILE:HG22	2.16	0.45
3:CC:131:ARG:HD3	3:CC:131:ARG:C	2.36	0.45
5:CE:99:GLY:O	5:CE:117:ASP:HA	2.17	0.45
6:CF:91:VAL:HG22	6:CF:92:LYS:O	2.17	0.45
14:CN:4:LYS:HE3	14:CN:5:ALA:HB3	1.99	0.45
20:CT:26:ASN:O	20:CT:30:LYS:HB2	2.16	0.45
35:DA:208:C:H2'	35:DA:209:C:H6	1.81	0.45
35:DA:216:A:C4	35:DA:432:A:C2	3.05	0.45
35:DA:338:G:C5	35:DA:339:U:C5	3.05	0.45
35:DA:411:G:C4	48:DP:72:PRO:HG3	2.51	0.45
35:DA:564:C:O2'	35:DA:565:C:H5'	2.16	0.45
35:DA:644:A:N6	35:DA:2349:G:O2'	2.50	0.45
35:DA:660:G:O2'	35:DA:661:C:H5'	2.16	0.45
35:DA:911:A:C5	49:DQ:9:TYR:HE1	2.35	0.45
35:DA:1310:G:H1'	35:DA:1611:C:H5'	1.99	0.45
35:DA:1448:G:HO2'	35:DA:1528(A):A:H61	1.65	0.45
35:DA:1529:G:C5	35:DA:1530:C:N4	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1945:G:C6	35:DA:1946:U:C4	3.05	0.45
35:DA:2308:G:H2'	35:DA:2309:A:H3'	1.98	0.45
35:DA:2315:G:H5''	35:DA:2316:C:OP2	2.17	0.45
35:DA:2524:G:H5'	35:DA:2524:G:C8	2.51	0.45
38:DD:28:GLU:HB2	38:DD:29:PRO:HD3	1.99	0.45
38:DD:147:LEU:HD22	38:DD:155:LEU:HD11	1.97	0.45
38:DD:245:PRO:HA	38:DD:246:PRO:HD3	1.83	0.45
41:DG:133:LEU:CD1	41:DG:157:ILE:HG12	2.46	0.45
50:DR:33:ARG:HD2	50:DR:115:GLU:OE2	2.17	0.45
52:DT:16:ARG:NH2	52:DT:82:LEU:O	2.50	0.45
52:DT:50:ILE:HD13	52:DT:64:ARG:HB3	1.99	0.45
58:DZ:70:LEU:HA	58:DZ:70:LEU:HD23	1.47	0.45
1:AA:114:U:O2'	1:AA:115:G:H5'	2.17	0.45
1:AA:434:U:H2'	1:AA:435:C:C6	2.51	0.45
1:AA:949:A:C6	1:AA:950:U:N3	2.85	0.45
1:AA:1175:G:O6	1:AA:1176:A:N6	2.49	0.45
1:AA:1333:A:H2'	1:AA:1334:G:O4'	2.16	0.45
2:AB:56:ARG:HD2	2:AB:56:ARG:HA	1.61	0.45
3:AC:16:ARG:HH22	3:AC:182:ILE:N	2.15	0.45
4:AD:173:TRP:CD1	4:AD:174:LEU:HG	2.52	0.45
6:AF:9:VAL:HB	6:AF:87:ARG:HB3	1.98	0.45
8:AH:20:TYR:HA	8:AH:65:TYR:CE2	2.52	0.45
9:AI:28:VAL:HG13	9:AI:63:ILE:HD12	1.99	0.45
16:AP:39:TYR:CZ	16:AP:41:PRO:HB3	2.51	0.45
25:B0:54:GLY:O	25:B0:56:ASP:N	2.50	0.45
26:B1:32:LYS:CG	26:B1:33:LYS:N	2.75	0.45
26:B1:34:THR:HG22	26:B1:35:THR:H	1.82	0.45
34:B9:27:CYS:SG	34:B9:29:ASN:N	2.87	0.45
35:BA:43:A:H8	35:BA:43:A:O5'	2.00	0.45
35:BA:1109:C:C5	35:BA:1110:G:N3	2.83	0.45
35:BA:1944:U:C2	35:BA:1955:U:O4'	2.70	0.45
35:BA:2025:C:H2'	35:BA:2026:C:C6	2.51	0.45
35:BA:2104:G:H5'	35:BA:2105:C:OP2	2.16	0.45
35:BA:2169:A:C5	35:BA:2170:A:N1	2.85	0.45
35:BA:2250:G:C4	49:BQ:82:ARG:HG3	2.52	0.45
35:BA:2521:C:H2'	35:BA:2522:U:C6	2.51	0.45
35:BA:2804:C:H2'	35:BA:2805:G:C8	2.51	0.45
36:BB:96:U:N3	36:BB:97:G:N7	2.63	0.45
38:BD:31:LYS:O	38:BD:32:SER:O	2.35	0.45
39:BE:78:LEU:CD2	39:BE:78:LEU:H	2.29	0.45
43:BI:93:THR:O	43:BI:96:ASP:HB2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:BX:62:LYS:CB	56:BX:69:TYR:HA	2.47	0.45
57:BY:86:ARG:C	57:BY:88:LYS:HZ3	2.19	0.45
1:CA:322:C:H5	1:CA:328:C:C5	2.35	0.45
1:CA:431:A:C2	1:CA:432:A:H1'	2.50	0.45
1:CA:545:C:H5''	4:CD:72:GLU:HG2	1.99	0.45
1:CA:680:C:H2'	1:CA:681:C:H6	1.81	0.45
1:CA:983:A:H1'	1:CA:1049:U:O2	2.17	0.45
4:CD:138:TYR:C	4:CD:138:TYR:CD1	2.89	0.45
5:CE:8:GLU:CG	5:CE:34:VAL:HG22	2.47	0.45
6:CF:30:LEU:HD23	6:CF:75:LEU:HD11	1.99	0.45
8:CH:86:ILE:HG21	8:CH:133:LEU:HD13	1.99	0.45
9:CI:52:ALA:HB3	9:CI:95:LYS:NZ	2.32	0.45
14:CN:15:LYS:HG2	14:CN:16:PHE:CD2	2.52	0.45
17:CQ:53:LEU:O	17:CQ:55:ASP:N	2.50	0.45
23:CW:16:U:N3	23:CW:60:U:O2	2.48	0.45
23:CW:27:G:OP2	23:CW:27:G:C8	2.70	0.45
31:D6:37:ARG:HG2	35:DA:2344:U:O2'	2.17	0.45
35:DA:298:G:OP2	57:DY:85:VAL:HG23	2.16	0.45
35:DA:419:C:H2'	35:DA:420:C:O4'	2.16	0.45
35:DA:646:A:H2'	35:DA:647:G:O4'	2.16	0.45
35:DA:1494:A:N3	35:DA:1494:A:C3'	2.77	0.45
35:DA:1550:C:H2'	35:DA:1551:C:H6	1.82	0.45
35:DA:2639:A:O2'	46:DN:97:ARG:NH2	2.50	0.45
35:DA:2860:A:N7	35:DA:2861:G:H1'	2.31	0.45
38:DD:79:VAL:HG11	38:DD:111:LEU:HD21	1.99	0.45
38:DD:109:ASP:HB2	38:DD:197:GLY:CA	2.47	0.45
40:DF:65:TRP:O	40:DF:67:GLN:N	2.50	0.45
48:DP:6:LEU:O	48:DP:6:LEU:HD12	2.15	0.45
48:DP:71:VAL:HG13	48:DP:72:PRO:HD2	1.97	0.45
48:DP:112:LEU:O	48:DP:128:HIS:HB3	2.17	0.45
50:DR:55:ALA:HA	50:DR:80:PHE:CZ	2.51	0.45
1:AA:191:G:C2	1:AA:192:U:C2	3.05	0.45
1:AA:396:G:O2'	1:AA:398:C:OP1	2.27	0.45
1:AA:455:C:N3	1:AA:477:A:N1	2.64	0.45
1:AA:456:C:H4'	1:AA:457:C:O5'	2.14	0.45
1:AA:488:C:O5'	1:AA:488:C:H6	2.00	0.45
1:AA:686:U:H1'	1:AA:687:A:C8	2.51	0.45
1:AA:1122:U:O4	1:AA:1123:A:N6	2.47	0.45
1:AA:1347:G:O2'	1:AA:1373:G:O6	2.32	0.45
1:AA:1442(A):G:N3	1:AA:1442(A):G:C2'	2.80	0.45
1:AA:1505:G:OP2	1:AA:1505:G:H3'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:30:ARG:O	2:AB:46:LYS:HG3	2.17	0.45
2:AB:103:THR:OG1	2:AB:176:GLU:HB3	2.17	0.45
6:AF:42:GLU:O	6:AF:44:GLY:N	2.49	0.45
15:AO:36:ILE:HG23	15:AO:56:LEU:HD11	1.97	0.45
35:BA:250:G:C6	35:BA:251:A:C6	3.04	0.45
35:BA:568:U:H5'	35:BA:945:A:C6	2.51	0.45
35:BA:607:U:H5''	40:BF:103:LYS:HE2	1.99	0.45
35:BA:819:A:OP2	35:BA:1187:G:N2	2.49	0.45
35:BA:977:G:C6	35:BA:987:G:C6	3.05	0.45
35:BA:1012:U:H5	46:BN:28:THR:HG21	1.82	0.45
35:BA:1178:C:H2'	35:BA:1179:C:C5	2.52	0.45
35:BA:1249:U:H5'	35:BA:1249:U:O2	2.17	0.45
35:BA:1249:U:O2	35:BA:1249:U:O4'	2.34	0.45
35:BA:1252:G:H5'	53:BU:33:ARG:NH1	2.31	0.45
35:BA:1312:U:OP1	35:BA:1312:U:H4'	2.17	0.45
35:BA:1466:G:N2	35:BA:1547:C:C5	2.84	0.45
35:BA:1782:C:H2'	35:BA:1783:A:H5''	1.99	0.45
35:BA:2487:G:H2'	35:BA:2488:A:C8	2.51	0.45
35:BA:2687:U:C4	35:BA:2688:U:C5	3.04	0.45
35:BA:2721:A:H2'	35:BA:2722:G:O4'	2.16	0.45
36:BB:75:G:H1	36:BB:103:G:N2	2.15	0.45
38:BD:10:THR:C	38:BD:12:SER:H	2.20	0.45
39:BE:63:LEU:HD23	39:BE:63:LEU:HA	1.74	0.45
41:BG:32:PRO:HB2	41:BG:172:LEU:HD12	1.97	0.45
42:BH:148:ILE:O	42:BH:162:ILE:HD11	2.17	0.45
46:BN:66:LYS:HD2	46:BN:87:LEU:HD22	1.98	0.45
46:BN:72:TYR:OH	46:BN:98:VAL:HG13	2.17	0.45
48:BP:60:MET:HE3	48:BP:61:ARG:HH21	1.78	0.45
49:BQ:18:LYS:O	49:BQ:18:LYS:HD3	2.09	0.45
1:CA:17:U:H2'	1:CA:18:C:C6	2.51	0.45
1:CA:117:G:H8	1:CA:117:G:O5'	1.99	0.45
1:CA:221:C:H2'	1:CA:222:U:H6	1.80	0.45
1:CA:225:C:H2'	1:CA:226:G:H8	1.81	0.45
1:CA:407:G:C2	1:CA:408:A:C4	3.05	0.45
1:CA:581:G:N2	1:CA:582:U:C4	2.85	0.45
1:CA:781:A:OP1	1:CA:1523:G:H5'	2.17	0.45
1:CA:1270:C:O3'	1:CA:1314:C:H5'	2.17	0.45
1:CA:1374:A:C4	1:CA:1375:A:C8	3.04	0.45
4:CD:57:ARG:HB3	4:CD:206:PHE:HB2	1.98	0.45
6:CF:69:GLU:O	6:CF:71:ARG:N	2.48	0.45
8:CH:14:ARG:NH2	8:CH:83:ILE:O	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:48:GLU:HB3	9:CI:49:PRO:HD3	1.99	0.45
22:CV:33:U:O2'	22:CV:35:A:N7	2.46	0.45
23:CW:52:G:H2'	23:CW:53:G:C8	2.52	0.45
26:D1:19:GLN:NE2	35:DA:396:G:H1'	2.31	0.45
26:D1:73:LEU:HD23	26:D1:73:LEU:HA	1.79	0.45
33:D8:59:LYS:HZ1	48:DP:50:ARG:HE	1.65	0.45
34:D9:25:VAL:HB	34:D9:34:GLN:HB2	1.99	0.45
35:DA:85:G:OP1	57:DY:9:LYS:HA	2.17	0.45
35:DA:150:C:H2'	35:DA:151:C:C6	2.52	0.45
35:DA:602:G:HO2'	35:DA:604:G:HO2'	1.56	0.45
35:DA:1038:C:N4	35:DA:1117:G:H1	2.12	0.45
35:DA:2789:C:N3	35:DA:2894:G:O6	2.50	0.45
35:DA:2820:A:O3'	50:DR:2:ARG:NH1	2.49	0.45
38:DD:68:LYS:HB3	38:DD:70:TRP:CZ2	2.51	0.45
39:DE:17:ASP:OD1	39:DE:17:ASP:N	2.50	0.45
40:DF:20:LEU:HD12	40:DF:203:GLN:OE1	2.17	0.45
46:DN:43:THR:HB	46:DN:46:VAL:HG12	1.99	0.45
51:DS:89:ARG:HG2	51:DS:93:LYS:HG3	1.98	0.45
53:DU:66:ASN:OD1	53:DU:76:TYR:HB2	2.17	0.45
53:DU:76:TYR:CE1	53:DU:80:ILE:HG13	2.51	0.45
1:AA:187:C:H2'	1:AA:188:C:C6	2.52	0.45
1:AA:735:C:H2'	1:AA:736:C:C6	2.52	0.45
1:AA:821:G:H2'	1:AA:822:C:H6	1.81	0.45
1:AA:1498:U:OP2	24:AX:16:A:O2'	2.32	0.45
2:AB:185:ILE:HG13	2:AB:199:TYR:O	2.17	0.45
4:AD:122:ARG:CZ	4:AD:122:ARG:HA	2.47	0.45
5:AE:76:ILE:HG23	5:AE:77:PRO:HD2	1.98	0.45
25:B0:24:LYS:NZ	35:BA:2355:C:O3'	2.39	0.45
26:B1:24:ALA:HA	26:B1:36:GLY:HA2	1.99	0.45
35:BA:245:G:O2'	35:BA:384:U:O2	2.25	0.45
35:BA:599:G:H4'	40:BF:31:HIS:HD2	1.82	0.45
35:BA:639:U:H2'	35:BA:640:C:C6	2.51	0.45
35:BA:664:C:H4'	35:BA:940:G:O3'	2.17	0.45
35:BA:672:C:H2'	35:BA:673:C:H6	1.82	0.45
35:BA:1198:U:C2	35:BA:1199:U:C5	3.05	0.45
35:BA:1480:G:C2	35:BA:1481:U:O2	2.70	0.45
35:BA:1494:A:HO2'	35:BA:1495:A:P	2.40	0.45
35:BA:1954:G:N3	35:BA:2551:C:H5'	2.32	0.45
35:BA:2431:U:H2'	35:BA:2433:A:OP2	2.16	0.45
35:BA:2480:C:H2'	35:BA:2481:G:H5'	1.99	0.45
35:BA:2625:G:H2'	35:BA:2626:C:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2892:A:H62	35:BA:2893:G:N2	2.14	0.45
38:BD:42:GLY:C	38:BD:43:ARG:HG3	2.36	0.45
39:BE:40:GLU:HG2	39:BE:40:GLU:O	2.17	0.45
42:BH:23:ARG:HB3	42:BH:36:PRO:HA	1.99	0.45
47:BO:3:GLN:O	47:BO:21:CYS:HB3	2.16	0.45
48:BP:95:VAL:HG12	48:BP:100:LEU:HD21	1.98	0.45
48:BP:100:LEU:HA	48:BP:100:LEU:HD22	1.80	0.45
52:BT:13:ARG:NE	52:BT:13:ARG:CA	2.79	0.45
55:BW:59:VAL:HG22	55:BW:64:MET:N	2.31	0.45
57:BY:8:LYS:HG3	57:BY:9:LYS:H	1.83	0.45
1:CA:342:C:H2'	1:CA:343:U:O4'	2.17	0.45
1:CA:920:U:H1'	1:CA:1080:A:C2	2.52	0.45
2:CB:164:VAL:HG12	2:CB:166:ASP:H	1.82	0.45
3:CC:3:ASN:OD1	3:CC:3:ASN:N	2.44	0.45
4:CD:70:ILE:HG23	4:CD:75:PHE:HB2	1.98	0.45
4:CD:98:GLU:OE2	4:CD:107:ARG:HD2	2.16	0.45
7:CG:37:ASN:OD1	9:CI:41:VAL:N	2.50	0.45
7:CG:40:ALA:HB1	9:CI:41:VAL:HG11	1.99	0.45
8:CH:6:ILE:HD11	8:CH:31:PHE:CE2	2.52	0.45
8:CH:114:THR:OG1	8:CH:115:SER:N	2.50	0.45
9:CI:69:GLY:O	9:CI:73:GLN:HG3	2.16	0.45
13:CM:77:ASN:O	13:CM:80:ARG:HB2	2.17	0.45
14:CN:15:LYS:HE3	14:CN:16:PHE:HE2	1.82	0.45
22:CV:14:A:H1'	22:CV:22:G:N2	2.32	0.45
28:D3:50:VAL:HA	28:D3:52:HIS:CE1	2.51	0.45
30:D5:45:VAL:HG21	50:DR:100:LEU:HD12	1.98	0.45
35:DA:141:A:H8	35:DA:1408:C:HO2'	1.65	0.45
35:DA:1099:G:C8	35:DA:1100:C:H5	2.35	0.45
35:DA:1206:G:C4	35:DA:1207:C:C5	3.05	0.45
35:DA:1216:G:P	53:DU:12:ARG:HH21	2.40	0.45
35:DA:1569:A:O2'	38:DD:38:LYS:HD3	2.17	0.45
35:DA:2075:U:H2'	35:DA:2238:G:N2	2.32	0.45
35:DA:2324:C:H5''	35:DA:2325:G:C5'	2.46	0.45
35:DA:2328:A:H2'	35:DA:2329:G:O4'	2.17	0.45
35:DA:2340:G:H2'	35:DA:2341:G:C8	2.52	0.45
35:DA:2666:C:H5''	35:DA:2667:C:OP2	2.16	0.45
39:DE:203:LYS:HG3	39:DE:204:ALA:H	1.81	0.45
40:DF:9:ILE:HG22	40:DF:11:VAL:O	2.16	0.45
46:DN:23:LEU:HB3	46:DN:60:ILE:HD13	1.98	0.45
47:DO:69:ILE:HG21	47:DO:105:GLU:OE2	2.17	0.45
48:DP:23:PRO:HD2	48:DP:33:ARG:HH11	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DP:45:LEU:HD23	48:DP:45:LEU:HA	1.60	0.45
48:DP:111:ARG:HG3	48:DP:128:HIS:CE1	2.52	0.45
50:DR:38:VAL:HB	50:DR:39:PRO:HD3	1.99	0.45
51:DS:36:TYR:CD1	51:DS:52:SER:HB2	2.50	0.45
53:DU:27:LEU:O	53:DU:30:LYS:N	2.32	0.45
53:DU:92:ARG:HG3	53:DU:92:ARG:HH21	1.81	0.45
1:AA:148:G:H1	1:AA:174:C:H5	1.64	0.44
1:AA:163:C:H2'	1:AA:164:U:O4'	2.17	0.44
1:AA:1008:C:H6	1:AA:1008:C:H3'	1.81	0.44
1:AA:1190:G:OP1	3:AC:5:ILE:HG13	2.17	0.44
1:AA:1261:A:H2'	1:AA:1261:A:N3	2.31	0.44
1:AA:1280:A:OP2	1:AA:1280:A:H4'	2.16	0.44
1:AA:1358:U:H5''	14:AN:33:VAL:O	2.17	0.44
2:AB:101:MET:O	2:AB:105:PHE:HB2	2.17	0.44
3:AC:62:ASP:OD1	3:AC:62:ASP:N	2.38	0.44
3:AC:64:VAL:CG1	3:AC:66:VAL:HG23	2.47	0.44
4:AD:8:VAL:HG23	4:AD:9:CYS:H	1.82	0.44
4:AD:111:ALA:HB2	4:AD:120:LEU:HD12	1.99	0.44
7:AG:123:GLU:O	7:AG:126:ASP:N	2.50	0.44
8:AH:84:ARG:O	8:AH:135:CYS:HB2	2.17	0.44
10:AJ:38:ILE:N	10:AJ:71:LEU:O	2.47	0.44
21:AU:23:PRO:O	21:AU:24:ARG:HB2	2.16	0.44
23:AY:34:G:H2'	23:AY:35:A:C8	2.52	0.44
26:B1:48:LYS:HA	26:B1:48:LYS:HD3	1.33	0.44
35:BA:30:G:H2'	35:BA:31:C:C6	2.52	0.44
35:BA:1098:A:O2'	35:BA:1099:G:O5'	2.31	0.44
35:BA:1309:G:O2'	35:BA:1611:C:O2'	2.29	0.44
35:BA:1544:A:C4	35:BA:1545:A:N7	2.85	0.44
35:BA:1740:G:O2'	35:BA:1741:A:O4'	2.34	0.44
35:BA:1799:G:O6	38:BD:178:PRO:HB2	2.16	0.44
35:BA:2086:U:H2'	35:BA:2087:G:C8	2.52	0.44
35:BA:2286:A:N3	35:BA:2286:A:H5''	2.32	0.44
35:BA:2540:C:O2'	35:BA:2740:A:N3	2.44	0.44
35:BA:2795:G:N3	35:BA:2795:G:H2'	2.32	0.44
35:BA:2895:U:H3'	35:BA:2896:C:O4'	2.17	0.44
36:BB:94:C:H2'	36:BB:95:C:H6	1.83	0.44
38:BD:109:ASP:C	38:BD:111:LEU:H	2.21	0.44
40:BF:167:ALA:HB1	40:BF:173:VAL:HG11	2.00	0.44
42:BH:106:THR:HA	42:BH:112:PRO:HB3	1.98	0.44
48:BP:132:LYS:CG	48:BP:136:GLU:OE2	2.63	0.44
50:BR:96:ARG:HG3	50:BR:97:VAL:N	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:BV:53:GLU:CD	54:BV:54:GLY:H	2.20	0.44
57:BY:26:LYS:O	57:BY:27:VAL:HB	2.17	0.44
58:BZ:27:VAL:O	58:BZ:87:ASP:HA	2.18	0.44
58:BZ:71:VAL:HG13	58:BZ:88:PHE:CE1	2.52	0.44
1:CA:266:G:C5'	1:CA:268:C:H41	2.31	0.44
1:CA:892:A:H2'	1:CA:893:C:H6	1.82	0.44
1:CA:1030(D):A:N7	1:CA:1031:G:H1'	2.32	0.44
1:CA:1044:A:C5	1:CA:1045:C:H1'	2.51	0.44
1:CA:1151:A:C4	1:CA:1152:A:C8	3.04	0.44
1:CA:1255:G:C2	1:CA:1283:G:C2	3.04	0.44
1:CA:1346:A:N1	1:CA:1374:A:H5''	2.32	0.44
1:CA:1525:G:OP2	11:CK:120:ARG:NH2	2.49	0.44
2:CB:20:GLU:HG3	2:CB:190:THR:OG1	2.17	0.44
2:CB:69:LEU:HA	2:CB:91:PRO:O	2.17	0.44
3:CC:23:TYR:CG	3:CC:24:ALA:N	2.84	0.44
13:CM:20:THR:C	13:CM:22:ILE:H	2.20	0.44
15:CO:67:LEU:HD12	15:CO:67:LEU:HA	1.62	0.44
17:CQ:63:ARG:HG2	17:CQ:64:PRO:N	2.32	0.44
27:D2:40:SER:O	27:D2:44:LEU:N	2.44	0.44
28:D3:2:PRO:CA	28:D3:38:GLU:HA	2.44	0.44
28:D3:45:GLY:O	28:D3:49:LYS:HG2	2.17	0.44
35:DA:78:A:H2'	35:DA:79:G:C8	2.52	0.44
35:DA:542:C:N4	35:DA:543:C:H42	2.13	0.44
35:DA:666:G:H5''	48:DP:47:ASP:OD1	2.17	0.44
35:DA:811:U:O2	35:DA:1250:G:H3'	2.17	0.44
35:DA:1039:G:C2'	35:DA:1040:C:H5'	2.47	0.44
35:DA:1259:G:H2'	35:DA:1260:G:C8	2.52	0.44
35:DA:1275:A:C8	50:DR:16:HIS:ND1	2.85	0.44
35:DA:1315:C:O2'	35:DA:1392:A:H1'	2.17	0.44
35:DA:1452:A:O2'	35:DA:1453:U:H2'	2.17	0.44
35:DA:2317:C:N4	35:DA:2318:G:C5	2.86	0.44
35:DA:2679:A:H5'	39:DE:165:VAL:HG21	1.99	0.44
35:DA:2873:A:O2'	35:DA:2874:C:H5'	2.17	0.44
53:DU:27:LEU:HD22	53:DU:31:SER:HB3	1.99	0.44
53:DU:57:PHE:O	53:DU:58:ARG:C	2.56	0.44
55:DW:27:LYS:HB3	55:DW:31:GLU:HB3	1.99	0.44
55:DW:29:LEU:HD23	55:DW:33:ARG:NH1	2.32	0.44
57:DY:17:SER:HB2	57:DY:71:LYS:CE	2.40	0.44
57:DY:27:VAL:HG12	57:DY:29:GLU:OE1	2.17	0.44
57:DY:28:LYS:HD2	57:DY:28:LYS:N	2.32	0.44
1:AA:77:G:N1	1:AA:93:G:C5	2.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:157:G:H1	1:AA:164:U:H3	1.65	0.44
1:AA:247:G:C6	1:AA:278:G:C2	3.04	0.44
1:AA:250:A:H4'	1:AA:251:G:O5'	2.17	0.44
1:AA:402:G:C6	1:AA:403:C:C5	3.06	0.44
1:AA:502:G:OP1	12:AL:118:SER:OG	2.22	0.44
1:AA:838:G:H22	1:AA:849:C:C1'	2.23	0.44
1:AA:1128:C:H2'	1:AA:1129:C:O4'	2.17	0.44
1:AA:1128:C:P	1:AA:1139:G:H22	2.40	0.44
1:AA:1330:U:H4'	13:AM:23:TYR:CE2	2.52	0.44
10:AJ:56:HIS:CD2	10:AJ:57:LYS:N	2.82	0.44
10:AJ:90:LEU:N	10:AJ:91:PRO:HD3	2.31	0.44
15:AO:56:LEU:O	15:AO:60:VAL:HG23	2.17	0.44
16:AP:21:VAL:HG23	16:AP:33:ILE:HB	2.00	0.44
19:AS:80:TYR:HD1	19:AS:81:ARG:N	2.06	0.44
22:AV:17:C:H5'	22:AV:18:U:H5''	2.00	0.44
27:B2:26:ARG:HB3	56:BX:5:TYR:CE2	2.52	0.44
27:B2:35:LEU:HA	27:B2:35:LEU:HD12	1.73	0.44
31:B6:15:GLU:OE2	31:B6:18:ARG:HD3	2.17	0.44
32:B7:34:ARG:O	32:B7:37:LYS:N	2.50	0.44
35:BA:70:G:H5''	35:BA:112:U:O2	2.18	0.44
35:BA:171:G:HO2'	35:BA:172:C:P	2.40	0.44
35:BA:284:U:H2'	35:BA:285:C:C6	2.53	0.44
35:BA:450:G:OP2	40:BF:85:GLY:O	2.36	0.44
35:BA:569:U:H5''	35:BA:821:A:N1	2.32	0.44
35:BA:1178:C:H2'	35:BA:1179:C:C6	2.52	0.44
35:BA:1210:A:C5'	35:BA:1210:A:C8	2.99	0.44
35:BA:1412:A:H2'	35:BA:1413:G:H8	1.82	0.44
35:BA:1803:A:O2'	38:BD:259:THR:HG21	2.18	0.44
35:BA:2050:C:H1'	39:BE:156:MET:HE2	1.99	0.44
35:BA:2181:G:H2'	35:BA:2182:G:O4'	2.17	0.44
35:BA:2218:U:H3'	35:BA:2218:U:H6	1.82	0.44
35:BA:2315:G:H2'	35:BA:2316:C:H6	1.79	0.44
35:BA:2794:C:H42	35:BA:2801(A):A:N6	2.14	0.44
38:BD:65:ILE:HD11	38:BD:67:PHE:CZ	2.52	0.44
39:BE:105:THR:HG21	39:BE:164:ARG:HE	1.82	0.44
40:BF:17:ARG:O	40:BF:19:GLU:N	2.45	0.44
46:BN:16:ILE:HG23	46:BN:54:VAL:HG22	2.00	0.44
49:BQ:23:GLY:HA2	49:BQ:101:ARG:HD2	1.99	0.44
50:BR:35:THR:HA	50:BR:112:ALA:O	2.17	0.44
54:BV:69:LYS:HB3	54:BV:93:GLU:OE2	2.17	0.44
55:BW:103:ILE:HG21	55:BW:103:ILE:HD13	1.62	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:BX:31:HIS:ND1	56:BX:32:PRO:HD2	2.32	0.44
56:BX:62:LYS:HA	56:BX:70:LEU:N	2.31	0.44
57:BY:2:ARG:NE	57:BY:4:LYS:HB3	2.32	0.44
58:BZ:41:LEU:N	58:BZ:44:PHE:HD2	2.15	0.44
58:BZ:73:GLN:O	58:BZ:86:VAL:HA	2.17	0.44
1:CA:176:C:O2'	1:CA:1447:A:N1	2.45	0.44
1:CA:611:A:H61	1:CA:629:G:H1	1.64	0.44
1:CA:948:C:O2'	1:CA:949:A:H5'	2.18	0.44
1:CA:954:G:H5''	1:CA:955:U:OP2	2.17	0.44
2:CB:130:ARG:HA	2:CB:134:GLU:OE2	2.17	0.44
11:CK:34:ASP:HB2	11:CK:35:PRO:CD	2.47	0.44
15:CO:57:LEU:HD23	15:CO:57:LEU:HA	1.68	0.44
16:CP:8:ARG:H	16:CP:28:ARG:HH12	1.66	0.44
20:CT:54:LYS:HG3	20:CT:58:LYS:HD3	1.98	0.44
23:CW:10:G:H2'	23:CW:10:G:N3	2.32	0.44
23:CW:63:G:H2'	23:CW:63:G:N3	2.32	0.44
27:D2:46:GLN:HE21	27:D2:46:GLN:CA	2.28	0.44
33:D8:32:LEU:HA	33:D8:32:LEU:HD12	1.58	0.44
35:DA:65:C:H2'	35:DA:66:C:H6	1.83	0.44
35:DA:154:G:H8	35:DA:154:G:O5'	2.00	0.44
35:DA:299:A:C5	35:DA:322:A:C2	3.06	0.44
35:DA:847:U:C4	35:DA:933:A:N6	2.86	0.44
35:DA:1042:G:N2	35:DA:1043:C:O2'	2.50	0.44
35:DA:1135:C:H5''	35:DA:1135:C:H6	1.82	0.44
35:DA:1465:G:C4	35:DA:1466:G:C8	3.05	0.44
35:DA:1797:C:H4'	38:DD:257:LEU:O	2.17	0.44
35:DA:1828:G:O6	38:DD:222:ARG:HD3	2.18	0.44
35:DA:2352:A:N6	35:DA:2365:G:O2'	2.50	0.44
36:DB:50:G:O3'	51:DS:63:THR:HG23	2.17	0.44
38:DD:17:THR:HG22	38:DD:205:VAL:N	2.31	0.44
38:DD:49:ILE:HG21	38:DD:49:ILE:HD13	1.54	0.44
38:DD:123:ALA:HB3	38:DD:131:LEU:HG	1.99	0.44
38:DD:182:LEU:HB2	38:DD:271:ILE:HG13	1.99	0.44
40:DF:125:LEU:CD2	40:DF:194:MET:HG3	2.47	0.44
41:DG:155:MET:HG2	41:DG:156:ASP:N	2.32	0.44
42:DH:74:ASN:O	42:DH:77:LYS:HG2	2.17	0.44
43:DI:96:ASP:OD1	43:DI:96:ASP:N	2.49	0.44
47:DO:9:GLU:HB3	47:DO:83:ALA:HB2	1.99	0.44
49:DQ:40:ALA:HB3	49:DQ:127:ILE:HG12	1.98	0.44
51:DS:10:ARG:HH21	51:DS:10:ARG:HG3	1.82	0.44
51:DS:87:PHE:HB3	51:DS:89:ARG:NH1	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DT:45:PHE:N	52:DT:45:PHE:CD1	2.84	0.44
52:DT:81:PRO:O	52:DT:82:LEU:HD23	2.17	0.44
57:DY:26:LYS:CD	57:DY:27:VAL:HG23	2.47	0.44
58:DZ:97:GLU:HB2	58:DZ:125:LEU:HD21	1.98	0.44
1:AA:142:G:O2'	1:AA:195:A:N6	2.49	0.44
1:AA:146:G:O6	1:AA:176:C:N4	2.50	0.44
1:AA:457:C:H1'	1:AA:475:G:N2	2.32	0.44
1:AA:952:U:H4'	1:AA:964:A:N1	2.32	0.44
1:AA:991:U:H3	1:AA:1212:U:HO2'	1.62	0.44
1:AA:1072:G:C6	1:AA:1073:U:C4	3.06	0.44
1:AA:1336:C:O2	1:AA:1336:C:H2'	2.18	0.44
1:AA:1457:G:H2'	1:AA:1458:G:H5''	1.99	0.44
3:AC:11:ARG:NE	3:AC:180:ALA:HB3	2.33	0.44
3:AC:42:LEU:HD23	3:AC:42:LEU:O	2.17	0.44
3:AC:71:ALA:HB2	3:AC:106:VAL:HB	1.98	0.44
4:AD:60:GLU:O	4:AD:63:LYS:HB3	2.17	0.44
4:AD:67:ILE:HG21	4:AD:196:LEU:HD23	1.98	0.44
8:AH:7:ALA:HB2	8:AH:85:ARG:HD2	1.97	0.44
8:AH:26:VAL:O	8:AH:28:ALA:N	2.50	0.44
9:AI:117:HIS:O	9:AI:118:LYS:HG3	2.18	0.44
15:AO:39:LEU:HD22	15:AO:39:LEU:HA	1.74	0.44
15:AO:53:HIS:CE1	15:AO:57:LEU:HD11	2.53	0.44
18:AR:50:ILE:HD13	18:AR:50:ILE:HA	1.61	0.44
19:AS:4:SER:OG	19:AS:5:LEU:N	2.49	0.44
23:AW:76:A:H2'	35:BA:2394:C:N3	2.33	0.44
25:B0:45:PHE:CD1	25:B0:77:ARG:HB2	2.52	0.44
30:B5:9:LYS:HA	30:B5:9:LYS:HD3	1.59	0.44
30:B5:43:HIS:HE1	35:BA:2815:C:O2	1.99	0.44
31:B6:27:LYS:CE	31:B6:31:PRO:HD2	2.47	0.44
33:B8:13:ARG:CB	48:BP:61:ARG:HB2	2.47	0.44
35:BA:24:G:H2'	35:BA:25:U:O4'	2.17	0.44
35:BA:79:G:H1	35:BA:107:C:N4	2.14	0.44
35:BA:88:G:H2'	35:BA:89:G:H5'	1.98	0.44
35:BA:320:A:H4'	35:BA:322:A:C8	2.52	0.44
35:BA:615:G:H5'	40:BF:40:GLN:HE22	1.82	0.44
35:BA:748:G:C8	55:BW:89:ALA:HB1	2.53	0.44
35:BA:966:G:H2'	35:BA:967:C:H6	1.82	0.44
35:BA:1049:C:N3	35:BA:1050:A:N6	2.66	0.44
35:BA:1106:G:H2'	35:BA:1106:G:N3	2.32	0.44
35:BA:1493:C:C4	35:BA:2206:G:O2'	2.68	0.44
35:BA:2014:A:H2'	35:BA:2015:A:C8	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2023:G:H5'	35:BA:2617:C:H4'	1.99	0.44
35:BA:2294:C:OP1	51:BS:92:TYR:CB	2.65	0.44
35:BA:2495:G:H5''	49:BQ:81:VAL:HG22	2.00	0.44
35:BA:2542:A:O2'	35:BA:2543:G:H8	2.00	0.44
35:BA:2698:U:H2'	35:BA:2699:C:O2	2.18	0.44
36:BB:65:C:N4	36:BB:109:C:C6	2.86	0.44
39:BE:200:GLU:O	39:BE:200:GLU:HG3	2.16	0.44
40:BF:28:ILE:O	40:BF:30:PRO:HD3	2.18	0.44
40:BF:113:ALA:HB1	40:BF:186:ILE:HG21	1.98	0.44
42:BH:101:ARG:O	42:BH:123:PHE:HD2	2.00	0.44
46:BN:47:ALA:HB2	46:BN:112:LEU:HD11	1.99	0.44
47:BO:98:VAL:HG11	47:BO:114:ILE:HG23	1.99	0.44
48:BP:26:GLY:HA3	48:BP:29:LYS:NZ	2.28	0.44
49:BQ:130:LYS:HZ2	58:BZ:80:ARG:HH11	1.65	0.44
50:BR:9:LYS:HB2	50:BR:43:GLU:OE2	2.18	0.44
52:BT:84:GLN:HG3	52:BT:85:LYS:N	2.32	0.44
55:BW:59:VAL:HA	55:BW:63:ASP:CA	2.48	0.44
58:BZ:23:LYS:HB3	58:BZ:38:TYR:CD2	2.52	0.44
1:CA:190:U:H2'	1:CA:191:G:H8	1.82	0.44
1:CA:597:G:H1'	1:CA:644:G:N2	2.33	0.44
1:CA:939:G:H5''	7:CG:102:ARG:HH12	1.81	0.44
1:CA:1053:G:N7	1:CA:1199:U:H3'	2.32	0.44
1:CA:1092:A:C6	1:CA:1093:A:C6	3.05	0.44
1:CA:1206:G:C4'	3:CC:194:GLY:H	2.30	0.44
1:CA:1434:A:H61	1:CA:1467:G:H1'	1.81	0.44
4:CD:4:TYR:O	4:CD:5:ILE:HB	2.18	0.44
6:CF:53:ALA:HB3	6:CF:86:ARG:CZ	2.46	0.44
7:CG:45:ASP:O	7:CG:49:ILE:HG12	2.17	0.44
9:CI:95:LYS:HG3	9:CI:96:LEU:H	1.82	0.44
10:CJ:42:THR:HG21	10:CJ:66:ARG:HD2	1.98	0.44
18:CR:85:LEU:HB3	18:CR:86:VAL:H	1.67	0.44
35:DA:14:A:H8	35:DA:14:A:O5'	2.00	0.44
35:DA:310:A:P	57:DY:18:GLY:HA2	2.58	0.44
35:DA:948:G:N2	35:DA:985:C:OP2	2.51	0.44
35:DA:1087:G:H2'	35:DA:1088:A:C4'	2.48	0.44
35:DA:1278:A:O2'	35:DA:1279:G:H5'	2.17	0.44
35:DA:1448:G:N3	35:DA:1528(A):A:H2	2.14	0.44
35:DA:1663:C:O2'	35:DA:2686:G:H4'	2.17	0.44
35:DA:1783:A:N1	35:DA:2587:A:H2'	2.32	0.44
35:DA:1995:U:H1'	47:DO:3:GLN:HE22	1.83	0.44
35:DA:2030:A:H4'	35:DA:2031:A:H8	1.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DD:40:THR:HG22	38:DD:41:GLY:O	2.17	0.44
46:DN:30:ILE:HG22	46:DN:34:LEU:CD2	2.47	0.44
46:DN:65:LYS:HZ3	46:DN:68:GLU:HB3	1.77	0.44
48:DP:33:ARG:HG3	48:DP:34:GLY:N	2.31	0.44
49:DQ:10:ARG:CZ	49:DQ:11:LYS:N	2.54	0.44
52:DT:11:GLU:OE2	52:DT:12:SER:N	2.50	0.44
53:DU:76:TYR:CZ	53:DU:80:ILE:HG13	2.52	0.44
57:DY:94:LYS:HD2	57:DY:103:GLY:HA3	1.99	0.44
58:DZ:115:GLY:HA2	58:DZ:146:ILE:HG12	2.00	0.44
1:AA:437:U:C5	1:AA:438:G:C5	3.05	0.44
1:AA:475:G:H2'	1:AA:476:G:O4'	2.17	0.44
1:AA:696:A:N6	1:AA:797:C:O2'	2.43	0.44
1:AA:730:G:O6	15:AO:51:HIS:NE2	2.50	0.44
1:AA:932:C:O2	1:AA:932:C:H2'	2.18	0.44
1:AA:952:U:H2'	1:AA:953:G:H8	1.83	0.44
1:AA:1027:C:H3'	1:AA:1027:C:O2	2.17	0.44
1:AA:1055:A:C5	1:AA:1206:G:C2	3.05	0.44
1:AA:1130:A:H2'	1:AA:1130:A:N3	2.32	0.44
1:AA:1158:C:N4	1:AA:1160:G:O2'	2.50	0.44
2:AB:163:PHE:HA	2:AB:185:ILE:O	2.17	0.44
2:AB:205:ASP:OD1	2:AB:206:ASP:N	2.50	0.44
3:AC:16:ARG:HH22	3:AC:182:ILE:H	1.65	0.44
4:AD:29:PRO:C	4:AD:30:LYS:HD3	2.38	0.44
7:AG:75:VAL:HG12	7:AG:88:PRO:HB3	1.98	0.44
12:AL:47:LYS:HD2	12:AL:48:PRO:CD	2.44	0.44
12:AL:85:ILE:N	12:AL:85:ILE:CD1	2.80	0.44
17:AQ:6:LEU:O	17:AQ:59:ILE:N	2.41	0.44
26:B1:82:LEU:HD22	26:B1:83:GLU:N	2.33	0.44
27:B2:27:GLU:HB2	27:B2:28:LYS:H	1.45	0.44
30:B5:4:HIS:HB3	30:B5:5:PRO:CD	2.48	0.44
33:B8:22:VAL:HB	33:B8:53:PRO:HB3	2.00	0.44
34:B9:5:ALA:HB3	35:BA:2466:C:H5'	2.00	0.44
35:BA:493:G:O3'	55:BW:8:ARG:HG3	2.18	0.44
35:BA:1059:G:H3'	35:BA:1060:U:C6	2.52	0.44
35:BA:1120:G:H2'	35:BA:1121:C:O4'	2.17	0.44
35:BA:1684:C:C2	35:BA:1705:G:N2	2.86	0.44
35:BA:1790:C:O2'	38:BD:209:ALA:HB2	2.17	0.44
35:BA:2506:U:H4'	35:BA:2507:C:OP1	2.16	0.44
36:BB:16:G:C6	36:BB:69:G:C2	3.06	0.44
38:BD:218:ARG:O	38:BD:220:HIS:HD2	1.98	0.44
39:BE:175:VAL:O	39:BE:177:PRO:HD3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BF:95:ARG:HB2	40:BF:97:TYR:HE1	1.81	0.44
40:BF:122:LYS:NZ	40:BF:152:GLU:HG2	2.32	0.44
46:BN:47:ALA:HB2	46:BN:112:LEU:CD1	2.47	0.44
46:BN:54:VAL:HB	46:BN:122:VAL:HG22	1.98	0.44
48:BP:40:SER:N	48:BP:41:ARG:HG2	2.30	0.44
49:BQ:70:PRO:HA	49:BQ:94:VAL:O	2.18	0.44
51:BS:77:ALA:HB1	51:BS:82:ILE:HB	2.00	0.44
54:BV:38:LEU:O	54:BV:39:LEU:HD13	2.17	0.44
57:BY:75:ILE:HD11	57:BY:79:CYS:N	2.32	0.44
57:BY:96:ILE:CG1	57:BY:99:CYS:HB2	2.48	0.44
58:BZ:45:ASP:HA	58:BZ:48:PHE:HB3	1.98	0.44
1:CA:318:G:H2'	1:CA:319:G:H8	1.82	0.44
1:CA:959:A:C2	1:CA:1222:G:O4'	2.71	0.44
1:CA:1186:G:C2	1:CA:1187:G:H1'	2.52	0.44
1:CA:1366:C:O2'	1:CA:1367:C:H5'	2.17	0.44
2:CB:185:ILE:HA	2:CB:199:TYR:O	2.17	0.44
3:CC:43:LEU:HB3	3:CC:47:LEU:HD22	1.98	0.44
4:CD:142:PRO:HA	4:CD:185:PHE:HD2	1.82	0.44
7:CG:43:PHE:O	7:CG:46:ALA:HB3	2.18	0.44
10:CJ:42:THR:HG23	10:CJ:68:HIS:CD2	2.52	0.44
13:CM:3:ARG:HE	13:CM:9:ILE:HB	1.82	0.44
16:CP:49:LEU:HD21	16:CP:73:LEU:HG	1.99	0.44
18:CR:25:THR:HG21	18:CR:42:ARG:NH1	2.32	0.44
26:D1:15:ALA:O	26:D1:16:ASN:OD1	2.34	0.44
27:D2:53:LEU:CD2	35:DA:72:U:C4'	2.84	0.44
31:D6:19:ARG:NH1	31:D6:43:CYS:SG	2.91	0.44
35:DA:286:C:H2'	35:DA:287:C:C6	2.53	0.44
35:DA:288:C:HO2'	35:DA:289:A:P	2.40	0.44
35:DA:405:U:H4'	35:DA:406:G:OP2	2.18	0.44
35:DA:532:A:OP1	53:DU:45:TYR:OH	2.21	0.44
35:DA:635:C:O2'	35:DA:639:U:OP1	2.29	0.44
35:DA:807:U:H2'	35:DA:808:G:O4'	2.16	0.44
35:DA:849:A:H3'	35:DA:850:C:C6	2.50	0.44
35:DA:1493:C:H4'	35:DA:1494:A:OP1	2.18	0.44
35:DA:1629:U:H2'	35:DA:1630:G:C8	2.52	0.44
35:DA:2078:C:C4	35:DA:2079:U:C4	3.06	0.44
35:DA:2171:A:O2'	35:DA:2172:U:OP1	2.34	0.44
35:DA:2207:G:H21	35:DA:2208:A:H5'	1.81	0.44
36:DB:40:U:C2	36:DB:43:C:H5''	2.52	0.44
38:DD:35:LYS:HZ3	38:DD:64:ILE:HG22	1.82	0.44
38:DD:71:ASP:HB2	38:DD:103:ARG:NH2	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DF:153:SER:OG	40:DF:190:GLU:HB2	2.17	0.44
48:DP:60:MET:O	48:DP:61:ARG:O	2.35	0.44
48:DP:122:PRO:HB3	48:DP:141:ALA:CB	2.47	0.44
55:DW:61:ASN:HB2	55:DW:62:HIS:CE1	2.53	0.44
56:DX:21:PHE:CE1	56:DX:26:TYR:HB3	2.53	0.44
57:DY:45:VAL:CG1	57:DY:61:ILE:HB	2.48	0.44
58:DZ:19:ARG:HH12	58:DZ:82:ARG:HD2	1.81	0.44
1:AA:575:G:OP1	1:AA:575:G:H4'	2.17	0.44
1:AA:652:U:HO2'	1:AA:752:G:N2	2.16	0.44
1:AA:719:C:C5	1:AA:720:C:C4	3.05	0.44
1:AA:866:C:O5'	1:AA:866:C:H6	2.00	0.44
1:AA:1155:G:H5''	1:AA:1156:G:OP2	2.17	0.44
1:AA:1179:A:O3'	9:AI:103:THR:HG23	2.17	0.44
2:AB:19:HIS:HE1	2:AB:207:ALA:N	2.15	0.44
2:AB:41:ILE:HD12	2:AB:42:ILE:O	2.17	0.44
4:AD:31:CYS:C	4:AD:33:MET:H	2.20	0.44
6:AF:62:TRP:CG	18:AR:35:ARG:NH1	2.86	0.44
8:AH:36:LEU:HD13	8:AH:59:LEU:HD21	2.00	0.44
10:AJ:88:LEU:O	10:AJ:90:LEU:HD13	2.17	0.44
11:AK:111:ASP:OD2	18:AR:84:LYS:HE2	2.18	0.44
13:AM:83:ASP:N	13:AM:83:ASP:OD1	2.50	0.44
19:AS:39:THR:HA	19:AS:70:LYS:HA	1.99	0.44
23:AW:54:U:O2'	23:AW:55:U:OP1	2.31	0.44
27:B2:30:ARG:NH2	56:BX:28:PHE:HE1	2.15	0.44
27:B2:44:LEU:HD22	27:B2:44:LEU:O	2.17	0.44
28:B3:37:LEU:H	28:B3:37:LEU:HG	1.44	0.44
30:B5:20:ARG:HG2	30:B5:23:HIS:ND1	2.32	0.44
33:B8:41:ILE:HD11	35:BA:2419:U:P	2.58	0.44
34:B9:36:GLN:HE22	35:BA:1031:G:N2	2.13	0.44
35:BA:345:A:H1'	35:BA:346:A:N7	2.32	0.44
35:BA:832:G:H2'	35:BA:833:U:C6	2.53	0.44
35:BA:910:A:C5	49:BQ:13:GLN:HG3	2.52	0.44
35:BA:1131:G:OP2	35:BA:2515:C:H4'	2.18	0.44
35:BA:1543:C:O5'	35:BA:1543:C:H6	2.01	0.44
35:BA:1586:A:H5'	35:BA:1587:A:OP2	2.17	0.44
35:BA:1759:A:H5'	35:BA:2715:C:H1'	1.99	0.44
35:BA:2280:G:O2'	35:BA:2388:A:N1	2.31	0.44
35:BA:2336:A:H8	35:BA:2336:A:O5'	2.00	0.44
35:BA:2527:C:H42	35:BA:2536:G:H1	1.66	0.44
35:BA:2850:A:OP2	35:BA:2866:U:C5	2.70	0.44
36:BB:1:U:O2	36:BB:1:U:H2'	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BB:19:G:H2'	36:BB:20:C:H5'	1.98	0.44
38:BD:75:ILE:HG21	38:BD:99:ASP:HB2	1.99	0.44
41:BG:51:ARG:HA	41:BG:51:ARG:NE	2.32	0.44
41:BG:145:THR:HG23	41:BG:148:MET:H	1.83	0.44
43:BI:75:LEU:HD21	43:BI:105:HIS:ND1	2.33	0.44
49:BQ:20:ALA:C	49:BQ:98:LYS:HZ1	2.20	0.44
52:BT:7:ILE:H	52:BT:7:ILE:HD12	1.83	0.44
55:BW:52:GLU:C	55:BW:54:ALA:N	2.71	0.44
57:BY:61:ILE:O	57:BY:62:GLU:HB2	2.18	0.44
1:CA:201:C:H42	1:CA:216:G:H1	1.65	0.44
1:CA:266:G:H5''	1:CA:267:C:H5	1.83	0.44
1:CA:392:G:H2'	1:CA:393:A:C8	2.52	0.44
1:CA:509:A:C8	1:CA:509:A:C3'	3.01	0.44
1:CA:855:G:OP2	1:CA:871:U:N3	2.47	0.44
1:CA:933:G:C2	1:CA:935:A:O4'	2.71	0.44
1:CA:1190:G:OP1	3:CC:5:ILE:HG12	2.18	0.44
1:CA:1249:C:O2'	9:CI:69:GLY:HA2	2.17	0.44
1:CA:1269:A:H2	1:CA:1312:G:H21	1.66	0.44
3:CC:112:SER:O	3:CC:114:PRO:HD2	2.18	0.44
12:CL:47:LYS:HB3	12:CL:48:PRO:HD3	2.00	0.44
14:CN:11:LYS:N	14:CN:11:LYS:HD2	2.33	0.44
23:CW:43:C:H2'	23:CW:44:G:C8	2.53	0.44
25:D0:46:LYS:HG3	25:D0:47:PRO:N	2.33	0.44
31:D6:26:ASN:HD21	31:D6:28:ARG:NE	2.15	0.44
32:D7:3:ARG:HD3	32:D7:3:ARG:HA	1.65	0.44
35:DA:217:G:H2'	35:DA:218:A:O4'	2.17	0.44
35:DA:591:C:H42	35:DA:666:G:H1	1.66	0.44
35:DA:857:C:N4	35:DA:920:G:H1	2.07	0.44
35:DA:1081:U:O2'	35:DA:1082:U:H5'	2.17	0.44
35:DA:1191:G:OP1	48:DP:35:HIS:ND1	2.49	0.44
35:DA:1216:G:OP2	53:DU:12:ARG:NH2	2.45	0.44
35:DA:1668:A:N3	35:DA:1670:C:C4	2.85	0.44
35:DA:1818:U:H2'	38:DD:157:ARG:HG3	1.99	0.44
35:DA:2025:C:H2'	35:DA:2026:C:C6	2.52	0.44
35:DA:2185:C:N4	35:DA:2186:G:O6	2.51	0.44
35:DA:2627:G:N3	35:DA:2781:A:H2	2.16	0.44
35:DA:2684:U:OP1	52:DT:60:THR:HG21	2.17	0.44
35:DA:2865:U:C4	35:DA:2866:U:C4	3.05	0.44
38:DD:63:ARG:HD3	38:DD:92:ILE:HD11	1.99	0.44
38:DD:271:ILE:O	38:DD:272:ALA:HB3	2.18	0.44
40:DF:9:ILE:HG13	40:DF:15:SER:OG	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DF:63:LYS:NZ	40:DF:75:HIS:O	2.39	0.44
41:DG:18:GLU:OE1	41:DG:22:ARG:HB2	2.18	0.44
43:DI:68:LEU:HA	43:DI:71:ILE:HD12	1.99	0.44
46:DN:22:THR:CG2	46:DN:61:ARG:HD2	2.48	0.44
49:DQ:29:PHE:N	49:DQ:29:PHE:CD1	2.86	0.44
50:DR:78:LYS:O	50:DR:82:GLU:HB2	2.18	0.44
50:DR:103:ARG:CZ	55:DW:40:ASN:HB2	2.48	0.44
51:DS:31:SER:OG	51:DS:32:LEU:N	2.51	0.44
51:DS:101:LEU:HD13	51:DS:101:LEU:O	2.17	0.44
54:DV:22:VAL:HG12	54:DV:23:GLU:CB	2.47	0.44
57:DY:29:GLU:CD	57:DY:29:GLU:N	2.71	0.44
58:DZ:41:LEU:HD23	58:DZ:41:LEU:HA	1.66	0.44
1:AA:175:C:H2'	1:AA:176:C:H5''	1.98	0.44
1:AA:587:G:N2	1:AA:754:C:OP2	2.50	0.44
1:AA:596:C:H2'	1:AA:597:G:O4'	2.17	0.44
1:AA:1150:U:O2'	10:AJ:41:PRO:HG3	2.17	0.44
1:AA:1305:G:C2	1:AA:1331:G:N3	2.86	0.44
1:AA:1509:C:H2'	1:AA:1510:U:O4'	2.18	0.44
3:AC:70:VAL:HG12	3:AC:72:LYS:H	1.83	0.44
4:AD:205:GLU:H	4:AD:205:GLU:HG2	1.62	0.44
5:AE:28:PHE:O	5:AE:47:LYS:HA	2.17	0.44
15:AO:4:THR:N	15:AO:7:GLU:HB2	2.32	0.44
19:AS:63:THR:OG1	19:AS:64:GLU:N	2.49	0.44
19:AS:70:LYS:H	19:AS:73:GLU:HG3	1.82	0.44
27:B2:28:LYS:O	27:B2:29:LYS:C	2.56	0.44
35:BA:15:G:C6	35:BA:16:G:N7	2.86	0.44
35:BA:89:G:H21	35:BA:90:U:C5'	2.31	0.44
35:BA:139(A):G:H22	56:BX:40:LYS:NZ	2.16	0.44
35:BA:195:A:H2'	35:BA:198:C:H41	1.83	0.44
35:BA:754:C:H2'	35:BA:755:C:C6	2.53	0.44
35:BA:1000:A:N6	35:BA:1155:A:C8	2.86	0.44
35:BA:1054:A:H5'	35:BA:1055:G:N7	2.31	0.44
35:BA:1806:C:H2'	35:BA:1807:G:O4'	2.18	0.44
35:BA:1966:A:OP1	35:BA:1966:A:H8	2.01	0.44
35:BA:2406:U:H3	48:BP:73:GLY:H	1.66	0.44
35:BA:2697:G:C6	35:BA:2698:U:N3	2.85	0.44
35:BA:2805:G:H2'	35:BA:2807:G:H1'	1.99	0.44
36:BB:46:A:C5	36:BB:47:C:C4	3.05	0.44
39:BE:144:ARG:HB3	39:BE:145:LYS:H	1.57	0.44
39:BE:181:LEU:HA	39:BE:181:LEU:HD13	1.69	0.44
40:BF:126:VAL:HG22	40:BF:194:MET:O	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BF:183:VAL:O	40:BF:187:VAL:HG22	2.17	0.44
41:BG:12:TYR:HA	41:BG:16:ARG:HG2	1.98	0.44
43:BI:73:GLU:OE2	43:BI:137:PRO:O	2.35	0.44
46:BN:74:ARG:NH2	46:BN:101:HIS:HB3	2.32	0.44
48:BP:71:VAL:HG13	48:BP:72:PRO:N	2.33	0.44
49:BQ:58:PHE:O	49:BQ:59:ARG:O	2.35	0.44
51:BS:49:VAL:HG21	51:BS:77:ALA:HA	1.99	0.44
52:BT:27:THR:OG1	52:BT:28:VAL:N	2.50	0.44
54:BV:38:LEU:C	54:BV:39:LEU:HD22	2.38	0.44
54:BV:76:LYS:H	54:BV:87:HIS:CD2	2.36	0.44
1:CA:431:A:H2'	1:CA:432:A:O4'	2.17	0.44
1:CA:557:G:C6	1:CA:558:G:C6	3.06	0.44
1:CA:1003:G:H8	1:CA:1003:G:O5'	2.00	0.44
1:CA:1071:C:H2'	1:CA:1072:G:C8	2.53	0.44
1:CA:1240:U:H4'	1:CA:1241:G:OP2	2.17	0.44
1:CA:1279:A:O2'	1:CA:1281:U:OP2	2.29	0.44
1:CA:1465:C:H2'	1:CA:1466:C:O4'	2.17	0.44
2:CB:17:PHE:HB3	2:CB:44:LEU:HD11	1.99	0.44
2:CB:236:TYR:HB3	2:CB:237:ALA:H	1.59	0.44
11:CK:50:TYR:N	11:CK:50:TYR:CD1	2.84	0.44
26:D1:56:GLN:HE21	26:D1:84:GLY:HA2	1.82	0.44
27:D2:36:ARG:O	27:D2:37:PHE:HB2	2.18	0.44
33:D8:46:ARG:HH22	48:DP:65:ARG:NH1	2.15	0.44
35:DA:271(E):U:H2'	35:DA:271(F):C:H6	1.83	0.44
35:DA:271(J):C:H5'	35:DA:271(K):U:OP2	2.17	0.44
35:DA:742:G:H2'	35:DA:743:G:C8	2.52	0.44
35:DA:892:G:C8	35:DA:893:C:C5	3.05	0.44
35:DA:1084:A:C2	35:DA:1085:A:N1	2.86	0.44
35:DA:1412:A:H8	35:DA:1412:A:OP2	2.00	0.44
35:DA:2334:G:N3	51:DS:18:ILE:HD13	2.32	0.44
39:DE:201:THR:HG22	39:DE:202:LYS:N	2.25	0.44
42:DH:126:PRO:HD2	42:DH:130:ARG:O	2.18	0.44
43:DI:122:GLU:HB3	43:DI:126:TYR:OH	2.17	0.44
53:DU:33:ARG:O	53:DU:37:GLU:HG3	2.18	0.44
54:DV:56:SER:O	54:DV:57:VAL:HG23	2.18	0.44
56:DX:72:LYS:O	56:DX:74:PRO:HD3	2.18	0.44
1:AA:148:G:H22	1:AA:174:C:H5	1.65	0.44
1:AA:170:U:O3'	1:AA:171:A:H8	2.01	0.44
1:AA:170:U:O3'	1:AA:171:A:C8	2.71	0.44
1:AA:653:A:O5'	8:AH:56:LYS:NZ	2.49	0.44
1:AA:1138:G:H22	1:AA:1140:C:Cl'	2.31	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1210:C:H5'	1:AA:1214:C:N4	2.33	0.44
1:AA:1238:A:H2	1:AA:1241:G:N3	2.15	0.44
4:AD:65:ARG:NH1	4:AD:70:ILE:O	2.51	0.44
4:AD:119:GLN:HG3	4:AD:123:HIS:NE2	2.32	0.44
6:AF:52:ILE:HD12	6:AF:87:ARG:NH2	2.33	0.44
6:AF:61:LEU:HD23	6:AF:63:TYR:CE1	2.53	0.44
8:AH:36:LEU:C	8:AH:48:TYR:OH	2.56	0.44
12:AL:70:ILE:HG21	12:AL:75:HIS:CE1	2.53	0.44
16:AP:58:TYR:CZ	16:AP:62:VAL:HG11	2.52	0.44
19:AS:64:GLU:HG3	19:AS:65:ASN:N	2.33	0.44
23:AW:30:G:N2	23:AW:40:C:C2	2.82	0.44
23:AW:66:U:O2'	23:AW:67:C:OP1	2.31	0.44
28:B3:22:ALA:HB2	28:B3:49:LYS:HD3	2.00	0.44
35:BA:224:G:N7	35:BA:420:C:H4'	2.32	0.44
35:BA:572:A:H2'	35:BA:573:G:O4'	2.17	0.44
35:BA:860:U:C2'	35:BA:861:A:O5'	2.66	0.44
35:BA:1247:A:O2'	35:BA:1248:G:H5''	2.17	0.44
35:BA:1264:G:H2'	35:BA:2014:A:N6	2.33	0.44
35:BA:1450(A):C:C2'	35:BA:1451:C:H5'	2.47	0.44
35:BA:1577:C:N4	35:BA:1578:U:C4	2.86	0.44
35:BA:1786:A:C2	35:BA:2606:C:H1'	2.36	0.44
35:BA:1799:G:H8	35:BA:1799:G:H2'	1.63	0.44
35:BA:1975:G:H2'	35:BA:1976:U:O4'	2.16	0.44
35:BA:2299:G:C2	35:BA:2318:G:H8	2.35	0.44
35:BA:2305:A:C2'	35:BA:2306:C:H5''	2.46	0.44
35:BA:2526:G:C6	35:BA:2527:C:C4	3.06	0.44
35:BA:2882:A:OP1	50:BR:96:ARG:HD3	2.17	0.44
36:BB:63:G:C6	36:BB:64:C:C4	3.06	0.44
49:BQ:38:GLU:OE2	49:BQ:128:LYS:NZ	2.25	0.44
51:BS:30:ARG:CZ	51:BS:62:LYS:HE2	2.48	0.44
54:BV:5:VAL:CG2	54:BV:36:PRO:HB2	2.47	0.44
56:BX:25:LYS:HG3	56:BX:87:GLN:NE2	2.32	0.44
56:BX:83:VAL:C	56:BX:85:PRO:HD3	2.37	0.44
1:CA:32:A:H2'	1:CA:33:A:C8	2.53	0.44
1:CA:433:C:H2'	1:CA:434:U:H6	1.83	0.44
1:CA:980:C:H5'	1:CA:981:U:C5	2.53	0.44
1:CA:1265:G:N3	1:CA:1265:G:H2'	2.33	0.44
4:CD:83:SER:HA	4:CD:89:THR:CG2	2.47	0.44
5:CE:81:GLU:CB	5:CE:90:VAL:HG12	2.48	0.44
9:CI:73:GLN:O	9:CI:77:ILE:HG13	2.17	0.44
9:CI:90:PRO:HA	9:CI:93:ARG:HG2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:47:PHE:CZ	14:CN:37:PHE:HE1	2.36	0.44
22:CV:60:U:H5''	22:CV:61:C:C5	2.50	0.44
26:D1:19:GLN:NE2	26:D1:44:PRO:HG3	2.32	0.44
33:D8:4:MET:SD	33:D8:61:LEU:HD23	2.57	0.44
35:DA:34:C:O2'	35:DA:35:G:P	2.76	0.44
35:DA:335:C:H5'	57:DY:73:ARG:NH2	2.33	0.44
35:DA:471:A:N6	35:DA:472:A:C2	2.86	0.44
35:DA:1042:G:C1'	35:DA:1114:G:H22	2.26	0.44
35:DA:1232:G:C6	35:DA:1233:C:C4	3.05	0.44
35:DA:1290:C:H2'	35:DA:1291:C:C6	2.53	0.44
35:DA:1322:A:H2'	35:DA:1323:U:C6	2.52	0.44
35:DA:1344:G:H4'	35:DA:1384:A:C5	2.52	0.44
35:DA:2627:G:O2'	35:DA:2781:A:N1	2.37	0.44
37:DC:18:LYS:HD2	37:DC:22:ILE:HG13	2.00	0.44
40:DF:148:LEU:HD21	40:DF:191:ARG:NE	2.25	0.44
41:DG:123:ASN:C	41:DG:125:PHE:H	2.21	0.44
43:DI:77:LEU:HB2	43:DI:140:LEU:CD2	2.24	0.44
47:DO:22:ILE:HD12	47:DO:22:ILE:HG23	1.60	0.44
51:DS:89:ARG:HG2	51:DS:93:LYS:HZ3	1.80	0.44
53:DU:30:LYS:HD3	53:DU:30:LYS:HA	1.62	0.44
54:DV:85:LYS:O	54:DV:87:HIS:O	2.36	0.44
1:AA:29:G:H5'	1:AA:296:U:OP1	2.17	0.44
1:AA:78:G:O2'	1:AA:79:G:H5'	2.17	0.44
1:AA:500:G:N2	1:AA:546:G:H1'	2.33	0.44
1:AA:730:G:O2'	1:AA:766:A:H5'	2.18	0.44
1:AA:1048:G:O3'	1:AA:1049:U:H3'	2.18	0.44
1:AA:1151:A:C4	1:AA:1152:A:C8	3.06	0.44
1:AA:1259:C:O2'	1:AA:1284:C:O4'	2.32	0.44
1:AA:1296:C:H5'	1:AA:1297:C:OP2	2.18	0.44
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.52	0.44
7:AG:104:LEU:HD22	7:AG:134:ALA:HB1	1.99	0.44
7:AG:156:TRP:OXT	7:AG:156:TRP:CG	2.70	0.44
8:AH:104:ARG:CG	8:AH:104:ARG:HD2	2.28	0.44
9:AI:19:LEU:C	9:AI:20:ARG:HD2	2.39	0.44
9:AI:43:ALA:C	9:AI:45:ALA:N	2.71	0.44
13:AM:21:TYR:HD1	13:AM:21:TYR:HA	1.71	0.44
16:AP:38:TYR:CZ	16:AP:50:LYS:HB2	2.53	0.44
22:AV:8:U:H1'	22:AV:49:C:O2	2.18	0.44
25:B0:50:ASN:HB3	25:B0:63:VAL:HG22	1.99	0.44
26:B1:43:TYR:CE1	26:B1:45:ASN:CG	2.91	0.44
31:B6:30:THR:OG1	31:B6:31:PRO:CD	2.59	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:49:A:C4'	35:BA:50:U:H5'	2.47	0.44
35:BA:271(R):G:H2'	35:BA:271(S):G:C8	2.53	0.44
35:BA:355:G:H2'	35:BA:356:G:H8	1.83	0.44
35:BA:1018:C:H2'	35:BA:1019:U:H6	1.83	0.44
35:BA:1529:G:N3	35:BA:1530:C:C5	2.86	0.44
35:BA:1688:U:O2	35:BA:1700:A:H8	2.00	0.44
35:BA:1821:A:H2'	35:BA:1822:G:H8	1.82	0.44
35:BA:1992:G:O5'	35:BA:1992:G:C8	2.71	0.44
35:BA:2065:C:H1'	35:BA:2449:U:N3	2.30	0.44
35:BA:2736:G:H2'	35:BA:2737:G:O4'	2.18	0.44
35:BA:2787:C:H1'	39:BE:61:ARG:O	2.18	0.44
35:BA:2864:G:H2'	35:BA:2865:U:O4'	2.16	0.44
42:BH:18:GLU:O	42:BH:19:VAL:HG23	2.17	0.44
43:BI:72:LEU:HD11	43:BI:101:LEU:HD21	1.99	0.44
49:BQ:21:THR:O	49:BQ:99:PRO:O	2.36	0.44
53:BU:29:SER:O	53:BU:30:LYS:HD3	2.18	0.44
55:BW:11:ARG:HA	55:BW:11:ARG:HD2	1.91	0.44
58:BZ:76:LEU:HA	58:BZ:83:PRO:HA	1.99	0.44
1:CA:119:A:H4'	1:CA:120:A:C8	2.53	0.44
1:CA:129(A):G:N2	1:CA:189(E):U:H1'	2.33	0.44
1:CA:460:G:N2	1:CA:472:A:H62	2.15	0.44
1:CA:645:C:C4	1:CA:646:U:C4	3.06	0.44
1:CA:719:C:H1'	18:CR:49:LYS:HG2	2.00	0.44
1:CA:1037:C:H2'	1:CA:1038:C:C6	2.52	0.44
1:CA:1170:A:H2'	1:CA:1170:A:N3	2.33	0.44
1:CA:1189:C:H5''	1:CA:1190:G:OP2	2.18	0.44
1:CA:1525:G:H2'	1:CA:1526:G:O4'	2.17	0.44
2:CB:212:GLN:HG3	2:CB:235:SER:HA	1.99	0.44
4:CD:31:CYS:C	4:CD:33:MET:N	2.71	0.44
4:CD:32:ALA:HA	4:CD:35:ARG:HB2	2.00	0.44
6:CF:19:LEU:HD11	6:CF:59:TYR:CD1	2.53	0.44
8:CH:84:ARG:CZ	8:CH:84:ARG:HB3	2.48	0.44
9:CI:77:ILE:HG22	9:CI:81:ILE:HD11	2.00	0.44
10:CJ:20:ALA:O	10:CJ:22:LYS:N	2.44	0.44
11:CK:85:ARG:HD3	11:CK:111:ASP:O	2.16	0.44
16:CP:23:ASP:C	16:CP:25:ARG:N	2.70	0.44
21:CU:3:LYS:HB3	21:CU:14:TRP:CD1	2.52	0.44
23:CY:44:G:H3'	23:CY:44:G:N3	2.32	0.44
26:D1:11:ARG:HH12	26:D1:61:ARG:NH2	2.15	0.44
35:DA:42:G:H2'	35:DA:43:A:O4'	2.18	0.44
35:DA:614(A):U:H4'	35:DA:614(B):G:OP1	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1432:C:H2'	35:DA:1433:U:H5''	1.99	0.44
35:DA:2100:G:C6	35:DA:2190:G:C6	3.06	0.44
35:DA:2668:G:C2	35:DA:2669:G:C8	3.05	0.44
38:DD:71:ASP:OD2	38:DD:103:ARG:NH2	2.50	0.44
40:DF:32:LEU:HD21	40:DF:109:GLY:N	2.33	0.44
49:DQ:39:PRO:HA	49:DQ:97:VAL:O	2.18	0.44
50:DR:17:ARG:HG2	50:DR:21:TYR:CE2	2.53	0.44
51:DS:15:ARG:HG2	51:DS:16:ASN:H	1.83	0.44
1:AA:189(L):G:H2'	1:AA:190:U:H6	1.81	0.44
1:AA:242:C:C3'	1:AA:243:A:H5''	2.48	0.44
1:AA:391:G:C6	1:AA:392:G:C5	3.06	0.44
1:AA:500:G:H2'	1:AA:501:C:C6	2.53	0.44
1:AA:574:A:H5''	1:AA:575:G:OP2	2.18	0.44
1:AA:1014:A:H4'	19:AS:14:HIS:ND1	2.33	0.44
1:AA:1055:A:N7	1:AA:1206:G:N1	2.66	0.44
1:AA:1073:U:O2	2:AB:104:ASN:ND2	2.51	0.44
1:AA:1124:G:H3'	1:AA:1145:C:H5	1.83	0.44
1:AA:1460:A:H2'	1:AA:1461:G:O4'	2.17	0.44
2:AB:32:ILE:HD11	2:AB:190:THR:HG22	2.00	0.44
5:AE:104:ALA:O	5:AE:107:ARG:HB3	2.18	0.44
6:AF:100:ASN:HB2	18:AR:27:GLY:O	2.18	0.44
7:AG:59:LEU:HG	7:AG:63:LYS:NZ	2.33	0.44
7:AG:78:ARG:HD3	7:AG:78:ARG:H	1.81	0.44
8:AH:34:GLU:HA	8:AH:37:ARG:CZ	2.48	0.44
9:AI:48:GLU:H	9:AI:49:PRO:CD	2.28	0.44
11:AK:69:ALA:O	11:AK:70:LYS:C	2.55	0.44
11:AK:122:LYS:HE3	11:AK:124:LYS:H	1.83	0.44
12:AL:45:PRO:HD2	12:AL:51:ALA:H	1.83	0.44
13:AM:91:ARG:HH11	13:AM:91:ARG:HG2	1.83	0.44
23:AW:7:A:H8	23:AW:7:A:O5'	2.01	0.44
33:B8:6:THR:HG21	35:BA:243:U:OP1	2.18	0.44
33:B8:61:LEU:HA	33:B8:61:LEU:HD12	1.66	0.44
35:BA:16:G:H2'	35:BA:17:G:H8	1.83	0.44
35:BA:84:A:H5''	57:BY:4:LYS:CE	2.48	0.44
35:BA:373:U:H2'	35:BA:374:A:H8	1.83	0.44
35:BA:636:G:OP1	48:BP:132:LYS:NZ	2.46	0.44
35:BA:781:A:H2	35:BA:1776:G:N3	2.16	0.44
35:BA:804:A:H2'	35:BA:806:C:C4	2.53	0.44
35:BA:1099:G:N7	35:BA:1100:C:C4	2.86	0.44
35:BA:1367:A:H5'	35:BA:1368:G:OP2	2.18	0.44
35:BA:1755:A:N6	35:BA:2694:G:O2'	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2584:U:H5	35:BA:2585:U:C4	2.36	0.44
35:BA:2652:C:N3	35:BA:2668:G:N2	2.65	0.44
37:BC:60:GLY:O	37:BC:61:THR:OG1	2.21	0.44
38:BD:101:GLU:HG3	38:BD:102:LYS:H	1.83	0.44
39:BE:93:VAL:HG23	39:BE:182:LEU:HD22	2.00	0.44
40:BF:128:ALA:C	40:BF:142:TRP:HE1	2.21	0.44
47:BO:14:THR:HG21	47:BO:86:ILE:CG2	2.47	0.44
49:BQ:5:ARG:CZ	49:BQ:6:ARG:N	2.79	0.44
52:BT:108:ARG:O	52:BT:110:ILE:N	2.51	0.44
53:BU:66:ASN:CG	53:BU:70:ARG:HE	2.21	0.44
53:BU:80:ILE:O	53:BU:83:LEU:N	2.51	0.44
54:BV:69:LYS:HE3	54:BV:71:LEU:CD1	2.46	0.44
58:BZ:67:LEU:HD23	58:BZ:67:LEU:HA	1.84	0.44
1:CA:142:G:O2'	1:CA:195:A:N6	2.51	0.44
1:CA:458:C:H3'	1:CA:460:G:C8	2.52	0.44
1:CA:657:G:C2	1:CA:658:G:C8	3.06	0.44
1:CA:718:G:H5'	11:CK:117:ASN:HB2	2.00	0.44
1:CA:870:U:H4'	1:CA:871:U:H5''	2.00	0.44
1:CA:1145:C:O2'	1:CA:1146:A:O5'	2.35	0.44
1:CA:1245:A:H8	1:CA:1245:A:O5'	2.01	0.44
8:CH:64:LYS:HD2	8:CH:79:VAL:HG11	2.00	0.44
16:CP:31:LYS:HB2	16:CP:31:LYS:HE3	1.78	0.44
22:CV:58:A:C6	22:CV:61:C:C2	3.06	0.44
23:CW:6:G:N3	23:CW:68:C:N4	2.66	0.44
23:CW:40:C:H2'	23:CW:41:C:C5	2.52	0.44
23:CW:76:A:N6	35:DA:2422:A:O4'	2.51	0.44
26:D1:19:GLN:NE2	35:DA:379:G:H21	2.15	0.44
27:D2:13:ALA:O	27:D2:14:ARG:HG3	2.18	0.44
27:D2:26:ARG:HB3	27:D2:30:ARG:NH2	2.32	0.44
31:D6:27:LYS:CE	35:DA:2286:A:H5'	2.08	0.44
31:D6:30:THR:HG23	31:D6:31:PRO:HD2	2.00	0.44
35:DA:286:C:H2'	35:DA:287:C:H6	1.83	0.44
35:DA:530:G:N1	35:DA:2022:U:OP1	2.50	0.44
35:DA:1071:G:N3	35:DA:1089:G:N2	2.65	0.44
35:DA:1485:G:H22	35:DA:1504:C:N4	2.16	0.44
35:DA:2208:A:H1'	35:DA:2219:G:C5	2.53	0.44
35:DA:2287:A:C2	35:DA:2346:A:N1	2.83	0.44
35:DA:2463:C:O2'	35:DA:2464:C:H5'	2.18	0.44
35:DA:2631:G:C5	35:DA:2632:A:C8	3.06	0.44
35:DA:2793:G:O6	35:DA:2804:C:C2	2.71	0.44
37:DC:18:LYS:N	37:DC:221:SER:HA	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DF:74:ARG:O	40:DF:75:HIS:CG	2.71	0.44
43:DI:29:TYR:O	43:DI:33:ARG:HD2	2.18	0.44
51:DS:89:ARG:HE	51:DS:89:ARG:HB2	1.32	0.44
56:DX:36:LYS:HE2	56:DX:38:GLU:HB2	1.99	0.44
56:DX:39:ILE:O	56:DX:43:VAL:HG12	2.17	0.44
58:DZ:26:GLY:HA2	58:DZ:85:HIS:NE2	2.33	0.44
1:AA:144:G:H2'	1:AA:145:G:O4'	2.18	0.43
1:AA:429:U:O2'	4:AD:22:LYS:HE3	2.18	0.43
1:AA:493:G:H2'	1:AA:494:U:O2	2.18	0.43
1:AA:545:C:O2'	1:AA:549:C:H5''	2.18	0.43
1:AA:628:G:H2'	1:AA:629:G:C8	2.54	0.43
1:AA:804:U:H5''	1:AA:805:C:OP2	2.18	0.43
1:AA:1260:C:H3'	1:AA:1260:C:H6	1.83	0.43
1:AA:1418:A:H2	35:BA:1948:G:N3	2.15	0.43
2:AB:44:LEU:O	2:AB:48:MET:HG3	2.18	0.43
4:AD:188:LEU:O	4:AD:190:ASP:N	2.51	0.43
9:AI:86:VAL:HA	9:AI:92:TYR:CD2	2.53	0.43
20:AT:48:LYS:HB2	20:AT:52:ALA:HB2	1.99	0.43
26:B1:50:ARG:NE	26:B1:61:ARG:HD2	2.32	0.43
32:B7:13:ALA:HB1	35:BA:125:G:H1'	1.99	0.43
33:B8:59:LYS:HZ3	33:B8:59:LYS:HG2	1.43	0.43
35:BA:44:G:O3'	35:BA:45:C:H4'	2.18	0.43
35:BA:492:A:C2	35:BA:493:G:H1'	2.53	0.43
35:BA:1386:C:C2	35:BA:1387:C:C5	3.06	0.43
35:BA:2012:G:C4'	55:BW:96:ILE:HD11	2.37	0.43
35:BA:2697:G:C2	35:BA:2698:U:C2	3.06	0.43
35:BA:2708:G:H5'	50:BR:68:ARG:HB2	2.00	0.43
36:BB:40:U:H5''	36:BB:41:U:OP2	2.18	0.43
39:BE:105:THR:HG21	39:BE:164:ARG:NH2	2.33	0.43
40:BF:53:THR:O	40:BF:54:ARG:CB	2.66	0.43
40:BF:135:LYS:HB2	40:BF:138:GLU:CG	2.48	0.43
41:BG:47:LYS:HB3	41:BG:48:GLU:H	1.56	0.43
46:BN:23:LEU:HD11	46:BN:98:VAL:HG12	1.98	0.43
48:BP:45:LEU:HB3	48:BP:46:LYS:H	1.44	0.43
48:BP:87:ASP:O	48:BP:89:ALA:N	2.51	0.43
51:BS:34:HIS:CD2	51:BS:54:LEU:HB2	2.53	0.43
52:BT:13:ARG:C	52:BT:15:VAL:H	2.22	0.43
1:CA:66:G:C2	1:CA:67:C:C6	3.06	0.43
1:CA:152:A:C8	1:CA:153:C:C5	3.06	0.43
1:CA:322:C:H2'	1:CA:323:U:O4'	2.18	0.43
1:CA:499:A:C6	1:CA:547:A:C8	3.05	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:659:U:C2	1:CA:660:G:C8	3.06	0.43
1:CA:977:A:C8	1:CA:1223:C:N3	2.86	0.43
1:CA:1290:G:C4	1:CA:1291:G:C8	3.06	0.43
1:CA:1305:G:OP2	1:CA:1305:G:H8	2.01	0.43
1:CA:1373:G:H5''	7:CG:36:LYS:HD2	1.99	0.43
2:CB:68:ILE:O	2:CB:91:PRO:HD2	2.17	0.43
5:CE:15:ARG:HG3	5:CE:16:THR:N	2.33	0.43
5:CE:67:VAL:HG22	5:CE:68:GLU:O	2.18	0.43
6:CF:38:GLU:OE1	6:CF:64:GLN:HG2	2.17	0.43
12:CL:6:THR:HG23	12:CL:9:GLN:OE1	2.18	0.43
12:CL:33:ARG:O	12:CL:85:ILE:HG22	2.18	0.43
12:CL:42:THR:HG22	12:CL:54:LYS:HG3	2.00	0.43
17:CQ:81:ARG:O	17:CQ:84:LEU:N	2.50	0.43
18:CR:31:LEU:HG	18:CR:65:ILE:HD13	1.99	0.43
19:CS:8:GLY:HA3	19:CS:10:PHE:HE1	1.83	0.43
21:CU:6:ARG:HD3	21:CU:15:ARG:HE	1.81	0.43
23:CW:40:C:H3'	23:CW:40:C:C6	2.52	0.43
28:D3:5:LYS:HB3	28:D3:36:VAL:CG1	2.48	0.43
29:D4:6:HIS:CA	41:DG:67:LYS:HE3	2.48	0.43
31:D6:8:LYS:HE2	35:DA:2285:C:OP2	2.18	0.43
31:D6:25:LYS:CD	33:D8:35:GLN:HE21	2.30	0.43
35:DA:117:G:C6	35:DA:119:A:C6	3.06	0.43
35:DA:271(M):G:C4	35:DA:271(O):C:N3	2.86	0.43
35:DA:438:G:O2'	35:DA:440:G:H5'	2.17	0.43
35:DA:664:C:H4'	35:DA:941:A:OP1	2.18	0.43
35:DA:719:C:O2'	35:DA:720:C:H5'	2.18	0.43
35:DA:871:U:H6	35:DA:871:U:O5'	2.01	0.43
35:DA:879:G:C2	35:DA:880:G:H1'	2.52	0.43
35:DA:1301:A:C8	35:DA:1303:G:C8	3.06	0.43
35:DA:1445(A):C:H42	35:DA:1466:G:H1	1.66	0.43
35:DA:1688:U:O2	35:DA:1700:A:H5''	2.17	0.43
35:DA:2125:G:OP1	37:DC:70:LYS:HE2	2.17	0.43
35:DA:2443:C:O2'	35:DA:2444:G:H5'	2.17	0.43
35:DA:2524:G:H8	35:DA:2524:G:C5'	2.30	0.43
35:DA:2556:C:H2'	35:DA:2557:G:O4'	2.17	0.43
37:DC:47:LEU:HD11	37:DC:173:ALA:H	1.83	0.43
37:DC:74:VAL:O	37:DC:91:ALA:HB2	2.18	0.43
38:DD:23:GLU:C	38:DD:25:THR:H	2.22	0.43
39:DE:52:LEU:HD21	52:DT:1:MET:CG	2.44	0.43
40:DF:46:ARG:HG2	40:DF:48:THR:HG23	2.00	0.43
41:DG:114:ILE:HG12	41:DG:140:ILE:HG21	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DG:121:ASN:HA	41:DG:122:PRO:HD3	1.87	0.43
49:DQ:41:TRP:HB3	49:DQ:94:VAL:HB	2.00	0.43
52:DT:8:LYS:N	52:DT:8:LYS:CD	2.77	0.43
58:DZ:100:VAL:O	58:DZ:123:ASP:HB2	2.18	0.43
1:AA:79:G:H1'	1:AA:80:G:OP1	2.19	0.43
1:AA:113:G:H1'	1:AA:354:G:C5'	2.48	0.43
1:AA:125:U:H2'	1:AA:126:G:C8	2.53	0.43
1:AA:461:A:C2	1:AA:471:G:C2	3.06	0.43
1:AA:546:G:OP1	4:AD:73:ARG:NE	2.50	0.43
1:AA:715:A:H2'	1:AA:716:A:C8	2.53	0.43
1:AA:867:G:H2'	1:AA:868:C:C6	2.53	0.43
1:AA:936:C:O2	1:AA:1382:C:N4	2.51	0.43
1:AA:1071:C:H2'	1:AA:1072:G:H8	1.82	0.43
1:AA:1156:G:HO2'	1:AA:1180:A:N6	2.16	0.43
2:AB:54:THR:O	2:AB:58:ILE:HG12	2.18	0.43
3:AC:67:THR:HG23	3:AC:102:ASN:HB3	2.00	0.43
4:AD:13:ARG:HB3	4:AD:38:TYR:O	2.18	0.43
6:AF:72:VAL:HG13	6:AF:73:ASN:N	2.33	0.43
7:AG:15:ASP:HB2	7:AG:20:ASP:O	2.18	0.43
13:AM:91:ARG:HG2	13:AM:91:ARG:NH1	2.33	0.43
15:AO:17:ARG:HD3	15:AO:26:GLU:HG3	2.00	0.43
27:B2:36:ARG:HA	27:B2:36:ARG:HD2	1.85	0.43
33:B8:49:VAL:HB	33:B8:53:PRO:HD3	2.00	0.43
35:BA:225:A:C2'	35:BA:226:G:H5'	2.48	0.43
35:BA:685:A:OP1	35:BA:788:A:N6	2.51	0.43
35:BA:707:G:H1	35:BA:724:U:H3	1.66	0.43
35:BA:1009:A:OP2	46:BN:37:LYS:NZ	2.50	0.43
35:BA:1269:A:H2'	35:BA:1270:C:C6	2.53	0.43
35:BA:1389:G:H2'	35:BA:1390:U:C6	2.53	0.43
35:BA:1409:C:H2'	35:BA:1410:G:C8	2.53	0.43
35:BA:1678:G:H22	35:BA:1989:G:H22	1.65	0.43
35:BA:1794:U:H1'	35:BA:1900:A:N3	2.32	0.43
35:BA:2011:U:H2'	35:BA:2012:G:H5'	1.99	0.43
35:BA:2485:G:H2'	35:BA:2485:G:N3	2.32	0.43
35:BA:2661:G:H2'	35:BA:2662:A:C4	2.53	0.43
35:BA:2680:C:O2'	39:BE:187:ALA:HB1	2.19	0.43
35:BA:2783:G:H2'	35:BA:2784:C:C6	2.52	0.43
35:BA:2840:C:H2'	35:BA:2841:C:C6	2.53	0.43
35:BA:2854:G:H2'	35:BA:2855:C:C6	2.53	0.43
38:BD:123:ALA:HB3	38:BD:131:LEU:HD11	2.00	0.43
38:BD:233:HIS:CD2	38:BD:233:HIS:O	2.72	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BF:196:LEU:HD13	40:BF:196:LEU:O	2.19	0.43
42:BH:29:PRO:HB2	42:BH:30:LYS:NZ	2.34	0.43
48:BP:30:THR:O	48:BP:31:ALA:HB3	2.17	0.43
49:BQ:23:GLY:HA2	49:BQ:101:ARG:HH11	1.83	0.43
50:BR:79:LEU:HD12	50:BR:83:ILE:HG21	1.99	0.43
50:BR:98:LEU:HD12	50:BR:113:LEU:HD23	2.00	0.43
58:BZ:29:TYR:CE1	58:BZ:87:ASP:HB2	2.51	0.43
1:CA:64:G:N2	1:CA:67:C:N4	2.66	0.43
1:CA:115:G:H1'	1:CA:116:A:N7	2.33	0.43
1:CA:141:A:H2'	1:CA:142:G:O4'	2.19	0.43
1:CA:377:G:OP1	16:CP:3:LYS:HD2	2.19	0.43
1:CA:1075:C:OP1	2:CB:103:THR:HG21	2.18	0.43
1:CA:1085:U:C2	1:CA:1094:G:O6	2.71	0.43
1:CA:1145:C:O2'	1:CA:1146:A:P	2.75	0.43
1:CA:1253:G:C2'	1:CA:1254:C:H5'	2.48	0.43
2:CB:142:LEU:HD21	2:CB:146:GLN:OE1	2.17	0.43
3:CC:29:TYR:O	3:CC:33:LEU:HB3	2.18	0.43
3:CC:154:SER:OG	3:CC:155:GLY:N	2.52	0.43
5:CE:42:GLY:HA3	5:CE:66:MET:HG2	2.01	0.43
9:CI:76:ALA:O	9:CI:79:LEU:HB3	2.18	0.43
19:CS:11:VAL:HG11	19:CS:39:THR:OG1	2.19	0.43
19:CS:32:LYS:HB2	19:CS:32:LYS:HE3	1.83	0.43
22:CV:2:G:H2'	22:CV:2:G:N3	2.33	0.43
22:CV:4:G:O6	22:CV:70:G:C6	2.70	0.43
26:D1:41:ARG:HH21	35:DA:190:A:P	2.40	0.43
26:D1:56:GLN:O	26:D1:57:GLU:HB2	2.18	0.43
26:D1:75:GLU:O	26:D1:75:GLU:HG3	2.18	0.43
26:D1:94:LEU:HD23	26:D1:95:LEU:N	2.27	0.43
30:D5:56:LYS:HD2	30:D5:56:LYS:HA	1.77	0.43
31:D6:24:GLU:OE1	33:D8:36:LYS:HG2	2.18	0.43
35:DA:11:G:H8	35:DA:11:G:O5'	2.01	0.43
35:DA:80:G:H2'	35:DA:81:G:H5'	2.00	0.43
35:DA:90:U:O2'	35:DA:92:A:P	2.76	0.43
35:DA:193:U:C5'	35:DA:193:U:C6	3.00	0.43
35:DA:720:C:H2'	35:DA:721:C:H6	1.83	0.43
35:DA:814:C:C5'	54:DV:86:GLY:HA3	2.48	0.43
35:DA:827:U:H2'	35:DA:2068:U:C2	2.54	0.43
35:DA:1089:G:O2'	35:DA:1090:U:OP2	2.31	0.43
35:DA:1368:G:O2'	35:DA:1369:G:H5'	2.18	0.43
35:DA:2114:A:H62	35:DA:2117:A:N6	2.16	0.43
35:DA:2126:A:H1'	35:DA:2127:G:OP2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2787:C:O4'	39:DE:61:ARG:HB2	2.18	0.43
39:DE:144:ARG:HB3	39:DE:145:LYS:H	1.37	0.43
41:DG:147:ASP:CG	41:DG:148:MET:N	2.72	0.43
41:DG:167:GLU:HA	41:DG:170:ARG:HB3	2.01	0.43
42:DH:121:ILE:HD11	42:DH:141:VAL:HA	2.00	0.43
42:DH:145:ALA:HB1	42:DH:164:TYR:CE1	2.51	0.43
43:DI:123:LEU:HA	43:DI:142:VAL:HG21	1.99	0.43
46:DN:24:GLY:O	46:DN:28:THR:HG22	2.17	0.43
48:DP:83:VAL:CG1	48:DP:112:LEU:HD21	2.48	0.43
52:DT:88:ILE:HG22	52:DT:89:VAL:H	1.83	0.43
1:AA:185:A:C5	1:AA:186:C:H5	2.37	0.43
1:AA:189(B):C:C2	1:AA:189(I):G:N2	2.85	0.43
1:AA:278:G:O4'	1:AA:282:A:H1'	2.18	0.43
1:AA:598:U:O2'	1:AA:599:C:H5'	2.17	0.43
1:AA:678:U:H3	1:AA:713:G:N2	2.16	0.43
1:AA:767:A:H2'	1:AA:768:A:O4'	2.17	0.43
1:AA:980:C:H3'	1:AA:981:U:C6	2.53	0.43
1:AA:1065:U:C5	1:AA:1190:G:H1'	2.53	0.43
1:AA:1142:G:H2'	1:AA:1143:G:C8	2.53	0.43
1:AA:1149:C:H5'	9:AI:14:VAL:HG21	2.00	0.43
1:AA:1250:A:H4'	9:AI:68:GLY:O	2.18	0.43
2:AB:31:TYR:CE2	2:AB:194:PRO:HB3	2.53	0.43
3:AC:94:LEU:HD12	3:AC:95:THR:H	1.82	0.43
7:AG:152:ALA:HB1	7:AG:155:ARG:NH2	2.34	0.43
7:AG:152:ALA:O	7:AG:155:ARG:N	2.51	0.43
8:AH:91:ARG:NH1	17:AQ:33:GLY:HA3	2.33	0.43
8:AH:108:GLY:O	8:AH:122:ARG:NH2	2.52	0.43
12:AL:41:ARG:HG2	12:AL:42:THR:N	2.32	0.43
15:AO:24:SER:OG	15:AO:27:VAL:HG23	2.19	0.43
19:AS:14:HIS:HE2	19:AS:35:SER:HG	1.62	0.43
20:AT:20:LEU:HA	20:AT:20:LEU:HD23	1.74	0.43
23:AW:17:C:N4	35:BA:2180:U:O3'	2.38	0.43
26:B1:46:LEU:O	26:B1:47:GLN:HB3	2.18	0.43
31:B6:9:LEU:HD23	31:B6:28:ARG:HG3	2.00	0.43
35:BA:195:A:H5''	35:BA:196:A:OP2	2.17	0.43
35:BA:323:G:C6	35:BA:333:G:C4	3.06	0.43
35:BA:712:G:H2'	35:BA:713:G:O4'	2.18	0.43
35:BA:844:C:H3'	35:BA:845:G:C8	2.53	0.43
35:BA:848:G:C4	35:BA:933:A:H8	2.36	0.43
35:BA:1301:A:N1	35:BA:1626:G:O2'	2.41	0.43
35:BA:1339:G:N2	35:BA:1603:A:N3	2.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1450:G:OP2	35:BA:1450:G:C8	2.71	0.43
35:BA:2377:A:H2'	35:BA:2378:A:C8	2.53	0.43
35:BA:2504:U:H5''	35:BA:2505:G:OP2	2.18	0.43
35:BA:2719:G:H2'	35:BA:2720:U:OP2	2.18	0.43
38:BD:12:SER:OG	38:BD:208:LYS:HB3	2.17	0.43
39:BE:2:LYS:HD2	39:BE:95:ILE:HG23	2.00	0.43
39:BE:111:ARG:CA	50:BR:3:HIS:HE1	2.30	0.43
40:BF:84:VAL:HG12	40:BF:86:GLY:H	1.82	0.43
47:BO:78:ARG:O	52:BT:72:VAL:HA	2.18	0.43
50:BR:26:LYS:HD3	50:BR:26:LYS:N	2.33	0.43
52:BT:28:VAL:CG1	52:BT:44:ASP:OD1	2.65	0.43
53:BU:91:ASP:O	53:BU:95:LEU:HB2	2.18	0.43
55:BW:110:LYS:HD2	55:BW:110:LYS:HA	1.68	0.43
1:CA:582:U:H2'	1:CA:583:A:O4'	2.18	0.43
1:CA:635:G:C5	1:CA:636:U:C5	3.06	0.43
1:CA:914:A:H2'	1:CA:915:A:O4'	2.18	0.43
1:CA:1079:G:C6	1:CA:1080:A:N6	2.86	0.43
1:CA:1431:C:H2'	1:CA:1432:G:O4'	2.18	0.43
4:CD:28:SER:HB3	4:CD:30:LYS:HG2	1.99	0.43
4:CD:165:MET:C	4:CD:167:GLY:H	2.22	0.43
8:CH:63:LEU:O	8:CH:64:LYS:HB3	2.17	0.43
8:CH:91:ARG:HG3	17:CQ:33:GLY:HA3	1.99	0.43
9:CI:8:GLY:HA2	9:CI:79:LEU:HD12	2.00	0.43
9:CI:45:ALA:O	9:CI:48:GLU:HB2	2.17	0.43
13:CM:9:ILE:O	13:CM:9:ILE:HG13	2.19	0.43
18:CR:58:LEU:HD13	18:CR:58:LEU:HA	1.81	0.43
18:CR:61:LYS:O	18:CR:65:ILE:HG13	2.18	0.43
21:CU:7:ARG:O	21:CU:21:TYR:CE2	2.71	0.43
23:CW:76:A:H3'	23:CW:76:A:OP2	2.18	0.43
26:D1:15:ALA:HA	26:D1:46:LEU:CD2	2.49	0.43
26:D1:83:GLU:CG	26:D1:85:LEU:HB2	2.47	0.43
33:D8:60:LEU:HD12	33:D8:60:LEU:H	1.83	0.43
35:DA:90:U:H1'	35:DA:92:A:H5''	2.01	0.43
35:DA:90:U:O2	35:DA:92:A:H5''	2.18	0.43
35:DA:271(I):G:H1	35:DA:271(M):G:H22	1.66	0.43
35:DA:1087:G:H2'	35:DA:1088:A:C5'	2.48	0.43
35:DA:1188:U:C2'	35:DA:1189:A:H5'	2.48	0.43
35:DA:1653:G:H8	35:DA:1653:G:O5'	2.02	0.43
35:DA:2019:A:O4'	53:DU:34:LYS:HE3	2.19	0.43
35:DA:2408:U:O5'	35:DA:2408:U:H6	2.01	0.43
35:DA:2751:G:N3	35:DA:2751:G:H2'	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2871:C:H5''	35:DA:2872:G:OP1	2.18	0.43
37:DC:18:LYS:HB2	37:DC:220:PRO:C	2.39	0.43
40:DF:6:VAL:HG22	40:DF:17:ARG:NH2	2.33	0.43
43:DI:62:LYS:HE2	43:DI:62:LYS:HB3	1.90	0.43
48:DP:57:THR:C	48:DP:59:LEU:H	2.21	0.43
48:DP:65:ARG:HD2	48:DP:65:ARG:HA	1.51	0.43
49:DQ:82:ARG:O	49:DQ:82:ARG:HG3	2.19	0.43
51:DS:74:ALA:O	51:DS:75:GLU:C	2.56	0.43
52:DT:118:ARG:HA	52:DT:118:ARG:HD3	1.71	0.43
54:DV:43:GLU:HA	54:DV:43:GLU:OE2	2.18	0.43
1:AA:105:G:C5	1:AA:106:C:C5	3.07	0.43
1:AA:898:G:O2'	1:AA:900:A:N7	2.43	0.43
2:AB:76:GLN:NE2	2:AB:206:ASP:O	2.51	0.43
4:AD:173:TRP:CE3	4:AD:193:ASP:HB3	2.53	0.43
7:AG:59:LEU:O	7:AG:63:LYS:HD3	2.18	0.43
7:AG:62:PHE:HA	7:AG:124:LEU:HD21	1.99	0.43
9:AI:20:ARG:O	9:AI:60:ASP:N	2.50	0.43
13:AM:22:ILE:CG2	13:AM:67:GLU:HG3	2.47	0.43
18:AR:74:ARG:HG3	18:AR:79:LEU:HB2	1.99	0.43
20:AT:44:ALA:O	20:AT:91:LEU:HD22	2.18	0.43
25:B0:74:ARG:O	25:B0:75:LEU:HD23	2.18	0.43
26:B1:21:ARG:HA	26:B1:21:ARG:HD2	1.69	0.43
31:B6:23:THR:O	33:B8:36:LYS:N	2.51	0.43
35:BA:121:G:H5''	35:BA:149:A:O4'	2.19	0.43
35:BA:196:A:N3	35:BA:196:A:H2'	2.34	0.43
35:BA:571:A:C8	35:BA:2030:A:N6	2.86	0.43
35:BA:812:C:H2'	35:BA:813:U:H6	1.83	0.43
35:BA:1771:C:H1'	35:BA:1786:A:C8	2.53	0.43
35:BA:1865:G:C2	35:BA:1878:G:C5	3.06	0.43
35:BA:1963:U:H2'	35:BA:1963:U:O2	2.17	0.43
35:BA:2100:G:C2	35:BA:2101:G:C4	3.06	0.43
35:BA:2180:U:H2'	35:BA:2181:G:H8	1.84	0.43
35:BA:2601:C:H2'	35:BA:2603:G:C8	2.52	0.43
35:BA:2726:U:O2'	35:BA:2727:G:H8	2.02	0.43
39:BE:199:ARG:HG3	39:BE:200:GLU:HG3	2.00	0.43
42:BH:18:GLU:OE2	42:BH:25:LYS:HD2	2.19	0.43
42:BH:65:HIS:HE1	42:BH:69:ARG:NH1	2.17	0.43
42:BH:126:PRO:HD2	42:BH:130:ARG:O	2.18	0.43
43:BI:6:LEU:O	43:BI:15:VAL:CG2	2.66	0.43
43:BI:60:GLU:C	43:BI:62:LYS:H	2.22	0.43
50:BR:27:SER:HA	50:BR:29:LEU:CG	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:BS:41:ASP:OD1	51:BS:42:ASP:N	2.51	0.43
52:BT:27:THR:HG21	52:BT:49:VAL:HG22	2.00	0.43
52:BT:57:PHE:CG	52:BT:58:ASN:N	2.86	0.43
56:BX:81:VAL:HG12	56:BX:85:PRO:HD2	1.99	0.43
57:BY:53:PRO:HB2	57:BY:54:LYS:H	1.65	0.43
58:BZ:99:TYR:HA	58:BZ:124:ILE:O	2.18	0.43
1:CA:713:G:H2'	1:CA:714:G:C8	2.53	0.43
1:CA:1125:U:OP2	1:CA:1145:C:N4	2.47	0.43
1:CA:1370:G:H5'	9:CI:12:GLU:HG3	2.01	0.43
1:CA:1522:U:H2'	1:CA:1523:G:H8	1.82	0.43
9:CI:111:ARG:HG3	14:CN:61:TRP:CD1	2.53	0.43
10:CJ:54:PHE:CD1	10:CJ:55:LYS:HB3	2.51	0.43
17:CQ:81:ARG:NH2	17:CQ:83:ASP:OD2	2.51	0.43
17:CQ:100:LYS:HE3	17:CQ:100:LYS:HB2	1.65	0.43
19:CS:15:LEU:O	19:CS:19:VAL:HG23	2.19	0.43
19:CS:30:LEU:HD23	19:CS:30:LEU:HA	1.83	0.43
19:CS:72:GLY:C	19:CS:74:PHE:N	2.72	0.43
22:CV:36:U:H2'	22:CV:37:A:O4'	2.19	0.43
32:D7:29:LYS:O	32:D7:32:LYS:HB3	2.17	0.43
33:D8:59:LYS:HE3	33:D8:59:LYS:HB3	1.83	0.43
35:DA:100:G:H5''	35:DA:100:G:N3	2.34	0.43
35:DA:1006:C:C2	35:DA:1138:G:N2	2.86	0.43
35:DA:1051:G:H3'	35:DA:1051:G:H8	1.83	0.43
35:DA:1168:G:H2'	35:DA:1169:G:O4'	2.18	0.43
35:DA:1578:U:O2	35:DA:1578:U:H2'	2.17	0.43
35:DA:1857:G:H8	35:DA:1857:G:O5'	2.00	0.43
35:DA:2159:G:O2'	35:DA:2160:G:OP2	2.27	0.43
35:DA:2303:G:O4'	41:DG:126:ASP:HB3	2.19	0.43
35:DA:2689:U:H5''	35:DA:2713:A:C2	2.54	0.43
35:DA:2720:U:H2'	35:DA:2721:A:C8	2.54	0.43
39:DE:101:ARG:O	39:DE:201:THR:OG1	2.36	0.43
40:DF:120:GLU:OE2	48:DP:5:ASP:OD2	2.35	0.43
43:DI:91:SER:OG	43:DI:121:LYS:N	2.51	0.43
46:DN:133:GLN:O	46:DN:134:ARG:HB3	2.19	0.43
48:DP:105:LEU:O	48:DP:106:LEU:CB	2.62	0.43
51:DS:27:SER:OG	51:DS:88:ASP:OD2	2.31	0.43
1:AA:389:A:H2'	1:AA:390:C:H5'	1.99	0.43
1:AA:980:C:H2'	14:AN:21:TYR:HE2	1.84	0.43
1:AA:1192:C:C5	1:AA:1193:G:C8	3.06	0.43
1:AA:1243:C:H6	1:AA:1243:C:OP2	2.01	0.43
1:AA:1313:U:H5'	19:AS:6:LYS:HG3	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1392:G:O2'	1:AA:1502:A:H4'	2.18	0.43
2:AB:102:LEU:HA	2:AB:158:LEU:HD23	1.99	0.43
2:AB:119:GLU:H	2:AB:119:GLU:HG3	1.59	0.43
2:AB:137:ARG:HA	2:AB:137:ARG:HD2	1.81	0.43
5:AE:118:ILE:HA	5:AE:118:ILE:HD12	1.71	0.43
6:AF:68:PRO:HG2	6:AF:71:ARG:HG3	1.99	0.43
8:AH:2:LEU:HD21	8:AH:27:PRO:HG2	2.00	0.43
9:AI:9:ARG:HA	9:AI:13:ALA:O	2.19	0.43
23:AW:1:G:N3	23:AW:1:G:O2'	2.46	0.43
23:AW:37:A:H2'	23:AW:38:A:O4'	2.19	0.43
24:AX:21:C:N4	24:AX:22:U:C4	2.86	0.43
25:B0:27:GLU:HB3	35:BA:856:C:C1'	2.47	0.43
31:B6:25:LYS:O	31:B6:26:ASN:HB2	2.17	0.43
33:B8:33:ASN:HB3	33:B8:34:TRP:H	1.27	0.43
35:BA:531:C:C5	35:BA:2035:G:C2	3.06	0.43
35:BA:581:C:P	53:BU:33:ARG:HH21	2.41	0.43
35:BA:642:G:H21	35:BA:646:A:H2	1.65	0.43
35:BA:747:U:O2	35:BA:2014:A:H1'	2.18	0.43
35:BA:773:U:H4'	38:BD:47:GLY:HA3	1.99	0.43
35:BA:993:G:C1'	54:BV:89:GLN:HE21	2.31	0.43
35:BA:1022:G:N2	35:BA:1142(A):A:C2	2.82	0.43
35:BA:1052:C:H2'	35:BA:1052:C:O2	2.18	0.43
35:BA:1079:C:H2'	35:BA:1080:C:C6	2.54	0.43
35:BA:1084:A:H8	44:BJ:57:UNK:HA	1.84	0.43
35:BA:1166:C:O2	35:BA:1183:G:N2	2.39	0.43
35:BA:2001:A:H2'	35:BA:2002:G:C8	2.53	0.43
35:BA:2179:C:H1'	37:BC:171:ILE:CB	2.49	0.43
36:BB:4:C:C4	36:BB:118:G:N2	2.86	0.43
36:BB:49:C:H2'	36:BB:50:G:C8	2.54	0.43
38:BD:112:GLN:HB2	38:BD:115:GLN:HE22	1.82	0.43
40:BF:7:TYR:HA	40:BF:125:LEU:HB2	1.99	0.43
41:BG:129:GLY:HA2	41:BG:163:ALA:HB3	2.00	0.43
43:BI:3:VAL:HA	43:BI:39:ALA:HB2	2.00	0.43
43:BI:105:HIS:C	43:BI:107:VAL:H	2.22	0.43
48:BP:130:PHE:CB	48:BP:135:LEU:HD11	2.48	0.43
49:BQ:32:TYR:CZ	49:BQ:111:GLU:HA	2.53	0.43
51:BS:69:VAL:O	51:BS:73:LEU:HB2	2.19	0.43
52:BT:51:ARG:CB	52:BT:62:THR:HG22	2.49	0.43
54:BV:64:HIS:CD2	54:BV:66:ARG:HB2	2.54	0.43
54:BV:79:VAL:HG23	54:BV:80:GLN:H	1.83	0.43
56:BX:13:LEU:HD23	56:BX:18:TYR:OH	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BY:26:LYS:O	57:BY:39:VAL:HA	2.18	0.43
1:CA:91:C:OP2	1:CA:91:C:C6	2.68	0.43
1:CA:191:G:H1'	20:CT:105:SER:HA	1.99	0.43
1:CA:316:G:C2	1:CA:317:G:C8	3.07	0.43
1:CA:406:G:H2'	1:CA:407:G:C8	2.51	0.43
1:CA:617:G:C2	1:CA:624:C:O2	2.72	0.43
1:CA:1071:C:H2'	1:CA:1072:G:H8	1.83	0.43
1:CA:1303:C:H2'	1:CA:1304:G:H5'	2.00	0.43
1:CA:1394:A:C6	1:CA:1501:C:H4'	2.53	0.43
1:CA:1399:C:C2	1:CA:1401:G:C5	3.07	0.43
1:CA:1438:G:H2'	1:CA:1439:C:C6	2.54	0.43
5:CE:43:LEU:HD12	5:CE:43:LEU:HA	1.63	0.43
5:CE:100:VAL:HG13	5:CE:118:ILE:HG21	1.98	0.43
7:CG:16:LEU:HD13	9:CI:45:ALA:HB2	2.00	0.43
7:CG:94:ARG:H	7:CG:94:ARG:HG2	1.57	0.43
10:CJ:9:ARG:CB	10:CJ:95:GLU:HB3	2.48	0.43
11:CK:17:GLY:C	11:CK:80:VAL:HG12	2.38	0.43
13:CM:3:ARG:NE	13:CM:9:ILE:HD13	2.33	0.43
17:CQ:53:LEU:C	17:CQ:55:ASP:H	2.22	0.43
18:CR:40:LEU:C	18:CR:42:ARG:N	2.72	0.43
19:CS:7:LYS:HB2	19:CS:7:LYS:HE2	1.56	0.43
25:D0:27:GLU:HB2	35:DA:856:C:H1'	2.01	0.43
26:D1:37:ILE:HD13	35:DA:2432:A:N1	2.33	0.43
26:D1:87:PRO:O	26:D1:90:ILE:N	2.51	0.43
35:DA:64:A:H2'	35:DA:65:C:O4'	2.19	0.43
35:DA:112:U:C5	35:DA:113:G:C5	3.06	0.43
35:DA:310:A:OP1	57:DY:17:SER:O	2.37	0.43
35:DA:375:C:H2'	35:DA:376:C:C6	2.53	0.43
35:DA:470:A:H2'	35:DA:470:A:N3	2.33	0.43
35:DA:613:G:C6	35:DA:614:U:C4	3.07	0.43
35:DA:616:G:H2'	35:DA:618:C:H6	1.83	0.43
35:DA:1519:G:H5'	35:DA:1520:G:P	2.57	0.43
35:DA:1641:A:N6	35:DA:1642:G:C2	2.87	0.43
35:DA:1865:G:H8	35:DA:1865:G:H5'	1.83	0.43
35:DA:2660:A:H5'	35:DA:2661:G:C2	2.54	0.43
38:DD:72:LYS:NZ	38:DD:101:GLU:OE2	2.45	0.43
38:DD:119:ALA:HA	38:DD:130:ALA:O	2.18	0.43
39:DE:116:VAL:HG21	39:DE:122:PHE:CD2	2.53	0.43
40:DF:53:THR:HG23	40:DF:55:GLY:N	2.28	0.43
41:DG:5:VAL:HG12	41:DG:8:LYS:H	1.83	0.43
48:DP:23:PRO:HD2	48:DP:33:ARG:CZ	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DP:130:PHE:N	48:DP:130:PHE:CD1	2.87	0.43
52:DT:22:PHE:CE1	52:DT:85:LYS:HE2	2.53	0.43
56:DX:24:GLY:HA3	56:DX:80:ILE:HD12	2.01	0.43
56:DX:41:ASN:O	56:DX:45:THR:HG23	2.18	0.43
57:DY:40:GLU:OE2	57:DY:40:GLU:HA	2.14	0.43
1:AA:60:A:H4'	1:AA:61:G:O5'	2.18	0.43
1:AA:168:G:N2	1:AA:169:C:C2	2.86	0.43
1:AA:528:C:C5'	1:AA:529:G:OP2	2.67	0.43
1:AA:948:C:H2'	1:AA:949:A:C8	2.54	0.43
1:AA:1462:G:H2'	1:AA:1463:C:C6	2.54	0.43
15:AO:17:ARG:HB2	15:AO:18:PHE:CD2	2.53	0.43
15:AO:80:ALA:HA	15:AO:83:GLU:HB2	1.99	0.43
20:AT:30:LYS:HZ3	20:AT:72:LEU:HD21	1.83	0.43
23:AY:40:C:O5'	23:AY:40:C:C6	2.62	0.43
26:B1:35:THR:HG21	35:BA:2432:A:C4	2.53	0.43
33:B8:33:ASN:CB	35:BA:2420:C:OP2	2.67	0.43
35:BA:272:G:H1	35:BA:404:C:H42	1.67	0.43
35:BA:413:C:H2'	35:BA:414:C:C6	2.53	0.43
35:BA:658:C:N4	35:BA:659:C:N4	2.67	0.43
35:BA:764:A:P	38:BD:214:TRP:CH2	3.11	0.43
35:BA:860:U:C6	35:BA:861:A:C8	3.07	0.43
35:BA:993:G:H2'	35:BA:994:C:H6	1.83	0.43
35:BA:1223:G:O6	54:BV:88:ARG:NH2	2.51	0.43
35:BA:1239:G:H2'	35:BA:1240:U:O4'	2.19	0.43
35:BA:1299:G:H3'	35:BA:1639:U:O4	2.18	0.43
35:BA:1360:A:C8	35:BA:1361:G:C8	3.06	0.43
35:BA:1386:C:H2'	35:BA:1387:C:C6	2.52	0.43
35:BA:1452:A:O2'	35:BA:1453:U:C6	2.71	0.43
35:BA:1847:A:H1'	35:BA:1848:A:H8	1.83	0.43
35:BA:2298:A:C2	35:BA:2299:G:H1'	2.54	0.43
41:BG:113:ARG:NH1	41:BG:139:LEU:O	2.51	0.43
43:BI:29:TYR:O	43:BI:32:PRO:HD2	2.18	0.43
43:BI:46:ALA:HA	43:BI:49:ALA:HB3	1.99	0.43
43:BI:111:PRO:C	43:BI:113:ARG:H	2.21	0.43
48:BP:33:ARG:CD	48:BP:36:LYS:HE3	2.45	0.43
49:BQ:98:LYS:HB2	49:BQ:99:PRO:HD3	2.00	0.43
50:BR:88:ARG:HG3	50:BR:89:ASP:HB2	2.01	0.43
52:BT:64:ARG:HD2	52:BT:73:GLU:OE1	2.19	0.43
53:BU:90:VAL:HG12	53:BU:91:ASP:N	2.33	0.43
54:BV:36:PRO:HG3	54:BV:62:LEU:HG	1.99	0.43
58:BZ:9:TYR:HD2	58:BZ:35:ARG:HD2	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:BZ:28:MET:CE	58:BZ:59:LEU:HD12	2.49	0.43
58:BZ:107:THR:HA	58:BZ:108:PRO:HD3	1.88	0.43
58:BZ:140:ASP:CG	58:BZ:155:LEU:HD21	2.39	0.43
1:CA:31:G:OP1	1:CA:31:G:H8	2.00	0.43
1:CA:97:G:O2'	1:CA:98:G:H5''	2.18	0.43
1:CA:109:A:C6	1:CA:326:G:C6	3.06	0.43
1:CA:736:C:H5''	18:CR:72:ARG:NH2	2.32	0.43
1:CA:1185:G:C6	1:CA:1186:G:C5	3.07	0.43
1:CA:1202:G:O3'	14:CN:2:ALA:HB3	2.18	0.43
1:CA:1363(A):A:C4	1:CA:1365:G:C6	3.07	0.43
1:CA:1417:G:H8	1:CA:1417:G:OP2	2.01	0.43
6:CF:18:GLN:O	6:CF:21:LEU:N	2.51	0.43
8:CH:83:ILE:HB	8:CH:137:VAL:HG13	2.00	0.43
8:CH:124:ALA:O	8:CH:128:GLY:N	2.51	0.43
15:CO:23:GLY:O	15:CO:24:SER:OG	2.33	0.43
17:CQ:22:LEU:HD12	17:CQ:40:LYS:O	2.19	0.43
17:CQ:51:TYR:HE2	17:CQ:76:LEU:HB2	1.84	0.43
17:CQ:66:SER:H	17:CQ:69:LYS:NZ	2.16	0.43
26:D1:85:LEU:O	26:D1:86:SER:HB2	2.18	0.43
28:D3:48:GLU:O	28:D3:51:ALA:HB2	2.17	0.43
35:DA:41:C:H42	35:DA:437:G:H1	1.66	0.43
35:DA:71:A:H5''	35:DA:73:A:N7	2.34	0.43
35:DA:363(E):U:H5	35:DA:363(F):A:C4	2.36	0.43
35:DA:518:G:H2'	35:DA:519:U:C6	2.53	0.43
35:DA:817:C:H4'	35:DA:932:G:C5	2.53	0.43
35:DA:822:U:O2'	35:DA:823:G:H5'	2.18	0.43
35:DA:859:G:H5'	35:DA:2268:A:O2'	2.19	0.43
35:DA:910:A:C5	49:DQ:13:GLN:HG2	2.54	0.43
35:DA:1441:G:O2'	35:DA:1442:G:H5'	2.18	0.43
35:DA:1510:G:H2'	35:DA:1511:C:O4'	2.18	0.43
35:DA:1632:A:C5	35:DA:1633:G:C6	3.06	0.43
35:DA:1794:U:H1'	35:DA:1900:A:N3	2.34	0.43
35:DA:2040:C:OP1	46:DN:74:ARG:NE	2.49	0.43
35:DA:2233:U:H2'	35:DA:2234:G:C8	2.53	0.43
35:DA:2690:C:H5''	35:DA:2872:G:H21	1.82	0.43
35:DA:2850:A:H2'	35:DA:2851:A:O4'	2.19	0.43
38:DD:228:PRO:HD3	38:DD:235:GLY:HA3	2.00	0.43
40:DF:123:LEU:HD13	40:DF:192:LEU:HD13	1.99	0.43
42:DH:25:LYS:HB3	42:DH:25:LYS:HE2	1.82	0.43
46:DN:134:ARG:HG2	46:DN:134:ARG:O	2.18	0.43
50:DR:84:ALA:HB3	50:DR:85:PRO:HD3	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DT:11:GLU:C	52:DT:11:GLU:CD	2.77	0.43
53:DU:52:ARG:O	53:DU:55:ARG:HG2	2.18	0.43
53:DU:95:LEU:HD21	54:DV:13:ARG:N	2.34	0.43
54:DV:2:PHE:HD2	54:DV:42:GLY:HA3	1.84	0.43
54:DV:66:ARG:CD	54:DV:68:LYS:H	2.19	0.43
56:DX:3:THR:CG2	56:DX:5:TYR:HD2	2.32	0.43
56:DX:60:ARG:HD3	56:DX:73:ARG:HH11	1.84	0.43
58:DZ:135:GLU:O	58:DZ:136:PHE:HB3	2.19	0.43
1:AA:79:G:N1	1:AA:90:U:C2	2.87	0.43
1:AA:189(I):G:H2'	1:AA:189(J):G:O4'	2.19	0.43
1:AA:359:U:H2'	1:AA:360:A:H8	1.83	0.43
1:AA:419:C:H3'	1:AA:419:C:C6	2.54	0.43
1:AA:1115:C:H41	1:AA:1186:G:N2	2.14	0.43
2:AB:63:MET:O	2:AB:64:ARG:HG2	2.19	0.43
2:AB:135:GLN:HG2	2:AB:136:VAL:HG23	1.99	0.43
7:AG:77:SER:HA	7:AG:86:GLN:HA	2.00	0.43
8:AH:104:ARG:CG	8:AH:104:ARG:HD3	2.28	0.43
10:AJ:49:VAL:HG21	14:AN:41:ARG:HA	2.00	0.43
10:AJ:57:LYS:HD3	10:AJ:60:ARG:NH1	2.27	0.43
13:AM:24:GLY:C	13:AM:25:ILE:HD12	2.39	0.43
20:AT:74:LYS:HB2	20:AT:76:ALA:H	1.84	0.43
23:AY:29:G:H2'	23:AY:30:G:C8	2.47	0.43
26:B1:32:LYS:HZ2	26:B1:33:LYS:N	2.15	0.43
27:B2:53:LEU:HB2	27:B2:54:LYS:HZ3	1.84	0.43
31:B6:10:LEU:CB	33:B8:35:GLN:HG2	2.48	0.43
32:B7:4:THR:OG1	32:B7:5:TRP:CD1	2.71	0.43
32:B7:39:ARG:C	32:B7:41:ARG:N	2.72	0.43
35:BA:22:C:H2'	35:BA:23:G:O4'	2.19	0.43
35:BA:675:A:C6	35:BA:676:A:C6	3.06	0.43
35:BA:910:A:C6	35:BA:911:A:C6	3.06	0.43
35:BA:977:G:C6	35:BA:987:G:C5	3.07	0.43
35:BA:1027:A:C6	35:BA:1126:A:C4	3.07	0.43
35:BA:1092:C:N4	35:BA:1100:C:C4	2.87	0.43
35:BA:1155:A:O2'	35:BA:1156:A:H2'	2.19	0.43
35:BA:1587:A:H2'	35:BA:1588:C:H6	1.82	0.43
35:BA:1668:A:C8	35:BA:1674:G:C6	3.06	0.43
35:BA:1717:G:C2	35:BA:1745(A):C:O2	2.72	0.43
35:BA:1817:G:C5'	38:BD:88:ARG:HH21	2.32	0.43
35:BA:2095:C:H2'	35:BA:2096:U:O4'	2.19	0.43
35:BA:2312:U:H5'	41:BG:72:ARG:O	2.18	0.43
35:BA:2539:C:N3	35:BA:2540:C:C5	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BB:81:G:C6	36:BB:82:G:C5	3.07	0.43
36:BB:91:C:OP2	49:BQ:16:ARG:CG	2.66	0.43
39:BE:9:VAL:HG22	39:BE:25:VAL:HB	2.00	0.43
42:BH:96:ALA:O	42:BH:125:VAL:HG11	2.18	0.43
46:BN:28:THR:HG22	46:BN:29:LYS:N	2.34	0.43
46:BN:128:HIS:O	46:BN:130:HIS:N	2.52	0.43
47:BO:102:VAL:HB	47:BO:106:LEU:HD22	2.00	0.43
48:BP:36:LYS:HG2	48:BP:37:GLY:N	2.33	0.43
48:BP:121:LYS:HE2	48:BP:123:LEU:HD21	1.99	0.43
51:BS:18:ILE:O	51:BS:18:ILE:HG13	2.19	0.43
51:BS:78:LEU:C	51:BS:81:GLY:H	2.21	0.43
54:BV:1:MET:HG3	54:BV:42:GLY:HA2	2.00	0.43
58:BZ:155:LEU:HA	58:BZ:155:LEU:HD23	1.67	0.43
1:CA:337:C:H2'	1:CA:338:A:H8	1.81	0.43
1:CA:840:C:C5'	1:CA:848:C:H41	2.31	0.43
1:CA:1258:G:H2'	1:CA:1259:C:C5	2.54	0.43
4:CD:150:GLU:CD	4:CD:151:LYS:H	2.22	0.43
5:CE:36:ASP:OD2	5:CE:40:ARG:HG3	2.19	0.43
8:CH:20:TYR:HA	8:CH:65:TYR:CZ	2.53	0.43
9:CI:111:ARG:NH2	10:CJ:62:HIS:HE2	2.17	0.43
12:CL:56:ALA:HB2	12:CL:70:ILE:HD11	2.01	0.43
15:CO:39:LEU:HD13	15:CO:56:LEU:HB2	2.00	0.43
17:CQ:66:SER:N	17:CQ:69:LYS:NZ	2.67	0.43
18:CR:23:LYS:HG3	18:CR:24:ALA:N	2.33	0.43
32:D7:39:ARG:NH1	35:DA:469:G:O6	2.52	0.43
33:D8:52:LYS:HE3	48:DP:57:THR:HG21	2.00	0.43
35:DA:269:U:N3	35:DA:424:G:C6	2.87	0.43
35:DA:818:G:H4'	35:DA:838:C:O3'	2.19	0.43
35:DA:871:U:P	49:DQ:6:ARG:HB2	2.58	0.43
35:DA:935:C:H2'	35:DA:936:C:C6	2.54	0.43
35:DA:968:G:C6	35:DA:969:U:C4	3.06	0.43
35:DA:1394:U:C5	35:DA:1395:A:C5	3.07	0.43
35:DA:1862:G:O2'	35:DA:1863:G:H5'	2.18	0.43
35:DA:2287:A:C2	35:DA:2346:A:C2	3.07	0.43
35:DA:2586:C:C5	35:DA:2608:G:N2	2.87	0.43
39:DE:67:PHE:O	39:DE:69:LYS:N	2.51	0.43
43:DI:7:GLU:HG2	43:DI:8:PRO:HD2	2.00	0.43
46:DN:87:LEU:O	46:DN:88:GLU:C	2.57	0.43
47:DO:22:ILE:HA	47:DO:22:ILE:HD13	1.59	0.43
49:DQ:5:ARG:HG3	49:DQ:5:ARG:NH2	2.23	0.43
49:DQ:65:PHE:O	49:DQ:104:PHE:HB2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DT:8:LYS:O	52:DT:9:LEU:C	2.57	0.43
57:DY:41:GLY:O	57:DY:64:GLU:OE1	2.36	0.43
58:DZ:45:ASP:O	58:DZ:49:ARG:HB2	2.19	0.43
1:AA:232:G:H2'	1:AA:233:C:O4'	2.19	0.43
1:AA:1088:G:H2'	1:AA:1089:G:O4'	2.19	0.43
1:AA:1138:G:N2	1:AA:1140:C:O4'	2.52	0.43
1:AA:1311:G:C6	1:AA:1312:G:C5	3.07	0.43
2:AB:69:LEU:HD12	2:AB:91:PRO:O	2.18	0.43
4:AD:13:ARG:O	4:AD:15:GLU:N	2.47	0.43
4:AD:61:LYS:NZ	4:AD:72:GLU:OE1	2.46	0.43
5:AE:71:LEU:HD12	5:AE:71:LEU:H	1.84	0.43
8:AH:44:PHE:HA	8:AH:79:VAL:HG11	2.01	0.43
8:AH:97:VAL:HA	8:AH:100:ILE:HD12	2.00	0.43
10:AJ:8:LEU:HD21	10:AJ:19:SER:O	2.19	0.43
13:AM:81:LEU:O	13:AM:89:GLY:HA3	2.19	0.43
14:AN:43:CYS:O	14:AN:47:LEU:HD12	2.18	0.43
18:AR:43:PHE:HA	18:AR:51:LEU:HD12	2.01	0.43
22:AV:60:A:H5''	22:AV:60:A:H8	1.83	0.43
33:B8:30:ARG:HD2	33:B8:31:HIS:CD2	2.53	0.43
35:BA:227:A:C2	35:BA:2407:G:H1'	2.54	0.43
35:BA:251:A:C5	35:BA:252:G:H1'	2.54	0.43
35:BA:272(G):C:H3'	35:BA:272(G):C:H6	1.83	0.43
35:BA:398:G:H2'	35:BA:399:G:O4'	2.18	0.43
35:BA:454:A:H3'	35:BA:455:C:H5'	2.00	0.43
35:BA:614(B):G:C1'	40:BF:44:ARG:NH2	2.82	0.43
35:BA:799:G:H3'	35:BA:800:A:H2'	2.00	0.43
35:BA:1210:A:H5'	35:BA:1210:A:C8	2.39	0.43
35:BA:1889:A:H2'	35:BA:2086:U:O2'	2.19	0.43
35:BA:1936:A:C8	35:BA:1940:U:O2	2.72	0.43
35:BA:2127:G:O2'	35:BA:2172:U:O2	2.37	0.43
35:BA:2199:A:H3'	35:BA:2200:C:C6	2.54	0.43
35:BA:2394:C:H5''	48:BP:61:ARG:HH12	1.84	0.43
35:BA:2579:C:C2'	35:BA:2580:U:H5'	2.49	0.43
35:BA:2699:C:O2	35:BA:2699:C:C5'	2.67	0.43
36:BB:11:C:H2'	36:BB:12:C:H5'	2.01	0.43
38:BD:182:LEU:H	38:BD:272:ALA:HB3	1.84	0.43
39:BE:1:MET:HB3	39:BE:200:GLU:OE1	2.19	0.43
41:BG:129:GLY:HA3	41:BG:161:THR:O	2.18	0.43
47:BO:115:VAL:HG23	47:BO:117:LEU:N	2.24	0.43
48:BP:36:LYS:CG	48:BP:37:GLY:H	2.32	0.43
48:BP:41:ARG:HD3	48:BP:41:ARG:HA	1.36	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:BX:26:TYR:OH	56:BX:89:ILE:O	2.13	0.43
57:BY:51:VAL:HG12	57:BY:52:SER:H	1.84	0.43
1:CA:382:A:H2'	1:CA:383:A:H8	1.84	0.43
1:CA:460:G:O6	1:CA:470:C:H3'	2.18	0.43
1:CA:499:A:N6	1:CA:547:A:C8	2.86	0.43
1:CA:679:C:H6	1:CA:679:C:O5'	2.02	0.43
1:CA:784:C:H2'	1:CA:785:G:C8	2.53	0.43
1:CA:1063:C:H3'	1:CA:1064:G:H2'	2.00	0.43
1:CA:1161:C:N3	1:CA:1175:G:N1	2.58	0.43
1:CA:1253:G:OP2	10:CJ:44:VAL:HG21	2.18	0.43
1:CA:1321:C:C5	1:CA:1322:C:C4	3.06	0.43
1:CA:1502:A:H5''	1:CA:1504:G:C8	2.53	0.43
3:CC:113:ALA:O	3:CC:116:VAL:N	2.52	0.43
4:CD:14:ARG:C	4:CD:16:GLY:H	2.22	0.43
8:CH:127:LEU:HD13	8:CH:127:LEU:HA	1.69	0.43
10:CJ:19:SER:O	10:CJ:22:LYS:HB3	2.18	0.43
11:CK:16:SER:OG	11:CK:35:PRO:HG3	2.18	0.43
12:CL:24:VAL:HG13	12:CL:98:TYR:CE2	2.54	0.43
12:CL:30:ALA:HB3	12:CL:31:PRO:HD3	2.00	0.43
23:CW:14:A:C5	23:CW:15:G:N7	2.86	0.43
26:D1:83:GLU:O	26:D1:85:LEU:N	2.49	0.43
27:D2:11:GLU:HA	27:D2:14:ARG:HH22	1.84	0.43
27:D2:21:LEU:HD21	27:D2:51:ARG:HH11	1.84	0.43
30:D5:59:GLU:O	30:D5:60:VAL:HG12	2.19	0.43
35:DA:302:C:H2'	35:DA:303:U:H6	1.84	0.43
35:DA:534:U:H5'	53:DU:42:ALA:CB	2.46	0.43
35:DA:1353:A:H62	35:DA:1377:G:H2'	1.84	0.43
35:DA:1658:C:OP1	39:DE:135:HIS:NE2	2.51	0.43
35:DA:1905:C:O2'	35:DA:1929:G:H1'	2.19	0.43
35:DA:2093:G:N7	35:DA:2225:A:H2'	2.34	0.43
35:DA:2127:G:OP2	35:DA:2127:G:H8	2.01	0.43
35:DA:2179:C:O2	35:DA:2179:C:H2'	2.18	0.43
35:DA:2803:C:C4	35:DA:2804:C:C5	3.07	0.43
35:DA:2881:C:C2	35:DA:2882:A:C8	3.06	0.43
36:DB:78:A:H2'	36:DB:79:C:O4'	2.18	0.43
38:DD:10:THR:HG23	38:DD:11:PRO:O	2.18	0.43
39:DE:51:PHE:CD2	39:DE:52:LEU:N	2.87	0.43
41:DG:71:THR:HG22	41:DG:89:GLY:C	2.38	0.43
43:DI:97:ILE:HD13	43:DI:140:LEU:HD12	2.00	0.43
50:DR:54:LEU:O	50:DR:62:ALA:HB1	2.19	0.43
52:DT:78:LEU:C	52:DT:79:HIS:CD2	2.93	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:DU:38:THR:O	53:DU:41:ALA:HB3	2.19	0.43
57:DY:76:CYS:SG	57:DY:96:ILE:HD13	2.59	0.43
58:DZ:134:PRO:HG3	58:DZ:161:VAL:HG21	2.00	0.43
1:AA:42:G:H2'	1:AA:43:C:O4'	2.19	0.43
1:AA:162:A:N6	1:AA:334:C:P	2.67	0.43
1:AA:702:A:O2'	1:AA:703:G:O5'	2.32	0.43
1:AA:920:U:C2	1:AA:921:U:C5	3.07	0.43
1:AA:1005:A:OP2	1:AA:1025:U:C4	2.71	0.43
1:AA:1202:G:O5'	1:AA:1202:G:H8	2.02	0.43
1:AA:1205:U:H4'	3:AC:195:VAL:HG13	2.01	0.43
2:AB:47:THR:HA	2:AB:202:PRO:HD2	2.01	0.43
4:AD:18:LYS:HG2	4:AD:20:TYR:CZ	2.54	0.43
5:AE:9:LYS:HE3	5:AE:111:GLU:CD	2.39	0.43
14:AN:27:CYS:SG	14:AN:28:GLY:N	2.92	0.43
15:AO:32:LEU:HD11	15:AO:62:GLN:HB3	2.00	0.43
16:AP:75:ARG:HG3	16:AP:80:PHE:CD2	2.54	0.43
19:AS:63:THR:O	19:AS:66:MET:HB3	2.18	0.43
24:AX:21:C:C4	24:AX:22:U:C4	3.07	0.43
28:B3:5:LYS:HA	28:B3:36:VAL:HG12	2.01	0.43
32:B7:47:ARG:NH1	35:BA:1311:G:OP2	2.51	0.43
33:B8:29:LYS:HE2	33:B8:44:LYS:NZ	2.34	0.43
35:BA:57:C:H6	35:BA:57:C:O5'	2.01	0.43
35:BA:609:A:H2'	35:BA:610:G:O4'	2.19	0.43
35:BA:614(B):G:C2'	40:BF:44:ARG:CZ	2.97	0.43
35:BA:778:G:H5''	38:BD:48:ARG:HD3	1.99	0.43
35:BA:1423:G:H2'	35:BA:1424:G:H8	1.83	0.43
35:BA:1447:G:H2'	35:BA:1447:G:N3	2.34	0.43
35:BA:2445:G:H2'	35:BA:2446:G:H5'	2.00	0.43
35:BA:2719:G:O2'	35:BA:2720:U:H5'	2.19	0.43
35:BA:2880:C:O2	50:BR:93:GLY:N	2.41	0.43
36:BB:72:G:O2'	36:BB:105:A:N6	2.50	0.43
38:BD:43:ARG:CB	38:BD:54:ARG:HB2	2.48	0.43
41:BG:117:PHE:HE1	41:BG:119:GLY:C	2.22	0.43
42:BH:19:VAL:CG2	42:BH:44:VAL:HG13	2.49	0.43
43:BI:56:LYS:C	43:BI:58:LEU:N	2.72	0.43
43:BI:112:LYS:H	43:BI:112:LYS:HG3	1.61	0.43
50:BR:50:HIS:ND1	50:BR:50:HIS:O	2.52	0.43
52:BT:24:PRO:HA	52:BT:49:VAL:HB	2.00	0.43
53:BU:33:ARG:O	53:BU:37:GLU:HG3	2.18	0.43
56:BX:57:LEU:HD12	56:BX:57:LEU:C	2.39	0.43
57:BY:33:LYS:HA	57:BY:33:LYS:HE3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:BZ:58:VAL:O	58:BZ:59:LEU:HD23	2.19	0.43
58:BZ:117:LEU:HD23	58:BZ:117:LEU:H	1.84	0.43
1:CA:138:G:H2'	1:CA:139:G:O4'	2.19	0.43
1:CA:186:C:H5'	20:CT:78:ALA:HB1	2.01	0.43
1:CA:394:G:H2'	1:CA:395:C:C6	2.52	0.43
1:CA:472:A:H4'	16:CP:80:PHE:O	2.18	0.43
1:CA:872:A:C4	1:CA:874:G:N7	2.87	0.43
1:CA:1057:G:H2'	1:CA:1058:G:O4'	2.19	0.43
1:CA:1084:G:C8	1:CA:1085:U:C5	3.07	0.43
1:CA:1413:A:H2	1:CA:1487:G:H22	1.66	0.43
4:CD:8:VAL:HG23	4:CD:9:CYS:N	2.27	0.43
4:CD:36:ARG:HB3	4:CD:38:TYR:CZ	2.54	0.43
4:CD:134:ASP:O	4:CD:136:PRO:HD3	2.19	0.43
5:CE:11:ILE:HA	5:CE:11:ILE:HD13	1.63	0.43
5:CE:118:ILE:O	5:CE:119:LEU:HD23	2.18	0.43
10:CJ:27:ALA:O	10:CJ:30:SER:N	2.51	0.43
27:D2:53:LEU:HD21	35:DA:72:U:H4'	2.01	0.43
31:D6:8:LYS:O	31:D6:9:LEU:O	2.37	0.43
31:D6:15:GLU:CD	31:D6:44:ARG:HG2	2.38	0.43
35:DA:64:A:H1'	56:DX:65:ARG:H	1.83	0.43
35:DA:154(A):C:N4	35:DA:171:G:H1	2.17	0.43
35:DA:614(C):A:C4	40:DF:180:GLY:HA2	2.54	0.43
35:DA:729:G:H2'	35:DA:1775:U:H1'	2.00	0.43
35:DA:1332:G:N2	35:DA:1610:A:C8	2.87	0.43
35:DA:1511:C:H2'	35:DA:1512:U:O4'	2.19	0.43
35:DA:1786:A:H1'	35:DA:1938:A:N6	2.33	0.43
35:DA:2206:G:H3'	35:DA:2206:G:N3	2.34	0.43
35:DA:2302:G:C4	35:DA:2303:G:C8	3.07	0.43
35:DA:2592:G:C5	35:DA:2593:U:C5	3.07	0.43
36:DB:106:G:C2	36:DB:107:G:C8	3.07	0.43
38:DD:242:ARG:N	38:DD:242:ARG:HD3	2.34	0.43
39:DE:188:VAL:HG23	39:DE:189:PRO:HD2	1.99	0.43
41:DG:71:THR:HG22	41:DG:89:GLY:O	2.19	0.43
41:DG:121:ASN:HB2	41:DG:181:ARG:NH2	2.34	0.43
42:DH:89:ILE:HG12	42:DH:129:THR:HA	2.01	0.43
51:DS:87:PHE:HB2	51:DS:106:ARG:HD2	2.01	0.43
57:DY:76:CYS:O	57:DY:78:ALA:N	2.37	0.43
1:AA:159:G:H2'	1:AA:344:A:C4	2.54	0.43
1:AA:189:G:C2	1:AA:189(L):G:N1	2.86	0.43
1:AA:489:C:H2'	1:AA:490:G:H5'	2.01	0.43
1:AA:1134:G:H22	1:AA:1141:C:H1'	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1282:C:O5'	1:AA:1282:C:H6	2.02	0.43
1:AA:1347:G:H5''	9:AI:107:ARG:HA	2.00	0.43
1:AA:1418:A:H1'	35:BA:1959:G:O4'	2.18	0.43
1:AA:1512:U:H2'	1:AA:1513:A:H8	1.83	0.43
2:AB:97:TRP:CZ3	2:AB:101:MET:CG	3.02	0.43
6:AF:10:LEU:H	6:AF:10:LEU:HD12	1.84	0.43
6:AF:42:GLU:C	6:AF:44:GLY:H	2.23	0.43
8:AH:30:ARG:O	8:AH:34:GLU:HG3	2.19	0.43
13:AM:19:LEU:O	13:AM:22:ILE:HG13	2.19	0.43
19:AS:9:VAL:O	19:AS:11:VAL:N	2.52	0.43
25:B0:70:GLN:HB3	25:B0:80:HIS:HE2	1.84	0.43
30:B5:3:LYS:HE2	35:BA:2612:C:H5'	2.00	0.43
31:B6:51:GLU:HG2	31:B6:52:VAL:N	2.33	0.43
34:B9:2:LYS:O	34:B9:34:GLN:HA	2.19	0.43
34:B9:29:ASN:HD22	42:BH:170:ARG:HH21	1.67	0.43
35:BA:142(A):C:H2'	35:BA:143:G:O4'	2.19	0.43
35:BA:171:G:O2'	35:BA:172:C:OP1	2.33	0.43
35:BA:299:A:OP2	35:BA:299:A:C8	2.70	0.43
35:BA:864:G:O2'	35:BA:865:C:H5'	2.19	0.43
35:BA:996:A:H4'	53:BU:92:ARG:NE	2.34	0.43
35:BA:1006:C:H1'	46:BN:106:MET:HB3	2.01	0.43
35:BA:1275:A:H4'	35:BA:1276:A:O5'	2.19	0.43
35:BA:1403:C:H2'	35:BA:1404:C:O4'	2.19	0.43
35:BA:1452:A:N6	35:BA:2702:U:O2'	2.52	0.43
35:BA:1857:G:C6	35:BA:1858:G:N1	2.87	0.43
35:BA:2252:G:H2'	35:BA:2253:G:O4'	2.19	0.43
35:BA:2322:A:H2'	35:BA:2323:G:O4'	2.19	0.43
35:BA:2469:A:H2	35:BA:2481:G:H21	1.66	0.43
35:BA:2611:U:H5'	35:BA:2611:U:H6	1.84	0.43
35:BA:2805:G:H2'	35:BA:2807:G:C1'	2.49	0.43
35:BA:2889:C:H2'	35:BA:2889:C:O2	2.18	0.43
36:BB:41:U:N3	41:BG:70:VAL:O	2.51	0.43
39:BE:112:GLY:O	39:BE:159:HIS:HA	2.19	0.43
40:BF:9:ILE:HG13	40:BF:11:VAL:O	2.18	0.43
40:BF:52:LYS:O	40:BF:88:VAL:HG12	2.19	0.43
40:BF:82:ILE:C	40:BF:84:VAL:H	2.22	0.43
41:BG:98:ARG:O	41:BG:101:ILE:HG12	2.18	0.43
42:BH:146:ALA:C	42:BH:148:ILE:H	2.23	0.43
49:BQ:66:ILE:HG22	49:BQ:104:PHE:CD2	2.54	0.43
50:BR:111:LEU:HA	50:BR:111:LEU:HD13	1.65	0.43
52:BT:7:ILE:C	52:BT:9:LEU:N	2.72	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BT:56:GLY:C	52:BT:57:PHE:O	2.58	0.43
57:BY:39:VAL:HG12	57:BY:40:GLU:N	2.32	0.43
1:CA:26:A:H1'	4:CD:209:ARG:NH2	2.31	0.43
1:CA:204:U:H4'	1:CA:216:G:OP1	2.19	0.43
1:CA:311:C:OP1	16:CP:26:ARG:NH2	2.41	0.43
1:CA:516:U:C4	1:CA:517:G:C6	3.06	0.43
1:CA:755:G:N2	8:CH:1:MET:HB3	2.34	0.43
1:CA:1315:U:C5	1:CA:1316:G:C5	3.07	0.43
1:CA:1384:C:C2	1:CA:1385:G:C8	3.07	0.43
2:CB:55:PHE:O	2:CB:59:GLU:N	2.50	0.43
3:CC:188:LEU:HD12	3:CC:195:VAL:HG13	2.01	0.43
7:CG:50:ILE:HB	7:CG:58:PRO:HB3	2.01	0.43
13:CM:19:LEU:HB3	13:CM:25:ILE:HG21	1.99	0.43
17:CQ:88:TYR:OH	17:CQ:92:ARG:NH1	2.52	0.43
22:CV:51:C:C4	22:CV:52:G:N7	2.87	0.43
22:CV:51:C:N3	22:CV:52:G:N7	2.67	0.43
25:D0:42:GLY:HA2	25:D0:57:PHE:CD2	2.54	0.43
35:DA:9:U:O4	35:DA:2629:A:N7	2.52	0.43
35:DA:59:U:O2'	35:DA:74:A:OP2	2.25	0.43
35:DA:140:G:N3	35:DA:142:A:N1	2.66	0.43
35:DA:719:C:H2'	35:DA:720:C:H6	1.82	0.43
35:DA:1142(A):A:C4	35:DA:1144:G:C8	3.06	0.43
35:DA:1484:G:H22	35:DA:1505:C:N4	2.17	0.43
35:DA:1816:G:H8	38:DD:62:TYR:CZ	2.37	0.43
35:DA:1945:G:H1	35:DA:1961:C:H42	1.66	0.43
35:DA:2050:C:H1'	39:DE:156:MET:HE2	2.01	0.43
35:DA:2124:G:N3	37:DC:40:THR:OG1	2.40	0.43
35:DA:2308:G:O2'	35:DA:2309:A:P	2.77	0.43
36:DB:61:G:C6	36:DB:62:C:C4	3.07	0.43
40:DF:3:GLU:CD	40:DF:19:GLU:HB2	2.39	0.43
41:DG:43:LEU:HD11	41:DG:153:ARG:HB3	2.00	0.43
41:DG:101:ILE:O	41:DG:105:LYS:HE2	2.17	0.43
43:DI:14:ASP:HB3	43:DI:15:VAL:H	1.54	0.43
46:DN:21:LYS:NZ	46:DN:139:GLU:HG3	2.34	0.43
48:DP:96:THR:O	48:DP:98:GLU:N	2.52	0.43
51:DS:59:LYS:O	51:DS:59:LYS:HD2	2.19	0.43
57:DY:84:ARG:HH12	57:DY:97:ARG:HH11	1.67	0.43
1:AA:32:A:H2'	1:AA:32:A:N3	2.34	0.42
1:AA:189(I):G:C2'	1:AA:189(J):G:H4'	2.47	0.42
1:AA:889:A:H4'	1:AA:890:G:OP1	2.19	0.42
1:AA:1115:C:C2	14:AN:61:TRP:HA	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1321:C:C4	1:AA:1322:C:C4	3.07	0.42
5:AE:63:ARG:HG2	5:AE:63:ARG:H	1.56	0.42
7:AG:113:GLU:HB2	7:AG:119:ARG:HG2	2.00	0.42
8:AH:100:ILE:HG23	8:AH:101:PRO:HD2	2.00	0.42
15:AO:81:LEU:O	15:AO:85:LEU:HD12	2.19	0.42
17:AQ:90:ILE:O	17:AQ:92:ARG:N	2.52	0.42
27:B2:30:ARG:HD2	56:BX:11:PRO:HB3	2.01	0.42
35:BA:11:G:O2'	35:BA:12:U:H5'	2.19	0.42
35:BA:85:G:C4	35:BA:103:A:H2	2.37	0.42
35:BA:142:A:N6	35:BA:1596:A:H5'	2.33	0.42
35:BA:672:C:H2'	35:BA:673:C:C6	2.54	0.42
35:BA:1073:A:H8	35:BA:1074:G:C8	2.36	0.42
35:BA:1546:C:O2	35:BA:1546:C:O4'	2.37	0.42
35:BA:1713:U:O2'	35:BA:1714:G:H5'	2.19	0.42
35:BA:2271:G:C6	35:BA:2272:U:C4	3.07	0.42
35:BA:2540:C:H5''	35:BA:2541:A:OP2	2.19	0.42
35:BA:2646:C:H2'	35:BA:2647:U:O4'	2.19	0.42
35:BA:2679:A:H2'	35:BA:2680:C:H6	1.84	0.42
35:BA:2689:U:P	35:BA:2719:G:H22	2.41	0.42
36:BB:14:U:O3'	36:BB:108:U:O2'	2.36	0.42
36:BB:33:G:O2'	36:BB:34:U:H5'	2.18	0.42
38:BD:97:TYR:C	38:BD:99:ASP:N	2.72	0.42
38:BD:210:GLY:O	38:BD:213:ARG:HB2	2.19	0.42
42:BH:77:LYS:O	42:BH:80:SER:N	2.51	0.42
48:BP:77:ARG:HB3	48:BP:80:TYR:CE1	2.55	0.42
57:BY:46:LYS:HB3	57:BY:62:GLU:HG2	2.01	0.42
58:BZ:80:ARG:O	58:BZ:82:ARG:N	2.52	0.42
58:BZ:94:GLU:C	58:BZ:130:PRO:HD3	2.39	0.42
1:CA:52:G:H2'	1:CA:53:A:C8	2.54	0.42
1:CA:472:A:H5''	16:CP:80:PHE:HB3	1.99	0.42
1:CA:518:C:H2'	1:CA:530:G:C4	2.53	0.42
1:CA:684:A:N6	1:CA:685:G:C6	2.87	0.42
1:CA:778:G:H1'	11:CK:119:CYS:HB3	2.01	0.42
1:CA:1313:U:OP2	19:CS:6:LYS:HB3	2.19	0.42
1:CA:1458:G:H5'	20:CT:32:ALA:HB2	1.99	0.42
2:CB:19:HIS:ND1	2:CB:206:ASP:HB2	2.33	0.42
2:CB:30:ARG:HG3	2:CB:31:TYR:CE2	2.54	0.42
4:CD:59:ARG:HE	4:CD:59:ARG:HB3	1.29	0.42
13:CM:40:ASN:HB3	13:CM:43:THR:HG23	2.01	0.42
15:CO:48:LYS:HD3	15:CO:48:LYS:HA	1.68	0.42
17:CQ:9:VAL:O	17:CQ:21:VAL:HA	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CQ:37:LYS:HE2	17:CQ:37:LYS:HB3	1.76	0.42
22:CV:50:U:H2'	22:CV:51:C:C6	2.53	0.42
26:D1:21:ARG:NH2	35:DA:2233:U:OP2	2.50	0.42
35:DA:401:A:H2'	35:DA:402:A:O4'	2.19	0.42
35:DA:779:U:OP1	38:DD:48:ARG:HB2	2.19	0.42
35:DA:995:C:C5	53:DU:57:PHE:CZ	3.07	0.42
35:DA:1022:G:C5	35:DA:1140:C:C4	3.07	0.42
35:DA:1480:G:C2	35:DA:1512:U:O2	2.72	0.42
35:DA:1509:C:OP1	35:DA:1509:C:H4'	2.19	0.42
35:DA:2250:G:C6	49:DQ:82:ARG:CD	2.96	0.42
35:DA:2250:G:C2	49:DQ:82:ARG:HG3	2.54	0.42
35:DA:2854:G:H1	35:DA:2863:C:H42	1.67	0.42
35:DA:2870:C:H2'	35:DA:2871:C:O4'	2.19	0.42
38:DD:5:LYS:HG3	38:DD:6:PHE:N	2.33	0.42
38:DD:131:LEU:HD22	38:DD:136:ILE:HG12	2.01	0.42
38:DD:165:ILE:H	38:DD:165:ILE:HG12	1.66	0.42
39:DE:175:VAL:O	39:DE:177:PRO:HD3	2.19	0.42
41:DG:126:ASP:O	41:DG:127:GLY:C	2.57	0.42
42:DH:24:VAL:HG13	42:DH:35:VAL:HB	2.00	0.42
42:DH:125:VAL:HG13	42:DH:127:GLU:O	2.18	0.42
48:DP:124:LYS:HE3	48:DP:124:LYS:HB3	1.92	0.42
49:DQ:118:LEU:HD23	49:DQ:118:LEU:HA	1.56	0.42
52:DT:33:LYS:HE2	52:DT:74:ARG:HH22	1.84	0.42
57:DY:38:ILE:HG23	57:DY:64:GLU:CG	2.48	0.42
1:AA:451:A:OP1	1:AA:481:G:N2	2.30	0.42
1:AA:949:A:C2	1:AA:1233:G:N3	2.87	0.42
1:AA:1054:C:OP2	1:AA:1197:G:OP2	2.36	0.42
1:AA:1143:G:C8	1:AA:1143:G:OP2	2.72	0.42
1:AA:1260:C:H3'	1:AA:1260:C:C6	2.54	0.42
1:AA:1313:U:OP1	19:AS:6:LYS:HB2	2.20	0.42
1:AA:1486:G:H2'	1:AA:1487:G:O4'	2.18	0.42
3:AC:9:GLY:CA	14:AN:49:HIS:HA	2.49	0.42
3:AC:42:LEU:HA	3:AC:45:LYS:HD2	2.01	0.42
12:AL:21:LYS:N	12:AL:21:LYS:HD2	2.34	0.42
12:AL:126:LYS:N	12:AL:126:LYS:HD2	2.34	0.42
13:AM:90:LEU:HD23	13:AM:90:LEU:HA	1.74	0.42
20:AT:87:LYS:O	20:AT:91:LEU:HB2	2.19	0.42
25:B0:42:GLY:HA2	35:BA:2330:G:H21	1.84	0.42
26:B1:66:HIS:O	26:B1:67:ILE:C	2.57	0.42
27:B2:45:SER:HB2	27:B2:49:LYS:HE3	2.01	0.42
31:B6:22:ALA:HB1	31:B6:39:TYR:OH	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:B6:46:HIS:CE1	35:BA:2371:G:HO2'	2.37	0.42
35:BA:90:U:O2'	35:BA:92:A:P	2.77	0.42
35:BA:362:U:H6	35:BA:362:U:H2'	1.60	0.42
35:BA:1064:C:C3'	35:BA:1065:U:H5''	2.49	0.42
35:BA:1168:G:N2	35:BA:1182:A:N7	2.68	0.42
35:BA:1639:U:C2'	35:BA:1640:C:H5'	2.49	0.42
35:BA:1826:G:C5	35:BA:1827:C:C5	3.07	0.42
35:BA:1889:A:HO2'	35:BA:2087:G:H5'	1.84	0.42
35:BA:2415:G:H4'	48:BP:66:GLY:HA2	2.00	0.42
35:BA:2528:U:O3'	35:BA:2529:G:H8	2.02	0.42
35:BA:2692:C:C2	35:BA:2693:A:C8	3.07	0.42
35:BA:2693:A:H2'	35:BA:2694:G:C8	2.46	0.42
35:BA:2718:G:C6	35:BA:2719:G:C5	3.07	0.42
35:BA:2731:G:C6	35:BA:2732:G:O6	2.73	0.42
35:BA:2841:C:H42	35:BA:2876:G:H1	1.67	0.42
36:BB:37:C:H2'	36:BB:38:C:O4'	2.19	0.42
38:BD:85:ASP:HB2	38:BD:92:ILE:HG13	2.00	0.42
38:BD:232:PRO:HB3	38:BD:244:ARG:CZ	2.48	0.42
40:BF:65:TRP:HZ3	40:BF:75:HIS:ND1	2.16	0.42
41:BG:51:ARG:C	41:BG:53:LEU:N	2.73	0.42
42:BH:117:PRO:HA	42:BH:118:PRO:HD3	1.89	0.42
43:BI:41:GLU:O	43:BI:45:LYS:HG3	2.19	0.42
49:BQ:69:PHE:HA	49:BQ:70:PRO:HD2	1.84	0.42
52:BT:16:ARG:CD	52:BT:19:LEU:HD11	2.47	0.42
53:BU:104:GLN:HB3	54:BV:43:GLU:OE2	2.18	0.42
56:BX:75:ASP:OD1	56:BX:75:ASP:N	2.52	0.42
1:CA:44:G:H2'	1:CA:45:U:O4'	2.18	0.42
1:CA:503:C:O2'	1:CA:504:C:H5'	2.18	0.42
1:CA:746:A:O2'	1:CA:747:C:H5'	2.19	0.42
1:CA:1030:C:N4	1:CA:1031:G:H1	2.17	0.42
1:CA:1145:C:HO2'	1:CA:1146:A:P	2.42	0.42
1:CA:1309:G:N2	1:CA:1329:A:H1'	2.35	0.42
1:CA:1314:C:OP2	19:CS:6:LYS:HE2	2.19	0.42
2:CB:73:THR:OG1	2:CB:169:LYS:HD2	2.19	0.42
3:CC:29:TYR:OH	14:CN:54:PRO:HD2	2.19	0.42
3:CC:159:GLY:CA	3:CC:193:TYR:CE1	3.02	0.42
5:CE:41:VAL:CG1	5:CE:113:ALA:HA	2.45	0.42
7:CG:86:GLN:OE1	7:CG:148:ASN:ND2	2.47	0.42
9:CI:95:LYS:HZ3	9:CI:101:PHE:HD2	1.60	0.42
10:CJ:8:LEU:HD12	10:CJ:8:LEU:O	2.18	0.42
11:CK:51:LYS:HG2	11:CK:55:LYS:NZ	2.31	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:32:GLU:O	13:CM:36:LYS:HB2	2.18	0.42
15:CO:43:LEU:HD23	15:CO:43:LEU:HA	1.83	0.42
26:D1:72:GLU:O	26:D1:75:GLU:HG2	2.19	0.42
31:D6:15:GLU:OE1	31:D6:18:ARG:NE	2.49	0.42
33:D8:56:GLU:HA	33:D8:59:LYS:HG3	2.01	0.42
35:DA:117:G:C6	35:DA:119:A:N6	2.87	0.42
35:DA:271(F):C:C4	35:DA:271(G):C:C5	3.07	0.42
35:DA:433:C:H2'	35:DA:434:U:C6	2.53	0.42
35:DA:478:A:C6	35:DA:480:A:C6	3.07	0.42
35:DA:1032:A:H61	35:DA:1122:G:H1	1.66	0.42
35:DA:1049:C:C4	35:DA:1111:A:N1	2.87	0.42
35:DA:1515:G:H2'	35:DA:1516:C:C6	2.53	0.42
35:DA:1565:C:O3'	35:DA:1566:A:H8	2.02	0.42
35:DA:2040:C:H2'	35:DA:2041:U:C6	2.54	0.42
35:DA:2068:U:C2	35:DA:2430:A:H2	2.36	0.42
35:DA:2227:A:H5''	38:DD:263:ARG:HG3	2.00	0.42
35:DA:2377:A:C2	51:DS:89:ARG:NH1	2.87	0.42
35:DA:2592:G:H2'	35:DA:2593:U:O4'	2.19	0.42
35:DA:2777:G:H3'	35:DA:2777:G:H8	1.84	0.42
38:DD:8:PRO:HB3	38:DD:14:ARG:HA	2.01	0.42
38:DD:94:LEU:HD22	38:DD:95:LEU:N	2.34	0.42
48:DP:59:LEU:HA	48:DP:61:ARG:CD	2.48	0.42
48:DP:61:ARG:O	48:DP:62:LEU:CB	2.57	0.42
50:DR:116:LEU:HD13	50:DR:116:LEU:HA	1.81	0.42
55:DW:68:ARG:O	55:DW:110:LYS:N	2.37	0.42
1:AA:110:C:H2'	1:AA:111:G:O4'	2.19	0.42
1:AA:147:G:N1	1:AA:176:C:C2	2.87	0.42
1:AA:369:C:H42	1:AA:392:G:H1	1.66	0.42
1:AA:564:C:H5'	1:AA:564:C:H6	1.83	0.42
1:AA:1176:A:C8	1:AA:1177:G:C2	3.07	0.42
1:AA:1499:A:H5'	1:AA:1499:A:H8	1.84	0.42
2:AB:27:LYS:HD2	2:AB:193:ASP:HB2	2.01	0.42
2:AB:100:GLY:HA2	2:AB:176:GLU:OE2	2.19	0.42
3:AC:8:ILE:O	3:AC:9:GLY:C	2.55	0.42
3:AC:9:GLY:HA3	14:AN:49:HIS:HD2	1.85	0.42
3:AC:23:TYR:HD1	10:AJ:11:PHE:CE2	2.38	0.42
8:AH:8:ASP:O	8:AH:12:ARG:HB2	2.19	0.42
9:AI:71:SER:O	9:AI:74:ILE:HB	2.18	0.42
12:AL:33:ARG:HD3	12:AL:33:ARG:HA	1.63	0.42
18:AR:36:ASN:ND2	18:AR:39:VAL:HG21	2.35	0.42
18:AR:50:ILE:HD11	18:AR:70:ILE:CG2	2.44	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:95:ALA:C	20:AT:97:ALA:H	2.23	0.42
23:AW:52:G:H1'	23:AW:63:G:N2	2.23	0.42
26:B1:92:LYS:CG	26:B1:93:GLU:H	2.26	0.42
31:B6:27:LYS:HE2	31:B6:27:LYS:HB3	1.80	0.42
35:BA:9:U:O2'	35:BA:10:G:H8	2.02	0.42
35:BA:1012:U:C5	46:BN:28:THR:HG21	2.54	0.42
35:BA:1252:G:C2	35:BA:1253:A:C2	3.07	0.42
35:BA:1338:G:N3	35:BA:1393:A:H2	2.17	0.42
35:BA:1352:U:O2	35:BA:1570:A:H2	2.02	0.42
35:BA:1573:G:C8	35:BA:1574:C:C5	3.07	0.42
35:BA:2067:G:O2'	35:BA:2069:G:H5'	2.19	0.42
36:BB:61:G:C6	36:BB:62:C:N4	2.87	0.42
37:BC:55:ASP:OD1	37:BC:55:ASP:N	2.52	0.42
38:BD:33:LEU:O	38:BD:35:LYS:N	2.52	0.42
40:BF:32:LEU:HD11	40:BF:105:VAL:HG13	2.00	0.42
40:BF:204:ASN:HD22	40:BF:205:ARG:HH21	1.67	0.42
41:BG:67:LYS:H	41:BG:67:LYS:HD2	1.83	0.42
43:BI:120:ILE:HG22	43:BI:121:LYS:N	2.34	0.42
43:BI:121:LYS:O	43:BI:122:GLU:HB2	2.19	0.42
47:BO:66:LYS:HE2	47:BO:80:ASP:C	2.40	0.42
48:BP:18:ARG:O	48:BP:19:VAL:C	2.57	0.42
49:BQ:9:TYR:O	49:BQ:9:TYR:CG	2.72	0.42
52:BT:30:VAL:CG2	52:BT:84:GLN:HG2	2.49	0.42
54:BV:53:GLU:CD	54:BV:54:GLY:N	2.73	0.42
1:CA:117:G:O5'	1:CA:117:G:C8	2.72	0.42
1:CA:450:G:N7	1:CA:481:G:C6	2.87	0.42
1:CA:484:G:HO2'	1:CA:485:G:P	2.34	0.42
1:CA:538:G:H2'	1:CA:539:A:O4'	2.18	0.42
1:CA:654:G:C2	1:CA:753:A:C4	3.07	0.42
1:CA:1240:U:OP2	7:CG:116:ALA:HB2	2.18	0.42
1:CA:1396:A:O4'	1:CA:1398:A:H1'	2.18	0.42
1:CA:1418:A:C2	1:CA:1483:A:C2	3.07	0.42
2:CB:30:ARG:H	2:CB:30:ARG:HG2	1.56	0.42
10:CJ:5:ARG:O	10:CJ:99:LYS:HB2	2.18	0.42
14:CN:51:GLY:C	14:CN:53:LEU:H	2.22	0.42
17:CQ:48:GLU:O	17:CQ:49:GLU:HB2	2.20	0.42
18:CR:59:SER:N	18:CR:62:GLU:HB2	2.34	0.42
19:CS:62:ILE:HA	19:CS:66:MET:SD	2.59	0.42
22:CV:18:G:C4	22:CV:58:A:C2	3.08	0.42
33:D8:27:THR:HG21	35:DA:2362:G:P	2.59	0.42
35:DA:8:A:OP1	46:DN:121:LYS:NZ	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:143:G:H2'	35:DA:143(A):C:C6	2.54	0.42
35:DA:248:G:C2	35:DA:2431:U:H4'	2.54	0.42
35:DA:271(J):C:C4	35:DA:271(L):U:H1'	2.54	0.42
35:DA:363(B):G:O2'	35:DA:363(C):G:H5'	2.20	0.42
35:DA:819:A:N3	35:DA:819:A:H2'	2.34	0.42
35:DA:830:G:H4'	35:DA:831:G:OP2	2.19	0.42
35:DA:955:C:O3'	49:DQ:85:LYS:HD2	2.19	0.42
35:DA:986:C:C2'	35:DA:987:G:H5'	2.49	0.42
35:DA:993:G:C1'	54:DV:89:GLN:HE22	2.32	0.42
35:DA:1324:G:C4	35:DA:1328:G:O6	2.72	0.42
35:DA:1336:A:H2'	35:DA:1337:G:C8	2.55	0.42
35:DA:1684:C:H2'	35:DA:1685:C:O4'	2.20	0.42
35:DA:1762:A:O5'	35:DA:1762:A:C8	2.69	0.42
35:DA:1956:U:H1'	35:DA:2552:U:OP1	2.18	0.42
35:DA:2019:A:O3'	53:DU:27:LEU:HD12	2.20	0.42
35:DA:2085:C:H4'	38:DD:262:ARG:HH21	1.83	0.42
35:DA:2636:U:H4'	39:DE:80:GLU:OE2	2.19	0.42
35:DA:2733:A:H2'	35:DA:2734:A:O4'	2.19	0.42
39:DE:11:MET:HE2	39:DE:11:MET:HB2	1.84	0.42
41:DG:20:ILE:O	41:DG:24:GLY:N	2.46	0.42
42:DH:111:HIS:CD2	42:DH:111:HIS:H	2.37	0.42
42:DH:170:ARG:HD3	42:DH:170:ARG:C	2.40	0.42
46:DN:102:ALA:O	46:DN:106:MET:HG3	2.19	0.42
48:DP:98:GLU:O	48:DP:101:VAL:HG22	2.20	0.42
52:DT:39:ARG:NE	52:DT:39:ARG:CA	2.79	0.42
53:DU:93:LYS:H	53:DU:93:LYS:CD	2.30	0.42
54:DV:34:GLU:OE2	54:DV:34:GLU:HA	2.11	0.42
56:DX:54:VAL:HA	56:DX:77:LYS:CE	2.42	0.42
1:AA:189(H):G:N2	1:AA:189(I):G:N3	2.68	0.42
1:AA:461:A:H2	1:AA:471:G:N3	2.16	0.42
1:AA:472:A:H3'	1:AA:473:G:O4'	2.19	0.42
1:AA:503:C:O2	1:AA:542:G:N2	2.45	0.42
1:AA:529:G:O6	12:AL:49:ASN:HA	2.19	0.42
1:AA:549:C:H2'	1:AA:550:G:O4'	2.19	0.42
1:AA:618:C:C2	1:AA:622:A:N6	2.87	0.42
1:AA:665:A:N3	1:AA:732:C:H2'	2.35	0.42
1:AA:1358:U:OP2	14:AN:35:ARG:CZ	2.67	0.42
3:AC:101:LEU:HD23	3:AC:102:ASN:N	2.35	0.42
7:AG:23:VAL:O	7:AG:27:ILE:HG12	2.19	0.42
8:AH:91:ARG:HD3	12:AL:7:ILE:HG21	2.01	0.42
13:AM:66:LEU:O	13:AM:70:LEU:N	2.51	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:81:ARG:NH1	17:AQ:84:LEU:HG	2.34	0.42
19:AS:32:LYS:HE2	19:AS:32:LYS:HB2	1.83	0.42
23:AW:34:G:C5'	23:AW:35:A:OP2	2.67	0.42
27:B2:14:ARG:NH2	27:B2:17:SER:O	2.52	0.42
27:B2:59:ARG:O	27:B2:61:LEU:N	2.52	0.42
33:B8:14:VAL:HG21	33:B8:56:GLU:OE2	2.20	0.42
35:BA:305:U:H2'	35:BA:306:U:C6	2.54	0.42
35:BA:445:C:OP1	53:BU:2:PRO:HA	2.19	0.42
35:BA:636:G:C5	48:BP:115:LEU:HD11	2.55	0.42
35:BA:649:G:C5	35:BA:650:C:C4	3.08	0.42
35:BA:1179:C:H2'	35:BA:1180:C:C6	2.52	0.42
35:BA:1312:U:C5	35:BA:1340:U:O4	2.72	0.42
35:BA:1500:G:H5''	35:BA:1501:C:P	2.59	0.42
35:BA:1952:A:OP1	47:BO:42:SER:OG	2.19	0.42
35:BA:2225:A:H4'	35:BA:2226:C:H5'	2.00	0.42
35:BA:2375:G:N2	35:BA:2378:A:C8	2.87	0.42
35:BA:2394:C:O2'	35:BA:2395:C:H5'	2.18	0.42
35:BA:2823:A:OP1	39:BE:113:PHE:HB2	2.20	0.42
39:BE:151:TYR:CE1	39:BE:154:LYS:HD2	2.54	0.42
43:BI:117:GLU:H	43:BI:117:GLU:HG2	1.50	0.42
48:BP:55:ARG:O	48:BP:56:SER:C	2.57	0.42
48:BP:62:LEU:HA	48:BP:63:PRO:HD3	1.77	0.42
48:BP:95:VAL:HG13	48:BP:100:LEU:HD21	2.00	0.42
49:BQ:23:GLY:HA3	49:BQ:101:ARG:HD2	2.01	0.42
49:BQ:116:GLU:CD	49:BQ:119:ARG:HH21	2.23	0.42
49:BQ:119:ARG:HA	49:BQ:123:HIS:ND1	2.34	0.42
51:BS:51:ALA:HB3	51:BS:73:LEU:HD23	2.01	0.42
54:BV:24:LYS:CA	54:BV:94:LEU:HD13	2.40	0.42
55:BW:14:PRO:HG3	55:BW:78:GLU:HA	2.01	0.42
55:BW:51:LEU:HG	55:BW:107:LEU:CD1	2.45	0.42
58:BZ:58:VAL:HA	58:BZ:68:PRO:HA	2.01	0.42
1:CA:227:G:H2'	1:CA:228:A:O4'	2.19	0.42
1:CA:299:G:C6	1:CA:300:A:C6	3.07	0.42
1:CA:545:C:OP1	4:CD:61:LYS:NZ	2.51	0.42
1:CA:592:G:C6	1:CA:648:A:C6	3.08	0.42
1:CA:664:G:P	18:CR:64:ARG:HH21	2.43	0.42
1:CA:1124:G:O5'	10:CJ:36:GLY:N	2.52	0.42
1:CA:1208:C:H2'	1:CA:1209:C:O4'	2.19	0.42
1:CA:1285:A:C8	1:CA:1285:A:OP1	2.72	0.42
2:CB:97:TRP:CZ3	2:CB:172:ILE:HB	2.54	0.42
4:CD:50:ARG:HA	4:CD:51:PRO:HD3	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CF:1:MET:HA	6:CF:67:MET:O	2.19	0.42
6:CF:67:MET:HB2	6:CF:68:PRO:HD2	2.02	0.42
20:CT:33:ILE:O	20:CT:37:SER:OG	2.31	0.42
20:CT:66:ALA:O	20:CT:71:THR:HB	2.19	0.42
20:CT:84:LEU:HD23	20:CT:84:LEU:HA	1.73	0.42
27:D2:41:ILE:C	27:D2:43:GLN:N	2.70	0.42
35:DA:18:C:H6	35:DA:18:C:O5'	2.02	0.42
35:DA:43:A:H61	35:DA:434:U:H3	1.67	0.42
35:DA:128:C:C6	35:DA:128:C:C3'	3.02	0.42
35:DA:536:A:H2'	35:DA:537:C:C6	2.54	0.42
35:DA:960:A:C8	35:DA:962:G:C8	3.07	0.42
35:DA:998:C:H2'	35:DA:999:U:O4'	2.19	0.42
35:DA:1344:G:H5'	35:DA:1384:A:C6	2.54	0.42
35:DA:1443:G:N2	35:DA:1549:C:C2	2.87	0.42
35:DA:1502:C:H6	35:DA:1502:C:H5''	1.84	0.42
35:DA:2600:A:H2'	35:DA:2601:C:C6	2.54	0.42
35:DA:2677:G:H2'	35:DA:2678:C:C6	2.53	0.42
35:DA:2807:G:H1	35:DA:2892:A:H62	1.66	0.42
38:DD:143:HIS:CD2	38:DD:144:ALA:HB2	2.55	0.42
40:DF:21:ALA:C	40:DF:23:ASP:H	2.22	0.42
40:DF:202:PHE:CZ	40:DF:206:ILE:HD11	2.54	0.42
43:DI:81:VAL:N	43:DI:143:SER:OG	2.43	0.42
46:DN:2:LYS:HG3	46:DN:2:LYS:O	2.18	0.42
46:DN:30:ILE:HG23	46:DN:52:VAL:HG11	2.00	0.42
49:DQ:128:LYS:HD2	49:DQ:128:LYS:HA	1.77	0.42
50:DR:12:ARG:HG2	50:DR:16:HIS:CD2	2.54	0.42
52:DT:38:ASN:O	52:DT:39:ARG:C	2.58	0.42
1:AA:132:C:H2'	1:AA:133:U:O4'	2.19	0.42
1:AA:151:A:C5	1:AA:152:A:C8	3.07	0.42
1:AA:157:G:H2'	1:AA:157:G:N3	2.34	0.42
1:AA:438:G:HO2'	1:AA:494:U:H3	1.62	0.42
1:AA:617:G:H1	1:AA:623:C:H42	1.65	0.42
1:AA:965:A:C2	1:AA:969:A:C2	3.07	0.42
1:AA:1057:G:C4	1:AA:1204:A:C2	3.07	0.42
1:AA:1142:G:H2'	1:AA:1143:G:H8	1.84	0.42
1:AA:1170:A:C8	1:AA:1171:G:N2	2.87	0.42
1:AA:1291:G:C2	1:AA:1292:U:C4	3.07	0.42
1:AA:1480:G:C6	1:AA:1481:U:N3	2.87	0.42
4:AD:163:GLU:C	4:AD:165:MET:N	2.73	0.42
7:AG:57:GLU:H	7:AG:57:GLU:HG2	1.56	0.42
7:AG:145:ALA:O	7:AG:147:ALA:N	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:20:TYR:CE2	8:AH:75:ARG:HB3	2.54	0.42
8:AH:32:LYS:O	8:AH:36:LEU:HD12	2.19	0.42
13:AM:44:ARG:HB3	13:AM:46:LYS:HG2	2.02	0.42
13:AM:120:LYS:HE3	13:AM:120:LYS:HB3	1.81	0.42
16:AP:12:LYS:C	16:AP:14:ASN:H	2.23	0.42
16:AP:76:GLN:C	16:AP:78:GLY:N	2.73	0.42
27:B2:18:PRO:O	27:B2:20:GLU:N	2.52	0.42
30:B5:29:THR:O	30:B5:29:THR:CG2	2.67	0.42
31:B6:24:GLU:HA	33:B8:36:LYS:H	1.84	0.42
32:B7:39:ARG:C	32:B7:41:ARG:H	2.22	0.42
33:B8:61:LEU:HD21	35:BA:593:G:O2'	2.20	0.42
35:BA:357:A:H2'	35:BA:358:U:C6	2.55	0.42
35:BA:542:C:N3	35:BA:543:C:H1'	2.34	0.42
35:BA:590:A:H2'	35:BA:591:C:C6	2.53	0.42
35:BA:774:A:OP1	38:BD:48:ARG:NH2	2.52	0.42
35:BA:906:G:H5'	35:BA:906:G:H8	1.85	0.42
35:BA:1051:G:C8	35:BA:1052:C:C5	3.07	0.42
35:BA:1638:C:H2'	35:BA:1639:U:O4'	2.19	0.42
35:BA:1718:G:H1	35:BA:1744:C:N4	2.16	0.42
35:BA:2206:G:N3	35:BA:2207:G:H5'	2.34	0.42
35:BA:2472:G:H1	35:BA:2477:C:P	2.41	0.42
35:BA:2805:G:H5''	35:BA:2807:G:OP2	2.20	0.42
35:BA:2810:A:C2'	39:BE:61:ARG:NH1	2.76	0.42
35:BA:2851:A:C5	35:BA:2852:G:C5	3.07	0.42
36:BB:42:C:H4'	41:BG:67:LYS:HB2	2.02	0.42
38:BD:138:VAL:HG12	38:BD:168:ARG:HE	1.82	0.42
40:BF:179:GLU:OE1	40:BF:179:GLU:N	2.44	0.42
43:BI:4:ILE:HG22	43:BI:18:VAL:HG22	2.02	0.42
46:BN:66:LYS:HA	46:BN:69:GLN:HB2	2.01	0.42
47:BO:1:MET:HB3	47:BO:32:TYR:CB	2.44	0.42
47:BO:96:THR:O	47:BO:117:LEU:HD21	2.19	0.42
48:BP:37:GLY:C	48:BP:39:LYS:H	2.23	0.42
48:BP:59:LEU:H	48:BP:59:LEU:HG	1.50	0.42
49:BQ:137:TYR:CD1	49:BQ:138:ASP:HA	2.54	0.42
58:BZ:10:ARG:HD3	58:BZ:37:VAL:O	2.20	0.42
1:CA:22:G:H4'	1:CA:885:G:C8	2.53	0.42
1:CA:397:A:C5	1:CA:548:G:N7	2.87	0.42
1:CA:519:C:H2'	1:CA:520:A:H8	1.83	0.42
1:CA:675:A:H61	1:CA:715:A:H61	1.67	0.42
1:CA:1104:G:H2'	1:CA:1105:A:H8	1.85	0.42
1:CA:1228:C:O2'	13:CM:118:ALA:HB2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1268:A:H2'	1:CA:1269:A:C8	2.55	0.42
1:CA:1367:C:C5'	10:CJ:60:ARG:HE	2.32	0.42
2:CB:16:HIS:HD2	2:CB:210:SER:HA	1.84	0.42
2:CB:50:GLU:HG2	2:CB:202:PRO:HD3	2.02	0.42
4:CD:4:TYR:CG	4:CD:5:ILE:N	2.85	0.42
4:CD:190:ASP:OD1	4:CD:191:ARG:N	2.53	0.42
5:CE:45:PHE:CE2	5:CE:47:LYS:HD2	2.54	0.42
9:CI:112:LYS:HG3	9:CI:118:LYS:HA	2.01	0.42
13:CM:118:ALA:HB3	22:CV:29:G:C5'	2.46	0.42
14:CN:15:LYS:HG2	14:CN:16:PHE:H	1.84	0.42
19:CS:22:LEU:HD13	19:CS:27:GLU:HB2	2.01	0.42
20:CT:73:HIS:HB2	20:CT:74:LYS:HG3	2.01	0.42
35:DA:71:A:N1	56:DX:33:LYS:HE3	2.34	0.42
35:DA:140:G:N2	35:DA:142:A:N1	2.66	0.42
35:DA:143:G:H5''	35:DA:1598:C:O2'	2.20	0.42
35:DA:272(H):C:N4	35:DA:363(C):G:N1	2.68	0.42
35:DA:868:U:H2'	35:DA:869:G:O4'	2.19	0.42
35:DA:1077:A:H2'	35:DA:1077:A:N3	2.34	0.42
35:DA:1151:G:O3'	53:DU:81:HIS:HB2	2.19	0.42
35:DA:1265:A:OP1	35:DA:1265:A:C8	2.65	0.42
35:DA:1316:U:O2'	35:DA:1317:A:H5'	2.19	0.42
35:DA:2206:G:N2	35:DA:2207:G:H5'	2.19	0.42
35:DA:2298:A:N6	35:DA:2318:G:O2'	2.52	0.42
35:DA:2584:U:H2'	35:DA:2585:U:H2'	2.01	0.42
35:DA:2655:G:O2'	35:DA:2656:U:P	2.78	0.42
35:DA:2740:A:N6	35:DA:2764:A:C8	2.88	0.42
35:DA:2838:G:C6	35:DA:2839:G:C5	3.08	0.42
38:DD:39:LYS:HE3	38:DD:39:LYS:HB3	1.92	0.42
39:DE:76:ARG:HD2	39:DE:79:ARG:NH1	2.35	0.42
40:DF:188:ARG:HG3	40:DF:188:ARG:H	1.61	0.42
41:DG:131:TYR:HB3	41:DG:159:VAL:HG13	2.00	0.42
42:DH:11:VAL:HG13	42:DH:15:VAL:HG22	2.01	0.42
46:DN:65:LYS:O	46:DN:65:LYS:HD2	2.19	0.42
46:DN:65:LYS:O	46:DN:69:GLN:HB2	2.19	0.42
46:DN:137:LYS:HB2	46:DN:140:VAL:CA	2.49	0.42
56:DX:3:THR:HG22	56:DX:5:TYR:H	1.84	0.42
1:AA:868:C:H2'	1:AA:869:G:O4'	2.20	0.42
1:AA:945:G:C6	1:AA:1337:G:C5	3.07	0.42
1:AA:1036:G:OP1	1:AA:1037:C:N4	2.52	0.42
1:AA:1235:U:O2'	1:AA:1305:G:H5'	2.19	0.42
1:AA:1329:A:P	13:AM:28:ALA:HB3	2.59	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1446:U:N3	1:AA:1447:A:N3	2.68	0.42
5:AE:24:ARG:H	5:AE:24:ARG:HG2	1.51	0.42
6:AF:11:ASN:O	6:AF:14:LEU:HG	2.20	0.42
11:AK:122:LYS:CE	11:AK:124:LYS:HB2	2.47	0.42
12:AL:70:ILE:CD1	12:AL:77:LEU:HD22	2.49	0.42
13:AM:23:TYR:CD1	13:AM:71:ARG:HG2	2.55	0.42
14:AN:13:THR:N	14:AN:14:PRO:HD3	2.35	0.42
16:AP:38:TYR:CE2	16:AP:50:LYS:HB2	2.54	0.42
25:B0:43:THR:CG2	35:BA:2332:U:H5'	2.50	0.42
31:B6:26:ASN:ND2	31:B6:27:LYS:H	2.17	0.42
35:BA:142:A:H3'	35:BA:142(A):C:C5'	2.48	0.42
35:BA:150:C:H2'	35:BA:151:C:H6	1.84	0.42
35:BA:528:A:H2	35:BA:2043:C:C5'	2.31	0.42
35:BA:579:G:O2'	35:BA:580:C:H5'	2.19	0.42
35:BA:684:G:H3'	35:BA:684:G:C8	2.55	0.42
35:BA:1000:A:N1	35:BA:1155:A:C4	2.88	0.42
35:BA:1182:A:OP1	35:BA:1182:A:H4'	2.19	0.42
35:BA:2078:C:C4	35:BA:2079:U:C4	3.07	0.42
35:BA:2310:A:H5'	35:BA:2311:A:OP1	2.20	0.42
35:BA:2700:C:N4	35:BA:2707:G:H1	2.08	0.42
35:BA:2716:U:C2'	35:BA:2717:G:H5'	2.50	0.42
35:BA:2747:G:O2'	42:BH:67:LEU:HD12	2.19	0.42
35:BA:2854:G:O2'	35:BA:2855:C:H5'	2.20	0.42
36:BB:21:G:C2	36:BB:22:U:C2	3.07	0.42
39:BE:92:THR:HB	39:BE:94:GLU:HB2	2.01	0.42
41:BG:5:VAL:HG11	41:BG:101:ILE:HG22	2.00	0.42
41:BG:86:MET:N	41:BG:87:PRO:HD2	2.34	0.42
42:BH:12:PRO:HD2	42:BH:49:VAL:HG12	2.00	0.42
42:BH:121:ILE:HG23	42:BH:134:SER:O	2.20	0.42
48:BP:59:LEU:N	48:BP:59:LEU:HD23	2.35	0.42
48:BP:78:PRO:O	48:BP:80:TYR:CE1	2.73	0.42
51:BS:97:ARG:HG2	51:BS:99:LYS:HB3	2.01	0.42
52:BT:124:ASP:OD2	52:BT:125:ARG:NH2	2.53	0.42
57:BY:33:LYS:N	57:BY:33:LYS:HD2	2.34	0.42
58:BZ:24:LEU:O	58:BZ:24:LEU:HG	2.20	0.42
1:CA:107:G:C2	1:CA:108:G:H1'	2.54	0.42
1:CA:200:G:H2'	1:CA:201:C:O4'	2.19	0.42
1:CA:458:C:H3'	1:CA:460:G:H8	1.85	0.42
1:CA:1297:C:O2'	7:CG:114:ARG:NH1	2.51	0.42
1:CA:1416:G:O2'	1:CA:1417:G:H5'	2.19	0.42
2:CB:15:VAL:C	2:CB:17:PHE:H	2.22	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:21:ARG:HA	2:CB:40:HIS:H	1.84	0.42
3:CC:18:TRP:H	3:CC:18:TRP:HE3	1.67	0.42
3:CC:188:LEU:HD13	3:CC:188:LEU:HA	1.81	0.42
6:CF:40:VAL:HA	6:CF:62:TRP:O	2.20	0.42
8:CH:105:ARG:HD3	8:CH:105:ARG:HA	1.91	0.42
9:CI:96:LEU:HA	9:CI:99:LEU:O	2.20	0.42
11:CK:98:LEU:HA	11:CK:98:LEU:HD23	1.78	0.42
14:CN:37:PHE:CE2	14:CN:53:LEU:HD13	2.55	0.42
26:D1:15:ALA:HA	26:D1:46:LEU:HD21	2.02	0.42
31:D6:42:TRP:HB3	31:D6:43:CYS:H	1.77	0.42
35:DA:82:G:C6	35:DA:83:G:N1	2.88	0.42
35:DA:259:G:C2'	35:DA:621:A:O2'	2.68	0.42
35:DA:322:A:C5	35:DA:340:A:C2	3.08	0.42
35:DA:352:G:O2'	35:DA:353:G:H5''	2.19	0.42
35:DA:494:G:H5''	35:DA:494:G:C8	2.54	0.42
35:DA:833:U:O2	48:DP:55:ARG:NH2	2.41	0.42
35:DA:1091:G:N2	35:DA:1102:C:C2	2.87	0.42
35:DA:1975:G:C2	35:DA:1976:U:C2	3.08	0.42
35:DA:2103:C:H5'	35:DA:2104:G:OP2	2.19	0.42
35:DA:2320:A:N3	35:DA:2320:A:H2'	2.35	0.42
35:DA:2658:C:H2'	35:DA:2659:G:O4'	2.20	0.42
36:DB:44:G:C2	36:DB:48:A:C2	3.08	0.42
36:DB:72:G:H2'	36:DB:73:A:OP2	2.19	0.42
39:DE:38:THR:HG21	39:DE:40:GLU:HG3	2.01	0.42
41:DG:16:ARG:HH22	41:DG:28:VAL:HG12	1.84	0.42
50:DR:2:ARG:HB3	50:DR:2:ARG:CZ	2.47	0.42
51:DS:29:PHE:HD2	51:DS:36:TYR:CD2	2.37	0.42
52:DT:29:ARG:NE	52:DT:31:SER:HB2	2.33	0.42
52:DT:43:GLN:HG2	52:DT:45:PHE:CE1	2.52	0.42
55:DW:1:MET:HB3	55:DW:64:MET:CE	2.49	0.42
56:DX:18:TYR:N	56:DX:18:TYR:CD1	2.86	0.42
1:AA:182:U:OP2	1:AA:183:G:C2	2.73	0.42
1:AA:359:U:OP1	43:DI:87:LYS:HD2	2.20	0.42
1:AA:796:C:OP2	1:AA:796:C:H6	2.02	0.42
1:AA:1070:U:C2	1:AA:1071:C:C5	3.08	0.42
1:AA:1226:C:O2'	13:AM:103:THR:O	2.25	0.42
1:AA:1289:A:H62	9:AI:70:LYS:HZ1	1.66	0.42
1:AA:1342:C:C2'	1:AA:1343:G:H5'	2.50	0.42
1:AA:1530:G:O6	1:AA:1531:A:N6	2.52	0.42
2:AB:74:LYS:HB2	2:AB:165:VAL:CG2	2.48	0.42
2:AB:98:LEU:HD13	2:AB:99:GLY:H	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:176:GLU:HA	2:AB:179:LYS:HB3	2.02	0.42
3:AC:73:PRO:O	3:AC:76:VAL:HG13	2.19	0.42
4:AD:57:ARG:O	4:AD:58:LEU:C	2.56	0.42
7:AG:20:ASP:HB3	7:AG:23:VAL:CG2	2.46	0.42
8:AH:20:TYR:HD1	8:AH:65:TYR:CD2	2.37	0.42
14:AN:39:LEU:HB3	14:AN:40:CYS:H	1.69	0.42
14:AN:40:CYS:O	14:AN:44:LEU:HB3	2.19	0.42
23:AW:57:G:H2'	23:AW:57:G:N3	2.35	0.42
27:B2:44:LEU:C	27:B2:44:LEU:HD13	2.39	0.42
33:B8:36:LYS:HD3	35:BA:2383:G:N7	2.34	0.42
35:BA:30:G:C5	35:BA:31:C:C4	3.07	0.42
35:BA:66:C:O2	35:BA:89:G:C8	2.73	0.42
35:BA:189:G:H2'	35:BA:205:G:N2	2.35	0.42
35:BA:333:G:H2'	35:BA:333:G:N3	2.34	0.42
35:BA:539:G:H3'	35:BA:539:G:C4	2.54	0.42
35:BA:740:U:H2'	35:BA:741:G:H8	1.83	0.42
35:BA:1252:G:H5'	53:BU:33:ARG:HH11	1.85	0.42
35:BA:1381:G:H1'	35:BA:1571:A:N1	2.35	0.42
35:BA:1639:U:H2'	35:BA:1640:C:H5'	2.00	0.42
35:BA:1953:A:O2'	35:BA:2559:C:O2	2.37	0.42
35:BA:1969:A:O2'	35:BA:1972:A:N3	2.46	0.42
35:BA:2688:U:H5	35:BA:2720:U:OP2	2.03	0.42
37:BC:82:LYS:HB3	37:BC:86:ALA:CB	2.50	0.42
40:BF:31:HIS:C	40:BF:33:LEU:N	2.72	0.42
40:BF:154:VAL:HG22	40:BF:191:ARG:HB2	2.01	0.42
46:BN:65:LYS:O	46:BN:69:GLN:HG3	2.20	0.42
46:BN:106:MET:H	46:BN:106:MET:HG2	1.69	0.42
55:BW:7:ALA:O	55:BW:102:HIS:HA	2.20	0.42
55:BW:58:ALA:C	55:BW:62:HIS:HB3	2.40	0.42
56:BX:50:LYS:HB3	56:BX:85:PRO:CB	2.50	0.42
56:BX:52:VAL:HG12	56:BX:53:LYS:N	2.35	0.42
56:BX:54:VAL:HG12	56:BX:55:ASN:N	2.35	0.42
1:CA:44:G:N3	1:CA:399:G:C2	2.86	0.42
1:CA:119:A:C5	1:CA:240:C:C4	3.08	0.42
1:CA:243:A:N6	1:CA:281:G:H1'	2.35	0.42
1:CA:532:A:H61	3:CC:193:TYR:CB	2.32	0.42
1:CA:558:G:C5	1:CA:559:A:C2	3.08	0.42
1:CA:1066:C:O2'	1:CA:1067:A:H5'	2.19	0.42
1:CA:1285:A:OP1	1:CA:1285:A:H8	2.02	0.42
1:CA:1317:C:C6	14:CN:16:PHE:HB3	2.54	0.42
1:CA:1504:G:H3'	1:CA:1504:G:P	2.60	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:8:ILE:HG22	14:CN:49:HIS:O	2.20	0.42
3:CC:182:ILE:HG12	3:CC:203:PHE:HD1	1.84	0.42
3:CC:206:GLU:HB3	3:CC:207:VAL:H	1.69	0.42
4:CD:32:ALA:O	4:CD:36:ARG:N	2.41	0.42
4:CD:58:LEU:O	4:CD:61:LYS:HB3	2.19	0.42
6:CF:22:GLU:OE1	6:CF:82:ARG:NH2	2.53	0.42
8:CH:91:ARG:HA	17:CQ:34:LYS:NZ	2.35	0.42
15:CO:32:LEU:HD13	15:CO:63:ARG:HB3	2.00	0.42
27:D2:23:LYS:HB2	56:DX:5:TYR:CE1	2.55	0.42
35:DA:92:A:H4'	35:DA:92:A:OP1	2.19	0.42
35:DA:218:A:N1	35:DA:235:U:H4'	2.35	0.42
35:DA:265:A:H1'	35:DA:266:G:O4'	2.19	0.42
35:DA:460:A:C2	35:DA:470:A:C4	3.07	0.42
35:DA:851:U:O2	35:DA:927:G:C2	2.72	0.42
35:DA:875:G:H2'	35:DA:876:C:O4'	2.20	0.42
35:DA:1339:G:N2	35:DA:1603:A:H1'	2.34	0.42
35:DA:1756:G:H4'	35:DA:1758:G:O4'	2.19	0.42
35:DA:1816:G:O6	38:DD:37:LEU:HD11	2.20	0.42
35:DA:1858:G:H1'	35:DA:1884:A:H61	1.85	0.42
35:DA:2023:G:H4'	35:DA:2617:C:O3'	2.20	0.42
35:DA:2040:C:H2'	35:DA:2041:U:O4'	2.19	0.42
35:DA:2114:A:N6	35:DA:2117:A:H61	2.18	0.42
35:DA:2749:A:OP2	35:DA:2750:A:O2'	2.31	0.42
35:DA:2860:A:C8	35:DA:2861:G:H1'	2.55	0.42
40:DF:110:LEU:HA	40:DF:183:VAL:HG12	2.01	0.42
42:DH:28:GLY:HA3	42:DH:79:VAL:HB	2.00	0.42
42:DH:117:PRO:HB3	42:DH:123:PHE:CE2	2.55	0.42
43:DI:78:THR:HA	43:DI:141:LYS:O	2.20	0.42
46:DN:16:ILE:HG13	46:DN:137:LYS:HG2	2.01	0.42
48:DP:135:LEU:HD23	48:DP:135:LEU:HA	1.72	0.42
50:DR:103:ARG:HB2	50:DR:109:ALA:C	2.40	0.42
52:DT:110:ILE:HD13	52:DT:110:ILE:HG21	1.62	0.42
52:DT:112:ARG:O	52:DT:112:ARG:HD2	2.20	0.42
54:DV:64:HIS:CG	54:DV:64:HIS:O	2.72	0.42
58:DZ:54:HIS:HD2	58:DZ:99:TYR:O	2.03	0.42
1:AA:194:C:C2'	1:AA:195:A:H5''	2.50	0.42
1:AA:408:A:H2'	1:AA:409:G:H8	1.85	0.42
1:AA:450:G:N7	1:AA:481:G:C6	2.88	0.42
1:AA:758:G:H8	1:AA:758:G:O5'	2.02	0.42
1:AA:989:C:H2'	1:AA:990:C:C6	2.55	0.42
2:AB:149:LEU:HD23	2:AB:149:LEU:HA	1.78	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:166:ASP:HB3	2:AB:169:LYS:CB	2.50	0.42
4:AD:52:SER:O	4:AD:53:ASP:C	2.58	0.42
7:AG:76:ARG:HB2	7:AG:89:MET:SD	2.60	0.42
8:AH:26:VAL:HG22	8:AH:32:LYS:HD3	2.01	0.42
20:AT:73:HIS:HB3	20:AT:74:LYS:HG3	2.02	0.42
23:AY:38:A:C5	23:AY:39:U:C6	3.08	0.42
26:B1:48:LYS:NZ	26:B1:63:ALA:N	2.63	0.42
35:BA:104:U:C4	35:BA:105:C:N4	2.87	0.42
35:BA:764:A:P	38:BD:214:TRP:HH2	2.43	0.42
35:BA:847:U:OP2	35:BA:928:G:O6	2.38	0.42
35:BA:1015:G:C6	35:BA:1148:A:N1	2.88	0.42
35:BA:1107:G:H2'	35:BA:1107:G:N3	2.34	0.42
35:BA:1137:G:H1'	35:BA:2039:C:OP1	2.20	0.42
35:BA:1204:A:N1	35:BA:1241:A:C2	2.88	0.42
35:BA:1341:U:O2	56:BX:77:LYS:HG2	2.19	0.42
35:BA:1452:A:C6	35:BA:2702:U:H1'	2.55	0.42
35:BA:1462:C:O2'	35:BA:2703:C:H5'	2.19	0.42
35:BA:1784:A:H4'	35:BA:1785:A:C5'	2.50	0.42
35:BA:2065:C:H2'	35:BA:2066:C:C6	2.55	0.42
35:BA:2206:G:N2	35:BA:2207:G:O3'	2.53	0.42
35:BA:2698:U:C6	35:BA:2699:C:O2	2.73	0.42
35:BA:2702:U:HO2'	35:BA:2703:C:H5	1.65	0.42
37:BC:45:ALA:C	37:BC:46:LYS:HE2	2.40	0.42
37:BC:100:ILE:HG23	37:BC:132:GLY:CA	2.50	0.42
38:BD:72:LYS:HD3	38:BD:97:TYR:CD1	2.55	0.42
39:BE:128:SER:O	39:BE:128:SER:OG	2.38	0.42
40:BF:93:LYS:HA	40:BF:93:LYS:HD2	1.92	0.42
41:BG:84:LYS:HD2	41:BG:84:LYS:N	2.34	0.42
43:BI:81:VAL:HG11	43:BI:88:ILE:CD1	2.50	0.42
43:BI:83:ALA:HB2	43:BI:88:ILE:HA	2.01	0.42
47:BO:4:PRO:HA	47:BO:21:CYS:O	2.19	0.42
49:BQ:122:GLY:HA2	49:BQ:126:PRO:CD	2.50	0.42
51:BS:20:ARG:CZ	51:BS:22:GLY:N	2.79	0.42
51:BS:89:ARG:NH1	51:BS:92:TYR:CZ	2.87	0.42
51:BS:103:GLU:OE2	51:BS:103:GLU:HA	2.18	0.42
53:BU:25:TRP:CG	53:BU:26:GLY:N	2.85	0.42
56:BX:25:LYS:CG	56:BX:26:TYR:N	2.82	0.42
57:BY:9:LYS:HD2	57:BY:10:GLY:H	1.85	0.42
1:CA:12:U:H2'	1:CA:13:U:H5''	2.01	0.42
1:CA:88:A:OP2	1:CA:90:U:C2	2.73	0.42
1:CA:189:G:H2'	1:CA:189(A):C:C6	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:516:U:O4	1:CA:533:A:OP2	2.38	0.42
1:CA:557:G:H2'	1:CA:558:G:C8	2.55	0.42
1:CA:1048:G:OP1	14:CN:4:LYS:HA	2.20	0.42
1:CA:1128:C:O5'	1:CA:1128:C:H6	2.02	0.42
1:CA:1161:C:H2'	1:CA:1162:C:C6	2.55	0.42
1:CA:1315:U:H2'	1:CA:1316:G:O4'	2.20	0.42
1:CA:1332:A:H8	1:CA:1332:A:O5'	2.02	0.42
1:CA:1397:C:O2	1:CA:1397:C:O4'	2.38	0.42
5:CE:71:LEU:HD13	5:CE:114:GLY:O	2.20	0.42
9:CI:36:TYR:HD2	9:CI:37:PHE:CE2	2.37	0.42
9:CI:84:ALA:C	9:CI:86:VAL:H	2.21	0.42
20:CT:44:ALA:HB1	20:CT:91:LEU:HB2	2.02	0.42
23:CW:40:C:H2'	23:CW:41:C:C6	2.55	0.42
23:CW:73:A:H5''	23:CW:74:C:OP2	2.18	0.42
27:D2:22:GLU:O	27:D2:25:VAL:HG12	2.20	0.42
30:D5:25:LEU:HA	30:D5:25:LEU:HD23	1.81	0.42
33:D8:22:VAL:HB	33:D8:53:PRO:HB2	2.02	0.42
35:DA:29:U:H2'	35:DA:30:G:C8	2.55	0.42
35:DA:90:U:HO2'	35:DA:92:A:P	2.34	0.42
35:DA:239:U:H2'	35:DA:240:G:O4'	2.19	0.42
35:DA:301:G:C6	35:DA:317:G:C6	3.08	0.42
35:DA:314:A:C2'	35:DA:315:G:H5'	2.50	0.42
35:DA:628:G:H4'	35:DA:651:G:O2'	2.20	0.42
35:DA:729:G:C6	38:DD:208:LYS:HB2	2.54	0.42
35:DA:956:G:N2	35:DA:959:A:H3'	2.35	0.42
35:DA:1022:G:C6	35:DA:1140:C:C4	3.08	0.42
35:DA:1444:G:O2'	35:DA:1445:A:H8	2.03	0.42
35:DA:1639:U:O2'	35:DA:1640:C:H5''	2.19	0.42
35:DA:1655:A:H4'	39:DE:115:GLY:N	2.34	0.42
35:DA:1721:G:N1	35:DA:1739:U:OP2	2.53	0.42
35:DA:2077:A:H1'	35:DA:2435:A:O4'	2.20	0.42
35:DA:2415:G:C4'	48:DP:67:MET:H	2.23	0.42
36:DB:55:U:C2	36:DB:56:G:C8	3.08	0.42
37:DC:82:LYS:HZ2	37:DC:152:ILE:H	1.68	0.42
39:DE:133:LYS:HB2	39:DE:134:ILE:HG23	2.01	0.42
41:DG:131:TYR:O	41:DG:159:VAL:HG12	2.19	0.42
48:DP:96:THR:HG22	48:DP:126:VAL:HB	2.01	0.42
48:DP:146:VAL:O	48:DP:147:LEU:HB2	2.19	0.42
49:DQ:42:ILE:HD11	49:DQ:127:ILE:HG13	2.02	0.42
49:DQ:137:TYR:C	49:DQ:139:GLU:H	2.22	0.42
52:DT:3:ARG:O	52:DT:7:ILE:HG13	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DX:11:PRO:CB	56:DX:26:TYR:HE1	2.33	0.42
1:AA:77:G:O6	1:AA:93:G:C8	2.73	0.42
1:AA:185:A:C5	1:AA:186:C:C5	3.07	0.42
1:AA:197:A:C6	1:AA:221:C:H4'	2.55	0.42
1:AA:616:G:N3	1:AA:617:G:C8	2.88	0.42
1:AA:765:G:N1	1:AA:812:C:O2'	2.39	0.42
1:AA:862:C:H42	1:AA:867:G:H1	1.67	0.42
1:AA:1305:G:HO2'	1:AA:1306:A:P	2.43	0.42
2:AB:30:ARG:O	2:AB:31:TYR:CD1	2.72	0.42
2:AB:32:ILE:HA	2:AB:43:ASP:HB2	2.02	0.42
3:AC:126:ARG:HA	3:AC:126:ARG:HD3	1.95	0.42
3:AC:184:TYR:HA	3:AC:200:ALA:O	2.20	0.42
4:AD:72:GLU:HB3	4:AD:73:ARG:NH2	2.34	0.42
15:AO:74:ASP:OD1	15:AO:74:ASP:C	2.58	0.42
23:AW:42:C:O2'	23:AW:43:C:O5'	2.36	0.42
26:B1:32:LYS:HE3	26:B1:32:LYS:HB3	1.75	0.42
30:B5:54:GLY:HA2	50:BR:33:ARG:NH1	2.31	0.42
31:B6:21:TYR:HE1	31:B6:52:VAL:HG11	1.84	0.42
35:BA:332:A:O2'	35:BA:334:C:OP2	2.27	0.42
35:BA:977:G:O2'	35:BA:978:G:H5'	2.20	0.42
35:BA:1281:G:H5''	35:BA:1282:U:OP2	2.19	0.42
35:BA:1493:C:H4'	35:BA:1494:A:OP1	2.20	0.42
35:BA:1580:A:N7	35:BA:1581:G:O2'	2.53	0.42
35:BA:1636:C:H2'	35:BA:1637:A:H8	1.85	0.42
35:BA:2064:C:H2'	35:BA:2065:C:C6	2.55	0.42
35:BA:2202:C:O2'	38:BD:151:LYS:NZ	2.49	0.42
35:BA:2248:C:H3'	35:BA:2249:U:C6	2.55	0.42
35:BA:2462:U:H2'	35:BA:2463:C:C6	2.55	0.42
36:BB:55:U:H2'	36:BB:56:G:C8	2.55	0.42
40:BF:53:THR:HG22	40:BF:56:GLU:CB	2.50	0.42
41:BG:35:GLU:OE2	41:BG:36:LYS:N	2.53	0.42
42:BH:20:ALA:HB1	42:BH:21:PRO:CD	2.50	0.42
46:BN:34:LEU:HD23	46:BN:107:LEU:HD11	2.02	0.42
47:BO:104:ARG:HA	47:BO:121:VAL:CG1	2.50	0.42
51:BS:56:LEU:HB3	51:BS:57:LYS:H	1.63	0.42
52:BT:24:PRO:HG2	52:BT:94:ALA:HB1	2.01	0.42
52:BT:56:GLY:O	52:BT:57:PHE:HB3	2.19	0.42
53:BU:104:GLN:HB3	54:BV:43:GLU:OE1	2.20	0.42
54:BV:76:LYS:NZ	54:BV:83:ARG:NE	2.65	0.42
1:CA:8:A:N6	4:CD:205:GLU:O	2.52	0.42
1:CA:60:A:H4'	1:CA:61:G:O5'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:333:G:H4'	20:CT:16:HIS:NE2	2.35	0.42
1:CA:668:G:O2'	15:CO:46:HIS:HB3	2.20	0.42
1:CA:748:C:H1'	1:CA:749:C:OP2	2.19	0.42
1:CA:976:G:C8	1:CA:1362:C:N4	2.88	0.42
1:CA:1134:G:N2	1:CA:1135:U:O2'	2.52	0.42
10:CJ:49:VAL:O	10:CJ:60:ARG:HB3	2.19	0.42
14:CN:15:LYS:HE3	14:CN:16:PHE:CE2	2.55	0.42
15:CO:18:PHE:CE1	15:CO:21:ASP:HB2	2.55	0.42
18:CR:59:SER:N	18:CR:62:GLU:OE1	2.43	0.42
22:CV:1:C:O5'	49:DQ:87:LYS:HE3	2.20	0.42
31:D6:15:GLU:HG2	31:D6:18:ARG:NE	2.34	0.42
35:DA:62:C:H5''	35:DA:63:U:OP2	2.20	0.42
35:DA:363(E):U:O2'	35:DA:363(F):A:OP1	2.32	0.42
35:DA:723:G:C6	35:DA:724:U:C4	3.08	0.42
35:DA:956:G:H2'	35:DA:957:A:H2'	2.01	0.42
35:DA:1033:U:H6	35:DA:1033:U:H2'	1.63	0.42
35:DA:1368:G:C2	35:DA:1369:G:C8	3.08	0.42
35:DA:1440:G:H2'	35:DA:1441:G:O4'	2.19	0.42
35:DA:1510:G:C6	35:DA:1511:C:C4	3.08	0.42
35:DA:1826:G:H2'	35:DA:1827:C:O4'	2.18	0.42
35:DA:1854:A:C2	35:DA:2087:G:N3	2.88	0.42
35:DA:1885:A:H5''	35:DA:1886:C:OP2	2.20	0.42
35:DA:1907:G:C6	35:DA:1908:C:C4	3.08	0.42
35:DA:2182:G:C2	35:DA:2183:C:N3	2.88	0.42
35:DA:2226:C:H6	35:DA:2226:C:OP2	2.02	0.42
35:DA:2648:C:H2'	35:DA:2649:U:C6	2.55	0.42
39:DE:15:PHE:CE1	39:DE:20:ALA:HB2	2.55	0.42
39:DE:37:ARG:O	39:DE:45:THR:HA	2.20	0.42
39:DE:98:PRO:HB3	39:DE:173:VAL:O	2.20	0.42
39:DE:152:LYS:HB3	46:DN:79:PRO:HB3	2.02	0.42
42:DH:7:LEU:HA	42:DH:8:PRO:HD3	1.91	0.42
46:DN:16:ILE:HG12	46:DN:140:VAL:CG1	2.49	0.42
47:DO:87:ILE:HD13	47:DO:93:PRO:HA	2.02	0.42
48:DP:128:HIS:HE1	48:DP:148:LEU:HB3	1.84	0.42
51:DS:28:VAL:HG21	51:DS:99:LYS:NZ	2.30	0.42
53:DU:117:GLN:N	53:DU:117:GLN:OE1	2.52	0.42
57:DY:21:LYS:HD2	57:DY:22:GLY:N	2.35	0.42
57:DY:31:LEU:HD13	57:DY:31:LEU:HA	1.85	0.42
57:DY:97:ARG:HA	57:DY:97:ARG:HD2	1.72	0.42
1:AA:115:G:O2'	1:AA:116:A:OP2	2.31	0.42
1:AA:283:C:H2'	1:AA:284:G:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:327:A:C5	1:AA:329:A:C5	3.07	0.42
1:AA:486:U:O2	1:AA:486:U:H2'	2.20	0.42
1:AA:982:U:O2	1:AA:1222:G:N1	2.50	0.42
1:AA:986:A:N3	19:AS:52:TYR:OH	2.41	0.42
1:AA:1132:C:H41	1:AA:1143:G:N2	2.17	0.42
1:AA:1263:C:H2'	1:AA:1264:C:C6	2.45	0.42
2:AB:105:PHE:CE1	2:AB:109:SER:HB2	2.55	0.42
5:AE:18:ARG:O	5:AE:24:ARG:HA	2.20	0.42
5:AE:87:SER:HB3	5:AE:125:SER:HB3	2.01	0.42
5:AE:144:THR:N	5:AE:147:ASP:HB2	2.35	0.42
15:AO:17:ARG:HG3	15:AO:17:ARG:HH11	1.85	0.42
17:AQ:69:LYS:C	17:AQ:70:ARG:HD2	2.41	0.42
30:B5:15:ARG:HD2	35:BA:2021:C:OP2	2.19	0.42
31:B6:15:GLU:HG2	31:B6:16:CYS:H	1.84	0.42
33:B8:30:ARG:HD2	33:B8:31:HIS:HD2	1.85	0.42
35:BA:103:A:C8	35:BA:103:A:H3'	2.55	0.42
35:BA:361:G:H2'	35:BA:362:U:H5'	2.02	0.42
35:BA:1099:G:H5''	35:BA:1100:C:O5'	2.19	0.42
35:BA:1301:A:N3	35:BA:1301:A:H2'	2.35	0.42
35:BA:1580:A:H3'	35:BA:1581:G:O4'	2.20	0.42
35:BA:1636:C:H2'	35:BA:1637:A:C8	2.55	0.42
35:BA:1751:C:O2'	35:BA:1752:C:H5'	2.20	0.42
35:BA:2193:G:H2'	35:BA:2194:G:C8	2.55	0.42
35:BA:2257:U:C4	35:BA:2258:C:N4	2.88	0.42
35:BA:2437:U:H2'	35:BA:2438:U:C6	2.55	0.42
35:BA:2484:G:H1'	49:BQ:125:LEU:HD23	2.02	0.42
35:BA:2661:G:H8	35:BA:2662:A:C5	2.38	0.42
35:BA:2699:C:O2	35:BA:2699:C:O4'	2.37	0.42
38:BD:76:PRO:HG2	38:BD:98:VAL:HG21	2.01	0.42
38:BD:273:ARG:HD2	38:BD:273:ARG:C	2.40	0.42
39:BE:30:PRO:O	39:BE:32:PRO:HD3	2.20	0.42
39:BE:92:THR:HB	39:BE:94:GLU:H	1.84	0.42
41:BG:29:TRP:C	41:BG:31:VAL:N	2.72	0.42
41:BG:126:ASP:OD1	41:BG:126:ASP:N	2.53	0.42
41:BG:173:LEU:HD13	41:BG:178:PHE:CD2	2.55	0.42
46:BN:42:TRP:HA	46:BN:48:MET:CE	2.50	0.42
46:BN:65:LYS:HB3	46:BN:69:GLN:HG3	2.01	0.42
46:BN:66:LYS:HZ1	46:BN:87:LEU:HD22	1.83	0.42
47:BO:24:VAL:HG23	47:BO:33:ALA:HB2	2.01	0.42
48:BP:85:LEU:HD23	48:BP:88:LEU:HD23	2.02	0.42
57:BY:35:TYR:CD2	57:BY:69:ALA:HB3	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:129(A):G:O3'	1:CA:189(F):U:H2'	2.20	0.42
1:CA:153:C:H42	1:CA:169:C:N4	2.17	0.42
1:CA:200:G:C2	1:CA:218:C:O2	2.73	0.42
1:CA:313:A:C2	1:CA:314:C:C2	3.08	0.42
1:CA:600:C:H2'	1:CA:601:C:C6	2.51	0.42
1:CA:687:A:C2	1:CA:704:A:C6	3.07	0.42
1:CA:1004:A:H5''	1:CA:1025:U:O4	2.19	0.42
1:CA:1351:U:H3	1:CA:1371:G:H1	1.68	0.42
2:CB:99:GLY:C	2:CB:101:MET:H	2.23	0.42
2:CB:219:VAL:HA	2:CB:222:ILE:CD1	2.50	0.42
3:CC:43:LEU:O	3:CC:47:LEU:N	2.40	0.42
3:CC:64:VAL:CG2	3:CC:99:VAL:HA	2.50	0.42
3:CC:85:ARG:HD2	3:CC:85:ARG:HA	1.76	0.42
4:CD:3:ARG:HG2	4:CD:118:ARG:NH1	2.35	0.42
5:CE:140:ARG:O	5:CE:140:ARG:HG2	2.20	0.42
7:CG:21:VAL:O	7:CG:24:THR:OG1	2.21	0.42
7:CG:62:PHE:HA	7:CG:124:LEU:CD2	2.37	0.42
9:CI:26:VAL:HG13	9:CI:61:ALA:HB3	2.02	0.42
13:CM:10:PRO:HB3	13:CM:18:ALA:O	2.20	0.42
13:CM:81:LEU:HD22	13:CM:86:CYS:SG	2.59	0.42
17:CQ:59:ILE:HG22	17:CQ:71:PHE:HD2	1.85	0.42
25:D0:46:LYS:HG3	25:D0:47:PRO:CD	2.49	0.42
31:D6:12:GLU:O	31:D6:51:GLU:HA	2.20	0.42
31:D6:20:ASN:OD1	31:D6:42:TRP:HB3	2.20	0.42
35:DA:322:A:OP1	40:DF:168:ARG:HD2	2.19	0.42
35:DA:415:A:H2'	35:DA:416:C:H6	1.85	0.42
35:DA:676:A:H8	35:DA:2069:G:N2	2.06	0.42
35:DA:1281:G:H5'	35:DA:1282:U:OP2	2.20	0.42
35:DA:1313:U:H4'	35:DA:1332:G:H4'	2.01	0.42
35:DA:1333:C:H2'	35:DA:1334:G:C8	2.55	0.42
35:DA:1448:G:H1'	35:DA:1528:A:N6	2.33	0.42
35:DA:1495:A:C2	35:DA:1496:A:C5	3.05	0.42
35:DA:1506:C:H5'	35:DA:1507:A:OP2	2.19	0.42
35:DA:1823:G:P	38:DD:54:ARG:HH21	2.43	0.42
35:DA:2476:A:C2'	35:DA:2477:C:H5''	2.43	0.42
35:DA:2630:G:C8	35:DA:2894:G:C2	3.08	0.42
38:DD:35:LYS:NZ	38:DD:64:ILE:HG22	2.35	0.42
40:DF:178:PRO:HB3	40:DF:198:ALA:CB	2.48	0.42
41:DG:104:GLU:O	41:DG:106:LEU:N	2.53	0.42
41:DG:121:ASN:O	41:DG:131:TYR:OH	2.34	0.42
43:DI:1:MET:O	43:DI:21:VAL:HG22	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DQ:10:ARG:NH1	49:DQ:11:LYS:HA	2.35	0.42
52:DT:1:MET:HB3	52:DT:2:ASN:H	1.61	0.42
53:DU:93:LYS:HD3	53:DU:93:LYS:N	2.34	0.42
53:DU:95:LEU:HD23	54:DV:4:ILE:CD1	2.50	0.42
58:DZ:162:GLU:CD	58:DZ:164:ALA:HB2	2.40	0.42
1:AA:244:U:O4	1:AA:906:G:H1'	2.20	0.41
1:AA:350:G:O2'	1:AA:351:G:H5'	2.20	0.41
1:AA:428:G:O4'	1:AA:430:A:C8	2.73	0.41
1:AA:675:A:O2'	11:AK:114:VAL:O	2.38	0.41
1:AA:692:U:H1'	1:AA:694:A:C2	2.55	0.41
1:AA:736:C:H2'	1:AA:737:A:H8	1.84	0.41
1:AA:801:U:H2'	1:AA:802:A:C8	2.55	0.41
1:AA:889:A:H5'	1:AA:891:U:H1'	2.02	0.41
1:AA:1183:A:OP2	1:AA:1183:A:H4'	2.20	0.41
1:AA:1272:G:H2'	1:AA:1273:G:O4'	2.20	0.41
1:AA:1291:G:OP1	7:AG:41:ARG:NH2	2.50	0.41
1:AA:1320:C:OP1	19:AS:70:LYS:HE2	2.20	0.41
2:AB:102:LEU:CD1	2:AB:182:ILE:HG13	2.49	0.41
2:AB:155:LEU:O	2:AB:157:ARG:N	2.41	0.41
4:AD:75:PHE:CZ	4:AD:93:PHE:HZ	2.38	0.41
7:AG:4:ARG:HH11	7:AG:4:ARG:HB3	1.84	0.41
7:AG:111:ARG:NH2	7:AG:123:GLU:HB3	2.35	0.41
8:AH:6:ILE:CD1	8:AH:32:LYS:HG2	2.49	0.41
17:AQ:26:GLN:HG2	17:AQ:37:LYS:HG2	2.01	0.41
23:AY:40:C:H2'	23:AY:41:C:O4'	2.20	0.41
33:B8:52:LYS:NZ	48:BP:52:GLU:OE2	2.48	0.41
35:BA:271(M):G:O2'	35:BA:271(N):U:H5'	2.20	0.41
35:BA:489:G:C5	35:BA:1284:A:C2	3.08	0.41
35:BA:527:C:OP2	35:BA:2779:U:C5	2.73	0.41
35:BA:679:C:H2'	35:BA:680:G:H8	1.85	0.41
35:BA:1392:A:C6	35:BA:1393:A:C6	3.08	0.41
35:BA:1485:G:C6	35:BA:1505:C:N4	2.88	0.41
35:BA:1493:C:N4	35:BA:2206:G:O2'	2.53	0.41
35:BA:1746:G:C2	35:BA:1747:G:C5	3.08	0.41
35:BA:2188:C:H2'	35:BA:2189:U:C6	2.55	0.41
35:BA:2274:A:C6	35:BA:2276:G:C8	3.07	0.41
35:BA:2814:C:C5	35:BA:2815:C:C5	3.08	0.41
36:BB:120:A:OP1	36:BB:120:A:H4'	2.19	0.41
37:BC:24:GLU:HG3	37:BC:27:ARG:HE	1.85	0.41
38:BD:130:ALA:HA	38:BD:192:THR:HA	2.01	0.41
39:BE:101:ARG:C	39:BE:201:THR:OG1	2.58	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BH:68:THR:O	42:BH:72:ILE:HG13	2.20	0.41
46:BN:2:LYS:HD2	54:BV:13:ARG:H	1.85	0.41
46:BN:23:LEU:HB2	46:BN:60:ILE:HG21	2.02	0.41
48:BP:41:ARG:HA	48:BP:41:ARG:HH21	1.84	0.41
48:BP:87:ASP:OD1	48:BP:87:ASP:N	2.52	0.41
49:BQ:8:LYS:HB3	49:BQ:10:ARG:CD	2.50	0.41
50:BR:26:LYS:CD	50:BR:27:SER:H	2.33	0.41
50:BR:28:LEU:O	50:BR:28:LEU:HD13	2.20	0.41
51:BS:89:ARG:NH1	51:BS:92:TYR:CE1	2.88	0.41
54:BV:60:GLU:N	54:BV:60:GLU:OE2	2.53	0.41
58:BZ:40:ASP:C	58:BZ:44:PHE:CD2	2.91	0.41
1:CA:614:A:C6	1:CA:615:C:C4	3.08	0.41
1:CA:639:G:C2	1:CA:640:A:C8	3.08	0.41
1:CA:857:C:H2'	1:CA:858:G:O4'	2.19	0.41
1:CA:957:U:O2	1:CA:960:U:C2	2.73	0.41
1:CA:1097:C:O2'	1:CA:1098:C:H5'	2.20	0.41
1:CA:1107:C:OP1	3:CC:173:VAL:N	2.51	0.41
3:CC:94:LEU:HD12	3:CC:95:THR:OG1	2.21	0.41
4:CD:25:ARG:O	4:CD:28:SER:N	2.53	0.41
8:CH:113:SER:HB3	8:CH:118:VAL:HG22	2.03	0.41
10:CJ:57:LYS:C	10:CJ:59:SER:H	2.22	0.41
11:CK:93:GLN:HA	11:CK:96:ARG:HB2	2.02	0.41
16:CP:27:LYS:O	16:CP:28:ARG:C	2.58	0.41
28:D3:15:TYR:CE2	28:D3:53:LEU:HD21	2.54	0.41
35:DA:271(Q):G:C2	35:DA:271(R):G:C6	3.08	0.41
35:DA:271(Q):G:HO2'	35:DA:271(R):G:P	2.33	0.41
35:DA:425:G:H2'	35:DA:426:C:H6	1.84	0.41
35:DA:528:A:H3'	35:DA:528:A:H8	1.85	0.41
35:DA:533:G:H5'	53:DU:24:TYR:CE1	2.55	0.41
35:DA:566:U:H2'	35:DA:567:A:O4'	2.20	0.41
35:DA:1512:U:H2'	35:DA:1513:C:C6	2.55	0.41
35:DA:1814:G:H4'	38:DD:51:VAL:HG21	2.01	0.41
35:DA:1863:G:H2'	35:DA:1864:U:C6	2.55	0.41
36:DB:70:C:C4	36:DB:71:C:C5	3.07	0.41
38:DD:161:THR:O	38:DD:196:VAL:HG23	2.20	0.41
40:DF:9:ILE:HG23	40:DF:13:SER:O	2.20	0.41
42:DH:19:VAL:HG21	42:DH:44:VAL:HG13	2.02	0.41
42:DH:137:ASP:O	42:DH:138:LYS:CB	2.65	0.41
43:DI:40:THR:O	43:DI:44:LEU:N	2.34	0.41
43:DI:54:GLN:O	43:DI:58:LEU:HB2	2.20	0.41
46:DN:113:GLY:HA2	46:DN:116:LEU:HD12	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DO:17:ARG:HD2	47:DO:17:ARG:HA	1.56	0.41
49:DQ:13:GLN:HG2	49:DQ:13:GLN:H	1.48	0.41
49:DQ:54:MET:HB2	49:DQ:64:ILE:HD13	2.02	0.41
49:DQ:130:LYS:HD2	49:DQ:130:LYS:HA	1.79	0.41
52:DT:74:ARG:HB3	52:DT:76:PHE:CE1	2.55	0.41
54:DV:38:LEU:HA	54:DV:38:LEU:HD23	1.77	0.41
57:DY:8:LYS:HB3	57:DY:8:LYS:HE2	1.30	0.41
57:DY:28:LYS:HB2	57:DY:30:VAL:CG2	2.50	0.41
57:DY:42:VAL:CG1	57:DY:65:ALA:HB3	2.50	0.41
58:DZ:98:MET:HB2	58:DZ:98:MET:HE3	1.73	0.41
1:AA:105:G:C6	1:AA:106:C:C4	3.08	0.41
1:AA:153:C:H2'	1:AA:154:C:C6	2.55	0.41
1:AA:179:A:C2'	1:AA:180:U:H5'	2.50	0.41
1:AA:426:G:H4'	4:AD:42:GLN:HA	2.01	0.41
1:AA:555:C:H2'	1:AA:556:C:H6	1.82	0.41
1:AA:988:G:C6	1:AA:989:C:C4	3.08	0.41
1:AA:1072:G:C5	1:AA:1073:U:C5	3.08	0.41
1:AA:1206:G:C4	1:AA:1207:G:C8	3.08	0.41
1:AA:1352:C:O2	1:AA:1371:G:C2	2.73	0.41
1:AA:1418:A:N3	35:BA:1959:G:H1'	2.35	0.41
4:AD:100:ARG:NE	4:AD:137:SER:HB3	2.33	0.41
4:AD:120:LEU:HD23	4:AD:120:LEU:HA	1.75	0.41
4:AD:159:ARG:O	4:AD:162:LEU:N	2.53	0.41
5:AE:76:ILE:HG22	5:AE:78:HIS:H	1.85	0.41
7:AG:38:LEU:O	7:AG:42:ILE:HG13	2.20	0.41
10:AJ:5:ARG:NE	10:AJ:71:LEU:HD21	2.35	0.41
13:AM:13:LYS:O	13:AM:44:ARG:HA	2.20	0.41
20:AT:82:SER:O	20:AT:86:ARG:HB2	2.20	0.41
22:AV:3:C:H5'	35:BA:2255:G:O2'	2.20	0.41
22:AV:15:G:H2'	22:AV:60:A:N1	2.34	0.41
22:AV:21:U:OP1	22:AV:21:U:H3'	2.20	0.41
25:B0:24:LYS:HA	25:B0:24:LYS:HD3	1.85	0.41
26:B1:16:ASN:C	26:B1:44:PRO:HG3	2.41	0.41
30:B5:8:LYS:O	35:BA:2017:U:H4'	2.20	0.41
33:B8:30:ARG:NH2	48:BP:63:PRO:HD2	2.23	0.41
34:B9:29:ASN:ND2	34:B9:30:PRO:HD2	2.35	0.41
35:BA:39:C:H2'	35:BA:40:C:H6	1.85	0.41
35:BA:71:A:H2	56:BX:31:HIS:CE1	2.38	0.41
35:BA:566:U:O5'	35:BA:566:U:H6	2.03	0.41
35:BA:784:A:N6	38:BD:229:VAL:HG21	2.35	0.41
35:BA:956:G:N2	35:BA:959:A:H3'	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1322:A:C5	35:BA:1323:U:C4	3.08	0.41
35:BA:1570:A:H4'	38:BD:38:LYS:HE2	2.01	0.41
35:BA:1684:C:C2	35:BA:1705:G:C2	3.08	0.41
35:BA:1991:U:C2'	35:BA:1992:G:H5''	2.49	0.41
37:BC:24:GLU:OE2	37:BC:27:ARG:HG2	2.20	0.41
37:BC:100:ILE:HD13	37:BC:132:GLY:HA3	2.02	0.41
38:BD:46:GLN:N	38:BD:46:GLN:CD	2.74	0.41
38:BD:63:ARG:H	38:BD:63:ARG:HD2	1.85	0.41
39:BE:105:THR:CG2	39:BE:164:ARG:HE	2.34	0.41
39:BE:115:GLY:O	39:BE:119:ARG:HB2	2.20	0.41
42:BH:109:PHE:HB3	42:BH:110:SER:H	1.41	0.41
42:BH:146:ALA:C	42:BH:148:ILE:N	2.73	0.41
43:BI:10:GLU:CD	43:BI:11:ASN:N	2.73	0.41
43:BI:135:GLU:N	43:BI:135:GLU:CD	2.73	0.41
51:BS:64:GLU:O	51:BS:67:ARG:HB2	2.20	0.41
57:BY:32:PRO:O	57:BY:35:TYR:N	2.51	0.41
57:BY:44:ILE:O	57:BY:46:LYS:HE3	2.20	0.41
1:CA:189(A):C:N3	1:CA:189(J):G:N2	2.65	0.41
1:CA:428:G:C5	1:CA:430:A:C6	3.08	0.41
1:CA:558:G:H2'	1:CA:559:A:H2	1.85	0.41
1:CA:901:A:C5	1:CA:902:G:H1'	2.55	0.41
1:CA:911:U:H2'	1:CA:912:C:C6	2.55	0.41
1:CA:1054:C:OP1	1:CA:1198:G:OP2	2.38	0.41
1:CA:1522:U:H2'	1:CA:1523:G:C8	2.55	0.41
2:CB:14:GLY:H	2:CB:16:HIS:CE1	2.38	0.41
2:CB:97:TRP:CH2	2:CB:176:GLU:OE2	2.72	0.41
3:CC:136:GLN:HA	3:CC:139:GLN:HB3	2.01	0.41
3:CC:164:ARG:N	3:CC:164:ARG:HD2	2.34	0.41
4:CD:190:ASP:OD1	4:CD:192:GLU:N	2.47	0.41
5:CE:79:GLU:OE1	8:CH:104:ARG:HA	2.20	0.41
5:CE:84:PHE:O	5:CE:86:ALA:N	2.53	0.41
5:CE:129:ILE:O	5:CE:132:ALA:N	2.53	0.41
6:CF:55:ASP:OD1	6:CF:56:PRO:HD2	2.20	0.41
7:CG:95:ARG:NE	7:CG:99:LEU:HD21	2.35	0.41
8:CH:5:PRO:HB2	8:CH:32:LYS:HE2	2.01	0.41
17:CQ:50:LYS:O	17:CQ:52:LYS:HE3	2.20	0.41
18:CR:26:LEU:HD22	18:CR:29:PHE:CD2	2.55	0.41
19:CS:78:ARG:HA	19:CS:78:ARG:CZ	2.51	0.41
20:CT:45:GLN:C	20:CT:47:GLY:H	2.23	0.41
20:CT:67:ALA:O	20:CT:69:GLY:N	2.53	0.41
23:CW:11:C:OP2	23:CW:11:C:H6	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:D0:66:VAL:HG23	25:D0:82:ARG:CG	2.50	0.41
26:D1:69:LYS:NZ	26:D1:95:LEU:HG	2.35	0.41
32:D7:22:MET:O	32:D7:28:ARG:NH1	2.54	0.41
33:D8:26:LYS:CG	33:D8:27:THR:H	2.33	0.41
35:DA:271(K):U:HO2'	35:DA:271(L):U:C5'	2.33	0.41
35:DA:746:A:C5	35:DA:2611:U:H5''	2.55	0.41
35:DA:1021:A:C8	35:DA:1021:A:C3'	3.01	0.41
35:DA:2196:C:C2'	35:DA:2197:U:H5'	2.50	0.41
35:DA:2302:G:H2'	35:DA:2303:G:C8	2.55	0.41
35:DA:2664:G:H8	35:DA:2664:G:O5'	2.03	0.41
37:DC:18:LYS:O	37:DC:20:TYR:N	2.53	0.41
38:DD:108:PRO:HD2	38:DD:111:LEU:CD1	2.49	0.41
40:DF:80:ALA:O	40:DF:83:PHE:HB2	2.20	0.41
42:DH:40:GLU:HG3	42:DH:55:PRO:CG	2.43	0.41
46:DN:56:ASN:CG	46:DN:126:PRO:HG3	2.40	0.41
48:DP:40:SER:O	48:DP:45:LEU:HG	2.20	0.41
48:DP:108:LYS:O	48:DP:110:TYR:N	2.53	0.41
50:DR:18:LEU:HD11	50:DR:22:ARG:NE	2.35	0.41
50:DR:60:LEU:O	50:DR:64:ARG:HG3	2.19	0.41
50:DR:65:LEU:O	50:DR:68:ARG:HB3	2.20	0.41
52:DT:14:TYR:HB2	52:DT:57:PHE:CE2	2.55	0.41
52:DT:45:PHE:HE2	52:DT:74:ARG:NE	2.17	0.41
53:DU:16:LYS:O	53:DU:16:LYS:HD3	2.19	0.41
55:DW:64:MET:CE	55:DW:109:GLU:HG3	2.49	0.41
58:DZ:6:LYS:HA	58:DZ:60:GLU:HB2	2.02	0.41
1:AA:598:U:H2'	1:AA:599:C:H6	1.77	0.41
1:AA:604:G:C6	1:AA:605:U:C4	3.08	0.41
1:AA:757:U:H2'	1:AA:758:G:O4'	2.21	0.41
1:AA:946:A:H2'	1:AA:947:G:H8	1.82	0.41
1:AA:1081:G:N7	5:AE:47:LYS:HE2	2.35	0.41
1:AA:1227:A:O3'	13:AM:115:LYS:HD2	2.20	0.41
1:AA:1261:A:N7	1:AA:1275:A:C8	2.89	0.41
1:AA:1277:C:C6	1:AA:1277:C:C3'	3.03	0.41
1:AA:1356:G:N2	1:AA:1367:C:C2	2.88	0.41
1:AA:1447:A:H2'	1:AA:1452:C:C5'	2.50	0.41
2:AB:47:THR:HG22	2:AB:202:PRO:O	2.20	0.41
2:AB:126:GLU:OE2	2:AB:131:PRO:HD3	2.20	0.41
4:AD:162:LEU:O	4:AD:165:MET:HB2	2.19	0.41
13:AM:35:GLU:O	13:AM:38:GLY:N	2.54	0.41
27:B2:30:ARG:O	27:B2:32:LEU:N	2.54	0.41
33:B8:6:THR:HG22	35:BA:242:G:O2'	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:B8:50:LEU:C	33:B8:53:PRO:HD2	2.40	0.41
35:BA:150:C:H2'	35:BA:151:C:C6	2.55	0.41
35:BA:524:U:H2'	35:BA:525:U:C6	2.56	0.41
35:BA:643:A:N1	35:BA:2369:A:O2'	2.50	0.41
35:BA:977:G:C4	35:BA:978:G:C8	3.08	0.41
35:BA:1050:A:N1	35:BA:2751:G:C5	2.88	0.41
35:BA:1148:A:H2'	35:BA:1149:G:H8	1.85	0.41
35:BA:1437:C:C2	35:BA:1438:U:C5	3.09	0.41
35:BA:1482:G:C2	35:BA:1507:A:H1'	2.56	0.41
35:BA:1491:G:OP2	35:BA:1494:A:H2	2.03	0.41
35:BA:1678:G:N2	35:BA:1989:G:H1	2.17	0.41
35:BA:2344:U:OP2	35:BA:2344:U:H6	2.03	0.41
35:BA:2594:C:H2'	35:BA:2595:G:C8	2.56	0.41
35:BA:2699:C:N4	35:BA:2708:G:N1	2.55	0.41
35:BA:2720:U:O4	35:BA:2872:G:C6	2.73	0.41
35:BA:2772:C:H2'	35:BA:2773:C:C6	2.55	0.41
37:BC:53:ARG:HE	37:BC:53:ARG:HB2	1.74	0.41
38:BD:28:GLU:N	38:BD:28:GLU:CD	2.73	0.41
42:BH:103:LEU:HD11	42:BH:105:LEU:HD13	2.01	0.41
43:BI:10:GLU:OE1	43:BI:11:ASN:N	2.48	0.41
43:BI:88:ILE:HG13	43:BI:121:LYS:HA	2.03	0.41
43:BI:133:HIS:ND1	43:BI:133:HIS:O	2.53	0.41
47:BO:13:ASN:OD1	47:BO:14:THR:N	2.45	0.41
48:BP:110:TYR:HE1	48:BP:128:HIS:HB3	1.85	0.41
52:BT:115:ARG:H	52:BT:115:ARG:HG2	1.60	0.41
54:BV:66:ARG:HG3	54:BV:95:LEU:N	2.36	0.41
55:BW:12:ILE:HD13	55:BW:17:VAL:CG2	2.50	0.41
55:BW:59:VAL:O	55:BW:60:ASN:HB2	2.20	0.41
1:CA:42:G:H2'	1:CA:43:C:C6	2.55	0.41
1:CA:316:G:N3	1:CA:317:G:C8	2.88	0.41
1:CA:336:C:O5'	1:CA:336:C:H6	2.04	0.41
1:CA:417:C:H2'	1:CA:418:C:C6	2.55	0.41
1:CA:658:G:H8	1:CA:658:G:O5'	2.04	0.41
1:CA:722:A:N1	1:CA:724:G:C6	2.88	0.41
1:CA:1026:G:H2'	1:CA:1026:G:N3	2.34	0.41
1:CA:1243:C:C2	1:CA:1295:G:N2	2.89	0.41
1:CA:1256:A:O2'	1:CA:1257:U:O3'	2.37	0.41
1:CA:1276:G:N1	1:CA:1277:C:O2	2.53	0.41
1:CA:1311:G:H2'	1:CA:1312:G:O4'	2.20	0.41
1:CA:1350:A:H2'	1:CA:1351:U:C6	2.55	0.41
1:CA:1352:C:OP1	21:CU:3:LYS:NZ	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:42:ILE:CD1	2:CB:202:PRO:HB2	2.50	0.41
3:CC:26:LYS:O	3:CC:27:LYS:HG2	2.19	0.41
4:CD:88:VAL:O	4:CD:92:VAL:HG23	2.21	0.41
4:CD:202:LEU:HA	4:CD:205:GLU:HB2	2.02	0.41
7:CG:154:TYR:HD1	7:CG:154:TYR:HA	1.77	0.41
12:CL:8:ASN:O	12:CL:11:VAL:N	2.52	0.41
13:CM:23:TYR:HB3	13:CM:67:GLU:HB3	2.01	0.41
14:CN:3:ARG:HD2	14:CN:4:LYS:N	2.34	0.41
22:CV:62:C:H2'	22:CV:63:G:C8	2.55	0.41
25:D0:51:VAL:N	25:D0:62:LEU:HD12	2.36	0.41
31:D6:41:PRO:HG2	31:D6:43:CYS:O	2.20	0.41
33:D8:36:LYS:C	33:D8:37:SER:HG	2.16	0.41
35:DA:183:C:H1'	35:DA:433:C:H1'	2.02	0.41
35:DA:272(I):U:C6	35:DA:272(I):U:OP2	2.72	0.41
35:DA:363(D):G:C2	35:DA:363(E):U:O2	2.73	0.41
35:DA:1021:A:O2'	35:DA:1123:C:H5''	2.20	0.41
35:DA:1500:G:N2	38:DD:99:ASP:O	2.50	0.41
35:DA:1678:G:N2	35:DA:1989:G:H1	2.17	0.41
35:DA:2001:A:H2'	35:DA:2002:G:C8	2.56	0.41
35:DA:2224:G:H4'	35:DA:2226:C:C2	2.55	0.41
35:DA:2529:G:OP2	35:DA:2530:A:H5''	2.20	0.41
35:DA:2584:U:H5	35:DA:2585:U:C5	2.38	0.41
35:DA:2757:A:H5''	35:DA:2757:A:H8	1.85	0.41
35:DA:2791:C:H41	35:DA:2803:C:H42	1.67	0.41
35:DA:2822:G:H8	35:DA:2822:G:O5'	2.03	0.41
35:DA:2888:C:H2'	35:DA:2889:C:H6	1.86	0.41
37:DC:77:ILE:HB	37:DC:121:GLY:HA3	2.02	0.41
40:DF:25:PRO:HG3	40:DF:119:ARG:CD	2.48	0.41
40:DF:167:ALA:HB1	40:DF:173:VAL:HG11	2.01	0.41
42:DH:124:GLU:O	42:DH:132:ARG:HB3	2.20	0.41
43:DI:31:LEU:N	43:DI:32:PRO:HD2	2.35	0.41
45:DK:87:UNK:C	45:DK:89:UNK:H	2.32	0.41
49:DQ:10:ARG:HH11	49:DQ:11:LYS:HG2	1.83	0.41
50:DR:8:ARG:HD3	50:DR:8:ARG:HA	1.80	0.41
51:DS:42:ASP:C	51:DS:44:LYS:N	2.73	0.41
54:DV:5:VAL:HG23	54:DV:37:VAL:O	2.21	0.41
54:DV:37:VAL:H	54:DV:37:VAL:HG22	1.62	0.41
54:DV:66:ARG:CZ	54:DV:68:LYS:N	2.80	0.41
55:DW:14:PRO:O	55:DW:15:ARG:C	2.58	0.41
56:DX:82:GLN:HG3	56:DX:85:PRO:HD2	2.02	0.41
57:DY:37:VAL:HG21	57:DY:72:VAL:HG21	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:27:G:N2	1:AA:297:G:OP1	2.39	0.41
1:AA:45:U:H2'	1:AA:46:G:H8	1.84	0.41
1:AA:55:A:H2'	1:AA:56:U:C6	2.55	0.41
1:AA:189(H):G:H3'	1:AA:189(I):G:C8	2.55	0.41
1:AA:411:A:H3'	1:AA:412:A:H5''	2.02	0.41
1:AA:591:U:H2'	1:AA:592:G:O4'	2.20	0.41
1:AA:951:G:C2	1:AA:1231:G:C2	3.09	0.41
1:AA:978:A:C6	1:AA:1318:A:C6	3.08	0.41
1:AA:1127:G:H1'	1:AA:1148:U:C4	2.55	0.41
1:AA:1129:C:N4	1:AA:1132:C:C5	2.89	0.41
1:AA:1302:U:H5'	13:AM:17:VAL:HG11	2.01	0.41
1:AA:1402:C:O2	1:AA:1500:A:N1	2.53	0.41
1:AA:1427:U:H6	1:AA:1427:U:O5'	2.03	0.41
1:AA:1504:G:H4'	1:AA:1505:G:OP2	2.19	0.41
2:AB:218:ALA:C	2:AB:220:ASP:H	2.24	0.41
3:AC:111:LEU:HD11	3:AC:145:GLY:O	2.21	0.41
4:AD:46:LYS:HG2	4:AD:47:ARG:HH21	1.84	0.41
4:AD:47:ARG:HD2	4:AD:47:ARG:N	2.25	0.41
8:AH:31:PHE:HZ	8:AH:134:ILE:HD12	1.85	0.41
8:AH:41:ARG:HH22	8:AH:123:GLU:CD	2.23	0.41
13:AM:66:LEU:HB2	13:AM:67:GLU:H	1.63	0.41
15:AO:5:LYS:O	15:AO:9:GLN:HG2	2.20	0.41
31:B6:28:ARG:HD3	31:B6:51:GLU:OE2	2.21	0.41
35:BA:195:A:N6	35:BA:198:C:H3'	2.35	0.41
35:BA:363(A):A:C8	35:BA:363(B):G:N7	2.88	0.41
35:BA:460:A:C2	35:BA:470:A:C4	3.08	0.41
35:BA:864:G:N2	35:BA:913:U:C2	2.88	0.41
35:BA:911:A:C6	49:BQ:9:TYR:HE1	2.39	0.41
35:BA:1039:G:H22	35:BA:1116:C:H42	1.66	0.41
35:BA:1084:A:H5'	44:BJ:56:UNK:O	2.20	0.41
35:BA:1599:C:H2'	35:BA:1600:C:C6	2.55	0.41
35:BA:1721:G:H5''	35:BA:1721:G:N3	2.36	0.41
35:BA:1857:G:H2'	35:BA:1858:G:C1'	2.50	0.41
35:BA:2533:A:H8	35:BA:2533:A:O5'	2.02	0.41
35:BA:2640:G:P	46:BN:97:ARG:HH22	2.42	0.41
35:BA:2681:C:H5	35:BA:2725:A:N6	2.17	0.41
35:BA:2857:G:C5	35:BA:2859:G:OP2	2.74	0.41
35:BA:2872:G:N1	35:BA:2873:A:N6	2.69	0.41
36:BB:91:C:OP2	49:BQ:16:ARG:HG3	2.20	0.41
46:BN:66:LYS:HZ1	46:BN:87:LEU:CD2	2.34	0.41
48:BP:139:LYS:C	48:BP:141:ALA:H	2.24	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BP:143:GLY:O	48:BP:144:GLU:HB3	2.19	0.41
52:BT:29:ARG:CG	52:BT:30:VAL:HG22	2.50	0.41
52:BT:87:ASP:N	52:BT:87:ASP:OD1	2.54	0.41
53:BU:80:ILE:O	53:BU:82:GLY:N	2.53	0.41
55:BW:8:ARG:HA	55:BW:102:HIS:ND1	2.35	0.41
56:BX:67:GLY:O	56:BX:68:ARG:CZ	2.68	0.41
58:BZ:4:ARG:NH2	58:BZ:60:GLU:HB2	2.35	0.41
1:CA:132:C:H2'	1:CA:133:U:O4'	2.20	0.41
1:CA:194:C:P	20:CT:61:SER:HG	2.43	0.41
1:CA:222:U:H2'	1:CA:223:U:C6	2.55	0.41
1:CA:318:G:H1	1:CA:335:C:H42	1.69	0.41
1:CA:633:G:H5'	1:CA:634:C:OP2	2.21	0.41
1:CA:756:C:OP2	15:CO:65:ARG:NH2	2.54	0.41
1:CA:878:G:C6	1:CA:879:C:N4	2.88	0.41
1:CA:885:G:H1'	1:CA:914:A:N1	2.36	0.41
1:CA:894:G:C6	1:CA:895:G:C5	3.09	0.41
1:CA:986:A:H2'	1:CA:987:G:O4'	2.19	0.41
1:CA:1171:G:H2'	1:CA:1172:C:H6	1.84	0.41
5:CE:25:ARG:HA	5:CE:25:ARG:NE	2.30	0.41
5:CE:139:LEU:HA	5:CE:142:LEU:CD1	2.49	0.41
6:CF:7:ASN:OD1	6:CF:62:TRP:HD1	2.03	0.41
7:CG:146:GLU:HA	7:CG:149:ARG:HG2	2.02	0.41
11:CK:32:ILE:HG12	11:CK:41:THR:O	2.21	0.41
11:CK:59:TYR:CE1	11:CK:63:LEU:HD12	2.55	0.41
11:CK:66:LEU:HD11	11:CK:97:ALA:HB1	2.02	0.41
12:CL:102:ARG:HB2	12:CL:120:TYR:HA	2.02	0.41
18:CR:40:LEU:HB2	18:CR:41:LYS:H	1.72	0.41
23:CW:17:C:H5''	23:CW:17:C:H6	1.86	0.41
26:D1:21:ARG:HB2	26:D1:40:ARG:NH1	2.34	0.41
33:D8:29:LYS:NZ	33:D8:44:LYS:HB2	2.34	0.41
33:D8:58:ILE:HD12	33:D8:58:ILE:HG23	1.70	0.41
35:DA:232:G:H8	35:DA:232:G:OP2	2.04	0.41
35:DA:271:A:N3	35:DA:365:C:O2'	2.41	0.41
35:DA:272(E):G:H2'	35:DA:272(F):C:O4'	2.20	0.41
35:DA:697:C:H2'	35:DA:698:C:C6	2.55	0.41
35:DA:1178:C:H2'	35:DA:1179:C:C6	2.56	0.41
35:DA:1209:G:N2	35:DA:1210:A:N6	2.68	0.41
35:DA:1369:G:H1'	35:DA:1809:A:N1	2.35	0.41
35:DA:1382:G:H8	35:DA:1382:G:O5'	2.03	0.41
35:DA:1824:G:N3	38:DD:254:THR:OG1	2.54	0.41
35:DA:2636:U:OP1	39:DE:79:ARG:HG3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DB:55:U:N3	36:DB:56:G:N7	2.68	0.41
36:DB:61:G:C2	36:DB:62:C:C2	3.08	0.41
36:DB:74:U:C4	36:DB:75:G:C5	3.08	0.41
40:DF:3:GLU:HG2	40:DF:19:GLU:CB	2.51	0.41
40:DF:21:ALA:O	40:DF:23:ASP:N	2.53	0.41
40:DF:123:LEU:HA	40:DF:123:LEU:HD12	1.80	0.41
42:DH:41:MET:CE	42:DH:54:ARG:HA	2.49	0.41
47:DO:34:THR:OG1	47:DO:35:VAL:N	2.48	0.41
48:DP:136:GLU:C	48:DP:138:LEU:H	2.23	0.41
49:DQ:47:ILE:HD13	49:DQ:47:ILE:HA	1.75	0.41
50:DR:13:HIS:CD2	50:DR:16:HIS:CB	3.03	0.41
51:DS:42:ASP:O	51:DS:43:GLU:HB2	2.20	0.41
56:DX:62:LYS:HE3	56:DX:62:LYS:HB3	1.79	0.41
1:AA:203:U:O2'	1:AA:215:U:P	2.78	0.41
1:AA:373:A:C2	1:AA:374:A:C8	3.09	0.41
1:AA:815:A:N7	1:AA:1509:C:O2'	2.49	0.41
1:AA:833:U:O2'	1:AA:834:C:H5'	2.20	0.41
1:AA:951:G:OP2	13:AM:102:ARG:NH1	2.53	0.41
3:AC:64:VAL:HB	3:AC:99:VAL:HA	2.03	0.41
3:AC:131:ARG:NE	3:AC:166:GLU:OE2	2.52	0.41
7:AG:47:CYS:HA	7:AG:50:ILE:HG13	2.02	0.41
7:AG:50:ILE:HD12	7:AG:61:VAL:HG11	2.03	0.41
8:AH:25:ASP:HB3	8:AH:58:TYR:CD2	2.56	0.41
8:AH:34:GLU:HG2	8:AH:37:ARG:NH1	2.36	0.41
8:AH:34:GLU:HG2	8:AH:37:ARG:NH2	2.35	0.41
12:AL:46:LYS:HZ1	12:AL:94:PRO:HB3	1.82	0.41
23:AY:41:C:H6	23:AY:41:C:H3'	1.84	0.41
27:B2:27:GLU:CG	27:B2:29:LYS:HE2	2.49	0.41
28:B3:4:LEU:HD12	28:B3:4:LEU:HA	1.77	0.41
30:B5:29:THR:HG21	35:BA:2815:C:C5'	2.46	0.41
31:B6:29:ASN:O	31:B6:30:THR:CG2	2.66	0.41
35:BA:55:G:H2'	35:BA:56:A:C8	2.55	0.41
35:BA:142:A:C5'	35:BA:142(A):C:OP2	2.68	0.41
35:BA:607:U:OP1	40:BF:103:LYS:N	2.36	0.41
35:BA:723:G:H2'	35:BA:724:U:O4'	2.20	0.41
35:BA:912:C:O2	35:BA:912:C:H2'	2.20	0.41
35:BA:1528:A:C2	35:BA:1528(A):A:C6	3.08	0.41
35:BA:1993:U:H2'	35:BA:1994:C:O4'	2.21	0.41
35:BA:2515:C:O2'	35:BA:2516:G:H5'	2.21	0.41
35:BA:2721:A:H5''	35:BA:2722:G:OP2	2.20	0.41
35:BA:2888:C:H2'	35:BA:2889:C:C6	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BB:44:G:N1	36:BB:48:A:C2	2.89	0.41
41:BG:28:VAL:O	41:BG:31:VAL:HB	2.21	0.41
41:BG:111:LEU:HB3	41:BG:117:PHE:HE2	1.86	0.41
42:BH:65:HIS:CE1	42:BH:69:ARG:HD3	2.56	0.41
43:BI:8:PRO:HA	43:BI:15:VAL:H	1.85	0.41
47:BO:12:ASP:CG	47:BO:14:THR:HG23	2.41	0.41
49:BQ:5:ARG:HH22	49:BQ:7:MET:H	1.65	0.41
49:BQ:9:TYR:O	49:BQ:9:TYR:CD1	2.73	0.41
50:BR:115:GLU:HB2	50:BR:116:LEU:H	1.60	0.41
53:BU:88:ILE:HD13	53:BU:88:ILE:HG21	1.77	0.41
54:BV:69:LYS:HB3	54:BV:93:GLU:CG	2.50	0.41
55:BW:18:ARG:CG	55:BW:76:VAL:HG22	2.51	0.41
55:BW:51:LEU:HA	55:BW:51:LEU:HD13	1.50	0.41
1:CA:11:G:C6	1:CA:12:U:C4	3.08	0.41
1:CA:304:U:H2'	1:CA:305:G:C8	2.55	0.41
1:CA:490:G:H2'	1:CA:491:G:C8	2.55	0.41
1:CA:1054:C:O2'	1:CA:1055:A:H5''	2.20	0.41
1:CA:1137:C:C6	1:CA:1137:C:OP2	2.74	0.41
2:CB:78:GLN:O	2:CB:81:VAL:HG12	2.20	0.41
2:CB:83:MET:H	2:CB:83:MET:HG2	1.64	0.41
3:CC:30:ARG:HD2	14:CN:35:ARG:O	2.21	0.41
3:CC:120:VAL:HG23	3:CC:198:VAL:HG11	2.03	0.41
5:CE:57:LYS:HE2	5:CE:57:LYS:HB3	1.93	0.41
11:CK:31:THR:OG1	11:CK:42:TRP:HB3	2.20	0.41
11:CK:109:VAL:HG11	18:CR:84:LYS:HD3	2.02	0.41
15:CO:44:LYS:O	15:CO:47:LYS:HE2	2.20	0.41
19:CS:48:THR:O	19:CS:48:THR:OG1	2.35	0.41
23:CW:12:U:H2'	23:CW:13:C:C6	2.55	0.41
23:CW:74:C:H2'	23:CW:75:C:H5'	2.03	0.41
31:D6:19:ARG:HH22	31:D6:42:TRP:HZ3	1.64	0.41
32:D7:27:GLY:O	32:D7:31:LEU:HD12	2.21	0.41
35:DA:189:G:H1'	35:DA:207:A:H61	1.86	0.41
35:DA:222:A:N6	35:DA:224:G:C2	2.89	0.41
35:DA:565:C:O2'	35:DA:566:U:H5'	2.20	0.41
35:DA:869:G:C4	35:DA:870:A:C8	3.08	0.41
35:DA:897:C:OP1	58:DZ:176:PRO:HB2	2.20	0.41
35:DA:1141:U:H2'	46:DN:63:THR:CG2	2.50	0.41
35:DA:1174:A:H5''	35:DA:1175:U:OP1	2.20	0.41
35:DA:1441:G:H2'	35:DA:1442:G:C8	2.55	0.41
35:DA:1448:G:H21	35:DA:1528(A):A:H2	1.68	0.41
35:DA:1863:G:H2'	35:DA:1864:U:H6	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2538:C:N3	35:DA:2539:C:C5	2.89	0.41
35:DA:2784:C:O2	39:DE:37:ARG:NH2	2.53	0.41
37:DC:122:ALA:HB3	37:DC:145:VAL:N	2.36	0.41
38:DD:44:ASN:ND2	38:DD:48:ARG:HA	2.34	0.41
38:DD:70:TRP:CH2	38:DD:150:LYS:HA	2.54	0.41
39:DE:25:VAL:C	39:DE:26:ILE:HD13	2.40	0.41
39:DE:110:GLY:O	50:DR:2:ARG:HB2	2.20	0.41
40:DF:20:LEU:HA	40:DF:20:LEU:HD23	1.70	0.41
42:DH:12:PRO:HD2	42:DH:15:VAL:CG2	2.49	0.41
43:DI:77:LEU:HD11	43:DI:101:LEU:HB2	2.03	0.41
46:DN:20:GLY:O	46:DN:61:ARG:NH2	2.46	0.41
46:DN:69:GLN:O	46:DN:71:ILE:HG13	2.21	0.41
49:DQ:10:ARG:HH22	49:DQ:73:PRO:HG2	1.85	0.41
52:DT:2:ASN:HB2	52:DT:3:ARG:H	1.57	0.41
53:DU:9:VAL:HG23	53:DU:9:VAL:H	1.43	0.41
53:DU:11:ARG:O	53:DU:11:ARG:HG2	2.20	0.41
53:DU:40:PHE:CD1	54:DV:78:LYS:HD3	2.56	0.41
56:DX:25:LYS:HA	56:DX:25:LYS:HD2	1.63	0.41
56:DX:30:VAL:HG22	56:DX:76:ARG:HA	2.03	0.41
58:DZ:169:GLU:HB3	58:DZ:170:THR:H	1.70	0.41
1:AA:393:A:H5'	1:AA:483:C:O2'	2.20	0.41
1:AA:453:A:C6	1:AA:454:C:C4	3.08	0.41
1:AA:803:G:C6	1:AA:804:U:C4	3.09	0.41
1:AA:855:G:C6	1:AA:856:C:C4	3.09	0.41
1:AA:930:C:C4	1:AA:931:C:C5	3.08	0.41
1:AA:940:C:OP1	7:AG:102:ARG:HD3	2.21	0.41
1:AA:1004:A:O2'	1:AA:1036:G:O6	2.39	0.41
1:AA:1063:C:H6	1:AA:1063:C:OP2	2.03	0.41
1:AA:1166:G:HO2'	1:AA:1168:A:P	2.42	0.41
1:AA:1397:C:H3'	1:AA:1397:C:C6	2.55	0.41
4:AD:205:GLU:C	4:AD:207:TYR:N	2.73	0.41
6:AF:35:ALA:HA	6:AF:67:MET:HB3	2.01	0.41
7:AG:75:VAL:HA	7:AG:88:PRO:HA	2.02	0.41
11:AK:11:LYS:HB3	11:AK:12:ARG:H	1.54	0.41
25:B0:12:ASN:ND2	35:BA:2277:G:H3'	2.35	0.41
26:B1:90:ILE:HG23	26:B1:91:LYS:N	2.36	0.41
35:BA:57:C:H2'	35:BA:58:G:O4'	2.20	0.41
35:BA:271(H):G:N3	35:BA:271(H):G:H2'	2.36	0.41
35:BA:734:A:O2'	35:BA:1635:G:H5'	2.21	0.41
35:BA:1047:G:O2'	35:BA:1048:A:OP2	2.30	0.41
35:BA:1204:A:HO2'	35:BA:1205:U:P	2.41	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1923:U:H2'	35:BA:1924:C:C6	2.55	0.41
35:BA:2292:C:C2'	35:BA:2293:C:H5'	2.50	0.41
35:BA:2392:A:N1	35:BA:2424:C:N3	2.69	0.41
35:BA:2584:U:C5	35:BA:2585:U:C4	3.09	0.41
36:BB:59:A:C6	36:BB:60:C:C2	3.09	0.41
40:BF:155:LEU:HD22	40:BF:185:ASP:O	2.20	0.41
42:BH:83:TYR:O	42:BH:84:SER:OG	2.34	0.41
48:BP:9:ASN:N	48:BP:10:PRO:CD	2.83	0.41
48:BP:16:ARG:HB3	48:BP:17:LYS:H	1.61	0.41
49:BQ:48:GLU:HA	49:BQ:51:ARG:HB3	2.03	0.41
51:BS:20:ARG:HH21	51:BS:21:THR:HG1	1.66	0.41
51:BS:24:LEU:CB	51:BS:85:VAL:HG13	2.50	0.41
52:BT:16:ARG:NH1	52:BT:80:SER:HA	2.36	0.41
54:BV:62:LEU:HD22	54:BV:96:ILE:HD13	2.01	0.41
55:BW:84:ARG:HD2	55:BW:84:ARG:HA	1.83	0.41
1:CA:456:C:N3	1:CA:457:C:N4	2.68	0.41
1:CA:767:A:H2'	1:CA:768:A:O4'	2.20	0.41
1:CA:872:A:C2	1:CA:874:G:C6	3.08	0.41
1:CA:1027:C:H2'	1:CA:1028:C:C5	2.56	0.41
1:CA:1147:C:O2	9:CI:16:ARG:NH1	2.53	0.41
1:CA:1243:C:H2'	1:CA:1244:C:C6	2.56	0.41
1:CA:1277:C:H3'	1:CA:1277:C:C6	2.54	0.41
1:CA:1309:G:C2	1:CA:1329:A:N3	2.89	0.41
1:CA:1504:G:H8	1:CA:1504:G:H2'	1.67	0.41
3:CC:14:ILE:HG13	3:CC:15:THR:H	1.84	0.41
5:CE:76:ILE:HD13	5:CE:76:ILE:HG21	1.82	0.41
7:CG:137:LYS:O	7:CG:141:VAL:HG23	2.21	0.41
9:CI:111:ARG:O	9:CI:113:LYS:HE3	2.20	0.41
11:CK:69:ALA:O	11:CK:71:LYS:N	2.54	0.41
15:CO:10:LYS:HG3	15:CO:14:GLU:OE1	2.20	0.41
17:CQ:56:VAL:HG21	17:CQ:78:GLU:HG3	2.03	0.41
20:CT:22:ARG:HH12	20:CT:25:ARG:HE	1.67	0.41
22:CV:19:G:H4'	22:CV:20:U:OP2	2.21	0.41
23:CW:46:G:OP2	23:CW:46:G:H8	2.00	0.41
26:D1:80:LEU:HD13	26:D1:80:LEU:HA	1.76	0.41
32:D7:1:MET:HE3	32:D7:1:MET:O	2.21	0.41
33:D8:27:THR:HG22	33:D8:28:GLY:N	2.34	0.41
33:D8:39:LYS:HA	33:D8:42:ARG:HE	1.85	0.41
33:D8:40:GLU:O	33:D8:41:ILE:C	2.57	0.41
35:DA:255:A:N3	35:DA:255:A:H2'	2.35	0.41
35:DA:319:C:C2	35:DA:333:G:N2	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:530:G:C6	35:DA:2022:U:OP1	2.73	0.41
35:DA:839:U:H1'	35:DA:1191:G:H1'	2.02	0.41
35:DA:1057:A:N6	35:DA:1058:G:C5	2.88	0.41
35:DA:1225:G:C4'	54:DV:86:GLY:HA2	2.51	0.41
35:DA:1417:C:H4'	35:DA:1587:A:H2	1.85	0.41
35:DA:1843:C:H5'	38:DD:253:GLN:OE1	2.21	0.41
35:DA:2296:U:O2'	35:DA:2297:C:OP2	2.29	0.41
35:DA:2716:U:C2	35:DA:2717:G:C8	3.09	0.41
35:DA:2862:G:H2'	35:DA:2863:C:H6	1.86	0.41
36:DB:43:C:O4'	41:DG:66:GLN:NE2	2.53	0.41
37:DC:21:THR:O	37:DC:23:ASP:N	2.54	0.41
38:DD:39:LYS:CG	38:DD:62:TYR:HB2	2.50	0.41
38:DD:43:ARG:HH22	38:DD:52:ARG:CA	2.32	0.41
39:DE:11:MET:HB3	39:DE:24:THR:HB	2.02	0.41
39:DE:110:GLY:HA2	39:DE:162:ALA:N	2.36	0.41
40:DF:101:LEU:HD12	40:DF:101:LEU:HA	1.70	0.41
42:DH:25:LYS:HA	42:DH:34:GLU:HA	2.03	0.41
43:DI:131:LYS:HA	43:DI:135:GLU:HB2	2.02	0.41
49:DQ:19:GLY:C	49:DQ:21:THR:N	2.73	0.41
49:DQ:71:ASP:O	49:DQ:73:PRO:HD3	2.21	0.41
51:DS:35:ILE:HD11	51:DS:99:LYS:HE3	2.01	0.41
52:DT:44:ASP:C	52:DT:45:PHE:CD1	2.94	0.41
52:DT:136:GLN:HG3	52:DT:136:GLN:O	2.20	0.41
53:DU:98:LEU:O	53:DU:100:VAL:HG22	2.20	0.41
56:DX:60:ARG:HA	56:DX:73:ARG:HA	2.01	0.41
58:DZ:67:LEU:HA	58:DZ:67:LEU:HD23	1.73	0.41
1:AA:23:C:OP2	1:AA:561:U:N3	2.34	0.41
1:AA:186:C:H5'	1:AA:187:C:OP2	2.21	0.41
1:AA:309:G:O2'	1:AA:607:A:N1	2.51	0.41
1:AA:403:C:N4	1:AA:547:A:H5'	2.36	0.41
1:AA:457:C:OP2	1:AA:457:C:H4'	2.21	0.41
1:AA:538:G:O3'	12:AL:114:LYS:HE3	2.21	0.41
1:AA:977:A:C2	1:AA:1223:C:H2'	2.55	0.41
1:AA:1132:C:C4	1:AA:1133:G:H1'	2.55	0.41
4:AD:73:ARG:NE	4:AD:73:ARG:H	2.19	0.41
12:AL:44:THR:HA	12:AL:45:PRO:HD3	1.75	0.41
13:AM:48:LEU:HD12	13:AM:53:VAL:HA	2.01	0.41
13:AM:104:ARG:HB3	13:AM:105:THR:H	1.64	0.41
22:AV:15:G:C2	22:AV:60:A:C4	3.09	0.41
22:AV:41:C:H2'	22:AV:42:C:C6	2.49	0.41
23:AW:61:C:H3'	23:AW:62:C:C5'	2.49	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AW:63:G:C8	23:AW:63:G:OP2	2.73	0.41
26:B1:67:ILE:N	26:B1:68:PRO:HD2	2.35	0.41
27:B2:48:HIS:CD2	35:BA:73:A:OP1	2.74	0.41
35:BA:84:A:H5''	57:BY:4:LYS:HE3	2.01	0.41
35:BA:210:C:O2	35:BA:210:C:O4'	2.39	0.41
35:BA:777:A:C2	35:BA:778:G:C5	3.09	0.41
35:BA:1179:C:H6	35:BA:1179:C:OP2	2.03	0.41
35:BA:1225:G:P	54:BV:88:ARG:HE	2.43	0.41
35:BA:1511:C:H2'	35:BA:1512:U:O4'	2.21	0.41
35:BA:1814:G:H2'	35:BA:1815:A:N7	2.36	0.41
35:BA:1835:G:H1'	35:BA:1931:U:C2	2.56	0.41
35:BA:2402:C:OP2	35:BA:2402:C:C2	2.74	0.41
35:BA:2473:U:H2'	35:BA:2474:C:C6	2.55	0.41
35:BA:2572:A:C8	39:BE:144:ARG:HD2	2.55	0.41
35:BA:2683:C:P	52:BT:53:ARG:NH2	2.94	0.41
35:BA:2744:G:C2	35:BA:2761:G:C4	3.08	0.41
35:BA:2859:G:C8	35:BA:2859:G:C3'	3.03	0.41
39:BE:86:PRO:O	39:BE:88:GLY:N	2.54	0.41
39:BE:181:LEU:HD21	52:BT:7:ILE:HG21	2.02	0.41
40:BF:117:ARG:HD3	40:BF:117:ARG:HA	1.59	0.41
41:BG:33:ARG:H	41:BG:162:THR:HB	1.84	0.41
42:BH:64:LEU:O	42:BH:67:LEU:HB3	2.20	0.41
49:BQ:132:VAL:HG21	58:BZ:81:ARG:HD2	2.01	0.41
50:BR:85:PRO:O	50:BR:88:ARG:HB3	2.20	0.41
50:BR:85:PRO:C	50:BR:87:TYR:N	2.72	0.41
51:BS:62:LYS:HB3	51:BS:65:VAL:HG13	2.03	0.41
52:BT:34:VAL:HA	52:BT:39:ARG:CB	2.51	0.41
54:BV:2:PHE:HD1	54:BV:2:PHE:HA	1.76	0.41
54:BV:31:ALA:O	54:BV:32:THR:HG23	2.21	0.41
57:BY:82:PRO:CD	57:BY:97:ARG:HG2	2.48	0.41
58:BZ:9:TYR:CD2	58:BZ:35:ARG:HD2	2.55	0.41
58:BZ:53:ILE:CD1	58:BZ:70:LEU:HD22	2.50	0.41
1:CA:36:C:N4	1:CA:37:U:C4	2.89	0.41
1:CA:371:G:H2'	1:CA:372:C:O4'	2.21	0.41
1:CA:437:U:O2'	4:CD:123:HIS:CD2	2.74	0.41
1:CA:543:C:OP1	4:CD:14:ARG:NE	2.45	0.41
1:CA:685:G:N2	1:CA:686:U:C4	2.89	0.41
1:CA:835:U:OP2	18:CR:60:ALA:HB3	2.20	0.41
1:CA:1029:C:H2'	1:CA:1030:C:H5	1.86	0.41
1:CA:1149:C:H2'	1:CA:1150:U:O4'	2.21	0.41
1:CA:1216:G:O2'	1:CA:1217:C:H5'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1320:C:OP2	19:CS:70:LYS:HE3	2.20	0.41
2:CB:161:ALA:HA	2:CB:183:PRO:O	2.20	0.41
3:CC:143:GLU:C	3:CC:145:GLY:N	2.74	0.41
10:CJ:34:VAL:HG13	10:CJ:73:ASP:O	2.21	0.41
12:CL:33:ARG:HB3	12:CL:85:ILE:HG22	2.02	0.41
14:CN:4:LYS:HD3	14:CN:5:ALA:CA	2.50	0.41
17:CQ:74:LEU:HB3	17:CQ:75:ARG:H	1.74	0.41
18:CR:78:LEU:HA	18:CR:78:LEU:HD23	1.61	0.41
22:CV:60:U:H3'	22:CV:61:C:H6	1.86	0.41
23:CW:5:G:C2	23:CW:69:G:N2	2.88	0.41
24:CX:22:U:N3	24:CX:23:A:C2	2.83	0.41
30:D5:3:LYS:HE2	30:D5:5:PRO:CG	2.45	0.41
32:D7:9:ARG:HH11	35:DA:1309:G:H3'	1.84	0.41
35:DA:143:G:O2'	56:DX:38:GLU:HG3	2.21	0.41
35:DA:271(H):G:O2'	35:DA:271(I):G:H8	2.04	0.41
35:DA:271(J):C:N4	35:DA:271(L):U:O2	2.53	0.41
35:DA:363(A):A:C2	35:DA:363(B):G:C5	3.08	0.41
35:DA:476:G:H4'	35:DA:502:A:N1	2.36	0.41
35:DA:543:C:O2'	35:DA:543:C:H6	2.04	0.41
35:DA:581:C:OP1	53:DU:31:SER:HB2	2.21	0.41
35:DA:783:A:H8	35:DA:784:A:H4'	1.85	0.41
35:DA:1070:A:H2'	35:DA:1070:A:N3	2.36	0.41
35:DA:1332:G:N2	35:DA:1610:A:H8	2.18	0.41
35:DA:1912:A:C2	35:DA:1919:A:C6	3.08	0.41
35:DA:1952:A:C6	35:DA:1953:A:C6	3.09	0.41
35:DA:1957:C:H2'	35:DA:1958:C:H6	1.84	0.41
35:DA:2075:U:C4	35:DA:2238:G:C6	3.08	0.41
35:DA:2086:U:H2'	35:DA:2087:G:C8	2.56	0.41
35:DA:2256:G:H2'	35:DA:2257:U:O4'	2.21	0.41
35:DA:2787:C:C1'	39:DE:61:ARG:HB2	2.51	0.41
38:DD:2:ALA:N	38:DD:20:ASP:HB3	2.36	0.41
38:DD:28:GLU:N	38:DD:28:GLU:CD	2.72	0.41
38:DD:36:PRO:HB2	38:DD:62:TYR:O	2.21	0.41
39:DE:47:VAL:O	39:DE:80:GLU:HA	2.21	0.41
40:DF:137:LYS:HD2	40:DF:137:LYS:HA	1.85	0.41
41:DG:63:ILE:HD12	41:DG:141:PHE:CD2	2.55	0.41
46:DN:4:TYR:HB3	53:DU:64:ARG:HH11	1.85	0.41
47:DO:24:VAL:CG2	47:DO:33:ALA:HB2	2.51	0.41
50:DR:41:ALA:O	50:DR:44:LEU:N	2.53	0.41
50:DR:96:ARG:O	50:DR:114:VAL:HA	2.21	0.41
50:DR:100:LEU:HD21	50:DR:113:LEU:HD13	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:DU:70:ARG:HA	53:DU:74:LEU:H	1.86	0.41
53:DU:97:ASP:OD1	53:DU:98:LEU:CA	2.68	0.41
54:DV:61:VAL:O	54:DV:62:LEU:HD23	2.20	0.41
57:DY:84:ARG:NH2	57:DY:97:ARG:HD3	2.36	0.41
58:DZ:30:ASN:C	58:DZ:32:HIS:H	2.21	0.41
1:AA:189(H):G:N2	1:AA:189(I):G:C4	2.89	0.41
1:AA:200:G:OP1	1:AA:200:G:H4'	2.21	0.41
1:AA:241:C:H6	1:AA:241:C:O5'	2.04	0.41
1:AA:373:A:H2'	1:AA:374:A:C8	2.48	0.41
1:AA:632:A:N3	1:AA:632:A:H2'	2.35	0.41
1:AA:702:A:N6	35:BA:1846:G:H21	2.16	0.41
1:AA:998:G:H1	1:AA:1043:C:H42	1.68	0.41
1:AA:1025:U:O2	1:AA:1026:G:N2	2.54	0.41
1:AA:1187:G:H2'	1:AA:1187:G:N3	2.36	0.41
1:AA:1261:A:C5	1:AA:1275:A:H8	2.39	0.41
1:AA:1311:G:O6	1:AA:1312:G:C6	2.74	0.41
1:AA:1410:G:H1	1:AA:1490:C:H42	1.67	0.41
2:AB:142:LEU:CD2	2:AB:142:LEU:HB3	2.45	0.41
8:AH:95:VAL:HG11	8:AH:133:LEU:HD12	2.02	0.41
9:AI:86:VAL:HG21	9:AI:96:LEU:HD21	2.03	0.41
10:AJ:3:LYS:HD3	10:AJ:77:PRO:HG3	2.03	0.41
11:AK:31:THR:HA	11:AK:42:TRP:HA	2.02	0.41
25:B0:53:MET:HA	25:B0:58:THR:O	2.21	0.41
26:B1:35:THR:CG2	35:BA:2432:A:C5	3.04	0.41
26:B1:64:ALA:O	26:B1:65:SER:HB3	2.20	0.41
33:B8:34:TRP:CZ2	33:B8:36:LYS:HB2	2.56	0.41
35:BA:15:G:C6	35:BA:16:G:C5	3.09	0.41
35:BA:128:C:HO2'	35:BA:129:C:P	2.44	0.41
35:BA:175:G:H5''	35:BA:175:G:H8	1.85	0.41
35:BA:459:U:OP2	35:BA:469:G:N2	2.49	0.41
35:BA:534:U:O2'	53:BU:49:HIS:ND1	2.41	0.41
35:BA:818:G:OP2	35:BA:1187:G:O6	2.39	0.41
35:BA:881:G:H8	35:BA:881:G:OP2	2.03	0.41
35:BA:1029:A:H2'	35:BA:1030:G:O4'	2.21	0.41
35:BA:1133:U:H5''	35:BA:1135:C:P	2.61	0.41
35:BA:1322:A:C5	35:BA:1323:U:O4	2.74	0.41
35:BA:1421:G:C2	35:BA:1422:G:N7	2.89	0.41
35:BA:1487:G:C2	35:BA:1503:U:O2	2.74	0.41
35:BA:1529:G:N3	35:BA:1529:G:O2'	2.48	0.41
35:BA:1577:C:H2'	35:BA:1578:U:O4'	2.21	0.41
35:BA:1615:C:C5	35:BA:1617:C:C4	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2083:G:C6	35:BA:2084:C:C4	3.08	0.41
35:BA:2695:C:O2'	35:BA:2696:U:O5'	2.37	0.41
35:BA:2719:G:C2'	35:BA:2720:U:OP2	2.68	0.41
36:BB:21:G:O6	36:BB:62:C:N3	2.54	0.41
36:BB:105:A:O2'	58:BZ:31:ARG:HA	2.21	0.41
38:BD:28:GLU:H	38:BD:28:GLU:CD	2.20	0.41
40:BF:7:TYR:CD1	40:BF:8:GLN:N	2.88	0.41
41:BG:25:TYR:OH	41:BG:168:GLU:HG2	2.21	0.41
42:BH:40:GLU:HB2	42:BH:41:MET:HE2	2.02	0.41
46:BN:90:MET:HG2	46:BN:98:VAL:HG22	2.03	0.41
47:BO:108:GLU:H	47:BO:108:GLU:HG3	1.65	0.41
49:BQ:42:ILE:O	49:BQ:95:ALA:N	2.52	0.41
52:BT:57:PHE:C	52:BT:59:THR:N	2.73	0.41
54:BV:85:LYS:O	54:BV:87:HIS:CD2	2.74	0.41
57:BY:8:LYS:HZ2	57:BY:94:LYS:HG3	1.84	0.41
1:CA:112:G:O2'	1:CA:113:G:H5'	2.20	0.41
1:CA:840:C:H6	1:CA:840:C:H2'	1.67	0.41
1:CA:1060:C:C4	3:CC:2:GLY:HA3	2.55	0.41
1:CA:1298:C:H4'	1:CA:1299:A:C4	2.56	0.41
1:CA:1300:G:C6	1:CA:1334:G:C5	3.09	0.41
1:CA:1327:C:P	21:CU:12:LYS:HZ3	2.44	0.41
1:CA:1433:A:C8	1:CA:1467:G:N2	2.89	0.41
1:CA:1483:A:H1'	35:DA:1948:G:H1'	2.03	0.41
2:CB:113:HIS:HA	2:CB:116:GLU:HG2	2.02	0.41
4:CD:107:ARG:HA	4:CD:107:ARG:HE	1.86	0.41
8:CH:86:ILE:HD13	8:CH:86:ILE:HA	1.88	0.41
10:CJ:78:ASN:HB2	10:CJ:81:THR:OG1	2.20	0.41
16:CP:8:ARG:C	16:CP:9:PHE:CD1	2.94	0.41
16:CP:39:TYR:CG	16:CP:73:LEU:HD21	2.55	0.41
17:CQ:20:THR:HG23	17:CQ:43:LEU:HD23	2.03	0.41
26:D1:37:ILE:HG22	26:D1:38:SER:N	2.35	0.41
27:D2:47:ASN:OD1	27:D2:47:ASN:C	2.58	0.41
29:D4:5:ILE:CB	41:DG:67:LYS:HG2	2.50	0.41
31:D6:13:CYS:O	31:D6:21:TYR:HD2	2.04	0.41
35:DA:355:G:C6	35:DA:356:G:N7	2.89	0.41
35:DA:442:G:H21	40:DF:48:THR:HB	1.86	0.41
35:DA:897:C:P	58:DZ:176:PRO:HB2	2.61	0.41
35:DA:1071:G:H22	35:DA:1092:C:H41	1.68	0.41
35:DA:1586:A:H3'	35:DA:1587:A:H8	1.86	0.41
35:DA:1693:U:O2'	38:DD:14:ARG:NH2	2.54	0.41
35:DA:2178:C:O5'	37:DC:46:LYS:HD2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2292:C:H42	35:DA:2340:G:H1	1.68	0.41
35:DA:2518:A:H5'	35:DA:2518:A:C8	2.55	0.41
35:DA:2552:U:H5''	35:DA:2553:G:OP2	2.19	0.41
36:DB:23:G:C2	36:DB:24:G:O6	2.73	0.41
36:DB:44:G:C2'	36:DB:45:A:OP2	2.68	0.41
38:DD:30:GLU:HG3	38:DD:63:ARG:NH2	2.36	0.41
38:DD:43:ARG:NE	38:DD:54:ARG:HB2	2.36	0.41
39:DE:93:VAL:HG12	39:DE:175:VAL:HG23	2.03	0.41
40:DF:103:LYS:HA	40:DF:106:ARG:HG3	2.02	0.41
40:DF:140:LEU:HD12	40:DF:140:LEU:HA	1.74	0.41
46:DN:10:GLU:CD	46:DN:11:PRO:HD2	2.41	0.41
47:DO:24:VAL:HG23	47:DO:33:ALA:HB2	2.02	0.41
48:DP:51:PHE:CE2	48:DP:59:LEU:CD1	3.00	0.41
48:DP:98:GLU:C	48:DP:100:LEU:N	2.72	0.41
50:DR:101:ALA:O	50:DR:102:GLU:HB2	2.21	0.41
57:DY:13:VAL:CG1	57:DY:72:VAL:HB	2.51	0.41
57:DY:94:LYS:CG	57:DY:103:GLY:HA3	2.49	0.41
1:AA:21:G:H2'	1:AA:22:G:C8	2.56	0.41
1:AA:156:G:N3	1:AA:157:G:H1'	2.35	0.41
1:AA:353:A:C2'	1:AA:354:G:OP2	2.68	0.41
1:AA:373:A:N3	1:AA:374:A:C8	2.88	0.41
1:AA:522:C:H41	12:AL:53:ARG:HH22	1.69	0.41
1:AA:545:C:C4'	4:AD:73:ARG:HH22	2.32	0.41
1:AA:596:C:N4	1:AA:644:G:H1	2.19	0.41
1:AA:635:G:C6	1:AA:636:U:C4	3.08	0.41
1:AA:688:G:O2'	1:AA:704:A:N1	2.52	0.41
1:AA:704:A:H5''	1:AA:704:A:C8	2.56	0.41
1:AA:872:A:H2'	1:AA:872:A:N3	2.35	0.41
1:AA:948:C:H2'	1:AA:949:A:H8	1.86	0.41
1:AA:966:G:H8	1:AA:966:G:OP2	2.04	0.41
1:AA:1106:G:C6	1:AA:1107:C:C4	3.09	0.41
1:AA:1152:A:H2'	1:AA:1153:C:H6	1.85	0.41
2:AB:142:LEU:O	2:AB:145:LEU:HB3	2.21	0.41
3:AC:55:VAL:O	3:AC:57:ILE:HG13	2.21	0.41
4:AD:189:PRO:O	4:AD:190:ASP:C	2.59	0.41
6:AF:10:LEU:HD12	6:AF:10:LEU:N	2.35	0.41
6:AF:30:LEU:H	6:AF:30:LEU:HG	1.61	0.41
11:AK:89:ALA:C	11:AK:91:ARG:N	2.73	0.41
12:AL:39:VAL:HG11	12:AL:41:ARG:CZ	2.51	0.41
12:AL:47:LYS:HD2	12:AL:48:PRO:HG3	2.02	0.41
14:AN:4:LYS:O	14:AN:6:LEU:N	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:19:VAL:HG12	19:AS:22:LEU:HB2	2.03	0.41
21:AU:9:ARG:O	21:AU:13:ILE:HG13	2.20	0.41
22:AV:2:G:C6	22:AV:73:A:C2	3.09	0.41
22:AV:20:G:C4	22:AV:58:A:C2	3.09	0.41
22:AV:73:A:N6	22:AV:74:A:C6	2.89	0.41
23:AW:14:A:N6	23:AW:23:A:H1'	2.36	0.41
23:AW:63:G:C8	23:AW:63:G:H3'	2.55	0.41
25:B0:42:GLY:CA	35:BA:2330:G:H21	2.34	0.41
28:B3:7:LYS:HA	28:B3:33:GLN:O	2.21	0.41
30:B5:49:CYS:O	30:B5:51:TYR:N	2.54	0.41
33:B8:13:ARG:CZ	48:BP:61:ARG:HA	2.51	0.41
35:BA:11:G:O5'	35:BA:11:G:H8	2.04	0.41
35:BA:137:C:H2'	35:BA:139:G:H3'	2.03	0.41
35:BA:282:A:C6	35:BA:359:A:C2	3.09	0.41
35:BA:310:A:OP1	57:BY:18:GLY:HA2	2.21	0.41
35:BA:363(E):U:H5'	35:BA:363(F):A:OP2	2.20	0.41
35:BA:422:A:C6	35:BA:423:A:C6	3.09	0.41
35:BA:433:C:C4	35:BA:434:U:O4	2.74	0.41
35:BA:507:A:H5''	35:BA:508:G:H3'	2.02	0.41
35:BA:1021:A:O2'	35:BA:1123:C:H5''	2.21	0.41
35:BA:1048:A:N6	35:BA:1053:C:H42	2.19	0.41
35:BA:1303:G:H1'	35:BA:1641:A:N1	2.35	0.41
35:BA:1304:C:O2'	35:BA:1305:C:H5'	2.21	0.41
35:BA:1418:G:N3	35:BA:1580:A:N6	2.69	0.41
35:BA:1425:G:H2'	35:BA:1426:G:C8	2.56	0.41
35:BA:1580:A:H8	35:BA:1581:G:H1'	1.86	0.41
35:BA:1668:A:H4'	35:BA:1669:A:O5'	2.20	0.41
35:BA:1747:G:C2	35:BA:1747(A):G:C8	3.09	0.41
35:BA:1809:A:C6	35:BA:1810:A:N1	2.89	0.41
35:BA:1821:A:H2'	35:BA:1822:G:C8	2.55	0.41
35:BA:1834:U:H4'	35:BA:1969:A:C6	2.56	0.41
35:BA:2078:C:H2'	35:BA:2079:U:O4'	2.21	0.41
35:BA:2105:C:H42	35:BA:2184:G:H1	1.68	0.41
35:BA:2287:A:O2'	35:BA:2288:A:H5''	2.20	0.41
35:BA:2649:U:H2'	35:BA:2650:U:C6	2.56	0.41
35:BA:2697:G:C6	35:BA:2698:U:C2	3.09	0.41
35:BA:2841:C:C2	35:BA:2877:G:N2	2.89	0.41
36:BB:32:C:H2'	36:BB:33:G:C8	2.56	0.41
36:BB:85:G:C2	36:BB:86:G:C8	3.08	0.41
37:BC:22:ILE:HG22	37:BC:25:ALA:CB	2.49	0.41
37:BC:51:PRO:HB3	37:BC:204:ALA:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:80:ALA:HB3	38:BD:94:LEU:HB3	2.03	0.41
38:BD:108:PRO:HB3	38:BD:143:HIS:CE1	2.56	0.41
38:BD:204:ILE:HG12	38:BD:204:ILE:H	1.64	0.41
39:BE:60:ASN:O	39:BE:63:LEU:HG	2.21	0.41
39:BE:171:GLU:CB	39:BE:185:LYS:HB2	2.49	0.41
40:BF:124:LEU:HD23	40:BF:126:VAL:HG12	2.02	0.41
40:BF:125:LEU:HD21	40:BF:199:TRP:CD1	2.56	0.41
40:BF:170:LEU:HD12	40:BF:172:TRP:NE1	2.32	0.41
41:BG:75:LYS:O	41:BG:76:SER:HB3	2.21	0.41
43:BI:81:VAL:HG12	43:BI:143:SER:O	2.21	0.41
48:BP:42:SER:OG	48:BP:43:GLY:N	2.51	0.41
48:BP:121:LYS:HG2	48:BP:122:PRO:HD2	2.03	0.41
48:BP:140:ALA:O	48:BP:141:ALA:HB2	2.21	0.41
49:BQ:21:THR:O	49:BQ:22:LYS:O	2.39	0.41
49:BQ:116:GLU:O	49:BQ:120:ILE:HG12	2.21	0.41
50:BR:101:ALA:O	50:BR:102:GLU:HB2	2.20	0.41
51:BS:26:LEU:HD21	51:BS:87:PHE:CE1	2.55	0.41
51:BS:106:ARG:NH1	51:BS:106:ARG:O	2.54	0.41
52:BT:83:ILE:HG13	52:BT:84:GLN:N	2.24	0.41
56:BX:24:GLY:HA2	56:BX:80:ILE:O	2.20	0.41
56:BX:40:LYS:HD3	56:BX:51:VAL:CG1	2.46	0.41
56:BX:64:LYS:O	56:BX:64:LYS:HG3	2.21	0.41
58:BZ:39:VAL:HG23	58:BZ:44:PHE:CD1	2.56	0.41
1:CA:6:G:C4	5:CE:119:LEU:HD11	2.55	0.41
1:CA:8:A:N6	4:CD:209:ARG:HB2	2.36	0.41
1:CA:36:C:O3'	12:CL:123:LYS:HA	2.21	0.41
1:CA:38:G:C2	1:CA:397:A:C2	3.09	0.41
1:CA:82:U:H3'	1:CA:82:U:OP2	2.21	0.41
1:CA:189(B):C:N4	1:CA:189(I):G:H1	2.18	0.41
1:CA:195:A:H2	1:CA:223:U:H1'	1.85	0.41
1:CA:329:A:C5	1:CA:332:G:C6	3.09	0.41
1:CA:442:C:N4	1:CA:492:G:H1	2.13	0.41
1:CA:874:G:C4	1:CA:875:C:C5	3.09	0.41
1:CA:1034:G:H2'	1:CA:1035:A:H8	1.85	0.41
1:CA:1113:C:H2'	1:CA:1114:C:C6	2.55	0.41
1:CA:1144:G:H8	1:CA:1144:G:O5'	2.04	0.41
1:CA:1228:C:O3'	13:CM:116:THR:HA	2.20	0.41
1:CA:1229:A:H2'	1:CA:1230:C:H6	1.84	0.41
1:CA:1280:A:C8	10:CJ:41:PRO:HD3	2.55	0.41
1:CA:1306:A:H1'	1:CA:1332:A:C2	2.55	0.41
1:CA:1374:A:O2'	7:CG:28:ASN:HB3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1401:G:N2	1:CA:1402:C:H1'	2.36	0.41
1:CA:1416:G:C2'	1:CA:1417:G:H5'	2.50	0.41
2:CB:20:GLU:H	2:CB:20:GLU:HG2	1.41	0.41
2:CB:87:ARG:NE	2:CB:233:SER:HB3	2.36	0.41
2:CB:124:SER:HB2	2:CB:125:PRO:CD	2.51	0.41
2:CB:184:VAL:N	2:CB:198:ASP:OD2	2.45	0.41
2:CB:187:LEU:HB3	2:CB:201:ILE:HD11	2.03	0.41
3:CC:90:GLU:CA	3:CC:93:LYS:HB2	2.42	0.41
3:CC:101:LEU:HA	3:CC:101:LEU:HD23	1.77	0.41
6:CF:19:LEU:HD21	6:CF:59:TYR:CE2	2.56	0.41
7:CG:74:GLU:HB2	7:CG:91:VAL:HG13	2.02	0.41
8:CH:81:HIS:HB2	8:CH:138:TRP:CE3	2.56	0.41
9:CI:69:GLY:O	9:CI:70:LYS:C	2.59	0.41
12:CL:85:ILE:HD13	12:CL:85:ILE:HG21	1.78	0.41
14:CN:18:VAL:O	14:CN:18:VAL:HG12	2.21	0.41
15:CO:71:GLN:HG2	15:CO:71:GLN:O	2.21	0.41
15:CO:77:ARG:HA	15:CO:80:ALA:HB3	2.02	0.41
16:CP:40:ASP:OD1	16:CP:40:ASP:C	2.59	0.41
24:CX:20:U:H2'	24:CX:21:C:C6	2.55	0.41
26:D1:62:VAL:HG13	26:D1:63:ALA:O	2.21	0.41
27:D2:11:GLU:HA	27:D2:14:ARG:NH2	2.36	0.41
27:D2:55:ARG:HD2	27:D2:55:ARG:C	2.41	0.41
32:D7:23:ARG:HA	32:D7:23:ARG:HD2	1.98	0.41
35:DA:193:U:H2'	35:DA:194:G:H5'	2.02	0.41
35:DA:271(K):U:O2'	35:DA:271(L):U:P	2.79	0.41
35:DA:373:U:H1'	35:DA:423:A:N3	2.36	0.41
35:DA:389:G:H1	48:DP:71:VAL:CG1	2.33	0.41
35:DA:641:C:C5	35:DA:642:G:C5	3.09	0.41
35:DA:642:G:H2'	35:DA:644:A:OP2	2.21	0.41
35:DA:748:G:C8	55:DW:89:ALA:HB1	2.56	0.41
35:DA:863:A:C2	35:DA:864:G:C4	3.09	0.41
35:DA:904:C:C4	35:DA:905:U:C4	3.09	0.41
35:DA:1039:G:H1	35:DA:1116:C:H42	1.69	0.41
35:DA:1050:A:N3	35:DA:1050:A:H2'	2.36	0.41
35:DA:1091:G:C2	35:DA:1102:C:C2	3.09	0.41
35:DA:1285:G:N2	35:DA:1329:U:OP1	2.35	0.41
35:DA:1341:U:O4'	56:DX:57:LEU:HD11	2.21	0.41
35:DA:1514:U:O2'	35:DA:1557:C:H5''	2.20	0.41
35:DA:1818:U:H4'	35:DA:1821:A:H1'	2.03	0.41
35:DA:1840:G:H1	35:DA:1902:C:H42	1.67	0.41
35:DA:1930:G:N2	35:DA:1968:G:H2'	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2082:A:H2'	35:DA:2083:G:O4'	2.20	0.41
35:DA:2208:A:H1'	35:DA:2219:G:C4	2.56	0.41
35:DA:2246:G:H2'	35:DA:2247:A:C8	2.55	0.41
35:DA:2303:G:O2'	41:DG:132:ASN:HB2	2.21	0.41
35:DA:2308:G:C2	35:DA:2309:A:N6	2.89	0.41
35:DA:2335:A:C8	35:DA:2337:G:N7	2.89	0.41
35:DA:2493:U:H2'	35:DA:2494:G:O4'	2.21	0.41
35:DA:2512:C:H2'	35:DA:2513:G:O4'	2.21	0.41
35:DA:2536:G:C6	35:DA:2537:U:C4	3.08	0.41
35:DA:2661:G:C8	35:DA:2662:A:C6	3.09	0.41
35:DA:2697:G:H2'	35:DA:2698:U:O4'	2.20	0.41
35:DA:2713:A:OP1	50:DR:14:SER:HB3	2.21	0.41
35:DA:2813:A:H2'	35:DA:2814:C:O4'	2.20	0.41
35:DA:2855:C:H2'	35:DA:2856:C:H6	1.86	0.41
36:DB:52:A:O2'	36:DB:53:A:P	2.79	0.41
38:DD:63:ARG:O	38:DD:65:ILE:HG23	2.21	0.41
38:DD:77:ALA:HB2	38:DD:97:TYR:HA	2.03	0.41
38:DD:276:LYS:HB2	38:DD:276:LYS:HE2	1.93	0.41
39:DE:14:ILE:HG12	39:DE:21:VAL:CG2	2.50	0.41
39:DE:77:ILE:HG22	39:DE:78:LEU:HG	2.02	0.41
39:DE:114:ALA:HB3	39:DE:119:ARG:HG2	2.02	0.41
39:DE:128:SER:O	39:DE:130:GLY:N	2.54	0.41
39:DE:195:LEU:HG	39:DE:196:VAL:N	2.34	0.41
41:DG:41:GLN:OE1	41:DG:155:MET:HB3	2.21	0.41
41:DG:51:ARG:HD2	41:DG:51:ARG:HA	1.72	0.41
42:DH:148:ILE:O	42:DH:149:ARG:C	2.59	0.41
42:DH:162:ILE:HD13	42:DH:162:ILE:HG21	1.63	0.41
46:DN:26:LEU:HD11	46:DN:140:VAL:HG12	2.02	0.41
47:DO:8:LEU:HB2	47:DO:19:ILE:HG13	2.03	0.41
47:DO:60:ALA:HA	47:DO:85:VAL:O	2.21	0.41
47:DO:101:PRO:HA	47:DO:120:GLU:O	2.21	0.41
48:DP:51:PHE:CZ	48:DP:61:ARG:NH2	2.89	0.41
48:DP:80:TYR:CD1	48:DP:111:ARG:HB3	2.56	0.41
49:DQ:8:LYS:HB2	49:DQ:9:TYR:H	1.63	0.41
50:DR:14:SER:OG	50:DR:15:SER:N	2.53	0.41
50:DR:61:HIS:CD2	50:DR:65:LEU:HD21	2.56	0.41
52:DT:39:ARG:HA	52:DT:39:ARG:HE	1.80	0.41
52:DT:98:LYS:H	52:DT:98:LYS:CD	2.34	0.41
54:DV:97:LYS:HD2	54:DV:97:LYS:HA	1.83	0.41
55:DW:3:ALA:O	55:DW:106:ILE:HA	2.21	0.41
57:DY:45:VAL:HA	57:DY:61:ILE:CA	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:DY:66:PRO:O	57:DY:67:LEU:CB	2.69	0.41
1:AA:174:C:O2	1:AA:174:C:O4'	2.38	0.41
1:AA:446:G:H2'	1:AA:447:G:C8	2.56	0.41
1:AA:447:G:C6	1:AA:485:G:O2'	2.74	0.41
1:AA:540:G:H2'	1:AA:541:G:O4'	2.21	0.41
1:AA:977:A:H3'	1:AA:977:A:C8	2.56	0.41
1:AA:1104:G:O5'	2:AB:111:ARG:HD2	2.21	0.41
1:AA:1124:G:H21	1:AA:1126:U:P	2.43	0.41
1:AA:1194:U:H4'	5:AE:22:GLY:CA	2.51	0.41
1:AA:1202:G:N2	14:AN:42:ILE:HG22	2.36	0.41
1:AA:1205:U:H5''	3:AC:190:ARG:NE	2.35	0.41
1:AA:1225:A:N3	1:AA:1225:A:H2'	2.36	0.41
1:AA:1456:G:C4	1:AA:1456:G:OP2	2.73	0.41
4:AD:24:GLU:HB2	4:AD:112:VAL:HG21	2.03	0.41
4:AD:153:ARG:HE	4:AD:181:MET:CG	2.34	0.41
7:AG:92:SER:HB2	7:AG:94:ARG:CZ	2.50	0.41
9:AI:53:VAL:HG13	9:AI:95:LYS:CE	2.50	0.41
9:AI:117:HIS:HB2	9:AI:121:ARG:O	2.21	0.41
12:AL:110:VAL:CG1	12:AL:120:TYR:HB3	2.50	0.41
19:AS:5:LEU:HD23	19:AS:5:LEU:HA	1.64	0.41
19:AS:6:LYS:HE2	19:AS:7:LYS:HG3	2.01	0.41
23:AW:16:U:H3'	23:AW:17:C:C5'	2.51	0.41
26:B1:18:ILE:CD1	35:BA:188:G:H5'	2.51	0.41
27:B2:41:ILE:CD1	27:B2:44:LEU:H	2.34	0.41
27:B2:53:LEU:HB2	27:B2:54:LYS:NZ	2.36	0.41
28:B3:4:LEU:HD12	28:B3:57:GLU:O	2.21	0.41
31:B6:34:LEU:HD23	31:B6:34:LEU:HA	1.69	0.41
33:B8:58:ILE:HD13	33:B8:58:ILE:HG21	1.88	0.41
35:BA:103:A:H5'	35:BA:103:A:H8	1.86	0.41
35:BA:136:G:H5''	35:BA:137:C:C6	2.56	0.41
35:BA:301:G:O2'	35:BA:302:C:H5''	2.21	0.41
35:BA:363(A):A:C8	35:BA:363(B):G:C8	3.09	0.41
35:BA:452:G:N3	35:BA:457:A:H2	2.19	0.41
35:BA:826:U:H5''	35:BA:827:U:OP2	2.20	0.41
35:BA:1204:A:C2	35:BA:1241:A:N1	2.89	0.41
35:BA:1344:G:H4'	35:BA:1384:A:C5	2.56	0.41
35:BA:1441:G:C2	35:BA:1442:G:C5	3.09	0.41
35:BA:1441:G:O3'	35:BA:1628:G:H5'	2.21	0.41
35:BA:1480:G:N1	35:BA:1481:U:O2	2.54	0.41
35:BA:1544:A:C4	35:BA:1545:A:C8	3.09	0.41
35:BA:1799:G:H3'	35:BA:1799:G:P	2.60	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2225:A:C1'	35:BA:2226:C:OP2	2.69	0.41
35:BA:2346:A:H5''	35:BA:2383:G:H1'	2.02	0.41
35:BA:2494:G:H2'	35:BA:2495:G:H8	1.86	0.41
35:BA:2557:G:C2'	35:BA:2558:C:H5'	2.51	0.41
35:BA:2744:G:H21	42:BH:143:GLN:HG2	1.86	0.41
36:BB:30:C:C4	36:BB:31:C:C2	3.09	0.41
36:BB:116:G:N3	36:BB:116:G:H2'	2.35	0.41
39:BE:168:MET:O	39:BE:170:LEU:N	2.54	0.41
40:BF:123:LEU:HD12	40:BF:124:LEU:H	1.85	0.41
42:BH:20:ALA:HB3	42:BH:23:ARG:CG	2.51	0.41
46:BN:4:TYR:HD2	53:BU:64:ARG:NH1	2.19	0.41
46:BN:18:ALA:HB2	46:BN:26:LEU:HD22	2.03	0.41
49:BQ:119:ARG:C	49:BQ:121:ALA:N	2.74	0.41
49:BQ:130:LYS:HG2	49:BQ:131:ILE:N	2.36	0.41
50:BR:18:LEU:HA	50:BR:18:LEU:HD22	1.74	0.41
52:BT:28:VAL:HG11	52:BT:29:ARG:HH11	1.86	0.41
55:BW:10:VAL:O	55:BW:12:ILE:N	2.54	0.41
57:BY:15:VAL:HG13	57:BY:17:SER:HB3	2.02	0.41
58:BZ:24:LEU:O	58:BZ:25:PRO:C	2.59	0.41
1:CA:28:G:C4	1:CA:29:G:C8	3.09	0.41
1:CA:59:A:H61	1:CA:331:G:H1'	1.85	0.41
1:CA:376:G:H5''	16:CP:5:ARG:HD2	2.03	0.41
1:CA:625:G:O5'	1:CA:625:G:H8	2.04	0.41
1:CA:710:G:H2'	1:CA:711:G:O4'	2.21	0.41
1:CA:914:A:C4	1:CA:915:A:C8	3.09	0.41
1:CA:992:U:H1'	1:CA:993:G:OP2	2.20	0.41
1:CA:1058:G:OP1	3:CC:199:LYS:HE2	2.21	0.41
2:CB:216:SER:O	2:CB:219:VAL:HG12	2.19	0.41
3:CC:179:ARG:O	3:CC:179:ARG:HG3	2.21	0.41
5:CE:102:ALA:HB1	5:CE:106:PRO:HG2	2.03	0.41
8:CH:88:LYS:O	8:CH:92:ARG:HD2	2.20	0.41
9:CI:3:GLN:HG2	9:CI:20:ARG:HD2	2.03	0.41
9:CI:114:TYR:HD1	9:CI:114:TYR:H	1.68	0.41
12:CL:45:PRO:HB2	12:CL:46:LYS:H	1.62	0.41
13:CM:36:LYS:HE2	13:CM:36:LYS:HB3	1.88	0.41
14:CN:3:ARG:O	14:CN:7:ILE:HG12	2.21	0.41
16:CP:23:ASP:OD1	16:CP:25:ARG:NH1	2.54	0.41
17:CQ:48:GLU:HB3	17:CQ:49:GLU:H	1.52	0.41
27:D2:20:GLU:H	27:D2:20:GLU:HG3	1.32	0.41
30:D5:7:PRO:HA	35:DA:2615:U:N1	2.35	0.41
32:D7:5:TRP:HE1	32:D7:7:PRO:HG3	1.81	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:D8:23:VAL:HG13	33:D8:46:ARG:HB3	2.02	0.41
35:DA:391:G:O2'	35:DA:410:G:OP1	2.24	0.41
35:DA:414:C:O2'	35:DA:415:A:H5'	2.21	0.41
35:DA:436:C:H2'	35:DA:437:G:C8	2.56	0.41
35:DA:481:G:H8	35:DA:481:G:H2'	1.73	0.41
35:DA:539:G:H2'	35:DA:540:C:C6	2.56	0.41
35:DA:616:G:H2'	35:DA:618:C:C6	2.56	0.41
35:DA:668:G:H2'	35:DA:670:A:H62	1.86	0.41
35:DA:729:G:OP2	38:DD:208:LYS:NZ	2.52	0.41
35:DA:1368:G:N2	35:DA:1369:G:C4	2.89	0.41
35:DA:1425:G:H2'	35:DA:1426:G:C8	2.56	0.41
35:DA:1547:C:H2'	35:DA:1548:C:C6	2.56	0.41
35:DA:1664:A:H61	35:DA:1996:C:N4	2.17	0.41
35:DA:1799:G:H8	35:DA:1799:G:H2'	1.61	0.41
35:DA:2100:G:C5	35:DA:2190:G:C6	3.09	0.41
35:DA:2625:G:H2'	35:DA:2626:C:O4'	2.20	0.41
37:DC:122:ALA:O	37:DC:124:GLY:N	2.54	0.41
39:DE:82:ARG:HG3	39:DE:83:ASP:N	2.36	0.41
39:DE:134:ILE:O	39:DE:134:ILE:HG13	2.21	0.41
41:DG:43:LEU:HD22	41:DG:43:LEU:H	1.85	0.41
42:DH:56:SER:HB2	42:DH:58:GLU:HG3	2.01	0.41
42:DH:153:LYS:O	42:DH:153:LYS:HG2	2.20	0.41
47:DO:7:TYR:OH	47:DO:44:LYS:HG3	2.20	0.41
48:DP:42:SER:O	48:DP:44:GLY:N	2.54	0.41
48:DP:137:LYS:HD3	48:DP:137:LYS:HA	1.75	0.41
50:DR:100:LEU:HD11	50:DR:113:LEU:CD1	2.50	0.41
50:DR:103:ARG:H	50:DR:103:ARG:HD2	1.86	0.41
54:DV:6:LYS:HG3	54:DV:11:GLN:HG2	2.02	0.41
54:DV:64:HIS:CB	54:DV:96:ILE:HA	2.51	0.41
57:DY:26:LYS:HD3	57:DY:27:VAL:HG23	2.01	0.41
58:DZ:72:ARG:O	58:DZ:73:GLN:HB2	2.21	0.41
1:AA:189(F):U:C4	17:AQ:72:ARG:CZ	3.04	0.40
1:AA:236:G:C6	1:AA:237:C:C4	3.10	0.40
1:AA:561:U:O2'	1:AA:562:C:P	2.80	0.40
1:AA:949:A:C2	1:AA:1233:G:C4	3.09	0.40
1:AA:958:A:H5''	1:AA:959:A:OP2	2.21	0.40
1:AA:1058:G:C5	1:AA:1059:C:C4	3.09	0.40
1:AA:1437:C:H42	1:AA:1464:G:H1	1.69	0.40
2:AB:92:TYR:O	2:AB:151:GLY:HA3	2.21	0.40
4:AD:61:LYS:HD3	4:AD:62:GLN:N	2.36	0.40
6:AF:55:ASP:O	6:AF:57:GLN:N	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:96:LEU:N	9:AI:98:PRO:HD2	2.36	0.40
12:AL:39:VAL:HG11	12:AL:41:ARG:NH2	2.37	0.40
16:AP:45:THR:C	16:AP:47:ASP:H	2.25	0.40
17:AQ:81:ARG:HH12	17:AQ:84:LEU:HG	1.86	0.40
19:AS:63:THR:CG2	19:AS:66:MET:HB2	2.51	0.40
19:AS:67:VAL:HG13	19:AS:67:VAL:O	2.21	0.40
34:B9:36:GLN:NE2	35:BA:1124:C:O2	2.54	0.40
35:BA:26:G:C6	35:BA:27:G:N1	2.89	0.40
35:BA:340:A:H2'	35:BA:341:G:O4'	2.21	0.40
35:BA:399:G:H5''	35:BA:400:G:OP2	2.22	0.40
35:BA:733:G:C6	35:BA:761:A:N7	2.89	0.40
35:BA:790:C:H6	35:BA:790:C:H2'	1.54	0.40
35:BA:1602:U:H3'	35:BA:1603:A:C5'	2.51	0.40
35:BA:1826:G:C4	35:BA:1827:C:C6	3.09	0.40
35:BA:2123:G:N2	35:BA:2176:A:C2	2.90	0.40
35:BA:2250:G:OP2	35:BA:2275:C:H2'	2.21	0.40
35:BA:2271:G:H2'	35:BA:2272:U:C6	2.56	0.40
35:BA:2725:A:C4	35:BA:2727:G:C8	3.09	0.40
38:BD:59:LYS:C	38:BD:60:ARG:HG3	2.42	0.40
38:BD:72:LYS:HZ2	38:BD:75:ILE:HD12	1.85	0.40
38:BD:153:ALA:O	38:BD:157:ARG:NH1	2.54	0.40
39:BE:36:ARG:HD3	39:BE:85:ASN:OD1	2.21	0.40
39:BE:66:HIS:ND1	39:BE:66:HIS:C	2.75	0.40
39:BE:78:LEU:H	39:BE:78:LEU:HD23	1.86	0.40
40:BF:53:THR:HG23	40:BF:55:GLY:N	2.35	0.40
46:BN:34:LEU:N	46:BN:34:LEU:HD12	2.36	0.40
47:BO:38:VAL:HA	47:BO:60:ALA:O	2.22	0.40
48:BP:114:ILE:HD13	48:BP:125:VAL:HG11	2.03	0.40
51:BS:67:ARG:C	51:BS:69:VAL:N	2.74	0.40
51:BS:98:VAL:HG22	51:BS:98:VAL:O	2.21	0.40
52:BT:93:ARG:HH21	52:BT:115:ARG:HH11	1.68	0.40
53:BU:88:ILE:O	53:BU:88:ILE:HG13	2.21	0.40
56:BX:75:ASP:C	56:BX:76:ARG:HG2	2.41	0.40
58:BZ:28:MET:O	58:BZ:35:ARG:N	2.38	0.40
1:CA:130:A:H3'	1:CA:189(G):G:O2'	2.21	0.40
1:CA:392:G:H2'	1:CA:393:A:H8	1.86	0.40
1:CA:439:A:C6	1:CA:496:A:C4	3.09	0.40
1:CA:539:A:OP1	12:CL:114:LYS:HD3	2.21	0.40
1:CA:678:U:C4	1:CA:679:C:N4	2.89	0.40
1:CA:777:A:H2'	1:CA:778:G:C8	2.56	0.40
1:CA:855:G:C6	1:CA:856:C:C4	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:117:GLU:O	2:CB:121:LEU:HD13	2.19	0.40
2:CB:166:ASP:O	2:CB:170:GLU:HB3	2.21	0.40
3:CC:14:ILE:CG1	3:CC:15:THR:H	2.34	0.40
3:CC:70:VAL:O	3:CC:105:GLU:HA	2.21	0.40
4:CD:166:LYS:HG2	4:CD:178:VAL:HG11	2.03	0.40
5:CE:148:VAL:O	5:CE:151:LEU:HD23	2.20	0.40
8:CH:114:THR:C	8:CH:116:LYS:H	2.24	0.40
13:CM:107:ALA:O	13:CM:110:ARG:N	2.45	0.40
13:CM:115:LYS:O	13:CM:116:THR:C	2.60	0.40
18:CR:40:LEU:C	18:CR:43:PHE:H	2.24	0.40
18:CR:40:LEU:H	18:CR:40:LEU:HG	1.25	0.40
19:CS:15:LEU:HA	19:CS:18:LYS:HB2	2.03	0.40
26:D1:73:LEU:HD13	26:D1:90:ILE:CG2	2.51	0.40
27:D2:23:LYS:HB2	56:DX:5:TYR:CE2	2.55	0.40
27:D2:31:GLU:O	27:D2:31:GLU:HG2	2.21	0.40
27:D2:50:ILE:O	27:D2:51:ARG:HB2	2.20	0.40
33:D8:27:THR:CG2	33:D8:28:GLY:H	2.28	0.40
34:D9:36:GLN:HG2	35:DA:1124:C:O2'	2.22	0.40
35:DA:80:G:N3	35:DA:294:A:H2	2.18	0.40
35:DA:999:U:O2'	35:DA:1000:A:H5'	2.21	0.40
35:DA:1212:G:HO2'	35:DA:1213:A:P	2.43	0.40
35:DA:1290:C:H2'	35:DA:1291:C:H6	1.85	0.40
35:DA:1754:C:H2'	35:DA:1755:A:O4'	2.21	0.40
35:DA:1786:A:C2	35:DA:2606:C:H1'	2.54	0.40
35:DA:2074:U:H2'	35:DA:2075:U:C6	2.56	0.40
35:DA:2770:G:H5''	35:DA:2771:C:OP2	2.21	0.40
35:DA:2810:A:H2'	39:DE:61:ARG:NH2	2.36	0.40
36:DB:48:A:H4'	51:DS:95:HIS:CE1	2.56	0.40
39:DE:71:GLY:O	39:DE:72:VAL:C	2.59	0.40
40:DF:66:PRO:O	40:DF:67:GLN:HB3	2.21	0.40
43:DI:92:VAL:HG22	43:DI:120:ILE:HG13	2.03	0.40
46:DN:70:LYS:HE3	46:DN:72:TYR:CZ	2.56	0.40
48:DP:59:LEU:HA	48:DP:61:ARG:NE	2.36	0.40
49:DQ:12:GLN:HG2	49:DQ:72:LYS:HE2	2.03	0.40
49:DQ:137:TYR:CD1	49:DQ:139:GLU:O	2.74	0.40
50:DR:38:VAL:HG23	50:DR:110:PRO:O	2.20	0.40
54:DV:1:MET:HB3	54:DV:2:PHE:H	1.68	0.40
57:DY:90:LEU:HD12	57:DY:91:GLU:H	1.85	0.40
58:DZ:24:LEU:HB2	58:DZ:41:LEU:HG	2.02	0.40
1:AA:69:G:O4'	1:AA:152:A:H2	2.04	0.40
1:AA:292:G:H5'	1:AA:293:G:OP2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:491:G:C2	1:AA:492:G:H1'	2.56	0.40
1:AA:562:C:H4'	1:AA:563:A:O5'	2.20	0.40
1:AA:599:C:H5''	8:AH:95:VAL:O	2.21	0.40
1:AA:702:A:O2'	1:AA:703:G:P	2.80	0.40
1:AA:1061:G:C5	1:AA:1062:U:C5	3.09	0.40
1:AA:1129:C:N4	1:AA:1143:G:H22	2.19	0.40
1:AA:1149:C:H2'	1:AA:1150:U:O4'	2.21	0.40
1:AA:1329:A:H5'	13:AM:29:ARG:NE	2.37	0.40
3:AC:154:SER:O	3:AC:165:THR:HA	2.21	0.40
4:AD:36:ARG:HB3	4:AD:38:TYR:CZ	2.56	0.40
4:AD:73:ARG:O	4:AD:74:GLN:C	2.59	0.40
7:AG:151:TYR:HA	7:AG:153:HIS:HD2	1.86	0.40
10:AJ:52:GLY:O	14:AN:42:ILE:HD11	2.21	0.40
11:AK:91:ARG:HG3	11:AK:92:GLU:H	1.85	0.40
12:AL:69:TYR:CD2	12:AL:99:HIS:CD2	3.07	0.40
15:AO:39:LEU:HD13	15:AO:39:LEU:O	2.21	0.40
16:AP:4:ILE:HA	16:AP:20:VAL:O	2.21	0.40
16:AP:34:GLU:OE2	16:AP:55:ARG:CD	2.64	0.40
19:AS:51:VAL:HB	19:AS:58:VAL:HG22	2.03	0.40
25:B0:19:LYS:HE2	35:BA:2262:U:OP2	2.21	0.40
26:B1:65:SER:O	35:BA:372:G:H8	2.03	0.40
27:B2:44:LEU:C	27:B2:46:GLN:H	2.24	0.40
27:B2:45:SER:O	27:B2:49:LYS:HG2	2.21	0.40
28:B3:31:LEU:HD23	28:B3:31:LEU:HA	1.89	0.40
34:B9:22:ARG:HB2	34:B9:24:TYR:CE1	2.55	0.40
35:BA:72:U:C4	35:BA:112:U:H4'	2.56	0.40
35:BA:76:C:H2'	35:BA:77:C:H6	1.86	0.40
35:BA:234:C:H2'	35:BA:235:U:O4'	2.21	0.40
35:BA:413:C:H4'	35:BA:1880:C:O2'	2.20	0.40
35:BA:614(B):G:O2'	40:BF:44:ARG:NE	2.54	0.40
35:BA:1013:C:H42	35:BA:1149:G:H1	1.69	0.40
35:BA:1042:G:N2	35:BA:1113:U:O2	2.54	0.40
35:BA:1224:C:O2'	54:BV:87:HIS:N	2.54	0.40
35:BA:1312:U:O2	35:BA:1312:U:O4'	2.39	0.40
35:BA:1436:G:H5'	35:BA:1437:C:OP2	2.21	0.40
35:BA:1804:C:H2'	35:BA:1805:U:H6	1.86	0.40
35:BA:2096:U:C2'	35:BA:2097:C:H5'	2.51	0.40
35:BA:2378:A:C2'	51:BS:20:ARG:HH12	2.33	0.40
35:BA:2582:G:N2	35:BA:2583:G:H1'	2.35	0.40
39:BE:61:ARG:H	39:BE:61:ARG:HG2	1.62	0.40
40:BF:110:LEU:HD23	40:BF:183:VAL:HG12	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BG:38:VAL:HG22	41:BG:93:THR:HG23	2.03	0.40
47:BO:53:LYS:O	47:BO:56:ASP:HB2	2.20	0.40
47:BO:113:LYS:O	47:BO:115:VAL:N	2.52	0.40
53:BU:9:VAL:HG12	53:BU:10:ARG:H	1.86	0.40
55:BW:51:LEU:HD22	55:BW:51:LEU:N	2.37	0.40
57:BY:9:LYS:HD2	57:BY:10:GLY:N	2.36	0.40
58:BZ:6:LYS:HE3	58:BZ:6:LYS:HB2	1.69	0.40
1:CA:260:G:H2'	1:CA:261:U:C6	2.56	0.40
1:CA:382:A:H2'	1:CA:383:A:C8	2.56	0.40
1:CA:397:A:N7	1:CA:548:G:C8	2.89	0.40
1:CA:404:U:H5'	4:CD:122:ARG:HE	1.85	0.40
1:CA:872:A:C5	1:CA:874:G:C8	3.09	0.40
1:CA:1074:G:H2'	1:CA:1075:C:C6	2.56	0.40
1:CA:1107:C:C4	1:CA:1108:G:C8	3.09	0.40
1:CA:1112:C:N3	3:CC:178:LEU:HD22	2.36	0.40
1:CA:1240:U:P	7:CG:116:ALA:HB2	2.61	0.40
1:CA:1307:U:C4	1:CA:1308:U:C4	3.09	0.40
1:CA:1315:U:C4	1:CA:1316:G:C6	3.09	0.40
1:CA:1508:G:H2'	1:CA:1509:C:O4'	2.21	0.40
2:CB:70:PHE:CD2	2:CB:163:PHE:HB3	2.56	0.40
2:CB:145:LEU:O	2:CB:149:LEU:HB2	2.20	0.40
3:CC:30:ARG:HB2	14:CN:36:PHE:O	2.21	0.40
3:CC:108:ASN:CB	3:CC:111:LEU:HD12	2.51	0.40
4:CD:52:SER:O	4:CD:56:VAL:HG23	2.22	0.40
7:CG:140:ASP:HA	7:CG:143:ARG:HD2	2.04	0.40
14:CN:23:ARG:HA	14:CN:29:ARG:O	2.21	0.40
15:CO:4:THR:HG23	15:CO:7:GLU:OE2	2.21	0.40
19:CS:58:VAL:HG11	19:CS:75:ALA:HA	2.03	0.40
20:CT:37:SER:O	20:CT:41:ILE:HG12	2.22	0.40
21:CU:8:THR:HA	21:CU:21:TYR:HE2	1.83	0.40
22:CV:11:A:H4'	35:DA:1909:C:O2'	2.21	0.40
25:D0:70:GLN:O	25:D0:77:ARG:HA	2.22	0.40
33:D8:8:LYS:HE2	35:DA:245:G:O6	2.21	0.40
35:DA:803:U:O2'	35:DA:804:A:H5'	2.21	0.40
35:DA:1027:A:H4'	36:DB:88:C:C4	2.57	0.40
35:DA:1102:C:H6	35:DA:1102:C:H2'	1.67	0.40
35:DA:1303:G:H1'	35:DA:1641:A:N1	2.36	0.40
35:DA:1451:C:N3	35:DA:1459:G:O6	2.55	0.40
35:DA:1937:A:C8	35:DA:1939:U:H2'	2.57	0.40
35:DA:1946:U:H2'	35:DA:1947:C:C6	2.57	0.40
35:DA:2050:C:H2'	35:DA:2051:A:O4'	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2190:G:C4	35:DA:2191:G:C8	3.10	0.40
35:DA:2191:G:H4'	35:DA:2192:G:OP1	2.20	0.40
35:DA:2393:A:C2'	35:DA:2394:C:H5'	2.51	0.40
35:DA:2612:C:C4	35:DA:2613:U:H5	2.39	0.40
35:DA:2787:C:O2	39:DE:61:ARG:NH1	2.54	0.40
38:DD:267:SER:O	38:DD:268:ARG:HB2	2.22	0.40
41:DG:83:ARG:H	41:DG:86:MET:CG	2.35	0.40
43:DI:91:SER:HB2	43:DI:121:LYS:HA	2.04	0.40
47:DO:68:GLU:OE2	47:DO:78:ARG:NH1	2.55	0.40
49:DQ:51:ARG:HH22	58:DZ:178:GLU:CD	2.25	0.40
53:DU:92:ARG:HG2	54:DV:11:GLN:NE2	2.35	0.40
54:DV:76:LYS:HD3	54:DV:84:LYS:O	2.21	0.40
55:DW:69:LEU:HA	55:DW:108:GLY:O	2.21	0.40
55:DW:70:TYR:N	55:DW:70:TYR:CD1	2.89	0.40
56:DX:27:THR:HB	56:DX:78:LYS:CB	2.46	0.40
58:DZ:15:PRO:O	58:DZ:19:ARG:HB2	2.21	0.40
1:AA:147:G:C2	1:AA:176:C:O2	2.74	0.40
1:AA:608:A:H2'	1:AA:609:A:O4'	2.22	0.40
1:AA:849:C:H3'	1:AA:849:C:C6	2.56	0.40
1:AA:1030(B):G:H2'	1:AA:1030(B):G:N3	2.37	0.40
1:AA:1156:G:O2'	1:AA:1180:A:N6	2.41	0.40
1:AA:1368:G:O2'	1:AA:1369:C:H5'	2.21	0.40
3:AC:182:ILE:HG12	3:AC:203:PHE:CD1	2.56	0.40
7:AG:70:LYS:HG2	7:AG:96:GLN:HB3	2.03	0.40
7:AG:140:ASP:O	7:AG:143:ARG:N	2.55	0.40
8:AH:10:LEU:HD11	8:AH:135:CYS:CB	2.52	0.40
9:AI:70:LYS:H	9:AI:73:GLN:H	1.68	0.40
22:AV:65:G:H2'	22:AV:66:C:O4'	2.22	0.40
26:B1:13:ILE:HG12	26:B1:14:VAL:O	2.22	0.40
30:B5:25:LEU:HD21	55:BW:41:LYS:HE2	2.03	0.40
31:B6:14:THR:HA	31:B6:20:ASN:O	2.21	0.40
35:BA:26:G:H1'	35:BA:515:A:N6	2.36	0.40
35:BA:533:G:H5'	53:BU:24:TYR:CD1	2.56	0.40
35:BA:928:G:H8	35:BA:928:G:O5'	2.05	0.40
35:BA:1014:U:H2'	35:BA:1015:G:H8	1.86	0.40
35:BA:1444:G:C6	35:BA:1547:C:N4	2.84	0.40
35:BA:2186:G:N1	35:BA:2187:G:C8	2.89	0.40
35:BA:2532:G:H2'	35:BA:2533:A:C8	2.56	0.40
35:BA:2688:U:H2'	35:BA:2719:G:N2	2.36	0.40
35:BA:2882:A:P	50:BR:96:ARG:HD3	2.62	0.40
36:BB:114:C:C4'	51:BS:46:VAL:HG22	2.42	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BB:117:G:O5'	36:BB:117:G:H8	2.04	0.40
39:BE:77:ILE:HG13	39:BE:78:LEU:CD2	2.52	0.40
39:BE:111:ARG:CA	50:BR:3:HIS:CE1	3.02	0.40
40:BF:19:GLU:O	40:BF:20:LEU:HD22	2.22	0.40
41:BG:53:LEU:N	41:BG:53:LEU:HD22	2.36	0.40
41:BG:117:PHE:HD1	41:BG:118:ARG:N	2.19	0.40
41:BG:175:LEU:HD13	41:BG:175:LEU:O	2.21	0.40
43:BI:48:GLU:HA	43:BI:51:ILE:HB	2.03	0.40
49:BQ:97:VAL:HG11	49:BQ:103:MET:CE	2.50	0.40
53:BU:9:VAL:HG12	53:BU:10:ARG:N	2.36	0.40
56:BX:73:ARG:O	56:BX:74:PRO:C	2.59	0.40
1:CA:6:G:HO2'	1:CA:7:G:P	2.43	0.40
1:CA:298:A:H2'	1:CA:299:G:C8	2.55	0.40
1:CA:401:C:H2'	1:CA:402:G:C8	2.56	0.40
1:CA:511:C:O3'	4:CD:43:HIS:CD2	2.74	0.40
1:CA:558:G:H2'	1:CA:559:A:C2	2.56	0.40
1:CA:590:C:H2'	1:CA:591:U:C6	2.56	0.40
1:CA:730:G:H2'	1:CA:730:G:N3	2.37	0.40
1:CA:883:C:O2'	1:CA:884:U:H5'	2.21	0.40
1:CA:994:A:C2	14:CN:5:ALA:HB1	2.56	0.40
1:CA:994:A:OP2	1:CA:994:A:H3'	2.22	0.40
1:CA:1107:C:P	3:CC:172:ARG:HB2	2.62	0.40
1:CA:1142:G:H2'	1:CA:1143:G:O4'	2.21	0.40
2:CB:73:THR:CG2	2:CB:96:ARG:HH22	2.34	0.40
2:CB:177:ALA:HB1	2:CB:184:VAL:HG22	2.02	0.40
5:CE:14:ARG:O	5:CE:14:ARG:HG3	2.21	0.40
5:CE:27:ARG:HG2	5:CE:27:ARG:NH1	2.35	0.40
6:CF:92:LYS:HE3	6:CF:92:LYS:HB3	1.84	0.40
7:CG:87:VAL:HA	7:CG:88:PRO:HD3	2.01	0.40
10:CJ:43:ARG:HD3	10:CJ:43:ARG:HA	1.94	0.40
10:CJ:80:LYS:HE3	10:CJ:80:LYS:HB2	1.92	0.40
12:CL:33:ARG:HB3	12:CL:85:ILE:CG2	2.51	0.40
17:CQ:98:LEU:H	17:CQ:98:LEU:HG	1.56	0.40
20:CT:77:ALA:O	20:CT:81:LYS:N	2.54	0.40
21:CU:8:THR:OG1	21:CU:11:GLY:N	2.50	0.40
22:CV:2:G:C5	22:CV:72:A:C2	3.09	0.40
22:CV:52:G:HO2'	22:CV:53:G:P	2.37	0.40
26:D1:83:GLU:C	26:D1:85:LEU:N	2.74	0.40
30:D5:5:PRO:O	30:D5:6:VAL:HG22	2.21	0.40
33:D8:5:LYS:HG3	35:DA:242:G:N7	2.36	0.40
34:D9:6:SER:H	35:DA:2466:C:H5''	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:446:G:H5''	53:DU:3:ARG:HH12	1.86	0.40
35:DA:796:C:H2'	35:DA:797:C:H6	1.81	0.40
35:DA:803:U:H2'	35:DA:804:A:H5'	2.04	0.40
35:DA:814:C:H41	48:DP:27:HIS:CD2	2.38	0.40
35:DA:1651:G:N2	35:DA:2007:C:C2	2.89	0.40
35:DA:1778:U:H2'	35:DA:1784:A:C6	2.53	0.40
38:DD:119:ALA:CB	38:DD:130:ALA:HB3	2.52	0.40
40:DF:32:LEU:CD1	40:DF:105:VAL:HG13	2.51	0.40
41:DG:113:ARG:HG2	41:DG:140:ILE:HA	2.04	0.40
46:DN:137:LYS:O	46:DN:138:LEU:C	2.59	0.40
48:DP:50:ARG:HB3	48:DP:51:PHE:H	1.62	0.40
48:DP:59:LEU:HD23	48:DP:61:ARG:HD2	2.03	0.40
49:DQ:43:THR:O	49:DQ:46:GLN:N	2.55	0.40
49:DQ:55:VAL:CG1	49:DQ:64:ILE:HD12	2.48	0.40
52:DT:44:ASP:C	52:DT:45:PHE:HD1	2.25	0.40
58:DZ:30:ASN:C	58:DZ:32:HIS:N	2.75	0.40
58:DZ:175:VAL:HA	58:DZ:176:PRO:HD3	1.94	0.40
1:AA:11:G:C6	1:AA:12:U:C4	3.09	0.40
1:AA:460:G:N3	1:AA:460:G:C2'	2.83	0.40
1:AA:629:G:H2'	1:AA:630:G:O4'	2.22	0.40
1:AA:682:G:C5	1:AA:683:G:N7	2.90	0.40
1:AA:803:G:H2'	1:AA:804:U:O4'	2.20	0.40
1:AA:983:A:H5''	14:AN:2:ALA:HB3	2.04	0.40
1:AA:1066:C:H2'	1:AA:1067:A:C8	2.56	0.40
1:AA:1128:C:O2'	1:AA:1129:C:H4'	2.21	0.40
1:AA:1169:A:H8	1:AA:1170:A:C8	2.40	0.40
1:AA:1203:C:OP2	1:AA:1203:C:C6	2.67	0.40
1:AA:1353:G:H1	1:AA:1369:C:N4	2.15	0.40
1:AA:1363(A):A:C8	1:AA:1365:G:C5	3.09	0.40
2:AB:74:LYS:HB3	2:AB:165:VAL:HG21	2.02	0.40
2:AB:172:ILE:O	2:AB:175:ARG:HB2	2.22	0.40
3:AC:184:TYR:HD1	3:AC:201:TYR:CE1	2.40	0.40
5:AE:122:GLU:OE1	5:AE:126:ARG:HG3	2.22	0.40
9:AI:6:GLY:N	9:AI:18:PHE:HE1	2.20	0.40
9:AI:65:VAL:HG21	9:AI:73:GLN:HG2	2.04	0.40
9:AI:111:ARG:O	9:AI:113:LYS:HG2	2.22	0.40
11:AK:44:SER:O	11:AK:48:ILE:HD12	2.21	0.40
13:AM:60:VAL:HG23	13:AM:64:TRP:CZ2	2.56	0.40
13:AM:91:ARG:HB3	13:AM:96:LEU:O	2.21	0.40
16:AP:76:GLN:O	16:AP:78:GLY:N	2.53	0.40
27:B2:12:GLU:O	27:B2:54:LYS:CG	2.67	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:B2:41:ILE:HD13	27:B2:44:LEU:CB	2.41	0.40
30:B5:19:ARG:HG3	35:BA:2046:G:H5'	2.02	0.40
30:B5:25:LEU:CB	55:BW:23:LEU:HD11	2.52	0.40
33:B8:57:ARG:HH11	33:B8:57:ARG:HD2	1.75	0.40
34:B9:22:ARG:HH22	35:BA:2741:A:C5'	2.34	0.40
35:BA:298:G:H1'	35:BA:340:A:H61	1.87	0.40
35:BA:588:U:H2'	35:BA:589:C:C6	2.56	0.40
35:BA:641:C:O2'	35:BA:2350:C:OP1	2.17	0.40
35:BA:740:U:H2'	35:BA:741:G:C8	2.57	0.40
35:BA:740:U:O4'	35:BA:1981:A:C4	2.74	0.40
35:BA:903:C:H6	35:BA:903:C:OP2	2.04	0.40
35:BA:924:C:H2'	35:BA:925:C:C6	2.57	0.40
35:BA:1019:U:O2'	35:BA:1021:A:H2	2.03	0.40
35:BA:1100:C:C5	35:BA:1101:U:N3	2.90	0.40
35:BA:1156:A:P	53:BU:55:ARG:HH12	2.44	0.40
35:BA:1340:U:C2	35:BA:1603:A:O4'	2.74	0.40
35:BA:1529:G:H1'	35:BA:1530:C:N4	2.35	0.40
35:BA:1685:C:O2'	35:BA:1686:C:H5'	2.21	0.40
35:BA:1795:C:H2'	35:BA:1796:U:O4'	2.21	0.40
35:BA:1799:G:N2	35:BA:1818:U:O2'	2.55	0.40
35:BA:1846:G:H5'	35:BA:1847:A:OP2	2.22	0.40
35:BA:1986:A:H8	35:BA:1986:A:C5'	2.33	0.40
35:BA:2197:U:C2'	35:BA:2224:G:H1	2.35	0.40
35:BA:2243:U:H2'	35:BA:2244:U:C6	2.57	0.40
35:BA:2688:U:C5	35:BA:2720:U:OP2	2.75	0.40
35:BA:2729:G:H2'	35:BA:2730:C:H6	1.86	0.40
35:BA:2851:A:H8	35:BA:2851:A:O5'	2.05	0.40
36:BB:73:A:C8	36:BB:105:A:C6	3.10	0.40
41:BG:6:ALA:HB3	41:BG:104:GLU:OE1	2.20	0.40
42:BH:159:GLU:O	42:BH:160:LYS:HG2	2.21	0.40
47:BO:35:VAL:HG12	47:BO:106:LEU:HD13	2.04	0.40
50:BR:74:LYS:O	50:BR:77:ARG:HB2	2.22	0.40
50:BR:79:LEU:HD12	50:BR:83:ILE:CG2	2.52	0.40
51:BS:74:ALA:HB1	51:BS:104:GLY:HA3	2.04	0.40
52:BT:50:ILE:HA	52:BT:99:LEU:HD12	2.04	0.40
53:BU:39:LEU:HD23	53:BU:39:LEU:HA	1.72	0.40
56:BX:77:LYS:HD3	56:BX:77:LYS:HA	1.80	0.40
58:BZ:150:LEU:H	58:BZ:150:LEU:HD23	1.86	0.40
58:BZ:163:LEU:H	58:BZ:163:LEU:HD23	1.86	0.40
1:CA:254:G:O4'	17:CQ:15:MET:HE2	2.22	0.40
1:CA:509:A:H8	1:CA:509:A:O5'	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:588:G:H5'	8:CH:1:MET:O	2.21	0.40
1:CA:908:A:H2'	1:CA:909:A:C8	2.56	0.40
1:CA:918:A:C6	1:CA:919:A:C6	3.10	0.40
1:CA:1239:A:H1'	1:CA:1241:G:C4	2.56	0.40
1:CA:1316:G:O6	19:CS:5:LEU:HD11	2.21	0.40
1:CA:1355:G:H2'	1:CA:1356:G:H8	1.86	0.40
1:CA:1405:G:O4'	1:CA:1519:A:H4'	2.21	0.40
1:CA:1446:U:C6	1:CA:1446:U:H3'	2.57	0.40
1:CA:1463:C:H2'	1:CA:1464:G:O4'	2.21	0.40
2:CB:53:ARG:O	2:CB:56:ARG:HG2	2.22	0.40
2:CB:130:ARG:HD2	2:CB:138:LEU:CD1	2.52	0.40
3:CC:113:ALA:HB3	3:CC:114:PRO:CD	2.52	0.40
5:CE:33:VAL:HG11	5:CE:109:ILE:HA	2.03	0.40
6:CF:44:GLY:HA2	6:CF:59:TYR:CE2	2.57	0.40
8:CH:1:MET:CG	8:CH:2:LEU:H	2.35	0.40
9:CI:88:TYR:HD1	9:CI:89:ASN:OD1	2.05	0.40
9:CI:93:ARG:NH2	9:CI:97:LYS:HD3	2.35	0.40
10:CJ:38:ILE:CG2	10:CJ:71:LEU:HB3	2.51	0.40
13:CM:23:TYR:HB3	13:CM:67:GLU:CB	2.51	0.40
14:CN:9:LYS:HE3	14:CN:12:ARG:HH22	1.86	0.40
14:CN:37:PHE:HE2	14:CN:53:LEU:HD13	1.87	0.40
25:D0:4:LYS:O	25:D0:5:LYS:HB2	2.20	0.40
28:D3:18:ASP:O	28:D3:22:ALA:N	2.39	0.40
30:D5:47:PRO:HG3	55:DW:38:TYR:OH	2.22	0.40
35:DA:53:A:H61	35:DA:117:G:C2'	2.33	0.40
35:DA:723:G:H2'	35:DA:724:U:O4'	2.21	0.40
35:DA:753:C:O2'	35:DA:754:C:H5'	2.21	0.40
35:DA:1550:C:O2'	35:DA:1551:C:H5'	2.21	0.40
35:DA:1915:U:OP2	35:DA:1915:U:C6	2.70	0.40
38:DD:31:LYS:HD3	38:DD:31:LYS:C	2.42	0.40
41:DG:16:ARG:CZ	41:DG:31:VAL:HG11	2.52	0.40
43:DI:109:ILE:HB	43:DI:130:TYR:CZ	2.57	0.40
46:DN:79:PRO:HD2	46:DN:80:GLY:H	1.86	0.40
48:DP:126:VAL:C	48:DP:145:PRO:HG3	2.42	0.40
49:DQ:65:PHE:O	49:DQ:104:PHE:CB	2.70	0.40
49:DQ:104:PHE:HZ	49:DQ:125:LEU:HD11	1.86	0.40
51:DS:56:LEU:HB3	51:DS:58:LEU:HD21	2.03	0.40
55:DW:14:PRO:C	55:DW:16:LYS:N	2.73	0.40
56:DX:12:VAL:HG23	56:DX:29:TRP:CZ2	2.57	0.40
57:DY:46:LYS:C	57:DY:46:LYS:HD3	2.42	0.40
1:AA:437:U:H5''	4:AD:155:LEU:HD22	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:458:C:H3'	1:AA:460:G:C8	2.48	0.40
1:AA:575:G:C6	1:AA:821:G:C8	3.09	0.40
1:AA:718:G:H22	18:AR:82:THR:HB	1.87	0.40
1:AA:928:G:H2'	1:AA:929:G:C8	2.56	0.40
1:AA:982:U:H6	1:AA:982:U:OP1	2.04	0.40
1:AA:994:A:O2'	14:AN:8:GLU:HG3	2.21	0.40
1:AA:1118:C:OP1	9:AI:9:ARG:HD2	2.21	0.40
1:AA:1187:G:H4'	9:AI:111:ARG:NH1	2.36	0.40
1:AA:1206:G:C5	1:AA:1207:G:C8	3.09	0.40
1:AA:1226:C:OP2	13:AM:103:THR:HG21	2.22	0.40
1:AA:1240:U:O2'	1:AA:1241:G:OP1	2.40	0.40
1:AA:1268:A:H2'	1:AA:1269:A:H8	1.84	0.40
1:AA:1298:C:O2'	1:AA:1299:A:OP2	2.38	0.40
1:AA:1425:U:O2'	1:AA:1426:C:H5'	2.21	0.40
1:AA:1466:C:C5	1:AA:1467:G:C5	3.10	0.40
1:AA:1517:G:H1'	35:BA:1919:A:O3'	2.20	0.40
5:AE:33:VAL:HG11	5:AE:109:ILE:HA	2.03	0.40
5:AE:57:LYS:O	5:AE:61:TYR:HD1	2.04	0.40
8:AH:17:THR:HG22	8:AH:63:LEU:HD11	2.03	0.40
8:AH:34:GLU:HG2	8:AH:37:ARG:CZ	2.51	0.40
8:AH:36:LEU:C	8:AH:48:TYR:HH	2.24	0.40
12:AL:54:LYS:HD2	12:AL:54:LYS:N	2.36	0.40
14:AN:48:ALA:H	14:AN:51:GLY:H	1.70	0.40
15:AO:51:HIS:O	15:AO:54:ARG:HB3	2.21	0.40
17:AQ:17:LYS:HE2	17:AQ:47:PRO:HA	2.04	0.40
19:AS:51:VAL:O	19:AS:57:HIS:HA	2.21	0.40
20:AT:75:ASN:OD1	20:AT:75:ASN:N	2.54	0.40
27:B2:55:ARG:NH1	27:B2:56:GLN:NE2	2.69	0.40
28:B3:43:ILE:H	28:B3:43:ILE:HG12	1.68	0.40
34:B9:19:ARG:HA	35:BA:2756:U:H5''	2.04	0.40
35:BA:186:G:C2	35:BA:211:A:C2	3.09	0.40
35:BA:271(Q):G:O2'	35:BA:271(R):G:P	2.79	0.40
35:BA:536:A:H2'	35:BA:537:C:O4'	2.22	0.40
35:BA:553:G:C6	35:BA:554:U:N3	2.90	0.40
35:BA:571:A:H5'	35:BA:2030:A:N7	2.36	0.40
35:BA:759:G:H2'	35:BA:760:G:H8	1.87	0.40
35:BA:763:G:H1'	35:BA:765:G:O4'	2.21	0.40
35:BA:880:G:N1	35:BA:881:G:C2	2.90	0.40
35:BA:1168:G:C2	35:BA:1182:A:N7	2.90	0.40
35:BA:1901:A:H4'	35:BA:1901:A:OP2	2.21	0.40
35:BA:2772:C:H2'	35:BA:2773:C:H6	1.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2795:G:H21	35:BA:2796:U:H2'	1.87	0.40
36:BB:76:G:O3'	58:BZ:19:ARG:NH2	2.48	0.40
37:BC:66:HIS:CE1	37:BC:186:ALA:HB1	2.56	0.40
38:BD:36:PRO:HB2	38:BD:61:LEU:HB3	2.03	0.40
38:BD:77:ALA:HB2	38:BD:97:TYR:CG	2.56	0.40
42:BH:29:PRO:HB2	42:BH:30:LYS:HZ2	1.87	0.40
42:BH:30:LYS:HB2	42:BH:79:VAL:HA	2.03	0.40
42:BH:125:VAL:O	42:BH:125:VAL:HG13	2.21	0.40
47:BO:13:ASN:O	47:BO:14:THR:C	2.60	0.40
1:CA:687:A:N1	1:CA:704:A:C5	2.89	0.40
1:CA:801:U:H2'	1:CA:802:A:C8	2.57	0.40
1:CA:980:C:O2'	14:CN:19:ARG:O	2.29	0.40
1:CA:1324:A:C6	1:CA:1325:C:C4	3.10	0.40
1:CA:1381:U:H2'	1:CA:1381:U:O2	2.21	0.40
1:CA:1442(A):G:OP2	1:CA:1442(A):G:H3'	2.20	0.40
1:CA:1444:C:N3	1:CA:1458:G:N2	2.61	0.40
2:CB:112:VAL:O	2:CB:115:LEU:HB3	2.21	0.40
2:CB:238:LEU:O	2:CB:240:GLN:N	2.50	0.40
7:CG:113:GLU:HB2	7:CG:119:ARG:CG	2.51	0.40
7:CG:146:GLU:C	7:CG:148:ASN:N	2.73	0.40
9:CI:22:GLY:H	9:CI:59:PHE:HA	1.85	0.40
23:CW:34:G:N3	23:CW:34:G:H3'	2.36	0.40
23:CY:41:C:O2'	23:CY:42:C:H5'	2.21	0.40
25:D0:23:VAL:HG22	25:D0:38:VAL:HG22	2.03	0.40
27:D2:41:ILE:HG13	35:DA:61:G:N7	2.36	0.40
31:D6:28:ARG:HD3	31:D6:28:ARG:HA	1.80	0.40
35:DA:6:A:N3	35:DA:6:A:H2'	2.35	0.40
35:DA:83:G:O2'	35:DA:102:G:N2	2.54	0.40
35:DA:210:C:H2'	35:DA:211:A:C8	2.57	0.40
35:DA:335:C:H6	35:DA:335:C:O5'	2.03	0.40
35:DA:500:G:N2	35:DA:502:A:H3'	2.36	0.40
35:DA:522:G:H2'	35:DA:523:C:C6	2.56	0.40
35:DA:935:C:H2'	35:DA:936:C:H6	1.85	0.40
35:DA:1100:C:O2	35:DA:1100:C:H2'	2.21	0.40
35:DA:1169:G:H2'	35:DA:1170:G:O4'	2.22	0.40
35:DA:1223:G:C6	35:DA:1227:G:C6	3.10	0.40
35:DA:1439:A:H2'	35:DA:1440:G:O4'	2.20	0.40
35:DA:1615:C:C5	35:DA:1617:C:C4	3.10	0.40
35:DA:1678:G:H8	35:DA:1678:G:O5'	2.04	0.40
35:DA:1834:U:H4'	35:DA:1969:A:C6	2.57	0.40
35:DA:2177:C:OP2	35:DA:2177:C:C6	2.74	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2379:G:H2'	35:DA:2380:C:C6	2.56	0.40
35:DA:2777:G:H3'	35:DA:2777:G:C8	2.57	0.40
38:DD:70:TRP:HZ3	38:DD:146:GLU:OE2	2.05	0.40
39:DE:59:VAL:CG2	39:DE:63:LEU:HG	2.37	0.40
40:DF:24:LEU:HD13	40:DF:25:PRO:CG	2.50	0.40
46:DN:26:LEU:CD1	46:DN:140:VAL:HG12	2.52	0.40
46:DN:30:ILE:HG22	46:DN:34:LEU:HD23	2.04	0.40
48:DP:94:GLU:HA	48:DP:124:LYS:HB2	2.04	0.40
53:DU:29:SER:O	53:DU:30:LYS:HD3	2.21	0.40
57:DY:86:ARG:HB2	57:DY:95:LYS:NZ	2.37	0.40
58:DZ:150:LEU:HD12	58:DZ:154:ASP:OD2	2.21	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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	216/256 (84%)	148 (68%)	42 (19%)	26 (12%)	0	2
2	CB	232/256 (91%)	148 (64%)	59 (25%)	25 (11%)	0	3
3	AC	204/239 (85%)	145 (71%)	41 (20%)	18 (9%)	1	5
3	CC	205/239 (86%)	153 (75%)	37 (18%)	15 (7%)	1	7
4	AD	206/209 (99%)	148 (72%)	35 (17%)	23 (11%)	0	2
4	CD	206/209 (99%)	150 (73%)	41 (20%)	15 (7%)	1	7
5	AE	148/162 (91%)	113 (76%)	24 (16%)	11 (7%)	1	7
5	CE	149/162 (92%)	114 (76%)	27 (18%)	8 (5%)	2	12
6	AF	99/101 (98%)	80 (81%)	12 (12%)	7 (7%)	1	8
6	CF	99/101 (98%)	84 (85%)	12 (12%)	3 (3%)	4	25
7	AG	153/156 (98%)	103 (67%)	33 (22%)	17 (11%)	0	2

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
7	CG	153/156 (98%)	112 (73%)	30 (20%)	11 (7%)	1	8
8	AH	136/138 (99%)	98 (72%)	25 (18%)	13 (10%)	0	4
8	CH	136/138 (99%)	100 (74%)	26 (19%)	10 (7%)	1	7
9	AI	119/128 (93%)	80 (67%)	20 (17%)	19 (16%)	0	1
9	CI	125/128 (98%)	87 (70%)	23 (18%)	15 (12%)	0	2
10	AJ	96/105 (91%)	61 (64%)	23 (24%)	12 (12%)	0	2
10	CJ	96/105 (91%)	66 (69%)	20 (21%)	10 (10%)	0	3
11	AK	117/129 (91%)	89 (76%)	19 (16%)	9 (8%)	1	6
11	CK	117/129 (91%)	86 (74%)	23 (20%)	8 (7%)	1	8
12	AL	120/132 (91%)	81 (68%)	23 (19%)	16 (13%)	0	1
12	CL	122/132 (92%)	86 (70%)	21 (17%)	15 (12%)	0	2
13	AM	114/126 (90%)	78 (68%)	22 (19%)	14 (12%)	0	2
13	CM	117/126 (93%)	88 (75%)	16 (14%)	13 (11%)	0	2
14	AN	58/61 (95%)	35 (60%)	16 (28%)	7 (12%)	0	2
14	CN	58/61 (95%)	36 (62%)	13 (22%)	9 (16%)	0	1
15	AO	86/89 (97%)	67 (78%)	14 (16%)	5 (6%)	1	11
15	CO	86/89 (97%)	61 (71%)	19 (22%)	6 (7%)	1	8
16	AP	81/88 (92%)	58 (72%)	17 (21%)	6 (7%)	1	7
16	CP	81/88 (92%)	53 (65%)	22 (27%)	6 (7%)	1	7
17	AQ	97/105 (92%)	81 (84%)	13 (13%)	3 (3%)	4	24
17	CQ	97/105 (92%)	74 (76%)	13 (13%)	10 (10%)	0	3
18	AR	68/88 (77%)	55 (81%)	8 (12%)	5 (7%)	1	7
18	CR	68/88 (77%)	48 (71%)	12 (18%)	8 (12%)	0	2
19	AS	76/93 (82%)	33 (43%)	30 (40%)	13 (17%)	0	1
19	CS	76/93 (82%)	46 (60%)	15 (20%)	15 (20%)	0	0
20	AT	97/106 (92%)	64 (66%)	23 (24%)	10 (10%)	0	3
20	CT	97/106 (92%)	67 (69%)	18 (19%)	12 (12%)	0	2
21	AU	22/27 (82%)	15 (68%)	3 (14%)	4 (18%)	0	1
21	CU	23/27 (85%)	19 (83%)	1 (4%)	3 (13%)	0	1
25	B0	74/85 (87%)	56 (76%)	13 (18%)	5 (7%)	1	8
25	D0	80/85 (94%)	59 (74%)	13 (16%)	8 (10%)	0	3

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
26	B1	86/98 (88%)	45 (52%)	21 (24%)	20 (23%)	0	0
26	D1	86/98 (88%)	60 (70%)	12 (14%)	14 (16%)	0	1
27	B2	48/72 (67%)	14 (29%)	20 (42%)	14 (29%)	0	0
27	D2	51/72 (71%)	22 (43%)	16 (31%)	13 (26%)	0	0
28	B3	56/60 (93%)	47 (84%)	7 (12%)	2 (4%)	3	21
28	D3	58/60 (97%)	46 (79%)	7 (12%)	5 (9%)	1	5
29	B4	43/71 (61%)	10 (23%)	13 (30%)	20 (46%)	0	0
29	D4	47/71 (66%)	11 (23%)	17 (36%)	19 (40%)	0	0
30	B5	52/60 (87%)	34 (65%)	9 (17%)	9 (17%)	0	1
30	D5	58/60 (97%)	40 (69%)	14 (24%)	4 (7%)	1	8
31	B6	44/54 (82%)	19 (43%)	8 (18%)	17 (39%)	0	0
31	D6	45/54 (83%)	19 (42%)	14 (31%)	12 (27%)	0	0
32	B7	46/49 (94%)	36 (78%)	6 (13%)	4 (9%)	1	5
32	D7	46/49 (94%)	42 (91%)	4 (9%)	0	100	100
33	B8	61/65 (94%)	37 (61%)	15 (25%)	9 (15%)	0	1
33	D8	60/65 (92%)	35 (58%)	13 (22%)	12 (20%)	0	0
34	B9	35/37 (95%)	28 (80%)	5 (14%)	2 (6%)	1	11
34	D9	35/37 (95%)	25 (71%)	7 (20%)	3 (9%)	1	5
37	BC	182/229 (80%)	82 (45%)	54 (30%)	46 (25%)	0	0
37	DC	182/229 (80%)	78 (43%)	63 (35%)	41 (22%)	0	0
38	BD	271/276 (98%)	203 (75%)	45 (17%)	23 (8%)	1	5
38	DD	273/276 (99%)	212 (78%)	43 (16%)	18 (7%)	1	9
39	BE	202/206 (98%)	147 (73%)	35 (17%)	20 (10%)	0	3
39	DE	202/206 (98%)	137 (68%)	36 (18%)	29 (14%)	0	1
40	BF	204/210 (97%)	130 (64%)	39 (19%)	35 (17%)	0	1
40	DF	206/210 (98%)	152 (74%)	35 (17%)	19 (9%)	1	4
41	BG	176/182 (97%)	117 (66%)	42 (24%)	17 (10%)	0	4
41	DG	179/182 (98%)	132 (74%)	32 (18%)	15 (8%)	1	5
42	BH	157/180 (87%)	92 (59%)	43 (27%)	22 (14%)	0	1
42	DH	163/180 (91%)	104 (64%)	33 (20%)	26 (16%)	0	1
43	BI	143/148 (97%)	88 (62%)	35 (24%)	20 (14%)	0	1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
43	DI	142/148 (96%)	91 (64%)	30 (21%)	21 (15%)	0	1
46	BN	135/140 (96%)	91 (67%)	20 (15%)	24 (18%)	0	1
46	DN	138/140 (99%)	90 (65%)	22 (16%)	26 (19%)	0	1
47	BO	120/122 (98%)	89 (74%)	21 (18%)	10 (8%)	1	6
47	DO	120/122 (98%)	106 (88%)	13 (11%)	1 (1%)	19	52
48	BP	142/150 (95%)	64 (45%)	38 (27%)	40 (28%)	0	0
48	DP	144/150 (96%)	63 (44%)	35 (24%)	46 (32%)	0	0
49	BQ	133/141 (94%)	76 (57%)	34 (26%)	23 (17%)	0	1
49	DQ	134/141 (95%)	91 (68%)	27 (20%)	16 (12%)	0	2
50	BR	114/118 (97%)	83 (73%)	19 (17%)	12 (10%)	0	3
50	DR	115/118 (98%)	92 (80%)	12 (10%)	11 (10%)	0	4
51	BS	100/112 (89%)	58 (58%)	21 (21%)	21 (21%)	0	0
51	DS	97/112 (87%)	59 (61%)	22 (23%)	16 (16%)	0	1
52	BT	130/146 (89%)	70 (54%)	34 (26%)	26 (20%)	0	0
52	DT	135/146 (92%)	96 (71%)	25 (18%)	14 (10%)	0	3
53	BU	115/118 (98%)	86 (75%)	17 (15%)	12 (10%)	0	3
53	DU	115/118 (98%)	96 (84%)	11 (10%)	8 (7%)	1	8
54	BV	99/101 (98%)	50 (50%)	21 (21%)	28 (28%)	0	0
54	DV	99/101 (98%)	62 (63%)	22 (22%)	15 (15%)	0	1
55	BW	109/113 (96%)	84 (77%)	16 (15%)	9 (8%)	1	6
55	DW	109/113 (96%)	95 (87%)	5 (5%)	9 (8%)	1	6
56	BX	87/96 (91%)	46 (53%)	25 (29%)	16 (18%)	0	1
56	DX	92/96 (96%)	63 (68%)	9 (10%)	20 (22%)	0	0
57	BY	98/110 (89%)	45 (46%)	27 (28%)	26 (26%)	0	0
57	DY	107/110 (97%)	53 (50%)	26 (24%)	28 (26%)	0	0
58	BZ	174/206 (84%)	113 (65%)	43 (25%)	18 (10%)	0	3
58	DZ	174/206 (84%)	120 (69%)	33 (19%)	21 (12%)	0	2
All	All	11584/12586 (92%)	7801 (67%)	2288 (20%)	1495 (13%)	0	1

All (1495) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	22	LYS

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Mol	Chain	Res	Type
2	AB	48	MET
2	AB	124	SER
2	AB	132	LYS
2	AB	150	SER
2	AB	154	LEU
2	AB	224	GLN
3	AC	18	TRP
3	AC	60	ALA
3	AC	74	GLY
3	AC	154	SER
3	AC	157	ILE
4	AD	3	ARG
4	AD	5	ILE
4	AD	9	CYS
4	AD	10	ARG
4	AD	28	SER
4	AD	73	ARG
4	AD	92	VAL
4	AD	171	GLY
4	AD	178	VAL
5	AE	85	GLY
5	AE	115	VAL
6	AF	31	GLU
6	AF	32	ASN
6	AF	55	ASP
7	AG	36	LYS
7	AG	64	GLN
7	AG	84	ASN
7	AG	119	ARG
7	AG	128	ALA
7	AG	141	VAL
8	AH	34	GLU
8	AH	91	ARG
9	AI	40	LEU
9	AI	44	VAL
9	AI	81	ILE
9	AI	107	ARG
10	AJ	57	LYS
10	AJ	59	SER
10	AJ	74	ILE
10	AJ	77	PRO
11	AK	87	THR

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Mol	Chain	Res	Type
11	AK	117	ASN
12	AL	42	THR
12	AL	47	LYS
12	AL	52	LEU
12	AL	79	GLU
12	AL	91	LYS
13	AM	83	ASP
13	AM	91	ARG
13	AM	104	ARG
13	AM	112	GLY
14	AN	27	CYS
14	AN	48	ALA
15	AO	87	ILE
16	AP	54	GLU
17	AQ	49	GLU
18	AR	20	ALA
19	AS	10	PHE
19	AS	40	ILE
19	AS	67	VAL
20	AT	93	GLU
21	AU	3	LYS
21	AU	7	ARG
21	AU	24	ARG
25	B0	41	ARG
25	B0	55	ARG
26	B1	11	ARG
26	B1	14	VAL
26	B1	39	LYS
26	B1	44	PRO
26	B1	80	LEU
26	B1	86	SER
26	B1	87	PRO
26	B1	89	GLU
26	B1	90	ILE
27	B2	19	VAL
27	B2	30	ARG
27	B2	35	LEU
27	B2	41	ILE
27	B2	46	GLN
27	B2	52	ASP
27	B2	60	LEU
28	B3	38	GLU

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Mol	Chain	Res	Type
29	B4	6	HIS
29	B4	7	PRO
29	B4	21	VAL
29	B4	28	LYS
29	B4	40	HIS
29	B4	41	PRO
30	B5	4	HIS
30	B5	51	TYR
30	B5	53	ALA
31	B6	26	ASN
31	B6	33	LYS
31	B6	40	CYS
31	B6	41	PRO
31	B6	48	VAL
31	B6	49	HIS
32	B7	35	ARG
32	B7	36	GLN
33	B8	6	THR
33	B8	16	ILE
33	B8	19	SER
33	B8	31	HIS
33	B8	38	GLY
37	BC	22	ILE
37	BC	38	ASP
37	BC	63	SER
37	BC	64	LEU
37	BC	78	ALA
37	BC	133	PRO
37	BC	140	PRO
37	BC	142	ALA
37	BC	161	ILE
37	BC	170	ALA
37	BC	173	ALA
37	BC	174	PRO
37	BC	182	PRO
37	BC	184	LYS
37	BC	193	ILE
37	BC	198	ALA
37	BC	201	PRO
38	BD	28	GLU
38	BD	32	SER
38	BD	33	LEU

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Mol	Chain	Res	Type
38	BD	71	ASP
38	BD	98	VAL
38	BD	271	ILE
39	BE	57	LYS
39	BE	66	HIS
39	BE	132	HIS
39	BE	169	ASN
39	BE	174	ASP
39	BE	200	GLU
40	BF	12	LEU
40	BF	24	LEU
40	BF	25	PRO
40	BF	43	LYS
40	BF	49	ALA
40	BF	80	ALA
40	BF	84	VAL
40	BF	128	ALA
40	BF	133	ASN
40	BF	168	ARG
41	BG	59	GLU
41	BG	81	LYS
41	BG	82	LEU
41	BG	87	PRO
41	BG	96	ARG
42	BH	55	PRO
42	BH	83	TYR
42	BH	93	GLY
42	BH	94	TYR
42	BH	109	PHE
42	BH	157	TYR
42	BH	168	PRO
43	BI	11	ASN
43	BI	92	VAL
43	BI	131	LYS
43	BI	132	PRO
43	BI	133	HIS
46	BN	4	TYR
46	BN	37	LYS
46	BN	63	THR
46	BN	64	GLY
46	BN	92	ALA
47	BO	27	GLY

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Mol	Chain	Res	Type
47	BO	28	SER
47	BO	115	VAL
48	BP	14	LYS
48	BP	16	ARG
48	BP	17	LYS
48	BP	21	ARG
48	BP	23	PRO
48	BP	25	SER
48	BP	28	GLY
48	BP	38	GLN
48	BP	70	GLN
48	BP	71	VAL
48	BP	74	GLU
48	BP	79	ARG
48	BP	110	TYR
48	BP	128	HIS
48	BP	133	SER
48	BP	136	GLU
48	BP	141	ALA
49	BQ	8	LYS
49	BQ	18	LYS
49	BQ	19	GLY
49	BQ	22	LYS
49	BQ	26	TYR
49	BQ	59	ARG
49	BQ	81	VAL
49	BQ	83	MET
49	BQ	126	PRO
49	BQ	127	ILE
49	BQ	135	ASP
50	BR	5	LYS
50	BR	23	ASN
50	BR	30	THR
50	BR	58	GLY
50	BR	88	ARG
50	BR	89	ASP
50	BR	107	ASP
51	BS	11	LYS
51	BS	12	PHE
51	BS	22	GLY
51	BS	23	ARG
51	BS	58	LEU

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Mol	Chain	Res	Type
51	BS	86	ALA
51	BS	89	ARG
51	BS	91	PRO
51	BS	92	TYR
51	BS	101	LEU
51	BS	102	ALA
51	BS	107	GLU
52	BT	4	GLY
52	BT	24	PRO
52	BT	29	ARG
52	BT	39	ARG
52	BT	55	ASN
52	BT	78	LEU
52	BT	81	PRO
52	BT	85	LYS
53	BU	15	LYS
53	BU	25	TRP
53	BU	28	ARG
53	BU	91	ASP
53	BU	93	LYS
54	BV	29	PRO
54	BV	51	VAL
54	BV	53	GLU
54	BV	55	ALA
54	BV	60	GLU
54	BV	61	VAL
54	BV	69	LYS
54	BV	71	LEU
54	BV	80	GLN
54	BV	82	ARG
54	BV	86	GLY
54	BV	88	ARG
55	BW	44	ALA
55	BW	53	SER
56	BX	11	PRO
56	BX	40	LYS
56	BX	41	ASN
56	BX	48	LYS
56	BX	66	LEU
56	BX	69	TYR
56	BX	86	GLY
57	BY	3	VAL

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Mol	Chain	Res	Type
57	BY	6	HIS
57	BY	7	VAL
57	BY	8	LYS
57	BY	17	SER
57	BY	21	LYS
57	BY	27	VAL
57	BY	28	LYS
57	BY	45	VAL
57	BY	49	VAL
57	BY	77	PRO
57	BY	78	ALA
57	BY	99	CYS
58	BZ	31	ARG
58	BZ	46	LYS
58	BZ	78	LYS
58	BZ	107	THR
2	CB	8	LYS
2	CB	204	ASN
2	CB	231	GLU
3	CC	4	LYS
3	CC	12	LEU
3	CC	29	TYR
3	CC	89	GLU
3	CC	113	ALA
3	CC	156	ARG
3	CC	168	ALA
4	CD	10	ARG
4	CD	86	LYS
4	CD	87	GLY
5	CE	21	ALA
5	CE	77	PRO
5	CE	137	GLU
7	CG	53	LYS
7	CG	55	GLY
7	CG	62	PHE
7	CG	83	ALA
7	CG	87	VAL
7	CG	146	GLU
9	CI	33	PHE
9	CI	47	LEU
9	CI	85	LEU
9	CI	94	ALA

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Mol	Chain	Res	Type
9	CI	98	PRO
9	CI	118	LYS
10	CJ	88	LEU
11	CK	128	ALA
12	CL	47	LYS
12	CL	62	SER
12	CL	76	ASN
13	CM	31	LYS
13	CM	36	LYS
13	CM	37	THR
13	CM	116	THR
14	CN	5	ALA
14	CN	14	PRO
14	CN	16	PHE
14	CN	18	VAL
15	CO	25	THR
15	CO	26	GLU
16	CP	28	ARG
16	CP	75	ARG
16	CP	76	GLN
17	CQ	48	GLU
17	CQ	49	GLU
18	CR	41	LYS
18	CR	84	LYS
18	CR	87	ARG
19	CS	28	LYS
19	CS	30	LEU
19	CS	54	GLY
19	CS	58	VAL
19	CS	61	TYR
19	CS	62	ILE
20	CT	55	ILE
20	CT	74	LYS
20	CT	75	ASN
20	CT	83	ARG
20	CT	84	LEU
21	CU	23	PRO
25	D0	10	THR
25	D0	12	ASN
25	D0	41	ARG
25	D0	55	ARG
25	D0	72	ARG

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Mol	Chain	Res	Type
26	D1	10	LYS
26	D1	11	ARG
26	D1	27	GLU
26	D1	57	GLU
26	D1	82	LEU
26	D1	85	LEU
27	D2	13	ALA
27	D2	35	LEU
27	D2	40	SER
27	D2	45	SER
27	D2	47	ASN
27	D2	51	ARG
27	D2	55	ARG
28	D3	3	ARG
29	D4	10	VAL
29	D4	29	PRO
30	D5	5	PRO
30	D5	6	VAL
30	D5	14	ALA
31	D6	9	LEU
31	D6	42	TRP
33	D8	7	HIS
33	D8	29	LYS
33	D8	31	HIS
33	D8	33	ASN
33	D8	36	LYS
33	D8	37	SER
34	D9	27	CYS
37	DC	24	GLU
37	DC	52	ARG
37	DC	63	SER
37	DC	128	GLY
37	DC	133	PRO
37	DC	166	ASP
37	DC	170	ALA
37	DC	174	PRO
37	DC	199	HIS
37	DC	200	LYS
37	DC	201	PRO
37	DC	205	LYS
38	DD	27	THR
38	DD	32	SER

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Mol	Chain	Res	Type
38	DD	34	VAL
38	DD	156	ALA
38	DD	274	ARG
39	DE	33	VAL
39	DE	57	LYS
39	DE	61	ARG
39	DE	64	LYS
39	DE	72	VAL
39	DE	82	ARG
39	DE	118	LYS
39	DE	132	HIS
39	DE	154	LYS
40	DF	3	GLU
40	DF	26	ALA
40	DF	49	ALA
41	DG	51	ARG
41	DG	84	LYS
41	DG	87	PRO
41	DG	122	PRO
41	DG	126	ASP
42	DH	22	GLY
42	DH	42	ARG
42	DH	70	THR
42	DH	71	LEU
42	DH	80	SER
42	DH	92	ILE
42	DH	120	GLY
42	DH	126	PRO
42	DH	138	LYS
42	DH	153	LYS
42	DH	165	ALA
43	DI	10	GLU
43	DI	98	ALA
43	DI	101	LEU
46	DN	6	PRO
46	DN	20	GLY
46	DN	74	ARG
46	DN	76	SER
46	DN	78	TYR
46	DN	95	PRO
46	DN	96	GLU
46	DN	129	PRO

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Mol	Chain	Res	Type
46	DN	134	ARG
46	DN	138	LEU
48	DP	7	ARG
48	DP	9	ASN
48	DP	10	PRO
48	DP	14	LYS
48	DP	21	ARG
48	DP	25	SER
48	DP	27	HIS
48	DP	31	ALA
48	DP	34	GLY
48	DP	36	LYS
48	DP	38	GLN
48	DP	47	ASP
48	DP	48	PRO
48	DP	50	ARG
48	DP	52	GLU
48	DP	56	SER
48	DP	61	ARG
48	DP	67	MET
48	DP	71	VAL
48	DP	98	GLU
48	DP	110	TYR
48	DP	133	SER
48	DP	134	ALA
48	DP	145	PRO
48	DP	146	VAL
49	DQ	5	ARG
49	DQ	11	LYS
49	DQ	64	ILE
49	DQ	81	VAL
49	DQ	86	GLY
49	DQ	87	LYS
49	DQ	90	VAL
49	DQ	127	ILE
50	DR	12	ARG
50	DR	13	HIS
50	DR	117	VAL
51	DS	14	VAL
51	DS	19	LYS
51	DS	55	ALA
51	DS	56	LEU

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Mol	Chain	Res	Type
51	DS	89	ARG
51	DS	94	TYR
51	DS	107	GLU
52	DT	24	PRO
52	DT	39	ARG
52	DT	41	ARG
52	DT	55	ASN
52	DT	80	SER
52	DT	93	ARG
52	DT	97	ALA
53	DU	76	TYR
53	DU	91	ASP
53	DU	96	ALA
53	DU	98	LEU
54	DV	30	GLY
54	DV	68	LYS
54	DV	73	SER
54	DV	74	LYS
54	DV	79	VAL
54	DV	81	TYR
55	DW	15	ARG
55	DW	48	ALA
55	DW	49	LYS
55	DW	66	GLU
56	DX	4	ALA
56	DX	22	ALA
56	DX	25	LYS
56	DX	36	LYS
56	DX	37	THR
56	DX	60	ARG
56	DX	71	GLY
56	DX	84	ALA
56	DX	85	PRO
56	DX	88	LYS
56	DX	93	GLU
57	DY	10	GLY
57	DY	17	SER
57	DY	32	PRO
57	DY	33	LYS
57	DY	56	PRO
57	DY	61	ILE
57	DY	66	PRO

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Mol	Chain	Res	Type
57	DY	87	LYS
57	DY	99	CYS
57	DY	102	CYS
58	DZ	31	ARG
58	DZ	61	LEU
58	DZ	80	ARG
58	DZ	105	VAL
58	DZ	120	ILE
58	DZ	167	PRO
58	DZ	168	GLU
2	AB	75	LYS
2	AB	97	TRP
2	AB	131	PRO
2	AB	134	GLU
2	AB	165	VAL
2	AB	169	LYS
2	AB	204	ASN
3	AC	26	LYS
3	AC	42	LEU
3	AC	61	ALA
3	AC	145	GLY
4	AD	29	PRO
4	AD	30	LYS
4	AD	43	HIS
4	AD	44	GLY
4	AD	108	LEU
4	AD	111	ALA
4	AD	164	ALA
4	AD	179	GLU
4	AD	190	ASP
5	AE	11	ILE
5	AE	21	ALA
5	AE	59	GLY
5	AE	153	LYS
6	AF	43	LEU
6	AF	54	LYS
6	AF	100	ASN
7	AG	29	LYS
7	AG	65	ALA
7	AG	140	ASP
7	AG	155	ARG
8	AH	54	ASP

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Mol	Chain	Res	Type
9	AI	55	ALA
9	AI	82	ALA
9	AI	118	LYS
10	AJ	44	VAL
10	AJ	54	PHE
11	AK	49	GLY
11	AK	76	GLY
11	AK	89	ALA
11	AK	90	GLY
11	AK	106	LYS
11	AK	127	LYS
12	AL	26	ALA
12	AL	27	LEU
12	AL	115	LYS
12	AL	125	PRO
13	AM	64	TRP
14	AN	32	SER
14	AN	47	LEU
14	AN	60	SER
16	AP	72	ARG
18	AR	41	LYS
18	AR	87	ARG
19	AS	11	VAL
19	AS	28	LYS
19	AS	31	ILE
20	AT	28	ALA
20	AT	36	LEU
20	AT	47	GLY
20	AT	71	THR
20	AT	91	LEU
20	AT	95	ALA
20	AT	96	GLY
26	B1	10	LYS
26	B1	13	ILE
26	B1	49	VAL
26	B1	65	SER
26	B1	81	LYS
26	B1	88	LYS
27	B2	27	GLU
27	B2	28	LYS
27	B2	31	GLU
27	B2	34	GLU

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Mol	Chain	Res	Type
27	B2	39	ALA
28	B3	39	ASP
29	B4	9	LEU
29	B4	10	VAL
29	B4	13	ARG
29	B4	23	GLU
29	B4	27	THR
29	B4	37	SER
29	B4	46	GLN
29	B4	47	GLN
30	B5	14	ALA
30	B5	50	GLY
31	B6	22	ALA
31	B6	30	THR
31	B6	32	ASN
31	B6	35	GLU
31	B6	42	TRP
31	B6	46	HIS
32	B7	2	LYS
33	B8	39	LYS
34	B9	2	LYS
37	BC	19	VAL
37	BC	92	ASP
37	BC	196	LEU
37	BC	202	GLU
37	BC	212	VAL
37	BC	214	VAL
38	BD	3	VAL
38	BD	16	MET
38	BD	43	ARG
38	BD	97	TYR
38	BD	109	ASP
39	BE	17	ASP
39	BE	68	ALA
39	BE	69	LYS
39	BE	86	PRO
39	BE	88	GLY
39	BE	124	GLY
39	BE	128	SER
40	BF	10	PRO
40	BF	17	ARG
40	BF	22	ALA

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Mol	Chain	Res	Type
40	BF	31	HIS
40	BF	54	ARG
40	BF	89	VAL
40	BF	127	GLU
41	BG	14	GLU
41	BG	50	ALA
41	BG	52	ILE
41	BG	84	LYS
41	BG	115	ARG
42	BH	123	PHE
42	BH	126	PRO
42	BH	169	VAL
43	BI	34	GLY
43	BI	57	ARG
43	BI	112	LYS
46	BN	17	ASP
46	BN	19	GLU
46	BN	58	ASP
46	BN	59	LYS
46	BN	67	LEU
46	BN	101	HIS
46	BN	124	ALA
46	BN	131	GLN
47	BO	5	GLN
47	BO	14	THR
47	BO	49	ARG
47	BO	112	MET
48	BP	39	LYS
48	BP	56	SER
48	BP	63	PRO
48	BP	64	LYS
48	BP	72	PRO
48	BP	76	LYS
48	BP	132	LYS
49	BQ	21	THR
49	BQ	30	GLY
49	BQ	60	ARG
49	BQ	89	ASN
49	BQ	111	GLU
49	BQ	120	ILE
50	BR	12	ARG
50	BR	33	ARG

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Mol	Chain	Res	Type
50	BR	106	GLY
51	BS	43	GLU
51	BS	56	LEU
51	BS	59	LYS
51	BS	65	VAL
51	BS	68	GLN
52	BT	2	ASN
52	BT	8	LYS
52	BT	18	ASP
52	BT	56	GLY
52	BT	72	VAL
52	BT	91	ARG
52	BT	93	ARG
52	BT	109	GLU
53	BU	29	SER
53	BU	30	LYS
53	BU	89	GLU
53	BU	90	VAL
54	BV	70	ILE
54	BV	81	TYR
54	BV	90	PRO
55	BW	54	ALA
56	BX	42	ALA
56	BX	46	ALA
56	BX	49	VAL
56	BX	64	LYS
57	BY	4	LYS
57	BY	10	GLY
57	BY	12	THR
57	BY	26	LYS
57	BY	39	VAL
57	BY	53	PRO
57	BY	56	PRO
57	BY	62	GLU
57	BY	83	THR
58	BZ	21	ALA
58	BZ	39	VAL
58	BZ	52	SER
58	BZ	80	ARG
2	CB	13	ALA
2	CB	26	PRO
2	CB	95	GLN

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Mol	Chain	Res	Type
2	CB	106	LYS
2	CB	171	ALA
2	CB	195	ASP
3	CC	81	GLY
3	CC	127	ARG
4	CD	9	CYS
4	CD	14	ARG
4	CD	77	ASN
4	CD	78	LEU
4	CD	181	MET
5	CE	85	GLY
6	CF	40	VAL
6	CF	70	ASP
9	CI	29	ASN
9	CI	99	LEU
9	CI	107	ARG
10	CJ	27	ALA
10	CJ	58	ASP
10	CJ	91	PRO
10	CJ	92	THR
11	CK	91	ARG
12	CL	29	GLY
12	CL	53	ARG
12	CL	91	LYS
13	CM	38	GLY
13	CM	67	GLU
13	CM	81	LEU
13	CM	83	ASP
13	CM	117	VAL
14	CN	4	LYS
14	CN	19	ARG
15	CO	87	ILE
16	CP	24	ALA
17	CQ	36	ILE
17	CQ	67	LYS
17	CQ	69	LYS
17	CQ	88	TYR
17	CQ	96	GLU
18	CR	26	LEU
18	CR	36	ASN
18	CR	40	LEU
18	CR	49	LYS

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Mol	Chain	Res	Type
19	CS	5	LEU
19	CS	10	PHE
19	CS	25	LYS
20	CT	68	LYS
20	CT	85	MET
20	CT	103	GLY
21	CU	20	LYS
21	CU	24	ARG
25	D0	5	LYS
26	D1	56	GLN
26	D1	83	GLU
27	D2	12	GLU
27	D2	32	LEU
27	D2	42	GLY
27	D2	48	HIS
27	D2	54	LYS
28	D3	13	ILE
28	D3	17	LYS
28	D3	51	ALA
29	D4	13	ARG
29	D4	18	CYS
29	D4	25	TYR
29	D4	33	VAL
29	D4	39	CYS
29	D4	42	PHE
30	D5	3	LYS
31	D6	19	ARG
31	D6	20	ASN
33	D8	8	LYS
37	DC	22	ILE
37	DC	121	GLY
37	DC	123	VAL
37	DC	125	SER
37	DC	162	GLU
37	DC	216	THR
38	DD	12	SER
38	DD	24	ILE
39	DE	2	LYS
39	DE	68	ALA
39	DE	70	ALA
39	DE	173	VAL
39	DE	174	ASP

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Mol	Chain	Res	Type
39	DE	178	GLU
39	DE	200	GLU
40	DF	130	ALA
40	DF	133	ASN
40	DF	165	ARG
41	DG	4	ASP
41	DG	47	LYS
41	DG	49	ASP
41	DG	104	GLU
41	DG	127	GLY
42	DH	7	LEU
42	DH	20	ALA
42	DH	45	VAL
42	DH	55	PRO
42	DH	89	ILE
42	DH	91	GLY
43	DI	81	VAL
43	DI	104	GLN
43	DI	133	HIS
46	DN	17	ASP
46	DN	19	GLU
46	DN	42	TRP
46	DN	88	GLU
46	DN	92	ALA
46	DN	135	PRO
46	DN	137	LYS
47	DO	49	ARG
48	DP	15	ARG
48	DP	16	ARG
48	DP	20	GLY
48	DP	33	ARG
48	DP	42	SER
48	DP	43	GLY
48	DP	57	THR
48	DP	60	MET
48	DP	106	LEU
48	DP	129	ALA
49	DQ	20	ALA
49	DQ	30	GLY
49	DQ	89	ASN
49	DQ	114	ALA
49	DQ	138	ASP

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Mol	Chain	Res	Type
50	DR	5	LYS
50	DR	11	ASN
51	DS	18	ILE
51	DS	35	ILE
52	DT	92	GLY
54	DV	2	PHE
54	DV	31	ALA
54	DV	70	ILE
55	DW	63	ASP
55	DW	71	VAL
56	DX	81	VAL
56	DX	90	GLU
57	DY	7	VAL
57	DY	30	VAL
57	DY	38	ILE
57	DY	53	PRO
57	DY	78	ALA
57	DY	90	LEU
58	DZ	79	ARG
58	DZ	177	PRO
2	AB	20	GLU
2	AB	34	ALA
2	AB	74	LYS
2	AB	94	ASN
2	AB	156	LYS
2	AB	205	ASP
2	AB	217	ARG
3	AC	155	GLY
3	AC	162	GLN
3	AC	189	ALA
4	AD	18	LYS
4	AD	58	LEU
5	AE	72	GLN
5	AE	107	ARG
7	AG	89	MET
7	AG	116	ALA
7	AG	129	GLU
9	AI	28	VAL
9	AI	69	GLY
9	AI	70	LYS
9	AI	98	PRO
9	AI	100	GLY

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Mol	Chain	Res	Type
10	AJ	9	ARG
10	AJ	33	GLN
10	AJ	67	THR
12	AL	17	LYS
12	AL	29	GLY
12	AL	64	TYR
13	AM	13	LYS
13	AM	46	LYS
13	AM	55	ARG
14	AN	26	ARG
15	AO	10	LYS
15	AO	79	ARG
16	AP	44	THR
16	AP	77	ALA
17	AQ	91	ARG
19	AS	27	GLU
19	AS	30	LEU
20	AT	53	LEU
25	B0	47	PRO
27	B2	55	ARG
29	B4	8	LYS
29	B4	30	GLU
29	B4	38	LYS
30	B5	34	PRO
30	B5	37	LYS
31	B6	19	ARG
31	B6	27	LYS
31	B6	34	LEU
33	B8	33	ASN
33	B8	61	LEU
37	BC	54	SER
37	BC	61	THR
37	BC	90	GLY
37	BC	120	MET
37	BC	148	ASN
37	BC	153	ILE
37	BC	162	GLU
37	BC	209	LEU
37	BC	220	PRO
38	BD	26	LYS
38	BD	35	LYS
38	BD	239	ARG

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Mol	Chain	Res	Type
38	BD	240	ALA
38	BD	256	GLY
39	BE	16	ARG
39	BE	72	VAL
40	BF	7	TYR
40	BF	48	THR
40	BF	81	PRO
40	BF	83	PHE
40	BF	131	GLY
40	BF	139	PHE
40	BF	141	ALA
41	BG	117	PHE
42	BH	149	ARG
42	BH	158	HIS
43	BI	10	GLU
43	BI	69	LYS
43	BI	91	SER
43	BI	143	SER
46	BN	76	SER
46	BN	132	ALA
47	BO	48	PRO
48	BP	8	PRO
48	BP	10	PRO
48	BP	42	SER
48	BP	46	LYS
48	BP	106	LEU
48	BP	111	ARG
48	BP	145	PRO
49	BQ	11	LYS
49	BQ	125	LEU
49	BQ	134	ARG
49	BQ	137	TYR
51	BS	16	ASN
51	BS	67	ARG
51	BS	95	HIS
52	BT	12	SER
52	BT	23	ARG
52	BT	94	ALA
53	BU	14	HIS
54	BV	23	GLU
54	BV	36	PRO
54	BV	68	LYS

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Mol	Chain	Res	Type
55	BW	11	ARG
55	BW	99	ARG
56	BX	4	ALA
56	BX	52	VAL
56	BX	89	ILE
57	BY	67	LEU
57	BY	81	LYS
58	BZ	81	ARG
58	BZ	166	SER
58	BZ	168	GLU
58	BZ	169	GLU
58	BZ	176	PRO
2	CB	84	GLU
2	CB	135	GLN
2	CB	160	ASP
2	CB	197	VAL
2	CB	230	VAL
3	CC	15	THR
4	CD	173	TRP
5	CE	8	GLU
7	CG	52	GLU
7	CG	63	LYS
7	CG	81	GLY
7	CG	144	MET
8	CH	64	LYS
8	CH	68	ARG
8	CH	105	ARG
9	CI	34	ASN
9	CI	48	GLU
9	CI	70	LYS
9	CI	84	ALA
10	CJ	78	ASN
12	CL	30	ALA
12	CL	48	PRO
12	CL	117	ARG
14	CN	3	ARG
14	CN	60	SER
15	CO	80	ALA
16	CP	73	LEU
17	CQ	17	LYS
17	CQ	82	MET
19	CS	6	LYS

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Mol	Chain	Res	Type
19	CS	12	ASP
20	CT	95	ALA
26	D1	13	ILE
26	D1	72	GLU
26	D1	94	LEU
27	D2	33	MET
31	D6	28	ARG
31	D6	29	ASN
31	D6	31	PRO
31	D6	41	PRO
31	D6	44	ARG
31	D6	49	HIS
33	D8	27	THR
37	DC	21	THR
37	DC	54	SER
37	DC	68	LEU
37	DC	73	ARG
37	DC	140	PRO
37	DC	167	LYS
37	DC	179	SER
37	DC	209	LEU
37	DC	217	THR
38	DD	36	PRO
39	DE	53	PRO
39	DE	60	ASN
39	DE	67	PHE
39	DE	77	ILE
39	DE	78	LEU
39	DE	129	HIS
40	DF	14	PRO
40	DF	21	ALA
40	DF	22	ALA
40	DF	168	ARG
42	DH	81	GLU
42	DH	119	GLU
43	DI	11	ASN
43	DI	16	GLY
43	DI	78	THR
43	DI	80	PRO
43	DI	132	PRO
46	DN	5	VAL
46	DN	58	ASP

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Mol	Chain	Res	Type
46	DN	94	HIS
48	DP	23	PRO
48	DP	49	ARG
48	DP	147	LEU
48	DP	149	GLU
49	DQ	78	PRO
50	DR	102	GLU
51	DS	54	LEU
52	DT	15	VAL
52	DT	81	PRO
53	DU	99	ALA
56	DX	34	ALA
56	DX	40	LYS
56	DX	69	TYR
56	DX	82	GLN
57	DY	69	ALA
57	DY	77	PRO
57	DY	103	GLY
58	DZ	107	THR
58	DZ	152	ALA
58	DZ	165	VAL
2	AB	62	ALA
2	AB	73	THR
3	AC	4	LYS
3	AC	129	ALA
3	AC	179	ARG
4	AD	191	ARG
5	AE	71	LEU
5	AE	74	GLY
7	AG	59	LEU
8	AH	28	ALA
8	AH	49	GLU
8	AH	59	LEU
9	AI	89	ASN
9	AI	94	ALA
9	AI	121	ARG
12	AL	46	LYS
19	AS	42	PRO
20	AT	52	ALA
21	AU	9	ARG
26	B1	17	SER
26	B1	83	GLU

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Mol	Chain	Res	Type
27	B2	47	ASN
30	B5	35	GLU
31	B6	9	LEU
33	B8	3	LYS
34	B9	31	LYS
37	BC	68	LEU
37	BC	84	LYS
37	BC	203	GLY
37	BC	211	SER
37	BC	215	THR
38	BD	45	ASN
39	BE	56	PRO
39	BE	60	ASN
40	BF	14	PRO
40	BF	69	HIS
40	BF	78	ILE
40	BF	132	VAL
40	BF	149	ASP
40	BF	160	ASN
40	BF	202	PHE
41	BG	86	MET
42	BH	22	GLY
42	BH	81	GLU
42	BH	137	ASP
42	BH	138	LYS
42	BH	155	SER
43	BI	47	LEU
43	BI	103	ARG
43	BI	117	GLU
43	BI	122	GLU
46	BN	3	THR
46	BN	20	GLY
46	BN	28	THR
46	BN	47	ALA
48	BP	31	ALA
48	BP	36	LYS
48	BP	68	GLN
48	BP	88	LEU
48	BP	108	LYS
48	BP	122	PRO
50	BR	102	GLU
52	BT	52	ILE

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Mol	Chain	Res	Type
52	BT	66	VAL
52	BT	88	ILE
52	BT	119	LYS
55	BW	41	LYS
55	BW	63	ASP
58	BZ	14	LYS
58	BZ	131	ARG
58	BZ	177	PRO
2	CB	15	VAL
2	CB	239	VAL
3	CC	111	LEU
3	CC	144	SER
4	CD	5	ILE
8	CH	63	LEU
8	CH	133	LEU
10	CJ	63	PHE
11	CK	39	PRO
11	CK	41	THR
12	CL	20	LYS
12	CL	27	LEU
12	CL	45	PRO
12	CL	115	LYS
13	CM	85	GLY
13	CM	104	ARG
13	CM	106	ASN
15	CO	24	SER
15	CO	86	GLY
16	CP	16	HIS
18	CR	60	ALA
19	CS	13	ASP
19	CS	34	TRP
26	D1	86	SER
28	D3	59	VAL
29	D4	7	PRO
29	D4	16	CYS
29	D4	36	CYS
29	D4	46	GLN
29	D4	47	GLN
33	D8	52	LYS
33	D8	53	PRO
33	D8	60	LEU
34	D9	28	GLU

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Mol	Chain	Res	Type
37	DC	19	VAL
37	DC	64	LEU
38	DD	48	ARG
39	DE	56	PRO
39	DE	87	GLU
40	DF	48	THR
41	DG	150	ASP
42	DH	13	LYS
43	DI	30	LEU
43	DI	39	ALA
43	DI	120	ILE
43	DI	137	PRO
46	DN	87	LEU
48	DP	30	THR
48	DP	40	SER
49	DQ	126	PRO
50	DR	8	ARG
51	DS	12	PHE
51	DS	61	ASN
55	DW	93	ALA
57	DY	27	VAL
57	DY	49	VAL
57	DY	81	LYS
57	DY	98	VAL
57	DY	107	ASP
58	DZ	12	GLY
2	AB	129	GLU
3	AC	29	TYR
4	AD	4	TYR
7	AG	7	ALA
7	AG	28	ASN
7	AG	58	PRO
8	AH	33	GLU
8	AH	95	VAL
9	AI	26	VAL
9	AI	48	GLU
9	AI	83	ARG
10	AJ	32	ALA
12	AL	19	ARG
12	AL	48	PRO
13	AM	12	ASN
13	AM	97	PRO

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Mol	Chain	Res	Type
13	AM	113	PRO
14	AN	5	ALA
15	AO	24	SER
15	AO	86	GLY
17	AQ	33	GLY
19	AS	13	ASP
19	AS	26	GLY
19	AS	43	GLU
19	AS	59	PRO
25	B0	73	GLY
26	B1	15	ALA
26	B1	45	ASN
29	B4	33	VAL
29	B4	43	TYR
31	B6	18	ARG
37	BC	52	ARG
37	BC	145	VAL
37	BC	168	THR
37	BC	171	ILE
37	BC	175	VAL
38	BD	110	GLY
38	BD	202	LYS
38	BD	257	LEU
39	BE	77	ILE
39	BE	130	GLY
39	BE	155	LYS
40	BF	9	ILE
40	BF	26	ALA
40	BF	119	ARG
41	BG	24	GLY
41	BG	68	PRO
41	BG	129	GLY
42	BH	20	ALA
42	BH	89	ILE
46	BN	5	VAL
46	BN	7	LYS
46	BN	129	PRO
47	BO	64	ARG
48	BP	98	GLU
48	BP	107	LYS
49	BQ	6	ARG
52	BT	14	TYR

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Mol	Chain	Res	Type
52	BT	107	ASP
52	BT	122	ASP
54	BV	3	ALA
54	BV	44	LYS
54	BV	64	HIS
54	BV	76	LYS
54	BV	79	VAL
54	BV	91	TYR
55	BW	59	VAL
58	BZ	53	ILE
58	BZ	165	VAL
2	CB	143	GLU
2	CB	158	LEU
4	CD	28	SER
4	CD	89	THR
4	CD	204	ILE
5	CE	22	GLY
5	CE	153	LYS
7	CG	102	ARG
8	CH	3	THR
8	CH	54	ASP
8	CH	103	VAL
9	CI	43	ALA
10	CJ	26	ALA
10	CJ	39	PRO
11	CK	25	TYR
11	CK	69	ALA
11	CK	100	ALA
12	CL	31	PRO
13	CM	68	GLY
14	CN	52	GLN
19	CS	31	ILE
19	CS	73	GLU
20	CT	46	GLU
20	CT	82	SER
25	D0	83	PRO
26	D1	44	PRO
29	D4	41	PRO
31	D6	23	THR
34	D9	36	GLN
37	DC	23	ASP
37	DC	61	THR

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Mol	Chain	Res	Type
38	DD	3	VAL
38	DD	14	ARG
38	DD	26	LYS
38	DD	206	LEU
38	DD	267	SER
39	DE	86	PRO
39	DE	89	ASP
40	DF	6	VAL
40	DF	25	PRO
40	DF	58	ALA
40	DF	102	PRO
40	DF	141	ALA
41	DG	105	LYS
43	DI	87	LYS
43	DI	131	LYS
46	DN	3	THR
46	DN	128	HIS
48	DP	35	HIS
48	DP	68	GLN
50	DR	10	LEU
50	DR	71	GLN
51	DS	75	GLU
51	DS	79	ALA
51	DS	106	ARG
52	DT	94	ALA
52	DT	115	ARG
53	DU	78	THR
53	DU	93	LYS
54	DV	57	VAL
55	DW	6	ILE
55	DW	14	PRO
56	DX	59	VAL
56	DX	74	PRO
56	DX	89	ILE
57	DY	67	LEU
58	DZ	65	GLN
58	DZ	81	ARG
58	DZ	112	ARG
3	AC	73	PRO
8	AH	55	GLY
8	AH	103	VAL
9	AI	105	ASP

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Mol	Chain	Res	Type
10	AJ	4	ILE
13	AM	69	GLU
18	AR	30	ASP
18	AR	45	SER
26	B1	32	LYS
37	BC	157	LYS
38	BD	41	GLY
38	BD	232	PRO
40	BF	185	ASP
41	BG	140	ILE
41	BG	142	PRO
42	BH	164	TYR
43	BI	120	ILE
49	BQ	78	PRO
56	BX	10	ALA
57	BY	66	PRO
2	CB	9	GLU
2	CB	232	PRO
3	CC	27	LYS
3	CC	62	ASP
5	CE	70	PRO
8	CH	34	GLU
9	CI	24	GLY
12	CL	126	LYS
20	CT	70	SER
29	D4	30	GLU
29	D4	31	ILE
29	D4	40	HIS
31	D6	46	HIS
33	D8	62	LEU
37	DC	100	ILE
37	DC	175	VAL
37	DC	178	ALA
38	DD	271	ILE
39	DE	22	PRO
40	DF	131	GLY
41	DG	86	MET
42	DH	21	PRO
42	DH	39	PRO
42	DH	65	HIS
43	DI	117	GLU
46	DN	83	LYS

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Mol	Chain	Res	Type
49	DQ	60	ARG
50	DR	61	HIS
51	DS	99	LYS
54	DV	43	GLU
54	DV	76	LYS
2	AB	39	ILE
2	AB	183	PRO
8	AH	27	PRO
8	AH	45	ILE
11	AK	121	PRO
29	B4	31	ILE
38	BD	142	VAL
42	BH	92	ILE
46	BN	6	PRO
54	BV	52	VAL
54	BV	99	ILE
56	BX	73	ARG
2	CB	194	PRO
2	CB	234	PRO
3	CC	80	GLY
4	CD	90	GLY
8	CH	90	GLY
29	D4	14	ILE
29	D4	35	VAL
37	DC	173	ALA
38	DD	11	PRO
40	DF	11	VAL
52	DT	88	ILE
54	DV	72	VAL
54	DV	86	GLY
58	DZ	114	GLY
6	AF	56	PRO
8	AH	88	LYS
37	BC	143	GLY
42	BH	100	GLY
2	CB	124	SER
2	CB	159	PRO
25	D0	51	VAL
37	DC	145	VAL
37	DC	182	PRO
38	DD	244	ARG
39	DE	75	VAL

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Mol	Chain	Res	Type
40	DF	16	GLY
41	DG	179	PRO
43	DI	8	PRO
46	DN	80	GLY
48	DP	19	VAL
48	DP	62	LEU
54	DV	22	VAL
57	DY	82	PRO
58	DZ	64	GLY
58	DZ	157	LEU
58	DZ	176	PRO
5	AE	70	PRO
37	BC	60	GLY
37	BC	152	ILE
43	BI	13	GLY
47	BO	114	ILE
50	BR	52	ILE
51	BS	85	VAL
53	BU	9	VAL
54	BV	57	VAL
57	BY	98	VAL
2	CB	65	GLY
6	CF	96	PRO
10	CJ	44	VAL
17	CQ	54	GLY
37	DC	150	GLY
38	DD	142	VAL
41	DG	109	VAL
42	DH	8	PRO
42	DH	14	GLY
43	DI	84	GLY
46	DN	64	GLY
48	DP	122	PRO
50	DR	83	ILE
53	DU	88	ILE
57	DY	39	VAL
58	DZ	96	VAL
3	AC	96	GLY
4	AD	67	ILE
10	AJ	39	PRO
16	AP	41	PRO
16	AP	46	PRO

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Mol	Chain	Res	Type
30	B5	32	PRO
32	B7	6	GLN
43	BI	8	PRO
43	BI	90	GLY
48	BP	144	GLU
53	BU	73	GLY
54	BV	16	PRO
55	BW	50	VAL
4	CD	29	PRO
26	D1	14	VAL
37	DC	124	GLY
37	DC	153	ILE
39	DE	175	VAL
42	DH	168	PRO
43	DI	107	VAL
52	DT	52	ILE
57	DY	37	VAL
12	AL	18	VAL
13	AM	10	PRO
13	AM	68	GLY
25	B0	63	VAL
46	BN	11	PRO
11	CK	35	PRO
37	DC	159	GLY

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	AB	189/220 (86%)	167 (88%)	22 (12%)	5	22
2	CB	202/220 (92%)	186 (92%)	16 (8%)	12	37
3	AC	160/188 (85%)	148 (92%)	12 (8%)	13	39
3	CC	161/188 (86%)	150 (93%)	11 (7%)	16	44
4	AD	180/181 (99%)	164 (91%)	16 (9%)	9	32

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	CD	180/181 (99%)	164 (91%)	16 (9%)	9	32
5	AE	115/123 (94%)	105 (91%)	10 (9%)	10	34
5	CE	116/123 (94%)	104 (90%)	12 (10%)	7	26
6	AF	90/90 (100%)	83 (92%)	7 (8%)	12	38
6	CF	90/90 (100%)	89 (99%)	1 (1%)	73	85
7	AG	126/127 (99%)	114 (90%)	12 (10%)	8	29
7	CG	126/127 (99%)	117 (93%)	9 (7%)	14	42
8	AH	119/119 (100%)	110 (92%)	9 (8%)	13	39
8	CH	119/119 (100%)	107 (90%)	12 (10%)	7	27
9	AI	92/99 (93%)	82 (89%)	10 (11%)	6	24
9	CI	98/99 (99%)	85 (87%)	13 (13%)	4	17
10	AJ	88/92 (96%)	75 (85%)	13 (15%)	3	14
10	CJ	88/92 (96%)	83 (94%)	5 (6%)	20	51
11	AK	90/99 (91%)	80 (89%)	10 (11%)	6	24
11	CK	90/99 (91%)	84 (93%)	6 (7%)	16	45
12	AL	103/109 (94%)	96 (93%)	7 (7%)	16	44
12	CL	104/109 (95%)	90 (86%)	14 (14%)	4	17
13	AM	93/101 (92%)	82 (88%)	11 (12%)	5	21
13	CM	95/101 (94%)	84 (88%)	11 (12%)	5	22
14	AN	49/50 (98%)	41 (84%)	8 (16%)	2	10
14	CN	49/50 (98%)	44 (90%)	5 (10%)	7	27
15	AO	79/80 (99%)	72 (91%)	7 (9%)	9	32
15	CO	79/80 (99%)	77 (98%)	2 (2%)	47	72
16	AP	72/74 (97%)	68 (94%)	4 (6%)	21	51
16	CP	72/74 (97%)	68 (94%)	4 (6%)	21	51
17	AQ	94/97 (97%)	88 (94%)	6 (6%)	17	47
17	CQ	94/97 (97%)	88 (94%)	6 (6%)	17	47
18	AR	61/77 (79%)	60 (98%)	1 (2%)	62	79
18	CR	61/77 (79%)	54 (88%)	7 (12%)	5	22
19	AS	69/80 (86%)	63 (91%)	6 (9%)	10	34
19	CS	69/80 (86%)	58 (84%)	11 (16%)	2	11

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
20	AT	76/82 (93%)	76 (100%)	0	100	100
20	CT	76/82 (93%)	69 (91%)	7 (9%)	9	31
21	AU	19/22 (86%)	15 (79%)	4 (21%)	1	4
21	CU	20/22 (91%)	16 (80%)	4 (20%)	1	5
25	B0	61/67 (91%)	59 (97%)	2 (3%)	38	66
25	D0	64/67 (96%)	62 (97%)	2 (3%)	40	67
26	B1	73/83 (88%)	65 (89%)	8 (11%)	6	24
26	D1	73/83 (88%)	66 (90%)	7 (10%)	8	29
27	B2	46/67 (69%)	38 (83%)	8 (17%)	2	8
27	D2	49/67 (73%)	45 (92%)	4 (8%)	11	36
28	B3	50/52 (96%)	49 (98%)	1 (2%)	55	76
28	D3	52/52 (100%)	50 (96%)	2 (4%)	33	62
30	B5	46/52 (88%)	41 (89%)	5 (11%)	6	24
30	D5	52/52 (100%)	47 (90%)	5 (10%)	8	29
31	B6	45/52 (86%)	36 (80%)	9 (20%)	1	5
31	D6	46/52 (88%)	38 (83%)	8 (17%)	2	8
32	B7	41/42 (98%)	36 (88%)	5 (12%)	5	20
32	D7	41/42 (98%)	38 (93%)	3 (7%)	14	40
33	B8	53/55 (96%)	47 (89%)	6 (11%)	6	23
33	D8	52/55 (94%)	49 (94%)	3 (6%)	20	50
34	B9	34/34 (100%)	31 (91%)	3 (9%)	10	33
34	D9	34/34 (100%)	31 (91%)	3 (9%)	10	33
37	BC	61/181 (34%)	58 (95%)	3 (5%)	25	56
37	DC	61/181 (34%)	57 (93%)	4 (7%)	16	46
38	BD	215/218 (99%)	198 (92%)	17 (8%)	12	37
38	DD	217/218 (100%)	198 (91%)	19 (9%)	10	33
39	BE	165/166 (99%)	151 (92%)	14 (8%)	10	35
39	DE	165/166 (99%)	153 (93%)	12 (7%)	14	40
40	BF	164/166 (99%)	150 (92%)	14 (8%)	10	35
40	DF	165/166 (99%)	157 (95%)	8 (5%)	25	56
41	BG	152/156 (97%)	145 (95%)	7 (5%)	27	58

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
41	DG	155/156 (99%)	145 (94%)	10 (6%)	17	46
42	BH	132/148 (89%)	125 (95%)	7 (5%)	22	53
42	DH	138/148 (93%)	129 (94%)	9 (6%)	17	46
43	BI	122/124 (98%)	110 (90%)	12 (10%)	8	29
43	DI	121/124 (98%)	111 (92%)	10 (8%)	11	35
46	BN	116/119 (98%)	106 (91%)	10 (9%)	10	34
46	DN	119/119 (100%)	110 (92%)	9 (8%)	13	39
47	BO	100/100 (100%)	90 (90%)	10 (10%)	7	28
47	DO	100/100 (100%)	92 (92%)	8 (8%)	12	37
48	BP	111/116 (96%)	98 (88%)	13 (12%)	5	22
48	DP	112/116 (97%)	89 (80%)	23 (20%)	1	4
49	BQ	106/111 (96%)	91 (86%)	15 (14%)	3	16
49	DQ	107/111 (96%)	95 (89%)	12 (11%)	6	23
50	BR	99/101 (98%)	90 (91%)	9 (9%)	9	31
50	DR	100/101 (99%)	89 (89%)	11 (11%)	6	24
51	BS	81/88 (92%)	71 (88%)	10 (12%)	4	20
51	DS	78/88 (89%)	65 (83%)	13 (17%)	2	10
52	BT	116/127 (91%)	99 (85%)	17 (15%)	3	14
52	DT	120/127 (94%)	101 (84%)	19 (16%)	2	11
53	BU	93/94 (99%)	81 (87%)	12 (13%)	4	18
53	DU	93/94 (99%)	89 (96%)	4 (4%)	29	59
54	BV	82/82 (100%)	75 (92%)	7 (8%)	10	35
54	DV	82/82 (100%)	74 (90%)	8 (10%)	8	29
55	BW	91/92 (99%)	79 (87%)	12 (13%)	4	17
55	DW	91/92 (99%)	85 (93%)	6 (7%)	16	46
56	BX	72/78 (92%)	63 (88%)	9 (12%)	4	19
56	DX	76/78 (97%)	64 (84%)	12 (16%)	2	11
57	BY	84/91 (92%)	75 (89%)	9 (11%)	6	25
57	DY	90/91 (99%)	78 (87%)	12 (13%)	4	17
58	BZ	155/179 (87%)	138 (89%)	17 (11%)	6	24
58	DZ	155/179 (87%)	141 (91%)	14 (9%)	9	32

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
All	All	9527/10302 (92%)	8649 (91%)	878 (9%)	9 31

All (878) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	19	HIS
2	AB	23	ARG
2	AB	24	TRP
2	AB	28	PHE
2	AB	35	GLU
2	AB	36	ARG
2	AB	40	HIS
2	AB	53	ARG
2	AB	55	PHE
2	AB	56	ARG
2	AB	60	ASP
2	AB	82	ARG
2	AB	86	GLU
2	AB	92	TYR
2	AB	96	ARG
2	AB	111	ARG
2	AB	114	ARG
2	AB	133	LYS
2	AB	144	ARG
2	AB	149	LEU
2	AB	181	PHE
2	AB	217	ARG
3	AC	10	PHE
3	AC	16	ARG
3	AC	20	SER
3	AC	52	LEU
3	AC	59	ARG
3	AC	79	ARG
3	AC	85	ARG
3	AC	131	ARG
3	AC	144	SER
3	AC	154	SER
3	AC	156	ARG
3	AC	179	ARG
4	AD	3	ARG
4	AD	10	ARG
4	AD	22	LYS

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Mol	Chain	Res	Type
4	AD	30	LYS
4	AD	47	ARG
4	AD	49	ARG
4	AD	57	ARG
4	AD	59	ARG
4	AD	73	ARG
4	AD	97	LEU
4	AD	110	PHE
4	AD	115	ARG
4	AD	122	ARG
4	AD	159	ARG
4	AD	206	PHE
4	AD	207	TYR
5	AE	5	ASP
5	AE	6	PHE
5	AE	10	MET
5	AE	12	LEU
5	AE	40	ARG
5	AE	72	GLN
5	AE	73	ASN
5	AE	78	HIS
5	AE	83	GLU
5	AE	150	ARG
6	AF	10	LEU
6	AF	15	ASP
6	AF	17	SER
6	AF	47	ARG
6	AF	69	GLU
6	AF	83	ASP
6	AF	87	ARG
7	AG	4	ARG
7	AG	32	ARG
7	AG	63	LYS
7	AG	73	MET
7	AG	76	ARG
7	AG	77	SER
7	AG	78	ARG
7	AG	85	TYR
7	AG	95	ARG
7	AG	114	ARG
7	AG	151	TYR
7	AG	154	TYR

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Mol	Chain	Res	Type
8	AH	12	ARG
8	AH	15	ASN
8	AH	30	ARG
8	AH	48	TYR
8	AH	58	TYR
8	AH	91	ARG
8	AH	92	ARG
8	AH	99	GLU
8	AH	116	LYS
9	AI	33	PHE
9	AI	42	ARG
9	AI	47	LEU
9	AI	59	PHE
9	AI	75	ASP
9	AI	92	TYR
9	AI	102	LEU
9	AI	104	ARG
9	AI	111	ARG
9	AI	121	ARG
10	AJ	9	ARG
10	AJ	19	SER
10	AJ	43	ARG
10	AJ	46	ARG
10	AJ	47	PHE
10	AJ	57	LYS
10	AJ	59	SER
10	AJ	62	HIS
10	AJ	63	PHE
10	AJ	69	ASN
10	AJ	73	ASP
10	AJ	89	ASP
10	AJ	97	GLU
11	AK	13	GLN
11	AK	18	ARG
11	AK	44	SER
11	AK	67	ASP
11	AK	78	GLN
11	AK	104	GLN
11	AK	119	CYS
11	AK	120	ARG
11	AK	122	LYS
11	AK	129	SER

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Mol	Chain	Res	Type
12	AL	20	LYS
12	AL	54	LYS
12	AL	64	TYR
12	AL	93	LEU
12	AL	102	ARG
12	AL	115	LYS
12	AL	126	LYS
13	AM	14	ARG
13	AM	48	LEU
13	AM	59	TYR
13	AM	61	GLU
13	AM	64	TRP
13	AM	66	LEU
13	AM	73	GLU
13	AM	82	MET
13	AM	104	ARG
13	AM	108	ARG
13	AM	114	ARG
14	AN	3	ARG
14	AN	16	PHE
14	AN	21	TYR
14	AN	23	ARG
14	AN	32	SER
14	AN	34	TYR
14	AN	41	ARG
14	AN	58	LYS
15	AO	24	SER
15	AO	40	SER
15	AO	44	LYS
15	AO	58	MET
15	AO	65	ARG
15	AO	77	ARG
15	AO	84	LYS
16	AP	23	ASP
16	AP	29	ASP
16	AP	32	TYR
16	AP	34	GLU
17	AQ	12	SER
17	AQ	15	MET
17	AQ	63	ARG
17	AQ	68	ARG
17	AQ	83	ASP

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Mol	Chain	Res	Type
17	AQ	92	ARG
18	AR	45	SER
19	AS	6	LYS
19	AS	44	MET
19	AS	61	TYR
19	AS	66	MET
19	AS	80	TYR
19	AS	81	ARG
21	AU	9	ARG
21	AU	10	ARG
21	AU	12	LYS
21	AU	15	ARG
25	B0	25	ARG
25	B0	70	GLN
26	B1	20	ARG
26	B1	33	LYS
26	B1	40	ARG
26	B1	41	ARG
26	B1	43	TYR
26	B1	61	ARG
26	B1	76	ARG
26	B1	81	LYS
27	B2	14	ARG
27	B2	33	MET
27	B2	48	HIS
27	B2	52	ASP
27	B2	53	LEU
27	B2	54	LYS
27	B2	55	ARG
27	B2	59	ARG
28	B3	8	LEU
30	B5	15	ARG
30	B5	33	CYS
30	B5	40	LYS
30	B5	46	CYS
30	B5	52	TYR
31	B6	10	LEU
31	B6	16	CYS
31	B6	19	ARG
31	B6	25	LYS
31	B6	26	ASN
31	B6	28	ARG

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Mol	Chain	Res	Type
31	B6	36	LEU
31	B6	42	TRP
31	B6	44	ARG
32	B7	1	MET
32	B7	12	ARG
32	B7	23	ARG
32	B7	29	LYS
32	B7	42	LEU
33	B8	13	ARG
33	B8	30	ARG
33	B8	44	LYS
33	B8	46	ARG
33	B8	47	LYS
33	B8	64	TYR
34	B9	9	ARG
34	B9	19	ARG
34	B9	33	LYS
37	BC	37	PHE
37	BC	47	LEU
37	BC	53	ARG
38	BD	14	ARG
38	BD	15	PHE
38	BD	20	ASP
38	BD	31	LYS
38	BD	35	LYS
38	BD	43	ARG
38	BD	58	HIS
38	BD	69	ARG
38	BD	91	ARG
38	BD	169	GLU
38	BD	171	ASP
38	BD	214	TRP
38	BD	242	ARG
38	BD	244	ARG
38	BD	255	LYS
38	BD	262	ARG
38	BD	273	ARG
39	BE	18	ASP
39	BE	37	ARG
39	BE	51	PHE
39	BE	55	ASN
39	BE	76	ARG

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Mol	Chain	Res	Type
39	BE	78	LEU
39	BE	82	ARG
39	BE	87	GLU
39	BE	113	PHE
39	BE	128	SER
39	BE	140	SER
39	BE	155	LYS
39	BE	179	GLU
39	BE	203	LYS
40	BF	7	TYR
40	BF	8	GLN
40	BF	32	LEU
40	BF	50	SER
40	BF	74	ARG
40	BF	83	PHE
40	BF	96	ASP
40	BF	98	SER
40	BF	112	MET
40	BF	152	GLU
40	BF	191	ARG
40	BF	197	ASP
40	BF	202	PHE
40	BF	205	ARG
41	BG	84	LYS
41	BG	97	ASP
41	BG	117	PHE
41	BG	133	LEU
41	BG	139	LEU
41	BG	155	MET
41	BG	178	PHE
42	BH	23	ARG
42	BH	123	PHE
42	BH	143	GLN
42	BH	153	LYS
42	BH	157	TYR
42	BH	159	GLU
42	BH	170	ARG
43	BI	14	ASP
43	BI	20	ASP
43	BI	25	TYR
43	BI	47	LEU
43	BI	48	GLU

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Mol	Chain	Res	Type
43	BI	67	ARG
43	BI	69	LYS
43	BI	73	GLU
43	BI	82	ARG
43	BI	89	TYR
43	BI	113	ARG
43	BI	143	SER
46	BN	23	LEU
46	BN	38	HIS
46	BN	48	MET
46	BN	69	GLN
46	BN	74	ARG
46	BN	76	SER
46	BN	109	LYS
46	BN	114	ARG
46	BN	118	LYS
46	BN	134	ARG
47	BO	1	MET
47	BO	17	ARG
47	BO	23	ARG
47	BO	37	ASP
47	BO	42	SER
47	BO	49	ARG
47	BO	68	GLU
47	BO	75	SER
47	BO	99	PHE
47	BO	107	ARG
48	BP	7	ARG
48	BP	9	ASN
48	BP	16	ARG
48	BP	46	LYS
48	BP	61	ARG
48	BP	62	LEU
48	BP	90	ARG
48	BP	108	LYS
48	BP	110	TYR
48	BP	111	ARG
48	BP	117	GLU
48	BP	121	LYS
48	BP	147	LEU
49	BQ	6	ARG
49	BQ	7	MET

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Mol	Chain	Res	Type
49	BQ	16	ARG
49	BQ	18	LYS
49	BQ	22	LYS
49	BQ	25	ASP
49	BQ	26	TYR
49	BQ	29	PHE
49	BQ	45	GLN
49	BQ	48	GLU
49	BQ	58	PHE
49	BQ	60	ARG
49	BQ	82	ARG
49	BQ	89	ASN
49	BQ	112	GLU
50	BR	8	ARG
50	BR	15	SER
50	BR	26	LYS
50	BR	27	SER
50	BR	44	LEU
50	BR	81	ASP
50	BR	88	ARG
50	BR	89	ASP
50	BR	105	ARG
51	BS	8	GLU
51	BS	17	ARG
51	BS	19	LYS
51	BS	25	ARG
51	BS	42	ASP
51	BS	57	LYS
51	BS	61	ASN
51	BS	67	ARG
51	BS	92	TYR
51	BS	97	ARG
52	BT	11	GLU
52	BT	13	ARG
52	BT	29	ARG
52	BT	36	GLU
52	BT	44	ASP
52	BT	80	SER
52	BT	85	LYS
52	BT	90	GLN
52	BT	91	ARG
52	BT	95	ARG

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Mol	Chain	Res	Type
52	BT	106	SER
52	BT	107	ASP
52	BT	115	ARG
52	BT	118	ARG
52	BT	125	ARG
52	BT	128	GLU
52	BT	132	LYS
53	BU	31	SER
53	BU	33	ARG
53	BU	34	LYS
53	BU	52	ARG
53	BU	53	ARG
53	BU	55	ARG
53	BU	79	PHE
53	BU	81	HIS
53	BU	92	ARG
53	BU	93	LYS
53	BU	94	ASN
53	BU	117	GLN
54	BV	21	ARG
54	BV	35	LEU
54	BV	43	GLU
54	BV	75	PHE
54	BV	78	LYS
54	BV	83	ARG
54	BV	91	TYR
55	BW	11	ARG
55	BW	13	SER
55	BW	18	ARG
55	BW	27	LYS
55	BW	33	ARG
55	BW	40	ASN
55	BW	42	ARG
55	BW	53	SER
55	BW	69	LEU
55	BW	70	TYR
55	BW	92	ARG
55	BW	101	SER
56	BX	29	TRP
56	BX	40	LYS
56	BX	60	ARG
56	BX	62	LYS

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Mol	Chain	Res	Type
56	BX	64	LYS
56	BX	65	ARG
56	BX	68	ARG
56	BX	75	ASP
56	BX	82	GLN
57	BY	2	ARG
57	BY	9	LYS
57	BY	11	ASP
57	BY	28	LYS
57	BY	31	LEU
57	BY	46	LYS
57	BY	76	CYS
57	BY	88	LYS
57	BY	97	ARG
58	BZ	6	LYS
58	BZ	19	ARG
58	BZ	29	TYR
58	BZ	35	ARG
58	BZ	44	PHE
58	BZ	49	ARG
58	BZ	72	ARG
58	BZ	80	ARG
58	BZ	104	PHE
58	BZ	117	LEU
58	BZ	119	GLU
58	BZ	136	PHE
58	BZ	148	ASP
58	BZ	150	LEU
58	BZ	154	ASP
58	BZ	155	LEU
58	BZ	162	GLU
2	CB	8	LYS
2	CB	10	LEU
2	CB	12	GLU
2	CB	16	HIS
2	CB	17	PHE
2	CB	22	LYS
2	CB	23	ARG
2	CB	24	TRP
2	CB	28	PHE
2	CB	36	ARG
2	CB	87	ARG

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Mol	Chain	Res	Type
2	CB	104	ASN
2	CB	163	PHE
2	CB	178	ARG
2	CB	194	PRO
2	CB	226	ARG
3	CC	10	PHE
3	CC	20	SER
3	CC	29	TYR
3	CC	91	LEU
3	CC	101	LEU
3	CC	127	ARG
3	CC	128	PHE
3	CC	131	ARG
3	CC	164	ARG
3	CC	175	LEU
3	CC	193	TYR
4	CD	28	SER
4	CD	39	PRO
4	CD	53	ASP
4	CD	59	ARG
4	CD	61	LYS
4	CD	71	SER
4	CD	118	ARG
4	CD	134	ASP
4	CD	138	TYR
4	CD	139	ARG
4	CD	163	GLU
4	CD	175	SER
4	CD	179	GLU
4	CD	187	ARG
4	CD	191	ARG
4	CD	209	ARG
5	CE	10	MET
5	CE	14	ARG
5	CE	18	ARG
5	CE	20	GLN
5	CE	25	ARG
5	CE	27	ARG
5	CE	36	ASP
5	CE	40	ARG
5	CE	60	TYR
5	CE	68	GLU

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Mol	Chain	Res	Type
5	CE	79	GLU
5	CE	150	ARG
6	CF	97	PHE
7	CG	5	ARG
7	CG	45	ASP
7	CG	63	LYS
7	CG	79	ARG
7	CG	92	SER
7	CG	95	ARG
7	CG	115	ARG
7	CG	154	TYR
7	CG	155	ARG
8	CH	1	MET
8	CH	41	ARG
8	CH	42	GLU
8	CH	46	LYS
8	CH	49	GLU
8	CH	56	LYS
8	CH	58	TYR
8	CH	64	LYS
8	CH	82	HIS
8	CH	102	ARG
8	CH	104	ARG
8	CH	105	ARG
9	CI	54	ASP
9	CI	83	ARG
9	CI	88	TYR
9	CI	89	ASN
9	CI	92	TYR
9	CI	93	ARG
9	CI	95	LYS
9	CI	96	LEU
9	CI	105	ASP
9	CI	114	TYR
9	CI	121	ARG
9	CI	127	LYS
9	CI	128	ARG
10	CJ	8	LEU
10	CJ	16	LEU
10	CJ	17	ASP
10	CJ	43	ARG
10	CJ	51	ARG

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Mol	Chain	Res	Type
11	CK	25	TYR
11	CK	38	ASN
11	CK	96	ARG
11	CK	99	GLN
11	CK	124	LYS
11	CK	127	LYS
12	CL	13	LYS
12	CL	21	LYS
12	CL	22	SER
12	CL	53	ARG
12	CL	54	LYS
12	CL	64	TYR
12	CL	86	ARG
12	CL	92	ASP
12	CL	98	TYR
12	CL	112	ASP
12	CL	113	ARG
12	CL	117	ARG
12	CL	118	SER
12	CL	127	GLU
13	CM	27	LYS
13	CM	36	LYS
13	CM	46	LYS
13	CM	48	LEU
13	CM	62	ASN
13	CM	64	TRP
13	CM	71	ARG
13	CM	88	ARG
13	CM	93	ARG
13	CM	102	ARG
13	CM	114	ARG
14	CN	3	ARG
14	CN	24	CYS
14	CN	35	ARG
14	CN	41	ARG
14	CN	45	ARG
15	CO	15	PHE
15	CO	17	ARG
16	CP	8	ARG
16	CP	18	ARG
16	CP	32	TYR
16	CP	43	LYS

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Mol	Chain	Res	Type
17	CQ	34	LYS
17	CQ	45	HIS
17	CQ	52	LYS
17	CQ	63	ARG
17	CQ	68	ARG
17	CQ	79	SER
18	CR	26	LEU
18	CR	32	ARG
18	CR	35	ARG
18	CR	53	ARG
18	CR	54	ARG
18	CR	55	ARG
18	CR	88	LYS
19	CS	6	LYS
19	CS	12	ASP
19	CS	14	HIS
19	CS	30	LEU
19	CS	34	TRP
19	CS	35	SER
19	CS	37	ARG
19	CS	44	MET
19	CS	66	MET
19	CS	71	LEU
19	CS	80	TYR
20	CT	10	LEU
20	CT	27	LYS
20	CT	29	LYS
20	CT	38	LYS
20	CT	70	SER
20	CT	74	LYS
20	CT	84	LEU
21	CU	9	ARG
21	CU	21	TYR
21	CU	24	ARG
21	CU	25	LYS
25	D0	4	LYS
25	D0	20	ARG
26	D1	8	SER
26	D1	21	ARG
26	D1	39	LYS
26	D1	40	ARG
26	D1	43	TYR

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Mol	Chain	Res	Type
26	D1	46	LEU
26	D1	57	GLU
27	D2	9	GLN
27	D2	16	LEU
27	D2	45	SER
27	D2	59	ARG
28	D3	4	LEU
28	D3	30	ARG
30	D5	1	MET
30	D5	3	LYS
30	D5	33	CYS
30	D5	52	TYR
30	D5	55	ARG
31	D6	6	ARG
31	D6	17	LYS
31	D6	28	ARG
31	D6	34	LEU
31	D6	36	LEU
31	D6	39	TYR
31	D6	42	TRP
31	D6	51	GLU
32	D7	9	ARG
32	D7	14	LYS
32	D7	47	ARG
33	D8	30	ARG
33	D8	36	LYS
33	D8	48	PHE
34	D9	11	CYS
34	D9	27	CYS
34	D9	31	LYS
37	DC	27	ARG
37	DC	47	LEU
37	DC	53	ARG
37	DC	73	ARG
38	DD	13	ARG
38	DD	26	LYS
38	DD	38	LYS
38	DD	39	LYS
38	DD	44	ASN
38	DD	48	ARG
38	DD	78	LYS
38	DD	88	ARG

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Mol	Chain	Res	Type
38	DD	112	GLN
38	DD	134	ARG
38	DD	171	ASP
38	DD	183	ARG
38	DD	202	LYS
38	DD	217	ARG
38	DD	242	ARG
38	DD	257	LEU
38	DD	262	ARG
38	DD	263	ARG
38	DD	273	ARG
39	DE	2	LYS
39	DE	17	ASP
39	DE	37	ARG
39	DE	40	GLU
39	DE	57	LYS
39	DE	63	LEU
39	DE	67	PHE
39	DE	82	ARG
39	DE	113	PHE
39	DE	118	LYS
39	DE	174	ASP
39	DE	199	ARG
40	DF	12	LEU
40	DF	46	ARG
40	DF	74	ARG
40	DF	83	PHE
40	DF	96	ASP
40	DF	110	LEU
40	DF	135	LYS
40	DF	205	ARG
41	DG	4	ASP
41	DG	21	ARG
41	DG	54	GLU
41	DG	67	LYS
41	DG	113	ARG
41	DG	126	ASP
41	DG	155	MET
41	DG	156	ASP
41	DG	174	GLU
41	DG	178	PHE
42	DH	13	LYS

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Mol	Chain	Res	Type
42	DH	69	ARG
42	DH	77	LYS
42	DH	80	SER
42	DH	86	GLU
42	DH	95	ARG
42	DH	157	TYR
42	DH	167	GLU
42	DH	170	ARG
43	DI	2	LYS
43	DI	14	ASP
43	DI	25	TYR
43	DI	27	ARG
43	DI	56	LYS
43	DI	66	GLU
43	DI	82	ARG
43	DI	113	ARG
43	DI	135	GLU
43	DI	143	SER
46	DN	4	TYR
46	DN	12	ARG
46	DN	39	ARG
46	DN	48	MET
46	DN	75	TYR
46	DN	109	LYS
46	DN	127	ASP
46	DN	134	ARG
46	DN	137	LYS
47	DO	5	GLN
47	DO	17	ARG
47	DO	26	LYS
47	DO	53	LYS
47	DO	66	LYS
47	DO	68	GLU
47	DO	80	ASP
47	DO	82	ASN
48	DP	7	ARG
48	DP	13	ASN
48	DP	16	ARG
48	DP	18	ARG
48	DP	27	HIS
48	DP	29	LYS
48	DP	33	ARG

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Mol	Chain	Res	Type
48	DP	40	SER
48	DP	45	LEU
48	DP	61	ARG
48	DP	65	ARG
48	DP	67	MET
48	DP	68	GLN
48	DP	85	LEU
48	DP	86	LYS
48	DP	90	ARG
48	DP	91	PHE
48	DP	92	GLU
48	DP	99	LEU
48	DP	111	ARG
48	DP	123	LEU
48	DP	132	LYS
48	DP	148	LEU
49	DQ	6	ARG
49	DQ	8	LYS
49	DQ	9	TYR
49	DQ	22	LYS
49	DQ	45	GLN
49	DQ	48	GLU
49	DQ	51	ARG
49	DQ	67	ARG
49	DQ	104	PHE
49	DQ	128	LYS
49	DQ	134	ARG
49	DQ	135	ASP
50	DR	3	HIS
50	DR	8	ARG
50	DR	9	LYS
50	DR	12	ARG
50	DR	13	HIS
50	DR	33	ARG
50	DR	80	PHE
50	DR	81	ASP
50	DR	86	ARG
50	DR	103	ARG
50	DR	105	ARG
51	DS	10	ARG
51	DS	11	LYS
51	DS	13	ARG

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Mol	Chain	Res	Type
51	DS	15	ARG
51	DS	27	SER
51	DS	31	SER
51	DS	36	TYR
51	DS	52	SER
51	DS	59	LYS
51	DS	71	ARG
51	DS	75	GLU
51	DS	92	TYR
51	DS	99	LYS
52	DT	1	MET
52	DT	3	ARG
52	DT	8	LYS
52	DT	11	GLU
52	DT	13	ARG
52	DT	39	ARG
52	DT	44	ASP
52	DT	51	ARG
52	DT	54	ARG
52	DT	64	ARG
52	DT	74	ARG
52	DT	91	ARG
52	DT	96	ARG
52	DT	100	TYR
52	DT	108	ARG
52	DT	111	ARG
52	DT	115	ARG
52	DT	129	ARG
52	DT	137	LYS
53	DU	22	LYS
53	DU	70	ARG
53	DU	75	ASN
53	DU	92	ARG
54	DV	2	PHE
54	DV	66	ARG
54	DV	68	LYS
54	DV	73	SER
54	DV	74	LYS
54	DV	82	ARG
54	DV	83	ARG
54	DV	88	ARG
55	DW	11	ARG

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Mol	Chain	Res	Type
55	DW	28	SER
55	DW	68	ARG
55	DW	70	TYR
55	DW	90	ARG
55	DW	111	HIS
56	DX	15	GLU
56	DX	25	LYS
56	DX	28	PHE
56	DX	36	LYS
56	DX	40	LYS
56	DX	62	LYS
56	DX	65	ARG
56	DX	69	TYR
56	DX	76	ARG
56	DX	78	LYS
56	DX	92	LEU
56	DX	93	GLU
57	DY	2	ARG
57	DY	5	MET
57	DY	29	GLU
57	DY	43	ASN
57	DY	47	LYS
57	DY	52	SER
57	DY	73	ARG
57	DY	76	CYS
57	DY	86	ARG
57	DY	95	LYS
57	DY	97	ARG
57	DY	102	CYS
58	DZ	3	TYR
58	DZ	30	ASN
58	DZ	31	ARG
58	DZ	41	LEU
58	DZ	49	ARG
58	DZ	52	SER
58	DZ	78	LYS
58	DZ	80	ARG
58	DZ	82	ARG
58	DZ	89	PHE
58	DZ	99	TYR
58	DZ	104	PHE
58	DZ	117	LEU

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Mol	Chain	Res	Type
58	DZ	145	GLU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (99) such sidechains are listed below:

Mol	Chain	Res	Type
2	AB	19	HIS
2	AB	40	HIS
3	AC	162	GLN
4	AD	45	GLN
4	AD	161	ASN
7	AG	28	ASN
7	AG	37	ASN
7	AG	84	ASN
7	AG	86	GLN
7	AG	153	HIS
9	AI	38	GLN
10	AJ	21	GLN
10	AJ	62	HIS
11	AK	99	GLN
15	AO	28	GLN
19	AS	65	ASN
25	B0	70	GLN
27	B2	38	GLN
27	B2	56	GLN
31	B6	20	ASN
31	B6	26	ASN
31	B6	29	ASN
31	B6	32	ASN
33	B8	31	HIS
33	B8	33	ASN
34	B9	20	HIS
34	B9	29	ASN
34	B9	34	GLN
34	B9	36	GLN
37	BC	44	HIS
38	BD	44	ASN
38	BD	203	ASN
38	BD	220	HIS
39	BE	48	GLN
40	BF	31	HIS
40	BF	40	GLN
40	BF	203	GLN

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Mol	Chain	Res	Type
42	BH	65	HIS
46	BN	56	ASN
47	BO	29	ASN
48	BP	27	HIS
48	BP	81	GLN
48	BP	84	ASN
48	BP	128	HIS
49	BQ	46	GLN
50	BR	3	HIS
51	BS	61	ASN
51	BS	68	GLN
52	BT	58	ASN
52	BT	79	HIS
53	BU	75	ASN
54	BV	64	HIS
54	BV	87	HIS
55	BW	62	HIS
56	BX	55	ASN
56	BX	87	GLN
58	BZ	32	HIS
2	CB	104	ASN
3	CC	6	HIS
3	CC	63	ASN
4	CD	43	HIS
4	CD	123	HIS
7	CG	84	ASN
7	CG	122	HIS
9	CI	31	GLN
10	CJ	84	GLN
12	CL	8	ASN
12	CL	49	ASN
13	CM	101	GLN
16	CP	65	GLN
17	CQ	16	GLN
17	CQ	45	HIS
26	D1	19	GLN
27	D2	9	GLN
27	D2	46	GLN
31	D6	26	ASN
31	D6	29	ASN
31	D6	32	ASN
33	D8	35	GLN

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Mol	Chain	Res	Type
33	D8	43	GLN
38	DD	44	ASN
38	DD	96	HIS
38	DD	112	GLN
42	DH	143	GLN
42	DH	158	HIS
43	DI	17	GLN
43	DI	54	GLN
47	DO	3	GLN
47	DO	5	GLN
48	DP	27	HIS
48	DP	128	HIS
50	DR	13	HIS
51	DS	34	HIS
51	DS	95	HIS
52	DT	79	HIS
52	DT	84	GLN
53	DU	14	HIS
55	DW	62	HIS
57	DY	43	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1503/1520 (98%)	533 (35%)	67 (4%)
1	CA	1503/1520 (98%)	451 (30%)	39 (2%)
22	AV	75/77 (97%)	27 (36%)	1 (1%)
22	CV	76/77 (98%)	30 (39%)	0
23	AW	75/76 (98%)	63 (84%)	8 (10%)
23	AY	18/76 (23%)	8 (44%)	0
23	CW	75/76 (98%)	50 (66%)	4 (5%)
23	CY	20/76 (26%)	6 (30%)	0
24	AX	11/24 (45%)	4 (36%)	1 (9%)
24	CX	11/24 (45%)	4 (36%)	1 (9%)
35	BA	2823/2839 (99%)	984 (34%)	91 (3%)
35	DA	2823/2839 (99%)	882 (31%)	74 (2%)
36	BB	119/122 (97%)	39 (32%)	2 (1%)
36	DB	118/122 (96%)	37 (31%)	5 (4%)
All	All	9250/9468 (97%)	3118 (33%)	293 (3%)

All (3118) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	9	G
1	AA	10	A
1	AA	14	U
1	AA	22	G
1	AA	31	G
1	AA	32	A
1	AA	36	C
1	AA	39	G
1	AA	47	C
1	AA	48	C
1	AA	51	A
1	AA	53	A
1	AA	55	A
1	AA	56	U
1	AA	57	G
1	AA	58	C
1	AA	60	A
1	AA	61	G
1	AA	64	G
1	AA	70	G
1	AA	71	C
1	AA	73	G
1	AA	76	C
1	AA	77	G
1	AA	78	G
1	AA	79	G
1	AA	80	G
1	AA	81	U
1	AA	82	U
1	AA	83	U
1	AA	84	U
1	AA	88	A
1	AA	89	C
1	AA	90	U
1	AA	91	C
1	AA	92	C
1	AA	93	G
1	AA	96	U
1	AA	97	G
1	AA	98	G
1	AA	99	U
1	AA	100	C
1	AA	101	A

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Mol	Chain	Res	Type
1	AA	112	G
1	AA	116	A
1	AA	121	C
1	AA	122	G
1	AA	131	C
1	AA	143	A
1	AA	144	G
1	AA	146	G
1	AA	147	G
1	AA	154	C
1	AA	155	C
1	AA	157	G
1	AA	158	G
1	AA	159	G
1	AA	161	A
1	AA	162	A
1	AA	163	C
1	AA	164	U
1	AA	165	C
1	AA	166	G
1	AA	168	G
1	AA	169	C
1	AA	171	A
1	AA	172	A
1	AA	173	U
1	AA	174	C
1	AA	175	C
1	AA	176	C
1	AA	180	U
1	AA	183	G
1	AA	186	C
1	AA	187	C
1	AA	189(F)	U
1	AA	189(G)	G
1	AA	189(H)	G
1	AA	189(I)	G
1	AA	189(J)	G
1	AA	189(K)	U
1	AA	189(L)	G
1	AA	190	U
1	AA	195	A
1	AA	196	A

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Mol	Chain	Res	Type
1	AA	197	A
1	AA	200	G
1	AA	201	C
1	AA	203	U
1	AA	215	U
1	AA	216	G
1	AA	228	A
1	AA	243	A
1	AA	244	U
1	AA	245	C
1	AA	247	G
1	AA	249	U
1	AA	251	G
1	AA	258	G
1	AA	262	A
1	AA	263	A
1	AA	265	G
1	AA	266	G
1	AA	267	C
1	AA	269	C
1	AA	277	C
1	AA	279	A
1	AA	280	C
1	AA	289	G
1	AA	293	G
1	AA	299	G
1	AA	303	A
1	AA	321	A
1	AA	328	C
1	AA	329	A
1	AA	332	G
1	AA	340	U
1	AA	344	A
1	AA	345	C
1	AA	348	G
1	AA	349	A
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	367	U
1	AA	369	C
1	AA	370	C

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Mol	Chain	Res	Type
1	AA	372	C
1	AA	373	A
1	AA	374	A
1	AA	382	A
1	AA	383	A
1	AA	384	G
1	AA	388	G
1	AA	390	C
1	AA	394	G
1	AA	397	A
1	AA	398	C
1	AA	400	C
1	AA	406	G
1	AA	410	G
1	AA	411	A
1	AA	412	A
1	AA	413	G
1	AA	420	U
1	AA	421	U
1	AA	422	C
1	AA	423	G
1	AA	424	G
1	AA	428	G
1	AA	429	U
1	AA	430	A
1	AA	441	A
1	AA	448	A
1	AA	452	A
1	AA	453	A
1	AA	455	C
1	AA	456	C
1	AA	457	C
1	AA	458	C
1	AA	460	G
1	AA	461	A
1	AA	471	G
1	AA	472	A
1	AA	473	G
1	AA	474	G
1	AA	476	G
1	AA	477	A
1	AA	481	G

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Mol	Chain	Res	Type
1	AA	485	G
1	AA	490	G
1	AA	496	A
1	AA	498	U
1	AA	505	G
1	AA	509	A
1	AA	510	A
1	AA	511	C
1	AA	517	G
1	AA	518	C
1	AA	527	G
1	AA	531	U
1	AA	532	A
1	AA	533	A
1	AA	545	C
1	AA	546	G
1	AA	547	A
1	AA	548	G
1	AA	551	U
1	AA	559	A
1	AA	560	U
1	AA	561	U
1	AA	562	C
1	AA	564	C
1	AA	567	G
1	AA	568	G
1	AA	572	A
1	AA	573	A
1	AA	575	G
1	AA	576	G
1	AA	577	G
1	AA	579	G
1	AA	587	G
1	AA	592	G
1	AA	593	G
1	AA	594	G
1	AA	596	C
1	AA	602	A
1	AA	611	A
1	AA	612	C
1	AA	614	A
1	AA	615	C

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Mol	Chain	Res	Type
1	AA	630	G
1	AA	631	G
1	AA	632	A
1	AA	633	G
1	AA	634	C
1	AA	653	A
1	AA	654	G
1	AA	655	A
1	AA	656	C
1	AA	661	G
1	AA	665	A
1	AA	671	G
1	AA	688	G
1	AA	695	A
1	AA	701	C
1	AA	702	A
1	AA	703	G
1	AA	704	A
1	AA	705	U
1	AA	721	G
1	AA	723	U
1	AA	724	G
1	AA	730	G
1	AA	731	G
1	AA	741	G
1	AA	747	C
1	AA	749	C
1	AA	750	G
1	AA	753	A
1	AA	755	G
1	AA	756	C
1	AA	760	G
1	AA	762	C
1	AA	766	A
1	AA	767	A
1	AA	777	A
1	AA	778	G
1	AA	781	A
1	AA	782	A
1	AA	792	A
1	AA	793	U
1	AA	794	A

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Mol	Chain	Res	Type
1	AA	796	C
1	AA	798	G
1	AA	817	C
1	AA	819	A
1	AA	821	G
1	AA	826	C
1	AA	833	U
1	AA	836	G
1	AA	837	G
1	AA	838	G
1	AA	839	U
1	AA	840	C
1	AA	848	C
1	AA	849	C
1	AA	850	U
1	AA	851	G
1	AA	853	G
1	AA	859	A
1	AA	862	C
1	AA	863	U
1	AA	870	U
1	AA	872	A
1	AA	873	A
1	AA	885	G
1	AA	890	G
1	AA	906	G
1	AA	907	A
1	AA	914	A
1	AA	916	G
1	AA	926	G
1	AA	927	G
1	AA	931	C
1	AA	932	C
1	AA	934	C
1	AA	935	A
1	AA	940	C
1	AA	942	G
1	AA	956	U
1	AA	957	U
1	AA	958	A
1	AA	960	U
1	AA	961	U

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Mol	Chain	Res	Type
1	AA	963	G
1	AA	966	G
1	AA	967	C
1	AA	968	A
1	AA	969	A
1	AA	971	G
1	AA	974	A
1	AA	975	A
1	AA	976	G
1	AA	977	A
1	AA	978	A
1	AA	981	U
1	AA	982	U
1	AA	983	A
1	AA	984	C
1	AA	985	C
1	AA	992	U
1	AA	993	G
1	AA	995	C
1	AA	996	A
1	AA	997	U
1	AA	998	G
1	AA	999	C
1	AA	1000	U
1	AA	1002	G
1	AA	1003	G
1	AA	1004	A
1	AA	1005	A
1	AA	1006	C
1	AA	1007	C
1	AA	1010	G
1	AA	1016	A
1	AA	1019	C
1	AA	1020	U
1	AA	1021	G
1	AA	1022	G
1	AA	1023	G
1	AA	1024	G
1	AA	1025	U
1	AA	1026	G
1	AA	1028	C
1	AA	1029	C

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Mol	Chain	Res	Type
1	AA	1030	C
1	AA	1030(B)	G
1	AA	1030(C)	C
1	AA	1030(D)	G
1	AA	1030(E)	A
1	AA	1031	G
1	AA	1032	G
1	AA	1033	G
1	AA	1034	G
1	AA	1036	G
1	AA	1037	C
1	AA	1039	C
1	AA	1040	U
1	AA	1042	G
1	AA	1043	C
1	AA	1045	C
1	AA	1050	G
1	AA	1051	C
1	AA	1054	C
1	AA	1055	A
1	AA	1056	U
1	AA	1063	C
1	AA	1064	G
1	AA	1065	U
1	AA	1066	C
1	AA	1068	G
1	AA	1073	U
1	AA	1081	G
1	AA	1084	G
1	AA	1091	U
1	AA	1092	A
1	AA	1093	A
1	AA	1094	G
1	AA	1097	C
1	AA	1099	G
1	AA	1101	A
1	AA	1103	C
1	AA	1104	G
1	AA	1106	G
1	AA	1112	C
1	AA	1116	C
1	AA	1121	U

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Mol	Chain	Res	Type
1	AA	1122	U
1	AA	1124	G
1	AA	1126	U
1	AA	1127	G
1	AA	1129	C
1	AA	1130	A
1	AA	1131	G
1	AA	1132	C
1	AA	1134	G
1	AA	1135	U
1	AA	1137	C
1	AA	1138	G
1	AA	1139	G
1	AA	1140	C
1	AA	1141	C
1	AA	1142	G
1	AA	1143	G
1	AA	1144	G
1	AA	1146	A
1	AA	1147	C
1	AA	1148	U
1	AA	1151	A
1	AA	1152	A
1	AA	1154	G
1	AA	1155	G
1	AA	1157	A
1	AA	1159	U
1	AA	1160	G
1	AA	1161	C
1	AA	1162	C
1	AA	1163	C
1	AA	1164	G
1	AA	1165	C
1	AA	1166	G
1	AA	1168	A
1	AA	1169	A
1	AA	1170	A
1	AA	1173	G
1	AA	1174	G
1	AA	1178	G
1	AA	1181	G
1	AA	1186	G

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Mol	Chain	Res	Type
1	AA	1188	A
1	AA	1193	G
1	AA	1195	C
1	AA	1196	U
1	AA	1197	G
1	AA	1199	U
1	AA	1201	A
1	AA	1202	G
1	AA	1203	C
1	AA	1212	U
1	AA	1213	A
1	AA	1214	C
1	AA	1225	A
1	AA	1227	A
1	AA	1228	C
1	AA	1233	G
1	AA	1240	U
1	AA	1241	G
1	AA	1244	C
1	AA	1246	C
1	AA	1253	G
1	AA	1254	C
1	AA	1255	G
1	AA	1256	A
1	AA	1257	U
1	AA	1258	G
1	AA	1259	C
1	AA	1260	C
1	AA	1261	A
1	AA	1263	C
1	AA	1267	C
1	AA	1269	A
1	AA	1273	G
1	AA	1274	G
1	AA	1278	U
1	AA	1280	A
1	AA	1281	U
1	AA	1282	C
1	AA	1283	G
1	AA	1285	A
1	AA	1286	A
1	AA	1287	A

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Mol	Chain	Res	Type
1	AA	1288	A
1	AA	1289	A
1	AA	1290	G
1	AA	1292	U
1	AA	1293	G
1	AA	1294	G
1	AA	1296	C
1	AA	1297	C
1	AA	1298	C
1	AA	1299	A
1	AA	1300	G
1	AA	1301	U
1	AA	1302	U
1	AA	1303	C
1	AA	1305	G
1	AA	1306	A
1	AA	1310	G
1	AA	1314	C
1	AA	1317	C
1	AA	1319	A
1	AA	1321	C
1	AA	1322	C
1	AA	1323	G
1	AA	1331	G
1	AA	1335	C
1	AA	1336	C
1	AA	1338	G
1	AA	1340	A
1	AA	1345	U
1	AA	1346	A
1	AA	1347	G
1	AA	1353	G
1	AA	1363(A)	A
1	AA	1364	U
1	AA	1365	G
1	AA	1368	G
1	AA	1369	C
1	AA	1370	G
1	AA	1381	U
1	AA	1382	C
1	AA	1394	A
1	AA	1397	C

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Mol	Chain	Res	Type
1	AA	1398	A
1	AA	1401	G
1	AA	1404	C
1	AA	1419	G
1	AA	1422	G
1	AA	1439	C
1	AA	1440	C
1	AA	1442	G
1	AA	1442(A)	G
1	AA	1442(B)	A
1	AA	1443	G
1	AA	1452	C
1	AA	1456	G
1	AA	1457	G
1	AA	1458	G
1	AA	1486	G
1	AA	1492	A
1	AA	1497	G
1	AA	1499	A
1	AA	1502	A
1	AA	1503	A
1	AA	1504	G
1	AA	1505	G
1	AA	1506	U
1	AA	1517	G
1	AA	1520	G
1	AA	1529	G
1	AA	1530	G
22	AV	8	U
22	AV	16	C
22	AV	17	C
22	AV	18	U
22	AV	19	G
22	AV	20	G
22	AV	21	U
22	AV	22	A
22	AV	23	G
22	AV	32	G
22	AV	38	A
22	AV	44	A
22	AV	46	G
22	AV	47	A

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Mol	Chain	Res	Type
22	AV	49	C
22	AV	50	G
22	AV	53	G
22	AV	54	G
22	AV	60	A
22	AV	61	U
22	AV	62	C
22	AV	64	G
22	AV	65	G
22	AV	67	C
22	AV	74	A
22	AV	75	C
22	AV	77	A
23	AW	2	C
23	AW	3	C
23	AW	5	G
23	AW	7	A
23	AW	8	U
23	AW	9	A
23	AW	10	G
23	AW	11	C
23	AW	12	U
23	AW	13	C
23	AW	14	A
23	AW	15	G
23	AW	16	U
23	AW	17	C
23	AW	18	G
23	AW	19	G
23	AW	20	U
23	AW	21	A
23	AW	22	G
23	AW	23	A
23	AW	24	G
23	AW	26	A
23	AW	28	G
23	AW	33	U
23	AW	34	G
23	AW	35	A
23	AW	36	A
23	AW	37	A
23	AW	38	A

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Mol	Chain	Res	Type
23	AW	39	U
23	AW	40	C
23	AW	41	C
23	AW	42	C
23	AW	43	C
23	AW	44	G
23	AW	45	U
23	AW	46	G
23	AW	47	U
23	AW	48	C
23	AW	49	C
23	AW	50	U
23	AW	51	U
23	AW	52	G
23	AW	53	G
23	AW	54	U
23	AW	55	U
23	AW	56	C
23	AW	57	G
23	AW	58	A
23	AW	59	U
23	AW	60	U
23	AW	61	C
23	AW	62	C
23	AW	63	G
23	AW	64	A
23	AW	65	G
23	AW	66	U
23	AW	67	C
23	AW	69	G
23	AW	70	G
23	AW	71	G
23	AW	73	A
23	AW	76	A
24	AX	13	A
24	AX	14	A
24	AX	15	A
24	AX	16	A
23	AY	30	G
23	AY	34	G
23	AY	36	A
23	AY	39	U

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Mol	Chain	Res	Type
23	AY	41	C
23	AY	42	C
23	AY	43	C
23	AY	44	G
35	BA	7	G
35	BA	8	A
35	BA	9	U
35	BA	10	G
35	BA	12	U
35	BA	14	A
35	BA	15	G
35	BA	23	G
35	BA	26	G
35	BA	28	A
35	BA	34	C
35	BA	35	G
35	BA	36	G
35	BA	45	C
35	BA	50	U
35	BA	51	G
35	BA	61	G
35	BA	64	A
35	BA	71	A
35	BA	72	U
35	BA	73	A
35	BA	74	A
35	BA	75	G
35	BA	79	G
35	BA	80	G
35	BA	81	G
35	BA	82	G
35	BA	83	G
35	BA	84	A
35	BA	85	G
35	BA	88	G
35	BA	89	G
35	BA	90	U
35	BA	92	A
35	BA	95	G
35	BA	96	G
35	BA	97	C
35	BA	98	G

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Mol	Chain	Res	Type
35	BA	99	U
35	BA	100	G
35	BA	102	G
35	BA	103	A
35	BA	105	C
35	BA	106	C
35	BA	118	A
35	BA	119	A
35	BA	120	U
35	BA	121	G
35	BA	128	C
35	BA	129	C
35	BA	132	G
35	BA	133	C
35	BA	134	C
35	BA	135	G
35	BA	136	G
35	BA	137	C
35	BA	139	G
35	BA	139(A)	G
35	BA	140	G
35	BA	142(A)	C
35	BA	144	C
35	BA	146	G
35	BA	153	C
35	BA	154	G
35	BA	154(A)	C
35	BA	157	U
35	BA	158	U
35	BA	171	G
35	BA	172	C
35	BA	173	G
35	BA	174	C
35	BA	175	G
35	BA	181	A
35	BA	182	A
35	BA	196	A
35	BA	199	A
35	BA	203	C
35	BA	204	A
35	BA	205	G
35	BA	214	G

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Mol	Chain	Res	Type
35	BA	215	G
35	BA	216	A
35	BA	219	G
35	BA	221	A
35	BA	222	A
35	BA	224	G
35	BA	225	A
35	BA	227	A
35	BA	228	A
35	BA	229	A
35	BA	230	U
35	BA	233	A
35	BA	248	G
35	BA	250	G
35	BA	252	G
35	BA	259	G
35	BA	262	A
35	BA	265	A
35	BA	266	G
35	BA	271(D)	G
35	BA	271(I)	G
35	BA	271(J)	C
35	BA	271(K)	U
35	BA	271(L)	U
35	BA	271(N)	U
35	BA	271(O)	C
35	BA	271(P)	C
35	BA	271(R)	G
35	BA	271(T)	C
35	BA	271(W)	G
35	BA	272	G
35	BA	272(B)	G
35	BA	272(C)	G
35	BA	272(F)	C
35	BA	272(G)	C
35	BA	272(H)	C
35	BA	272(I)	U
35	BA	274	G
35	BA	275	G
35	BA	279	C
35	BA	280	C
35	BA	281	G

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Mol	Chain	Res	Type
35	BA	287	C
35	BA	291	C
35	BA	292	C
35	BA	294	A
35	BA	299	A
35	BA	302	C
35	BA	308	G
35	BA	311	A
35	BA	312	G
35	BA	324	A
35	BA	329	G
35	BA	330	A
35	BA	331	A
35	BA	332	A
35	BA	343	C
35	BA	345	A
35	BA	346	A
35	BA	349	G
35	BA	352	G
35	BA	354	G
35	BA	361	G
35	BA	363	G
35	BA	363(A)	A
35	BA	363(C)	G
35	BA	363(D)	G
35	BA	363(F)	A
35	BA	378	C
35	BA	385	C
35	BA	386	G
35	BA	388	G
35	BA	393	C
35	BA	396	G
35	BA	399	G
35	BA	405	U
35	BA	406	G
35	BA	411	G
35	BA	412	A
35	BA	414	C
35	BA	418	G
35	BA	421	U
35	BA	428	A
35	BA	444	C

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Mol	Chain	Res	Type
35	BA	454	A
35	BA	455	C
35	BA	456	C
35	BA	457	A
35	BA	463	G
35	BA	464	U
35	BA	470	A
35	BA	473	G
35	BA	482	A
35	BA	491	G
35	BA	494	G
35	BA	504	U
35	BA	505	A
35	BA	508	G
35	BA	509	C
35	BA	512	G
35	BA	513	A
35	BA	530	G
35	BA	531	C
35	BA	532	A
35	BA	533	G
35	BA	538	G
35	BA	539	G
35	BA	540	C
35	BA	541	C
35	BA	543	C
35	BA	548	A
35	BA	549	G
35	BA	551	G
35	BA	560	C
35	BA	562	U
35	BA	563	G
35	BA	573	G
35	BA	575	A
35	BA	580	C
35	BA	586	A
35	BA	588	U
35	BA	595	C
35	BA	598	G
35	BA	603	A
35	BA	604	G
35	BA	607	U

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Mol	Chain	Res	Type
35	BA	613	G
35	BA	614	U
35	BA	614(B)	G
35	BA	615	G
35	BA	616	G
35	BA	619	G
35	BA	621	A
35	BA	622	G
35	BA	624	C
35	BA	627	A
35	BA	628	G
35	BA	637	A
35	BA	645	C
35	BA	646	A
35	BA	647	G
35	BA	651	G
35	BA	652	C
35	BA	656	G
35	BA	657	U
35	BA	660	G
35	BA	668	G
35	BA	669	G
35	BA	673	C
35	BA	684	G
35	BA	685	A
35	BA	686	G
35	BA	695	G
35	BA	699	A
35	BA	702	G
35	BA	714	U
35	BA	720	C
35	BA	722	A
35	BA	724	U
35	BA	730	C
35	BA	739	G
35	BA	740	U
35	BA	741	G
35	BA	752	A
35	BA	753	C
35	BA	759	G
35	BA	764	A
35	BA	774	A

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Mol	Chain	Res	Type
35	BA	775	G
35	BA	776	G
35	BA	779	U
35	BA	782	A
35	BA	784	A
35	BA	785	G
35	BA	789	A
35	BA	792	G
35	BA	793	A
35	BA	805	G
35	BA	812	C
35	BA	819	A
35	BA	820	A
35	BA	827	U
35	BA	828	U
35	BA	831	G
35	BA	832	G
35	BA	839	U
35	BA	845	G
35	BA	846	C
35	BA	854	G
35	BA	855	G
35	BA	856	C
35	BA	857	C
35	BA	859	G
35	BA	861	A
35	BA	866	A
35	BA	869	G
35	BA	875	G
35	BA	877	U
35	BA	878	A
35	BA	879	G
35	BA	880	G
35	BA	882	G
35	BA	883	G
35	BA	884	C
35	BA	893	C
35	BA	894	C
35	BA	896	A
35	BA	897	C
35	BA	898	C
35	BA	899	A

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Mol	Chain	Res	Type
35	BA	900	A
35	BA	901	A
35	BA	902	C
35	BA	903	C
35	BA	904	C
35	BA	906	G
35	BA	907	U
35	BA	910	A
35	BA	914	C
35	BA	915	C
35	BA	917	A
35	BA	921	G
35	BA	926	A
35	BA	932	G
35	BA	933	A
35	BA	938	G
35	BA	941	A
35	BA	945	A
35	BA	946	G
35	BA	953	A
35	BA	954	G
35	BA	958	U
35	BA	959	A
35	BA	961	C
35	BA	967	C
35	BA	968	G
35	BA	972	G
35	BA	974	G
35	BA	975	C
35	BA	975(A)	G
35	BA	983	A
35	BA	988	A
35	BA	990	A
35	BA	996	A
35	BA	1007	C
35	BA	1008	C
35	BA	1010	A
35	BA	1011	G
35	BA	1012	U
35	BA	1013	C
35	BA	1017	G
35	BA	1020	A

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Mol	Chain	Res	Type
35	BA	1022	G
35	BA	1023	U
35	BA	1025	G
35	BA	1026	U
35	BA	1027	A
35	BA	1031	G
35	BA	1032	A
35	BA	1033	U
35	BA	1034	G
35	BA	1037	G
35	BA	1041	C
35	BA	1043	C
35	BA	1044	G
35	BA	1045	A
35	BA	1047	G
35	BA	1048	A
35	BA	1049	C
35	BA	1050	A
35	BA	1051	G
35	BA	1052	C
35	BA	1053	C
35	BA	1054	A
35	BA	1055	G
35	BA	1056	G
35	BA	1057	A
35	BA	1058	G
35	BA	1059	G
35	BA	1060	U
35	BA	1061	U
35	BA	1062	G
35	BA	1063	G
35	BA	1064	C
35	BA	1065	U
35	BA	1066	U
35	BA	1067	A
35	BA	1068	G
35	BA	1069	A
35	BA	1070	A
35	BA	1071	G
35	BA	1073	A
35	BA	1074	G
35	BA	1075	C

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Mol	Chain	Res	Type
35	BA	1076	C
35	BA	1077	A
35	BA	1078	U
35	BA	1079	C
35	BA	1080	C
35	BA	1081	U
35	BA	1083	U
35	BA	1084	A
35	BA	1085	A
35	BA	1086	A
35	BA	1087	G
35	BA	1088	A
35	BA	1089	G
35	BA	1090	U
35	BA	1091	G
35	BA	1092	C
35	BA	1094	U
35	BA	1095	A
35	BA	1096	A
35	BA	1097	U
35	BA	1098	A
35	BA	1099	G
35	BA	1100	C
35	BA	1101	U
35	BA	1103	A
35	BA	1105	U
35	BA	1106	G
35	BA	1108	U
35	BA	1110	G
35	BA	1111	A
35	BA	1112	G
35	BA	1113	U
35	BA	1114	G
35	BA	1115	G
35	BA	1116	C
35	BA	1118	C
35	BA	1119	C
35	BA	1122	G
35	BA	1130	U
35	BA	1133	U
35	BA	1135	C
35	BA	1136	G

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Mol	Chain	Res	Type
35	BA	1139	G
35	BA	1140	C
35	BA	1141	U
35	BA	1142	U
35	BA	1143	A
35	BA	1146	C
35	BA	1147	C
35	BA	1148	A
35	BA	1155	A
35	BA	1157	G
35	BA	1159	U
35	BA	1160	G
35	BA	1167	U
35	BA	1171	G
35	BA	1173	G
35	BA	1174	A
35	BA	1175	U
35	BA	1176	G
35	BA	1177	A
35	BA	1179	C
35	BA	1180	C
35	BA	1182	A
35	BA	1186	G
35	BA	1187	G
35	BA	1204	A
35	BA	1205	U
35	BA	1206	G
35	BA	1210	A
35	BA	1211	U
35	BA	1212	G
35	BA	1219	G
35	BA	1220	A
35	BA	1221	C
35	BA	1224	C
35	BA	1228	G
35	BA	1239	G
35	BA	1243	G
35	BA	1247	A
35	BA	1248	G
35	BA	1249	U
35	BA	1250	G
35	BA	1253	A

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Mol	Chain	Res	Type
35	BA	1255	U
35	BA	1256	G
35	BA	1258	C
35	BA	1262	A
35	BA	1265	A
35	BA	1271	G
35	BA	1272	A
35	BA	1275	A
35	BA	1281	G
35	BA	1283	G
35	BA	1289	C
35	BA	1300	U
35	BA	1301	A
35	BA	1308	A
35	BA	1312	U
35	BA	1313	U
35	BA	1314	C
35	BA	1317	A
35	BA	1319	G
35	BA	1320	C
35	BA	1321	A
35	BA	1322	A
35	BA	1329	U
35	BA	1330	C
35	BA	1332	G
35	BA	1334	G
35	BA	1345	C
35	BA	1349	A
35	BA	1352	U
35	BA	1359	A
35	BA	1364	G
35	BA	1365	A
35	BA	1371	G
35	BA	1373	A
35	BA	1378	A
35	BA	1379	A
35	BA	1380	G
35	BA	1384	A
35	BA	1385	G
35	BA	1394	U
35	BA	1395	A
35	BA	1396	U

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Mol	Chain	Res	Type
35	BA	1402	C
35	BA	1404	C
35	BA	1414	G
35	BA	1416	G
35	BA	1417	C
35	BA	1418	G
35	BA	1419	A
35	BA	1420	U
35	BA	1421	G
35	BA	1427	A
35	BA	1428	C
35	BA	1435	G
35	BA	1436	G
35	BA	1437	C
35	BA	1445	A
35	BA	1446	C
35	BA	1447	G
35	BA	1448	G
35	BA	1449	A
35	BA	1450	G
35	BA	1450(A)	C
35	BA	1451	C
35	BA	1452	A
35	BA	1458	C
35	BA	1459	G
35	BA	1461	G
35	BA	1463	C
35	BA	1467	C
35	BA	1471	A
35	BA	1475	G
35	BA	1477	A
35	BA	1480	G
35	BA	1481	U
35	BA	1482	G
35	BA	1487	G
35	BA	1488	G
35	BA	1490	A
35	BA	1493	C
35	BA	1494	A
35	BA	1495	A
35	BA	1496	A
35	BA	1497	U

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Mol	Chain	Res	Type
35	BA	1499	C
35	BA	1500	G
35	BA	1501	C
35	BA	1502	C
35	BA	1504	C
35	BA	1505	C
35	BA	1508	A
35	BA	1509	C
35	BA	1512	U
35	BA	1519	G
35	BA	1520	G
35	BA	1523	U
35	BA	1528	A
35	BA	1528(A)	A
35	BA	1530	C
35	BA	1533	G
35	BA	1543	C
35	BA	1544	A
35	BA	1545	A
35	BA	1546	C
35	BA	1547	C
35	BA	1549	C
35	BA	1550	C
35	BA	1558	A
35	BA	1559	G
35	BA	1560	G
35	BA	1566	A
35	BA	1567	A
35	BA	1569	A
35	BA	1571	A
35	BA	1578	U
35	BA	1579	A
35	BA	1581	G
35	BA	1582	C
35	BA	1583	A
35	BA	1584	C
35	BA	1586	A
35	BA	1588	C
35	BA	1589	C
35	BA	1591	G
35	BA	1592	C
35	BA	1594	G

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Mol	Chain	Res	Type
35	BA	1603	A
35	BA	1608	A
35	BA	1610	A
35	BA	1615	C
35	BA	1616	A
35	BA	1618	A
35	BA	1619	G
35	BA	1628	G
35	BA	1629	U
35	BA	1632	A
35	BA	1634	A
35	BA	1637	A
35	BA	1639	U
35	BA	1640	C
35	BA	1648	C
35	BA	1651	G
35	BA	1652	A
35	BA	1654	A
35	BA	1666	G
35	BA	1669	A
35	BA	1671	U
35	BA	1672	C
35	BA	1674	G
35	BA	1675	C
35	BA	1692	U
35	BA	1696	G
35	BA	1697	G
35	BA	1699	G
35	BA	1700	A
35	BA	1701	A
35	BA	1721	G
35	BA	1722	A
35	BA	1739	U
35	BA	1740	G
35	BA	1741	A
35	BA	1742	G
35	BA	1743	C
35	BA	1744	C
35	BA	1752	C
35	BA	1754	C
35	BA	1756	G
35	BA	1758	G

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Mol	Chain	Res	Type
35	BA	1760	A
35	BA	1762	A
35	BA	1763	G
35	BA	1764	G
35	BA	1768	U
35	BA	1773	A
35	BA	1780	A
35	BA	1781	C
35	BA	1782	C
35	BA	1783	A
35	BA	1791	A
35	BA	1799	G
35	BA	1800	C
35	BA	1801	G
35	BA	1802	A
35	BA	1808	U
35	BA	1811	G
35	BA	1816	G
35	BA	1820	U
35	BA	1835	G
35	BA	1840	G
35	BA	1847	A
35	BA	1848	A
35	BA	1849	G
35	BA	1850	G
35	BA	1852	C
35	BA	1858	G
35	BA	1859	A
35	BA	1860	G
35	BA	1865	G
35	BA	1866	C
35	BA	1877	A
35	BA	1878	G
35	BA	1879	C
35	BA	1880	C
35	BA	1881	C
35	BA	1882	C
35	BA	1883	G
35	BA	1884	A
35	BA	1886	C
35	BA	1888	G
35	BA	1896	G

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Mol	Chain	Res	Type
35	BA	1900	A
35	BA	1904	G
35	BA	1906	G
35	BA	1912	A
35	BA	1919	A
35	BA	1929	G
35	BA	1930	G
35	BA	1931	U
35	BA	1932	A
35	BA	1936	A
35	BA	1938	A
35	BA	1941	C
35	BA	1947	C
35	BA	1948	G
35	BA	1954	G
35	BA	1955	U
35	BA	1963	U
35	BA	1964	G
35	BA	1967	C
35	BA	1968	G
35	BA	1969	A
35	BA	1970	A
35	BA	1971	A
35	BA	1972	A
35	BA	1982	C
35	BA	1986	A
35	BA	1987	G
35	BA	1993	U
35	BA	2004	G
35	BA	2005	A
35	BA	2012	G
35	BA	2019	A
35	BA	2020	A
35	BA	2023	G
35	BA	2031	A
35	BA	2032	G
35	BA	2033	A
35	BA	2039	C
35	BA	2043	C
35	BA	2049	G
35	BA	2052	G
35	BA	2055	C

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Mol	Chain	Res	Type
35	BA	2056	G
35	BA	2060	A
35	BA	2061	G
35	BA	2062	A
35	BA	2063	C
35	BA	2069	G
35	BA	2076	U
35	BA	2082	A
35	BA	2092	U
35	BA	2093	G
35	BA	2096	U
35	BA	2097	C
35	BA	2102	U
35	BA	2103	C
35	BA	2104	G
35	BA	2105	C
35	BA	2107	C
35	BA	2108	C
35	BA	2109	U
35	BA	2111	C
35	BA	2112	G
35	BA	2113	U
35	BA	2114	A
35	BA	2115	G
35	BA	2116	G
35	BA	2117	A
35	BA	2119	A
35	BA	2120	G
35	BA	2122	U
35	BA	2123	G
35	BA	2125	G
35	BA	2126	A
35	BA	2127	G
35	BA	2128	C
35	BA	2129	C
35	BA	2130	U
35	BA	2159	G
35	BA	2160	G
35	BA	2161	C
35	BA	2162	G
35	BA	2163	C
35	BA	2164	C

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Mol	Chain	Res	Type
35	BA	2165	G
35	BA	2167	U
35	BA	2170	A
35	BA	2171	A
35	BA	2172	U
35	BA	2174	C
35	BA	2175	C
35	BA	2178	C
35	BA	2182	G
35	BA	2185	C
35	BA	2186	G
35	BA	2187	G
35	BA	2189	U
35	BA	2191	G
35	BA	2192	G
35	BA	2197	U
35	BA	2198	A
35	BA	2207	G
35	BA	2208	A
35	BA	2218	U
35	BA	2219	G
35	BA	2225	A
35	BA	2226	C
35	BA	2234	G
35	BA	2238	G
35	BA	2239	G
35	BA	2243	U
35	BA	2245	U
35	BA	2246	G
35	BA	2258	C
35	BA	2259	G
35	BA	2266	A
35	BA	2267	A
35	BA	2269	A
35	BA	2273	A
35	BA	2275	C
35	BA	2278	A
35	BA	2279	G
35	BA	2283	C
35	BA	2286	A
35	BA	2287	A
35	BA	2288	A

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Mol	Chain	Res	Type
35	BA	2289	G
35	BA	2293	C
35	BA	2302	G
35	BA	2305	A
35	BA	2306	C
35	BA	2308	G
35	BA	2309	A
35	BA	2310	A
35	BA	2311	A
35	BA	2312	U
35	BA	2319	G
35	BA	2320	A
35	BA	2321	G
35	BA	2325	G
35	BA	2327	A
35	BA	2334	G
35	BA	2336	A
35	BA	2343	C
35	BA	2344	U
35	BA	2345	G
35	BA	2346	A
35	BA	2347	C
35	BA	2348	U
35	BA	2349	G
35	BA	2350	C
35	BA	2359	C
35	BA	2377	A
35	BA	2378	A
35	BA	2379	G
35	BA	2383	G
35	BA	2384	G
35	BA	2385	C
35	BA	2388	A
35	BA	2391	G
35	BA	2393	A
35	BA	2394	C
35	BA	2400	G
35	BA	2402	C
35	BA	2403	C
35	BA	2405	G
35	BA	2406	U
35	BA	2410	G

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Mol	Chain	Res	Type
35	BA	2411	A
35	BA	2414	G
35	BA	2416	C
35	BA	2423	U
35	BA	2424	C
35	BA	2425	A
35	BA	2429	G
35	BA	2430	A
35	BA	2431	U
35	BA	2434	A
35	BA	2435	A
35	BA	2439	A
35	BA	2440	C
35	BA	2441	C
35	BA	2446	G
35	BA	2447	G
35	BA	2448	A
35	BA	2469	A
35	BA	2473	U
35	BA	2474	C
35	BA	2476	A
35	BA	2478	A
35	BA	2484	G
35	BA	2489	G
35	BA	2502	G
35	BA	2504	U
35	BA	2505	G
35	BA	2512	C
35	BA	2513	G
35	BA	2518	A
35	BA	2520	C
35	BA	2523	G
35	BA	2525	G
35	BA	2527	C
35	BA	2529	G
35	BA	2535	G
35	BA	2542	A
35	BA	2543	G
35	BA	2549	G
35	BA	2554	U
35	BA	2555	U
35	BA	2566	A

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Mol	Chain	Res	Type
35	BA	2567	G
35	BA	2569	G
35	BA	2572	A
35	BA	2573	C
35	BA	2578	G
35	BA	2582	G
35	BA	2584	U
35	BA	2585	U
35	BA	2592	G
35	BA	2596	U
35	BA	2597	G
35	BA	2599	G
35	BA	2602	A
35	BA	2609	U
35	BA	2611	U
35	BA	2612	C
35	BA	2613	U
35	BA	2615	U
35	BA	2620	C
35	BA	2632	A
35	BA	2641	G
35	BA	2654	A
35	BA	2656	U
35	BA	2659	G
35	BA	2660	A
35	BA	2661	G
35	BA	2662	A
35	BA	2663	G
35	BA	2666	C
35	BA	2671	A
35	BA	2673	G
35	BA	2682	U
35	BA	2683	C
35	BA	2684	U
35	BA	2685	G
35	BA	2690	C
35	BA	2700	C
35	BA	2702	U
35	BA	2703	C
35	BA	2704	C
35	BA	2712(A)	A
35	BA	2713	A

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Mol	Chain	Res	Type
35	BA	2720	U
35	BA	2721	A
35	BA	2726	U
35	BA	2733	A
35	BA	2734	A
35	BA	2744	G
35	BA	2748	A
35	BA	2751	G
35	BA	2752	C
35	BA	2753	A
35	BA	2754	U
35	BA	2757	A
35	BA	2758	A
35	BA	2760	C
35	BA	2764	A
35	BA	2765	A
35	BA	2766	G
35	BA	2770	G
35	BA	2778	A
35	BA	2779	U
35	BA	2780	G
35	BA	2786	U
35	BA	2787	C
35	BA	2789	C
35	BA	2790	A
35	BA	2791	C
35	BA	2793	G
35	BA	2794	C
35	BA	2796	U
35	BA	2799	C
35	BA	2801	A
35	BA	2801(A)	A
35	BA	2802	G
35	BA	2803	C
35	BA	2804	C
35	BA	2805	G
35	BA	2807	G
35	BA	2808	U
35	BA	2809	A
35	BA	2811	G
35	BA	2812	G
35	BA	2818	G

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Mol	Chain	Res	Type
35	BA	2820	A
35	BA	2821	A
35	BA	2831	G
35	BA	2833	G
35	BA	2834	G
35	BA	2835	A
35	BA	2838	G
35	BA	2846	G
35	BA	2849	U
35	BA	2860	A
35	BA	2866	U
35	BA	2872	G
35	BA	2876	G
35	BA	2877	G
35	BA	2878	U
35	BA	2880	C
35	BA	2885	C
35	BA	2892	A
35	BA	2893	G
35	BA	2894	G
35	BA	2896	C
35	BA	2897	U
36	BB	2	C
36	BB	5	C
36	BB	8	U
36	BB	12	C
36	BB	15	A
36	BB	16	G
36	BB	21	G
36	BB	22	U
36	BB	24	G
36	BB	25	A
36	BB	30	C
36	BB	32	C
36	BB	35	U
36	BB	41	U
36	BB	43	C
36	BB	44	G
36	BB	45	A
36	BB	51	G
36	BB	52	A
36	BB	53	A

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Mol	Chain	Res	Type
36	BB	58	A
36	BB	63	G
36	BB	65	C
36	BB	67	G
36	BB	72	G
36	BB	73	A
36	BB	81	G
36	BB	82	G
36	BB	86	G
36	BB	89	G
36	BB	90	A
36	BB	91	C
36	BB	92	C
36	BB	103	G
36	BB	106	G
36	BB	109	C
36	BB	110	G
36	BB	116	G
36	BB	120	A
1	CA	7	G
1	CA	9	G
1	CA	31	G
1	CA	32	A
1	CA	33	A
1	CA	34	C
1	CA	39	G
1	CA	44	G
1	CA	47	C
1	CA	48	C
1	CA	51	A
1	CA	54	C
1	CA	57	G
1	CA	60	A
1	CA	70	G
1	CA	76	C
1	CA	78	G
1	CA	79	G
1	CA	81	U
1	CA	82	U
1	CA	88	A
1	CA	89	C
1	CA	90	U

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Mol	Chain	Res	Type
1	CA	91	C
1	CA	92	C
1	CA	93	G
1	CA	97	G
1	CA	98	G
1	CA	101	A
1	CA	115	G
1	CA	116	A
1	CA	121	C
1	CA	122	G
1	CA	129	U
1	CA	129(A)	G
1	CA	131	C
1	CA	137	C
1	CA	144	G
1	CA	152	A
1	CA	163	C
1	CA	172	A
1	CA	173	U
1	CA	181	G
1	CA	189(F)	U
1	CA	189(I)	G
1	CA	191	G
1	CA	195	A
1	CA	197	A
1	CA	201	C
1	CA	202	U
1	CA	203	U
1	CA	204	U
1	CA	216	G
1	CA	227	G
1	CA	232	G
1	CA	236	G
1	CA	244	U
1	CA	247	G
1	CA	251	G
1	CA	252	U
1	CA	258	G
1	CA	261	U
1	CA	266	G
1	CA	267	C
1	CA	270	A

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Mol	Chain	Res	Type
1	CA	274	A
1	CA	275	G
1	CA	280	C
1	CA	281	G
1	CA	289	G
1	CA	291	C
1	CA	299	G
1	CA	301	G
1	CA	319	G
1	CA	321	A
1	CA	328	C
1	CA	329	A
1	CA	330	C
1	CA	332	G
1	CA	340	U
1	CA	344	A
1	CA	345	C
1	CA	346	G
1	CA	351	G
1	CA	352	C
1	CA	353	A
1	CA	354	G
1	CA	356	A
1	CA	363	A
1	CA	365	U
1	CA	366	C
1	CA	367	U
1	CA	371	G
1	CA	372	C
1	CA	373	A
1	CA	375	U
1	CA	376	G
1	CA	378	G
1	CA	383	A
1	CA	384	G
1	CA	388	G
1	CA	390	C
1	CA	392	G
1	CA	396	G
1	CA	397	A
1	CA	398	C
1	CA	403	C

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Mol	Chain	Res	Type
1	CA	405	U
1	CA	406	G
1	CA	408	A
1	CA	410	G
1	CA	411	A
1	CA	412	A
1	CA	413	G
1	CA	422	C
1	CA	423	G
1	CA	424	G
1	CA	427	U
1	CA	429	U
1	CA	430	A
1	CA	435	C
1	CA	437	U
1	CA	442	C
1	CA	452	A
1	CA	455	C
1	CA	460	G
1	CA	461	A
1	CA	470	C
1	CA	471	G
1	CA	474	G
1	CA	485	G
1	CA	496	A
1	CA	498	U
1	CA	500	G
1	CA	505	G
1	CA	507	C
1	CA	509	A
1	CA	510	A
1	CA	511	C
1	CA	517	G
1	CA	518	C
1	CA	519	C
1	CA	521	G
1	CA	524	G
1	CA	527	G
1	CA	529	G
1	CA	531	U
1	CA	532	A
1	CA	533	A

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Mol	Chain	Res	Type
1	CA	534	U
1	CA	536	C
1	CA	547	A
1	CA	559	A
1	CA	561	U
1	CA	572	A
1	CA	573	A
1	CA	575	G
1	CA	576	G
1	CA	577	G
1	CA	587	G
1	CA	592	G
1	CA	596	C
1	CA	606	G
1	CA	608	A
1	CA	622	A
1	CA	623	C
1	CA	630	G
1	CA	632	A
1	CA	633	G
1	CA	653	A
1	CA	661	G
1	CA	665	A
1	CA	686	U
1	CA	687	A
1	CA	688	G
1	CA	695	A
1	CA	722	A
1	CA	724	G
1	CA	731	G
1	CA	733	A
1	CA	734	G
1	CA	747	C
1	CA	748	C
1	CA	749	C
1	CA	753	A
1	CA	755	G
1	CA	763	G
1	CA	766	A
1	CA	767	A
1	CA	771	G
1	CA	777	A

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Mol	Chain	Res	Type
1	CA	793	U
1	CA	794	A
1	CA	796	C
1	CA	800	G
1	CA	802	A
1	CA	815	A
1	CA	817	C
1	CA	818	G
1	CA	821	G
1	CA	828	A
1	CA	829	G
1	CA	833	U
1	CA	839	U
1	CA	840	C
1	CA	841	U
1	CA	848	C
1	CA	849	C
1	CA	851	G
1	CA	853	G
1	CA	859	A
1	CA	860	A
1	CA	868	C
1	CA	873	A
1	CA	876	G
1	CA	884	U
1	CA	887	G
1	CA	891	U
1	CA	902	G
1	CA	910	C
1	CA	911	U
1	CA	914	A
1	CA	916	G
1	CA	920	U
1	CA	922	G
1	CA	923	A
1	CA	926	G
1	CA	927	G
1	CA	934	C
1	CA	935	A
1	CA	936	C
1	CA	940	C
1	CA	942	G

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Mol	Chain	Res	Type
1	CA	949	A
1	CA	954	G
1	CA	960	U
1	CA	968	A
1	CA	969	A
1	CA	971	G
1	CA	974	A
1	CA	975	A
1	CA	976	G
1	CA	977	A
1	CA	978	A
1	CA	980	C
1	CA	981	U
1	CA	982	U
1	CA	983	A
1	CA	991	U
1	CA	992	U
1	CA	993	G
1	CA	994	A
1	CA	995	C
1	CA	1001(A)	G
1	CA	1002	G
1	CA	1004	A
1	CA	1005	A
1	CA	1006	C
1	CA	1009	G
1	CA	1012	U
1	CA	1016	A
1	CA	1022	G
1	CA	1023	G
1	CA	1026	G
1	CA	1027	C
1	CA	1028	C
1	CA	1029	C
1	CA	1030(A)	G
1	CA	1030(B)	C
1	CA	1030(C)	G
1	CA	1031	G
1	CA	1036	G
1	CA	1040	U
1	CA	1044	A
1	CA	1049	U

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Mol	Chain	Res	Type
1	CA	1050	G
1	CA	1053	G
1	CA	1054	C
1	CA	1055	A
1	CA	1056	U
1	CA	1058	G
1	CA	1063	C
1	CA	1064	G
1	CA	1065	U
1	CA	1066	C
1	CA	1068	G
1	CA	1070	U
1	CA	1082	G
1	CA	1084	G
1	CA	1094	G
1	CA	1095	U
1	CA	1096	C
1	CA	1101	A
1	CA	1103	C
1	CA	1108	G
1	CA	1113	C
1	CA	1116	C
1	CA	1117	G
1	CA	1122	U
1	CA	1124	G
1	CA	1126	U
1	CA	1127	G
1	CA	1128	C
1	CA	1129	C
1	CA	1131	G
1	CA	1133	G
1	CA	1134	G
1	CA	1135	U
1	CA	1136	U
1	CA	1137	C
1	CA	1138	G
1	CA	1139	G
1	CA	1140	C
1	CA	1141	C
1	CA	1142	G
1	CA	1145	C
1	CA	1146	A

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Mol	Chain	Res	Type
1	CA	1147	C
1	CA	1151	A
1	CA	1152	A
1	CA	1154	G
1	CA	1159	U
1	CA	1160	G
1	CA	1162	C
1	CA	1170	A
1	CA	1171	G
1	CA	1182	G
1	CA	1183	A
1	CA	1184	G
1	CA	1186	G
1	CA	1187	G
1	CA	1189	C
1	CA	1190	G
1	CA	1194	U
1	CA	1196	U
1	CA	1197	G
1	CA	1201	A
1	CA	1202	G
1	CA	1212	U
1	CA	1213	A
1	CA	1214	C
1	CA	1216	G
1	CA	1218	C
1	CA	1225	A
1	CA	1226	C
1	CA	1227	A
1	CA	1232	U
1	CA	1236	A
1	CA	1238	A
1	CA	1239	A
1	CA	1240	U
1	CA	1241	G
1	CA	1246	C
1	CA	1251	A
1	CA	1253	G
1	CA	1254	C
1	CA	1255	G
1	CA	1256	A
1	CA	1257	U

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Mol	Chain	Res	Type
1	CA	1258	G
1	CA	1260	C
1	CA	1262	C
1	CA	1264	C
1	CA	1266	G
1	CA	1268	A
1	CA	1270	C
1	CA	1272	G
1	CA	1273	G
1	CA	1275	A
1	CA	1278	U
1	CA	1279	A
1	CA	1280	A
1	CA	1282	C
1	CA	1285	A
1	CA	1286	A
1	CA	1287	A
1	CA	1288	A
1	CA	1293	G
1	CA	1294	G
1	CA	1296	C
1	CA	1297	C
1	CA	1298	C
1	CA	1299	A
1	CA	1300	G
1	CA	1301	U
1	CA	1302	U
1	CA	1304	G
1	CA	1305	G
1	CA	1312	G
1	CA	1313	U
1	CA	1314	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	1338	G
1	CA	1340	A
1	CA	1346	A
1	CA	1347	G

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Mol	Chain	Res	Type
1	CA	1353	G
1	CA	1360	A
1	CA	1363	C
1	CA	1363(A)	A
1	CA	1364	U
1	CA	1365	G
1	CA	1368	G
1	CA	1370	G
1	CA	1378	C
1	CA	1379	G
1	CA	1381	U
1	CA	1395	C
1	CA	1397	C
1	CA	1398	A
1	CA	1400	C
1	CA	1417	G
1	CA	1419	G
1	CA	1434	A
1	CA	1439	C
1	CA	1442	G
1	CA	1442(A)	G
1	CA	1442(B)	A
1	CA	1443	G
1	CA	1444	C
1	CA	1446	U
1	CA	1447	A
1	CA	1452	C
1	CA	1456	G
1	CA	1457	G
1	CA	1464	G
1	CA	1469	G
1	CA	1484	C
1	CA	1487	G
1	CA	1492	A
1	CA	1494	G
1	CA	1497	G
1	CA	1498	U
1	CA	1499	A
1	CA	1502	A
1	CA	1503	A
1	CA	1504	G
1	CA	1505	G

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Mol	Chain	Res	Type
1	CA	1506	U
1	CA	1517	G
1	CA	1519	A
1	CA	1520	G
1	CA	1521	G
1	CA	1528	U
1	CA	1529	G
1	CA	1530	G
22	CV	2	G
22	CV	3	C
22	CV	5	G
22	CV	6	G
22	CV	9	G
22	CV	13	C
22	CV	15	G
22	CV	16	C
22	CV	17(A)	U
22	CV	18	G
22	CV	20	U
22	CV	21	A
22	CV	22	G
22	CV	34	C
22	CV	46	A
22	CV	47	U
22	CV	48	C
22	CV	50	U
22	CV	53	G
22	CV	54	U
22	CV	55	U
22	CV	56	C
22	CV	60	U
22	CV	64	G
22	CV	66	C
22	CV	67	C
22	CV	72	A
22	CV	74	C
22	CV	75	C
22	CV	76	A
23	CW	7	A
23	CW	9	A
23	CW	10	G
23	CW	11	C

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Mol	Chain	Res	Type
23	CW	12	U
23	CW	13	C
23	CW	14	A
23	CW	15	G
23	CW	16	U
23	CW	17	C
23	CW	18	G
23	CW	19	G
23	CW	20	U
23	CW	21	A
23	CW	22	G
23	CW	23	A
23	CW	24	G
23	CW	26	A
23	CW	27	G
23	CW	30	G
23	CW	31	A
23	CW	32	U
23	CW	33	U
23	CW	34	G
23	CW	35	A
23	CW	36	A
23	CW	38	A
23	CW	44	G
23	CW	46	G
23	CW	47	U
23	CW	48	C
23	CW	50	U
23	CW	51	U
23	CW	52	G
23	CW	53	G
23	CW	55	U
23	CW	56	C
23	CW	58	A
23	CW	61	C
23	CW	63	G
23	CW	64	A
23	CW	65	G
23	CW	66	U
23	CW	67	C
23	CW	68	C
23	CW	69	G

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Mol	Chain	Res	Type
23	CW	71	G
23	CW	73	A
23	CW	74	C
23	CW	76	A
24	CX	14	A
24	CX	19	U
24	CX	22	U
24	CX	23	A
23	CY	25	C
23	CY	26	A
23	CY	27	G
23	CY	28	G
23	CY	29	G
23	CY	44	G
35	DA	9	U
35	DA	10	G
35	DA	12	U
35	DA	26	G
35	DA	35	G
35	DA	36	G
35	DA	45	C
35	DA	49	A
35	DA	55	G
35	DA	58	G
35	DA	63	U
35	DA	71	A
35	DA	72	U
35	DA	74	A
35	DA	75	G
35	DA	77	C
35	DA	83	G
35	DA	84	A
35	DA	88	G
35	DA	89	G
35	DA	90	U
35	DA	92	A
35	DA	94	C
35	DA	94(A)	G
35	DA	95	G
35	DA	100	G
35	DA	104	U
35	DA	117	G

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Mol	Chain	Res	Type
35	DA	118	A
35	DA	119	A
35	DA	120	U
35	DA	123	G
35	DA	124	G
35	DA	129	C
35	DA	131	G
35	DA	139	G
35	DA	139(A)	G
35	DA	140	G
35	DA	141	A
35	DA	154(A)	C
35	DA	157	U
35	DA	158	U
35	DA	171	G
35	DA	172	C
35	DA	174	C
35	DA	175	G
35	DA	177	G
35	DA	182	A
35	DA	193	U
35	DA	196	A
35	DA	197	A
35	DA	199	A
35	DA	202	U
35	DA	205	G
35	DA	214	G
35	DA	215	G
35	DA	216	A
35	DA	217	G
35	DA	221	A
35	DA	222	A
35	DA	224	G
35	DA	225	A
35	DA	229	A
35	DA	230	U
35	DA	233	A
35	DA	248	G
35	DA	252	G
35	DA	258	G
35	DA	260	G
35	DA	264	C

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Mol	Chain	Res	Type
35	DA	266	G
35	DA	271(A)	A
35	DA	271(I)	G
35	DA	271(J)	C
35	DA	271(K)	U
35	DA	271(L)	U
35	DA	271(M)	G
35	DA	271(N)	U
35	DA	271(P)	C
35	DA	271(R)	G
35	DA	271(Y)	U
35	DA	272	G
35	DA	272(B)	G
35	DA	272(G)	C
35	DA	272(H)	C
35	DA	272(I)	U
35	DA	272(J)	C
35	DA	274	G
35	DA	275	G
35	DA	279	C
35	DA	281	G
35	DA	283	A
35	DA	285	C
35	DA	287	C
35	DA	289	A
35	DA	295	G
35	DA	311	A
35	DA	315	G
35	DA	317	G
35	DA	323	G
35	DA	324	A
35	DA	329	G
35	DA	330	A
35	DA	350	U
35	DA	352	G
35	DA	353	G
35	DA	356	G
35	DA	360	G
35	DA	362	U
35	DA	363	G
35	DA	363(E)	U
35	DA	363(F)	A

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Mol	Chain	Res	Type
35	DA	364	C
35	DA	372	G
35	DA	384	U
35	DA	386	G
35	DA	405	U
35	DA	407	G
35	DA	411	G
35	DA	421	U
35	DA	423	A
35	DA	424	G
35	DA	428	A
35	DA	442	G
35	DA	444	C
35	DA	448	U
35	DA	452	G
35	DA	455	C
35	DA	456	C
35	DA	459	U
35	DA	470	A
35	DA	473	G
35	DA	479	A
35	DA	481	G
35	DA	482	A
35	DA	491	G
35	DA	493	G
35	DA	494	G
35	DA	504	U
35	DA	505	A
35	DA	507	A
35	DA	508	G
35	DA	509	C
35	DA	510	C
35	DA	527	C
35	DA	528	A
35	DA	530	G
35	DA	531	C
35	DA	532	A
35	DA	533	G
35	DA	536	A
35	DA	537	C
35	DA	540	C
35	DA	542	C

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Mol	Chain	Res	Type
35	DA	543	C
35	DA	547	A
35	DA	548	A
35	DA	549	G
35	DA	551	G
35	DA	552	G
35	DA	556	G
35	DA	563	G
35	DA	573	G
35	DA	575	A
35	DA	584	C
35	DA	586	A
35	DA	588	U
35	DA	592	G
35	DA	593	G
35	DA	595	C
35	DA	599	G
35	DA	603	A
35	DA	604	G
35	DA	607	U
35	DA	610	G
35	DA	612	C
35	DA	614	U
35	DA	614(B)	G
35	DA	614(C)	A
35	DA	615	G
35	DA	621	A
35	DA	622	G
35	DA	627	A
35	DA	633	A
35	DA	635	C
35	DA	637	A
35	DA	643	A
35	DA	645	C
35	DA	646	A
35	DA	647	G
35	DA	652	C
35	DA	656	G
35	DA	657	U
35	DA	662	G
35	DA	668	G
35	DA	686	G

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Mol	Chain	Res	Type
35	DA	695	G
35	DA	696	G
35	DA	703	U
35	DA	715	G
35	DA	716	A
35	DA	717	G
35	DA	720	C
35	DA	721	C
35	DA	722	A
35	DA	730	C
35	DA	764	A
35	DA	765	G
35	DA	771	G
35	DA	776	G
35	DA	777	A
35	DA	782	A
35	DA	784	A
35	DA	785	G
35	DA	791	C
35	DA	792	G
35	DA	805	G
35	DA	812	C
35	DA	819	A
35	DA	824	A
35	DA	827	U
35	DA	828	U
35	DA	830	G
35	DA	831	G
35	DA	832	G
35	DA	836	G
35	DA	846	C
35	DA	853	G
35	DA	854	G
35	DA	856	C
35	DA	857	C
35	DA	859	G
35	DA	866	A
35	DA	877	U
35	DA	878	A
35	DA	881	G
35	DA	882	G
35	DA	883	G

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Mol	Chain	Res	Type
35	DA	884	C
35	DA	892	G
35	DA	893	C
35	DA	894	C
35	DA	896	A
35	DA	897	C
35	DA	898	C
35	DA	899	A
35	DA	900	A
35	DA	901	A
35	DA	902	C
35	DA	907	U
35	DA	910	A
35	DA	917	A
35	DA	919	G
35	DA	920	G
35	DA	924	C
35	DA	926	A
35	DA	932	G
35	DA	933	A
35	DA	940	G
35	DA	941	A
35	DA	945	A
35	DA	946	G
35	DA	952	G
35	DA	953	A
35	DA	958	U
35	DA	959	A
35	DA	961	C
35	DA	967	C
35	DA	969	U
35	DA	974	G
35	DA	975	C
35	DA	975(A)	G
35	DA	983	A
35	DA	989	G
35	DA	990	A
35	DA	996	A
35	DA	1003	G
35	DA	1005	C
35	DA	1010	A
35	DA	1011	G

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Mol	Chain	Res	Type
35	DA	1012	U
35	DA	1013	C
35	DA	1020	A
35	DA	1022	G
35	DA	1023	U
35	DA	1025	G
35	DA	1026	U
35	DA	1027	A
35	DA	1030	G
35	DA	1033	U
35	DA	1035	U
35	DA	1040	C
35	DA	1041	C
35	DA	1042	G
35	DA	1043	C
35	DA	1044	G
35	DA	1045	A
35	DA	1046	A
35	DA	1047	G
35	DA	1048	A
35	DA	1049	C
35	DA	1050	A
35	DA	1051	G
35	DA	1052	C
35	DA	1053	C
35	DA	1054	A
35	DA	1055	G
35	DA	1056	G
35	DA	1057	A
35	DA	1058	G
35	DA	1059	G
35	DA	1060	U
35	DA	1061	U
35	DA	1062	G
35	DA	1063	G
35	DA	1064	C
35	DA	1065	U
35	DA	1066	U
35	DA	1068	G
35	DA	1069	A
35	DA	1070	A
35	DA	1071	G

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Mol	Chain	Res	Type
35	DA	1072	C
35	DA	1073	A
35	DA	1075	C
35	DA	1077	A
35	DA	1078	U
35	DA	1079	C
35	DA	1081	U
35	DA	1082	U
35	DA	1084	A
35	DA	1086	A
35	DA	1087	G
35	DA	1088	A
35	DA	1089	G
35	DA	1090	U
35	DA	1093	G
35	DA	1094	U
35	DA	1095	A
35	DA	1096	A
35	DA	1097	U
35	DA	1098	A
35	DA	1099	G
35	DA	1100	C
35	DA	1101	U
35	DA	1102	C
35	DA	1103	A
35	DA	1104	C
35	DA	1105	U
35	DA	1106	G
35	DA	1107	G
35	DA	1108	U
35	DA	1109	C
35	DA	1110	G
35	DA	1111	A
35	DA	1112	G
35	DA	1113	U
35	DA	1118	C
35	DA	1120	G
35	DA	1126	A
35	DA	1129	A
35	DA	1130	U
35	DA	1133	U
35	DA	1135	C

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Mol	Chain	Res	Type
35	DA	1136	G
35	DA	1137	G
35	DA	1139	G
35	DA	1141	U
35	DA	1142	U
35	DA	1142(A)	A
35	DA	1143	A
35	DA	1147	C
35	DA	1149	G
35	DA	1152	C
35	DA	1156	A
35	DA	1165	U
35	DA	1168	G
35	DA	1170	G
35	DA	1171	G
35	DA	1174	A
35	DA	1175	U
35	DA	1176	G
35	DA	1177	A
35	DA	1178	C
35	DA	1179	C
35	DA	1194	A
35	DA	1195	G
35	DA	1204	A
35	DA	1205	U
35	DA	1206	G
35	DA	1210	A
35	DA	1211	U
35	DA	1218	C
35	DA	1219	G
35	DA	1220	A
35	DA	1221	C
35	DA	1242	A
35	DA	1244	G
35	DA	1250	G
35	DA	1251	C
35	DA	1252	G
35	DA	1253	A
35	DA	1255	U
35	DA	1256	G
35	DA	1265	A
35	DA	1271	G

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Mol	Chain	Res	Type
35	DA	1272	A
35	DA	1276	A
35	DA	1281	G
35	DA	1282	U
35	DA	1285	G
35	DA	1300	U
35	DA	1301	A
35	DA	1313	U
35	DA	1314	C
35	DA	1319	G
35	DA	1320	C
35	DA	1329	U
35	DA	1332	G
35	DA	1333	C
35	DA	1334	G
35	DA	1341	U
35	DA	1349	A
35	DA	1359	A
35	DA	1364	G
35	DA	1365	A
35	DA	1373	A
35	DA	1379	A
35	DA	1380	G
35	DA	1384	A
35	DA	1385	G
35	DA	1386	C
35	DA	1412	A
35	DA	1415	U
35	DA	1416	G
35	DA	1420	U
35	DA	1421	G
35	DA	1428	C
35	DA	1429	G
35	DA	1430	C
35	DA	1433	U
35	DA	1445	A
35	DA	1447	G
35	DA	1449	A
35	DA	1450	G
35	DA	1455	G
35	DA	1461	G
35	DA	1466	G

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Mol	Chain	Res	Type
35	DA	1467	C
35	DA	1471	A
35	DA	1475	G
35	DA	1478	G
35	DA	1481	U
35	DA	1482	G
35	DA	1486	A
35	DA	1488	G
35	DA	1489	U
35	DA	1490	A
35	DA	1491	G
35	DA	1492	G
35	DA	1493	C
35	DA	1494	A
35	DA	1495	A
35	DA	1497	U
35	DA	1498	C
35	DA	1501	C
35	DA	1502	C
35	DA	1505	C
35	DA	1508	A
35	DA	1509	C
35	DA	1509(A)	A
35	DA	1512	U
35	DA	1517	G
35	DA	1519	G
35	DA	1520	G
35	DA	1527	G
35	DA	1528	A
35	DA	1528(A)	A
35	DA	1529	G
35	DA	1530	C
35	DA	1531	C
35	DA	1532	C
35	DA	1533	G
35	DA	1543	C
35	DA	1545	A
35	DA	1546	C
35	DA	1548	C
35	DA	1549	C
35	DA	1558	A
35	DA	1559	G

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Mol	Chain	Res	Type
35	DA	1561	G
35	DA	1562	A
35	DA	1566	A
35	DA	1569	A
35	DA	1578	U
35	DA	1579	A
35	DA	1582	C
35	DA	1584	C
35	DA	1586	A
35	DA	1591	G
35	DA	1597	A
35	DA	1598	C
35	DA	1605	C
35	DA	1606	G
35	DA	1607	C
35	DA	1608	A
35	DA	1609	A
35	DA	1617	C
35	DA	1618	A
35	DA	1625	C
35	DA	1631(A)	A
35	DA	1634	A
35	DA	1638	C
35	DA	1640	C
35	DA	1648	C
35	DA	1649	G
35	DA	1654	A
35	DA	1674	G
35	DA	1675	C
35	DA	1678	G
35	DA	1679	U
35	DA	1688	U
35	DA	1696	G
35	DA	1700	A
35	DA	1703	G
35	DA	1705	G
35	DA	1712	C
35	DA	1721	G
35	DA	1722	A
35	DA	1739	U
35	DA	1740	G
35	DA	1741	A

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Mol	Chain	Res	Type
35	DA	1749	A
35	DA	1750	G
35	DA	1753	G
35	DA	1754	C
35	DA	1756	G
35	DA	1757	U
35	DA	1763	G
35	DA	1764	G
35	DA	1773	A
35	DA	1781	C
35	DA	1782	C
35	DA	1791	A
35	DA	1799	G
35	DA	1800	C
35	DA	1801	G
35	DA	1802	A
35	DA	1809	A
35	DA	1811	G
35	DA	1816	G
35	DA	1819	A
35	DA	1829	A
35	DA	1835	G
35	DA	1837	C
35	DA	1838	C
35	DA	1839	G
35	DA	1846	G
35	DA	1847	A
35	DA	1853	A
35	DA	1858	G
35	DA	1865	G
35	DA	1877	A
35	DA	1878	G
35	DA	1881	C
35	DA	1883	G
35	DA	1885	A
35	DA	1886	C
35	DA	1888	G
35	DA	1896	G
35	DA	1899	G
35	DA	1900	A
35	DA	1903	G
35	DA	1906	G

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Mol	Chain	Res	Type
35	DA	1908	C
35	DA	1913	A
35	DA	1914	C
35	DA	1916	A
35	DA	1922	G
35	DA	1929	G
35	DA	1930	G
35	DA	1931	U
35	DA	1936	A
35	DA	1937	A
35	DA	1938	A
35	DA	1947	C
35	DA	1948	G
35	DA	1955	U
35	DA	1960	A
35	DA	1963	U
35	DA	1967	C
35	DA	1970	A
35	DA	1971	A
35	DA	1972	A
35	DA	1976	U
35	DA	1977	A
35	DA	1982	C
35	DA	1984	G
35	DA	1985	G
35	DA	1988	C
35	DA	1991	U
35	DA	1993	U
35	DA	1997	G
35	DA	2019	A
35	DA	2020	A
35	DA	2023	G
35	DA	2027	G
35	DA	2031	A
35	DA	2032	G
35	DA	2033	A
35	DA	2043	C
35	DA	2049	G
35	DA	2052	G
35	DA	2055	C
35	DA	2056	G
35	DA	2059	A

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Mol	Chain	Res	Type
35	DA	2060	A
35	DA	2061	G
35	DA	2062	A
35	DA	2063	C
35	DA	2069	G
35	DA	2070	G
35	DA	2072	G
35	DA	2081	C
35	DA	2093	G
35	DA	2096	U
35	DA	2099	U
35	DA	2102	U
35	DA	2103	C
35	DA	2104	G
35	DA	2105	C
35	DA	2107	C
35	DA	2110	G
35	DA	2111	C
35	DA	2112	G
35	DA	2113	U
35	DA	2114	A
35	DA	2115	G
35	DA	2116	G
35	DA	2117	A
35	DA	2118	U
35	DA	2119	A
35	DA	2120	G
35	DA	2121	G
35	DA	2122	U
35	DA	2126	A
35	DA	2127	G
35	DA	2128	C
35	DA	2130	U
35	DA	2159	G
35	DA	2160	G
35	DA	2161	C
35	DA	2162	G
35	DA	2163	C
35	DA	2164	C
35	DA	2167	U
35	DA	2168	G
35	DA	2169	A

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Mol	Chain	Res	Type
35	DA	2170	A
35	DA	2171	A
35	DA	2172	U
35	DA	2177	C
35	DA	2179	C
35	DA	2185	C
35	DA	2186	G
35	DA	2190	G
35	DA	2192	G
35	DA	2197	U
35	DA	2198	A
35	DA	2199	A
35	DA	2203	U
35	DA	2206	G
35	DA	2207	G
35	DA	2208	A
35	DA	2218	U
35	DA	2219	G
35	DA	2223	G
35	DA	2225	A
35	DA	2226	C
35	DA	2234	G
35	DA	2238	G
35	DA	2239	G
35	DA	2243	U
35	DA	2251	G
35	DA	2253	G
35	DA	2254	C
35	DA	2263	C
35	DA	2267	A
35	DA	2275	C
35	DA	2278	A
35	DA	2283	C
35	DA	2286	A
35	DA	2287	A
35	DA	2289	G
35	DA	2296	U
35	DA	2297	C
35	DA	2305	A
35	DA	2306	C
35	DA	2307	G
35	DA	2308	G

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Mol	Chain	Res	Type
35	DA	2309	A
35	DA	2310	A
35	DA	2311	A
35	DA	2313	C
35	DA	2315	G
35	DA	2316	C
35	DA	2320	A
35	DA	2321	G
35	DA	2325	G
35	DA	2327	A
35	DA	2332	U
35	DA	2334	G
35	DA	2336	A
35	DA	2340	G
35	DA	2343	C
35	DA	2346	A
35	DA	2347	C
35	DA	2349	G
35	DA	2350	C
35	DA	2361	A
35	DA	2379	G
35	DA	2381	C
35	DA	2383	G
35	DA	2385	C
35	DA	2388	A
35	DA	2394	C
35	DA	2396	G
35	DA	2402	C
35	DA	2403	C
35	DA	2405	G
35	DA	2406	U
35	DA	2410	G
35	DA	2411	A
35	DA	2423	U
35	DA	2424	C
35	DA	2425	A
35	DA	2427	C
35	DA	2429	G
35	DA	2430	A
35	DA	2431	U
35	DA	2435	A
35	DA	2439	A

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Mol	Chain	Res	Type
35	DA	2440	C
35	DA	2441	C
35	DA	2447	G
35	DA	2448	A
35	DA	2449	U
35	DA	2459	A
35	DA	2465	C
35	DA	2469	A
35	DA	2470	G
35	DA	2474	C
35	DA	2475	C
35	DA	2476	A
35	DA	2477	C
35	DA	2478	A
35	DA	2480	C
35	DA	2482	G
35	DA	2483	C
35	DA	2490	G
35	DA	2491	U
35	DA	2502	G
35	DA	2504	U
35	DA	2505	G
35	DA	2506	U
35	DA	2518	A
35	DA	2520	C
35	DA	2524	G
35	DA	2525	G
35	DA	2529	G
35	DA	2535	G
35	DA	2542	A
35	DA	2543	G
35	DA	2545	G
35	DA	2546	U
35	DA	2550	G
35	DA	2553	G
35	DA	2554	U
35	DA	2555	U
35	DA	2559	C
35	DA	2560	C
35	DA	2566	A
35	DA	2567	G
35	DA	2569	G

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Mol	Chain	Res	Type
35	DA	2570	G
35	DA	2573	C
35	DA	2575	C
35	DA	2578	G
35	DA	2585	U
35	DA	2602	A
35	DA	2608	G
35	DA	2609	U
35	DA	2610	C
35	DA	2611	U
35	DA	2612	C
35	DA	2615	U
35	DA	2619	C
35	DA	2632	A
35	DA	2636	U
35	DA	2637	U
35	DA	2641	G
35	DA	2654	A
35	DA	2655	G
35	DA	2656	U
35	DA	2657	A
35	DA	2660	A
35	DA	2661	G
35	DA	2662	A
35	DA	2663	G
35	DA	2664	G
35	DA	2670	A
35	DA	2673	G
35	DA	2689	U
35	DA	2694	G
35	DA	2700	C
35	DA	2702	U
35	DA	2703	C
35	DA	2704	C
35	DA	2707	G
35	DA	2712(A)	A
35	DA	2713	A
35	DA	2714	G
35	DA	2718	G
35	DA	2723	C
35	DA	2726	U
35	DA	2733	A

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Mol	Chain	Res	Type
35	DA	2734	A
35	DA	2757	A
35	DA	2762	G
35	DA	2764	A
35	DA	2765	A
35	DA	2766	G
35	DA	2769	C
35	DA	2770	G
35	DA	2778	A
35	DA	2779	U
35	DA	2780	G
35	DA	2781	A
35	DA	2782	G
35	DA	2785	C
35	DA	2789	C
35	DA	2790	A
35	DA	2791	C
35	DA	2792	G
35	DA	2794	C
35	DA	2795	G
35	DA	2796	U
35	DA	2801	A
35	DA	2801(A)	A
35	DA	2802	G
35	DA	2803	C
35	DA	2804	C
35	DA	2807	G
35	DA	2808	U
35	DA	2820	A
35	DA	2821	A
35	DA	2830	G
35	DA	2832	U
35	DA	2833	G
35	DA	2834	G
35	DA	2835	A
35	DA	2849	U
35	DA	2850	A
35	DA	2858	C
35	DA	2859	G
35	DA	2860	A
35	DA	2861	G
35	DA	2864	G

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Mol	Chain	Res	Type
35	DA	2865	U
35	DA	2866	U
35	DA	2872	G
35	DA	2873	A
35	DA	2874	C
35	DA	2876	G
35	DA	2877	G
35	DA	2879	C
35	DA	2880	C
35	DA	2892	A
35	DA	2894	G
35	DA	2895	U
35	DA	2896	C
35	DA	2897	U
36	DB	8	U
36	DB	9	G
36	DB	12	C
36	DB	13	A
36	DB	16	G
36	DB	19	G
36	DB	21	G
36	DB	24	G
36	DB	25	A
36	DB	27	C
36	DB	29	A
36	DB	33	G
36	DB	34	U
36	DB	42	C
36	DB	44	G
36	DB	45	A
36	DB	47	C
36	DB	53	A
36	DB	56	G
36	DB	58	A
36	DB	59	A
36	DB	63	G
36	DB	65	C
36	DB	66	A
36	DB	67	G
36	DB	73	A
36	DB	81	G
36	DB	82	G

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Mol	Chain	Res	Type
36	DB	85	G
36	DB	87	G
36	DB	88	C
36	DB	89	G
36	DB	90	A
36	DB	91	C
36	DB	92	C
36	DB	102	A
36	DB	110	G

All (293) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	56	U
1	AA	60	A
1	AA	70	G
1	AA	73	G
1	AA	79	G
1	AA	108	G
1	AA	115	G
1	AA	119	A
1	AA	143	A
1	AA	146	G
1	AA	165	C
1	AA	173	U
1	AA	189(H)	G
1	AA	203	U
1	AA	243	A
1	AA	250	A
1	AA	266	G
1	AA	279	A
1	AA	327	A
1	AA	328	C
1	AA	353	A
1	AA	410	G
1	AA	419	C
1	AA	420	U
1	AA	429	U
1	AA	452	A
1	AA	456	C
1	AA	509	A
1	AA	566	G

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Mol	Chain	Res	Type
1	AA	702	A
1	AA	748	C
1	AA	870	U
1	AA	913	A
1	AA	926	G
1	AA	983	A
1	AA	997	U
1	AA	1006	C
1	AA	1022	G
1	AA	1030(E)	A
1	AA	1049	U
1	AA	1054	C
1	AA	1065	U
1	AA	1067	A
1	AA	1125	U
1	AA	1129	C
1	AA	1136	U
1	AA	1139	G
1	AA	1141	C
1	AA	1143	G
1	AA	1154	G
1	AA	1166	G
1	AA	1168	A
1	AA	1173	G
1	AA	1180	A
1	AA	1201	A
1	AA	1240	U
1	AA	1257	U
1	AA	1277	C
1	AA	1281	U
1	AA	1298	C
1	AA	1300	G
1	AA	1302	U
1	AA	1346	A
1	AA	1442(B)	A
1	AA	1452	C
1	AA	1504	G
1	AA	1505	G
22	AV	20	G
23	AW	7	A
23	AW	8	U
23	AW	9	A

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Mol	Chain	Res	Type
23	AW	15	G
23	AW	45	U
23	AW	54	U
23	AW	66	U
23	AW	71	G
24	AX	13	A
35	BA	27	G
35	BA	34	C
35	BA	50	U
35	BA	71	A
35	BA	72	U
35	BA	81	G
35	BA	90	U
35	BA	103	A
35	BA	105	C
35	BA	128	C
35	BA	171	G
35	BA	271(H)	G
35	BA	271(J)	C
35	BA	271(N)	U
35	BA	272	G
35	BA	272(B)	G
35	BA	272(G)	C
35	BA	272(H)	C
35	BA	274	G
35	BA	387	U
35	BA	405	U
35	BA	508	G
35	BA	512	G
35	BA	587	C
35	BA	651	G
35	BA	684	G
35	BA	685	A
35	BA	752	A
35	BA	827	U
35	BA	856	C
35	BA	882	G
35	BA	883	G
35	BA	897	C
35	BA	899	A
35	BA	945	A
35	BA	958	U

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Mol	Chain	Res	Type
35	BA	1026	U
35	BA	1047	G
35	BA	1055	G
35	BA	1060	U
35	BA	1065	U
35	BA	1078	U
35	BA	1102	C
35	BA	1210	A
35	BA	1252	G
35	BA	1321	A
35	BA	1378	A
35	BA	1379	A
35	BA	1418	G
35	BA	1420	U
35	BA	1427	A
35	BA	1489	U
35	BA	1494	A
35	BA	1495	A
35	BA	1496	A
35	BA	1545	A
35	BA	1546	C
35	BA	1566	A
35	BA	1583	A
35	BA	1615	C
35	BA	1660	C
35	BA	1698	A
35	BA	1763	G
35	BA	1783	A
35	BA	1799	G
35	BA	1801	G
35	BA	1819	A
35	BA	1847	A
35	BA	1912	A
35	BA	1992	G
35	BA	2114	A
35	BA	2126	A
35	BA	2225	A
35	BA	2277	G
35	BA	2286	A
35	BA	2344	U
35	BA	2405	G
35	BA	2406	U

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Mol	Chain	Res	Type
35	BA	2422	A
35	BA	2542	A
35	BA	2610	C
35	BA	2611	U
35	BA	2629	A
35	BA	2660	A
35	BA	2689	U
35	BA	2712(A)	A
35	BA	2756	U
35	BA	2808	U
35	BA	2818	G
35	BA	2849	U
35	BA	2859	G
36	BB	66	A
36	BB	109	C
1	CA	6	G
1	CA	108	G
1	CA	115	G
1	CA	201	C
1	CA	250	A
1	CA	266	G
1	CA	274	A
1	CA	327	A
1	CA	328	C
1	CA	353	A
1	CA	366	C
1	CA	389	A
1	CA	410	G
1	CA	429	U
1	CA	484	G
1	CA	509	A
1	CA	575	G
1	CA	687	A
1	CA	748	C
1	CA	793	U
1	CA	828	A
1	CA	992	U
1	CA	1049	U
1	CA	1054	C
1	CA	1064	G
1	CA	1065	U
1	CA	1067	A

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Mol	Chain	Res	Type
1	CA	1141	C
1	CA	1145	C
1	CA	1183	A
1	CA	1201	A
1	CA	1300	G
1	CA	1319	A
1	CA	1363(A)	A
1	CA	1447	A
1	CA	1493	A
1	CA	1498	U
1	CA	1504	G
1	CA	1505	G
23	CW	31	A
23	CW	50	U
23	CW	51	U
23	CW	66	U
24	CX	18	G
35	DA	34	C
35	DA	71	A
35	DA	90	U
35	DA	100	G
35	DA	128	C
35	DA	140	G
35	DA	171	G
35	DA	221	A
35	DA	272	G
35	DA	272(B)	G
35	DA	283	A
35	DA	288	C
35	DA	363(E)	U
35	DA	363(F)	A
35	DA	481	G
35	DA	494	G
35	DA	542	C
35	DA	574	C
35	DA	587	C
35	DA	764	A
35	DA	776	G
35	DA	825	C
35	DA	827	U
35	DA	830	G
35	DA	859	G

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Mol	Chain	Res	Type
35	DA	933	A
35	DA	945	A
35	DA	1045	A
35	DA	1058	G
35	DA	1069	A
35	DA	1105	U
35	DA	1110	G
35	DA	1176	G
35	DA	1210	A
35	DA	1241	A
35	DA	1250	G
35	DA	1275	A
35	DA	1301	A
35	DA	1332	G
35	DA	1379	A
35	DA	1427	A
35	DA	1545	A
35	DA	1558	A
35	DA	1608	A
35	DA	1617	C
35	DA	1653	G
35	DA	1740	G
35	DA	1763	G
35	DA	1781	C
35	DA	1799	G
35	DA	1899	G
35	DA	1905	C
35	DA	1929	G
35	DA	2062	A
35	DA	2126	A
35	DA	2191	G
35	DA	2218	U
35	DA	2225	A
35	DA	2308	G
35	DA	2309	A
35	DA	2310	A
35	DA	2406	U
35	DA	2422	A
35	DA	2439	A
35	DA	2477	C
35	DA	2481	G
35	DA	2490	G

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Mol	Chain	Res	Type
35	DA	2542	A
35	DA	2610	C
35	DA	2655	G
35	DA	2662	A
35	DA	2779	U
35	DA	2859	G
35	DA	2873	A
36	DB	44	G
36	DB	52	A
36	DB	66	A
36	DB	81	G
36	DB	90	A

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 1384 ligands modelled in this entry, 1382 are monoatomic - leaving 2 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
60	EDS	CA	1787	-	38,43,43	1.80	6 (15%)	38,61,61	1.96	14 (36%)
60	EDS	AA	1805	-	38,43,43	1.75	9 (23%)	38,61,61	1.54	7 (18%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns.

'-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
60	EDS	CA	1787	-	-	4/23/79/79	0/3/3/3
60	EDS	AA	1805	-	-	4/23/79/79	0/3/3/3

All (15) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
60	AA	1805	EDS	CBE-NAK	5.54	1.46	1.34
60	CA	1787	EDS	OAC-CBA	5.00	1.50	1.43
60	CA	1787	EDS	CBE-NAK	4.87	1.44	1.34
60	AA	1805	EDS	OAJ-CBO	-4.21	1.20	1.42
60	CA	1787	EDS	OAF-CAZ	-4.13	1.37	1.44
60	CA	1787	EDS	OAJ-CBO	-4.09	1.21	1.42
60	AA	1805	EDS	OAC-CBA	3.48	1.48	1.43
60	AA	1805	EDS	OAF-CAZ	-3.27	1.39	1.44
60	AA	1805	EDS	CBC-CAZ	2.81	1.57	1.52
60	AA	1805	EDS	CAQ-CAR	2.64	1.56	1.52
60	CA	1787	EDS	OAH-CBE	-2.38	1.18	1.23
60	CA	1787	EDS	OAC-CAW	2.22	1.46	1.41
60	AA	1805	EDS	OAC-CAW	2.15	1.46	1.41
60	AA	1805	EDS	CAY-CAX	-2.11	1.49	1.53
60	AA	1805	EDS	OAH-CBE	-2.01	1.19	1.23

All (21) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
60	AA	1805	EDS	CAT-CAS-CAQ	4.66	118.62	108.96
60	CA	1787	EDS	CBL-NAO-CBN	-3.68	107.50	113.33
60	CA	1787	EDS	CAV-CAR-NAK	-3.58	105.32	110.86
60	CA	1787	EDS	CBA-OAC-CAW	3.58	117.29	111.53
60	CA	1787	EDS	OAJ-CBO-CBN	3.55	124.58	111.59
60	CA	1787	EDS	CAT-CAS-CAQ	3.37	115.94	108.96
60	CA	1787	EDS	OAH-CBE-NAK	-3.19	117.01	122.93
60	AA	1805	EDS	CAV-CAR-NAK	-3.08	106.09	110.86
60	CA	1787	EDS	CBH-NAM-CAX	-2.98	110.04	114.38
60	CA	1787	EDS	CAR-NAK-CBE	-2.85	118.03	123.07
60	AA	1805	EDS	CAW-CAY-CAX	2.82	114.00	109.34
60	CA	1787	EDS	CAS-CAQ-CAR	-2.79	106.32	111.18
60	CA	1787	EDS	CBF-CBJ-CBI	-2.67	112.29	121.22
60	AA	1805	EDS	CBF-CBJ-CBI	-2.61	112.47	121.22
60	AA	1805	EDS	OAJ-CBO-CBN	2.48	120.65	111.59
60	AA	1805	EDS	CBB-OAB-CAT	-2.39	112.06	117.96

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
60	CA	1787	EDS	CAV-CAR-CAQ	2.34	113.83	109.47
60	CA	1787	EDS	CAQ-CAR-NAK	2.30	114.84	110.58
60	AA	1805	EDS	CAQ-CAR-NAK	2.28	114.80	110.58
60	CA	1787	EDS	CBB-OAB-CAT	-2.08	112.82	117.96
60	CA	1787	EDS	CAW-CAY-CAX	2.05	112.73	109.34

There are no chirality outliers.

All (8) torsion outliers are listed below:

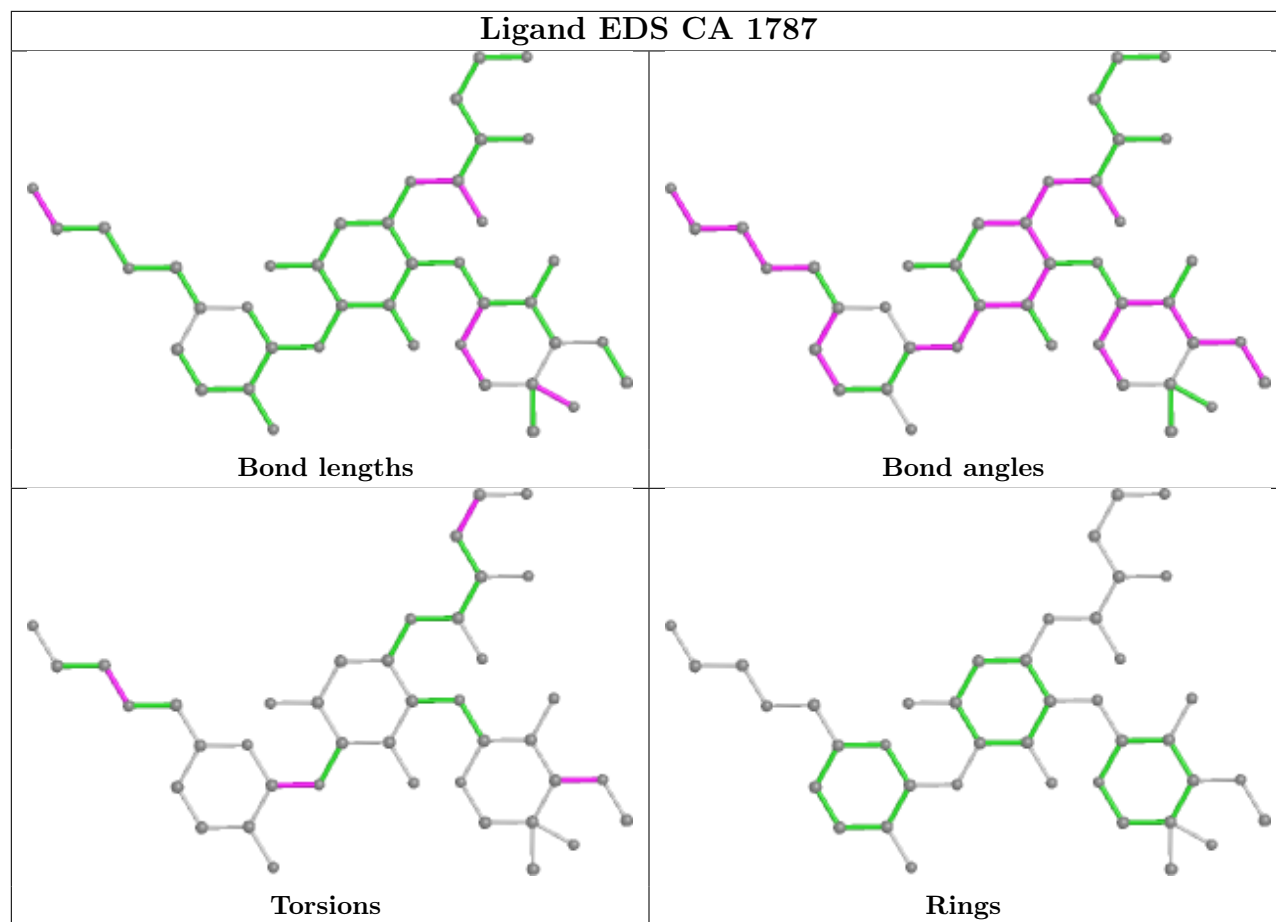
Mol	Chain	Res	Type	Atoms
60	CA	1787	EDS	CAY-CAX-NAM-CBH
60	AA	1805	EDS	CBO-CBN-NAO-CBL
60	CA	1787	EDS	OAG-CBB-OAB-CAT
60	AA	1805	EDS	CBI-CBL-NAO-CBN
60	AA	1805	EDS	CBG-CBK-CBM-NAP
60	CA	1787	EDS	CBG-CBK-CBM-NAP
60	CA	1787	EDS	CBO-CBN-NAO-CBL
60	AA	1805	EDS	CAY-CAX-NAM-CBH

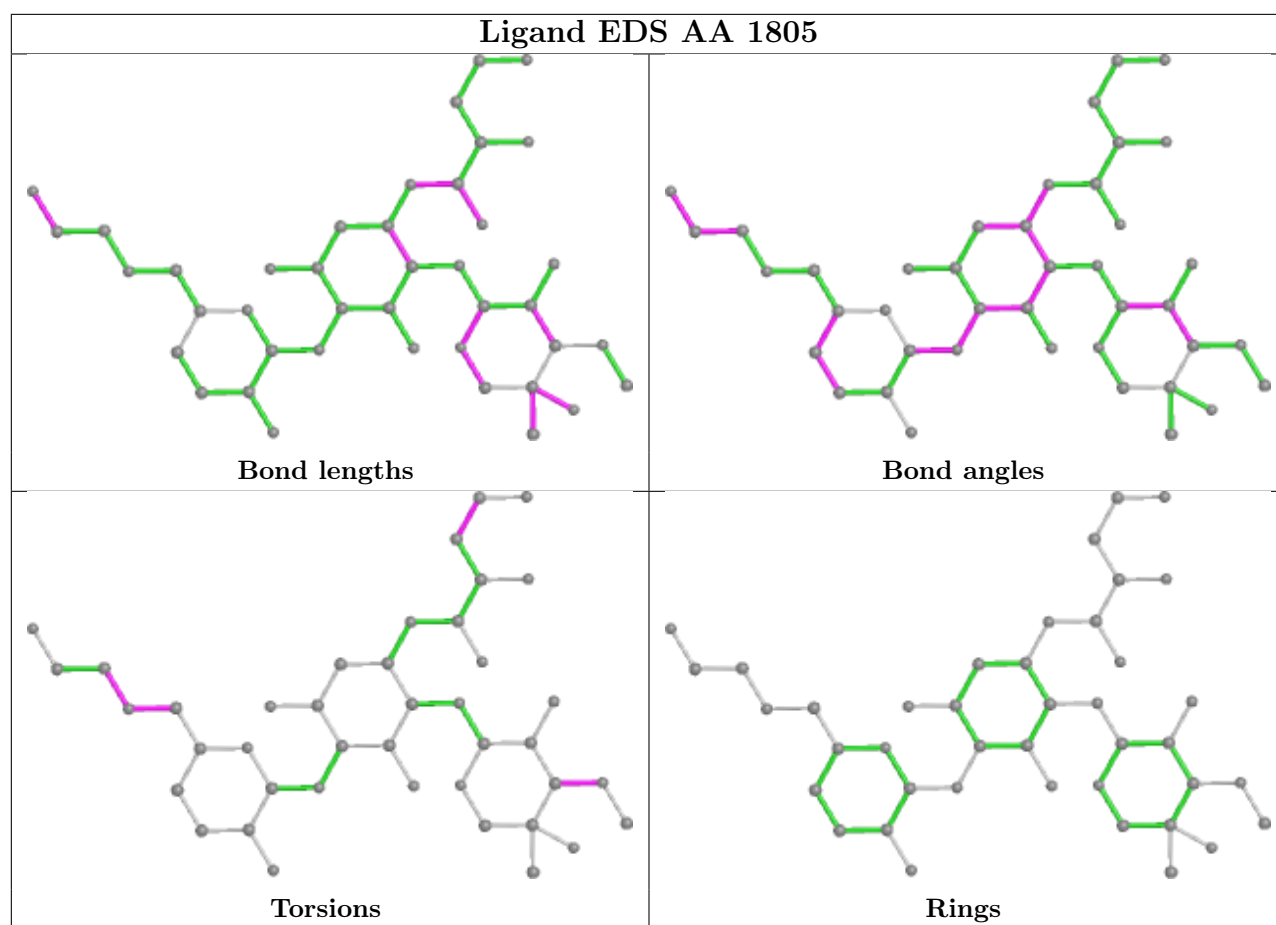
There are no ring outliers.

2 monomers are involved in 3 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
60	CA	1787	EDS	1	0
60	AA	1805	EDS	2	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.





5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	AA	1504/1520 (98%)	-0.39	25 (1%) 70 67	45, 87, 160, 209	0
1	CA	1504/1520 (98%)	-0.40	13 (0%) 84 84	41, 84, 187, 269	0
2	AB	218/256 (85%)	1.43	67 (30%) 0 0	101, 144, 193, 209	0
2	CB	234/256 (91%)	-0.17	5 (2%) 63 61	92, 134, 190, 208	0
3	AC	206/239 (86%)	2.09	97 (47%) 0 0	89, 116, 150, 163	0
3	CC	207/239 (86%)	1.55	72 (34%) 0 0	77, 109, 151, 174	0
4	AD	208/209 (99%)	0.04	3 (1%) 75 74	65, 80, 100, 111	0
4	CD	208/209 (99%)	0.34	18 (8%) 10 10	73, 93, 118, 130	0
5	AE	150/162 (92%)	0.88	31 (20%) 1 1	70, 91, 117, 132	0
5	CE	151/162 (93%)	-0.13	2 (1%) 77 76	63, 83, 110, 144	0
6	AF	101/101 (100%)	-0.52	0 100 100	69, 87, 102, 133	0
6	CF	101/101 (100%)	0.49	11 (10%) 5 5	68, 89, 110, 129	0
7	AG	155/156 (99%)	1.04	31 (20%) 1 1	90, 114, 148, 163	0
7	CG	155/156 (99%)	1.35	21 (13%) 3 3	90, 109, 144, 150	0
8	AH	138/138 (100%)	-0.15	2 (1%) 75 74	69, 95, 112, 129	0
8	CH	138/138 (100%)	-0.25	0 100 100	70, 87, 103, 110	0
9	AI	121/128 (94%)	0.05	5 (4%) 37 35	90, 141, 171, 181	0
9	CI	127/128 (99%)	0.29	11 (8%) 10 10	77, 134, 175, 186	0
10	AJ	98/105 (93%)	0.49	9 (9%) 9 9	87, 150, 182, 186	0
10	CJ	98/105 (93%)	2.33	49 (50%) 0 0	75, 151, 194, 200	0
11	AK	119/129 (92%)	0.24	5 (4%) 36 34	72, 89, 120, 186	0
11	CK	119/129 (92%)	1.85	48 (40%) 0 0	54, 90, 135, 188	0
12	AL	122/132 (92%)	1.02	24 (19%) 1 1	56, 70, 94, 129	0
12	CL	124/132 (93%)	0.45	5 (4%) 38 36	49, 64, 106, 170	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	AM	116/126 (92%)	0.38	12 (10%) 6 6	84, 121, 142, 155	0
13	CM	119/126 (94%)	0.26	14 (11%) 4 4	68, 110, 127, 143	0
14	AN	60/61 (98%)	1.17	16 (26%) 0 0	92, 111, 123, 129	0
14	CN	60/61 (98%)	1.30	16 (26%) 0 0	75, 96, 112, 123	0
15	AO	88/89 (98%)	-0.40	0 100 100	68, 89, 116, 119	0
15	CO	88/89 (98%)	-0.30	3 (3%) 45 43	64, 86, 110, 123	0
16	AP	83/88 (94%)	-0.71	0 100 100	65, 77, 100, 140	0
16	CP	83/88 (94%)	0.31	5 (6%) 21 21	75, 88, 119, 176	0
17	AQ	99/105 (94%)	0.84	11 (11%) 5 5	65, 81, 105, 117	0
17	CQ	99/105 (94%)	1.65	40 (40%) 0 0	76, 88, 106, 117	0
18	AR	70/88 (79%)	-0.28	1 (1%) 75 74	70, 90, 121, 132	0
18	CR	70/88 (79%)	1.24	17 (24%) 0 0	67, 86, 131, 149	0
19	AS	78/93 (83%)	1.25	19 (24%) 0 0	106, 141, 172, 180	0
19	CS	78/93 (83%)	0.65	10 (12%) 3 3	85, 113, 165, 167	0
20	AT	99/106 (93%)	0.36	6 (6%) 21 20	71, 89, 135, 151	0
20	CT	99/106 (93%)	0.98	15 (15%) 2 2	78, 104, 140, 145	0
21	AU	24/27 (88%)	-0.24	0 100 100	90, 114, 134, 139	0
21	CU	25/27 (92%)	-0.30	1 (4%) 38 36	86, 96, 126, 130	0
22	AV	76/77 (98%)	-0.24	0 100 100	56, 97, 125, 154	0
22	CV	77/77 (100%)	-0.17	2 (2%) 56 52	43, 88, 118, 155	0
23	AW	76/76 (100%)	0.46	3 (3%) 39 37	51, 193, 217, 221	0
23	AY	19/76 (25%)	-0.17	0 100 100	75, 101, 161, 166	0
23	CW	76/76 (100%)	0.82	12 (15%) 2 2	48, 194, 225, 230	0
23	CY	21/76 (27%)	-0.12	0 100 100	63, 99, 162, 202	0
24	AX	12/24 (50%)	-0.20	0 100 100	64, 74, 143, 145	0
24	CX	12/24 (50%)	0.01	0 100 100	53, 60, 121, 127	0
25	B0	76/85 (89%)	0.65	7 (9%) 9 9	49, 69, 93, 149	0
25	D0	82/85 (96%)	0.46	7 (8%) 10 11	42, 57, 88, 102	0
26	B1	88/98 (89%)	1.18	19 (21%) 0 1	46, 65, 124, 140	0
26	D1	88/98 (89%)	1.35	20 (22%) 0 1	38, 60, 110, 120	0
27	B2	50/72 (69%)	0.38	6 (12%) 4 4	92, 120, 151, 164	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
27	D2	53/72 (73%)	0.12	1 (1%) 66 64	54, 69, 107, 120	0
28	B3	58/60 (96%)	1.09	12 (20%) 1 1	60, 74, 106, 109	0
28	D3	60/60 (100%)	0.45	6 (10%) 7 7	43, 57, 101, 113	0
29	B4	45/71 (63%)	0.79	8 (17%) 1 1	91, 152, 167, 176	0
29	D4	49/71 (69%)	-0.71	0 100 100	81, 130, 153, 160	0
30	B5	54/60 (90%)	0.82	7 (12%) 3 3	38, 65, 120, 134	0
30	D5	60/60 (100%)	0.50	7 (11%) 4 4	28, 64, 147, 159	0
31	B6	46/54 (85%)	-0.06	2 (4%) 35 33	68, 89, 104, 117	0
31	D6	47/54 (87%)	1.26	7 (14%) 2 2	67, 82, 116, 132	0
32	B7	48/49 (97%)	1.15	9 (18%) 1 1	38, 49, 78, 83	0
32	D7	48/49 (97%)	0.20	2 (4%) 36 34	29, 34, 68, 88	0
33	B8	63/65 (96%)	0.77	8 (12%) 3 3	49, 70, 86, 122	0
33	D8	62/65 (95%)	0.98	7 (11%) 5 5	41, 53, 71, 82	0
34	B9	37/37 (100%)	0.47	3 (8%) 12 11	77, 92, 106, 114	0
34	D9	37/37 (100%)	0.30	3 (8%) 12 11	59, 77, 98, 101	0
35	BA	2824/2839 (99%)	-0.25	23 (0%) 86 86	36, 63, 194, 265	0
35	DA	2824/2839 (99%)	-0.19	47 (1%) 70 67	27, 50, 193, 262	0
36	BB	120/122 (98%)	-0.57	0 100 100	76, 99, 132, 148	0
36	DB	119/122 (97%)	-0.52	0 100 100	53, 78, 113, 159	0
37	BC	190/229 (82%)	1.29	56 (29%) 0 0	161, 211, 232, 239	0
37	DC	190/229 (82%)	1.85	73 (38%) 0 0	166, 210, 231, 235	0
38	BD	273/276 (98%)	0.39	13 (4%) 30 29	34, 55, 77, 89	0
38	DD	275/276 (99%)	0.16	6 (2%) 62 59	28, 47, 73, 112	0
39	BE	204/206 (99%)	0.57	18 (8%) 10 10	41, 68, 120, 139	0
39	DE	204/206 (99%)	0.18	7 (3%) 45 43	27, 55, 101, 125	0
40	BF	206/210 (98%)	0.57	21 (10%) 6 6	34, 76, 149, 186	0
40	DF	208/210 (99%)	0.23	10 (4%) 30 29	29, 56, 138, 190	0
41	BG	178/182 (97%)	0.68	20 (11%) 5 5	84, 108, 143, 182	0
41	DG	181/182 (99%)	0.54	13 (7%) 15 15	67, 91, 134, 186	0
42	BH	159/180 (88%)	1.73	61 (38%) 0 0	117, 156, 198, 206	0
42	DH	165/180 (91%)	0.01	4 (2%) 59 55	57, 80, 107, 168	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
43	BI	145/148 (97%)	0.44	14 (9%) 7 8	61, 99, 133, 152	0
43	DI	144/148 (97%)	0.39	8 (5%) 24 23	55, 140, 180, 195	0
44	BJ	0/173	-	-	-	-
44	DJ	0/173	-	-	-	-
45	BK	0/147	-	-	-	-
45	DK	0/147	-	-	-	-
46	BN	137/140 (97%)	1.12	39 (28%) 0 0	50, 81, 126, 143	0
46	DN	140/140 (100%)	-0.04	6 (4%) 35 33	42, 60, 102, 120	0
47	BO	122/122 (100%)	1.34	37 (30%) 0 0	46, 66, 87, 98	0
47	DO	122/122 (100%)	0.25	4 (3%) 46 44	38, 53, 77, 90	0
48	BP	144/150 (96%)	0.60	11 (7%) 13 13	44, 90, 126, 143	0
48	DP	146/150 (97%)	0.67	11 (7%) 14 13	32, 69, 100, 190	0
49	BQ	135/141 (95%)	1.33	34 (25%) 0 0	54, 85, 119, 154	0
49	DQ	136/141 (96%)	1.94	53 (38%) 0 0	45, 66, 106, 139	0
50	BR	116/118 (98%)	0.61	10 (8%) 10 10	46, 64, 103, 117	0
50	DR	117/118 (99%)	0.03	2 (1%) 70 67	37, 53, 73, 90	0
51	BS	102/112 (91%)	-0.18	3 (2%) 51 50	71, 102, 120, 127	0
51	DS	99/112 (88%)	-0.19	1 (1%) 82 82	62, 82, 104, 107	0
52	BT	132/146 (90%)	0.38	8 (6%) 21 20	54, 77, 131, 169	0
52	DT	137/146 (93%)	1.19	29 (21%) 0 1	48, 68, 157, 221	0
53	BU	117/118 (99%)	0.33	12 (10%) 6 6	44, 72, 113, 127	0
53	DU	117/118 (99%)	-0.07	2 (1%) 70 67	33, 53, 80, 106	0
54	BV	101/101 (100%)	0.38	8 (7%) 12 12	48, 110, 134, 183	0
54	DV	101/101 (100%)	0.51	8 (7%) 12 12	37, 81, 121, 153	0
55	BW	111/113 (98%)	0.53	8 (7%) 15 15	47, 61, 106, 123	0
55	DW	111/113 (98%)	0.30	8 (7%) 15 15	37, 46, 80, 135	0
56	BX	89/96 (92%)	0.65	11 (12%) 4 4	61, 82, 138, 159	0
56	DX	94/96 (97%)	0.22	3 (3%) 47 46	40, 55, 97, 140	0
57	BY	100/110 (90%)	0.95	18 (18%) 1 1	63, 105, 143, 160	0
57	DY	109/110 (99%)	0.26	9 (8%) 11 11	49, 76, 174, 200	0
58	BZ	176/206 (85%)	3.69	92 (52%) 0 0	92, 153, 201, 217	0
58	DZ	176/206 (85%)	5.18	156 (88%) 0 0	68, 128, 208, 216	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
All	All	21060/22694 (92%)	0.29	1875 (8%) 9 10	27, 80, 183, 269	0

All (1875) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
7	CG	84	ASN	29.5
58	DZ	106	GLY	20.4
58	BZ	154	ASP	19.6
7	CG	83	ALA	19.2
7	CG	85	TYR	17.8
58	DZ	104	PHE	17.5
3	AC	159	GLY	17.2
58	BZ	107	THR	17.1
52	DT	136	GLN	15.9
58	BZ	176	PRO	15.3
35	DA	1078	U	15.3
35	DA	1074	G	15.1
58	DZ	149	SER	15.0
58	DZ	105	VAL	14.6
58	BZ	175	VAL	14.5
58	DZ	164	ALA	14.5
58	BZ	111	VAL	14.3
2	AB	130	ARG	14.2
58	BZ	155	LEU	14.1
58	BZ	108	PRO	13.7
35	DA	2794	C	13.7
58	BZ	144	LEU	13.6
58	DZ	150	LEU	13.4
58	BZ	116	VAL	13.3
52	DT	137	LYS	13.3
58	BZ	150	LEU	13.0
7	CG	82	GLY	13.0
35	BA	2796	U	12.9
35	DA	1075	C	12.9
58	DZ	166	SER	12.8
35	DA	2795	G	12.8
35	DA	1076	C	12.5
58	DZ	172	ALA	12.4
58	DZ	170	THR	12.4
54	BV	45	THR	12.3
35	DA	2796	U	12.0
58	BZ	170	THR	12.0

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Mol	Chain	Res	Type	RSRZ
58	BZ	104	PHE	11.7
58	BZ	110	GLY	11.5
52	DT	135	ALA	11.4
58	BZ	149	SER	11.4
58	DZ	120	ILE	11.4
35	DA	1066	U	11.3
58	BZ	117	LEU	11.1
58	BZ	118	GLN	11.1
58	DZ	167	PRO	11.1
58	DZ	99	TYR	11.1
58	BZ	106	GLY	11.0
58	BZ	169	GLU	11.0
37	DC	84	LYS	10.9
58	DZ	171	ILE	10.8
58	DZ	121	HIS	10.8
42	BH	32	GLU	10.7
41	DG	48	GLU	10.6
58	BZ	51	ALA	10.3
58	DZ	174	VAL	10.2
37	DC	159	GLY	10.2
37	DC	92	ASP	10.2
49	DQ	135	ASP	10.1
35	BA	2795	G	10.1
42	BH	18	GLU	10.0
7	CG	86	GLN	10.0
35	DA	1079	C	9.9
58	DZ	123	ASP	9.8
35	DA	1077	A	9.8
58	BZ	115	GLY	9.7
58	BZ	156	LYS	9.7
58	DZ	163	LEU	9.7
2	AB	131	PRO	9.6
58	DZ	175	VAL	9.6
35	DA	1080	C	9.6
58	DZ	134	PRO	9.5
37	DC	85	GLU	9.4
58	DZ	97	GLU	9.3
35	DA	1064	C	9.2
57	BY	61	ILE	9.2
58	BZ	153	SER	9.1
35	BA	2794	C	9.0
37	DC	83	ILE	9.0

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Mol	Chain	Res	Type	RSRZ
58	DZ	122	ARG	8.8
58	DZ	165	VAL	8.8
49	DQ	24	GLY	8.8
35	BA	2793	G	8.7
58	DZ	126	VAL	8.7
58	DZ	107	THR	8.6
49	DQ	23	GLY	8.6
58	DZ	136	PHE	8.6
29	B4	39	CYS	8.5
7	AG	156	TRP	8.5
58	DZ	168	GLU	8.5
58	DZ	173	ALA	8.5
58	DZ	6	LYS	8.4
35	BA	2803	C	8.3
7	AG	84	ASN	8.3
54	DV	45	THR	8.3
58	DZ	113	ALA	8.3
2	AB	124	SER	8.3
1	AA	1030(C)	C	8.2
58	DZ	169	GLU	8.2
58	BZ	174	VAL	8.1
58	DZ	98	MET	8.0
20	CT	56	MET	8.0
1	AA	1452	C	7.9
7	CG	81	GLY	7.9
58	BZ	173	ALA	7.9
58	DZ	125	LEU	7.9
37	DC	88	GLU	7.9
3	AC	160	ALA	7.9
37	DC	80	GLY	7.8
50	BR	32	GLY	7.8
35	DA	1067	A	7.8
31	D6	30	THR	7.7
58	DZ	151	HIS	7.7
35	DA	2793	G	7.7
42	BH	44	VAL	7.7
58	DZ	8	TYR	7.7
50	BR	33	ARG	7.7
11	CK	81	ASP	7.6
10	CJ	10	GLY	7.6
58	DZ	176	PRO	7.6
35	BA	229	A	7.6

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Mol	Chain	Res	Type	RSRZ
31	D6	31	PRO	7.6
58	BZ	177	PRO	7.5
7	CG	77	SER	7.5
25	D0	7	LEU	7.4
58	BZ	105	VAL	7.4
58	DZ	96	VAL	7.4
30	B5	2	ALA	7.4
10	CJ	98	ILE	7.4
41	BG	49	ASP	7.4
58	BZ	119	GLU	7.4
58	DZ	111	VAL	7.3
37	DC	93	TYR	7.3
58	BZ	121	HIS	7.3
39	BE	54	GLN	7.3
1	AA	89	C	7.2
10	CJ	64	GLU	7.2
58	BZ	114	GLY	7.2
7	AG	83	ALA	7.2
58	DZ	131	ARG	7.2
58	BZ	141	VAL	7.2
58	DZ	156	LYS	7.1
41	DG	49	ASP	7.1
11	AK	128	ALA	7.1
49	DQ	136	ALA	7.1
58	BZ	151	HIS	7.1
58	DZ	66	SER	7.1
35	BA	2792	G	7.1
10	CJ	91	PRO	7.1
48	DP	150	ALA	7.1
11	CK	11	LYS	7.0
58	BZ	172	ALA	7.0
37	BC	133	PRO	7.0
58	BZ	50	GLN	7.0
58	DZ	112	ARG	6.9
58	DZ	118	GLN	6.9
1	AA	82	U	6.9
18	CR	88	LYS	6.9
42	BH	34	GLU	6.9
35	DA	1065	U	6.9
49	DQ	21	THR	6.9
49	DQ	88	GLY	6.8
10	CJ	100	THR	6.8

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Mol	Chain	Res	Type	RSRZ
58	BZ	143	GLY	6.8
10	CJ	33	GLN	6.8
52	DT	1	MET	6.7
2	AB	14	GLY	6.7
37	DC	27	ARG	6.6
58	DZ	146	ILE	6.6
42	BH	24	VAL	6.6
30	D5	1	MET	6.6
58	BZ	168	GLU	6.6
38	BD	57	GLY	6.6
12	AL	19	ARG	6.6
10	CJ	94	VAL	6.6
58	DZ	52	SER	6.6
3	CC	101	LEU	6.5
48	BP	58	THR	6.5
37	BC	217	THR	6.5
48	DP	149	GLU	6.5
58	DZ	38	TYR	6.5
57	BY	62	GLU	6.5
11	CK	12	ARG	6.5
58	DZ	157	LEU	6.5
42	BH	33	LEU	6.4
10	CJ	46	ARG	6.4
39	BE	71	GLY	6.4
58	DZ	101	PRO	6.4
35	DA	1088	A	6.4
37	DC	24	GLU	6.4
35	DA	1063	G	6.4
37	DC	87	GLU	6.4
2	AB	152	PHE	6.3
35	DA	1073	A	6.3
58	BZ	120	ILE	6.3
37	BC	135	GLY	6.3
37	DC	155	GLU	6.2
57	BY	5	MET	6.2
58	BZ	148	ASP	6.2
58	DZ	162	GLU	6.2
38	DD	32	SER	6.1
7	CG	156	TRP	6.1
35	DA	1087	G	6.1
13	CM	84	ILE	6.1
14	CN	2	ALA	6.1

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Mol	Chain	Res	Type	RSRZ
42	BH	31	GLY	6.1
46	BN	132	ALA	6.1
30	D5	58	LEU	6.1
58	DZ	177	PRO	6.0
23	AW	45	U	6.0
5	AE	13	ILE	6.0
58	DZ	155	LEU	6.0
1	AA	81	U	6.0
3	AC	64	VAL	5.9
3	AC	147	LYS	5.9
58	BZ	152	ALA	5.9
35	DA	883	G	5.9
58	BZ	145	GLU	5.9
7	CG	78	ARG	5.8
58	DZ	103	ARG	5.8
58	DZ	133	ILE	5.8
58	DZ	159	PRO	5.8
58	DZ	119	GLU	5.8
25	B0	85	ALA	5.7
26	B1	26	ARG	5.7
56	BX	47	PHE	5.7
42	BH	29	PRO	5.7
57	BY	29	GLU	5.7
58	DZ	100	VAL	5.7
35	DA	1174	A	5.7
52	BT	106	SER	5.7
19	AS	60	VAL	5.7
12	AL	64	TYR	5.7
37	BC	152	ILE	5.7
3	AC	197	GLY	5.6
10	CJ	93	GLY	5.6
58	DZ	4	ARG	5.6
54	BV	46	VAL	5.6
52	DT	45	PHE	5.6
58	DZ	53	ILE	5.6
42	BH	25	LYS	5.6
10	CJ	58	ASP	5.6
37	DC	161	ILE	5.5
57	BY	59	GLY	5.5
54	DV	44	LYS	5.5
30	B5	3	LYS	5.5
52	DT	134	GLU	5.5

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Mol	Chain	Res	Type	RSRZ
56	BX	46	ALA	5.5
58	DZ	72	ARG	5.5
17	CQ	36	ILE	5.5
58	BZ	163	LEU	5.5
3	AC	88	ARG	5.5
58	BZ	103	ARG	5.5
7	CG	154	TYR	5.5
26	B1	95	LEU	5.5
1	AA	83	U	5.5
26	D1	26	ARG	5.4
58	DZ	152	ALA	5.4
58	DZ	102	LEU	5.4
58	DZ	7	ALA	5.4
7	CG	80	VAL	5.4
11	AK	129	SER	5.4
10	CJ	65	LEU	5.3
58	DZ	124	ILE	5.3
11	CK	78	GLN	5.3
5	AE	12	LEU	5.3
46	BN	73	THR	5.3
3	CC	166	GLU	5.3
37	DC	77	ILE	5.3
37	DC	19	VAL	5.3
49	DQ	63	LYS	5.3
58	DZ	141	VAL	5.3
28	D3	1	MET	5.3
58	DZ	137	ILE	5.3
2	AB	155	LEU	5.3
49	DQ	32	TYR	5.3
2	AB	133	LYS	5.3
3	AC	63	ASN	5.3
54	BV	43	GLU	5.3
58	DZ	54	HIS	5.3
37	BC	182	PRO	5.2
35	BA	2799	C	5.2
58	BZ	112	ARG	5.2
40	BF	12	LEU	5.2
58	DZ	114	GLY	5.2
58	DZ	135	GLU	5.2
41	DG	88	ILE	5.2
25	D0	8	GLY	5.2
31	D6	17	LYS	5.2

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Mol	Chain	Res	Type	RSRZ
58	DZ	160	GLY	5.2
37	DC	25	ALA	5.2
48	DP	148	LEU	5.1
58	DZ	132	ASN	5.1
37	BC	134	ARG	5.1
49	BQ	62	GLY	5.1
58	DZ	60	GLU	5.1
12	CL	27	LEU	5.1
42	BH	76	VAL	5.1
37	BC	215	THR	5.1
58	DZ	148	ASP	5.1
58	BZ	171	ILE	5.1
35	DA	2804	C	5.1
58	DZ	153	SER	5.0
2	AB	102	LEU	5.0
10	CJ	95	GLU	5.0
25	D0	6	GLY	5.0
39	DE	89	ASP	5.0
1	CA	81	U	5.0
37	BC	19	VAL	5.0
5	AE	31	LEU	5.0
43	DI	81	VAL	5.0
19	AS	45	VAL	5.0
49	DQ	132	VAL	5.0
58	DZ	139	VAL	5.0
22	CV	47	U	5.0
42	BH	39	PRO	5.0
49	BQ	103	MET	4.9
49	BQ	104	PHE	4.9
10	CJ	50	ILE	4.9
25	D0	5	LYS	4.9
7	CG	151	TYR	4.9
58	DZ	3	TYR	4.9
13	CM	7	VAL	4.9
58	DZ	63	ASP	4.9
58	DZ	69	THR	4.9
10	CJ	47	PHE	4.9
2	AB	134	GLU	4.9
58	BZ	97	GLU	4.9
10	AJ	59	SER	4.9
11	CK	37	GLY	4.9
9	CI	128	ARG	4.9

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Mol	Chain	Res	Type	RSRZ
42	BH	37	VAL	4.9
35	DA	1081	U	4.9
47	BO	12	ASP	4.9
4	CD	133	VAL	4.9
14	AN	34	TYR	4.9
49	BQ	60	ARG	4.9
55	BW	62	HIS	4.9
3	CC	56	ASP	4.8
58	BZ	147	GLY	4.8
58	BZ	165	VAL	4.8
3	CC	164	ARG	4.8
49	BQ	66	ILE	4.8
19	CS	56	GLN	4.8
46	BN	8	GLN	4.8
30	D5	2	ALA	4.8
37	DC	89	ALA	4.8
35	DA	2799	C	4.8
41	BG	48	GLU	4.8
58	BZ	157	LEU	4.8
58	DZ	41	LEU	4.8
58	DZ	154	ASP	4.8
58	DZ	161	VAL	4.8
58	DZ	88	PHE	4.8
58	BZ	162	GLU	4.8
19	AS	79	THR	4.8
37	DC	90	GLY	4.8
1	CA	344	A	4.8
49	BQ	63	LYS	4.8
58	DZ	127	LYS	4.8
58	DZ	5	LEU	4.8
2	AB	154	LEU	4.8
58	DZ	58	VAL	4.7
37	BC	88	GLU	4.7
58	DZ	9	TYR	4.7
58	BZ	54	HIS	4.7
3	CC	19	GLU	4.7
58	BZ	99	TYR	4.7
49	DQ	33	GLY	4.7
57	DY	108	THR	4.7
3	CC	66	VAL	4.7
11	CK	13	GLN	4.7
3	AC	60	ALA	4.7

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Mol	Chain	Res	Type	RSRZ
26	D1	30	VAL	4.7
52	DT	2	ASN	4.7
37	DC	86	ALA	4.6
35	DA	1089	G	4.6
4	CD	132	ARG	4.6
3	AC	87	LEU	4.6
58	DZ	28	MET	4.6
26	D1	38	SER	4.6
58	DZ	51	ALA	4.6
42	BH	42	ARG	4.6
35	BA	2897	U	4.6
46	DN	140	VAL	4.6
14	AN	2	ALA	4.6
37	BC	153	ILE	4.5
37	BC	132	GLY	4.5
58	BZ	136	PHE	4.5
2	AB	92	TYR	4.5
3	AC	198	VAL	4.5
3	CC	100	ALA	4.5
11	CK	36	ASP	4.5
11	CK	82	VAL	4.5
49	BQ	90	VAL	4.5
19	CS	80	TYR	4.5
26	D1	50	ARG	4.5
42	BH	35	VAL	4.5
12	AL	55	VAL	4.5
35	BA	2802	G	4.5
37	BC	158	ALA	4.5
58	DZ	57	ILE	4.5
26	D1	95	LEU	4.5
7	AG	76	ARG	4.5
10	CJ	97	GLU	4.5
58	DZ	43	GLU	4.5
2	AB	70	PHE	4.5
49	BQ	65	PHE	4.5
9	CI	121	ARG	4.4
15	CO	89	GLY	4.4
37	BC	89	ALA	4.4
48	BP	148	LEU	4.4
37	BC	151	GLU	4.4
42	BH	45	VAL	4.4
1	AA	1030	C	4.4

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Mol	Chain	Res	Type	RSRZ
18	CR	42	ARG	4.4
13	CM	85	GLY	4.4
58	DZ	95	PRO	4.4
37	DC	209	LEU	4.4
46	DN	74	ARG	4.4
37	DC	109	ASP	4.4
32	B7	46	VAL	4.4
3	AC	196	LEU	4.4
3	AC	79	ARG	4.4
49	BQ	33	GLY	4.4
57	DY	102	CYS	4.4
11	CK	16	SER	4.4
30	B5	51	TYR	4.4
3	CC	15	THR	4.4
18	CR	21	LYS	4.4
40	BF	4	VAL	4.4
2	AB	94	ASN	4.4
6	CF	45	LEU	4.4
58	DZ	48	PHE	4.4
58	BZ	52	SER	4.3
58	DZ	70	LEU	4.3
3	AC	132	ARG	4.3
49	DQ	133	ARG	4.3
1	AA	91	C	4.3
39	DE	18	ASP	4.3
11	CK	107	SER	4.3
52	BT	1	MET	4.3
4	CD	144	ASP	4.3
2	AB	123	ALA	4.3
9	AI	90	PRO	4.3
58	DZ	80	ARG	4.3
26	B1	19	GLN	4.3
58	DZ	144	LEU	4.3
20	CT	9	ASN	4.3
3	CC	99	VAL	4.3
41	BG	39	ILE	4.3
58	BZ	109	ALA	4.3
58	DZ	44	PHE	4.2
10	CJ	60	ARG	4.2
19	AS	81	ARG	4.2
40	BF	133	ASN	4.2
42	BH	27	LYS	4.2

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Mol	Chain	Res	Type	RSRZ
35	BA	1066	U	4.2
30	D5	57	VAL	4.2
47	BO	99	PHE	4.2
11	CK	15	ALA	4.2
58	BZ	113	ALA	4.2
37	BC	95	GLY	4.2
58	DZ	39	VAL	4.2
3	AC	91	LEU	4.2
1	AA	88	A	4.2
58	BZ	142	SER	4.2
42	BH	75	ALA	4.2
52	BT	34	VAL	4.2
49	BQ	89	ASN	4.2
3	CC	22	TRP	4.2
58	DZ	37	VAL	4.2
40	BF	3	GLU	4.2
10	CJ	9	ARG	4.2
19	AS	23	ASN	4.2
35	DA	1090	U	4.1
3	CC	186	PHE	4.1
11	CK	99	GLN	4.1
3	AC	188	LEU	4.1
37	BC	165	ASN	4.1
42	BH	26	VAL	4.1
11	CK	17	GLY	4.1
58	BZ	56	VAL	4.1
3	AC	44	GLU	4.1
58	DZ	46	LYS	4.1
58	DZ	24	LEU	4.1
7	AG	78	ARG	4.1
11	CK	35	PRO	4.1
3	AC	179	ARG	4.1
19	AS	61	TYR	4.1
5	AE	11	ILE	4.1
3	AC	6	HIS	4.1
3	CC	199	LYS	4.1
23	CW	35	A	4.1
2	AB	125	PRO	4.1
40	BF	2	LYS	4.1
3	CC	165	THR	4.1
5	AE	33	VAL	4.1
11	CK	14	VAL	4.1

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Mol	Chain	Res	Type	RSRZ
1	AA	1447	A	4.1
37	BC	156	ILE	4.1
58	DZ	45	ASP	4.1
46	BN	61	ARG	4.1
57	BY	63	LYS	4.1
3	CC	189	ALA	4.1
11	CK	80	VAL	4.1
52	DT	133	GLU	4.1
55	DW	111	HIS	4.1
37	DC	76	ALA	4.0
1	AA	1163	C	4.0
37	DC	182	PRO	4.0
58	DZ	62	PRO	4.0
11	CK	98	LEU	4.0
56	BX	26	TYR	4.0
14	AN	37	PHE	4.0
42	BH	13	LYS	4.0
49	DQ	27	VAL	4.0
42	BH	17	VAL	4.0
3	AC	39	ILE	4.0
7	CG	153	HIS	4.0
58	DZ	82	ARG	4.0
11	CK	101	SER	4.0
49	DQ	105	GLU	4.0
40	BF	207	GLY	4.0
58	BZ	96	VAL	4.0
11	CK	74	ALA	4.0
47	BO	16	ALA	4.0
37	DC	203	GLY	4.0
2	AB	113	HIS	4.0
43	BI	11	ASN	4.0
2	AB	67	THR	4.0
17	CQ	7	THR	4.0
34	D9	1	MET	4.0
17	CQ	35	VAL	4.0
2	AB	118	LEU	4.0
3	AC	101	LEU	4.0
11	CK	50	TYR	3.9
26	D1	29	GLY	3.9
49	DQ	37	LEU	3.9
11	CK	60	ALA	3.9
27	B2	36	ARG	3.9

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Mol	Chain	Res	Type	RSRZ
57	BY	64	GLU	3.9
12	CL	28	LYS	3.9
3	AC	158	GLY	3.9
37	DC	43	VAL	3.9
11	CK	102	GLY	3.9
3	CC	1	MET	3.9
40	BF	86	GLY	3.9
47	BO	11	ALA	3.9
58	BZ	146	ILE	3.9
3	AC	190	ARG	3.9
7	CG	79	ARG	3.9
19	AS	29	ARG	3.9
3	AC	76	VAL	3.9
58	DZ	50	GLN	3.9
2	AB	108	ILE	3.9
46	BN	10	GLU	3.9
37	DC	65	PRO	3.9
49	BQ	37	LEU	3.9
58	DZ	143	GLY	3.9
31	D6	29	ASN	3.9
52	DT	29	ARG	3.9
17	CQ	37	LYS	3.9
2	AB	150	SER	3.8
3	CC	102	ASN	3.8
3	CC	190	ARG	3.8
37	BC	91	ALA	3.8
42	BH	79	VAL	3.8
49	DQ	139	GLU	3.8
14	AN	49	HIS	3.8
39	BE	72	VAL	3.8
2	AB	221	LEU	3.8
7	AG	5	ARG	3.8
58	DZ	15	PRO	3.8
39	BE	78	LEU	3.8
3	CC	63	ASN	3.8
2	AB	208	ILE	3.8
42	BH	19	VAL	3.8
14	AN	51	GLY	3.8
58	DZ	49	ARG	3.8
13	AM	84	ILE	3.8
12	AL	28	LYS	3.8
35	DA	1888	G	3.8

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Mol	Chain	Res	Type	RSRZ
39	DE	76	ARG	3.8
58	BZ	22	GLY	3.8
6	CF	57	GLN	3.8
46	BN	101	HIS	3.8
3	AC	146	ALA	3.8
3	AC	134	ILE	3.8
49	BQ	102	VAL	3.8
49	DQ	35	VAL	3.8
47	BO	17	ARG	3.8
17	CQ	15	MET	3.7
58	DZ	40	ASP	3.7
35	DA	2805	G	3.7
6	CF	60	PHE	3.7
30	B5	54	GLY	3.7
3	CC	167	TRP	3.7
47	BO	58	VAL	3.7
58	DZ	142	SER	3.7
53	DU	91	ASP	3.7
57	DY	107	ASP	3.7
42	BH	30	LYS	3.7
58	BZ	3	TYR	3.7
10	CJ	63	PHE	3.7
2	AB	196	LEU	3.7
56	BX	87	GLN	3.7
3	AC	167	TRP	3.7
42	BH	21	PRO	3.7
58	BZ	140	ASP	3.7
35	DA	158	U	3.7
37	DC	94	VAL	3.7
5	AE	29	GLY	3.7
37	BC	179	SER	3.7
6	CF	47	ARG	3.7
37	BC	181	PRO	3.7
42	BH	137	ASP	3.7
58	DZ	158	PRO	3.7
49	DQ	17	LEU	3.7
12	AL	62	SER	3.7
3	AC	189	ALA	3.7
58	DZ	59	LEU	3.7
14	CN	36	PHE	3.7
49	DQ	41	TRP	3.7
58	DZ	12	GLY	3.7

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Mol	Chain	Res	Type	RSRZ
7	AG	64	GLN	3.7
7	AG	154	TYR	3.7
3	AC	84	ILE	3.7
20	CT	84	LEU	3.7
50	BR	28	LEU	3.7
40	DF	8	GLN	3.7
20	AT	99	LEU	3.7
2	AB	68	ILE	3.7
49	DQ	104	PHE	3.7
37	DC	69	GLY	3.6
3	AC	80	GLY	3.6
58	DZ	55	HIS	3.6
58	DZ	67	LEU	3.6
1	AA	1030(E)	A	3.6
26	B1	93	GLU	3.6
35	DA	2897	U	3.6
10	CJ	6	ILE	3.6
58	DZ	147	GLY	3.6
6	CF	46	ARG	3.6
14	AN	53	LEU	3.6
39	BE	48	GLN	3.6
19	CS	57	HIS	3.6
3	CC	152	ILE	3.6
11	CK	79	SER	3.6
58	BZ	46	LYS	3.6
49	BQ	88	GLY	3.6
10	CJ	61	GLU	3.6
10	CJ	66	ARG	3.6
3	CC	196	LEU	3.6
39	BE	31	CYS	3.6
37	BC	105	ASP	3.6
56	DX	26	TYR	3.6
5	AE	10	MET	3.6
43	BI	20	ASP	3.6
3	AC	59	ARG	3.6
11	CK	19	ALA	3.6
7	AG	155	ARG	3.5
14	AN	36	PHE	3.5
43	BI	67	ARG	3.5
47	BO	97	ARG	3.5
2	CB	15	VAL	3.5
58	BZ	11	GLU	3.5

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Mol	Chain	Res	Type	RSRZ
58	DZ	145	GLU	3.5
37	DC	79	LYS	3.5
14	AN	25	VAL	3.5
26	B1	61	ARG	3.5
38	DD	276	LYS	3.5
50	BR	30	THR	3.5
37	DC	107	TRP	3.5
58	DZ	86	VAL	3.5
55	DW	92	ARG	3.5
42	DH	83	TYR	3.5
42	BH	129	THR	3.5
49	DQ	19	GLY	3.5
53	BU	118	GLY	3.5
3	CC	46	GLU	3.5
7	AG	141	VAL	3.5
12	AL	100	ILE	3.5
29	B4	36	CYS	3.5
49	BQ	32	TYR	3.5
40	BF	13	SER	3.5
58	BZ	124	ILE	3.5
4	CD	140	VAL	3.5
41	BG	50	ALA	3.5
18	CR	87	ARG	3.5
48	BP	91	PHE	3.5
37	DC	102	LYS	3.5
3	AC	99	VAL	3.5
5	AE	32	VAL	3.5
58	DZ	71	VAL	3.5
3	AC	98	ASN	3.5
10	CJ	28	ARG	3.5
17	CQ	4	LYS	3.5
10	CJ	88	LEU	3.5
10	CJ	5	ARG	3.5
14	AN	38	GLY	3.5
37	DC	106	GLY	3.5
11	CK	65	ALA	3.5
3	AC	186	PHE	3.5
20	CT	87	LYS	3.5
13	AM	83	ASP	3.4
3	CC	193	TYR	3.4
42	BH	82	GLY	3.4
17	CQ	16	GLN	3.4

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Mol	Chain	Res	Type	RSRZ
37	DC	71	GLN	3.4
37	DC	178	ALA	3.4
19	AS	63	THR	3.4
34	B9	37	GLY	3.4
41	BG	155	MET	3.4
37	BC	157	LYS	3.4
55	BW	92	ARG	3.4
12	AL	27	LEU	3.4
17	CQ	11	VAL	3.4
3	AC	77	ILE	3.4
52	DT	91	ARG	3.4
3	AC	124	ILE	3.4
3	AC	155	GLY	3.4
2	AB	132	LYS	3.4
13	CM	94	ARG	3.4
48	DP	92	GLU	3.4
3	AC	184	TYR	3.4
58	DZ	128	VAL	3.4
35	BA	6	A	3.4
35	DA	229	A	3.4
18	CR	31	LEU	3.4
30	B5	53	ALA	3.4
49	DQ	28	ALA	3.4
57	BY	55	TYR	3.4
14	CN	49	HIS	3.4
29	B4	31	ILE	3.4
47	BO	82	ASN	3.4
5	AE	55	VAL	3.4
6	CF	48	LEU	3.4
17	AQ	22	LEU	3.4
49	DQ	42	ILE	3.4
35	BA	1174	A	3.4
3	AC	45	LYS	3.4
4	CD	147	ALA	3.4
46	BN	126	PRO	3.4
31	D6	20	ASN	3.4
37	DC	18	LYS	3.4
2	AB	83	MET	3.4
7	AG	2	ALA	3.3
58	DZ	68	PRO	3.3
25	B0	69	PHE	3.3
11	CK	83	ILE	3.3

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Mol	Chain	Res	Type	RSRZ
2	AB	90	MET	3.3
3	CC	188	LEU	3.3
1	CA	89	C	3.3
20	CT	41	ILE	3.3
26	B1	71	TYR	3.3
54	BV	74	LYS	3.3
31	D6	42	TRP	3.3
9	CI	87	GLN	3.3
9	CI	116	LYS	3.3
37	DC	158	ALA	3.3
42	BH	46	GLU	3.3
48	BP	110	TYR	3.3
46	BN	54	VAL	3.3
46	BN	59	LYS	3.3
58	BZ	98	MET	3.3
57	DY	109	GLU	3.3
41	DG	152	LEU	3.3
58	DZ	42	VAL	3.3
9	AI	59	PHE	3.3
10	CJ	75	ILE	3.3
37	BC	85	GLU	3.3
14	CN	50	LYS	3.3
47	BO	56	ASP	3.3
23	CW	47	U	3.3
35	DA	1072	C	3.3
57	DY	59	GLY	3.3
2	AB	162	ILE	3.3
5	CE	18	ARG	3.3
19	CS	78	ARG	3.3
37	DC	162	GLU	3.3
46	DN	1	MET	3.3
49	DQ	128	LYS	3.3
3	AC	83	ARG	3.3
52	DT	36	GLU	3.3
10	AJ	10	GLY	3.3
46	BN	55	VAL	3.3
3	AC	43	LEU	3.2
35	BA	897	C	3.2
3	CC	153	VAL	3.2
6	CF	8	ILE	3.2
58	DZ	93	ASP	3.2
11	CK	62	GLN	3.2

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Mol	Chain	Res	Type	RSRZ
58	DZ	25	PRO	3.2
17	CQ	22	LEU	3.2
41	DG	50	ALA	3.2
27	B2	31	GLU	3.2
48	BP	92	GLU	3.2
58	DZ	138	GLU	3.2
3	AC	92	ALA	3.2
11	CK	68	ALA	3.2
14	CN	29	ARG	3.2
32	B7	47	ARG	3.2
10	CJ	73	ASP	3.2
37	DC	151	GLU	3.2
49	BQ	123	HIS	3.2
3	AC	100	ALA	3.2
35	DA	2107	C	3.2
28	B3	59	VAL	3.2
39	BE	73	GLU	3.2
25	B0	84	LEU	3.2
42	BH	101	ARG	3.2
2	CB	125	PRO	3.2
5	AE	8	GLU	3.2
26	D1	32	LYS	3.2
35	BA	2805	G	3.2
35	DA	508	G	3.2
37	BC	86	ALA	3.2
41	DG	25	TYR	3.2
2	AB	96	ARG	3.2
4	CD	146	ILE	3.2
13	AM	87	TYR	3.2
58	DZ	74	VAL	3.2
32	B7	5	TRP	3.2
10	CJ	59	SER	3.2
13	AM	88	ARG	3.2
29	B4	35	VAL	3.2
5	AE	43	LEU	3.2
37	BC	121	GLY	3.2
17	CQ	73	VAL	3.2
49	DQ	129	THR	3.2
37	BC	74	VAL	3.2
20	CT	51	GLU	3.2
46	BN	136	GLU	3.2
37	DC	96	GLY	3.1

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Mol	Chain	Res	Type	RSRZ
58	DZ	18	LEU	3.1
10	CJ	69	ASN	3.1
56	BX	49	VAL	3.1
13	AM	92	HIS	3.1
58	DZ	23	LYS	3.1
42	BH	136	ILE	3.1
32	B7	48	LYS	3.1
4	CD	134	ASP	3.1
41	DG	82	LEU	3.1
58	DZ	117	LEU	3.1
3	AC	7	PRO	3.1
2	AB	161	ALA	3.1
26	D1	25	LYS	3.1
10	CJ	62	HIS	3.1
40	BF	10	PRO	3.1
30	D5	56	LYS	3.1
3	AC	107	GLN	3.1
3	CC	162	GLN	3.1
9	AI	50	LEU	3.1
40	BF	65	TRP	3.1
58	DZ	11	GLU	3.1
42	BH	51	ARG	3.1
1	CA	841	U	3.1
3	AC	72	LYS	3.1
19	AS	28	LYS	3.1
26	D1	31	GLY	3.1
37	BC	90	GLY	3.1
54	BV	50	PRO	3.1
47	BO	25	LEU	3.1
12	AL	65	GLU	3.1
29	B4	41	PRO	3.1
58	BZ	128	VAL	3.1
10	CJ	48	THR	3.1
37	DC	91	ALA	3.1
58	DZ	36	LYS	3.1
5	AE	45	PHE	3.1
38	BD	220	HIS	3.1
58	BZ	39	VAL	3.1
42	BH	20	ALA	3.1
4	CD	138	TYR	3.1
18	CR	34	TYR	3.1
46	BN	23	LEU	3.1

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Mol	Chain	Res	Type	RSRZ
58	BZ	5	LEU	3.1
3	AC	82	GLU	3.1
3	CC	86	VAL	3.1
49	BQ	38	GLU	3.1
29	B4	40	HIS	3.1
12	AL	68	ALA	3.1
20	CT	99	LEU	3.1
58	BZ	102	LEU	3.1
23	CW	36	A	3.1
47	DO	120	GLU	3.1
2	AB	13	ALA	3.1
3	CC	60	ALA	3.1
17	CQ	51	TYR	3.1
42	BH	155	SER	3.1
2	AB	112	VAL	3.1
5	AE	88	LYS	3.1
3	CC	59	ARG	3.1
33	D8	30	ARG	3.1
52	BT	67	SER	3.0
58	BZ	44	PHE	3.0
3	CC	97	LYS	3.0
17	AQ	11	VAL	3.0
28	B3	47	VAL	3.0
49	BQ	105	GLU	3.0
10	CJ	68	HIS	3.0
1	AA	161	A	3.0
2	AB	156	LYS	3.0
35	DA	897	C	3.0
47	BO	19	ILE	3.0
41	BG	138	GLN	3.0
26	D1	40	ARG	3.0
41	BG	139	LEU	3.0
3	AC	86	VAL	3.0
6	CF	9	VAL	3.0
43	BI	5	LEU	3.0
6	CF	7	ASN	3.0
35	BA	652	C	3.0
17	CQ	27	PHE	3.0
38	BD	2	ALA	3.0
42	BH	149	ARG	3.0
3	AC	42	LEU	3.0
17	CQ	46	ASP	3.0

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Mol	Chain	Res	Type	RSRZ
31	D6	26	ASN	3.0
46	BN	9	VAL	3.0
2	AB	212	GLN	3.0
17	CQ	58	GLU	3.0
5	AE	14	ARG	3.0
57	BY	86	ARG	3.0
3	AC	89	GLU	3.0
33	B8	64	TYR	3.0
37	DC	153	ILE	3.0
10	AJ	100	THR	3.0
26	D1	35	THR	3.0
51	BS	23	ARG	3.0
56	BX	73	ARG	3.0
3	CC	26	LYS	3.0
12	AL	54	LYS	3.0
1	CA	345	C	3.0
3	CC	182	ILE	3.0
35	BA	2804	C	3.0
14	CN	47	LEU	3.0
17	CQ	68	ARG	3.0
39	BE	128	SER	3.0
29	B4	38	LYS	3.0
7	AG	52	GLU	3.0
55	DW	90	ARG	3.0
4	CD	135	LEU	3.0
10	AJ	85	LEU	3.0
9	CI	117	HIS	3.0
17	CQ	18	THR	3.0
49	BQ	21	THR	3.0
52	DT	37	GLY	2.9
58	DZ	110	GLY	2.9
46	BN	60	ILE	2.9
7	CG	112	PRO	2.9
47	BO	9	GLU	2.9
58	BZ	95	PRO	2.9
37	DC	131	LEU	2.9
57	BY	60	PHE	2.9
7	AG	86	GLN	2.9
10	CJ	4	ILE	2.9
37	DC	119	VAL	2.9
57	BY	44	ILE	2.9
10	CJ	90	LEU	2.9

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Mol	Chain	Res	Type	RSRZ
37	DC	105	ASP	2.9
11	CK	73	MET	2.9
11	CK	104	GLN	2.9
14	AN	52	GLN	2.9
23	CW	1	G	2.9
7	AG	87	VAL	2.9
37	DC	156	ILE	2.9
46	BN	14	VAL	2.9
47	BO	98	VAL	2.9
30	B5	55	ARG	2.9
49	DQ	130	LYS	2.9
37	DC	108	MET	2.9
17	AQ	9	VAL	2.9
37	BC	76	ALA	2.9
58	BZ	126	VAL	2.9
47	BO	101	PRO	2.9
35	BA	882	G	2.9
42	BH	81	GLU	2.9
42	BH	28	GLY	2.9
1	CA	1447	A	2.9
37	BC	58	VAL	2.9
47	BO	102	VAL	2.9
3	AC	49	SER	2.9
12	AL	69	TYR	2.9
25	D0	85	ALA	2.9
37	DC	148	ASN	2.9
47	BO	13	ASN	2.9
47	BO	33	ALA	2.9
52	DT	32	TYR	2.9
3	AC	199	LYS	2.9
7	AG	73	MET	2.9
43	BI	1	MET	2.9
14	CN	44	LEU	2.9
3	AC	71	ALA	2.9
3	AC	66	VAL	2.9
3	AC	157	ILE	2.9
12	AL	60	LEU	2.9
52	BT	70	VAL	2.9
35	DA	2188	C	2.9
58	BZ	14	LYS	2.9
3	AC	10	PHE	2.9
7	CG	74	GLU	2.9

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Mol	Chain	Res	Type	RSRZ
27	B2	42	GLY	2.9
39	DE	90	THR	2.9
3	CC	68	VAL	2.9
41	DG	182	LYS	2.9
2	AB	163	PHE	2.9
49	DQ	31	ASP	2.9
52	DT	39	ARG	2.9
58	DZ	35	ARG	2.9
10	CJ	22	LYS	2.9
11	CK	77	MET	2.9
17	AQ	21	VAL	2.9
42	BH	52	VAL	2.9
48	DP	51	PHE	2.9
49	DQ	65	PHE	2.9
56	DX	91	ALA	2.9
2	AB	116	GLU	2.9
37	DC	52	ARG	2.9
49	DQ	111	GLU	2.9
37	BC	18	LYS	2.9
3	AC	18	TRP	2.9
37	DC	78	ALA	2.9
46	DN	18	ALA	2.9
17	CQ	17	LYS	2.9
37	BC	166	ASP	2.9
6	CF	58	GLY	2.9
2	AB	101	MET	2.8
17	CQ	26	GLN	2.8
35	DA	2207	G	2.8
43	BI	35	LEU	2.8
58	DZ	92	SER	2.8
9	AI	53	VAL	2.8
10	CJ	34	VAL	2.8
37	BC	72	VAL	2.8
39	BE	34	VAL	2.8
7	AG	4	ARG	2.8
10	CJ	51	ARG	2.8
49	DQ	68	ILE	2.8
3	CC	122	GLU	2.8
35	BA	2207	G	2.8
58	DZ	13	GLU	2.8
41	BG	152	LEU	2.8
33	B8	7	HIS	2.8

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Mol	Chain	Res	Type	RSRZ
33	B8	48	PHE	2.8
47	BO	39	ILE	2.8
3	AC	187	ALA	2.8
7	CG	76	ARG	2.8
10	CJ	43	ARG	2.8
39	BE	49	LEU	2.8
11	CK	108	ILE	2.8
57	DY	53	PRO	2.8
40	BF	128	ALA	2.8
3	AC	154	SER	2.8
47	BO	18	LYS	2.8
10	CJ	67	THR	2.8
46	BN	98	VAL	2.8
47	BO	52	VAL	2.8
32	D7	1	MET	2.8
23	AW	44	G	2.8
33	B8	2	PRO	2.8
48	BP	27	HIS	2.8
3	AC	94	LEU	2.8
17	CQ	96	GLU	2.8
49	DQ	103	MET	2.8
11	CK	91	ARG	2.8
20	CT	98	PRO	2.8
39	BE	32	PRO	2.8
46	BN	129	PRO	2.8
52	BT	65	LYS	2.8
42	BH	105	LEU	2.8
27	B2	50	ILE	2.8
1	CA	1001(A)	G	2.8
3	AC	40	ARG	2.8
46	BN	68	GLU	2.8
13	AM	51	ALA	2.8
49	BQ	23	GLY	2.8
58	DZ	87	ASP	2.8
3	CC	55	VAL	2.8
3	CC	39	ILE	2.8
14	CN	41	ARG	2.8
55	BW	84	ARG	2.8
3	CC	67	THR	2.8
17	CQ	2	PRO	2.8
41	DG	89	GLY	2.8
2	AB	165	VAL	2.8

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Mol	Chain	Res	Type	RSRZ
3	AC	85	ARG	2.8
3	AC	135	LYS	2.8
5	AE	28	PHE	2.8
12	AL	21	LYS	2.8
18	CR	39	VAL	2.8
37	BC	154	ARG	2.8
42	BH	49	VAL	2.8
42	BH	72	ILE	2.8
43	BI	9	LEU	2.8
3	CC	195	VAL	2.8
17	CQ	25	ARG	2.8
18	AR	88	LYS	2.8
40	BF	137	LYS	2.8
41	BG	80	PHE	2.8
52	BT	68	TYR	2.8
11	CK	42	TRP	2.7
52	DT	92	GLY	2.7
17	AQ	7	THR	2.7
33	B8	6	THR	2.7
26	B1	89	GLU	2.7
37	BC	87	GLU	2.7
47	BO	21	CYS	2.7
39	DE	52	LEU	2.7
2	AB	71	VAL	2.7
17	AQ	56	VAL	2.7
46	DN	75	TYR	2.7
26	D1	89	GLU	2.7
28	D3	60	GLU	2.7
58	BZ	55	HIS	2.7
25	B0	41	ARG	2.7
52	DT	9	LEU	2.7
23	CW	42	C	2.7
3	AC	69	HIS	2.7
26	D1	34	THR	2.7
37	DC	216	THR	2.7
7	AG	82	GLY	2.7
21	CU	2	GLY	2.7
18	CR	41	LYS	2.7
58	BZ	23	LYS	2.7
10	AJ	62	HIS	2.7
38	BD	55	GLY	2.7
12	AL	18	VAL	2.7

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Mol	Chain	Res	Type	RSRZ
42	DH	44	VAL	2.7
47	BO	84	ALA	2.7
49	DQ	107	ALA	2.7
49	DQ	112	GLU	2.7
58	BZ	80	ARG	2.7
3	CC	91	LEU	2.7
2	AB	153	ARG	2.7
3	AC	65	ALA	2.7
3	CC	65	ALA	2.7
41	DG	47	LYS	2.7
57	BY	4	LYS	2.7
3	CC	20	SER	2.7
19	AS	47	HIS	2.7
2	AB	218	ALA	2.7
11	AK	31	THR	2.7
11	CK	61	ALA	2.7
28	B3	29	ARG	2.7
2	AB	80	ILE	2.7
26	D1	58	ILE	2.7
30	D5	59	GLU	2.7
33	D8	6	THR	2.7
42	BH	89	ILE	2.7
49	DQ	34	LEU	2.7
5	AE	15	ARG	2.7
49	DQ	59	ARG	2.7
58	DZ	20	ARG	2.7
12	CL	128	ALA	2.7
14	CN	39	LEU	2.7
7	AG	79	ARG	2.7
11	AK	12	ARG	2.7
11	CK	96	ARG	2.7
17	CQ	14	LYS	2.7
11	CK	30	VAL	2.7
26	D1	51	VAL	2.7
7	AG	120	ILE	2.7
43	BI	4	ILE	2.7
46	BN	13	TRP	2.7
2	AB	139	LYS	2.7
37	BC	136	LEU	2.7
57	DY	58	GLY	2.7
14	CN	48	ALA	2.7
42	BH	85	LYS	2.7

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Mol	Chain	Res	Type	RSRZ
42	BH	103	LEU	2.7
49	DQ	29	PHE	2.7
37	BC	183	GLU	2.7
47	BO	10	VAL	2.7
47	BO	27	GLY	2.7
53	BU	111	GLU	2.7
55	DW	85	VAL	2.7
3	CC	21	ARG	2.6
5	AE	123	LEU	2.6
53	BU	112	ARG	2.6
58	DZ	61	LEU	2.6
9	CI	110	GLU	2.6
13	CM	115	LYS	2.6
12	AL	80	HIS	2.6
1	AA	1030(D)	G	2.6
3	CC	34	LEU	2.6
23	CW	24	G	2.6
40	DF	27	GLU	2.6
53	BU	71	GLN	2.6
4	CD	131	ARG	2.6
58	DZ	19	ARG	2.6
57	BY	6	HIS	2.6
52	BT	2	ASN	2.6
3	AC	15	THR	2.6
3	CC	88	ARG	2.6
46	BN	12	ARG	2.6
26	B1	43	TYR	2.6
2	AB	55	PHE	2.6
14	CN	37	PHE	2.6
7	CG	87	VAL	2.6
19	AS	13	ASP	2.6
28	B3	48	GLU	2.6
37	DC	154	ARG	2.6
49	BQ	19	GLY	2.6
5	AE	16	THR	2.6
17	CQ	74	LEU	2.6
38	BD	50	THR	2.6
2	AB	106	LYS	2.6
31	B6	13	CYS	2.6
57	DY	63	LYS	2.6
43	BI	61	ARG	2.6
43	DI	41	GLU	2.6

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Mol	Chain	Res	Type	RSRZ
49	DQ	106	VAL	2.6
58	BZ	72	ARG	2.6
5	AE	129	ILE	2.6
12	AL	61	THR	2.6
14	AN	47	LEU	2.6
49	DQ	131	ILE	2.6
37	BC	216	THR	2.6
19	AS	59	PRO	2.6
19	AS	69	HIS	2.6
2	AB	129	GLU	2.6
3	AC	206	GLU	2.6
35	DA	1068	G	2.6
20	AT	42	GLN	2.6
26	D1	19	GLN	2.6
38	DD	111	LEU	2.6
39	BE	35	GLN	2.6
3	AC	23	TYR	2.6
46	BN	19	GLU	2.6
50	BR	115	GLU	2.6
52	DT	46	GLU	2.6
53	BU	89	GLU	2.6
2	AB	215	LEU	2.6
4	CD	166	LYS	2.6
37	BC	83	ILE	2.6
42	BH	77	LYS	2.6
14	CN	34	TYR	2.6
26	B1	40	ARG	2.6
40	BF	72	ARG	2.6
26	D1	27	GLU	2.6
37	BC	146	GLY	2.6
33	D8	31	HIS	2.6
49	BQ	106	VAL	2.6
37	BC	84	LYS	2.6
37	DC	136	LEU	2.6
52	DT	84	GLN	2.6
41	BG	150	ASP	2.6
3	AC	165	THR	2.6
5	AE	49	PRO	2.6
33	D8	27	THR	2.6
43	DI	5	LEU	2.6
5	AE	30	ALA	2.6
19	AS	64	GLU	2.6

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Mol	Chain	Res	Type	RSRZ
58	BZ	47	VAL	2.6
5	AE	64	ARG	2.6
3	CC	128	PHE	2.6
40	BF	5	ALA	2.6
41	BG	41	GLN	2.6
49	BQ	12	GLN	2.6
29	B4	37	SER	2.6
37	DC	95	GLY	2.6
10	CJ	85	LEU	2.6
11	CK	21	ILE	2.6
39	BE	1	MET	2.6
3	AC	193	TYR	2.5
1	CA	1257	U	2.5
8	AH	87	SER	2.5
14	CN	25	VAL	2.5
22	CV	20	U	2.5
39	BE	76	ARG	2.5
58	DZ	10	ARG	2.5
18	CR	85	LEU	2.5
49	DQ	39	PRO	2.5
3	AC	161	GLU	2.5
56	BX	65	ARG	2.5
12	AL	58	VAL	2.5
17	CQ	21	VAL	2.5
1	AA	162	A	2.5
19	CS	59	PRO	2.5
7	AG	129	GLU	2.5
49	BQ	41	TRP	2.5
26	B1	62	VAL	2.5
28	B3	49	LYS	2.5
37	DC	104	LEU	2.5
54	BV	62	LEU	2.5
55	BW	82	LEU	2.5
40	DF	23	ASP	2.5
57	DY	52	SER	2.5
4	CD	141	ARG	2.5
1	CA	163	C	2.5
3	CC	89	GLU	2.5
14	CN	38	GLY	2.5
42	BH	131	VAL	2.5
46	BN	91	LEU	2.5
46	BN	99	LEU	2.5

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Mol	Chain	Res	Type	RSRZ
3	CC	38	ARG	2.5
5	CE	28	PHE	2.5
47	BO	64	ARG	2.5
7	AG	110	GLN	2.5
43	DI	11	ASN	2.5
12	AL	85	ILE	2.5
48	BP	94	GLU	2.5
3	AC	81	GLY	2.5
5	AE	9	LYS	2.5
37	DC	74	VAL	2.5
7	CG	72	ARG	2.5
9	CI	91	ASP	2.5
1	AA	1030(B)	G	2.5
3	AC	20	SER	2.5
13	AM	76	ALA	2.5
26	B1	17	SER	2.5
28	D3	2	PRO	2.5
42	BH	83	TYR	2.5
3	AC	16	ARG	2.5
11	AK	18	ARG	2.5
46	BN	16	ILE	2.5
35	DA	2803	C	2.5
3	CC	12	LEU	2.5
3	CC	36	ASP	2.5
10	CJ	45	ARG	2.5
11	CK	103	LEU	2.5
37	DC	135	GLY	2.5
46	BN	138	LEU	2.5
49	DQ	36	ALA	2.5
57	BY	79	CYS	2.5
4	CD	110	PHE	2.5
26	B1	50	ARG	2.5
41	DG	146	TYR	2.5
27	B2	43	GLN	2.5
11	CK	70	LYS	2.5
56	BX	48	LYS	2.5
48	DP	60	MET	2.5
9	CI	120	ARG	2.5
38	BD	153	ALA	2.5
13	CM	97	PRO	2.5
17	CQ	50	LYS	2.5
33	B8	63	PRO	2.5

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Mol	Chain	Res	Type	RSRZ
49	DQ	18	LYS	2.5
58	BZ	123	ASP	2.5
10	AJ	96	ILE	2.5
47	BO	42	SER	2.5
3	AC	131	ARG	2.5
56	BX	28	PHE	2.5
58	DZ	130	PRO	2.5
17	CQ	13	ASP	2.5
17	CQ	49	GLU	2.5
37	DC	160	ARG	2.5
41	BG	157	ILE	2.5
48	DP	52	GLU	2.5
35	DA	652	C	2.4
2	AB	10	LEU	2.4
35	BA	2801(A)	A	2.4
49	DQ	90	VAL	2.4
50	BR	111	LEU	2.4
2	AB	88	ALA	2.4
12	AL	26	ALA	2.4
17	AQ	20	THR	2.4
8	AH	104	ARG	2.4
43	DI	109	ILE	2.4
1	AA	80	G	2.4
38	DD	33	LEU	2.4
42	BH	78	GLY	2.4
49	DQ	102	VAL	2.4
2	AB	207	ALA	2.4
10	CJ	99	LYS	2.4
55	BW	63	ASP	2.4
5	AE	54	ALA	2.4
7	AG	85	TYR	2.4
37	DC	26	ALA	2.4
48	DP	91	PHE	2.4
53	BU	116	ALA	2.4
58	DZ	17	ALA	2.4
58	DZ	89	PHE	2.4
42	BH	106	THR	2.4
51	DS	61	ASN	2.4
34	D9	26	ILE	2.4
58	DZ	94	GLU	2.4
2	AB	194	PRO	2.4
58	DZ	83	PRO	2.4

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Mol	Chain	Res	Type	RSRZ
26	B1	70	VAL	2.4
5	AE	6	PHE	2.4
37	BC	163	PHE	2.4
37	BC	149	ILE	2.4
35	DA	884	C	2.4
40	DF	14	PRO	2.4
32	B7	23	ARG	2.4
39	BE	50	GLY	2.4
48	BP	19	VAL	2.4
33	D8	7	HIS	2.4
58	DZ	85	HIS	2.4
14	AN	50	LYS	2.4
17	CQ	44	ALA	2.4
47	BO	22	ILE	2.4
3	AC	21	ARG	2.4
14	CN	51	GLY	2.4
37	BC	94	VAL	2.4
49	BQ	61	GLY	2.4
54	DV	46	VAL	2.4
38	BD	6	PHE	2.4
46	BN	70	LYS	2.4
37	DC	152	ILE	2.4
49	BQ	64	ILE	2.4
2	CB	96	ARG	2.4
38	BD	217	ARG	2.4
47	DO	121	VAL	2.4
27	D2	49	LYS	2.4
51	BS	83	LYS	2.4
3	CC	201	TYR	2.4
2	AB	87	ARG	2.4
49	BQ	5	ARG	2.4
1	AA	160	A	2.4
2	AB	213	LEU	2.4
20	CT	92	LEU	2.4
25	D0	4	LYS	2.4
34	D9	7	VAL	2.4
52	DT	85	LYS	2.4
53	BU	114	LYS	2.4
10	CJ	18	ALA	2.4
11	CK	75	TYR	2.4
13	CM	110	ARG	2.4
16	CP	39	TYR	2.4

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Mol	Chain	Res	Type	RSRZ
48	BP	80	TYR	2.4
53	BU	72	HIS	2.4
58	DZ	109	ALA	2.4
37	DC	99	ILE	2.4
58	DZ	140	ASP	2.4
19	CS	71	LEU	2.4
26	B1	78	LYS	2.4
43	BI	12	LEU	2.4
52	DT	10	VAL	2.4
58	DZ	56	VAL	2.4
58	DZ	76	LEU	2.4
37	DC	120	MET	2.4
7	AG	57	GLU	2.4
13	CM	105	THR	2.4
58	DZ	84	GLU	2.4
49	BQ	68	ILE	2.4
58	DZ	32	HIS	2.4
2	AB	79	ASP	2.4
3	AC	56	ASP	2.4
11	CK	106	LYS	2.4
23	CW	32	U	2.4
7	AG	3	ARG	2.4
2	AB	86	GLU	2.4
4	AD	34	GLU	2.4
55	BW	89	ALA	2.4
47	BO	8	LEU	2.4
10	CJ	72	VAL	2.4
47	BO	43	VAL	2.4
18	CR	54	ARG	2.4
5	AE	81	GLU	2.4
10	AJ	95	GLU	2.4
1	AA	1027	C	2.4
3	AC	182	ILE	2.4
37	BC	78	ALA	2.4
54	DV	99	ILE	2.4
2	AB	115	LEU	2.4
13	CM	102	ARG	2.3
17	CQ	75	ARG	2.3
26	B1	41	ARG	2.3
28	D3	59	VAL	2.3
37	BC	159	GLY	2.3
41	BG	116	ASP	2.3

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Mol	Chain	Res	Type	RSRZ
53	BU	73	GLY	2.3
57	BY	3	VAL	2.3
3	CC	8	ILE	2.3
42	BH	36	PRO	2.3
2	AB	105	PHE	2.3
37	BC	109	ASP	2.3
41	DG	180	PHE	2.3
42	BH	48	GLY	2.3
32	B7	1	MET	2.3
49	BQ	31	ASP	2.3
9	CI	123	PRO	2.3
19	AS	41	VAL	2.3
26	B1	25	LYS	2.3
38	BD	5	LYS	2.3
49	DQ	87	LYS	2.3
2	AB	110	GLN	2.3
2	AB	126	GLU	2.3
4	CD	181	MET	2.3
26	B1	38	SER	2.3
37	BC	125	SER	2.3
49	DQ	64	ILE	2.3
53	DU	4	ALA	2.3
28	B3	2	PRO	2.3
41	BG	142	PRO	2.3
17	CQ	19	VAL	2.3
51	BS	87	PHE	2.3
54	DV	30	GLY	2.3
3	AC	19	GLU	2.3
3	CC	98	ASN	2.3
37	BC	155	GLU	2.3
1	CA	1452	C	2.3
3	CC	184	TYR	2.3
13	AM	78	ILE	2.3
15	CO	81	LEU	2.3
35	BA	272(H)	C	2.3
49	DQ	67	ARG	2.3
37	DC	185	LEU	2.3
47	BO	122	LEU	2.3
13	CM	111	LYS	2.3
49	BQ	36	ALA	2.3
58	DZ	27	VAL	2.3
1	CA	88	A	2.3

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Mol	Chain	Res	Type	RSRZ
32	B7	3	ARG	2.3
3	CC	93	LYS	2.3
11	CK	109	VAL	2.3
18	CR	43	PHE	2.3
26	B1	44	PRO	2.3
33	B8	23	VAL	2.3
35	DA	892	G	2.3
35	BA	2506	U	2.3
58	BZ	178	GLU	2.3
7	AG	60	LYS	2.3
10	CJ	17	ASP	2.3
37	BC	99	ILE	2.3
58	BZ	69	THR	2.3
3	AC	41	GLY	2.3
14	AN	32	SER	2.3
19	AS	42	PRO	2.3
26	B1	20	ARG	2.3
49	DQ	60	ARG	2.3
52	DT	20	PRO	2.3
56	DX	93	GLU	2.3
18	CR	23	LYS	2.3
50	DR	3	HIS	2.3
3	CC	61	ALA	2.3
4	CD	154	ASN	2.3
34	B9	17	ILE	2.3
41	BG	165	THR	2.3
49	BQ	93	TYR	2.3
49	DQ	66	ILE	2.3
17	CQ	5	VAL	2.3
42	DH	45	VAL	2.3
50	BR	69	ASP	2.3
10	CJ	79	ARG	2.3
14	AN	26	ARG	2.3
17	CQ	38	ARG	2.3
9	AI	52	ALA	2.3
57	BY	50	ARG	2.3
57	BY	65	ALA	2.3
37	BC	96	GLY	2.3
1	AA	1035	A	2.3
42	BH	40	GLU	2.3
58	BZ	101	PRO	2.3
58	DZ	129	SER	2.3

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Mol	Chain	Res	Type	RSRZ
2	AB	114	ARG	2.3
3	AC	207	VAL	2.3
20	CT	22	ARG	2.3
28	B3	52	HIS	2.3
40	BF	62	ARG	2.3
10	AJ	12	ASP	2.3
11	CK	57	THR	2.3
38	BD	40	THR	2.3
38	DD	275	LYS	2.3
48	BP	93	GLY	2.3
52	DT	38	ASN	2.3
52	DT	47	GLY	2.3
19	AS	71	LEU	2.3
23	CW	23	A	2.3
7	AG	51	GLN	2.3
42	BH	80	SER	2.3
47	BO	47	ILE	2.3
37	DC	82	LYS	2.3
46	BN	22	THR	2.3
28	B3	44	ARG	2.3
42	BH	73	ALA	2.3
46	BN	52	VAL	2.3
52	DT	28	VAL	2.3
2	CB	128	GLU	2.2
3	CC	87	LEU	2.2
5	AE	24	ARG	2.2
11	CK	66	LEU	2.2
52	DT	27	THR	2.2
56	BX	77	LYS	2.2
4	CD	148	VAL	2.2
18	CR	29	PHE	2.2
28	D3	56	VAL	2.2
37	DC	110	PHE	2.2
13	AM	119	GLY	2.2
40	BF	69	HIS	2.2
11	CK	18	ARG	2.2
58	BZ	122	ARG	2.2
3	AC	204	LEU	2.2
33	D8	60	LEU	2.2
52	DT	132	LYS	2.2
23	CW	33	U	2.2
28	B3	58	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
34	B9	16	VAL	2.2
40	BF	11	VAL	2.2
1	CA	1030(B)	C	2.2
4	AD	167	GLY	2.2
9	CI	122	ALA	2.2
43	DI	7	GLU	2.2
46	BN	133	GLN	2.2
11	CK	54	ARG	2.2
42	BH	71	LEU	2.2
3	CC	207	VAL	2.2
28	B3	6	VAL	2.2
49	DQ	89	ASN	2.2
50	BR	35	THR	2.2
15	CO	88	ARG	2.2
55	DW	91	GLY	2.2
12	AL	47	LYS	2.2
17	CQ	45	HIS	2.2
32	B7	14	LYS	2.2
53	BU	106	PHE	2.2
58	BZ	133	ILE	2.2
41	BG	83	ARG	2.2
6	CF	101	ALA	2.2
56	BX	45	THR	2.2
3	CC	69	HIS	2.2
40	BF	75	HIS	2.2
23	CW	44	G	2.2
33	D8	48	PHE	2.2
2	AB	82	ARG	2.2
42	BH	132	ARG	2.2
3	AC	201	TYR	2.2
19	AS	46	GLY	2.2
58	BZ	138	GLU	2.2
48	BP	127	ALA	2.2
10	AJ	28	ARG	2.2
13	AM	79	LYS	2.2
13	CM	93	ARG	2.2
54	BV	44	LYS	2.2
3	AC	58	GLU	2.2
35	DA	2802	G	2.2
18	CR	78	LEU	2.2
26	D1	82	LEU	2.2
37	DC	75	LEU	2.2

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Mol	Chain	Res	Type	RSRZ
47	DO	122	LEU	2.2
3	AC	93	LYS	2.2
3	CC	10	PHE	2.2
5	AE	25	ARG	2.2
12	AL	39	VAL	2.2
3	CC	80	GLY	2.2
20	CT	50	GLU	2.2
37	BC	20	TYR	2.2
55	DW	93	ALA	2.2
10	CJ	8	LEU	2.2
55	DW	82	LEU	2.2
20	CT	8	ARG	2.2
46	BN	21	LYS	2.2
58	DZ	47	VAL	2.2
37	DC	121	GLY	2.2
1	CA	162	A	2.2
20	AT	52	ALA	2.2
16	CP	41	PRO	2.2
20	CT	90	GLN	2.2
30	B5	10	LYS	2.2
58	BZ	100	VAL	2.2
12	AL	20	LYS	2.2
13	AM	120	LYS	2.2
18	CR	19	LYS	2.2
46	BN	15	LEU	2.2
46	BN	26	LEU	2.2
47	BO	7	TYR	2.2
46	DN	129	PRO	2.2
49	DQ	4	PRO	2.2
2	AB	185	ILE	2.2
3	CC	58	GLU	2.2
7	CG	141	VAL	2.2
10	CJ	49	VAL	2.2
19	CS	66	MET	2.2
2	AB	95	GLN	2.2
41	BG	58	GLN	2.2
46	BN	135	PRO	2.2
4	AD	179	GLU	2.2
19	AS	44	MET	2.2
19	CS	58	VAL	2.2
53	BU	88	ILE	2.2
3	AC	148	GLY	2.2

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Mol	Chain	Res	Type	RSRZ
37	DC	53	ARG	2.2
2	AB	33	TYR	2.1
42	BH	88	LEU	2.1
35	DA	2108	C	2.1
37	DC	195	ALA	2.1
17	AQ	99	SER	2.1
28	B3	19	GLN	2.1
3	CC	90	GLU	2.1
10	CJ	24	VAL	2.1
10	CJ	74	ILE	2.1
17	AQ	57	VAL	2.1
37	DC	23	ASP	2.1
49	DQ	97	VAL	2.1
50	BR	34	ILE	2.1
47	DO	50	GLY	2.1
2	AB	97	TRP	2.1
20	AT	9	ASN	2.1
5	AE	133	TYR	2.1
7	AG	22	LEU	2.1
19	CS	61	TYR	2.1
38	BD	214	TRP	2.1
39	DE	183	LEU	2.1
46	BN	130	HIS	2.1
5	AE	51	VAL	2.1
7	AG	6	ARG	2.1
25	B0	68	GLU	2.1
35	DA	1040	C	2.1
38	BD	49	ILE	2.1
46	BN	137	LYS	2.1
47	BO	57	VAL	2.1
48	DP	50	ARG	2.1
49	BQ	87	LYS	2.1
50	DR	33	ARG	2.1
58	BZ	57	ILE	2.1
13	CM	96	LEU	2.1
17	CQ	53	LEU	2.1
40	DF	12	LEU	2.1
40	BF	160	ASN	2.1
43	BI	36	ALA	2.1
47	BO	46	ALA	2.1
20	AT	45	GLN	2.1
58	BZ	82	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
43	BI	18	VAL	2.1
20	AT	102	GLY	2.1
25	B0	42	GLY	2.1
37	DC	63	SER	2.1
33	B8	62	LEU	2.1
20	CT	48	LYS	2.1
17	AQ	59	ILE	2.1
41	BG	114	ILE	2.1
1	AA	1470	G	2.1
47	BO	1	MET	2.1
2	AB	138	LEU	2.1
13	AM	65	LYS	2.1
13	CM	87	TYR	2.1
27	B2	54	LYS	2.1
52	DT	26	ASP	2.1
55	DW	68	ARG	2.1
58	BZ	38	TYR	2.1
42	DH	65	HIS	2.1
5	AE	130	ASN	2.1
3	AC	57	ILE	2.1
3	AC	153	VAL	2.1
40	BF	8	GLN	2.1
41	BG	88	ILE	2.1
41	DG	63	ILE	2.1
40	DF	66	PRO	2.1
50	BR	113	LEU	2.1
17	CQ	34	LYS	2.1
18	CR	20	ALA	2.1
1	AA	90	U	2.1
1	AA	1001(A)	G	2.1
49	DQ	121	ALA	2.1
4	CD	129	ASN	2.1
37	BC	71	GLN	2.1
3	AC	142	MET	2.1
4	CD	139	ARG	2.1
3	CC	154	SER	2.1
18	CR	37	VAL	2.1
38	DD	173	VAL	2.1
58	DZ	178	GLU	2.1
12	CL	47	LYS	2.1
23	CW	5	G	2.1
32	D7	47	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
37	BC	124	GLY	2.1
37	BC	37	PHE	2.1
3	AC	117	ALA	2.1
7	AG	91	VAL	2.1
46	BN	62	VAL	2.1
55	BW	85	VAL	2.1
3	CC	18	TRP	2.1
14	AN	39	LEU	2.1
37	BC	106	GLY	2.1
52	DT	76	PHE	2.1
58	BZ	83	PRO	2.1
16	CP	7	ALA	2.1
49	DQ	91	GLU	2.1
17	AQ	36	ILE	2.1
43	BI	21	VAL	2.1
3	CC	185	GLY	2.1
38	BD	33	LEU	2.1
7	CG	97	GLN	2.1
39	BE	6	GLY	2.1
35	BA	1026	U	2.1
1	AA	1044	A	2.1
37	DC	157	LYS	2.1
40	DF	72	ARG	2.1
42	BH	102	ALA	2.1
43	BI	134	PRO	2.1
58	DZ	29	TYR	2.1
3	AC	75	VAL	2.1
12	CL	19	ARG	2.1
16	CP	36	ILE	2.1
7	AG	81	GLY	2.1
9	CI	50	LEU	2.1
12	AL	63	GLY	2.1
40	DF	13	SER	2.1
47	BO	80	ASP	2.1
25	B0	40	GLN	2.1
43	DI	54	GLN	2.1
49	BQ	45	GLN	2.1
7	AG	94	ARG	2.1
12	AL	59	ARG	2.1
16	CP	17	TYR	2.1
17	CQ	42	TYR	2.1
31	B6	29	ASN	2.1

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Mol	Chain	Res	Type	RSRZ
46	BN	122	VAL	2.1
47	BO	103	ALA	2.1
54	DV	33	VAL	2.1
17	CQ	59	ILE	2.1
58	DZ	33	LEU	2.1
3	CC	123	GLN	2.0
3	AC	166	GLU	2.0
17	CQ	78	GLU	2.0
3	AC	177	THR	2.0
3	CC	103	VAL	2.0
11	CK	64	ALA	2.0
37	DC	41	VAL	2.0
48	DP	110	TYR	2.0
26	D1	87	PRO	2.0
39	DE	24	THR	2.0
57	BY	98	VAL	2.0
39	BE	4	ILE	2.0
32	B7	2	LYS	2.0
2	CB	19	HIS	2.0
3	AC	54	ARG	2.0
14	CN	52	GLN	2.0
35	DA	896	A	2.0
40	BF	83	PHE	2.0
53	BU	91	ASP	2.0
1	AA	1029	C	2.0
3	AC	90	GLU	2.0
19	CS	51	VAL	2.0
46	BN	92	ALA	2.0
3	AC	202	ILE	2.0
28	D3	53	LEU	2.0
42	BH	74	ASN	2.0
35	DA	2189	U	2.0
43	DI	13	GLY	2.0
52	DT	104	ASN	2.0
25	D0	41	ARG	2.0
42	BH	23	ARG	2.0
3	CC	53	ALA	2.0
3	CC	198	VAL	2.0
49	DQ	20	ALA	2.0
17	CQ	52	LYS	2.0
54	DV	39	LEU	2.0
54	DV	62	LEU	2.0

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Mol	Chain	Res	Type	RSRZ
3	CC	40	ARG	2.0
30	D5	55	ARG	2.0
49	BQ	99	PRO	2.0
54	BV	67	GLY	2.0
20	CT	46	GLU	2.0
41	BG	59	GLU	2.0
42	BH	119	GLU	2.0
58	DZ	73	GLN	2.0
2	AB	220	ASP	2.0
3	AC	178	LEU	2.0
26	D1	52	ARG	2.0
28	B3	28	LEU	2.0
48	DP	39	LYS	2.0
55	BW	98	LYS	2.0
3	AC	73	PRO	2.0
23	AW	43	C	2.0
46	BN	86	PRO	2.0
37	BC	148	ASN	2.0
3	CC	130	VAL	2.0
13	CM	92	HIS	2.0
17	CQ	72	ARG	2.0
42	BH	87	LEU	2.0
49	BQ	34	LEU	2.0
58	BZ	125	LEU	2.0
58	BZ	164	ALA	2.0
23	CW	70	G	2.0
40	DF	86	GLY	2.0
39	BE	30	PRO	2.0
40	DF	1	MET	2.0
3	CC	4	LYS	2.0
14	AN	6	LEU	2.0
37	DC	72	VAL	2.0

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

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

6.3 Carbohydrates [i](#)

There are no monosaccharides in this entry.

6.4 Ligands ⓘ

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
59	MG	BA	3397	1/1	-0.22	0.29	190,190,190,190	0
59	MG	AA	1713	1/1	-0.04	0.33	137,137,137,137	0
59	MG	BC	302	1/1	-0.04	0.28	171,171,171,171	0
59	MG	BA	3323	1/1	-0.01	0.34	159,159,159,159	0
59	MG	AW	105	1/1	0.01	0.72	170,170,170,170	0
59	MG	BA	3344	1/1	0.07	0.65	81,81,81,81	0
59	MG	CW	109	1/1	0.07	1.10	125,125,125,125	0
59	MG	CW	112	1/1	0.08	0.45	191,191,191,191	0
59	MG	CA	1675	1/1	0.10	0.91	77,77,77,77	0
59	MG	BA	3293	1/1	0.14	0.21	108,108,108,108	0
59	MG	AA	1756	1/1	0.16	0.86	107,107,107,107	0
59	MG	AA	1804	1/1	0.18	0.95	80,80,80,80	0
59	MG	BA	3285	1/1	0.18	1.01	103,103,103,103	0
59	MG	BA	3437	1/1	0.20	0.16	126,126,126,126	0
59	MG	AW	114	1/1	0.25	0.48	193,193,193,193	0
59	MG	DA	3315	1/1	0.28	0.95	71,71,71,71	0
59	MG	DA	3203	1/1	0.30	0.89	57,57,57,57	0
59	MG	BA	3431	1/1	0.30	0.37	94,94,94,94	0
59	MG	CW	108	1/1	0.31	0.79	130,130,130,130	0
59	MG	CA	1668	1/1	0.32	0.34	75,75,75,75	0
59	MG	BA	3324	1/1	0.36	0.24	194,194,194,194	0
59	MG	BA	3351	1/1	0.39	0.27	116,116,116,116	0
59	MG	BA	3302	1/1	0.41	0.48	75,75,75,75	0
59	MG	CW	102	1/1	0.43	0.38	165,165,165,165	0
59	MG	AW	107	1/1	0.44	0.25	115,115,115,115	0
59	MG	DA	3007	1/1	0.44	0.68	77,77,77,77	0
59	MG	DO	202	1/1	0.45	1.27	86,86,86,86	0
59	MG	BA	3257	1/1	0.46	0.97	77,77,77,77	0
59	MG	AA	1611	1/1	0.46	0.34	87,87,87,87	0
59	MG	BA	3433	1/1	0.46	0.32	94,94,94,94	0
59	MG	BA	3222	1/1	0.47	0.35	78,78,78,78	0
59	MG	AA	1775	1/1	0.47	0.14	75,75,75,75	0
59	MG	DB	206	1/1	0.48	0.24	91,91,91,91	0
59	MG	AW	118	1/1	0.48	0.22	188,188,188,188	0
59	MG	DA	3326	1/1	0.49	0.23	68,68,68,68	0
59	MG	BA	3322	1/1	0.49	0.21	130,130,130,130	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	BB	216	1/1	0.49	0.35	92,92,92,92	0
59	MG	BA	3301	1/1	0.50	0.25	115,115,115,115	0
59	MG	CA	1725	1/1	0.50	0.51	80,80,80,80	0
59	MG	CA	1620	1/1	0.51	0.54	105,105,105,105	0
59	MG	AW	104	1/1	0.51	1.21	171,171,171,171	0
59	MG	BA	3408	1/1	0.53	0.18	93,93,93,93	0
59	MG	CA	1627	1/1	0.54	0.62	49,49,49,49	0
59	MG	AA	1738	1/1	0.54	0.28	57,57,57,57	0
59	MG	DA	3374	1/1	0.55	0.35	65,65,65,65	0
59	MG	DB	202	1/1	0.55	0.26	83,83,83,83	0
59	MG	BA	3213	1/1	0.55	0.36	72,72,72,72	0
59	MG	DA	3230	1/1	0.55	0.80	98,98,98,98	0
59	MG	CA	1652	1/1	0.56	0.66	85,85,85,85	0
59	MG	AA	1650	1/1	0.56	0.30	80,80,80,80	0
59	MG	BA	3434	1/1	0.56	0.62	90,90,90,90	0
59	MG	CA	1683	1/1	0.56	0.23	74,74,74,74	0
59	MG	AA	1772	1/1	0.56	0.24	86,86,86,86	0
59	MG	DB	211	1/1	0.56	0.42	106,106,106,106	0
59	MG	BA	3438	1/1	0.56	0.20	104,104,104,104	0
59	MG	BB	207	1/1	0.57	0.31	115,115,115,115	0
59	MG	DB	207	1/1	0.57	0.73	73,73,73,73	0
59	MG	AA	1808	1/1	0.58	0.43	65,65,65,65	0
59	MG	DA	3316	1/1	0.58	0.56	63,63,63,63	0
59	MG	AA	1677	1/1	0.58	0.26	72,72,72,72	0
59	MG	BB	217	1/1	0.59	0.29	98,98,98,98	0
59	MG	BA	3325	1/1	0.59	0.22	164,164,164,164	0
59	MG	CA	1700	1/1	0.59	0.35	87,87,87,87	0
59	MG	AA	1724	1/1	0.59	0.22	77,77,77,77	0
59	MG	DA	3143	1/1	0.60	0.28	67,67,67,67	0
59	MG	AA	1740	1/1	0.61	0.07	114,114,114,114	0
59	MG	CA	1643	1/1	0.61	0.19	100,100,100,100	0
59	MG	CA	1792	1/1	0.61	0.36	76,76,76,76	0
59	MG	BA	3218	1/1	0.61	0.22	77,77,77,77	0
59	MG	AA	1697	1/1	0.62	0.50	76,76,76,76	0
59	MG	BA	3442	1/1	0.62	0.38	57,57,57,57	0
59	MG	AA	1759	1/1	0.62	0.18	93,93,93,93	0
59	MG	DA	3348	1/1	0.62	1.02	72,72,72,72	0
59	MG	AW	117	1/1	0.62	0.60	125,125,125,125	0
59	MG	AA	1760	1/1	0.63	0.70	105,105,105,105	0
59	MG	DA	3337	1/1	0.63	0.34	67,67,67,67	0
59	MG	BS	201	1/1	0.63	0.27	97,97,97,97	0
59	MG	BA	3007	1/1	0.64	0.19	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	BA	3456	1/1	0.64	0.55	73,73,73,73	0
59	MG	CA	1690	1/1	0.64	0.65	84,84,84,84	0
59	MG	CW	104	1/1	0.64	0.27	174,174,174,174	0
59	MG	AA	1674	1/1	0.64	0.49	61,61,61,61	0
59	MG	DA	3210	1/1	0.64	0.36	71,71,71,71	0
59	MG	BA	3157	1/1	0.65	0.26	63,63,63,63	0
59	MG	BA	3364	1/1	0.65	0.48	62,62,62,62	0
59	MG	BA	3224	1/1	0.65	0.41	62,62,62,62	0
59	MG	CE	201	1/1	0.66	0.91	84,84,84,84	0
59	MG	AA	1707	1/1	0.66	0.17	87,87,87,87	0
59	MG	CW	103	1/1	0.66	0.36	178,178,178,178	0
59	MG	AW	110	1/1	0.66	0.58	134,134,134,134	0
59	MG	DA	3163	1/1	0.66	0.88	79,79,79,79	0
59	MG	BA	3405	1/1	0.66	0.77	80,80,80,80	0
59	MG	DA	3342	1/1	0.66	0.50	59,59,59,59	0
59	MG	BB	208	1/1	0.67	0.15	83,83,83,83	0
59	MG	BA	3142	1/1	0.67	0.70	66,66,66,66	0
59	MG	DA	3206	1/1	0.67	0.43	82,82,82,82	0
59	MG	CA	1640	1/1	0.67	0.25	91,91,91,91	0
59	MG	BA	3398	1/1	0.67	0.25	104,104,104,104	0
59	MG	BA	3003	1/1	0.67	0.33	84,84,84,84	0
59	MG	AA	1763	1/1	0.67	0.14	66,66,66,66	0
59	MG	DA	3320	1/1	0.67	0.45	67,67,67,67	0
59	MG	CA	1602	1/1	0.67	0.54	72,72,72,72	0
59	MG	BA	3080	1/1	0.68	0.35	43,43,43,43	0
59	MG	BA	3132	1/1	0.68	0.44	72,72,72,72	0
59	MG	BA	3331	1/1	0.68	0.22	88,88,88,88	0
59	MG	AA	1645	1/1	0.68	0.43	79,79,79,79	0
59	MG	DA	3356	1/1	0.68	0.63	68,68,68,68	0
59	MG	BA	3011	1/1	0.68	1.51	65,65,65,65	0
59	MG	BA	3353	1/1	0.68	1.11	75,75,75,75	0
59	MG	DA	3244	1/1	0.68	0.15	147,147,147,147	0
59	MG	CA	1695	1/1	0.68	0.43	59,59,59,59	0
59	MG	CA	1636	1/1	0.68	0.26	69,69,69,69	0
59	MG	BA	3059	1/1	0.68	0.35	65,65,65,65	0
59	MG	CW	106	1/1	0.69	0.48	133,133,133,133	0
59	MG	DA	3318	1/1	0.69	0.28	67,67,67,67	0
59	MG	AA	1801	1/1	0.69	0.36	69,69,69,69	0
59	MG	BA	3389	1/1	0.69	0.47	74,74,74,74	0
59	MG	AW	115	1/1	0.69	0.39	193,193,193,193	0
59	MG	AV	103	1/1	0.69	0.36	93,93,93,93	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	CA	1733	1/1	0.69	0.11	81,81,81,81	0
59	MG	CA	1742	1/1	0.69	0.66	59,59,59,59	0
59	MG	CA	1766	1/1	0.69	0.15	69,69,69,69	0
59	MG	CA	1646	1/1	0.69	0.80	72,72,72,72	0
59	MG	BA	3306	1/1	0.69	0.72	56,56,56,56	0
59	MG	BA	3187	1/1	0.69	0.38	93,93,93,93	0
59	MG	CA	1619	1/1	0.69	0.40	66,66,66,66	0
59	MG	BA	3108	1/1	0.69	0.45	69,69,69,69	0
59	MG	BX	101	1/1	0.70	0.23	48,48,48,48	0
59	MG	AA	1681	1/1	0.70	0.55	76,76,76,76	0
59	MG	BA	3145	1/1	0.70	0.60	62,62,62,62	0
59	MG	AT	201	1/1	0.70	0.54	75,75,75,75	0
59	MG	BA	3303	1/1	0.70	0.34	73,73,73,73	0
59	MG	BA	3427	1/1	0.70	0.44	84,84,84,84	0
59	MG	CA	1706	1/1	0.70	0.25	61,61,61,61	0
59	MG	BA	3305	1/1	0.70	0.37	77,77,77,77	0
59	MG	CA	1642	1/1	0.70	0.17	83,83,83,83	0
59	MG	DA	3367	1/1	0.70	0.27	61,61,61,61	0
59	MG	BA	3168	1/1	0.70	0.23	89,89,89,89	0
59	MG	AA	1770	1/1	0.70	0.41	74,74,74,74	0
59	MG	CA	1648	1/1	0.70	0.18	96,96,96,96	0
59	MG	DA	3224	1/1	0.70	0.49	40,40,40,40	0
59	MG	CA	1649	1/1	0.70	0.74	76,76,76,76	0
59	MG	BA	3198	1/1	0.70	0.14	54,54,54,54	0
59	MG	AA	1777	1/1	0.71	0.90	81,81,81,81	0
59	MG	BA	3366	1/1	0.71	0.12	89,89,89,89	0
59	MG	CW	107	1/1	0.71	0.27	145,145,145,145	0
59	MG	DA	3353	1/1	0.71	0.32	51,51,51,51	0
59	MG	BA	3254	1/1	0.71	0.43	89,89,89,89	0
59	MG	CA	1650	1/1	0.71	0.34	78,78,78,78	0
59	MG	BA	3271	1/1	0.72	0.60	61,61,61,61	0
59	MG	CA	1677	1/1	0.72	0.41	68,68,68,68	0
59	MG	DA	3382	1/1	0.72	0.47	80,80,80,80	0
59	MG	BA	3014	1/1	0.72	0.68	55,55,55,55	0
59	MG	BA	3025	1/1	0.72	0.20	61,61,61,61	0
59	MG	CA	1762	1/1	0.72	0.28	57,57,57,57	0
59	MG	CA	1660	1/1	0.72	0.21	65,65,65,65	0
59	MG	AA	1706	1/1	0.72	0.24	86,86,86,86	0
59	MG	DA	3331	1/1	0.73	0.18	99,99,99,99	0
59	MG	CA	1703	1/1	0.73	0.12	47,47,47,47	0
59	MG	AA	1670	1/1	0.73	0.40	68,68,68,68	0
59	MG	CA	1714	1/1	0.73	0.18	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	BA	3051	1/1	0.73	0.20	66,66,66,66	0
59	MG	AL	201	1/1	0.73	0.94	61,61,61,61	0
59	MG	CA	1678	1/1	0.73	0.39	78,78,78,78	0
59	MG	DA	3246	1/1	0.73	0.45	58,58,58,58	0
59	MG	DA	3307	1/1	0.73	0.94	64,64,64,64	0
59	MG	CA	1761	1/1	0.73	0.26	66,66,66,66	0
59	MG	AA	1700	1/1	0.73	0.34	78,78,78,78	0
59	MG	AW	113	1/1	0.73	0.42	96,96,96,96	0
59	MG	AA	1660	1/1	0.73	1.08	84,84,84,84	0
59	MG	AA	1727	1/1	0.73	0.21	63,63,63,63	0
59	MG	CW	101	1/1	0.74	0.34	101,101,101,101	0
59	MG	BF	302	1/1	0.74	0.34	61,61,61,61	0
59	MG	DA	3322	1/1	0.74	0.20	56,56,56,56	0
59	MG	DA	3182	1/1	0.74	0.29	56,56,56,56	0
59	MG	DA	3194	1/1	0.74	0.20	62,62,62,62	0
59	MG	DA	3258	1/1	0.74	0.44	65,65,65,65	0
59	MG	AA	1675	1/1	0.74	0.27	85,85,85,85	0
59	MG	BA	3192	1/1	0.74	0.25	80,80,80,80	0
59	MG	AD	301	1/1	0.74	0.44	69,69,69,69	0
59	MG	CA	1758	1/1	0.75	0.20	67,67,67,67	0
59	MG	BA	3400	1/1	0.75	0.44	59,59,59,59	0
59	MG	DA	3280	1/1	0.75	0.44	46,46,46,46	0
59	MG	DA	3152	1/1	0.75	0.44	61,61,61,61	0
59	MG	DA	3213	1/1	0.75	0.30	71,71,71,71	0
59	MG	AA	1683	1/1	0.75	0.31	74,74,74,74	0
59	MG	CA	1686	1/1	0.75	0.19	77,77,77,77	0
59	MG	AW	119	1/1	0.75	0.63	194,194,194,194	0
59	MG	AA	1686	1/1	0.76	0.13	86,86,86,86	0
59	MG	CA	1735	1/1	0.76	0.36	63,63,63,63	0
59	MG	BA	3365	1/1	0.76	0.33	54,54,54,54	0
59	MG	CA	1749	1/1	0.76	0.24	60,60,60,60	0
59	MG	BA	3024	1/1	0.76	0.33	82,82,82,82	0
59	MG	DA	3232	1/1	0.76	0.13	93,93,93,93	0
59	MG	BA	3093	1/1	0.76	0.34	75,75,75,75	0
59	MG	BA	3162	1/1	0.76	0.32	55,55,55,55	0
59	MG	DA	3008	1/1	0.76	0.52	76,76,76,76	0
59	MG	AA	1619	1/1	0.76	1.15	83,83,83,83	0
59	MG	DA	3299	1/1	0.76	0.39	63,63,63,63	0
59	MG	CA	1637	1/1	0.76	0.84	71,71,71,71	0
59	MG	CA	1665	1/1	0.76	0.30	72,72,72,72	0
59	MG	AA	1765	1/1	0.76	0.19	84,84,84,84	0
59	MG	CA	1674	1/1	0.76	0.49	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	BA	3356	1/1	0.76	0.19	69,69,69,69	0
59	MG	BA	3457	1/1	0.77	0.52	82,82,82,82	0
59	MG	AA	1718	1/1	0.77	0.24	89,89,89,89	0
59	MG	DA	3004	1/1	0.77	0.28	89,89,89,89	0
59	MG	DA	3005	1/1	0.77	0.72	56,56,56,56	0
59	MG	BA	3180	1/1	0.77	0.14	79,79,79,79	0
59	MG	CA	1743	1/1	0.77	0.18	67,67,67,67	0
59	MG	DA	3383	1/1	0.77	0.37	92,92,92,92	0
59	MG	BB	211	1/1	0.77	0.26	74,74,74,74	0
59	MG	BA	3186	1/1	0.77	0.41	65,65,65,65	0
59	MG	AW	112	1/1	0.77	0.38	112,112,112,112	0
59	MG	AA	1712	1/1	0.77	0.07	67,67,67,67	0
59	MG	BA	3230	1/1	0.77	0.32	89,89,89,89	0
59	MG	BA	3313	1/1	0.78	0.64	68,68,68,68	0
59	MG	DA	3321	1/1	0.78	0.23	63,63,63,63	0
59	MG	CA	1750	1/1	0.78	0.31	70,70,70,70	0
59	MG	CA	1751	1/1	0.78	0.16	69,69,69,69	0
59	MG	AV	102	1/1	0.78	0.60	74,74,74,74	0
59	MG	DA	3211	1/1	0.78	0.32	55,55,55,55	0
59	MG	BA	3350	1/1	0.78	0.45	91,91,91,91	0
59	MG	CA	1721	1/1	0.78	0.20	81,81,81,81	0
59	MG	DA	3350	1/1	0.78	0.37	58,58,58,58	0
59	MG	BQ	201	1/1	0.78	0.23	51,51,51,51	0
59	MG	CA	1783	1/1	0.78	0.23	64,64,64,64	0
59	MG	DA	3357	1/1	0.78	0.22	63,63,63,63	0
59	MG	CA	1732	1/1	0.78	0.24	85,85,85,85	0
59	MG	BA	3126	1/1	0.78	0.45	61,61,61,61	0
59	MG	DA	3105	1/1	0.78	0.47	40,40,40,40	0
59	MG	DA	3136	1/1	0.78	0.49	46,46,46,46	0
59	MG	CI	201	1/1	0.78	0.29	86,86,86,86	0
59	MG	AA	1743	1/1	0.78	0.74	80,80,80,80	0
59	MG	DA	3160	1/1	0.78	0.18	73,73,73,73	0
59	MG	AW	101	1/1	0.78	0.81	154,154,154,154	0
59	MG	BA	3327	1/1	0.78	0.36	109,109,109,109	0
59	MG	DV	201	1/1	0.78	1.76	100,100,100,100	0
59	MG	BA	3171	1/1	0.79	0.26	76,76,76,76	0
59	MG	BA	3172	1/1	0.79	0.13	62,62,62,62	0
59	MG	DA	3086	1/1	0.79	0.47	50,50,50,50	0
59	MG	CV	103	1/1	0.79	0.30	80,80,80,80	0
59	MG	AA	1676	1/1	0.79	0.90	88,88,88,88	0
59	MG	BA	3216	1/1	0.79	0.20	88,88,88,88	0
59	MG	CA	1671	1/1	0.79	0.10	106,106,106,106	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	AA	1604	1/1	0.79	0.27	64,64,64,64	0
59	MG	B1	101	1/1	0.79	0.34	52,52,52,52	0
59	MG	DA	3166	1/1	0.79	0.40	63,63,63,63	0
59	MG	CA	1605	1/1	0.79	0.24	69,69,69,69	0
59	MG	CA	1608	1/1	0.79	0.23	75,75,75,75	0
59	MG	CA	1775	1/1	0.79	0.39	76,76,76,76	0
59	MG	BA	3399	1/1	0.79	0.54	89,89,89,89	0
59	MG	DA	3002	1/1	0.79	0.35	58,58,58,58	0
59	MG	BA	3357	1/1	0.79	0.50	63,63,63,63	0
59	MG	CA	1794	1/1	0.79	0.39	66,66,66,66	0
59	MG	CA	1793	1/1	0.80	0.43	75,75,75,75	0
59	MG	CA	1689	1/1	0.80	0.40	66,66,66,66	0
59	MG	BA	3340	1/1	0.80	0.30	62,62,62,62	0
59	MG	CA	1664	1/1	0.80	0.48	75,75,75,75	0
59	MG	BA	3317	1/1	0.80	0.29	99,99,99,99	0
59	MG	BA	3385	1/1	0.80	0.71	84,84,84,84	0
59	MG	DA	3373	1/1	0.80	0.55	75,75,75,75	0
59	MG	BA	3167	1/1	0.80	0.28	77,77,77,77	0
59	MG	AA	1754	1/1	0.80	0.20	77,77,77,77	0
59	MG	AA	1776	1/1	0.80	0.51	72,72,72,72	0
59	MG	DA	3387	1/1	0.80	1.10	102,102,102,102	0
59	MG	AA	1634	1/1	0.80	0.43	69,69,69,69	0
59	MG	BA	3286	1/1	0.80	0.42	69,69,69,69	0
59	MG	BA	3086	1/1	0.80	0.57	61,61,61,61	0
59	MG	DA	3332	1/1	0.80	0.24	68,68,68,68	0
59	MG	CA	1656	1/1	0.80	0.17	74,74,74,74	0
59	MG	DA	3256	1/1	0.80	0.67	59,59,59,59	0
59	MG	BA	3420	1/1	0.81	0.23	77,77,77,77	0
59	MG	CW	110	1/1	0.81	0.30	197,197,197,197	0
59	MG	AA	1745	1/1	0.81	0.46	77,77,77,77	0
59	MG	CA	1767	1/1	0.81	0.36	67,67,67,67	0
59	MG	BA	3233	1/1	0.81	0.17	69,69,69,69	0
59	MG	CA	1720	1/1	0.81	0.32	67,67,67,67	0
59	MG	BC	301	1/1	0.81	0.19	166,166,166,166	0
59	MG	CA	1673	1/1	0.81	0.13	92,92,92,92	0
59	MG	DA	3014	1/1	0.81	0.43	55,55,55,55	0
59	MG	CA	1729	1/1	0.81	0.23	77,77,77,77	0
59	MG	AA	1764	1/1	0.81	0.46	79,79,79,79	0
59	MG	BA	3256	1/1	0.81	0.67	79,79,79,79	0
59	MG	BA	3152	1/1	0.81	0.39	46,46,46,46	0
59	MG	AW	106	1/1	0.81	0.39	149,149,149,149	0
59	MG	BA	3182	1/1	0.81	0.13	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	BX	102	1/1	0.81	0.20	47,47,47,47	0
59	MG	AA	1789	1/1	0.81	0.23	126,126,126,126	0
59	MG	AX	102	1/1	0.81	0.25	79,79,79,79	0
59	MG	DA	3190	1/1	0.81	0.66	61,61,61,61	0
59	MG	BA	3229	1/1	0.81	0.38	54,54,54,54	0
59	MG	BA	3413	1/1	0.81	0.62	59,59,59,59	0
59	MG	B1	102	1/1	0.82	0.38	67,67,67,67	0
59	MG	BA	3002	1/1	0.82	0.31	60,60,60,60	0
59	MG	AA	1757	1/1	0.82	0.58	60,60,60,60	0
59	MG	AA	1602	1/1	0.82	0.37	56,56,56,56	0
59	MG	BA	3439	1/1	0.82	0.28	69,69,69,69	0
59	MG	CA	1765	1/1	0.82	0.57	60,60,60,60	0
59	MG	CA	1623	1/1	0.82	0.19	66,66,66,66	0
59	MG	DA	3116	1/1	0.82	0.39	41,41,41,41	0
59	MG	BA	3227	1/1	0.82	0.36	78,78,78,78	0
59	MG	AA	1679	1/1	0.82	0.36	59,59,59,59	0
59	MG	BA	3113	1/1	0.82	0.32	48,48,48,48	0
59	MG	CA	1692	1/1	0.82	0.13	96,96,96,96	0
59	MG	DA	3333	1/1	0.82	0.16	57,57,57,57	0
59	MG	BA	3388	1/1	0.82	0.38	59,59,59,59	0
59	MG	AA	1654	1/1	0.82	0.61	79,79,79,79	0
59	MG	DA	3176	1/1	0.82	0.47	70,70,70,70	0
59	MG	BA	3022	1/1	0.82	0.49	61,61,61,61	0
59	MG	BB	215	1/1	0.82	0.36	76,76,76,76	0
59	MG	DA	3355	1/1	0.82	0.20	39,39,39,39	0
59	MG	CA	1647	1/1	0.82	0.44	67,67,67,67	0
59	MG	CA	1716	1/1	0.82	0.30	80,80,80,80	0
59	MG	BA	3133	1/1	0.82	0.78	94,94,94,94	0
59	MG	DA	3208	1/1	0.82	0.38	63,63,63,63	0
59	MG	AA	1752	1/1	0.82	0.34	64,64,64,64	0
59	MG	DA	3380	1/1	0.82	0.27	59,59,59,59	0
59	MG	BA	3143	1/1	0.82	0.29	58,58,58,58	0
59	MG	BA	3339	1/1	0.82	0.22	58,58,58,58	0
59	MG	AA	1647	1/1	0.82	0.67	95,95,95,95	0
59	MG	BF	303	1/1	0.82	0.22	42,42,42,42	0
59	MG	BA	3199	1/1	0.82	0.18	60,60,60,60	0
59	MG	BA	3203	1/1	0.82	0.50	58,58,58,58	0
59	MG	AA	1666	1/1	0.82	0.29	58,58,58,58	0
59	MG	BA	3352	1/1	0.82	0.40	66,66,66,66	0
59	MG	DA	3003	1/1	0.82	0.43	63,63,63,63	0
59	MG	CA	1741	1/1	0.83	0.46	57,57,57,57	0
59	MG	AA	1794	1/1	0.83	1.00	103,103,103,103	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	AA	1656	1/1	0.83	0.35	102,102,102,102	0
59	MG	BA	3424	1/1	0.83	0.32	52,52,52,52	0
59	MG	CA	1644	1/1	0.83	0.27	75,75,75,75	0
59	MG	DA	3344	1/1	0.83	0.28	43,43,43,43	0
59	MG	BA	3263	1/1	0.83	0.48	60,60,60,60	0
59	MG	DA	3064	1/1	0.83	0.50	32,32,32,32	0
59	MG	CA	1753	1/1	0.83	0.31	82,82,82,82	0
59	MG	CA	1754	1/1	0.83	0.47	53,53,53,53	0
59	MG	DA	3111	1/1	0.83	0.38	28,28,28,28	0
59	MG	AA	1710	1/1	0.83	0.21	53,53,53,53	0
59	MG	DA	3124	1/1	0.83	0.44	61,61,61,61	0
59	MG	BA	3276	1/1	0.83	0.42	70,70,70,70	0
59	MG	DA	3274	1/1	0.83	0.24	45,45,45,45	0
59	MG	BA	3096	1/1	0.83	0.28	47,47,47,47	0
59	MG	AA	1761	1/1	0.83	0.48	52,52,52,52	0
59	MG	AA	1726	1/1	0.83	0.39	72,72,72,72	0
59	MG	BA	3219	1/1	0.83	0.08	181,181,181,181	0
59	MG	CA	1772	1/1	0.83	0.52	49,49,49,49	0
59	MG	BA	3255	1/1	0.83	0.58	85,85,85,85	0
59	MG	DA	3181	1/1	0.83	0.10	56,56,56,56	0
59	MG	D2	102	1/1	0.83	0.30	35,35,35,35	0
59	MG	DA	3001	1/1	0.83	0.70	71,71,71,71	0
59	MG	BA	3329	1/1	0.83	0.32	50,50,50,50	0
59	MG	CA	1614	1/1	0.84	0.16	65,65,65,65	0
59	MG	BA	3409	1/1	0.84	0.41	61,61,61,61	0
59	MG	BA	3231	1/1	0.84	0.40	55,55,55,55	0
59	MG	BA	3418	1/1	0.84	0.37	61,61,61,61	0
59	MG	BA	3232	1/1	0.84	0.41	74,74,74,74	0
59	MG	AA	1617	1/1	0.84	0.37	81,81,81,81	0
59	MG	AA	1672	1/1	0.84	0.31	58,58,58,58	0
59	MG	BA	3338	1/1	0.84	0.52	89,89,89,89	0
59	MG	BA	3019	1/1	0.84	0.27	68,68,68,68	0
59	MG	BA	3221	1/1	0.84	0.28	87,87,87,87	0
59	MG	CA	1681	1/1	0.84	0.65	69,69,69,69	0
59	MG	BA	3392	1/1	0.84	0.68	83,83,83,83	0
59	MG	AA	1705	1/1	0.84	0.17	83,83,83,83	0
59	MG	BU	205	1/1	0.84	0.42	57,57,57,57	0
59	MG	DA	3233	1/1	0.84	0.33	53,53,53,53	0
59	MG	BA	3116	1/1	0.84	0.49	69,69,69,69	0
59	MG	BA	3125	1/1	0.84	0.20	65,65,65,65	0
59	MG	DA	3366	1/1	0.84	0.58	67,67,67,67	0
59	MG	BA	3206	1/1	0.84	0.32	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	DA	3140	1/1	0.84	0.52	43,43,43,43	0
59	MG	DA	3264	1/1	0.84	0.48	64,64,64,64	0
59	MG	DA	3271	1/1	0.84	0.15	61,61,61,61	0
59	MG	CA	1756	1/1	0.84	0.27	72,72,72,72	0
59	MG	BA	3280	1/1	0.84	0.13	107,107,107,107	0
59	MG	CA	1655	1/1	0.84	0.55	57,57,57,57	0
59	MG	DA	3304	1/1	0.84	0.20	70,70,70,70	0
59	MG	DA	3162	1/1	0.84	0.21	53,53,53,53	0
59	MG	DA	3311	1/1	0.84	0.32	70,70,70,70	0
59	MG	AA	1696	1/1	0.84	0.19	81,81,81,81	0
59	MG	CW	111	1/1	0.84	1.21	75,75,75,75	0
59	MG	DA	3317	1/1	0.84	0.31	52,52,52,52	0
59	MG	CA	1791	1/1	0.85	0.39	78,78,78,78	0
59	MG	BA	3015	1/1	0.85	0.36	37,37,37,37	0
59	MG	AA	1783	1/1	0.85	0.84	74,74,74,74	0
59	MG	AA	1788	1/1	0.85	0.45	94,94,94,94	0
59	MG	CA	1796	1/1	0.85	0.52	68,68,68,68	0
59	MG	BA	3225	1/1	0.85	0.46	37,37,37,37	0
59	MG	CA	1682	1/1	0.85	0.22	67,67,67,67	0
59	MG	DA	3108	1/1	0.85	0.27	48,48,48,48	0
59	MG	BA	3156	1/1	0.85	0.25	78,78,78,78	0
59	MG	CA	1747	1/1	0.85	0.36	40,40,40,40	0
59	MG	AE	201	1/1	0.85	0.17	86,86,86,86	0
59	MG	BB	201	1/1	0.85	0.32	87,87,87,87	0
59	MG	BA	3412	1/1	0.85	0.27	64,64,64,64	0
59	MG	DA	3261	1/1	0.85	0.57	50,50,50,50	0
59	MG	AA	1721	1/1	0.85	0.19	63,63,63,63	0
59	MG	CA	1609	1/1	0.85	0.17	69,69,69,69	0
59	MG	BB	209	1/1	0.85	0.32	109,109,109,109	0
59	MG	AA	1601	1/1	0.85	0.70	73,73,73,73	0
59	MG	AA	1742	1/1	0.85	0.10	72,72,72,72	0
59	MG	CA	1707	1/1	0.85	0.38	53,53,53,53	0
59	MG	DA	3169	1/1	0.85	0.26	37,37,37,37	0
59	MG	BA	3332	1/1	0.85	0.40	75,75,75,75	0
59	MG	DA	3391	1/1	0.85	0.21	61,61,61,61	0
59	MG	BA	3079	1/1	0.85	0.41	65,65,65,65	0
59	MG	CA	1669	1/1	0.85	0.52	78,78,78,78	0
59	MG	BA	3013	1/1	0.85	0.42	62,62,62,62	0
59	MG	BA	3177	1/1	0.85	0.08	58,58,58,58	0
59	MG	DA	3195	1/1	0.85	0.36	52,52,52,52	0
59	MG	AA	1733	1/1	0.85	0.41	67,67,67,67	0
59	MG	BA	3071	1/1	0.86	0.53	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	BA	3287	1/1	0.86	0.20	51,51,51,51	0
59	MG	DA	3301	1/1	0.86	0.26	136,136,136,136	0
59	MG	CA	1708	1/1	0.86	0.38	55,55,55,55	0
59	MG	DA	3141	1/1	0.86	0.23	40,40,40,40	0
59	MG	BA	3012	1/1	0.86	0.30	66,66,66,66	0
59	MG	DA	3145	1/1	0.86	0.28	64,64,64,64	0
59	MG	DA	3148	1/1	0.86	0.33	44,44,44,44	0
59	MG	AV	106	1/1	0.86	0.30	96,96,96,96	0
59	MG	AX	101	1/1	0.86	0.52	71,71,71,71	0
59	MG	AA	1797	1/1	0.86	0.28	73,73,73,73	0
59	MG	AA	1747	1/1	0.86	0.25	68,68,68,68	0
59	MG	CA	1661	1/1	0.86	0.36	56,56,56,56	0
59	MG	BA	3248	1/1	0.86	0.41	54,54,54,54	0
59	MG	DA	3328	1/1	0.86	0.14	155,155,155,155	0
59	MG	BA	3107	1/1	0.86	0.42	53,53,53,53	0
59	MG	CA	1667	1/1	0.86	0.47	62,62,62,62	0
59	MG	CA	1740	1/1	0.86	0.40	59,59,59,59	0
59	MG	BA	3163	1/1	0.86	0.16	81,81,81,81	0
59	MG	AA	1694	1/1	0.86	0.26	77,77,77,77	0
59	MG	BA	3367	1/1	0.86	0.20	85,85,85,85	0
59	MG	BA	3371	1/1	0.86	0.47	68,68,68,68	0
59	MG	CA	1615	1/1	0.86	0.26	56,56,56,56	0
59	MG	BA	3381	1/1	0.86	0.30	53,53,53,53	0
59	MG	BA	3383	1/1	0.86	0.25	35,35,35,35	0
59	MG	AA	1648	1/1	0.86	0.12	81,81,81,81	0
59	MG	BA	3258	1/1	0.86	0.68	69,69,69,69	0
59	MG	DA	3363	1/1	0.86	0.30	48,48,48,48	0
59	MG	AW	116	1/1	0.86	0.86	76,76,76,76	0
59	MG	BA	3028	1/1	0.86	0.42	23,23,23,23	0
59	MG	DA	3372	1/1	0.86	0.21	68,68,68,68	0
59	MG	DA	3231	1/1	0.86	0.20	71,71,71,71	0
59	MG	CA	1638	1/1	0.86	0.23	75,75,75,75	0
59	MG	BA	3328	1/1	0.86	0.93	80,80,80,80	0
59	MG	DA	3234	1/1	0.86	0.64	72,72,72,72	0
59	MG	BA	3275	1/1	0.86	0.38	45,45,45,45	0
59	MG	AA	1603	1/1	0.86	0.09	65,65,65,65	0
59	MG	DA	3249	1/1	0.86	0.27	68,68,68,68	0
59	MG	BA	3278	1/1	0.86	0.38	86,86,86,86	0
59	MG	DA	3103	1/1	0.86	0.92	59,59,59,59	0
59	MG	CA	1699	1/1	0.86	0.15	66,66,66,66	0
59	MG	AW	109	1/1	0.86	0.26	154,154,154,154	0
59	MG	BA	3063	1/1	0.86	0.35	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	CA	1705	1/1	0.86	0.48	46,46,46,46	0
59	MG	AW	111	1/1	0.87	0.93	139,139,139,139	0
59	MG	CA	1633	1/1	0.87	0.29	61,61,61,61	0
59	MG	CA	1672	1/1	0.87	0.14	94,94,94,94	0
59	MG	BA	3292	1/1	0.87	0.30	48,48,48,48	0
59	MG	AA	1644	1/1	0.87	0.46	50,50,50,50	0
59	MG	AA	1748	1/1	0.87	0.39	98,98,98,98	0
59	MG	AA	1774	1/1	0.87	0.35	61,61,61,61	0
59	MG	BA	3169	1/1	0.87	0.34	49,49,49,49	0
59	MG	AA	1658	1/1	0.87	0.32	63,63,63,63	0
59	MG	CU	101	1/1	0.87	0.17	84,84,84,84	0
59	MG	DA	3228	1/1	0.87	0.62	43,43,43,43	0
59	MG	BA	3435	1/1	0.87	0.19	73,73,73,73	0
59	MG	BA	3345	1/1	0.87	0.31	74,74,74,74	0
59	MG	BU	203	1/1	0.87	0.35	82,82,82,82	0
59	MG	BA	3112	1/1	0.87	0.72	42,42,42,42	0
59	MG	AA	1701	1/1	0.87	0.39	60,60,60,60	0
59	MG	DA	3243	1/1	0.87	0.52	42,42,42,42	0
59	MG	BA	3441	1/1	0.87	0.50	50,50,50,50	0
59	MG	AA	1627	1/1	0.87	0.33	56,56,56,56	0
59	MG	DA	3147	1/1	0.87	0.27	31,31,31,31	0
59	MG	DA	3254	1/1	0.87	0.37	66,66,66,66	0
59	MG	DA	3255	1/1	0.87	0.28	55,55,55,55	0
59	MG	CA	1654	1/1	0.87	0.48	45,45,45,45	0
59	MG	BA	3454	1/1	0.87	0.27	61,61,61,61	0
59	MG	DA	3368	1/1	0.87	0.93	50,50,50,50	0
59	MG	BA	3217	1/1	0.87	0.42	72,72,72,72	0
59	MG	CA	1759	1/1	0.87	0.29	61,61,61,61	0
59	MG	DA	3269	1/1	0.87	0.29	32,32,32,32	0
59	MG	DA	3379	1/1	0.87	0.14	53,53,53,53	0
59	MG	AA	1615	1/1	0.87	0.63	32,32,32,32	0
59	MG	BA	3236	1/1	0.87	0.47	48,48,48,48	0
59	MG	DA	3275	1/1	0.87	0.30	53,53,53,53	0
59	MG	DA	3279	1/1	0.87	0.73	52,52,52,52	0
59	MG	DA	3167	1/1	0.87	0.30	76,76,76,76	0
59	MG	DA	3290	1/1	0.87	0.18	68,68,68,68	0
59	MG	BA	3284	1/1	0.87	0.32	62,62,62,62	0
59	MG	BA	3411	1/1	0.87	0.33	52,52,52,52	0
59	MG	BA	3242	1/1	0.87	0.38	49,49,49,49	0
59	MG	BA	3244	1/1	0.87	0.74	85,85,85,85	0
59	MG	DA	3186	1/1	0.87	1.18	43,43,43,43	0
59	MG	CA	1625	1/1	0.88	0.32	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	AA	1649	1/1	0.88	0.20	54,54,54,54	0
59	MG	DA	3134	1/1	0.88	0.51	49,49,49,49	0
59	MG	DA	3135	1/1	0.88	0.23	56,56,56,56	0
59	MG	BA	3127	1/1	0.88	0.24	77,77,77,77	0
59	MG	DA	3139	1/1	0.88	0.49	57,57,57,57	0
59	MG	AA	1780	1/1	0.88	0.22	72,72,72,72	0
59	MG	BA	3259	1/1	0.88	0.25	55,55,55,55	0
59	MG	BA	3260	1/1	0.88	0.34	59,59,59,59	0
59	MG	CA	1776	1/1	0.88	0.26	53,53,53,53	0
59	MG	CA	1697	1/1	0.88	0.21	77,77,77,77	0
59	MG	AA	1730	1/1	0.88	0.35	59,59,59,59	0
59	MG	BB	204	1/1	0.88	0.35	98,98,98,98	0
59	MG	DA	3156	1/1	0.88	0.65	67,67,67,67	0
59	MG	DA	3314	1/1	0.88	0.12	64,64,64,64	0
59	MG	DA	3159	1/1	0.88	0.41	41,41,41,41	0
59	MG	BA	3266	1/1	0.88	0.35	64,64,64,64	0
59	MG	BA	3269	1/1	0.88	0.21	166,166,166,166	0
59	MG	BA	3394	1/1	0.88	0.40	61,61,61,61	0
59	MG	BA	3396	1/1	0.88	0.39	63,63,63,63	0
59	MG	BB	214	1/1	0.88	0.27	84,84,84,84	0
59	MG	CA	1710	1/1	0.88	0.14	120,120,120,120	0
59	MG	CV	102	1/1	0.88	0.38	62,62,62,62	0
59	MG	AA	1762	1/1	0.88	0.29	100,100,100,100	0
59	MG	AA	1623	1/1	0.88	0.35	79,79,79,79	0
59	MG	CA	1717	1/1	0.88	0.35	48,48,48,48	0
59	MG	DA	3187	1/1	0.88	0.46	53,53,53,53	0
59	MG	BA	3330	1/1	0.88	0.10	104,104,104,104	0
59	MG	BA	3228	1/1	0.88	0.27	68,68,68,68	0
59	MG	AA	1735	1/1	0.88	0.44	56,56,56,56	0
59	MG	DA	3202	1/1	0.88	0.21	54,54,54,54	0
59	MG	CA	1728	1/1	0.88	0.18	73,73,73,73	0
59	MG	AW	102	1/1	0.88	0.50	79,79,79,79	0
59	MG	CA	1657	1/1	0.88	0.10	88,88,88,88	0
59	MG	BA	3282	1/1	0.88	0.27	76,76,76,76	0
59	MG	AA	1749	1/1	0.88	0.14	105,105,105,105	0
59	MG	CA	1736	1/1	0.88	0.41	63,63,63,63	0
59	MG	DA	3215	1/1	0.88	0.76	46,46,46,46	0
59	MG	CA	1739	1/1	0.88	0.23	131,131,131,131	0
59	MG	BA	3342	1/1	0.88	0.38	64,64,64,64	0
59	MG	DA	3229	1/1	0.88	0.25	52,52,52,52	0
59	MG	AA	1737	1/1	0.88	0.32	78,78,78,78	0
59	MG	BA	3416	1/1	0.88	0.24	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	AW	120	1/1	0.88	0.30	104,104,104,104	0
59	MG	AA	1691	1/1	0.88	0.62	45,45,45,45	0
59	MG	BA	3207	1/1	0.88	0.24	46,46,46,46	0
59	MG	BA	3164	1/1	0.88	0.18	78,78,78,78	0
59	MG	BA	3300	1/1	0.88	0.45	62,62,62,62	0
59	MG	BA	3246	1/1	0.88	0.29	54,54,54,54	0
59	MG	AA	1635	1/1	0.88	0.45	53,53,53,53	0
59	MG	DB	203	1/1	0.88	0.17	59,59,59,59	0
59	MG	DA	3253	1/1	0.88	0.16	80,80,80,80	0
59	MG	BA	3362	1/1	0.88	0.63	83,83,83,83	0
59	MG	AA	1741	1/1	0.88	0.11	69,69,69,69	0
59	MG	BA	3304	1/1	0.88	0.20	71,71,71,71	0
59	MG	AA	1703	1/1	0.88	0.54	72,72,72,72	0
59	MG	DA	3293	1/1	0.89	0.30	16,16,16,16	0
59	MG	CA	1694	1/1	0.89	0.16	80,80,80,80	0
59	MG	BU	202	1/1	0.89	0.23	52,52,52,52	0
59	MG	AA	1636	1/1	0.89	0.42	65,65,65,65	0
59	MG	BA	3017	1/1	0.89	0.25	43,43,43,43	0
59	MG	BA	3136	1/1	0.89	0.30	51,51,51,51	0
59	MG	DA	3188	1/1	0.89	0.44	30,30,30,30	0
59	MG	BA	3440	1/1	0.89	0.43	54,54,54,54	0
59	MG	BA	3214	1/1	0.89	0.39	59,59,59,59	0
59	MG	CA	1760	1/1	0.89	0.11	92,92,92,92	0
59	MG	DA	3197	1/1	0.89	0.47	49,49,49,49	0
59	MG	BA	3270	1/1	0.89	0.20	73,73,73,73	0
59	MG	BA	3234	1/1	0.89	0.51	83,83,83,83	0
59	MG	DA	3019	1/1	0.89	0.47	52,52,52,52	0
59	MG	DA	3325	1/1	0.89	0.23	56,56,56,56	0
59	MG	BA	3308	1/1	0.89	0.32	53,53,53,53	0
59	MG	DA	3074	1/1	0.89	0.22	40,40,40,40	0
59	MG	CA	1709	1/1	0.89	0.46	49,49,49,49	0
59	MG	DA	3100	1/1	0.89	0.36	29,29,29,29	0
59	MG	AA	1714	1/1	0.89	0.12	88,88,88,88	0
59	MG	BA	3315	1/1	0.89	0.32	64,64,64,64	0
59	MG	BA	3173	1/1	0.89	0.20	62,62,62,62	0
59	MG	BA	3001	1/1	0.89	0.63	56,56,56,56	0
59	MG	AA	1717	1/1	0.89	0.14	67,67,67,67	0
59	MG	DA	3349	1/1	0.89	0.99	39,39,39,39	1
59	MG	AA	1729	1/1	0.89	0.19	61,61,61,61	0
59	MG	DA	3132	1/1	0.89	0.39	44,44,44,44	0
59	MG	CA	1722	1/1	0.89	0.17	67,67,67,67	0
59	MG	CA	1723	1/1	0.89	0.09	132,132,132,132	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	DA	3235	1/1	0.89	0.94	73,73,73,73	0
59	MG	BA	3253	1/1	0.89	0.27	97,97,97,97	0
59	MG	BB	213	1/1	0.89	0.32	50,50,50,50	0
59	MG	CA	1634	1/1	0.89	0.22	68,68,68,68	0
59	MG	CA	1730	1/1	0.89	0.18	93,93,93,93	0
59	MG	AA	1685	1/1	0.89	0.05	104,104,104,104	0
59	MG	BA	3008	1/1	0.89	0.36	49,49,49,49	0
59	MG	CA	1734	1/1	0.89	0.53	75,75,75,75	0
59	MG	AA	1781	1/1	0.89	0.26	70,70,70,70	0
59	MG	BA	3423	1/1	0.89	0.61	61,61,61,61	0
59	MG	DA	3154	1/1	0.89	0.12	54,54,54,54	0
59	MG	BA	3376	1/1	0.89	0.49	81,81,81,81	0
59	MG	BA	3380	1/1	0.89	0.20	60,60,60,60	0
59	MG	AV	107	1/1	0.89	0.26	63,63,63,63	0
59	MG	AA	1655	1/1	0.89	0.65	73,73,73,73	0
59	MG	BA	3299	1/1	0.89	0.20	63,63,63,63	0
59	MG	DB	204	1/1	0.89	0.29	77,77,77,77	0
59	MG	DA	3278	1/1	0.89	0.66	52,52,52,52	0
59	MG	CA	1745	1/1	0.89	0.20	51,51,51,51	0
59	MG	CA	1691	1/1	0.89	0.14	65,65,65,65	0
59	MG	DA	3282	1/1	0.89	0.63	52,52,52,52	0
59	MG	AA	1787	1/1	0.89	0.08	84,84,84,84	0
59	MG	DA	3313	1/1	0.90	0.36	47,47,47,47	0
59	MG	CA	1610	1/1	0.90	0.26	76,76,76,76	0
59	MG	CA	1613	1/1	0.90	0.13	63,63,63,63	0
59	MG	BA	3226	1/1	0.90	0.20	57,57,57,57	0
59	MG	CA	1789	1/1	0.90	0.13	89,89,89,89	0
59	MG	BA	3160	1/1	0.90	0.18	57,57,57,57	0
59	MG	CA	1727	1/1	0.90	0.09	99,99,99,99	0
59	MG	CA	1618	1/1	0.90	0.28	65,65,65,65	0
59	MG	BA	3055	1/1	0.90	0.31	23,23,23,23	0
59	MG	BA	3122	1/1	0.90	0.22	27,27,27,27	0
59	MG	BB	203	1/1	0.90	0.33	99,99,99,99	0
59	MG	BA	3200	1/1	0.90	0.32	68,68,68,68	0
59	MG	CA	1626	1/1	0.90	0.37	94,94,94,94	0
59	MG	AA	1616	1/1	0.90	0.17	63,63,63,63	0
59	MG	BA	3166	1/1	0.90	0.11	105,105,105,105	0
59	MG	DA	3144	1/1	0.90	0.20	45,45,45,45	0
59	MG	CA	1737	1/1	0.90	0.41	82,82,82,82	0
59	MG	CA	1738	1/1	0.90	0.28	95,95,95,95	0
59	MG	BA	3311	1/1	0.90	0.35	63,63,63,63	0
59	MG	DA	3248	1/1	0.90	0.61	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	AA	1690	1/1	0.90	0.30	69,69,69,69	0
59	MG	DA	3250	1/1	0.90	0.33	48,48,48,48	0
59	MG	BA	3210	1/1	0.90	0.17	56,56,56,56	0
59	MG	AA	1767	1/1	0.90	0.25	47,47,47,47	0
59	MG	BA	3417	1/1	0.90	0.38	43,43,43,43	0
59	MG	DA	3358	1/1	0.90	0.16	72,72,72,72	0
59	MG	BA	3237	1/1	0.90	0.42	37,37,37,37	0
59	MG	BA	3279	1/1	0.90	0.28	66,66,66,66	0
59	MG	BA	3421	1/1	0.90	0.55	50,50,50,50	0
59	MG	BA	3422	1/1	0.90	0.11	48,48,48,48	0
59	MG	AA	1746	1/1	0.90	0.10	87,87,87,87	0
59	MG	CA	1752	1/1	0.90	0.32	41,41,41,41	0
59	MG	BA	3369	1/1	0.90	0.36	60,60,60,60	0
59	MG	AA	1758	1/1	0.90	0.54	42,42,42,42	0
59	MG	BA	3326	1/1	0.90	0.31	130,130,130,130	0
59	MG	DA	3381	1/1	0.90	0.21	57,57,57,57	0
59	MG	BA	3245	1/1	0.90	0.41	32,32,32,32	0
59	MG	AA	1699	1/1	0.90	0.05	105,105,105,105	0
59	MG	AA	1633	1/1	0.90	0.23	64,64,64,64	0
59	MG	DA	3286	1/1	0.90	0.28	35,35,35,35	0
59	MG	DB	201	1/1	0.90	0.12	65,65,65,65	0
59	MG	AA	1798	1/1	0.90	0.37	75,75,75,75	0
59	MG	DA	3192	1/1	0.90	0.22	53,53,53,53	0
59	MG	DA	3296	1/1	0.90	0.29	46,46,46,46	0
59	MG	AA	1618	1/1	0.90	0.20	65,65,65,65	0
59	MG	AA	1750	1/1	0.90	0.31	68,68,68,68	0
59	MG	BA	3295	1/1	0.90	0.34	51,51,51,51	0
59	MG	DO	201	1/1	0.90	0.27	64,64,64,64	0
59	MG	AW	103	1/1	0.90	0.75	105,105,105,105	0
59	MG	AA	1711	1/1	0.90	0.09	60,60,60,60	0
59	MG	BA	3057	1/1	0.91	0.59	52,52,52,52	0
59	MG	CA	1611	1/1	0.91	0.31	71,71,71,71	0
59	MG	BA	3134	1/1	0.91	0.30	30,30,30,30	0
59	MG	AV	104	1/1	0.91	0.73	102,102,102,102	0
59	MG	AV	105	1/1	0.91	0.58	62,62,62,62	0
59	MG	AA	1625	1/1	0.91	0.14	66,66,66,66	0
59	MG	AA	1613	1/1	0.91	0.17	89,89,89,89	0
59	MG	BA	3208	1/1	0.91	0.15	36,36,36,36	0
59	MG	CA	1744	1/1	0.91	0.33	94,94,94,94	0
59	MG	CA	1685	1/1	0.91	0.18	56,56,56,56	0
59	MG	BA	3147	1/1	0.91	0.26	58,58,58,58	0
59	MG	BA	3316	1/1	0.91	0.80	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	BA	3151	1/1	0.91	0.40	78,78,78,78	0
59	MG	BA	3384	1/1	0.91	0.83	63,63,63,63	0
59	MG	BA	3320	1/1	0.91	0.35	173,173,173,173	0
59	MG	BA	3386	1/1	0.91	0.26	83,83,83,83	0
59	MG	AA	1779	1/1	0.91	0.58	58,58,58,58	0
59	MG	BA	3082	1/1	0.91	0.34	42,42,42,42	0
59	MG	AA	1736	1/1	0.91	0.44	56,56,56,56	0
59	MG	BA	3089	1/1	0.91	0.26	42,42,42,42	0
59	MG	BA	3090	1/1	0.91	0.27	73,73,73,73	0
59	MG	AA	1766	1/1	0.91	0.10	54,54,54,54	0
59	MG	AA	1809	1/1	0.91	0.66	57,57,57,57	0
59	MG	BA	3098	1/1	0.91	0.41	55,55,55,55	0
59	MG	AA	1629	1/1	0.91	0.27	61,61,61,61	0
59	MG	AA	1631	1/1	0.91	0.31	62,62,62,62	0
59	MG	CA	1770	1/1	0.91	0.32	80,80,80,80	0
59	MG	BA	3109	1/1	0.91	0.32	32,32,32,32	0
59	MG	CA	1713	1/1	0.91	0.12	61,61,61,61	0
59	MG	BA	3170	1/1	0.91	0.35	66,66,66,66	0
59	MG	CA	1777	1/1	0.91	0.22	60,60,60,60	0
59	MG	DA	3360	1/1	0.91	0.14	55,55,55,55	0
59	MG	AA	1640	1/1	0.91	0.36	42,42,42,42	0
59	MG	B0	101	1/1	0.91	0.27	44,44,44,44	0
59	MG	CA	1718	1/1	0.91	0.35	81,81,81,81	0
59	MG	AA	1642	1/1	0.91	0.24	57,57,57,57	0
59	MG	BA	3415	1/1	0.91	0.53	71,71,71,71	0
59	MG	AA	1790	1/1	0.91	0.17	120,120,120,120	0
59	MG	BA	3178	1/1	0.91	0.12	53,53,53,53	0
59	MG	B5	101	1/1	0.91	0.27	30,30,30,30	0
59	MG	CF	201	1/1	0.91	0.35	69,69,69,69	0
59	MG	DA	3153	1/1	0.91	0.25	49,49,49,49	0
59	MG	DA	3268	1/1	0.91	0.33	53,53,53,53	0
59	MG	CA	1662	1/1	0.91	0.16	60,60,60,60	0
59	MG	DA	3385	1/1	0.91	0.11	226,226,226,226	0
59	MG	DA	3386	1/1	0.91	0.76	181,181,181,181	0
59	MG	BA	3036	1/1	0.91	0.32	56,56,56,56	0
59	MG	DA	3390	1/1	0.91	0.43	49,49,49,49	0
59	MG	DA	3157	1/1	0.91	0.26	42,42,42,42	0
59	MG	BA	3298	1/1	0.91	0.23	65,65,65,65	0
59	MG	BA	3184	1/1	0.91	0.36	59,59,59,59	0
59	MG	CV	104	1/1	0.91	0.25	55,55,55,55	0
59	MG	B8	101	1/1	0.91	0.38	79,79,79,79	0
59	MG	DA	3164	1/1	0.91	0.17	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	BA	3131	1/1	0.91	0.36	55,55,55,55	0
59	MG	AA	1731	1/1	0.91	0.35	56,56,56,56	0
59	MG	BA	3363	1/1	0.91	0.34	43,43,43,43	0
59	MG	DA	3172	1/1	0.91	0.26	48,48,48,48	0
59	MG	DA	3297	1/1	0.91	0.41	50,50,50,50	0
59	MG	BA	3188	1/1	0.92	0.33	66,66,66,66	0
59	MG	BA	3058	1/1	0.92	0.15	47,47,47,47	0
59	MG	BA	3358	1/1	0.92	0.11	73,73,73,73	0
59	MG	AA	1791	1/1	0.92	0.24	91,91,91,91	0
59	MG	DA	3114	1/1	0.92	0.07	32,32,32,32	0
59	MG	BA	3161	1/1	0.92	0.44	35,35,35,35	0
59	MG	DA	3319	1/1	0.92	0.53	81,81,81,81	0
59	MG	BA	3062	1/1	0.92	0.34	30,30,30,30	0
59	MG	DA	3216	1/1	0.92	0.41	26,26,26,26	0
59	MG	DA	3220	1/1	0.92	0.30	47,47,47,47	0
59	MG	AA	1792	1/1	0.92	0.10	99,99,99,99	0
59	MG	DA	3227	1/1	0.92	0.25	49,49,49,49	0
59	MG	CG	201	1/1	0.92	0.42	72,72,72,72	0
59	MG	DA	3330	1/1	0.92	0.34	55,55,55,55	0
59	MG	BA	3067	1/1	0.92	0.58	36,36,36,36	0
59	MG	BA	3165	1/1	0.92	0.33	44,44,44,44	0
59	MG	AA	1626	1/1	0.92	0.29	60,60,60,60	0
59	MG	DA	3336	1/1	0.92	0.56	62,62,62,62	0
59	MG	BA	3209	1/1	0.92	0.20	45,45,45,45	0
59	MG	BA	3372	1/1	0.92	0.32	70,70,70,70	0
59	MG	CA	1696	1/1	0.92	0.39	44,44,44,44	0
59	MG	AA	1673	1/1	0.92	0.13	55,55,55,55	0
59	MG	AA	1695	1/1	0.92	0.26	51,51,51,51	0
59	MG	B2	101	1/1	0.92	0.49	49,49,49,49	0
59	MG	CW	105	1/1	0.92	0.43	107,107,107,107	0
59	MG	DA	3247	1/1	0.92	0.27	41,41,41,41	0
59	MG	DA	3150	1/1	0.92	0.16	54,54,54,54	0
59	MG	BA	3021	1/1	0.92	0.24	61,61,61,61	0
59	MG	CA	1653	1/1	0.92	0.41	38,38,38,38	0
59	MG	AA	1663	1/1	0.92	0.45	61,61,61,61	0
59	MG	BA	3436	1/1	0.92	0.18	65,65,65,65	0
59	MG	BA	3297	1/1	0.92	0.08	66,66,66,66	0
59	MG	AA	1802	1/1	0.92	0.28	85,85,85,85	0
59	MG	AA	1723	1/1	0.92	0.18	64,64,64,64	0
59	MG	DA	3370	1/1	0.92	0.43	37,37,37,37	0
59	MG	AA	1785	1/1	0.92	0.41	52,52,52,52	0
59	MG	AA	1657	1/1	0.92	0.21	92,92,92,92	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	DA	3267	1/1	0.92	0.42	53,53,53,53	0
59	MG	CA	1663	1/1	0.92	0.36	71,71,71,71	0
59	MG	AA	1668	1/1	0.92	0.11	47,47,47,47	0
59	MG	BA	3444	1/1	0.92	0.47	58,58,58,58	0
59	MG	AA	1688	1/1	0.92	0.37	50,50,50,50	0
59	MG	BA	3261	1/1	0.92	0.29	59,59,59,59	0
59	MG	DA	3276	1/1	0.92	0.33	38,38,38,38	0
59	MG	BA	3346	1/1	0.92	0.51	128,128,128,128	0
59	MG	DA	3180	1/1	0.92	0.14	26,26,26,26	0
59	MG	AA	1628	1/1	0.92	0.24	52,52,52,52	0
59	MG	DA	3018	1/1	0.92	0.30	73,73,73,73	0
59	MG	BA	3153	1/1	0.92	0.23	42,42,42,42	0
59	MG	DA	3040	1/1	0.92	0.24	22,22,22,22	0
59	MG	DA	3049	1/1	0.92	0.52	38,38,38,38	0
59	MG	DA	3050	1/1	0.92	0.26	44,44,44,44	0
59	MG	BA	3307	1/1	0.92	0.47	39,39,39,39	0
59	MG	CA	1624	1/1	0.92	0.30	58,58,58,58	0
59	MG	DA	3076	1/1	0.92	0.17	29,29,29,29	0
59	MG	BA	3111	1/1	0.92	0.21	52,52,52,52	0
59	MG	DA	3201	1/1	0.92	0.11	45,45,45,45	0
59	MG	BA	3354	1/1	0.92	0.35	38,38,38,38	0
59	MG	AA	1641	1/1	0.93	0.17	78,78,78,78	0
59	MG	BA	3174	1/1	0.93	0.23	48,48,48,48	0
59	MG	AA	1784	1/1	0.93	0.41	70,70,70,70	0
59	MG	DA	3221	1/1	0.93	0.24	51,51,51,51	0
59	MG	DA	3222	1/1	0.93	0.62	38,38,38,38	0
59	MG	BA	3144	1/1	0.93	0.37	54,54,54,54	0
59	MG	BA	3099	1/1	0.93	0.23	40,40,40,40	0
59	MG	BA	3390	1/1	0.93	0.37	30,30,30,30	0
59	MG	AA	1607	1/1	0.93	0.19	53,53,53,53	0
59	MG	BA	3009	1/1	0.93	0.14	48,48,48,48	0
59	MG	BA	3349	1/1	0.93	0.41	73,73,73,73	0
59	MG	DA	3327	1/1	0.93	0.48	89,89,89,89	0
59	MG	BA	3185	1/1	0.93	0.17	63,63,63,63	0
59	MG	CA	1659	1/1	0.93	0.43	50,50,50,50	0
59	MG	BA	3010	1/1	0.93	0.26	48,48,48,48	0
59	MG	DA	3151	1/1	0.93	0.31	40,40,40,40	0
59	MG	BA	3449	1/1	0.93	0.58	46,46,46,46	0
59	MG	CA	1712	1/1	0.93	0.13	86,86,86,86	0
59	MG	AA	1768	1/1	0.93	0.21	63,63,63,63	0
59	MG	BA	3312	1/1	0.93	0.21	65,65,65,65	0
59	MG	DA	3343	1/1	0.93	0.40	26,26,26,26	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	AA	1716	1/1	0.93	0.09	99,99,99,99	0
59	MG	AA	1620	1/1	0.93	0.42	38,38,38,38	0
59	MG	AA	1698	1/1	0.93	0.14	54,54,54,54	0
59	MG	DA	3252	1/1	0.93	0.23	68,68,68,68	0
59	MG	AA	1732	1/1	0.93	0.61	56,56,56,56	0
59	MG	CA	1621	1/1	0.93	0.19	67,67,67,67	0
59	MG	BB	205	1/1	0.93	0.14	65,65,65,65	0
59	MG	CA	1774	1/1	0.93	0.62	49,49,49,49	0
59	MG	BA	3076	1/1	0.93	0.23	65,65,65,65	0
59	MG	DA	3259	1/1	0.93	0.47	34,34,34,34	0
59	MG	DA	3260	1/1	0.93	0.41	43,43,43,43	0
59	MG	DA	3168	1/1	0.93	0.52	60,60,60,60	0
59	MG	BA	3321	1/1	0.93	0.08	175,175,175,175	0
59	MG	AA	1719	1/1	0.93	0.31	112,112,112,112	0
59	MG	BA	3204	1/1	0.93	0.40	40,40,40,40	0
59	MG	CA	1784	1/1	0.93	0.09	66,66,66,66	0
59	MG	DA	3051	1/1	0.93	0.25	43,43,43,43	0
59	MG	DA	3272	1/1	0.93	0.24	57,57,57,57	0
59	MG	DA	3375	1/1	0.93	0.20	84,84,84,84	0
59	MG	AA	1630	1/1	0.93	0.12	67,67,67,67	0
59	MG	DA	3065	1/1	0.93	0.32	23,23,23,23	0
59	MG	DA	3070	1/1	0.93	0.42	41,41,41,41	0
59	MG	BA	3129	1/1	0.93	0.66	61,61,61,61	0
59	MG	CA	1680	1/1	0.93	0.09	84,84,84,84	0
59	MG	DA	3084	1/1	0.93	0.39	41,41,41,41	0
59	MG	AA	1722	1/1	0.93	0.14	75,75,75,75	0
59	MG	AA	1653	1/1	0.93	0.30	45,45,45,45	0
59	MG	DA	3289	1/1	0.93	0.33	50,50,50,50	0
59	MG	CA	1795	1/1	0.93	0.18	62,62,62,62	0
59	MG	B8	102	1/1	0.93	0.27	58,58,58,58	0
59	MG	CA	1639	1/1	0.93	0.36	48,48,48,48	0
59	MG	AA	1646	1/1	0.93	0.44	67,67,67,67	0
59	MG	AA	1782	1/1	0.93	0.16	116,116,116,116	0
59	MG	BA	3139	1/1	0.93	0.41	37,37,37,37	0
59	MG	DA	3121	1/1	0.93	0.23	41,41,41,41	0
59	MG	DA	3306	1/1	0.93	0.13	39,39,39,39	0
59	MG	DB	212	1/1	0.93	0.20	99,99,99,99	0
59	MG	DF	301	1/1	0.93	0.44	66,66,66,66	0
59	MG	DN	201	1/1	0.93	0.33	98,98,98,98	0
59	MG	BA	3140	1/1	0.93	0.26	36,36,36,36	0
59	MG	BA	3432	1/1	0.93	0.22	48,48,48,48	0
59	MG	DA	3214	1/1	0.93	0.60	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	DA	3251	1/1	0.94	0.18	53,53,53,53	0
59	MG	DA	3081	1/1	0.94	0.58	39,39,39,39	0
59	MG	BA	3430	1/1	0.94	0.13	69,69,69,69	0
59	MG	AA	1806	1/1	0.94	0.46	30,30,30,30	0
59	MG	DA	3091	1/1	0.94	0.38	37,37,37,37	0
59	MG	DA	3094	1/1	0.94	0.34	38,38,38,38	0
59	MG	CA	1679	1/1	0.94	0.18	63,63,63,63	0
59	MG	CA	1755	1/1	0.94	0.38	47,47,47,47	0
59	MG	DA	3104	1/1	0.94	0.22	23,23,23,23	0
59	MG	BA	3041	1/1	0.94	0.62	46,46,46,46	0
59	MG	DA	3263	1/1	0.94	0.57	38,38,38,38	0
59	MG	DA	3106	1/1	0.94	0.16	32,32,32,32	0
59	MG	BA	3264	1/1	0.94	0.46	55,55,55,55	0
59	MG	BA	3368	1/1	0.94	0.15	57,57,57,57	0
59	MG	DA	3113	1/1	0.94	0.19	23,23,23,23	0
59	MG	CA	1612	1/1	0.94	0.62	37,37,37,37	0
59	MG	BA	3118	1/1	0.94	0.46	31,31,31,31	0
59	MG	BA	3267	1/1	0.94	0.34	51,51,51,51	0
59	MG	CA	1687	1/1	0.94	0.32	56,56,56,56	0
59	MG	DA	3130	1/1	0.94	0.21	41,41,41,41	0
59	MG	CA	1688	1/1	0.94	0.28	81,81,81,81	0
59	MG	BA	3155	1/1	0.94	0.15	61,61,61,61	0
59	MG	BA	3042	1/1	0.94	0.49	52,52,52,52	0
59	MG	BA	3084	1/1	0.94	0.19	58,58,58,58	0
59	MG	DA	3285	1/1	0.94	0.29	44,44,44,44	0
59	MG	BA	3043	1/1	0.94	0.23	52,52,52,52	0
59	MG	BA	3087	1/1	0.94	0.16	53,53,53,53	0
59	MG	CA	1622	1/1	0.94	0.28	50,50,50,50	0
59	MG	BA	3197	1/1	0.94	1.09	68,68,68,68	0
59	MG	CA	1778	1/1	0.94	0.38	77,77,77,77	0
59	MG	BA	3004	1/1	0.94	0.53	48,48,48,48	0
59	MG	DA	3298	1/1	0.94	0.20	50,50,50,50	0
59	MG	BA	3446	1/1	0.94	0.45	53,53,53,53	0
59	MG	CA	1785	1/1	0.94	0.30	46,46,46,46	0
59	MG	DA	3303	1/1	0.94	0.13	48,48,48,48	0
59	MG	DA	3149	1/1	0.94	0.47	40,40,40,40	0
59	MG	BA	3447	1/1	0.94	0.21	35,35,35,35	0
59	MG	CA	1701	1/1	0.94	0.36	53,53,53,53	0
59	MG	CA	1702	1/1	0.94	0.14	75,75,75,75	0
59	MG	BA	3448	1/1	0.94	0.55	44,44,44,44	0
59	MG	CA	1704	1/1	0.94	0.23	66,66,66,66	0
59	MG	CA	1629	1/1	0.94	0.32	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	BA	3005	1/1	0.94	0.27	53,53,53,53	0
59	MG	DA	3158	1/1	0.94	0.30	51,51,51,51	0
59	MG	BA	3450	1/1	0.94	0.11	57,57,57,57	0
59	MG	BA	3451	1/1	0.94	0.34	45,45,45,45	0
59	MG	BA	3453	1/1	0.94	2.01	172,172,172,172	0
59	MG	BA	3281	1/1	0.94	0.47	68,68,68,68	0
59	MG	BA	3092	1/1	0.94	0.28	57,57,57,57	0
59	MG	BA	3202	1/1	0.94	0.52	65,65,65,65	0
59	MG	CA	1641	1/1	0.94	0.36	71,71,71,71	0
59	MG	BA	3016	1/1	0.94	0.65	27,27,27,27	0
59	MG	BA	3393	1/1	0.94	0.43	34,34,34,34	0
59	MG	BA	3006	1/1	0.94	0.47	49,49,49,49	0
59	MG	BA	3241	1/1	0.94	0.64	41,41,41,41	0
59	MG	BA	3289	1/1	0.94	0.28	49,49,49,49	0
59	MG	BA	3290	1/1	0.94	0.69	47,47,47,47	0
59	MG	DA	3335	1/1	0.94	0.42	51,51,51,51	0
59	MG	BA	3135	1/1	0.94	0.18	46,46,46,46	0
59	MG	DA	3184	1/1	0.94	0.07	49,49,49,49	0
59	MG	DA	3338	1/1	0.94	0.58	37,37,37,37	0
59	MG	DA	3185	1/1	0.94	0.32	31,31,31,31	0
59	MG	BB	210	1/1	0.94	0.29	93,93,93,93	0
59	MG	CA	1726	1/1	0.94	0.30	64,64,64,64	0
59	MG	AA	1755	1/1	0.94	0.40	70,70,70,70	0
59	MG	DA	3189	1/1	0.94	0.34	47,47,47,47	0
59	MG	BA	3138	1/1	0.94	0.15	34,34,34,34	0
59	MG	BA	3296	1/1	0.94	0.44	59,59,59,59	0
59	MG	AA	1704	1/1	0.94	0.65	61,61,61,61	0
59	MG	CW	113	1/1	0.94	0.21	123,123,123,123	0
59	MG	D2	101	1/1	0.94	0.13	59,59,59,59	0
59	MG	CA	1731	1/1	0.94	0.37	51,51,51,51	0
59	MG	BA	3348	1/1	0.94	0.30	63,63,63,63	0
59	MG	BA	3100	1/1	0.94	0.29	32,32,32,32	0
59	MG	DA	3364	1/1	0.94	0.23	46,46,46,46	0
59	MG	DA	3365	1/1	0.94	0.14	38,38,38,38	0
59	MG	BA	3249	1/1	0.94	0.27	49,49,49,49	0
59	MG	DA	3207	1/1	0.94	0.73	83,83,83,83	0
59	MG	BA	3414	1/1	0.94	0.28	48,48,48,48	0
59	MG	BA	3250	1/1	0.94	0.49	30,30,30,30	0
59	MG	BA	3212	1/1	0.94	0.28	64,64,64,64	0
59	MG	AA	1810	1/1	0.94	0.14	88,88,88,88	0
59	MG	DA	3010	1/1	0.94	0.19	40,40,40,40	0
59	MG	DA	3011	1/1	0.94	0.40	27,27,27,27	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	DA	3378	1/1	0.94	0.13	35,35,35,35	0
59	MG	BA	3065	1/1	0.94	0.30	35,35,35,35	0
59	MG	AW	108	1/1	0.94	0.15	154,154,154,154	0
59	MG	AC	301	1/1	0.94	0.32	66,66,66,66	0
59	MG	DA	3020	1/1	0.94	0.41	29,29,29,29	0
59	MG	DA	3026	1/1	0.94	0.42	28,28,28,28	0
59	MG	DA	3038	1/1	0.94	0.17	41,41,41,41	0
59	MG	DA	3039	1/1	0.94	0.43	27,27,27,27	0
59	MG	BU	204	1/1	0.94	0.15	64,64,64,64	0
59	MG	AA	1662	1/1	0.94	0.76	43,43,43,43	0
59	MG	BA	3179	1/1	0.94	0.16	66,66,66,66	0
59	MG	BA	3220	1/1	0.94	0.16	59,59,59,59	0
59	MG	DA	3060	1/1	0.94	0.65	24,24,24,24	0
59	MG	DA	3062	1/1	0.94	0.57	26,26,26,26	0
59	MG	CA	1601	1/1	0.94	0.44	53,53,53,53	0
59	MG	DA	3241	1/1	0.94	0.38	33,33,33,33	0
59	MG	CA	1748	1/1	0.94	0.39	50,50,50,50	0
59	MG	DB	208	1/1	0.94	0.30	55,55,55,55	0
59	MG	DA	3067	1/1	0.94	0.37	26,26,26,26	0
59	MG	DA	3245	1/1	0.94	0.27	47,47,47,47	0
59	MG	DA	3069	1/1	0.94	0.19	48,48,48,48	0
59	MG	BA	3310	1/1	0.94	0.45	44,44,44,44	0
59	MG	CA	1603	1/1	0.94	0.66	55,55,55,55	0
59	MG	DA	3075	1/1	0.94	0.18	29,29,29,29	0
59	MG	CA	1676	1/1	0.94	0.39	49,49,49,49	0
59	MG	DA	3073	1/1	0.95	0.29	38,38,38,38	0
59	MG	CA	1788	1/1	0.95	0.19	124,124,124,124	0
59	MG	BA	3314	1/1	0.95	0.71	66,66,66,66	0
59	MG	BA	3273	1/1	0.95	0.30	42,42,42,42	0
59	MG	DA	3080	1/1	0.95	0.25	51,51,51,51	0
59	MG	BA	3191	1/1	0.95	0.32	51,51,51,51	0
59	MG	BA	3110	1/1	0.95	0.47	35,35,35,35	0
59	MG	DA	3204	1/1	0.95	0.35	26,26,26,26	0
59	MG	DA	3085	1/1	0.95	0.31	42,42,42,42	0
59	MG	CA	1724	1/1	0.95	0.22	120,120,120,120	0
59	MG	BA	3319	1/1	0.95	0.23	133,133,133,133	0
59	MG	DA	3209	1/1	0.95	0.14	80,80,80,80	0
59	MG	BA	3277	1/1	0.95	0.27	56,56,56,56	0
59	MG	AA	1715	1/1	0.95	0.28	52,52,52,52	0
59	MG	AA	1667	1/1	0.95	0.36	64,64,64,64	0
59	MG	CA	1670	1/1	0.95	0.29	68,68,68,68	0
59	MG	AA	1744	1/1	0.95	0.23	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	BA	3382	1/1	0.95	0.29	43,43,43,43	0
59	MG	AA	1680	1/1	0.95	0.19	51,51,51,51	0
59	MG	AA	1689	1/1	0.95	0.26	53,53,53,53	0
59	MG	AA	1708	1/1	0.95	0.34	61,61,61,61	0
59	MG	AA	1709	1/1	0.95	0.16	59,59,59,59	0
59	MG	DA	3226	1/1	0.95	0.25	51,51,51,51	0
59	MG	CA	1616	1/1	0.95	0.52	32,32,32,32	0
59	MG	DA	3117	1/1	0.95	0.22	57,57,57,57	0
59	MG	BA	3205	1/1	0.95	0.24	48,48,48,48	0
59	MG	BA	3081	1/1	0.95	0.38	37,37,37,37	0
59	MG	DA	3127	1/1	0.95	0.29	31,31,31,31	0
59	MG	AV	101	1/1	0.95	0.36	61,61,61,61	0
59	MG	DA	3339	1/1	0.95	0.45	47,47,47,47	0
59	MG	BA	3083	1/1	0.95	0.28	28,28,28,28	0
59	MG	BA	3291	1/1	0.95	0.46	63,63,63,63	0
59	MG	BA	3333	1/1	0.95	0.39	51,51,51,51	0
59	MG	DA	3347	1/1	0.95	0.14	54,54,54,54	0
59	MG	DA	3238	1/1	0.95	0.48	26,26,26,26	0
59	MG	AA	1796	1/1	0.95	0.24	47,47,47,47	0
59	MG	DA	3137	1/1	0.95	0.72	25,25,25,25	0
59	MG	BA	3029	1/1	0.95	0.36	50,50,50,50	0
59	MG	BA	3294	1/1	0.95	0.35	35,35,35,35	0
59	MG	CA	1746	1/1	0.95	0.12	79,79,79,79	0
59	MG	DA	3142	1/1	0.95	0.36	30,30,30,30	0
59	MG	BA	3341	1/1	0.95	0.23	57,57,57,57	0
59	MG	CX	102	1/1	0.95	0.36	49,49,49,49	0
59	MG	DA	3362	1/1	0.95	0.30	56,56,56,56	0
59	MG	BA	3251	1/1	0.95	0.36	46,46,46,46	0
59	MG	BA	3343	1/1	0.95	0.27	70,70,70,70	0
59	MG	BA	3030	1/1	0.95	0.27	52,52,52,52	0
59	MG	BA	3034	1/1	0.95	0.34	27,27,27,27	0
59	MG	BA	3410	1/1	0.95	0.14	206,206,206,206	0
59	MG	AA	1637	1/1	0.95	0.25	71,71,71,71	0
59	MG	BA	3347	1/1	0.95	0.26	47,47,47,47	0
59	MG	DA	3371	1/1	0.95	0.54	46,46,46,46	0
59	MG	DA	3006	1/1	0.95	0.63	63,63,63,63	0
59	MG	AA	1652	1/1	0.95	0.21	92,92,92,92	0
59	MG	AA	1799	1/1	0.95	0.37	41,41,41,41	0
59	MG	BA	3095	1/1	0.95	0.59	30,30,30,30	0
59	MG	AA	1800	1/1	0.95	0.19	74,74,74,74	0
59	MG	AA	1751	1/1	0.95	0.57	52,52,52,52	0
59	MG	DA	3265	1/1	0.95	0.30	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	DA	3015	1/1	0.95	0.22	29,29,29,29	0
59	MG	CA	1645	1/1	0.95	0.39	50,50,50,50	0
59	MG	AA	1692	1/1	0.95	0.43	48,48,48,48	0
59	MG	BA	3262	1/1	0.95	0.43	31,31,31,31	0
59	MG	BF	301	1/1	0.95	0.18	45,45,45,45	0
59	MG	AA	1684	1/1	0.95	0.42	44,44,44,44	0
59	MG	DA	3388	1/1	0.95	0.21	46,46,46,46	0
59	MG	BA	3105	1/1	0.95	0.24	43,43,43,43	0
59	MG	CA	1771	1/1	0.95	0.13	62,62,62,62	0
59	MG	DA	3392	1/1	0.95	0.29	28,28,28,28	0
59	MG	BA	3146	1/1	0.95	0.35	43,43,43,43	0
59	MG	CA	1773	1/1	0.95	0.51	44,44,44,44	0
59	MG	AA	1678	1/1	0.95	0.29	82,82,82,82	0
59	MG	BU	201	1/1	0.95	0.23	74,74,74,74	0
59	MG	DA	3284	1/1	0.95	0.14	35,35,35,35	0
59	MG	BA	3149	1/1	0.95	0.50	38,38,38,38	0
59	MG	BA	3429	1/1	0.95	0.45	62,62,62,62	0
59	MG	DA	3288	1/1	0.95	0.28	22,22,22,22	0
59	MG	CA	1715	1/1	0.95	0.09	104,104,104,104	0
59	MG	AA	1807	1/1	0.95	0.30	66,66,66,66	0
59	MG	DF	302	1/1	0.95	0.20	42,42,42,42	0
59	MG	DA	3068	1/1	0.95	0.35	16,16,16,16	0
59	MG	AA	1786	1/1	0.95	0.28	56,56,56,56	0
59	MG	BV	201	1/1	0.95	0.29	33,33,33,33	0
59	MG	DA	3071	1/1	0.95	0.24	53,53,53,53	0
60	EDS	AA	1805	41/41	0.95	0.20	47,55,60,66	0
59	MG	DA	3300	1/1	0.96	0.35	33,33,33,33	0
59	MG	DA	3093	1/1	0.96	0.12	22,22,22,22	0
59	MG	DA	3199	1/1	0.96	0.21	52,52,52,52	0
59	MG	DA	3200	1/1	0.96	0.38	45,45,45,45	0
59	MG	DA	3305	1/1	0.96	0.07	62,62,62,62	0
59	MG	BA	3334	1/1	0.96	0.24	54,54,54,54	0
59	MG	CA	1711	1/1	0.96	0.64	72,72,72,72	0
59	MG	DA	3308	1/1	0.96	0.26	47,47,47,47	0
59	MG	DA	3102	1/1	0.96	0.34	27,27,27,27	0
59	MG	CA	1666	1/1	0.96	0.35	60,60,60,60	0
59	MG	BA	3379	1/1	0.96	0.12	74,74,74,74	0
59	MG	BA	3335	1/1	0.96	0.13	81,81,81,81	0
59	MG	CX	101	1/1	0.96	0.46	44,44,44,44	0
59	MG	BB	212	1/1	0.96	0.27	48,48,48,48	0
59	MG	CA	1763	1/1	0.96	0.14	50,50,50,50	0
59	MG	BA	3425	1/1	0.96	0.23	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	BA	3336	1/1	0.96	0.21	73,73,73,73	0
59	MG	BA	3428	1/1	0.96	0.40	71,71,71,71	0
59	MG	CA	1768	1/1	0.96	0.54	58,58,58,58	0
59	MG	DA	3118	1/1	0.96	0.81	51,51,51,51	0
59	MG	DA	3218	1/1	0.96	0.47	29,29,29,29	0
59	MG	DA	3120	1/1	0.96	0.56	37,37,37,37	0
59	MG	BA	3176	1/1	0.96	0.77	66,66,66,66	0
59	MG	AA	1624	1/1	0.96	0.22	63,63,63,63	0
59	MG	BA	3272	1/1	0.96	0.41	44,44,44,44	0
59	MG	DA	3225	1/1	0.96	0.42	42,42,42,42	0
59	MG	CA	1631	1/1	0.96	0.33	31,31,31,31	0
59	MG	AA	1795	1/1	0.96	0.71	47,47,47,47	0
59	MG	DA	3133	1/1	0.96	0.46	22,22,22,22	0
59	MG	DA	3009	1/1	0.96	0.20	29,29,29,29	0
59	MG	AA	1693	1/1	0.96	0.30	56,56,56,56	0
59	MG	BA	3158	1/1	0.96	0.10	71,71,71,71	0
59	MG	BA	3159	1/1	0.96	0.13	68,68,68,68	0
59	MG	BA	3183	1/1	0.96	0.67	68,68,68,68	0
59	MG	CA	1779	1/1	0.96	0.54	46,46,46,46	0
59	MG	DA	3345	1/1	0.96	0.48	53,53,53,53	0
59	MG	DA	3346	1/1	0.96	0.32	13,13,13,13	0
59	MG	CA	1782	1/1	0.96	0.15	58,58,58,58	0
59	MG	DA	3236	1/1	0.96	0.69	35,35,35,35	0
59	MG	DA	3237	1/1	0.96	0.23	34,34,34,34	0
59	MG	BA	3247	1/1	0.96	0.12	34,34,34,34	0
59	MG	DA	3351	1/1	0.96	0.14	40,40,40,40	0
59	MG	DA	3240	1/1	0.96	0.16	27,27,27,27	0
59	MG	BA	3035	1/1	0.96	0.37	30,30,30,30	0
59	MG	DA	3032	1/1	0.96	0.45	28,28,28,28	0
59	MG	DA	3033	1/1	0.96	0.17	26,26,26,26	0
59	MG	DA	3146	1/1	0.96	0.35	46,46,46,46	0
59	MG	DA	3359	1/1	0.96	0.11	57,57,57,57	0
59	MG	DA	3035	1/1	0.96	0.79	44,44,44,44	0
59	MG	DA	3036	1/1	0.96	0.24	62,62,62,62	0
59	MG	DA	3037	1/1	0.96	0.47	31,31,31,31	0
59	MG	AA	1669	1/1	0.96	0.20	57,57,57,57	0
59	MG	BA	3066	1/1	0.96	0.22	47,47,47,47	0
59	MG	AA	1665	1/1	0.96	0.14	86,86,86,86	0
59	MG	DA	3044	1/1	0.96	0.23	23,23,23,23	0
59	MG	DA	3045	1/1	0.96	0.42	38,38,38,38	0
59	MG	DA	3155	1/1	0.96	0.23	56,56,56,56	0
59	MG	DA	3046	1/1	0.96	0.42	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	BA	3252	1/1	0.96	0.64	50,50,50,50	0
59	MG	BA	3068	1/1	0.96	0.41	36,36,36,36	0
59	MG	BA	3189	1/1	0.96	0.28	42,42,42,42	0
59	MG	DA	3052	1/1	0.96	0.34	20,20,20,20	0
59	MG	DA	3053	1/1	0.96	0.32	29,29,29,29	0
59	MG	BA	3402	1/1	0.96	0.22	54,54,54,54	0
59	MG	BA	3288	1/1	0.96	0.17	78,78,78,78	0
59	MG	CA	1693	1/1	0.96	0.23	87,87,87,87	0
59	MG	BA	3190	1/1	0.96	0.30	38,38,38,38	0
59	MG	AA	1682	1/1	0.96	0.15	117,117,117,117	0
59	MG	DA	3384	1/1	0.96	0.20	188,188,188,188	0
59	MG	BA	3124	1/1	0.96	0.36	49,49,49,49	0
59	MG	DA	3270	1/1	0.96	0.31	45,45,45,45	0
59	MG	DA	3170	1/1	0.96	0.11	87,87,87,87	0
59	MG	DA	3171	1/1	0.96	0.26	46,46,46,46	0
59	MG	CA	1606	1/1	0.96	0.35	41,41,41,41	0
59	MG	DA	3173	1/1	0.96	0.21	34,34,34,34	0
59	MG	CA	1698	1/1	0.96	0.07	74,74,74,74	0
59	MG	BA	3194	1/1	0.96	0.23	54,54,54,54	0
59	MG	DA	3072	1/1	0.96	0.52	22,22,22,22	0
59	MG	BA	3073	1/1	0.96	0.34	37,37,37,37	0
59	MG	AA	1661	1/1	0.96	0.51	40,40,40,40	0
59	MG	DB	205	1/1	0.96	0.20	66,66,66,66	0
59	MG	DA	3283	1/1	0.96	0.26	33,33,33,33	0
59	MG	BA	3048	1/1	0.96	0.26	69,69,69,69	0
59	MG	CA	1658	1/1	0.96	0.48	55,55,55,55	0
59	MG	DB	209	1/1	0.96	0.30	46,46,46,46	0
59	MG	AA	1606	1/1	0.96	0.22	65,65,65,65	0
59	MG	BA	3201	1/1	0.96	0.55	49,49,49,49	0
59	MG	DE	301	1/1	0.96	0.39	25,25,25,25	0
59	MG	DA	3082	1/1	0.96	0.35	32,32,32,32	0
59	MG	BA	3130	1/1	0.96	0.27	54,54,54,54	0
59	MG	DA	3191	1/1	0.96	0.21	32,32,32,32	0
59	MG	AA	1739	1/1	0.96	0.29	44,44,44,44	0
59	MG	DA	3193	1/1	0.96	0.37	50,50,50,50	0
59	MG	AA	1803	1/1	0.96	0.11	70,70,70,70	0
59	MG	BA	3154	1/1	0.96	0.54	50,50,50,50	0
60	EDS	CA	1787	41/41	0.96	0.20	39,46,57,70	0
59	MG	AA	1771	1/1	0.97	0.27	48,48,48,48	0
59	MG	BA	3039	1/1	0.97	0.26	45,45,45,45	0
59	MG	AA	1702	1/1	0.97	0.12	93,93,93,93	0
59	MG	CA	1780	1/1	0.97	0.16	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	DA	3287	1/1	0.97	0.14	30,30,30,30	0
59	MG	AA	1773	1/1	0.97	0.32	52,52,52,52	0
59	MG	DA	3054	1/1	0.97	0.27	18,18,18,18	0
59	MG	DA	3056	1/1	0.97	0.15	32,32,32,32	0
59	MG	AA	1664	1/1	0.97	0.12	89,89,89,89	0
59	MG	DA	3294	1/1	0.97	0.61	34,34,34,34	0
59	MG	DA	3295	1/1	0.97	0.31	66,66,66,66	0
59	MG	DA	3061	1/1	0.97	0.39	21,21,21,21	0
59	MG	DA	3178	1/1	0.97	0.16	40,40,40,40	0
59	MG	BA	3128	1/1	0.97	0.54	41,41,41,41	0
59	MG	DA	3063	1/1	0.97	0.54	19,19,19,19	0
59	MG	BA	3211	1/1	0.97	0.21	44,44,44,44	0
59	MG	DA	3183	1/1	0.97	0.28	49,49,49,49	0
59	MG	DA	3302	1/1	0.97	0.31	48,48,48,48	0
59	MG	BA	3085	1/1	0.97	0.26	30,30,30,30	0
59	MG	AA	1725	1/1	0.97	0.66	54,54,54,54	0
59	MG	CA	1790	1/1	0.97	0.22	46,46,46,46	0
59	MG	CA	1651	1/1	0.97	0.34	60,60,60,60	0
59	MG	BA	3050	1/1	0.97	0.25	25,25,25,25	0
59	MG	CA	1719	1/1	0.97	0.14	57,57,57,57	0
59	MG	BE	301	1/1	0.97	0.30	35,35,35,35	0
59	MG	BE	302	1/1	0.97	0.20	23,23,23,23	0
59	MG	BA	3309	1/1	0.97	0.56	31,31,31,31	0
59	MG	BA	3419	1/1	0.97	0.48	49,49,49,49	0
59	MG	BA	3088	1/1	0.97	0.25	42,42,42,42	0
59	MG	AA	1643	1/1	0.97	0.17	58,58,58,58	0
59	MG	DA	3196	1/1	0.97	0.23	26,26,26,26	0
59	MG	BA	3360	1/1	0.97	0.33	51,51,51,51	0
59	MG	DA	3198	1/1	0.97	0.45	52,52,52,52	0
59	MG	BA	3054	1/1	0.97	0.30	16,16,16,16	0
59	MG	DA	3083	1/1	0.97	0.33	33,33,33,33	0
59	MG	DA	3323	1/1	0.97	0.30	43,43,43,43	0
59	MG	CV	101	1/1	0.97	0.38	31,31,31,31	0
59	MG	BA	3018	1/1	0.97	0.39	36,36,36,36	0
59	MG	AA	1638	1/1	0.97	0.35	43,43,43,43	0
59	MG	DA	3087	1/1	0.97	0.23	17,17,17,17	0
59	MG	DA	3329	1/1	0.97	0.06	94,94,94,94	0
59	MG	DA	3205	1/1	0.97	0.59	35,35,35,35	0
59	MG	DA	3088	1/1	0.97	0.54	24,24,24,24	0
59	MG	DA	3089	1/1	0.97	0.40	46,46,46,46	0
59	MG	BA	3137	1/1	0.97	0.24	33,33,33,33	0
59	MG	DA	3334	1/1	0.97	0.28	21,21,21,21	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	DA	3092	1/1	0.97	0.23	26,26,26,26	0
59	MG	BA	3094	1/1	0.97	0.26	30,30,30,30	0
59	MG	BA	3223	1/1	0.97	0.24	52,52,52,52	0
59	MG	DA	3098	1/1	0.97	0.37	29,29,29,29	0
59	MG	AA	1793	1/1	0.97	0.19	85,85,85,85	0
59	MG	DA	3341	1/1	0.97	0.28	45,45,45,45	0
59	MG	DA	3101	1/1	0.97	0.55	37,37,37,37	0
59	MG	BA	3181	1/1	0.97	0.35	44,44,44,44	0
59	MG	BA	3370	1/1	0.97	0.17	47,47,47,47	0
59	MG	AA	1651	1/1	0.97	0.14	78,78,78,78	0
59	MG	BA	3060	1/1	0.97	0.35	26,26,26,26	0
59	MG	CA	1604	1/1	0.97	0.23	42,42,42,42	0
59	MG	DA	3107	1/1	0.97	0.22	31,31,31,31	0
59	MG	AA	1659	1/1	0.97	0.34	74,74,74,74	0
59	MG	DA	3109	1/1	0.97	0.35	17,17,17,17	0
59	MG	DA	3110	1/1	0.97	0.29	20,20,20,20	0
59	MG	DA	3352	1/1	0.97	0.21	36,36,36,36	0
59	MG	BA	3377	1/1	0.97	0.15	30,30,30,30	0
59	MG	DA	3354	1/1	0.97	0.33	36,36,36,36	0
59	MG	AA	1639	1/1	0.97	0.17	49,49,49,49	0
59	MG	BA	3101	1/1	0.97	0.37	49,49,49,49	0
59	MG	BA	3102	1/1	0.97	0.45	31,31,31,31	0
59	MG	BA	3104	1/1	0.97	0.54	38,38,38,38	0
59	MG	BA	3026	1/1	0.97	0.40	19,19,19,19	0
59	MG	AA	1614	1/1	0.97	0.11	85,85,85,85	0
59	MG	DA	3361	1/1	0.97	0.19	42,42,42,42	0
59	MG	BA	3443	1/1	0.97	0.40	37,37,37,37	0
59	MG	DA	3122	1/1	0.97	0.32	47,47,47,47	0
59	MG	BA	3235	1/1	0.97	0.44	29,29,29,29	0
59	MG	BA	3445	1/1	0.97	0.39	36,36,36,36	0
59	MG	DA	3129	1/1	0.97	0.26	34,34,34,34	0
59	MG	CA	1617	1/1	0.97	0.34	51,51,51,51	0
59	MG	DA	3242	1/1	0.97	0.38	36,36,36,36	0
59	MG	DA	3369	1/1	0.97	0.16	58,58,58,58	0
59	MG	DA	3131	1/1	0.97	0.47	26,26,26,26	0
59	MG	AA	1605	1/1	0.97	0.46	37,37,37,37	0
59	MG	BA	3387	1/1	0.97	0.14	42,42,42,42	0
59	MG	AX	103	1/1	0.97	0.27	52,52,52,52	0
59	MG	BA	3031	1/1	0.97	0.31	25,25,25,25	0
59	MG	BA	3196	1/1	0.97	0.13	56,56,56,56	0
59	MG	BA	3243	1/1	0.97	0.20	52,52,52,52	0
59	MG	DA	3138	1/1	0.97	0.59	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	CA	1757	1/1	0.97	0.64	60,60,60,60	0
59	MG	BA	3032	1/1	0.97	0.52	45,45,45,45	0
59	MG	DA	3012	1/1	0.97	0.35	45,45,45,45	0
59	MG	BA	3337	1/1	0.97	0.21	80,80,80,80	0
59	MG	BA	3455	1/1	0.97	0.19	59,59,59,59	0
59	MG	DA	3016	1/1	0.97	0.30	18,18,18,18	0
59	MG	DA	3257	1/1	0.97	0.30	21,21,21,21	0
59	MG	BA	3395	1/1	0.97	0.16	37,37,37,37	0
59	MG	BA	3075	1/1	0.97	0.28	21,21,21,21	0
59	MG	DA	3389	1/1	0.97	0.25	24,24,24,24	0
59	MG	CA	1630	1/1	0.97	0.19	120,120,120,120	0
59	MG	CA	1764	1/1	0.97	0.55	29,29,29,29	0
59	MG	DA	3262	1/1	0.97	0.42	51,51,51,51	0
59	MG	DA	3027	1/1	0.97	0.26	32,32,32,32	0
59	MG	AA	1769	1/1	0.97	0.26	71,71,71,71	0
59	MG	CA	1632	1/1	0.97	0.18	54,54,54,54	0
59	MG	DA	3266	1/1	0.97	0.49	47,47,47,47	0
59	MG	BB	202	1/1	0.97	0.17	98,98,98,98	0
59	MG	BA	3115	1/1	0.97	0.22	48,48,48,48	0
59	MG	CA	1635	1/1	0.97	0.45	35,35,35,35	0
59	MG	BA	3078	1/1	0.97	0.61	35,35,35,35	0
59	MG	BA	3117	1/1	0.97	0.39	26,26,26,26	0
59	MG	BB	206	1/1	0.97	0.35	94,94,94,94	0
59	MG	DA	3273	1/1	0.97	0.33	54,54,54,54	0
59	MG	DA	3041	1/1	0.97	0.32	24,24,24,24	0
59	MG	DA	3042	1/1	0.97	0.32	52,52,52,52	0
59	MG	BA	3401	1/1	0.97	0.42	42,42,42,42	0
59	MG	DA	3277	1/1	0.97	0.17	49,49,49,49	0
59	MG	AA	1610	1/1	0.97	0.17	95,95,95,95	0
59	MG	BA	3121	1/1	0.97	0.31	47,47,47,47	0
59	MG	DA	3048	1/1	0.97	0.44	14,14,14,14	0
59	MG	DA	3281	1/1	0.97	0.39	38,38,38,38	0
59	MG	DA	3165	1/1	0.97	0.25	34,34,34,34	0
61	ZN	AN	101	1/1	0.97	0.06	100,100,100,100	0
59	MG	AA	1671	1/1	0.98	0.21	85,85,85,85	0
59	MG	AA	1621	1/1	0.98	0.22	58,58,58,58	0
59	MG	DA	3324	1/1	0.98	0.23	46,46,46,46	0
59	MG	BA	3193	1/1	0.98	0.48	37,37,37,37	0
59	MG	BA	3265	1/1	0.98	0.19	55,55,55,55	0
59	MG	BA	3077	1/1	0.98	0.39	52,52,52,52	0
59	MG	DA	3066	1/1	0.98	0.38	23,23,23,23	0
59	MG	BA	3195	1/1	0.98	0.48	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	BA	3268	1/1	0.98	0.22	48,48,48,48	0
59	MG	BA	3052	1/1	0.98	0.35	58,58,58,58	0
59	MG	DA	3239	1/1	0.98	0.21	35,35,35,35	0
59	MG	CA	1607	1/1	0.98	0.26	59,59,59,59	0
59	MG	BA	3053	1/1	0.98	0.22	47,47,47,47	0
59	MG	BA	3106	1/1	0.98	0.16	62,62,62,62	0
59	MG	AA	1720	1/1	0.98	0.26	59,59,59,59	0
59	MG	BA	3452	1/1	0.98	0.39	51,51,51,51	0
59	MG	D5	101	1/1	0.98	0.14	44,44,44,44	0
59	MG	BA	3033	1/1	0.98	0.23	37,37,37,37	0
59	MG	DA	3340	1/1	0.98	0.12	84,84,84,84	0
59	MG	DA	3077	1/1	0.98	0.36	21,21,21,21	0
59	MG	DA	3078	1/1	0.98	0.41	33,33,33,33	0
59	MG	DA	3161	1/1	0.98	0.34	37,37,37,37	0
59	MG	AA	1753	1/1	0.98	0.52	22,22,22,22	0
59	MG	CA	1769	1/1	0.98	0.42	35,35,35,35	0
59	MG	BA	3403	1/1	0.98	0.44	44,44,44,44	0
59	MG	BA	3355	1/1	0.98	0.21	60,60,60,60	0
59	MG	BA	3406	1/1	0.98	0.12	72,72,72,72	0
59	MG	BA	3023	1/1	0.98	0.28	41,41,41,41	0
59	MG	AA	1608	1/1	0.98	0.35	45,45,45,45	0
59	MG	BA	3238	1/1	0.98	0.37	42,42,42,42	0
59	MG	BA	3359	1/1	0.98	0.23	78,78,78,78	0
59	MG	BA	3318	1/1	0.98	0.16	46,46,46,46	0
59	MG	BA	3239	1/1	0.98	0.38	35,35,35,35	0
59	MG	DA	3013	1/1	0.98	0.32	26,26,26,26	0
59	MG	DA	3174	1/1	0.98	0.28	37,37,37,37	0
59	MG	DA	3175	1/1	0.98	0.22	38,38,38,38	0
59	MG	BA	3141	1/1	0.98	0.31	32,32,32,32	0
59	MG	DA	3177	1/1	0.98	0.47	25,25,25,25	0
59	MG	AA	1612	1/1	0.98	0.35	50,50,50,50	0
59	MG	DA	3179	1/1	0.98	0.23	37,37,37,37	0
59	MG	DA	3096	1/1	0.98	0.23	31,31,31,31	0
59	MG	DA	3097	1/1	0.98	0.41	19,19,19,19	0
59	MG	CA	1781	1/1	0.98	0.23	40,40,40,40	0
59	MG	BA	3061	1/1	0.98	0.23	42,42,42,42	0
59	MG	BA	3283	1/1	0.98	0.23	29,29,29,29	0
59	MG	BA	3040	1/1	0.98	0.30	54,54,54,54	0
59	MG	DA	3021	1/1	0.98	0.42	25,25,25,25	0
59	MG	DA	3023	1/1	0.98	0.56	31,31,31,31	0
59	MG	DA	3025	1/1	0.98	0.40	22,22,22,22	0
59	MG	CA	1628	1/1	0.98	0.25	33,33,33,33	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	CA	1786	1/1	0.98	0.71	35,35,35,35	0
59	MG	DA	3028	1/1	0.98	0.55	23,23,23,23	0
59	MG	DA	3029	1/1	0.98	0.30	28,28,28,28	0
59	MG	DA	3031	1/1	0.98	0.45	32,32,32,32	0
59	MG	DA	3376	1/1	0.98	0.14	56,56,56,56	0
59	MG	DA	3377	1/1	0.98	0.40	23,23,23,23	0
59	MG	BA	3175	1/1	0.98	0.33	52,52,52,52	0
59	MG	DA	3112	1/1	0.98	0.35	22,22,22,22	0
59	MG	AA	1687	1/1	0.98	0.16	84,84,84,84	0
59	MG	BA	3027	1/1	0.98	0.23	29,29,29,29	0
59	MG	DA	3115	1/1	0.98	0.43	27,27,27,27	0
59	MG	B7	101	1/1	0.98	0.17	39,39,39,39	0
59	MG	CA	1684	1/1	0.98	0.13	79,79,79,79	0
59	MG	BA	3148	1/1	0.98	0.80	24,24,24,24	0
59	MG	DA	3119	1/1	0.98	0.38	44,44,44,44	0
59	MG	BA	3373	1/1	0.98	0.15	73,73,73,73	0
59	MG	BA	3374	1/1	0.98	0.26	49,49,49,49	0
59	MG	BA	3375	1/1	0.98	0.19	47,47,47,47	0
59	MG	DA	3123	1/1	0.98	0.23	49,49,49,49	0
59	MG	BA	3120	1/1	0.98	0.20	38,38,38,38	0
59	MG	DA	3125	1/1	0.98	0.22	43,43,43,43	0
59	MG	DA	3126	1/1	0.98	0.42	25,25,25,25	0
59	MG	DA	3043	1/1	0.98	0.18	26,26,26,26	0
59	MG	DA	3128	1/1	0.98	0.22	28,28,28,28	0
59	MG	DA	3212	1/1	0.98	0.33	45,45,45,45	0
59	MG	BA	3150	1/1	0.98	0.69	37,37,37,37	0
59	MG	BA	3378	1/1	0.98	0.18	68,68,68,68	0
59	MG	BA	3215	1/1	0.98	0.34	47,47,47,47	0
59	MG	BA	3091	1/1	0.98	0.25	38,38,38,38	0
59	MG	DA	3217	1/1	0.98	0.11	40,40,40,40	0
59	MG	DB	210	1/1	0.98	0.07	88,88,88,88	0
59	MG	BA	3044	1/1	0.98	0.42	70,70,70,70	0
59	MG	DA	3310	1/1	0.98	0.51	27,27,27,27	0
59	MG	BA	3123	1/1	0.98	0.26	34,34,34,34	0
59	MG	BA	3046	1/1	0.98	0.27	39,39,39,39	0
59	MG	BA	3069	1/1	0.98	0.48	29,29,29,29	0
59	MG	DA	3223	1/1	0.98	0.47	19,19,19,19	0
59	MG	BA	3070	1/1	0.98	0.40	21,21,21,21	0
59	MG	BA	3047	1/1	0.98	0.30	37,37,37,37	0
59	MG	AA	1778	1/1	0.98	0.50	71,71,71,71	0
59	MG	DA	3057	1/1	0.98	0.36	28,28,28,28	0
59	MG	DA	3059	1/1	0.98	0.34	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	BA	3074	1/1	0.98	0.22	30,30,30,30	0
61	ZN	B9	101	1/1	0.98	0.07	91,91,91,91	0
59	MG	DA	3219	1/1	0.99	0.32	26,26,26,26	0
59	MG	BA	3119	1/1	0.99	0.18	41,41,41,41	0
59	MG	BA	3103	1/1	0.99	0.27	42,42,42,42	0
59	MG	BA	3240	1/1	0.99	0.24	28,28,28,28	0
59	MG	DA	3017	1/1	0.99	0.34	29,29,29,29	0
59	MG	DA	3079	1/1	0.99	0.34	30,30,30,30	0
59	MG	DA	3047	1/1	0.99	0.26	16,16,16,16	0
59	MG	AA	1632	1/1	0.99	0.23	77,77,77,77	0
59	MG	BA	3064	1/1	0.99	0.20	37,37,37,37	0
59	MG	AA	1734	1/1	0.99	0.19	75,75,75,75	0
59	MG	AA	1622	1/1	0.99	0.08	61,61,61,61	0
59	MG	DA	3022	1/1	0.99	0.43	17,17,17,17	0
59	MG	BA	3045	1/1	0.99	0.38	38,38,38,38	0
59	MG	DA	3024	1/1	0.99	0.30	19,19,19,19	0
59	MG	DA	3309	1/1	0.99	0.08	67,67,67,67	0
59	MG	DA	3055	1/1	0.99	0.22	54,54,54,54	0
59	MG	BA	3056	1/1	0.99	0.37	31,31,31,31	0
59	MG	DA	3090	1/1	0.99	0.30	31,31,31,31	0
59	MG	BA	3037	1/1	0.99	0.51	28,28,28,28	0
59	MG	DA	3058	1/1	0.99	0.29	29,29,29,29	0
59	MG	BA	3361	1/1	0.99	0.11	42,42,42,42	0
59	MG	BA	3426	1/1	0.99	0.26	67,67,67,67	0
59	MG	DA	3095	1/1	0.99	0.59	24,24,24,24	0
59	MG	BA	3038	1/1	0.99	0.48	32,32,32,32	0
59	MG	DA	3030	1/1	0.99	0.35	28,28,28,28	0
59	MG	BA	3404	1/1	0.99	0.38	46,46,46,46	0
59	MG	DA	3099	1/1	0.99	0.41	33,33,33,33	0
59	MG	BA	3097	1/1	0.99	0.30	46,46,46,46	0
59	MG	AA	1609	1/1	0.99	0.21	80,80,80,80	0
59	MG	DA	3034	1/1	0.99	0.28	36,36,36,36	0
59	MG	BA	3407	1/1	0.99	0.14	54,54,54,54	0
59	MG	BA	3114	1/1	0.99	0.13	49,49,49,49	0
59	MG	BA	3072	1/1	0.99	0.23	31,31,31,31	0
59	MG	BA	3049	1/1	0.99	0.26	35,35,35,35	0
59	MG	BA	3020	1/1	0.99	0.20	49,49,49,49	0
59	MG	AA	1728	1/1	0.99	0.29	88,88,88,88	0
59	MG	DA	3291	1/1	0.99	0.26	44,44,44,44	0
59	MG	DA	3292	1/1	0.99	0.18	21,21,21,21	0
61	ZN	AD	302	1/1	0.99	0.26	64,64,64,64	0
59	MG	BA	3274	1/1	0.99	0.15	58,58,58,58	0

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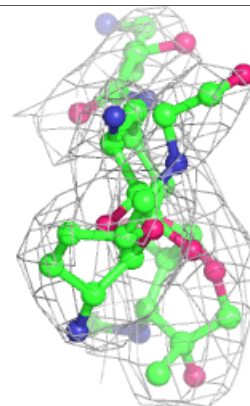
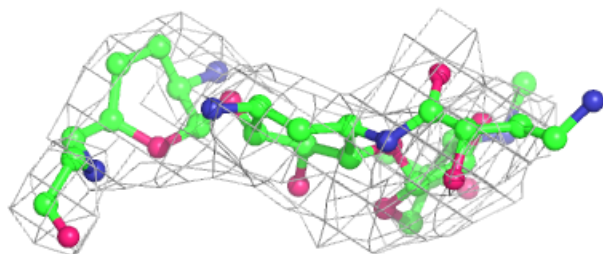
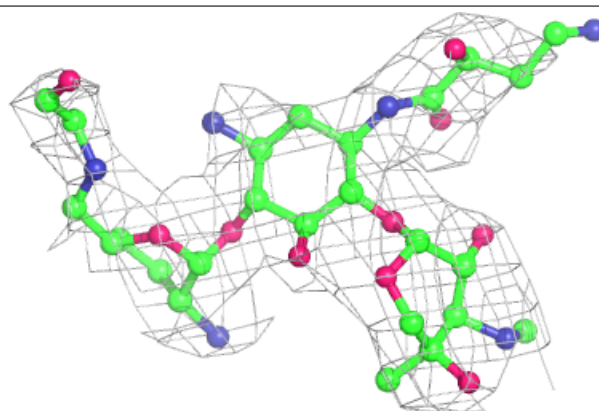
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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	MG	BA	3391	1/1	0.99	0.30	44,44,44,44	0
61	ZN	CD	301	1/1	0.99	0.31	68,68,68,68	0
61	ZN	CN	101	1/1	0.99	0.09	77,77,77,77	0
61	ZN	D9	101	1/1	0.99	0.05	75,75,75,75	0
59	MG	DA	3312	1/1	1.00	0.10	46,46,46,46	0

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

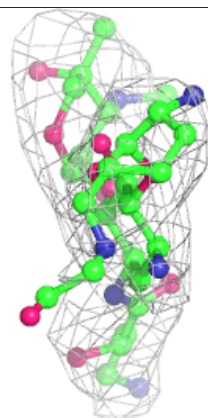
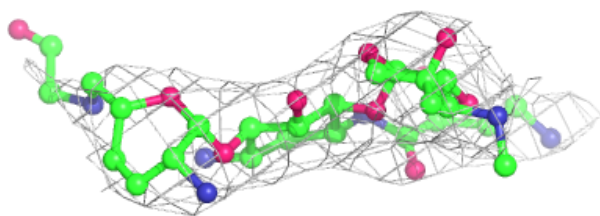
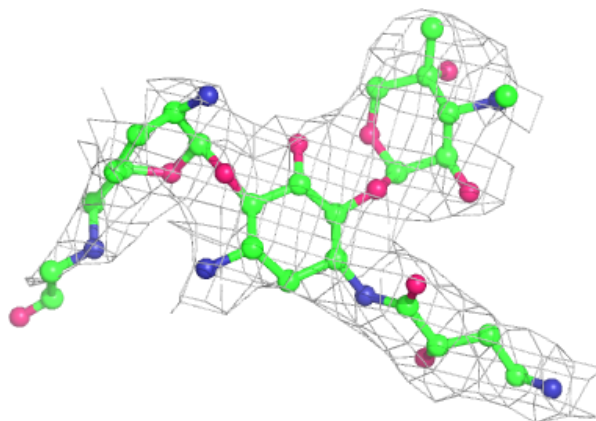
Electron density around EDS AA 1805:

2mF_o-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around EDS CA 1787:

$2mF_o - DF_c$ (at 0.7 rmsd) in gray
 $mF_o - DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)



6.5 Other polymers [i](#)

There are no such residues in this entry.